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CANBERRA.

OFFICIAL

YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA

No. 32.—1939.

Prepared under Instructions from
The Right Honorable the Treasurer,

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PREFACE.

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered "to make laws for the peace, order, and good government of the Commonwealth, with respect to Census and Statistics." In the exercise of the power so conferred, a "Census and Statistics Act" was passed in 1905, and in the year following, the "Commonwealth Bureau of Census and Statistics" was created. The first Official Year Book was published early in 1908. The publication here presented is the thirty-second Official Year Book issued under the authority of the Commonwealth Government.

The synopsis on pp. viii to xxi immediately following shows the general arrangement of the work. The special index (following the usual general index) provided at the end of the volume, together with certain references given in the various Chapters, will assist in tracing in previous issues matter which, owing to limitations of space, has been omitted or is not printed fully in the present volume.

Economic and financial conditions during recent years have caused a demand for new information, or information expressed in new terms, concerning many matters of finance, trade, prices, production and population, and some progress has been made in the later volumes towards bringing closer to present day requirements the Chapters dealing with these branches of statistics, while a diary of the principal financial and economic events of more recent years is inserted after the last chapter.

In the present volume the section dealing with Municipal Government has been recast, and in Chapter XXVIII. "Miscellaneous" a new section has been added giving particulars of the total and per capita consumption in Australia of a number of principal commodities. Details of the arrangements made for the sale of Australian primary products during the war are inserted in the Appendix.

Later information which has come to hand since the various Chapters were sent to press has been incorporated in the Appendix (p. 957).

The material contained in each issue is always carefully examined, but it would be idle to hope that all error has been avoided. I shall be grateful to those who will be kind enough to point out defects or make suggestions.

My best thanks are due to the State Statisticians, who have collected and compiled the data on which the greater part of the information given in the Year Book is based. Thanks are also due to the responsible officers of the various Commonwealth and State Departments, and to others, who have kindly, and often at considerable trouble, supplied information; special mention should be made of the services of the Chief Draftsman of the Property and Survey Branch, Department of the Interior, who was responsible for the drawing of the graphs throughout this volume.

I wish to express my keen appreciation of the valuable work performed by Mr. J. Barry, the Editor of the Year Book, and of the services rendered by the officers in charge of the various branches of the Commonwealth Bureau of Census and Statistics, upon whom has devolved the duty of revising the Chapters relative to their respective branches.

ROLAND WILSON,
Commonwealth Statistician.

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STATISTICAL SUMMARY.

STATISTICAL SUMMARY, AUSTRALIA.

Heading.		Year.						
		1881.	1891.	1901.	1911.	1921.	1931.	1938.
Population(a)	Males	1,247,059	1,736,617	2,004,836	2,382,232	2,799,462	3,332,577	3,504,369
	Females	1,059,677	1,504,368	1,820,077	2,191,554	2,711,532	3,220,029	3,425,322
	Persons	2,306,736	3,240,985	3,824,913	4,573,786	5,510,994	6,552,606	6,929,691
Births	No.	80,004	110,187	102,945	122,193	136,198	118,509	120,415
	Rate	35.26	34.47	27.16	27.21	24.95	18.16	17.46
Deaths	No.	33,327	47,430	46,330	47,869	54,076	56,560	66,451
	Rate	14.69	14.84	12.22	10.66	9.91	8.67	9.64
Marriages	No.	17,244	23,862	27,753	39,482	46,869	38,882	62,411
	Rate	7.66	7.47	7.32	8.79	8.59	5.96	9.05
		1881-82.	1891-92.	1901-02.	1911-12.	1921-22.	1931-32.	1937-38.
Agriculture--								
Wheat	Area, acs.	2,995,814	3,334,957	5,115,965	7,427,834	9,719,042	14,741,313	(f) 14,263,000
	Yld., bshl.	21,443,862	25,675,265	38,501,619	71,636,347	129,088,806	190,612,188	(f) 155,379,000
	Av., "	7.16	7.70	7.54	9.64	13.28	12.93	(f) 10.89
Oats	Area, acs.	194,816	246,129	461,430	616,794	733,406	1,085,489	1,408,422
	Yld., bshl.	4,795,897	5,726,256	9,789,854	9,561,833	12,147,433	15,194,680	17,165,061
	Av., "	24.62	23.27	21.22	15.50	16.56	14.00	12.19
Barley	Area, acs.	75,864	68,068	74,511	116,466	298,910	342,390	625,495
	Yld., bshl.	1,353,380	1,178,560	1,519,819	2,056,836	6,085,685	6,290,672	12,534,082
	Av., "	17.84	17.31	20.40	17.66	20.36	18.37	20.04
Maize	Area, acs.	165,777	284,428	294,849	340,065	305,186	269,448	320,207
	Yld., bshl.	5,726,266	9,261,922	7,034,786	8,939,855	7,840,438	7,062,383	6,816,612
	Av., "	34.54	32.56	23.86	26.29	25.61	26.21	21.29
Hay	Area, acs.	768,388	942,166	1,688,402	2,518,351	2,994,519	2,634,680	2,982,465
	Yld., tons	767,194	1,067,255	2,024,608	2,867,973	3,902,189	3,167,459	3,423,763
	Av., "	1.00	1.13	1.20	1.14	1.30	1.20	1.15
Potatoes(b)	Area, acs.	76,265	112,884	109,685	130,463	149,144	145,111	114,385
	Yld., tons	243,216	380,477	322,524	301,489	388,091	397,102	345,382
	Av., "	3.19	3.37	2.94	2.31	2.60	2.74	3.02
Sugar Cane(c)	Area, acs.	19,708	45,444	86,950	101,010	128,350	241,576	255,847
	Yld., tons	349,627	737,573	1,367,802	1,682,250	2,436,890	4,213,453	5,194,610
	Av., "	17.74	16.23	15.73	16.65	18.99	17.44	21.48
Vineyards	Area, acs.	14,569	48,882	63,677	66,602	92,414	112,961	125,171
	Wine, gal.	1,438,060	3,437,598	5,262,447	4,975,147	8,542,573	14,190,522	20,430,031
Total gross value all agricultural production		£ 15,519,000	16,988,000	23,835,000	38,774,000	81,890,000	74,489,000	93,229,000
Pastoral, dairying, etc.—								
Live Stock(a)	Sheep No.	65,092,719	106,421,068	72,040,211	96,886,234	86,119,068	110,618,893	(f) 110,050,578
	Cattle "	8,010,991	11,112,112	8,491,428	11,828,954	14,441,309	12,260,955	13,078,356
	Horses "	1,088,029	1,584,737	1,620,420	2,278,226	2,438,182	1,775,550	1,746,513
	Pigs "	703,188	845,888	931,309	1,110,721	960,385	1,167,845	1,100,082
Wool prod. lb. (greasy)		319,649,000	634,046,000	539,395,000	798,391,000	723,059,000	1,007,455,847	(f) 982,400,000
Butter production	lb.	(d)	42,314,585	103,747,295	212,073,745	267,071,340	390,654,070	(f) 456,120,000
Cheese production	"	(d)	10,130,945	11,845,153	15,886,712	32,653,003	31,422,973	56,606,842
Bacon and ham	"	(d)	16,771,886	34,020,629	53,335,092	58,626,469	71,121,740	70,340,190
Total gross value of pastoral and dairying production		£ 29,538,000	39,256,000	36,890,000	72,883,000	119,399,000	103,018,000	158,435,000
		1881.	1891.	1901.	1911.	1921.	1931.	1938.
Mineral production—								
Gold	£	5,194,390	5,281,861	1,017,538	10,551,624	4,018,685	3,563,519	14,026,615
Silver and lead	£	45,622	3,736,352	2,248,598	3,022,177	1,539,992	1,443,897	4,744,437
Copper	£	714,003	367,373	2,215,431	2,564,278	803,957	567,558	893,080
Tin	£	1,145,889	500,502	48,234	1,209,973	418,418	216,205	711,628
Zinc	£	200	2,979	4,067	1,415,169	283,455	512,795	916,905
Coal	£	637,865	1,912,353	2,602,733	3,927,360	11,014,831	6,355,246	7,539,622
Total value of all mineral production		£ 7,820,290	12,074,106	21,816,772	23,302,878	20,029,107	13,352,316	32,462,995
Forestry production—								
Quantity of local timber sawn or hewn—								
	1,000 sup. ft.	(d)	(d)	452,131	604,794	590,495	236,707	746,741

(a) At 31st December. (b) Partly estimated for 1881. (c) Area of productive cane. (d) Information not available. (e) Years ended December, except for last two columns which refer to years ended June. (f) 1938-39 figures.

STATISTICAL SUMMARY, AUSTRALIA—continued.

Heading.	Year.						
	1881.	1891.	1901.	1911.	1921-22.	1931-32.	1938-39.
Manufactories—							(f) 26,395
No. of factories ..				14,455	18,023	21,657	559,160
Hands employed No.				311,710	378,540	336,658	(f)102,078,550
Wages paid .. £				27,528,377	68,050,861	55,931,818	(f)196,488,024
Value of production £				51,259,004	121,674,119	110,981,830	(f)498,779,141
Total value of output £				133,022,090	320,340,765	281,645,785	
Shipping—							
Oversea vessels of No. ent. & cleared (tons	3,284	3,778	4,028	4,174	3,111	3,057	3,814
Commerce—	2,549,364	4,726,307	6,541,991	9,984,801	9,081,278	11,395,784	13,545,712
Imports, oversea £	29,067,000	37,711,000	42,434,000	66,967,488	103,066,436	44,712,868	102,156,352
per head £	12/16/2	11/16/0	11/3/11	14/18/2	18/14/1	6/16/6	14/14/11
Exports oversea £	27,528,000	36,043,000	49,696,000	79,482,258	127,846,535	(b) 85,842,887	(b)122,201,372
per head £	12/2/8	11/5/6	13/2/2	17/13/10	23/4/1	13/1/11	16/3/11
Total oversea trade £	56,595,000	73,754,000	92,130,000	146,449,746	230,912,971	130,555,755	214,357,724
per head £	24/18/10	23/1/6	24/6/1	32/12/0	41/18/2	19/18/5	30/18/10
Customs " and Excise duties per head £	4,809,326	7,440,869	8,656,530	13,515,005	27,565,199	28,524,996	47,820,941
	2/2/5	2/6/7	2/5/8	2/19/2	5/0/1	4/7/1	6/17/6
Principal Oversea Exports (c)—							
Wool (lb. (greasy) £	328,369,200	619,259,800	518,018,100	720,364,900	927,833,700	893,644,148	946,960,391
cental £	13,173,026	19,940,029	15,237,454	26,071,193	47,977,044	32,102,246	42,629,461
Wheat £	3,218,792	5,876,875	12,156,035	33,088,704	59,968,334	76,440,603	37,877,414
Flour £	1,189,762	1,938,864	2,774,643	9,641,608	28,644,155	19,220,203	8,734,974
tons £	49,549	33,363	96,814	175,891	359,734	610,858	725,065
Butter £	519,635	328,423	589,604	1,391,529	5,519,881	3,833,237	4,540,210
lb. £	1,298,800	4,239,500	34,607,400	101,722,100	127,347,400	201,639,494	229,542,779
Butter £	39,383	206,868	1,451,168	4,637,362	7,968,078	10,230,002	12,891,837
Skins and hides £	316,878	873,695	1,250,938	3,227,236	3,136,810	2,175,594	4,094,754
Tallow .. £	644,149	571,069	677,745	1,935,836	1,441,795	831,415	483,034
Meats .. £	362,965	466,894	2,611,244	4,303,159	5,542,102	6,370,012	11,776,635
Timber (undressed) £	118,117	38,448	731,301	1,023,900	1,158,166	432,595	926,504
Gold £	6,445,365	5,703,532	14,315,741	12,045,766	3,483,239	12,694,786	17,953,292
Silver and lead £	57,954	1,932,278	2,250,253	3,212,584	2,697,130	2,902,056	5,794,006
Copper .. £	676,515	417,687	1,619,145	2,345,961	705,358	472,468	437,125
Coal .. £	361,081	645,972	986,957	900,622	1,099,899	341,800	347,054
Govt. Railways—							
Lgh. of line open, mls. £	3,832	9,541	12,579	16,078	25,502	26,959	27,234
Capital cost .. £	42,741,350	99,764,090	123,223,779	152,194,603	244,353,233	323,365,450	317,253,832
Gross revenue .. £	3,910,122	8,654,085	11,038,468	17,847,837	38,194,630	37,579,965	44,779,764
Working expenses .. £	2,141,735	5,630,182	7,133,617	10,945,727	29,817,970	28,141,984	35,957,863
Per cent. on working expenses on earnings %	54.77	65.06	64.63	61.33	78.07	74.88	80.30
Postal—							
Letters and postcards dealt with No.	67,640,000	157,297,000	220,853,000	453,063,000	561,973,105	d 731,134,500	d/889,770,900
per head ..	29.61	49.07	58.26	100.90	107.01	111.62	(f) 129.62
Newspapers dealt with No.	38,063,000	85,280,000	102,727,000	141,638,000	140,477,184	139,502,100	(f)162,682,200
per head ..	16.66	26.61	27.10	31.54	25.50	21.30	(f) 23.70
Cheque-paying Banks(e)—							
Note circulation £	3,978,711	4,417,269	3,399,462	3,718,458	g 213,868	197,121	(k) 166,904
Coin & bullion held £	9,108,243	16,712,923	19,780,528	33,470,770	21,626,832	2,882,026	(k) 3,958,947
Advances .. £	57,732,824	129,741,583	86,352,832	108,578,774	193,435,760	260,917,515	k 337,380,965
Deposits .. £	53,849,455	98,345,338	91,487,148	143,446,910	273,866,737	319,241,333	k 390,632,628
Savings Banks (j)—							
Total deposits £	7,854,480	15,536,592	30,882,645	59,393,682	154,396,051	197,966,308	(l)244,866,213
Aver. per head of population £	3,10/5	4/18/7	8/3/0	13/8/5	28/0/4	30/1/11	(l) 35/1/11
				1921.	1931.	1937.	
State Schools—							
Number of Schools ..	4,494	6,231	7,012	8,060	9,445	10,097	10,205
Teachers .. No.	9,028	12,564	14,500	16,971	26,120	33,762	32,661
Enrolment ..	432,320	561,153	638,478	638,850	819,042	936,901	886,982
Aver. attendance ..	255,143	359,773	450,246	463,799	666,498	817,262	761,848

(a) Owing to variation in classification and lack of information, effective comparison is impossible.
 (b) British currency values. The recorded values were—Exports, 1931-32, £A109,034,065; and 1938-39, £A140,496,312.
 (c) Australian produce, except gold, which includes re-exports. (d) Includes packets.
 (e) Figures for the first three years are averages for the December quarter; the remainder for the June quarter.
 (f) 1937-38 figures. (g) Decrease due to prohibition of re-issue. (h) Includes Commonwealth Savings Bank Deposits. (i) Government "Set-off" accounts. Interstate (Commonwealth Bank) excluded. (j) First three years at 31st December, next three at 30th June. (k) Quarter ended December, 1939. (l) At 31st December, 1939.

CHRONOLOGICAL TABLE.

CHRONOLOGICAL TABLE OF CHIEF EVENTS SINCE THE ESTABLISHMENT OF SETTLEMENT IN AUSTRALIA.

NOTE.—The Government was centralized in Sydney, New South Wales, up to 1825, when Tasmania (Van Diemen's Land) was made a separate colony. In the Table, the names now borne by the States serve to indicate the localities.

Year.

- 1788 N.S.W.—Arrival of "First Fleet" at Botany Bay. Land in vicinity being found unsuitable for settlement, the expedition moved to Sydney Cove. Formal proclamation of colony on 7th February. Branch Settlement established at Norfolk Island. French navigator Lapérouse visited Botany Bay. First cultivation of wheat and barley. First grape vines planted.
- 1789 N.S.W.—First wheat harvest at Parramatta, near Sydney. Discovery of Hawkesbury River.
- 1790 N.S.W.—"Second Fleet" reached Port Jackson. Landing of the New South Wales Corps.
- 1791 N.S.W.—Arrival of "Third Fleet." Territorial seal brought by Governor King.
- 1792 N.S.W.—Visit of *Philadelphia*, first foreign trading vessel.
- 1793 N.S.W.—First free immigrants arrived in the *Bellona*. First Australian church opened at Sydney. Tas.—D'Entrecasteaux discovered the Derwent River.
- 1794 N.S.W.—Establishment of settlement at Hawkesbury River.
- 1795 N.S.W.—Erection of the first printing press at Sydney. Descendants of strayed cattle discovered at Cowpastures, Nepean River.
- 1796 N.S.W.—First Australian theatre opened at Sydney. Coal discovered by fishermen at Newcastle.
- 1797 N.S.W.—Introduction of merino sheep from Cape of Good Hope.
- 1798 Tas.—Insularity of Tasmania proved by voyage of Bass and Flinders.
- 1800 N.S.W.—Hunter River coal mines worked. First Customs House in Australia established at Sydney. Flinders' charts published.
- 1801 N.S.W.—First colonial manufacture of blankets and linen.
- 1802 Vic.—Discovery of Port Phillip by Lieut. Murray. Q'land.—Discovery of Port Curtis and Port Bowen by Flinders. S.A.—Discovery of Spencer's and St. Vincent Gulfs by Flinders.
- 1803 N.S.W.—First Australian wool taken to England by Capt. Macarthur. Issue of "The Sydney Gazette," first Australian newspaper. Vic.—Attempted settlement at Port Phillip by Collins. Discovery of Yarra by Grimes. Tas.—First settlement formed at Risdon by Lieut. Bowen.
- 1804 N.S.W.—Insurrection of convicts at Castle Hill. Vic.—Abandonment of settlement at Port Phillip. Tas.—Foundation of settlement at Hobart by Collins, and at Yorktown by Colonel Paterson.
- 1805 N.S.W.—First extensive sheep farm established at Camden by Capt. Macarthur. Portion of settlers from Norfolk Island transferred to Tasmania.
- 1806 N.S.W.—Shortage of provisions. Tas.—Settlement at Launceston.
- 1807 N.S.W.—Final transfer of convicts from Norfolk Island. First shipment of merchantable wool (245 lb.) to England.
- 1808 N.S.W.—Deposition of Governor Bligh.
- 1809 N.S.W.—Isaac Nichols appointed to supervise delivery of oversea letters.
- 1810 N.S.W.—Post-office officially established at Sydney, Isaac Nichols first post-master. First race meeting in Australia at Hyde Park, Sydney. Tas.—First Tasmanian newspaper printed.
- 1813 N.S.W.—Passage across Blue Mountains discovered by Wentworth, Lawson and Blaxland. Macquarie River discovered by Evans.
- 1814 N.S.W.—Flinders suggested the name "Australia," instead of "New Holland." Creation of Civil Courts.

- Year.
- 1815 N.S.W.—First steam engine in Australia erected at Sydney. Lachlan River discovered by Evans. Tas.—Arrival of first immigrant ship with free settlers. First export of wheat to Sydney.
- 1816 N.S.W.—Botanic Garden formed at Sydney.
- 1817 N.S.W.—Oxley's first exploration inland. Discovery of Lakes George and Bathurst and the Goulburn Plains by Meehan and Hume. First bank in Australia—Bank of New South Wales—opened at Sydney.
- 1818 N.S.W.—Liverpool Plains, and the Peel, Hastings and Manning Rivers discovered by Oxley, and Port Essington by Captain King.
- 1819 N.S.W.—First Savings Bank in Australia opened at Sydney.
- 1820 Tas.—First importation of pure merino sheep.
- 1821 Tas.—Establishment of penal settlement at Macquarie Harbour.
- 1823 N.S.W.—New South Wales Judicature Act passed. Discovery of gold at Fish River by Assistant-Surveyor McBrien. Qld.—Brisbane River discovered by Oxley.
- 1824 N.S.W.—Constituted a Crown Colony. Executive Council formed. Establishment of Supreme Court at Sydney, and introduction of trial by jury. First Australian Enactment (Currency Bill) passed by the Legislative Council. Proclamation of freedom of the press. First manufacture of sugar. Vic.—Hume and Hovell, journeying overland from Sydney, arrived at Corio Bay. Qld.—Penal settlement founded at Moreton Bay (Brisbane). Fort Dundas Settlement formed at Melville Island, N. Terr.
- 1825 N.S.W.—Extension of western boundary to 129th meridian. Tas.—Separation of Van Diemen's Land (Tasmania). Qld.—Major Lockyer explored Brisbane River to its source, and discovered coal.
- 1826 N.S.W.—Settlement in Illawarra District. Vic.—Settlement at Corinella, Western Port, formed by Captain Wright.
- 1827 N.S.W.—Colony became self-supporting. Qld.—Darling Downs and the Condamine River discovered by Allan Cunningham. W.A.—Military Settlement founded at King George's Sound by Major Lockyer. First official claim of British Sovereignty over all Australia.
- 1828 N.S.W.—Second constitution. First Census. Sturt's expedition down Darling River. Gas first used at Sydney. Richmond and Clarence Rivers discovered by Captain Rous. Vic.—Abandonment of settlement at Western Port. Qld.—Cunningham discovered a route from Brisbane to the Darling Downs, and explored Brisbane River.
- 1829 N.S.W.—Sturt's expedition down Murrumbidgee River. W.A.—Foundation of settlement at Swan River. Foundation of Perth.
- 1830 N.S.W.—Insurrection of convicts at Bathurst. Sturt, voyaging down Murrumbidgee and Murray Rivers, arrived at Lake Alexandrina. Tas.—Trouble with natives. Black line organized to force aborigines into Tasman's Peninsula, but failed. Between 1830 and 1835, however, George Robinson, by friendly suasion, succeeded in gathering the small remnant of aborigines (203) into settlement on Flinders Island.
- 1831 N.S.W.—Crown lands first disposed of by public competition. Mitchell's explorations north of Liverpool Plains. Arrival at Sydney of first steamer, *Sophia Jane*, from England. SS. *Surprise*, first steamship built in Australia, launched at Sydney. First coal shipped from Australian Agricultural Company's workings at Newcastle, N.S.W. First assisted immigration to N.S.W. S.A.—Wakefield's first colonization committee. W.A.—Appointment of Executive and Legislative Councils.
- 1832 N.S.W.—State Savings Bank established.
- 1833 N.S.W.—First School of Arts established at Sydney.
- 1834 N.S.W.—First settlement at Twofold Bay. Vic.—Settlement formed at Portland Bay by Henty Bros. S.A.—Formation of the South Australian Association. W.A.—Severe reprisals against natives at Pinjarrah.

- Year.
- 1835 Vic.—John Batman arrived at Port Phillip; made treaty with the natives for 600,000 acres of land; claim afterwards disallowed by Imperial Government. Foundation of Melbourne.
- 1836 N.S.W.—Mitchell's overland journey from Sydney to Cape Northumberland. Vic.—Proclamation of Port Phillip district as open for settlement. S.A.—Settlement founded at Adelaide under Governor Hindmarsh.
- 1837 N.S.W.—Appointment in London of Select Committee on Transportation. Vic.—Melbourne named by Governor Bourke. First overlanders from Sydney arrived at Port Phillip.
- 1838 N.S.W.—Discontinuance of assignment of convicts. Qld.—Settlement of German missionaries at Brisbane. S.A.—“Overlanding” of cattle from Sydney to Adelaide along the Murray route by Hawden and Bonney. Settlement at Port Essington, Northern Territory, formed by Captain Bremer.
- 1839 N.S.W.—Gold found at Vale of Clwydd by Count Strzelecki. S.A.—Lake Torrens discovered by Eyre. Port Darwin discovered by Captain Stokes. W.A.—Murchison River discovered by Captain Grey.
- 1840 N.S.W.—Abolition of transportation to New South Wales. Land regulations—proceeds of sales to be applied to payment for public works and expenditure on immigration. Vic.—Determination of northern boundary. Qld.—Penal settlement broken up and Moreton Bay district thrown open. S.A.—Eyre began his overland journey from Adelaide to King George's Sound.
- 1841 N.S.W.—Gold found near Hartley by Rev. W. B. Clarke. W.A.—Completion of Eyre's overland journey from Adelaide to King George's Sound. Tas.—Renewal of transportation.
- 1842 N.S.W.—Incorporation of Sydney. Vic.—Incorporation of Melbourne. S.A.—Discovery of copper at Kapunda.
- 1843 N.S.W.—First Representative Constitution (under Act of 1842). First manufacture of tweed. Qld.—Moreton Bay granted legislative representation.
- 1844 Qld.—Leichhardt's expedition to Port Essington. S.A.—Sturt's last expedition inland.
- 1845 N.S.W.—Mitchell's explorations on the Barcoo. Qld.—Explorations by Mitchell and Kennedy. S.A.—Discovery of the Burra copper deposits. Sturt discovered Cooper's Creek.
- 1846 N.S.W.—Initiation of meat preserving. Qld.—Foundation of settlement at Port Curtis. S.A.—Proclamation of North Australia. W.A.—Foundation of New Norcia (Benedictine) Mission.
- 1847 N.S.W.—Iron smelting commenced near Berrima. Overland mail established between Sydney and Adelaide. Vic.—Melbourne created a City. Qld.—Explorations by Leichhardt, Burnett and Kennedy.
- 1848 Qld.—Leichhardt's last journey. Kennedy speared by the blacks at York Peninsula. Chinese brought in as shepherds.
- 1849 N.S.W.—Indignation of colonists at arrival of convict ship *Hashemy*. Exodus of population to goldfields of California. Vic.—*Randolph* prevented from landing convicts. Qld.—Assignment of convicts per *Hashemy* to squatters on Darling Downs. W.A.—Commencement of transportation to Western Australia.
- 1850 N.S.W.—Final abolition of transportation. First sod of first Australian railway turned at Sydney. Sydney University founded. Vic.—Gold discovered at Clunes by Hon. W. Campbell. Representative government granted. S.A.—Representative government granted. W.A.—Pearl oysters found by Lieut. Helpman at Saturday Island Shoal. Tas.—Representative government granted.

Year.

- 1851 N.S.W.—Payable gold discovered by Hargraves at Lewis Ponds and Summerhill Creek. Telegraph first used. Vic.—Separation of Port Phillip—erected into independent colony under the name of Victoria. Discovery of gold in various localities. "Black Thursday," 6th Feb., a day of intense heat. W.A.—Proclamation of Legislative Council Act.
- 1852 N.S.W.—Arrival of the *Chusan*, first P. and O. mail steamer from England. S.A.—First steamer ascended the Murray River to the junction with the Darling. Tas.—Meeting of first elective Council protests against transportation. Payable gold discovered at The Nook, near Fingal, and at Nine Mile Springs.
- 1853 Tas.—Abolition of transportation. Vic.—Melbourne University founded.
- 1854 Vic.—Opening of first Victorian railway—Flinders-street to Port Melbourne. Riots on Ballarat gold-fields. Storming of the Eureka Stockade, 3rd Dec.
- 1855 N.S.W.—Opening of railway—Sydney to Parramatta. Mint opened.
- 1856 N.S.W.—Pitcairn Islanders placed on Norfolk Island. W.A.—A. C. Gregory's expedition in search of Leichhardt.
Responsible Government in N.S.W., Vic., S.A. and Tas. (Act of 1855).
- 1857 N.S.W.—Wreck of the *Dunbar* (119 lives lost), and *Catherine Adamson* (21 lives lost), at Sydney Heads. Select Committee on Federation. Vic.—Manhood suffrage and vote by ballot. S.A.—Passage of Torrens' Real Property Act.
- 1858 N.S.W.—Establishment of manhood suffrage and vote by ballot. Telegraphic communication between Sydney, Melbourne and Adelaide. Qld.—Canoona gold rush.
- 1859 Qld.—Proclamation of Queensland as separate colony. Tas.—First submarine cable, via Circular Head and King Island to Cape Otway.
- 1860 Vic.—Burke and Wills left Melbourne and crossed to Gulf of Carpentaria. S.A.—Copper discoveries at Wallaroo and Moonta. McDouall Stuart reached centre of continent and named "Central Mount Stuart."
- 1861 N.S.W.—Anti-Chinese riots at Lambing Flat and Burrangong gold-fields. Opening of first tramway in Sydney. Regulation of Chinese immigration. Vic.—Burke and Wills perished at Cooper's Creek, near Innamincka, S.A.
- 1862 N.S.W.—Abolition of State aid to religion. Real Property Act. S.A.—Stuart crossed the Continent from south to north. W.A.—First export of pearl-shell.
- 1863 Vic.—Intercolonial Conference at Melbourne. S.A.—Northern Territory taken over. W.A.—Initiation of settlement in the North-west district. Henry Maxwell Lefroy discovered and traversed area now comprised in the Coolgardie-Kalgoorlie gold-field.
- 1864 Qld.—First railway begun and opened. First sugar made from Queensland cane. Tas.—First successful shipment of English salmon ova.
- 1865 N.S.W.—Destruction by fire of St. Mary's Cathedral, Sydney.
- 1866 N.S.W.—Passage of Public Schools Act of (Sir) Henry Parkes. S.A.—Introduction of camels for exploration, etc.
- 1867 Vic.—Imposition of protective tariff. Qld.—Discovery of gold at Gympie.
- 1868 N.S.W.—Attempted assassination of the Duke of Edinburgh at Clontarf, near Sydney. W.A.—Arrival of the *Hougomont*, last convict ship. Tas.—First sod of first railway (Launceston and Western) turned by Duke of Edinburgh.
- 1869 W.A.—First telegraph line opened from Perth to Fremantle.
- 1870 N.S.W.—Intercolonial Exhibition opened at Sydney. Imperial troops withdrawn. Vic.—Intercolonial Congress at Melbourne. S.A.—Commencement of transcontinental telegraph.
- 1871 N.S.W.—Permanent military force raised. W.A.—Passage of Elementary Education Act. Forrest's explorations. Tas.—Discovery of tin at Mount Bischoff. Launceston-Western railway opened for traffic.
- 1872 N.S.W.—International Exhibition at Sydney. Vic.—Mint opened. S.A.—Cable from Java to Port Darwin. Completion of transcontinental telegraph line.

- Year.
- 1873 N.S.W.—Intercolonial Conference at Sydney. First volunteer encampment. Inauguration of mail service with San Francisco.
- 1874 N.S.W.—Triennial Parliaments Act passed. Intercolonial Conference. W.A.—John and Alexander Forrest arrived at Overland Telegraph from Murchison. S.A.—University of Adelaide founded.
- 1875 Qld.—Transfer of Port Albany Settlement to Thursday Island.
- 1876 N.S.W.—Completion of cable—Sydney (La Perouse) to Wellington (Wakapuaka). W.A.—Giles crossed colony from east to west. Tas.—Death of Truganini, last representative of Tasmanian aborigines.
- 1877 W.A.—Opening of telegraphic communication with South Australia.
- 1878 Qld.—Restriction of Chinese immigration.
Introduction of telephone into Australia.
- 1879 N.S.W.—First artesian bore at Killara. International Exhibition at Garden Palace, Sydney. First steam tramway. W.A.—A. Forrest's explorations in the Kimberley district, and discovery of the Fitzroy pastoral country.
- 1880 N.S.W.—Public Instruction Act passed. Vic.—Opening of first Victorian International Exhibition at Melbourne. First Australian Telephone Exchange opened in Melbourne.
Federal Conference at Melbourne and Sydney.
- 1881 N.S.W.—Further restrictions on Chinese immigration.
Visit to Australia of T.R.H. Prince Albert Victor and Prince George.
- 1882 W.A.—Nugget of gold found between Roebourne and Cossack.
- 1883 N.S.W.—Discovery of silver at Broken Hill. Completion of railway between New South Wales and Victoria. Qld.—Annexation of New Guinea—repudiated by Imperial authorities.
Federal Conference held at Sydney. Federal Council created.
- 1884 Federation Bill passed in Victoria and rejected in New South Wales. British protectorate declared over New Guinea.
- 1885 N.S.W.—Military contingent sent to the Sudan. Opening of the Broken Hill Proprietary Silver Mines. W.A.—Gold found by prospectors on the Margaret and Ord Rivers in the Kimberley district. Tas.—Silver-lead discovered at Mount Zeehan.
- 1886 Tas.—Discovery of gold and copper at Mount Lyell.
First session of Federal Council met at Hobart on the 26th January.
- 1887 N.S.W.—Disaster at Bulli coal mine (81 lives lost). S.A.—International Exhibition at Adelaide. W.A.—Cyclone destroyed nearly the whole pearling fleet off the Ninety-Mile Beach—200 lives lost. Gold discovered at Southern Cross. First "Colonial" Conference in London. Australasian Naval Defence Force Act passed.
- 1888 N.S.W.—Centennial celebrations. Restrictive legislation against Chinese, imposing poll-tax of £100. Vic.—Second Victorian International Exhibition held at Melbourne. Qld.—Railway communication opened between Sydney and Brisbane.
Conference of Australian Ministers at Sydney to consider question of Chinese immigration. First meeting of the Australasian Association for the Advancement of Science held in Sydney.
- 1889 Qld.—Direct railway communication established between Brisbane and Adelaide. W.A.—Framing of new Constitution. Tas.—University of Tasmania founded.
- 1890 W.A.—Responsible Government granted.
Meeting at Melbourne of Australasian Federation Conference.
- 1891 N.S.W.—Election to Legislative Assembly of 35 Labour members. Arrival of Australian Auxiliary Squadron. Cessation of assisted immigration. W.A.—Discovery of gold on the Murchison.
First Federal Convention in Sydney; draft bill framed and adopted.
- 1892 W.A.—Discovery of gold by Messrs. Bayley and Ford at Coolgardie.

- Year.
- 1893 N.S.W.—Departure by the *Royal Tar* of colonists for “New Australia.”
Financial crisis, chiefly affecting the eastern States.
- 1895 N.S.W.—Free-trade tariff. Land and income taxes introduced.
Conference of Premiers on Federation at Hobart.
- 1896 N.S.W.—People’s Federal Convention at Bathurst.
- 1897–8 Sessions of Federal Convention at Adelaide, Sydney and Melbourne.
- 1898 N.S.W.—First surplus of wheat for export.
Draft Federal Constitution Bill submitted to electors in Victoria, New South Wales, South Australia and Tasmania. Requisite statutory number of votes not obtained in New South Wales.
- 1899 First contingent of Australian troops sent to South Africa. Conference of Premiers in Melbourne to consider amendments to Federal Constitution Bill. Referendum—Bill accepted by New South Wales, Victoria, Queensland, South Australia and Tasmania. First Labour Government (Queensland).
- 1900 N.S.W.—Old-age pensions instituted.
Contingents of naval troops sent to China. Commonwealth Constitution Act received Royal Assent, 9th July. Proclamation of Commonwealth signed, 17th September. Mr. (afterwards Sir) Edmund Barton formed first Federal Ministry.
- 1901 Vic.—Old-age pensions instituted.
Proclamation of the Commonwealth at Sydney. First Federal Parliament opened at Melbourne by the Duke of Cornwall and York. Interstate free-trade established.
- 1902 N.S.W.—Disastrous explosion at Mount Kembla Colliery—95 lives lost. W.A.—Opening of pumping station at Northam in connexion with Gold-fields water supply. Completion of Pacific Cable (all-British). First Federal Tariff.
- 1903 W.A.—Coolgardie and Kalgoorlie Water Supply Scheme completed.
Inauguration of the Federal High Court.
- 1905 N.S.W.—Re-introduction of assisted immigration.
- 1906 Wireless telegraphy installed between Queenscliff, Vic., and Devonport, Tas.
Papua taken over by Commonwealth.
- 1907 N.S.W.—Telephone, Sydney to Melbourne, opened. First telephone trunk line service between Capital Cities, i.e., Sydney and Melbourne.
Imperial Conference in London.
- 1908 Canberra chosen as site of Australian Capital. Visit of U.S.A. fleet to Australia.
- 1909 Imperial Defence Conference in London—Commonwealth ordered two destroyers and one first-class cruiser for fleet unit. Visit of Lord Kitchener to report and advise on Commonwealth military defence. Queensland University founded.
- 1910 Referendum on financial relations between the Commonwealth and the States.
Penny Postage. Arrival of the *Yarra* and *Paramatta*, first vessels built for the Royal Australian Navy. Australian Notes Act passed and first Commonwealth notes issued. Admiral Sir R. Henderson visited Australia to advise on naval defence.
- 1911 First Federal Census. Transfer of Australian Capital Territory and Northern Territory to Commonwealth. Introduction of compulsory military training. Establishment of penny postage to all parts of British Empire. University of Western Australia founded.
- 1912 Opening of Commonwealth Bank. First payments of Maternity Bonus. First sod turned at Port Augusta of Trans-Australian Railway (Port Augusta to Kalgoorlie).
- 1913 Australian Capital named Canberra and foundation stone laid. Appointment of Interstate Commission.

- Year.
1914 Visit of General Sir Ian Hamilton to report on military defence scheme. Double dissolution of Federal Parliament. Visit of British Association for the Advancement of Science. Transfer of Norfolk Island to Commonwealth.
European War declared 4th August. Australian Navy transferred to British Navy. Australian offer to equip and furnish 20,000 troops accepted. German possessions in South-West Pacific seized by Australian Naval and Military Expeditionary Force. German cruiser *Emden* destroyed by H.M.A.S. *Sydney* at Cocos Islands, 9th November. First contingent landed in Egypt. Australian and New Zealand Army Corps (A.N.Z.A.C.) formed under Sir William Birdwood.
- 1915 Opening of Broken Hill Proprietary's Ironworks at Newcastle, N.S.W. Navy Department created.
Australian and New Zealand troops landed at Gallipoli, 25th April. Battle of Sari Bair (Lone Pine), 6th-10th August. Evacuation, 18th-20th December. Australian warships with Grand Fleet, in Atlantic, Malaysia, and elsewhere overseas during remainder of war.
- 1916 Purchase of steamships by the Commonwealth.
Australian and New Zealand mounted troops organized in mounted divisions and camel corps, operating thereafter in Egypt, Palestine and Syria. Battle of Romani, 4th August. Other troops with reinforcements organized as four infantry divisions (1st, 2nd, 4th and 5th) with some other units, and transferred to France. Fromelles, 19th July; the Somme, 1st July-18th November (Pozières, Mouquet Farm, Flers). 3rd Division, formed in Australia, landed in France. First proposal for compulsory military service defeated by referendum.
- 1917 National Ministry formed. Kalgoorlie-Port Augusta railway completed.
German withdrawal from Somme; Arras offensive (Bullecourt, 11th April and 3rd May); Messines, 7th June; Third Battle of Ypres, 1st July-10th November (Menin Road, Polygon Wood, Broodseinde, Passchendaele). Palestine-Gaza, 26th March, 19th April, 31st October (Beersheba). Australian Flying Corps operating with R.F.C. in Palestine and France. Second proposal for compulsory military service defeated by referendum.
- 1918 Population of Australia reached 5,000,000. Australia House (Strand, London) opened by the King.
Five Australian divisions in France formed into army corps, 1st January. Sir William Birdwood succeeded by Sir John Monash, 30th May. Defensive campaign on Somme, 21st March-25th April (Dernancourt, Villers-Bretonneux); Battles of the Lys, 9th-29th April (Hazebrouck); Hamel, 4th July; Battle of Amiens, 8th August; Mont St. Quentin, 31st August; Hindenburg Line, 18th September-5th October. Palestine-Megiddo, 19th September; Damascus, 1st October. Armistice with Germany, 11th November. Repatriation Department created.
- 1919 Mr. Hughes and Mr. Cook represented Australia at Peace Conference. Return of Australian troops. Aerial flight England to Australia by Capt. Sir Ross Smith and Lieut. Sir Keith Smith. Peace Treaty signed at Versailles, 28th June.
- 1920 Visit to Australia of H.R.H. the Prince of Wales. Wholesale prices reached a point more than double the 1914 level.
- 1921 Second Commonwealth Census. Germany's indemnity fixed (Australia's share approximately £63,000,000). Mandate given to Australia over Territory of New Guinea. First direct wireless press message, England to Australia.
- 1922 First lock on River Murray opened at Blanchetown, South Australia. Queensland Legislative Council abolished.
- 1923 First sod turned on the site of Federal Parliament House at Canberra.

- Year.
- 1924 Visit of British cruiser squadron. Directorate of Commonwealth Bank appointed. Australian Loan Council formed.
- 1925 Visit of American fleet. Solar Observatory established at Canberra. Brisbane-Grafton railway joining Sydney and Brisbane by uniform gauge was commenced. Sydney Harbour Bridge commenced.
- 1926 Population of Australia reached 6,000,000. Council for Scientific and Industrial Research established. Imperial Conference. Dominion Status defined.
- 1927 Transfer of Seat of Federal Government from Melbourne to Canberra. New Parliament House opened by H.R.H. the Duke of York. Beam Wireless established.
- 1928 Visit of British Economic Mission to report on the development of Australian resources. Financial agreement of Commonwealth and States; Loan Council reconstituted; State debts to be taken over; Referendum carried, November.
- 1929 Beginning of fall in export prices. Commonwealth Bank empowered to mobilize gold reserves. Substantial export of gold reserves towards end of year.
- 1930 Wireless phone service with other countries inaugurated. Export prices fell to half 1928 level. Cessation of oversea loans. Tariff embargoes and rationing of imports. Visit of Sir Otto Niemeyer, of Bank of England, to discuss financial questions. Heavy export of gold reserves. Exchange Pool formed. £28,000,000 Conversion Loan fully subscribed. Gold bonus granted. Government deficits total nearly £11,000,000. First Australian—Right Hon. Sir Isaac Alfred Isaacs, G.C.M.G., Chief Justice of the High Court—appointed Governor-General of Australia. Telephone trunk line service established between Adelaide and Perth linking up the whole of the mainland States by telephone.
- 1931 Depression continues; Australia substantially off gold standard with exchange rate at 130 in January; 10 per cent. cut in Federal basic wage. First experimental air mail England to Australia and return. New South Wales Savings Bank suspension and subsequent absorption by Commonwealth Bank. Postponement of sinking fund payments on war debt to British Government for two years. Initiation of Premiers' Conference plan to meet the financial situation. Commonwealth Bank Act amended to provide for temporary lower reserve against notes; substantial export of gold reserves. Hoover Moratorium on War Debts. England departs from gold standard in September; depreciation of Australian £1 on Sterling continued. Wheat bounty granted. Commonwealth Bank assumed control of exchange rate and lowered it to 125. Government deficits total £25,370,000, 1930-31.
- 1932 Sydney Harbour Bridge opened. Australian Broadcasting Commission established. New South Wales Government default in interest payments made good by Commonwealth Government; conflict of Commonwealth and New South Wales governments. Lang Ministry dismissed in New South Wales. Emergency restrictions on imports relaxed. Legislation passed enabling note reserve to be held in sterling securities, and subsequent shipping of gold to the United Kingdom. Imperial Economic Conference at Ottawa, with consequential tariff agreements. Sugar Agreement modified. Taxation reductions and assistance to wheat-growers. Government deficits reduced to £19,500,000 for 1931-32.
- 1933 Third Commonwealth Census. Imperial Air-mail "Astraea" arrived. World Economic Conference in London. Australia elected as Member of League of Nations. Secession Referendum (Western Australia). Referendum for reduction and limitation of number of members of Legislative Council (New South Wales). Disarmament Conference in London. Record wheat harvest (213,927,000 bushels). Antarctica and Ashmore and Cartier Islands taken over by the Commonwealth. Government deficits reduced to £4,500,000 for 1932-33.

Year.

- 1934 Visit of H.R.H. the Duke of Gloucester to open Victorian Centenary Celebrations. Goodwill Mission to the East—Leader Rt. Hon. J. G. Latham. New Governors in Victoria and South Australia. Record flight from England to Australia by Messrs. Scott and Black (Centenary Air Race) in 71 hours. Inauguration of England—Australia Air Mail Service.
- 1935 Silver Jubilee of His Majesty King George V. Visit to London for Jubilee Celebrations of the Rt. Hon. J. A. Lyons, Prime Minister. Empire Statistical Conference at Ottawa. Japanese Goodwill Mission to Australia. Meeting of the British Medical Association for the first time in Australia.
- 1936 Death of His Majesty King George V. South Australian Centenary. Trade dispute with Japan. Rise in wheat prices. Joint Commonwealth and State Marketing Schemes invalidated by decision of the Privy Council in the James case. Visit of British experts—Sir Walter Kinnear and Mr. G. H. Ince—to advise on national insurance. Abdication of King Edward VIII.
- 1937 Referendum on Commonwealth control of aviation and marketing defeated on both counts. Coronation of King George VI. Imperial conference in London. New Education Fellowship Conference held in all States. Commonwealth basic wage increased by 5s. per week. Report of the Royal Commission on Monetary and Banking Systems in Australia. Epidemic of Infantile Paralysis mainly in Victoria and Tasmania.
- 1938 New South Wales Sesqui-Centenary Celebrations. Australian Trade Delegation to review Ottawa Agreement. Resumption of nominated assisted migration. New Defence Programme involving expenditure of £63,000,000 over three years; militia forces to be raised to 70,000. New Trade Treaty with Japan.
- 1939 Death of the Rt. Hon. J. A. Lyons, Prime Minister of Australia. National Register of man-power. European war. Australia participating in vast Empire Air Training Scheme. Compulsory military training re-introduced for home defence. Special volunteer force of 20,000 men enlisted and trained for service overseas. Purchase by the British Government of the Australian wool clip and the export surplus of butter, cheese, eggs, meat, sugar, lead, zinc and copper.

OFFICIAL YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA, 1939.

CHAPTER I.

DISCOVERY, COLONIZATION AND FEDERATION OF AUSTRALIA.

§ 1. Early Knowledge and Discovery of Australia.

1. **Introduction.**—It is proposed to give here only a brief summary of the more important facts relating to the early history of Australian discovery. A more complete account of this subject, together with bibliographical references thereto, may be found in Year Book No. 1 (pp. 45 to 51), although this account must be modified somewhat in view of later investigations.

2. **Early Tradition.**—It would appear that there was an early Chaldean tradition as to the existence of an Austral land to the south of India. Rumours to that effect in the course of time found their way to Europe, and were probably spread by travellers from Indian seas, more especially by the Greek soldiers who accompanied Alexander the Great [356–234 B.C.] to India. References to this *Terra Australis* are found in the works of Ælianus [A.D. 205–234], Manilius [probably a contemporary of Augustus or Tiberius Cæsar], and Ptolemy [A.D. 107–161]. In some of the maps of the first period of the Middle Ages there is evidence which might warrant the supposition of the knowledge of the existence of a *Terra Australis*, while some idea of the Austral land appears in the maps and manuscripts of the fourteenth and fifteenth centuries. But much of the map-drawing in these early days was more or less fanciful, and there is no evidence definitely connecting this so-called *Terra Australis* with Australia.

3. **Discovery of Australia.**—(i) *General.* The Venetian traveller Marco Polo [1254–1324] refers to a land called Locac, which through a misunderstanding of his meaning was long thought to be Australia. But Marco Polo knew nothing of any land to the south of Java, and in any case the description given of the so-called Locac could not possibly be applied to Australia, as the writer speaks of elephants, etc. On a Mappamundi in the British Museum, of not later date than 1489, there is a coast-line which has been considered to represent the west coast of Australia. Investigation by Wood and others proves this claim to be merely fanciful. Martin Behaim's globe, the oldest known globe extant, constructed in 1492, also shows what purports to be a part of Australia's coast-line, and a globe discovered in Paris bears an inscription to the effect that the *Terra Australis* was discovered in 1499. These also have other countries located in impossible positions. The term *Terra Australis* was, however, also applied to the region now known as Tierra del Fuego, hence little weight can be attached to this reference.

In the Dauphin map [about 1530–1536] Java la Grande has been supposed by some to represent Australia, but an inspection of the fanciful animals and other figures thereon lends no weight to the idea. As a matter of fact much of this map-drawing was simply an attempt to support the old notion that the land surface of the southern hemisphere must balance that of the northern.

(ii) *Arab Expeditions.* It has been stated that the Arabs had come to Australia long before the Portuguese, the Spaniards or the Dutch, but there is no evidence to support the statement.

(iii) *Spanish and Portuguese Expeditions.* The last decade of the fifteenth century and the commencement of the sixteenth saw numerous expeditions equipped in the ports of Spain and Portugal for the purpose of exploiting the new world. The Portuguese rounded the Cape of Good Hope in 1487 and eleven years later pushed eastward to India. The Spaniards, relying on the scientific conclusion that the world was spherical, attempted to get to the East by deliberately starting out west, Magalhaens by so doing reaching the Philippine Islands in 1521.

In 1606 Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought that he had discovered the great land of the south, and therefore named the group *La Australia del Espiritu Santo*. After leaving the New Hebrides, Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability he sighted the Australian Continent, but no mention is made of this fact in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

(iv) *Discoveries by the Dutch.* With the decline of Portuguese and Spanish naval supremacy came the opportunity of the Dutch for discovery. Cornelius Wytfliet's map, of which there was an English edition, published in Louvain in 1597, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria. The following oft-quoted passage occurs in Wytfliet's *Descriptionis Ptolemaicae Augmentum*: "The *Australis Terra* is the most southern of all lands. It is separated from New Guinea by a narrow strait. Its shores are hitherto but little known, since after one voyage and another, that route has been deserted and seldom is the country visited, unless when sailors are driven there by storms. The *Australis Terra* begins at one or two degrees from the equator, and is maintained by some to be so great in extent that, if it were thoroughly explored, it would be regarded as a fifth part of the world." According to Wood the above passage has its origin in the voyages through the straits of Magellan and the discovery of Tierra del Fuego rather than that of Australia.

The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam to explore the islands of New Guinea. During March, 1606, the *Duyfken* coasted along the southern shores of New Guinea, and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again). Dirck Hartogs (on the plate in the Amsterdam Museum recording his voyage the name is written Dirck Hatichs), in the *Eendracht* in 1616, sailed along a considerable part of the west coast of the continent. It may be mentioned that the route was not definitely selected, but that the navigator simply went farther east than the usual course from the Cape to Java.

In 1618 the *Zeeuolf* found land in latitude 20° 15' south, and in the following year Frederik Houtman discovered the reef of the west coast, now known as *Houtman's Abrolhos*.

In 1622 the Dutch vessel *Leeuwin* rounded the Cape, which now bears that name, at the south-west of the continent, and in 1623 the Dutch vessels *Perra* and *Arnhem* discovered Arnhem Land, the peninsula on the western side of the Gulf of Carpentaria, which was so named in compliment to Peter Carpentier, Governor of the Dutch East India Company.

In 1627, Francis Thysz, Commander of the *Gulde Zeepaerd*, with Pieter Nuyts, of the Dutch Council of Seventeen, on board, coasted along a portion of the shore of the Great Australian Bight. In 1628, De Witt, Commander of the *Vianen*, discovered land on the north-west, namely, in about latitude 21° S. The *Batavia*, commanded by Francis Pelsart, was wrecked on the western coast of Australia in 1629. Pelsart was the first to carry to Europe an authentic account of the west coast of Australia, which, however, he described in the most unfavourable terms. The yachts *Amsterdam* and *Wesel*, under Gerrit Pool, visited the Gulf of Carpentaria in 1636.

Abel Janszoon Tasman, in command of two vessels, the *Heemskerck* and *Zeehaen*, set out from Batavia in 1642 to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage in 1644, Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far down as the tropic of Capricorn.

William de Vlamingh landed at the mouth of the Swan River at the end of 1696 and an exploring squadron under Martin Van Delft explored and named part of the north-west coast in 1705, but the period of Dutch discoveries may be said to have ended with Tasman's second voyage, and, with the decline of her maritime power, the Dutch interest in Australian discovery disappeared.

4. Discoveries by the English.—In the meantime the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier, as supercargo of the *Cygnets*, a trading vessel whose crew had turned buccaneers. In describing the country, Dampier stated that he was certain that it joined neither Asia, Africa nor America. In 1699 he again visited Australia, in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds and reptiles observed, and of encounters with natives.

It was a question at the end of the seventeenth century whether Tasmania and New Zealand were parts of Australia, or whether they were separated from it, but themselves formed part of a great Antarctic Continent. Lieutenant James Cook's first voyage, though primarily undertaken for the purpose of observing the transit of Venus from Otaheite, had also for its objective to ascertain whether the unexplored part of the southern hemisphere was only an immense mass of water or contained another continent. In command of H.M.S. *Endeavour*, a barque of 370 tons burthen, carrying about 85 persons, and accompanied by Sir Joseph Banks, Dr Solander the naturalist, Green the astronomer, draughtsmen and servants, Cook, after observing the transit of Venus at Otaheite, turned towards New Zealand, sighting that land on the 7th October, 1769, in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession thereof in the name of the British Crown. On the 20th April, 1770, at 6 a.m. Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, Botany Bay was discovered on the 29th April, 1770. The *Endeavour* dropped anchor and Cook landed on the same day. Cook sailed along the coast in a northerly direction for nearly 1,300 miles until the 11th June, 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months, and the *Endeavour* then again set her course to the north, sailing through Torres Strait and anchoring in the Downs on the 13th July, 1771. In 1772, Cook was put in command of the ships *Resolution* and *Adventure*, with a view to ascertaining whether a great southern continent existed, and having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on the 14th February, 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance was the existence of a channel between Tasmania and Australia. This was made by Flinders and Bass in 1798.

§ 2. The Annexation of Australia.

1. Annexation of Eastern Part of Australia, 1770.—Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until the 23rd August, 1770, that the history of Australia was brought into definite political connexion with Western civilization. It was on that date that Captain Cook took possession "of the whole eastern coast, from latitude 38° to this place, latitude 10½° S., in right of His Majesty King George the Third." Cook, however, proclaimed British sovereignty only over what are now the eastern parts of New South Wales and Queensland, and formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was not taken until the 26th January, 1788. It was on this last date that Captain Phillip's commission, first issued to him on the 12th October, 1786, and amplified on the 2nd April, 1787, was read to the people whom he had brought with him in the "First Fleet."

A full historical account of the period referred to may be found in the *Historical Records of New South Wales* Vol. I, parts 1 and 2.

2. **Original Extent of New South Wales.**—The commission appointed Phillip "Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south, and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south."

Although in November, 1769, Captain Cook had taken possession of the North Island of New Zealand, and in January, 1770, also of the South Island, it is a matter of doubt whether at the time when Captain Phillip's commission was drawn up New Zealand was considered as one of the "islands adjacent in the Pacific Ocean." The facts that under the Supreme Court Act (Imperial) of 1823 British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, while in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, would leave this an open question, as nothing more than extra-territorial jurisdiction may have been intended. Various hoistings of flags notwithstanding, New Zealand does not appear to have unequivocally become British territory until 1840. In that year, on the 29th January, Captain Hobson arrived at the Bay of Islands. On the following day he read the commission, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. On the 5th February, the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on the 21st May, British sovereignty over the islands of New Zealand was explicitly proclaimed. From that date until the 3rd May, 1841, New Zealand was a dependency of New South Wales.

3. **Extension of New South Wales westward, 1825.** On the 17th February, 1824, Earl Bathurst advised Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Brewer of H.M.S. *Tamar*, who was selected for the purpose, took possession on the 20th September, 1824, of the coast from the 135th to the 129th degree of east longitude. On the 16th July, 1825, the whole territory between those boundaries was described in Darling's commission as being within the boundaries of New South Wales, thus increasing its area by 518,134 square miles, and making it, including New Zealand and excluding Tasmania, 2,076,308 square miles, or also excluding New Zealand, 1,972,446 square miles.

4. **Annexation of Western Australia, 1827.**—An expedition under Major Lockyer, sent by Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, to found a settlement at King George III. Sound, sailed from Sydney on the 9th November, 1826, landed at the Sound on the 26th December following, and hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George's Sound. He obtained the Governor's permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on the 17th January, 1827, and on his return in the following April submitted a glowing report on what he described as a "rich and romantic country," urging its occupation for the purpose of settlement. He left England in July, 1827, continuing his advocacy— notwithstanding much discouragement—with unabated enthusiasm. He was at last successful, the result being mainly due to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia* in June, 1829. On the 2nd of the preceding month Captain Fremantle, in command of

H.M.S. *Challenge*, arrived and hoisted the British flag on the south head of Swan River, again asserting possession of "all that part of New Holland, which is not included within the territory of New South Wales." Thus, before the middle of 1829, the whole territory now known as the Commonwealth of Australia had been constituted a dependency of the United Kingdom.

§ 3. The Creation of the Several Colonies.

1. **New South Wales.**—In Governor Phillip's commission of 1786, the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not till 1798 that the contrary was known. In that year, by sailing through Bass Strait, Flinders and Bass proved that it was an island. The territory of New South Wales, as originally constituted, and of New Zealand, which may be included although Cook's annexation was not properly given effect to until 1840, consisted of 1,584,389 acres. A further area of 518,134 square miles was added in 1825, when the western boundary was extended to the 129th meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 310,942 square miles.

2. **Tasmania.**—In 1825, Van Diemen's Land, as Tasmania was then called, was politically separated from New South Wales, being constituted a separate colony on the 14th June of that year. The area of the colony was 26,215 square miles.

3. **Western Australia.**—The territory westward of the 129th meridian comprising 975,920 square miles was constituted a colony under the name of Western Australia in June, 1829. It was always distinct and independent of New South Wales, though until 1831 the settlement on King George's Sound remained under the latter jurisdiction.

4. **South Australia.**—On the 15th August, 1834, the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a "province," and towards the end of the year 1836 settlement took place. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on the 28th December, 1836, and on the same day the new colony was officially proclaimed. The new colony embraced 309,850 square miles of territory, lying south of the 26th parallel of south latitude, and between the 141st and 132nd meridians of east longitude. On the 10th December, 1861, by the authority of the Imperial Act 24 and 25 Vic., cap. 44, the western boundary of South Australia was extended to coincide with the eastern boundary of Western Australia, namely, the 129th meridian. The area of the extension was approximately 70,220 square miles. Nearly two years later, on the 6th July, 1863, the Northern Territory comprising 523,620 square miles was, by letters patent, brought under the jurisdiction of South Australia, which therefore controlled an area of 903,690 square miles.

5. **New Zealand.**—New Zealand, nominally annexed by Captain Cook and formally declared by proclamation in 1840 as a dependency of New South Wales, was, by letters patent of the 16th November of that year, constituted a separate colony under the powers of the Act 3 and 4 Vic., cap. 62, of the 7th August, 1840. Proclamation of the separation was made on the 3rd May, 1841. The area of the colony was 103,862 square miles.

6. **Victoria.**—In 1851, what was known as the "Port Phillip District" of New South Wales, was constituted the colony of Victoria, "bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia." The area of the new colony was 87,884 square miles, and its separate existence took effect from the 1st July, 1851, upon the issuing of the writs for the first election of elective members of the Legislative Council.

7. **Queensland.**—The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt and Port Curtis, together with the reputed country of Stanley, were granted an independent administration and formed into a

distinct colony under the name of Queensland, by letters patent dated the 6th June, 1859, although separation from New South Wales was not consummated until the 10th December of the same year, upon the assumption of office of the first Governor. The territory comprised in the new colony was so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about 28° 8' south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of south latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean. The area of the colony thus constituted was 554,300 square miles. By letters patent dated the 13th March, 1861, forwarded by the Colonial Secretary to the Governor of Queensland on the 12th April, 1862, the area of Queensland was increased by the annexation of "so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between the 141st and 138th meridians of east longitude, together with all and every the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria." With this addition the area of Queensland became 670,500 square miles.

§ 4. Establishment of the Commonwealth of Australia.

1. General.—On the 1st January, 1901, the colonies mentioned, with the exception of New Zealand, were federated under the name of the "Commonwealth of Australia," the designation of "Colonies"—excepting in the case of the Northern Territory, to which the designation "Territory" is applied—being at the same time changed into that of "States." The total area of the Commonwealth of Australia is 2,974,581 square miles. The dates of creation and the areas of its component parts, as determined on the final adjustment of their boundaries, are shown below:—

THE COMMONWEALTH OF AUSTRALIA: AREA, ETC., OF COMPONENT PARTS.

State.	Year of Formation into Separate Colony.	Present Area in Square Miles.	State.	Year of Formation into Separate Colony.	Present Area in Square Miles.
New South Wales(a)	1786	310,372	Tasmania ..	1825	26,215
Victoria ..	1851	87,884	Northern Territory	1863	523,620
Queensland ..	1859	670,500			
South Australia ..	1834	380,070	Area of the Commonwealth ..	..	2,974,581
Western Australia	1829	975,920			

(a) Including the Australian Capital Territory embracing an area of 912 square miles, and 28 square miles at Jervis Bay. See par. 3 below.

2. Transfer of the Northern Territory to the Commonwealth.—On the 7th December, 1907, the Commonwealth and the State of South Australia entered into an agreement for the surrender to and acceptance by the Commonwealth of the Northern Territory, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under the Northern Territory Surrender Act 1907 (assented to on the 14th May, 1908), and by the Commonwealth Parliament under the Northern Territory Acceptance Act 1910 (assented to on the 16th November, 1910). The Territory accordingly was transferred to the Commonwealth by proclamation on the 1st January, 1911.

3. Transfer of the Australian Capital Territory to the Commonwealth.—On the 18th October, 1909, the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 912 square miles as the seat of Government of the Commonwealth. In December, 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on the 5th December, 1910, a proclamation was issued vesting the

Territory in the Commonwealth on and from the 1st January, 1911. By the Jervis Bay Territory Acceptance Act 1915, an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4th September, 1915.

4. **Transfer of British New Guinea or Papua.**—Under the administration of the Commonwealth, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on the 1st September, 1906, under the authority of the Papua Act (Commonwealth) of 16th November, 1905. The area of Papua is about 90,540 square miles.

5. **Transfer of Norfolk Island.**—Although administered for many years by the Government of New South Wales, this Island was a separate Crown Colony until 1st July, 1914, when it was transferred to the Commonwealth under the authority of the Norfolk Island Act 1913. The Island is situated in latitude $29^{\circ} 3' 45''$ S. longitude $167^{\circ} 58' 6''$ E., and comprises an area of 8,528 acres.

6. **Territory of New Guinea.**—It was agreed by the Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159.25° E. The mandate was issued by the League of Nations on 17th December, 1920. The Governor-General of the Commonwealth was authorized to accept the mandate by the New Guinea Act 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The Territory comprises about 93,000 square miles, and the administration under the mandate dates from 9th May, 1921.

7. **Nauru.**—In 1919 the Governments of the United Kingdom, Australia and New Zealand entered into an agreement to make provision for the exercise of the mandate conferred on the British Empire for the administration of the island of Nauru, and for the mining of the phosphate deposits thereon. The island is situated in longitude 166° E., 26 miles south of the Equator, and comprises about 5,400 acres. The agreement provided that the administration of the island should be vested in an administrator, the first appointment to be made by the Commonwealth Government, and thereafter in such manner as the three Governments decided. The agreement was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and a supplementary agreement of 30th May, 1923, giving the Government immediately responsible for the administration greater powers of control over the Administrator, was approved in 1932. The administration under the mandate has operated from 17th December, 1920, and so far the administrators have been appointed by the Commonwealth Government.

8. **Territory of Ashmore and Cartier Islands.**—By Imperial Order in Council dated 23rd July, 1931, Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the North-west Coast of Australia, were placed under the authority of the Commonwealth. The Islands were accepted by the Commonwealth in the Ashmore and Cartier Islands Acceptance Act 1933 under the name of the Territory of Ashmore and Cartier Islands and were transferred on 10th May, 1934.

9. **Australian Antarctic Territory.**—An Imperial Order in Council, 7th February, 1933, placed under the authority of the Commonwealth the Antarctic Territories, comprising all the islands and territory, other than Adélie Land, situated south of 60° S. latitude, and lying between 160° E. longitude and 45° E. longitude. The Territory was accepted by the Commonwealth under the name of the Australian Antarctic Territory in the Australian Antarctic Territory Acceptance Act 1933.

§ 5. The Exploration of Australia.

A fairly complete, though brief, account of the exploration of Australia was given in Year Book No. 2 (pp. 20 to 39), and a summary of the more important facts relating to the subject was embodied in this Chapter in succeeding issues up to and including No. 22.

§ 6. The Constitutions of the States and of the Commonwealth.

1. **General.**—Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the Federal movement in Australia, was embodied in this Chapter in issues of the Official Year Book up to No. 22.

2. **Commonwealth Constitution Act.**—The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely: "An Act to constitute the Commonwealth of Australia," as amended by the Constitution Alteration (Senate Elections) 1906, the Constitution Alteration (State Debts) 1909, and the Constitution Alteration (State Debts) 1928 is given *in extenso* hereunder.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT, 63 & 64 VICT., CHAPTER 12.

An Act to constitute the Commonwealth of Australia. [9th July, 1900.]

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established :

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian Colonies and possessions of the Queen :

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows :—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.
2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.
3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.

4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.

5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State ; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.

6. "The Commonwealth" shall mean the Commonwealth of Australia as established under this Act.

"The States" shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States ; and each of such parts of the Commonwealth shall be called "a State."

"Original States" shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.

This Constitution is divided as follows:—

- Chapter I.—The Parliament :
 - Part I.—General ;
 - Part II.—The Senate :
 - Part III.—The House of Representatives :
 - Part IV.—Both Houses of the Parliament :
 - Part V.—Powers of the Parliament :
 - Chapter II.—The Executive Government :
 - Chapter III.—The Judicature :
 - Chapter IV.—Finance and Trade :
 - Chapter V.—The States :
 - Chapter VI.—New States :
 - Chapter VII.—Miscellaneous :
 - Chapter VIII.—Alteration of the Constitution.
- The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called "The Parliament," or "The Parliament of the Commonwealth."

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State. The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the Senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the Senators of the first class shall become vacant at the expiration of [the third year] *three years*,* and the places of those of the second class at the expiration of [the sixth year] *six years*,* from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before** the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July** following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July** preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a Senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy

* As amended by section 2 of the Constitution Alteration (Senate Elections) 1906. The words in square brackets have been repealed; amendments are shown in italics.

is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

- (i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;
- (ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section, five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows :—

New South Wales ..	23	South Australia ..	6
Victoria	20	Tasmania	5
Queensland	8		

Provided that if Western Australia is an Original State, the numbers shall be as follows :—

New South Wales ..	26	South Australia ..	7
Victoria	23	Western Australia ..	5
Queensland	9	Tasmania	5

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provisions, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows :—

(i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen :

(ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, of a colony which has become or becomes a State, or of the Commonwealth, or of a State.

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

* The Parliament has otherwise provided, by means of the Commonwealth Electoral Act 1918-1934, s. 39 (repealing an earlier provision made by the Commonwealth Franchise Act 1902).

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgement of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power : or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer : or
- (iii) Is an undischarged bankrupt or insolvent : or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth : or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons :

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section iv. does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth :

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section : or
- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors : or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State :

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House, shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld :
- (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

PART V.—POWERS OF THE PARLIAMENT.†

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) Trade and commerce with other countries, and among the States :
- (ii) Taxation ; but so as not to discriminate between States or parts of States :
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth :
- (iv) Borrowing money on the public credit of the Commonwealth :
- (v) Postal, telegraphic, telephonic, and other like services :
- (vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth :
- (vii) Lighthouses, lightships, beacons and buoys :
- (viii) Astronomical and meteorological observations :
- (ix) Quarantine :
- (x) Fisheries in Australian waters beyond territorial limits :
- (xi) Census and statistics :
- (xii) Currency, coinage, and legal tender :
- (xiii) Banking, other than State banking ; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money :
- (xiv) Insurance, other than State insurance ; also State insurance extending beyond the limits of the State concerned :
- (xv) Weights and measures :
- (xvi) Bills of exchange and promissory notes :
- (xvii) Bankruptcy and insolvency :
- (xviii) Copyrights, patents of inventions and designs, and trade marks :
- (xix) Naturalization and aliens :
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth :

* The Parliamentary allowance was raised to £600 per annum in 1907 and to £1,000 per annum in 1920, but in the case of Ministers, the Presiding Officers of the two Houses, and the Chairmen of Committees, the allowance was fixed at £800 per annum. Several reductions under financial emergency legislation reduced the allowance to £750 per annum in 1932, but it was gradually restored to £1,000, the last reduction being removed in May, 1938. The latter Act also increased the allowance to holders of Parliamentary Office to £1,000 per annum.

† Particulars of proposed laws which were submitted to referenda are referred to in Chapter III., General Government.

- (xxi) Marriage :
- (xxii) Divorce and matrimonial causes ; and in relation thereto, parental rights, and the custody and guardianship of infants :
- (xxiii) Invalid and old-age pensions :
- (xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States :
- (xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States :
- (xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws :
- (xxvii) Immigration and emigration :
- (xxviii) The influx of criminals :
- (xxix) External affairs :
- (xxx) The relations of the Commonwealth with the islands of the Pacific :
- (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws :
- (xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth :
- (xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State :
- (xxxiv) Railway construction and extension in any State with the consent of that State :
- (xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State :
- (xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides :
- (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law :
- (xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia :
- (xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes :
- (ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth :
- (iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed laws so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provisions therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth :—

Posts, telegraphs, and telephones :	|	Lighthouses, lightships, beacons, and buoys :
Naval and military defence :	|	Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

* The Ministers of State were increased in 1915 to eight, in 1917 to nine, in 1935 to ten, and in 1938 to eleven. A sum of £1,650 was added to the annual appropriation for Ministers' salaries for each additional Minister and £800 per annum was allowed each Minister by the Parliamentary Allowances Act 1920. Reductions under financial emergency legislation reached their maximum in 1932, when Ministers' salaries were reduced by 30 per cent, and their allowance as members by 25 per cent.; the reductions were gradually removed, the final one in May, 1938, by the Parliamentary Salaries Adjustment Act 1938. The latter Act also made provision for an additional allowance of £1,500 per annum to the Prime Minister, and increased the parliamentary allowance to Ministers from £800 to £1,000 per annum.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.

72. The Justices of the High Court and of the other Courts created by the Parliament—

- (i) Shall be appointed by the Governor-General in Council :
- (ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity :
- (iii) Shall receive such remuneration as the Parliament may fix ; but the remuneration shall not be diminished during their continuance in office.

73. The High Court shall have jurisdiction, with such exception and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

- (i) Of any Justice or Justices exercising the original jurisdiction of the High Court :
 - (ii) Of any other federal court, or court exercising federal jurisdiction ; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council :
 - (iii) Of the Inter-State Commission, but as to questions of law only :
- and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits *inter se* of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits *inter se* of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

- (i) Arising under any treaty :
- (ii) Affecting consuls or other representatives of other countries :
- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party :
- (iv) Between States, or between residents of different States, or between a State and a resident of another State :
- (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth :

the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation :
- (ii) Arising under any laws made by the Parliament :
- (iii) Of Admiralty and maritime jurisdiction :
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) Defining the jurisdiction of any federal court other than the High Court :
- (ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States :
- (iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon ; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth ; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary;
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth;
- (iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament;
- (iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

- (i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.
- (ii) The Commonwealth shall debit to each State—
 - (a) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;
 - (b) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.
- (iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

(i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State :

(ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth : and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths, and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

- (i) Shall be appointed by the Governor-General in Council;
- (ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity;
- (iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the State shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (i) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

- (a) *the taking over of such debts by the Commonwealth;*
- (b) *the management of such debts;*
- (c) *the payment of interest and the provision and management of sinking funds in respect of such debts;*
- (d) *the consolidation, renewal, conversion, and redemption of such debts;*
- (e) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and*
- (f) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*

(ii) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

(iii) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(iv) *Any such agreement may be varied or rescinded by the parties thereto.*

* Under section 2 of the Constitution Alteration (State Debts) 1909, the words in square brackets are omitted.

† Under section 2 of the Constitution Alteration (State Debts) 1928, the Constitution was amended by the insertion of this section.

(v) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(vi) *The powers conferred by this section shall not be construed as being limited in any way by the provisions of section one hundred and five of this Constitution.*

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State; and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed

to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. So HELP ME GOD!

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. (NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

3. **The Royal Proclamation.**—The preceding Act received the Royal assent on the 9th July, 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on the 17th September, 1900, constituted the Commonwealth as from the 1st January, 1901; it reads as follows:—

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, and *Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, *Tasmania*, and *Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

CHAPTER II.

PHYSIOGRAPHY.

§ 1. General Description of Australia.

1. **Geographical Position.**—(i) *General.* The Australian Commonwealth, which includes the island continent of Australia proper and the island of Tasmania, is situated in the Southern Hemisphere, and comprises in all an area of about 2,974,581 square miles, the mainland alone containing about 2,948,366 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes 113° 9' E. and 153° 39' E., while its northern and southern limits are the parallels of latitude 10° 41' S. and 39° 8' S., or, including Tasmania, 43° 39' S. On its north are the Timor and Arafura Seas and Torres Strait—on its south the Southern Ocean and Bass Strait. The extreme points are “Steep Point” on the west, “Cape Byron” on the east, “Cape York” on the north, “Wilson’s Promontory” on the south, or, if Tasmania be included, “South-East Cape.”

(ii) *Tropical and Temperate Regions.* Of the total area of Australia nearly 40 per cent. lies within the tropics. Assuming, as is usual, that the latitude of the Tropic of Capricorn is 23° 30' S. (its mean value for 1938 was 23° 26' 50.23"), the areas within the tropical and temperate zones are approximately as follows:—

AUSTRALIA—AREAS OF TROPICAL AND TEMPERATE REGIONS.

(STATES AND TERRITORY PARTIALLY WITHIN TROPICS.)

Area.	Queensland.	Western Australia.	Northern Territory.	Total.
	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.
Within Tropical Zone	359,000	364,000	426,320	1,149,320
Within Temperate Zone	311,500	611,920	97,300	1,020,720
Ratio of Tropical part to whole State..	0.535	0.373	0.814	0.530
Ratio of Temperate part to whole State	0.465	0.627	0.186	0.470

Thus the tropical part is roughly about one-half (0.530) of the three territories mentioned above, or about five-thirteenthths of the whole of Australia (0.386).

2. **Area of Australia compared with Areas of other Countries.**—It is not always realized that the area of Australia is almost as great as that of the United States of America, four-fifths of that of Canada, more than one-fifth of the area of the British Empire, nearly three-fourths of the whole area of Europe, and about 25 times as large

as Great Britain and Ireland. This great area, coupled with a limited population, renders the solution of the problem of Australian development a particularly difficult one. The areas of Australia and of certain other countries are given in the following table:—

AREA OF AUSTRALIA AND OF OTHER COUNTRIES, Circa 1937.

Country.	Area.	Country.	Area.
Continental Divisions—	Sq miles.	AFRICA—continued.	Sq. miles.
Europe	4,411,000	Angola	488,000
Asia	16,047,000	Union of South Africa	472,000
Africa	11,544,000	Egypt	386,000
North and Central America and West Indies	8,661,000	Tanganyika Territory	374,000
South America	7,054,000	Abyssinia	347,000
Australasia and Polynesia	3,462,000	Nigeria and Protectorate.. .. .	338,000
Total, exclusive of Arctic and Antarctic Conts... .. .	51,179,000	South-West Africa	322,000
		Mozambique	298,000
		Northern Rhodesia	288,000
		Bechuanaland Protectorate	275,000
		Madagascar	238,000
Europe—		Kenya Colony and Protec- torate	225,000
Soviet Union (Russia)	2,316,000	Other	1,391,000
Germany(a)	268,000	Total	11,544,000
France	213,000	North and Central America—	
Spain (inc. possessions)	194,000	Canada	3,684,000
Sweden	173,000	United States of America	3,027,000
Poland	150,000	Mexico	760,000
Finland	150,000	Alaska	586,000
Italy(b)	130,000	Newfoundland and Labra- dor	163,000
Norway	125,000	Nicaragua	49,000
Rumania	114,000	Other	392,000
Yugoslavia	96,000	Total	8,661,000
United Kingdom	95,000	South America—	
Other	387,000	Brazil	3,286,000
Total	4,411,000	Argentine Republic	1,078,000
Asia—		Bolivia	507,000
Soviet Union (Russia)	5,860,000	Peru	482,000
China and Dependencies	4,287,000	Colombia (exc. of Panama)	449,000
British India and Adminis- tered Territories	1,096,000	Venezuela	352,000
Arabia and Autonomous States	1,004,000	Chile	287,000
Feudatory Indian States	713,000	Paraguay	177,000
Iran	635,000	Ecuador	176,000
Netherlands Indies	574,000	Other	260,000
Turkey	285,000	Total	7,054,000
French Indo-China	284,000	Australasia and Polynesia—	
Japan and Dependencies.. .. .	262,000	Commonwealth of Australia	2,974,581
Afghanistan	251,000	Dutch New Guinea	161,000
Siam	200,000	New Zealand and Depen- dencies	104,015
Other	596,000	Territory of New Guinea.. .. .	93,000
Total	16,047,000	Papua	90,540
Africa—		Other	38,500
French West Africa	1,815,000	Total	3,461,636
Anglo-Egyptian Sudan	973,000	British Empire	13,355,426
Belgian Congo	910,000		
French Equatorial Africa	871,000		
Algeria	848,000		
Libya	685,000		

(a) Including Czecho-Slovakia.

(b) Including Albania.

The figures quoted in the table have been extracted from the *Statistical Year Book of the League of Nations* or the *Statesman's Year Book*.

3. Areas of Political Subdivisions.—As already stated, Australia consists of six States and the Northern and Australian Capital Territories. The areas of these, and their proportions of the total of Australia, are shown in the following table:—

AUSTRALIA—AREA OF STATES AND TERRITORIES.

State or Territory.	Area.	Percentage
		on Total.
	Sq. miles.	%
New South Wales	309,432	10.40
Victoria	87,884	2.96
Queensland	670,500	22.54
South Australia	380,070	12.78
Western Australia	975,920	32.81
Tasmania	26,215	0.88
Northern Territory	523,620	17.60
Australian Capital Territory	940	0.03
Total	2,974,581	100.00

4. Coastal Configuration.—(i) *General.* There are no striking features in the configuration of the coast; the most remarkable indentations are the Gulf of Carpentaria on the north, and the Great Australian Bight on the south. The Cape York Peninsula on the extreme north is the only other remarkable feature in the outline. In Year Book No. 1, an enumeration of the features of the coast-line of Australia was given (see pp. 60 to 68).

(ii) *Coast-line.* The lengths of coast-line, exclusive of minor indentations, of each State and of the whole continent, and the area per mile of coast-line, are shown in the following table:—

AUSTRALIA—COAST-LINE AND AREA PER MILE THEREOF.

State.	Coast-line.	Area	State.	Coast-line.	Area
	Miles.	per Mile of Coast-line.		Miles.	per Mile of Coast-line.
		Sq. miles.			Sq. miles.
New South Wales(a)	700	443	South Australia	1,540	247
Victoria	680	129	Western Australia	4,350	224
Queensland	3,000	223	Continent (b)	11,310	261
Northern Territory	1,040	503	Tasmania	900	29

(a) Including Australian Capital Territory.

(b) Area 2,948,366 square miles.

For the entire Commonwealth of Australia this gives a coast-line of 12,210 miles and an average of 244 square miles for one mile of coast-line. According to Strelbitski, Europe has only 75 square miles of area to each mile of coast-line, and, according to recent figures, England and Wales have only one-third of this, viz., 25 square miles.

(iii) *Historical Significance of Coastal Names.* It is interesting to trace the voyages of some of the early navigators by the names bestowed by them on various coastal features—thus Dutch names are found on various points of the Western Australian coast, in Nuyts' Archipelago, in the Northern Territory, and in the Gulf of Carpentaria; Captain Cook can be followed along the coasts of New South Wales and Queensland; Flinders' track is easily recognized from Sydney southwards, as far as Cape Catastrophe, by the numerous Lincolnshire names bestowed by him; and the French navigators of the end of the eighteenth and the beginning of the nineteenth century have left their names all along the Western Australian, South Australian and Tasmanian coasts.

5. *Geographical Features of Australia.*—In each of the earlier issues of this Year Book fairly complete information has been given concerning some special geographical element. The nature of this information and its position in the various Year Books can be readily ascertained on reference to the special index following the index to maps and graphs at the end of this work.

6. *Fauna, Flora, Geology and Seismology of Australia.*—Special articles dealing with these features have appeared in previous Year Books, but limits of space naturally preclude their repetition in each volume. As pointed out in 5 *supra*, however, the nature and position of these articles can be readily ascertained from the special index.

§ 2. Climate and Meteorology of Australia.*

1. **Introductory.**—In Year Book No. 3, pp. 79, 80, some account was given of the history of Australian meteorology, including a reference to the development of magnetic observations. In Year Book No. 4, pp. 84 and 87, will be found a short sketch of the creation and organization of the Commonwealth Bureau of Meteorology, and a résumé of the subjects dealt with at the Meteorological Conference in 1907.

2. **Meteorological Publications.**—Reference to publications issued by the Central Meteorological Bureau will be found in Official Year Book No. 22, pp. 40, 41. The following publications have since been issued:—Volume of "Results of Rainfall Observations made in Western Australia," for all years of record to 1927; Map of Normal Meteorological Conditions in Australia affecting Aviation; a Paper "A Basis for Seasonal Forecasting", by H. A. Hunt; Bulletin No. 18, "Foresadowing Monsoonal Rains in Northern Australia"; Bulletin No. 19, "Thunderstorms in Australia"; Bulletin No. 20, "Zones of Relative Physical Comfort in Australia"; Bulletin No. 21, "Air Masses over Eastern Australia"; Bulletin No. 22, "Australian Rainfall in Sunspot Cycles"; Bulletin No. 23, "Australian Rainfall in District Averages"; Bulletin No. 24, "Weather Conditions affecting Aviation in the Tasman Sea"; a Paper on "Frost Risks and Frost-Forecasting"; Booklet containing Meteorological Data for certain Australian Localities; a volume of "Results of Rainfall Observations made in Tasmania"; and a volume of "Results of Rainfall Observations made in Victoria" (Supplementary volume to 1936).

3. **Equipment.**—The determination of the climatological data has been made by records of the following instruments:—

- (i) *Rainfall.* Rainfall has been measured by a cylindrical gauge generally 8 inches in diameter.
- (ii) *Temperature.* Temperatures have been recorded by means of self-registering maximum and minimum thermometers which are read and set daily.
- (iii) *Humidity.* Humidities have been determined by the aid of tables from readings of dry and wet bulb thermometers.
- (iv) *Atmospheric Pressure.* Pressures have been measured by mercurial barometers of the Kew (or Fortin) pattern.
- (v) *Evaporation.* The standard evaporimeter in use consists of a cylindrical galvanized iron tank 3 feet in diameter with a water jacket. Concrete tanks of similar form and dimensions are also used.
- (vi) *Wind Mileage and Pressures.* The travel of the wind has been measured by means of anemometers of the Robinson pattern. The wind pressures corresponding to the observed mileage per hour have been calculated from the formula $P = 0.003V^2$ in which P denotes pressure in lb. per square foot and V the velocity in miles per hour.

4. **General Description of Australia.**—A considerable portion (0.530) of three divisions of Australia is north of the tropic of Capricorn—that is to say, within the States of Queensland and Western Australia, and the Northern Territory; no less than 1,149,320 square miles belong to the tropical zone and 1,020,720 to the temperate zone. The whole area of Australia within the temperate zone, however, is 1,825,261 square miles; thus the tropical part is about 0.386, or about five-thirteenths of the whole, or the "temperate" region is half as large again as the "tropical" (more accurately 1.588). By reason of its insular geographical position and the absence of striking physical features, Australia is, on the whole, less subject to extremes of weather than are regions of similar area in other parts of the globe, and latitude for latitude Australia is, on the whole, more temperate.

The altitudes of the surface of Australia range up to a little over 7,300 feet, hence its climate embraces a great many features, from the characteristically tropical to what is essentially alpine, a fact indicated in some measure by the name Australian Alps given to the southern portion of the great Dividing Range.

* Prepared from data supplied by the Commonwealth Meteorologist, W. S. Watt, Esquire.

On the coast, the rainfall is often abundant and the atmosphere moist, but in some portions of the interior it is very limited, and the atmosphere dry. The distribution of forest, therefore, with its climatic influence, is very uneven. In the interior, in places, there are fine belts of trees, but there are large areas also which are treeless, and where the air is hot and parching in summer. Again, on the coast, even so far south as latitude 35°, the vegetation is tropical in its luxuriance, and to some extent also in character. Climatologically, therefore, Australia may be said to present a great variety of features.

5. *Meteorological Divisions.*—(i) *General.* Reference to the divisions adopted by the Commonwealth Meteorologist will be found in Official Year Book No. 22, p. 41.

(ii) *Special Climatological Stations.* The latitudes, longitudes and altitudes of special stations, the climatological features of which are graphically represented hereinafter, are as follows:—

SPECIAL CLIMATOLOGICAL STATIONS—AUSTRALIA.

Locality.	Height above Sea Level.	Latitude.		Longitude.		Locality.	Height above Sea Level.	Latitude.		Longitude.	
		S.	E.	S.	E.			S.	E.		
	Feet.	deg.	min.	deg.	min.		Feet.	deg.	min.	deg.	min.
Perth ..	197	31	57	115	50	Canberra ..	1,920	35	20	149	15
Adelaide ..	140	34	56	138	35	Darwin ..	97	12	28	130	51
Brisbane ..	137	27	28	153	2	Alice Springs	1,926	23	38	133	37
Sydney ..	138	33	52	151	12	Dubbo ..	870	32	18	148	35
Melbourne ..	115	37	49	144	58	Laverton, W.A.	1,530	28	40	122	23
Hobart ..	177	42	53	147	20	Coolgardie ..	1,389	30	57	121	10

6. *Temperatures.*—(i) *Comparisons with other Countries.* In respect of Australian temperatures generally, it may be pointed out that the mean annual isotherm for 70° Fahrenheit extends in South America and South Africa as far south as latitude 33°, while in Australia it reaches only as far south as latitude 30°, thus showing that, on the whole, Australia has latitude for latitude a more temperate climate than other places in the Southern Hemisphere.

The comparison is even more favourable when the Northern Hemisphere is included, for in the United States the 70° isotherm extends in several of the western States as far north as latitude 41°. In Europe, the same isotherm reaches almost to the southern shores of Spain, passing, however, afterwards along the northern shores of Africa till it reaches the Red Sea, when it bends northward along the eastern shore of the Mediterranean till it reaches Syria. In Asia, nearly the whole of the land area south of latitude 40° N. has a higher temperature than 70°.

The extreme range of temperature is less than 100° over practically the whole of Australia, that figure being only slightly exceeded at a very few places; it is mostly 70° to 90° over inland areas, and somewhat less on the coast. In parts of Asia and North America, the extreme range exceeds 130° and 150° in some localities.

Along the northern shores of Australia the temperatures are very equable. At Darwin, for example, the difference in the means for the hottest and coldest months is only 8.5°, and the extreme readings for the year, or the highest maximum on record and the lowest minimum, show a difference of under 50°.

(ii) *Hottest and Coldest Parts.* A comparison of the temperatures recorded at coast and inland stations shows that, in Australia, as in other continents, the range increases with increasing distance from the coast.

In the interior of Australia, and during exceptionally dry summers, the temperature occasionally reaches or exceeds 120° in the shade, and during the dry winters the major portion of the country to the south of the tropics is subject to ground frosts. The hottest area of the continent is situated in the northern part of Western Australia about the Marble Bar and Nullagine gold-fields, where the maximum shade temperature during the summer sometimes exceeds 100° continuously for days and weeks. The coldest part of Australia is the extreme south-east of New South Wales and extreme east of Victoria—the region of the Australian Alps. Here the temperature seldom, if ever, reaches 100° even in the hottest of seasons, while in winter, readings slightly below zero are occasionally recorded.

Tasmania as a whole enjoys a most moderate and equable range of temperature throughout the year, although occasionally hot winds may cause the temperature to rise to 100° in the eastern half of the State.

(iii) *Monthly Maximum and Minimum Temperatures.* The normal monthly maximum and minimum temperatures can be best shown by means of graphs, which exhibit the nature of the fluctuation of each for all available years. In the diagram herein for nine representative places in Australia, the upper heavy curves show the mean maximum, and the lower heavy curves the mean minimum temperatures based upon daily observations, while the other curves show the humidities.

7. *Humidity.*—After temperature, humidity is the most important element of climate particularly as regards its effects on human comfort, rainfall supply, and conservation and related problems.

In this publication the *absolute humidity* has been graphically represented in inches of vapour pressure (i.e., that portion of the barometric pressure due to vapour). It is this total quantity of moisture in the air which affects personal comfort, plays an important part in varying the density of the atmosphere, and in heating and refrigerating processes. The more commonly quoted value, called the *relative humidity*, refers to the ratio which the actual moisture content of the air bears to the total amount possible if saturation existed at the given temperature, and is usually quoted as a percentage. The relative humidity is an important factor in all drying operations, but is much less important than the absolute humidity as affecting animal life.

The mean monthly vapour pressure has also been added to the tables of climatological data for the capital cities included herein.

The annual curve of vapour pressure derived from the normal monthly values for this element is comparable with the maximum and minimum temperature curves, but the relative humidities consisting as they do of the extremes for each month do not show the normal annual fluctuation which would be approximately midway between the extremes.

The order of stations in descending values of 9 a.m. vapour pressure is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, Hobart and Alice Springs, while the relative humidity diminishes in the order, Sydney, Canberra, Melbourne, Darwin, Brisbane, Hobart, Perth, Adelaide and Alice Springs.

8. *Evaporation.*—(i) *General.* The rate and quantity of evaporation in any territory is influenced by the prevailing temperature, and by atmospheric humidity, pressure and movement. In Australia, the question is of perhaps more than ordinary importance, since in its drier regions water has often to be conserved in "tanks"* and dams. The magnitude of the economic loss by evaporation will be appreciated from the tabular records herein, which show that the yearly amount varies from about 31 inches at Hobart to more than 100 inches in the Central parts of Australia. Over the *inland* districts of the continent it has been calculated that evaporation equals the rainfall where the annual totals are about 36 inches, the variations above and below this quantity being inverse.

(ii) *Monthly Evaporation Curves.* The diagrams herein showing the mean monthly evaporation in various parts of Australia disclose how characteristically different are the amounts for the several months in different localities.

(iii) *Loss by Evaporation.* In the interior of Australia the possible evaporation is greater than the actual rainfall. Since the loss by evaporation depends largely on the exposed area, tanks and dams so designed that the surface shall be a minimum are advantageous. Further, the more protected from the direct rays of the sun and from winds by means of suitable tree planting, the less will be the loss by evaporation. These matters are naturally of more than ordinary concern in the drier districts of Australia.

9. *Rainfall.*—(i) *General.* The rainfall of any region is determined mainly by the direction and route of the prevailing winds, by the varying temperatures of the earth's surface over which they blow, and by its physiographical features.

* In Australia, artificial storage ponds or reservoirs are called "tanks."

Australia lies within the zones of the south-east trades and prevailing westerly winds. The southern limit of the south-east trade strikes the eastern shores at about 30° south latitude, and, with very few exceptions, the heaviest rains of the Australian continent are precipitated along the Pacific slopes to the north of that latitude, the varying quantities being more or less regulated by the differences in elevation of the shores and of the chain of mountains from the New South Wales northern border to Thursday Island, upon which the rain-laden winds blow. The converse effect is exemplified on the north-west coast of Western Australia, where the prevailing winds blowing from the interior of the continent instead of from the ocean, result in the lightest coastal rain in Australia.

The westerly winds, which skirt the southern shores, are responsible for the reliable, generally light to moderate rains enjoyed by the south-western portion of Western Australia, the agricultural areas of South Australia, a great part of Victoria, and the whole of Tasmania.

(ii) *Distribution of Rainfall.* The average annual rainfall map of Australia herein shows that the heaviest yearly falls—over 50 inches—occur over the coastal region of the Northern Territory, over most of the Cape York Peninsula and coastal districts of Queensland, over many of the coastal areas of New South Wales, and the western parts of Tasmania. A great part of the interior of the continent, stretching from the far west of New South Wales and the south-west of Queensland to the vicinity of Shark Bay in Western Australia, has a very low average rainfall of less than 10 inches a year. Between these two regions of heavy and very low rainfall are the extensive areas which experience useful to good rains, and in the southern and eastern parts of which are found the best country and most of the population and primary production.

(iii) *Factors Determining Occurrence, Intensity and Seasonal Distribution of Rainfall.* Reference has already been made to the frequent rains occurring in the north-eastern coastal districts of Queensland with the prevailing south-east trade winds and to similar rains in the west of Tasmania with the prevailing westerly winds. Other rains in Australia are associated mainly with tropical and southern depressions.

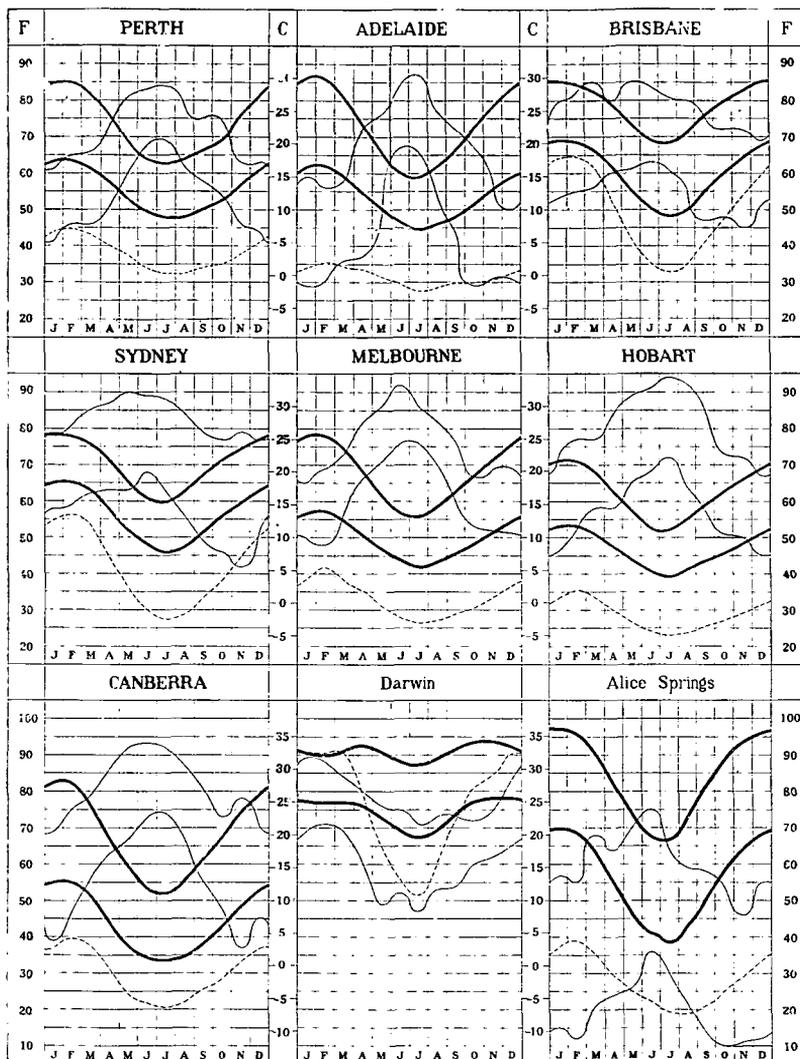
The former chiefly affect the northern, eastern, and to some extent the central parts of the continent and operate in an irregular manner during the warmer half of the year, but principally from December to March. They vary considerably in activity and scope from year to year, occasionally developing into severe storms off the east and north-west coasts. Tropical rainstorms sometimes cover an extensive area, half of the continent on occasions receiving moderate to very heavy falls during a period of a few days. Rain is also experienced, with some regularity, with thunderstorms in tropical areas, specially near the coast. All these tropical rains, however, favour mostly the northern and eastern parts of the area referred to; the other parts further inland receive lighter, less frequent and less reliable rainfall. With the exception of districts near the east coast, where some rain falls in all seasons, the tropical parts of the continent receive useful rains only on rare occasions from May to September.

The southern depressions are most active in the winter—June to August—and early spring months. The rains associated with them are fairly reliable and frequent over Southern Australia and Tasmania, and provide during that period the principal factor in the successful growing of wheat. These depressions also operate with varying activity during the remainder of the year, but the accompanying rains are usually lighter. The southern rains favour chiefly the south-west of Western Australia, the agricultural districts of South Australia, Victoria, Tasmania, and the southern parts of New South Wales. They sometimes extend into the drier regions of the interior, but only infrequently and with irregular rains.

The map showing mean monthly distribution of rainfall over Australia gives information on the amount and occurrence of rain in graphic form.

(iv) *Wettest and Driest Regions.* The wettest known part of Australia is on the north-east coast of Queensland, between Port Douglas and Cardwell, where three stations situated on, or adjacent to, the Johnstone and Russell Rivers have an average annual rainfall of between 142 and 165 inches. The maximum and minimum falls there are :—

AVERAGE ANNUAL FLUCTUATIONS OF NORMAL MAXIMUM AND MINIMUM TEMPERATURE AND HUMIDITY.



EXPLANATION.—The upper and lower heavy lines in each graph represent the mean maximum and mean minimum temperatures respectively. The Fahrenheit temperature scales are shown on the outer edge of the sheet under "F" and the centigrade scales in the two inner columns under "C."

The broken line shows the normal absolute humidity in the form of 9 a.m. vapour pressures for which the figures in the outer "F" columns represent hundredths of an inch of barometric pressure.

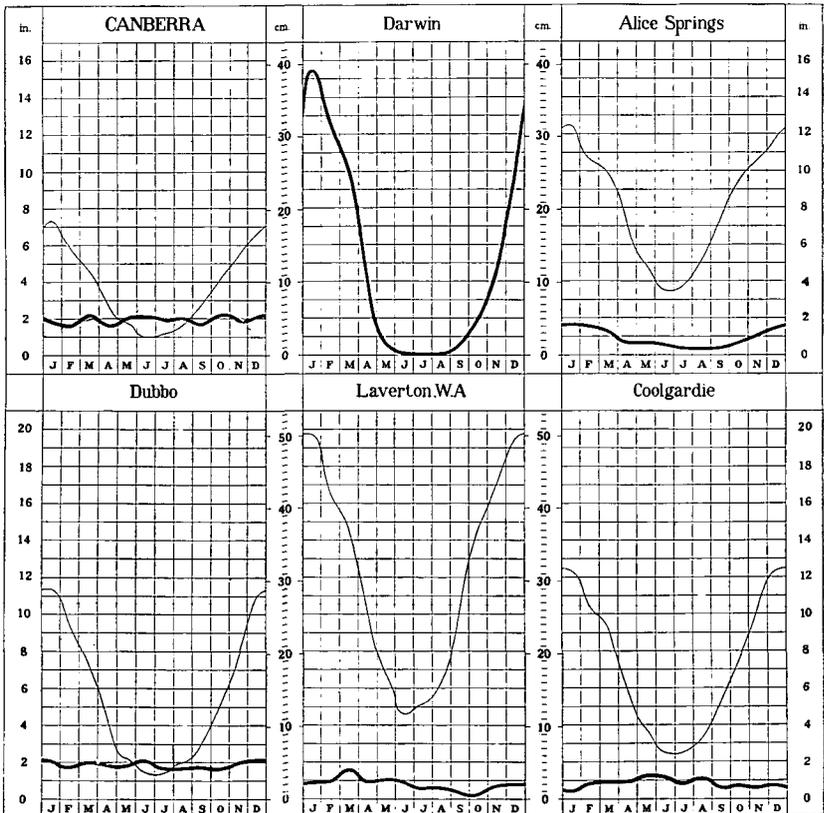
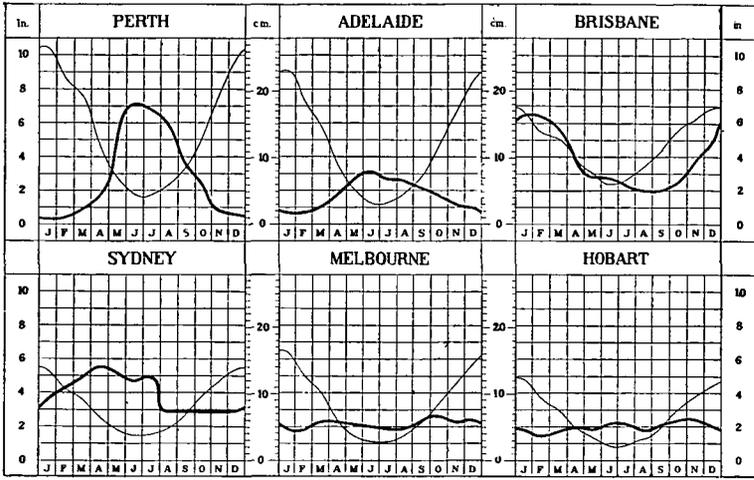
The upper and lower fine lines join the greatest and the least monthly means of relative humidity respectively, the figures under the outer columns "F" indicating percentage values.

The curves for temperature and vapour pressure joining the mean monthly values serve to show the annual fluctuation of these elements, but the relative humidity graphs joining the extreme values for each month do not indicate any normal annual variation.

Comparison of the maximum and minimum temperature curves affords a measure of the mean diurnal range of temperature. At Perth in the middle of January, for instance, there is normally a range of 21° from 63° F. to 84° F., but in July it is only 15° from 48° F. to 63° F.

The relative humidity curves illustrate the extreme range of the mean monthly humidity over a number of years.

MEAN MONTHLY RAINFALL AND EVAPORATION.



EXPLANATION.—On the preceding graphs thick lines denote rainfall, and thin lines evaporation, and show the fluctuation of the mean rate of fall or evaporation *per month* throughout the year. The results, plotted from the Climatological Tables herein, are shown in inches (see the outer columns), and the corresponding metric scale (centimetres) is shown in the two inner columns. The evaporation is not given for Darwin.

At Perth, Adelaide, Brisbane, Melbourne, Hobart, Canberra, Alice Springs, and Coolgardie the results have been obtained from jacketed tanks sunk in the ground. At Sydney and Dubbo sunken tanks without water jackets are used, whilst at Laverton (W.A.) the records are taken from a small portable jacket evaporation dish of 8 inches in diameter.

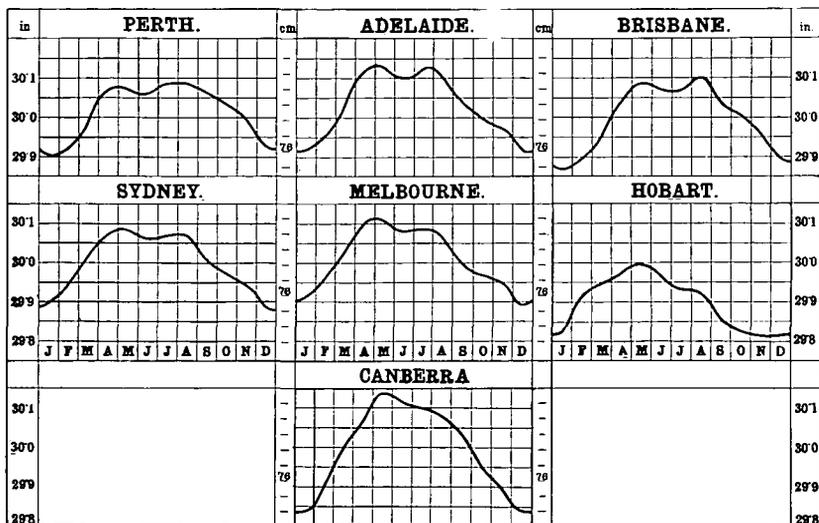
The distance for any date from the zero line to the curve represents the average number of inches, reckoned as per month, of rainfall at that date. Thus, taking the curve for Adelaide in the middle of January, the rain falls on the average at the rate of about three-fourths of an inch per month or, say, at the rate of about 9 inches per year. In the middle of June it falls at the rate of a little over 3 inches per month, or, say, at the rate of about 37 inches per year. At Dubbo, the evaporation is at the rate of nearly $1\frac{1}{2}$ inches per month about the middle of January, and only about $1\frac{1}{2}$ inches at the middle of June.

The mean annual rainfall and evaporation at the places indicated are given in the appended table.

MEAN ANNUAL RAINFALL AND EVAPORATION.

Place.	Rainfall.	Evaporation.	Place.	Rainfall.	Evaporation.
	In.	In.		In.	In.
Perth ..	34.73	66.27	Canberra ..	23.15	44.65
Adelaide ..	21.15	55.50	Darwin ..	58.99	—
Brisbane ..	44.90	56.11	Alice Springs ..	10.48	97.25
Sydney ..	47.06	39.61	Dubbo ..	21.87	66.37
Melbourne ..	25.55	39.08	Laverton, W.A.	9.08	145.17
Hobart ..	24.05	31.18	Coolgardie ..	10.12	85.37

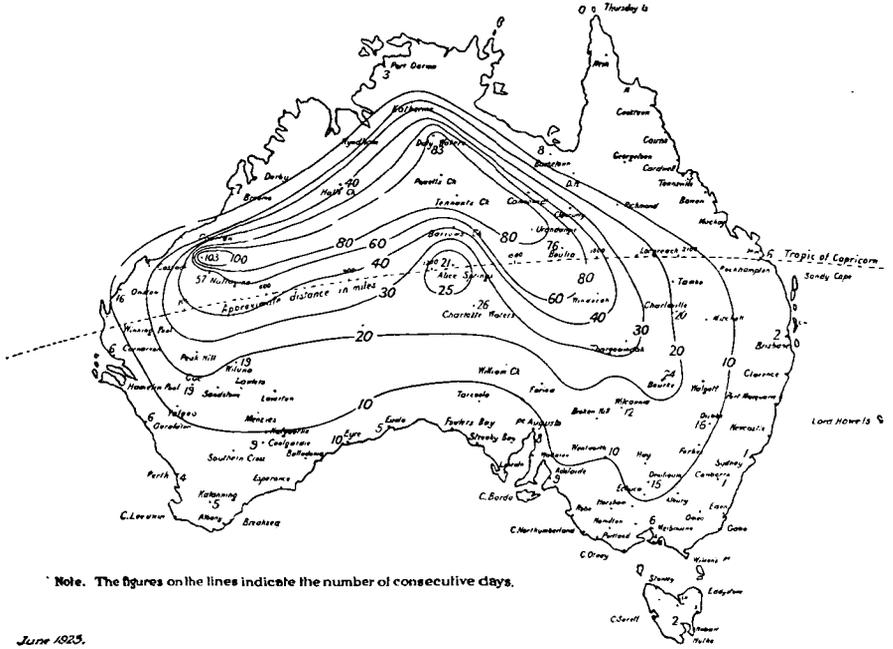
MEAN BAROMETRIC PRESSURE.—CAPITAL CITIES.



EXPLANATION.—The lines representing the yearly fluctuations of barometric pressure at the State capital cities are means for long periods, and are plotted from the Climatological Tables herein. The pressures are shown in inches on about $2\frac{1}{2}$ times the natural scale, and the corresponding pressures in centimetres are also shown in the two inner columns, in which each division represents one millimetre.

Taking the Brisbane graph for purposes of illustration, it will be seen that the mean pressure in the middle of January is about 29.87 inches, and there are maxima in the middle of May and August of about 30.09 inches.

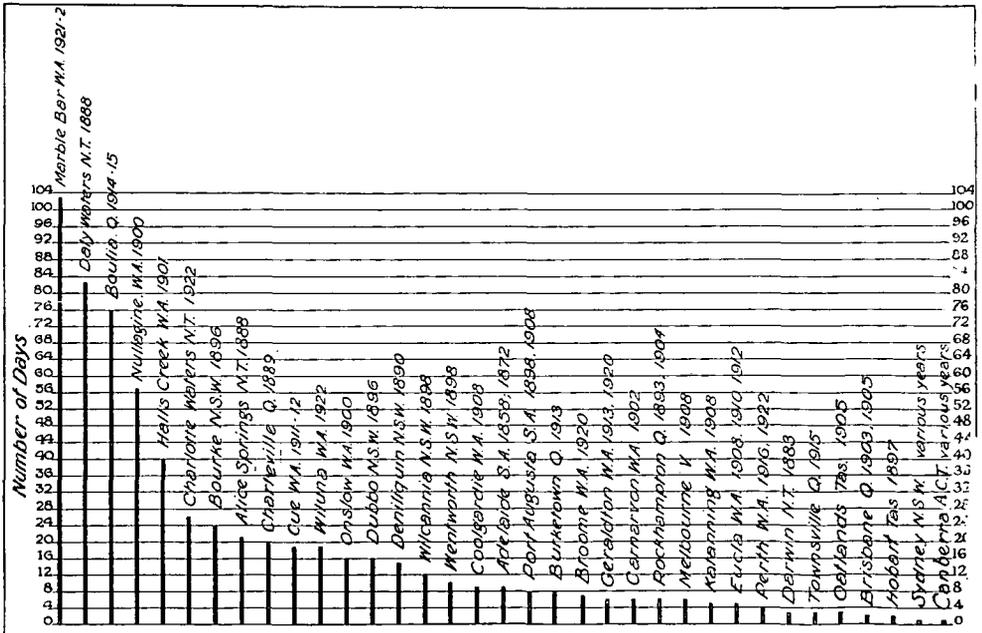
Area affected and period of duration of the Longest Heat Waves when the Maximum Temperature for consecutive 24 hours reached or exceeded 100° Fah.



Note. The figures on the lines indicate the number of consecutive days.

June 1923.

Largest number of consecutive days on which the Shade Temperature was over 100° Fah. at the places indicated.



Goondi, 241.53 in 1894 and 67.88 inches in 1915, or a range of 173.65 inches; Innisfail, 211.24 in 1894 and 69.87 inches in 1902, or a range of 141.37 inches; Harvey Creek, 254.77 in 1921 and 80.47 inches in 1902, or a range of 174.30 inches.

On four occasions more than 200 inches have been recorded at Goondi, the last of these being in 1910, when 204.82 inches were registered. The record at this station covers a period of 52 years.

Harvey Creek, in the shorter period of 30 years, has four times exceeded 200 inches, the total for 1921 being 254.77 inches, and at the South Johnstone Sugar Experiment Station, where a gauge was established nineteen years ago, 202.52 inches were recorded in 1921.

In Tasmania the wettest part is in the West Coast region, the mean annual rainfall at Lake Margaret being 145.00 inches, with a maximum of 175.12 inches in 1924.

The driest known part of the continent is in the Lake Eyre district in South Australia (the only part of the continent below sea level), where the annual average is only 5 inches, and where the fall rarely exceeds 10 inches for the twelve months.

The inland districts of Western Australia were at one time regarded as the driest part of Australia, but authentic observations in recent years over most settled districts in the east of that State show that the annual average is about 10 inches.

(v) *Quantities and Distribution of Rainfall.* The general distribution is best seen from the rainfall map herein, which shows the areas subject to average annual rainfalls lying between certain limits. The areas enjoying varying quantities of rainfall determined from the latest available information are shown in the following table:—

AVERAGE ANNUAL RAINFALL DISTRIBUTION.

Average Annual Rainfall.	N.S.W. (a)		Victoria.	Queensland.	South Australia.	Northern Territory.	Western Australia.	Tasmania. (b)	Total. (b)
	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.	sqr. mls.
Under 10 inches	48,749	nil	80,496	310,660	140,500	486,952	nil	1,067,357	
10—15 "	78,454	19,270	81,549	36,460	132,780	255,092	nil	603,605	
15—20 "	55,762	13,492	111,833	19,940	63,026	94,101	304	358,458	
20—25 "	45,140	14,170	143,610	8,620	49,157	44,340	3,844	308,881	
25—30 "	30,539	15,579	99,895	3,258	41,608	31,990	3,016	225,885	
30—40 "	33,557	14,450	61,963	1,036	37,642	59,520	5,027	213,195	
Over 40 "	18,171	10,923	91,154	96	58,907	3,925	11,247	194,423	
Total area ..	310,372	87,884	670,500	380,070	523,620	975,920	23,438	2,971,804	

(a) Including Australian Capital Territory. (b) Over an area of 2,777 square miles no records are available.

Referring first to the capital cities the records of which are given in the next table, it will be seen that Sydney, with a normal rainfall of 47.44 inches, occupies the chief place; Brisbane, Perth, Melbourne, Hobart, Canberra and Adelaide follow in that order, Adelaide with 21.15 inches being the driest. The extreme range from the wettest to the driest year is greatest at Brisbane (72.09 inches) and least at Adelaide (19.48 inches).

In order to show how the rainfall is distributed throughout the year in various parts of the continent, the figures for representative towns have been selected. (See map.) The figures for Darwin, typical of the Northern Territory, show that nearly the whole of the rainfall occurs there in the summer months, while little or none falls in the middle of the year. The figures for Perth, as representing the south-western part of the continent, are the reverse for while the summer months are dry, the winter ones are very wet. In Melbourne and Hobart the rain is fairly well distributed throughout the twelve months, with a maximum in October for the former, and in November for the latter. The records at Alice Springs and Daly Waters indicate that in the central parts of Australia most of the rain occurs from November to March. In Queensland, the heaviest rains fall in the summer months, but good averages are also maintained during the other seasons in eastern parts.

On the coast of New South Wales, the first six months of the year are the wettest, with a maximum in the autumn; the averages during the last six months are fair, and moderately uniform. Generally it may be said that approximately one-third of the area of the continent, principally in the eastern and northern parts, enjoys an annual average rainfall of from 20 to 50 or more inches, the remaining two-thirds averaging from 5 to 20 inches.

(vi) *Curves of Rainfall and Evaporation.* The relative amounts of rainfall and evaporation at different times through the year are clearly indicated in the graphs herein. Inspection thereof will show how large is the evaporation when water is fully exposed to the direct rays of the sun and to wind.

(vii) *Tables of Rainfall.* The table of rainfall for a long period of years for each of the various Australian capitals affords information as to the variability of the fall in successive years, and the list of the more remarkable falls furnishes information as to what may be expected on particular occasions.

RAINFALL—AUSTRALIAN CAPITAL CITIES.

Year.	CANBERRA.(a)		PERTH.		ADELAIDE.		BRISBANE.		SYDNEY.		MELBOURNE.		HOBART.	
	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.
	in.		in.		in.		in.		in.		in.		in.	
1906 ..	..	..	32.37	121	26.51	127	42.85	125	31.89	160	22.29	114	23.31	155
7 ..	..	..	40.12	132	17.78	125	31.46	119	31.32	132	22.26	102	25.92	166
8 ..	..	..	30.52	106	24.56	125	44.01	125	45.65	167	17.72	130	16.50	148
9 ..	..	..	39.11	107	27.69	138	34.06	111	32.45	177	25.86	171	27.29	170
10 ..	..	..	37.02	135	24.62	116	49.00	133	46.91	160	24.61	167	25.22	205
11 ..	..	..	23.38	108	15.99	127	35.21	128	50.24	155	36.61	168	26.78	193
12 ..	19.27	76	27.85	123	19.57	116	41.30	114	47.51	172	20.37	157	23.14	181
13 ..	16.38	71	38.28	141	18.16	102	40.81	115	57.70	141	21.17	157	19.36	165
14 ..	18.49	81	20.21	128	11.39	91	33.99	141	56.42	149	18.57	129	15.42	154
15 ..	22.31	87	43.61	164	19.38	117	25.66	93	34.83	117	20.95	167	20.91	190
16 ..	31.26	119	35.16	128	28.16	142	52.80	136	44.91	161	38.04	170	43.39	203
17 ..	29.70	144	45.64	146	28.90	153	40.92	127	52.40	151	30.57	171	30.62	214
18 ..	18.27	95	39.58	138	17.41	107	24.95	121	42.99	149	27.13	160	26.04	179
19 ..	16.31	85	30.66	120	17.21	108	19.36	96	58.71	152	24.89	141	22.48	153
20 ..	29.30	107	40.35	124	26.70	119	39.72	122	43.42	159	28.87	162	18.00	182
21 ..	..	..	41.09	135	22.64	100	54.31	167	43.34	140	29.76	154	18.04	159
22 ..	..	..	31.86	135	23.20	117	35.82	109	39.35	136	25.02	151	28.27	189
23 ..	..	..	44.47	134	29.79	139	23.27	93	37.01	123	22.64	158	32.93	198
24 ..	25.95	68	33.79	119	23.44	143	41.08	114	37.01	136	36.48	171	28.76	197
25 ..	33.71	59	31.41	126	21.91	118	53.10	139	50.35	145	17.57	144	22.40	171
26 ..	20.53	97	49.22	167	22.20	116	30.82	111	37.07	127	20.81	149	25.79	187
27 ..	21.40	83	36.59	133	16.92	101	62.08	130	48.56	138	17.98	135	20.02	183
28 ..	17.82	96	44.88	140	19.43	107	52.64	145	40.07	130	24.09	151	30.23	205
29 ..	22.34	88	36.77	172	17.51	119	39.78	118	57.90	129	28.81	168	26.55	194
30 ..	16.52	86	39.80	129	18.65	116	41.22	144	44.47	141	25.41	145	19.38	152
31 ..	24.25	105	39.18	118	22.26	146	66.72	136	49.22	153	28.63	164	27.17	170
32 ..	19.13	107	39.40	107	25.04	141	24.79	97	37.47	146	31.08	179	30.29	155
33 ..	20.30	88	32.47	116	22.12	130	49.71	118	42.71	153	22.28	136	23.18	173
34 ..	35.89	118	40.61	130	20.24	125	54.26	117	64.01	183	33.53	157	23.17	194
35 ..	24.40	102	32.28	129	23.45	140	34.64	111	30.97	131	29.98	183	32.22	196
36 ..	29.40	121	30.64	118	19.34	121	21.77	101	30.22	130	24.39	187	19.60	178
37 ..	22.50	93	35.28	120	23.01	128	34.79	113	52.00	157	21.45	144	20.65	161
38 ..	20.15	85	29.64	111	19.26	119	43.49	110	39.17	132	17.63	131	31.32	169
Average	23.15	94	34.73	121	21.15	124	44.77	126	47.44	152	26.04	140	24.05	153
No. of Years	24	24	63	63	100	100	89	79	99	99	96	83	96	95

(a) Records commenced in 1912; details are not available for the years 1921 to 1923.

NOTE.—The above average rainfall figures for Brisbane, Sydney and Melbourne differ slightly from the mean annual falls given in the Climatological Tables and on page 46, which are for a less number of years. Annual totals from 1860 to 1901 inclusive will be found in Official Year Book No. 15, page 53.

10. Remarkable Falls of Rain.—The following are the most remarkable falls of rain in the various States and in the Northern Territory which have occurred within a period of twenty-four hours. For other very heavy falls at various localities reference may be made to Official Year Book No. 14, pp. 60 to 64, No. 22, pp. 46 to 48 and No. 29, pp. 43, 44 and 51 :—

HEAVY RAINFALLS—NEW SOUTH WALES, UP TO 1938, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Broger's Creek ..	14 Feb., 1898	20.05	South Head (near Sydney) ..	16 Oct., 1844	20.41
" " " " ..	13 Jan., 1911	20.83	Towamba ..	5 Mar., 1893	20.00
Cordeaux River ..	14 Feb., 1898	22.58	Viaduct Creek ..	15 " 1936	20.00
Morpeth ..	9 Mar., 1893	21.52			

HEAVY RAINFALLS—QUEENSLAND, UP TO 1938, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Babinda (Cairns) ..	2 Mar., 1935	24.14	Mackay ..	21 Jan., 1918a	24.70
Buderim Mountain	11 Jan., 1898	26.20	Macnade Mill ..	6 " 1901	23.33
Crohamhurst			Plane Creek		
(Blackall Range)	2 Feb., 1893	35.71	(Mackay) ..	26 Feb., 1913	27.73
Deeral ..	2 Mar., 1935	27.60	Port Douglas ..	1 Apr., 1911	31.53
Goondi ..	30 Jan., 1913	24.10	Tully ..	19 Jan., 1932	27.20
Harvey Creek ..	3 " 1911	27.75	Woodlands (Yepp'n)	31 Jan., 1893	23.07
Kuranda (Cairns) ..	2 Apr., 1911	28.80	Yarrabah ..	2 Apr., 1911	30.65

(a) 37½ hours.

HEAVY RAINFALLS—WESTERN AUSTRALIA, UP TO 1938, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Balla Balla ..	21 Mar., 1899	14.40	Roebuck' Plains ..	5 Jan., 1917	14.01
Boodarie ..	21 Jan., 1896	14.53	" " ..	6 " 1917	22.36
Broome ..	6 " 1917	14.00	Thangoc ..	17-19 Feb. '96	24.18
Derby ..	7 Jan., 1917	16.47	Whim Creek ..	3 Apr., 1898	29.41
Fortescue ..	3 May, 1890	23.36	Winderrrie ..	17 Jan., 1923	14.23
Pilbara ..	2 Apr., 1898	14.04			

HEAVY RAINFALLS—NORTHERN TERRITORY, UP TO 1938, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Bathurst Island			Brock's Creek ..	24 Dec., 1915	14.33
Mission ..	7 Apr., 1925	11.85	Cape Don ..	13 Jan., 1934	13.58
Birrimbah ..	6 Mar., 1935	16.50	Darwin ..	7 Dec., 1915	11.67
Borrooloola ..	14 " 1899	14.00			

HEAVY RAINFALLS—SOUTH AUSTRALIA, UP TO 1938, INCLUSIVE.

Name of Town or Locality.	Date.	Amount.
Wilmington ..	28 Feb., 1921 ..	in. 3.97
	1 Mar., 1921 ..	7.12

HEAVY RAINFALLS—VICTORIA, UP TO 1938, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Apollo Bay ..	28 Mar., 1932	11.08	Mt. Buffalo ..	6 June, 1917	8.53
Cann River ..	16 Mar., 1938	9.94	Murrungowar ..	10 July, 1932	10.17
Cunningham ..	26 Dec., 1935	8.50	Olinda ..	1 Dec., 1934	9.10
Hazel Park ..	1 Dec., 1934	10.50	Tambo Crossing ..	13 July, 1923	8.89
Kalorama ..	1 " "	10.05	Tonghi Creek ..	27 Feb., 1919	9.90
Korumburra ..	1 " "	8.51			

HEAVY RAINFALLS—TASMANIA, UP TO 1938, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Cullenswood ..	5 Apr., 1929	11.12	Riana ..	5 Apr., 1929	11.08
Gould's Country ..	8-10 Mar., '11	15.33	The Springs ..	30-31 Jan., '16	10.75
Lottah ..	8-10 Mar., '11	18.10	Triabunna ..	5 June, 1923	10.20
Mathinna ..	5 Apr., 1929	13.25			

HEAVY RAINFALLS—AUSTRALIAN CAPITAL TERRITORY, UP TO 1938, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Canberra ..	27 May, 1925	6.84	Uriarra ..	27 May, 1925	6.57
Cotter Junction ..	" "	7.13			

11. **Snowfall.**—Light snow has been known to fall occasionally as far north as latitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds of the State of New South Wales, and has extended at times along the whole of the Great Dividing Range, from its southern extremity in Victoria as far north as Toowoomba in Queensland. During the winter, for several months, snow covers the ground to a great extent on the

Australian Alps, where also the temperature falls below zero Fahrenheit during the night. In the ravines around Kosciusko and similar localities the snow never entirely disappears.

12. *Hail*.—Hail falls most frequently along the southern shores of the continent in the winter, and over eastern Australia during the summer months. The size of the hailstones generally increases with distance from the coast. A summer rarely passes without some station experiencing a fall of stones exceeding in size an ordinary hen-egg, and many riddled sheets of light-gauge galvanized iron bear evidence of the weight and penetrating power of the stones.

The hailstones occur most frequently when the barometric readings indicate a flat and unstable condition of pressure. Tornadoes or tornadic tendencies are almost invariably accompanied by hail, and on the east coast the clouds from which the stones fall are frequently of a remarkable sepia-coloured tint.

13. *Barometric Pressures*.—The mean annual barometric pressure (corrected to sea-level and standard gravity) in Australia varies from 29.80 inches on the north coast to 29.92 inches over the central and 30.03 inches in the southern parts of the continent. In January, the mean pressure ranges from 29.70 inches in the northern and central areas to 29.95 inches in the southern. The July mean pressure ranges from 29.90 inches at Darwin to 30.11 inches at Alice Springs. Barometer readings corrected to mean sea-level and standard gravity have, under anticyclonic conditions in the interior of the continent, ranged as high as 30.78 inches (at Kalgoorlie on the 28th July, 1901) and have fallen as low as 27.55 inches. This lowest record was registered at Mackay during a tropical hurricane on the 21st January, 1918. An almost equally abnormal reading of 27.88 inches was recorded at Innisfail during a similar storm on the 10th March, 1918. The mean barometric pressure for the capitals of Australia is shown on the graphs herein.

14. *Wind*.—(i) *Trade Winds*. The two distinctive wind currents in Australia are as previously stated, the south-east and westerly trade winds. As the belt of the earth's atmosphere in which they blow apparently follows the sun's ecliptic path north and south of the equator, so the area of the continent affected by these winds varies at different seasons of the year. During the summer months the anticyclonic belt travels in very high latitudes, thereby bringing the south-east trade winds as far south as 30° south latitude. The westerly trade winds retreat a considerable distance to the south of Australia, and are rarely in evidence in the hot months. When the sun passes to the north of the equator, the south-east trade winds follow it, and only operate to the north of the tropics for the greater part of the winter. The westerly winds come into lower latitudes during the same period of the year. They sweep across the southern areas of the continent from the Leeuwin to Cape Howe, and during some seasons are remarkably persistent and strong, and occasionally penetrate to almost tropical latitudes.

(ii) *Land and Sea Breezes*. The prevailing winds second in order of importance are the land and sea breezes. On the east coast the sea breezes which come in from the north-east, when in full force, frequently reach the velocity of a gale during the afternoon in the summer months, the maximum hourly velocity, ordinarily attained about 3 p.m., not infrequently attaining a rate of 35 to 40 miles per hour. This wind, although strong, is usually shallow in depth, and does not ordinarily penetrate more than 9 or 12 miles inland.

The land breezes on the east-coast blow out from a westerly direction during the night.

On the western shores of the continent the directions are reversed. The sea breezes come in from the south-west, and the land breezes blow out from the north-east.

(iii) *Inland Winds*. Inland, the direction of the prevailing winds is largely regulated by the seasonal changes of pressure, so disposed as to cause the winds to radiate spirally outward from the centre of the continent during the winter months, and to circulate spirally from the seaboard to the centre of Australia during the summer months.

(iv) *Prevailing Direction at the Capital Cities.* In Canberra, the winds are mainly from easterly and north-westerly directions, the former predominating to a somewhat greater degree in the mornings, the latter in the afternoons and in the colder half of the year.

In Perth, southerly (south-west to south-east) is the prevailing direction for August to April inclusive and north-north-west to north-north-east for the midwinter months.

In Adelaide the summer winds are from the south-west and south, and in the winter from north-east to north.

In Brisbane, south-east winds are in evidence all the year round, but more especially from January to April.

In Sydney from May to September the prevailing direction is westerly, and for the remaining seven months north-easterly.

Melbourne winter winds are from north-west to north-east, and those of the summer from south-west to south-east, with a moderate percentage of northerly.

At Hobart the prevailing direction for the year is from north-west.

Over the greater part of Australia, January is the most windy month, i.e., is the month when the winds are strongest on the average, though the most violent wind storms occur at other times during the year, the time varying with the latitude.

15. *Cyclones and Storms.*—The "elements" in Australia are ordinarily peaceful, and while destructive cyclones have visited various parts, more especially coastal areas, such visitations are rare, and may be properly described as erratic.

During the winter months, the southern shores of the continent are subject to cyclonic storms, evolved from the V-shaped depressions of the southern low-pressure belt. They are felt most severely over the south-western parts of Western Australia, to the south-east of South Australia, in Bass Strait, including the coast-line of Victoria, and on the west coast of Tasmania. Apparently the more violent wind pressures from these cyclones are experienced in their northern half, or in that part of them which has a north-westerly to a south-westerly circulation.

The north-east coast of Queensland is occasionally visited by hurricanes from the north-east tropics. During the first four months of the year, these hurricanes appear to have their origin in the neighbourhood of the South Pacific Islands, their path being a parabolic curve first to the S.W. and finally towards the S.E. Only a small percentage, however, reach Australia, the majority recurring in their path to the east of New Caledonia.

Very severe cyclones, locally known as "willy willies," are peculiar to the north-west coast of Western Australia from the months of November to April, inclusive. They apparently originate in the ocean in the vicinity of Cambridge Gulf, and travel in a south-westerly direction with continually increasing force, displaying their greatest energy near Cossack and Onslow, between latitudes 20° and 22° South. The winds in these storms, like those from the north-east tropics, are very violent and destructive, and cause great havoc amongst the pearl-fishers. The greatest velocities are usually to be found in the south-eastern quadrant of the cyclones, with north-east to east winds. After leaving the north-west coast, these storms either travel southwards, following the coast-line, or cross the continent to the Great Australian Bight. When they take the latter course, their track is marked by torrential rains, as much as 29.41 inches, for example, being recorded in 24 hours at Whim Creek from one such occurrence. Falls of 10 inches and over have frequently been recorded in the northern interior of Western Australia from similar storms.

Some further notes on severe cyclones and on "southerly bursters," a characteristic feature of the eastern part of Australia, will be found in previous issues of the Official Year Book (see No. 6, pp. 84, 85, 86).

A special article dealing with "Australian Hurricanes and Related Storms" appeared in Official Year Book No. 16, pp. 80-84.

16. *Influences affecting Australian Climate.*—(i) *General.* Australian history does not cover a sufficient period, nor is the country sufficiently occupied, to ascertain whether or not the advance of settlement has materially affected the climate as a whole. Local changes have, however, taken place, a fact which suggests that settlement and the treatment of the land have a distinct effect on local conditions. For example, the mean temperature of Sydney shows a rise of two tenths of a degree during the last twenty years, a change probably brought about by the great increase of residential and manufacturing buildings within the city and in the surrounding suburbs. Again, low-lying lands on the north coast of New South Wales, which originally were seldom subject to frosts, have, with the denudation of the surrounding hills from forests, experienced annual visitations, the probable explanation being that through the absence of trees the cold air of the high lands now flows unchecked and untempered down the sides of the hills to the valleys and lower lands.

(ii) *Influence of Forests on Climate.* As already indicated, forests doubtless exercise a great influence on local climate, and hence, to the extent that forestal undertakings will allow, the weather can be controlled by human agency. The direct action of forests is an equalizing one; thus, especially in equatorial regions, and during the warmest portion of the year, they considerably reduce the mean temperature of the air. They also reduce the diurnal extremes of shade temperatures by altering the extent of radiating surface by evaporation, and by checking the movement of air, and while decreasing evaporation from the ground, they increase the relative humidity. Vegetation greatly diminishes the rate of flow-off of rain and the washing away of surface soil, and when a region is protected by trees, a steadier water supply is ensured, and the rainfall is better conserved. In regions of snowfall, the supply of water to rivers is similarly regulated, and without this and the sheltering influence of ravines and "gullies," watercourses supplied mainly by melting snow would be subject to alternative periods of flooding and dryness. This is borne out in the case of the inland rivers, the River Murray, for example, which has never been known to become dry, deriving its steadiness of flow mainly through the causes indicated.

(iii) *Direct Influence of Forests on Rainfall.* Whether forests have a direct influence on rainfall is a debatable question, some authorities alleging that precipitation is undoubtedly induced by forests, while others take the opposite view.

Sufficient evidence exists, however, to prove that, even if the rainfall has not increased, the beneficial climatic effect of forest lands more than warrants their protection and extension. Rapid rate of evaporation, induced by both hot and cold winds, injures crops and makes life uncomfortable on the plains, and, while it may be doubted that the forest aids in increasing precipitation, it must be admitted that it does check winds and the rapid evaporation due to them. Trees as wind-breaks have been successfully planted in central parts of the United States, and there is no reason why similar experiments should not be successful in many parts of the treeless interior of Australia. The belts should be planted at right angles to the direction of the prevailing parching winds, and if not more than half a mile apart will afford shelter to the enclosed areas.

In previous issues some notes on observations made in other countries were added (see Official Year Book No. 6, pp. 86 and 95).

17. *Rainfall and Temperatures, Various Cities.*—The following table shows rainfall and temperature for various important cities throughout the world, for the Australian Capital, and for the capitals of the Australian States.

RAINFALL AND TEMPERATURES—VARIOUS CITIES.

Place.	Height above M.S.L.	Annual Rainfall.				Temperature.						
		Average.	Highest.	Lowest.	(a) Mean Summer.		(b) Mean Winter.		Highest on Record.	Lowest on Record.	Average Hottest Month.	Average Coldest Month.
					Fahr.	Fahr.	Fahr.	Fahr.				
Amsterdam (Gardens)	3	31.26	38.39	20.24	61.3	37.4	93.2	3.2	64.0	37.0		
Auckland	160	44.85	74.15	26.32	65.8	52.3	85.0	35.0	66.6	51.6		
Athens	351	15.48	33.33	4.56	79.2	49.1	109.4	19.6	81.0	47.4		
Bergen	116	73.43	107.32	54.33	56.1	34.7	86.0	7.3	57.4	34.2		
Berlin (Central)	161	22.72	30.04	14.25	64.8	33.0	98.6	-13.4	66.0	31.8		
Berne	1,877	36.30	58.23	24.69	62.2	30.1	91.4	-3.6	64.4	28.0		
Bombay	32	70.54	114.89	33.42	82.7	74.7	100.2	53.2	84.3	73.9		
Breslau	410	22.60	32.51	15.91	64.2	30.9	99.9	-25.6	64.2	30.9		
Brussels	328	28.35	41.18	17.73	62.6	36.0	95.4	-4.4	63.7	34.5		
Budapest	425	24.96	37.05	16.81	69.3	32.2	101.7	-10.1	71.2	30.2		
Buenos Aires	82	38.78	79.72	20.04	72.7	50.9	104.0	23.3	73.8	50.0		
Calcutta	21	61.82	98.48	38.43	85.6	68.0	111.3	44.2	86.0	66.4		
Capetown	40	25.50	36.72	17.71	68.1	54.7	102.0	34.0	68.8	53.9		
Caracas	3,420	30.03	47.36	23.70	68.3	65.3	87.8	48.2	69.2	63.7		
Chicago	823	33.28	45.86	24.52	70.0	26.1	103.0	-23.0	72.4	23.7		
Christchurch	22	25.21	35.30	13.54	60.8	43.5	95.7	21.3	61.6	42.7		
Christiania (Oslo)	82	25.39	36.18	16.24	61.0	25.5	95.0	-13.4	63.1	24.4		
Colombo	24	88.53	123.96	53.56	81.6	78.7	97.2	61.6	82.0	78.6		
Constantinople	245	28.75	42.74	14.78	74.0	43.5	103.6	13.0	75.7	42.0		
Copenhagen	43	22.80	32.52	14.02	60.9	32.7	91.4	-13.0	62.6	31.8		
Dresden	115	24.22	34.42	11.73	64.6	33.2	93.4	-15.3	66.0	31.6		
Dublin (City)	54	27.66	35.56	16.60	59.1	42.8	87.0	13.0	60.4	42.5		
Dunedin	300	36.92	54.51	21.86	57.3	43.5	94.0	23.0	58.0	42.5		
Durban	260	40.79	71.27	27.24	75.6	64.4	110.6	41.1	76.7	63.8		
Edinburgh (Leith)	441	25.21	32.05	16.44	55.9	39.0	90.0	6.0	57.3	38.7		
Geneva	1,332	32.13	47.60	18.73	64.0	33.4	100.0	-13.5	65.8	31.8		
Genoa	157	51.29	108.22	28.21	73.8	46.8	94.5	16.7	75.4	45.5		
Glasgow	139	38.49	56.18	29.05	57.0	39.5	84.9	6.6	58.3	39.3		
Greenwich	149	23.50	35.54	16.38	61.7	40.4	100.0	4.0	63.3	40.1		
Hong Kong	109	85.61	119.72	45.84	81.5	60.5	97.0	32.0	82.0	58.8		
Johannesburg	5,750	31.63	50.00	21.66	65.4	54.4	93.6	20.8	68.2	48.0		
Lepzig	394	24.69	31.37	17.10	63.9	31.6	96.4	-16.6	64.8	30.0		
Leipzig	16	21.30	29.52	13.75	61.1	17.4	89.6	-30.3	63.7	15.2		
Lisbon	313	26.97	52.82	16.34	70.0	52.9	102.9	29.3	71.1	51.8		
London (Kew)	18	23.80	38.18	12.16	60.8	39.9	94.0	9.0	63.2	39.1		
Madras	22	49.85	78.92	21.74	89.0	76.8	113.0	57.5	89.9	76.1		
Madrid	2,149	16.23	27.48	9.13	73.0	41.2	107.1	10.5	75.7	39.7		
Marseilles	246	22.10	43.04	11.11	70.4	45.5	101.5	6.3	72.0	44.3		
Moscow	526	18.94	29.07	12.07	63.4	14.7	95.0	-41.4	66.1	11.9		
Naples	489	34.00	56.58	21.75	73.6	48.0	99.1	23.9	75.4	46.8		
New York	314	44.63	58.68	33.17	71.4	31.8	102.0	-13.0	73.5	30.2		
Ottawa	236	33.51	51.25	25.63	66.6	14.0	98.0	-33.0	69.1	11.8		
Paris (Parc-St. Maur)	174	22.68	29.80	10.94	63.5	37.9	101.1	-19.5	64.8	36.7		
Pekin	123	22.66	36.00	18.00	77.9	26.8	100.2	2.7	79.3	23.7		
Quebec	296	41.25	53.79	32.12	63.4	12.6	97.0	-34.0	65.6	9.8		
Rome	166	32.57	57.89	12.72	74.3	46.0	103.0	21.4	76.1	44.6		
San Francisco	155	22.27	38.82	9.00	58.8	50.5	101.0	29.0	59.3	49.5		
Shanghai	21	45.00	62.52	27.92	78.0	41.1	102.9	10.2	80.4	37.8		
Singapore	8	91.99	158.68	32.71	81.2	78.6	94.2	63.4	81.5	78.3		
Stockholm	146	21.60	28.47	11.77	62.2	26.4	91.8	-22.0	59.7	27.3		
Tokio	65	61.45	86.37	45.72	74.8	39.2	91.0	29.7	77.7	37.5		
Trieste	85	42.94	63.14	26.57	73.9	41.3	99.5	-14.0	76.3	39.9		
Vienna	664	25.51	35.55	16.54	65.3	31.3	97.2	-14.4	66.7	29.5		
Vladivostok (Mt.)	420	29.23	38.48	21.17	65.5	9.7	92.3	-22.2	60.4	3.6		
Washington	112	43.50	61.33	30.85	74.7	34.5	106.3	-15.0	76.8	32.9		
Wellington	10	39.86	67.68	27.83	61.9	48.7	88.0	-28.6	62.6	48.0		
Zürich	1,542	45.15	78.27	29.02	63.3	31.3	94.1	-0.8	65.1	29.5		

AUSTRALIAN CAPITAL.

Canberra	1,920	23.15	35.89	16.31	(a) 67.8	(b) 43.9	104.2	14.0	68.7	42.7
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STATE CAPITALS.

Perth	197	34.73	49.22	20.21	(a) 73.2	(b) 56.1	112.2	34.2	74.1	55.3
Adelaide	140	21.15	30.87	11.39	72.9	53.1	116.3	32.0	73.9	51.9
Brisbane	137	44.90	88.26	16.17	76.7	59.8	108.9	36.1	77.2	58.6
Sydney	138	47.06	82.76	23.01	71.0	54.3	108.5	35.7	71.6	52.9
Melbourne	115	25.55	38.04	15.61	66.6	50.0	114.1	27.0	67.6	48.8
Hobart	177	24.05	43.39	13.43	61.4	47.0	105.2	27.0	62.3	45.9

(a) Mean of the three hottest months.

(b) Mean of the three coldest months.

18. Climatological Tables.—The means, averages, extremes, totals, etc., for a number of climatological elements have been determined from long series of observations at the Australian capitals up to and including the year 1938. These are given in the following tables:—

CLIMATOLOGICAL DATA—CANBERRA, AUSTRALIAN CAPITAL TERRITORY.

LAT. 35° 20' S., LONG. 149° 15' E. HEIGHT ABOVE M.S.L. 1,920 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. M. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.					Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of yrs. over which observations extend.	21	10	10	10	22	8	17	11	20	13
January	29.831	358 23/33	0.10	4,293	E	W	7.29	4	4.1	9
February	29.900	366 24/33	0.08	3,431	E	W	5.61	5	4.3	8
March	30.001	351 22/31	0.06	3,293	E	E	4.44	4	4.3	8
April	30.056	326 29/29	0.06	3,186	SE	W	2.71	2	4.1	7
May	30.139	302 3/30	0.03	2,570	N	N	1.72	1	4.5	8
June	30.118	386 2/30	0.05	3,051	E	N & W	1.03	1	4.7	6
July	30.113	562 7/31	0.05	2,934	N	W	1.16	0	4.6	7
August	30.078	377 25/36	0.07	3,527	N	N	1.67	2	4.5	7
September	30.035	418 28/34	0.09	3,890	E	N	2.75	2	4.0	9
October	29.950	293 19/36	0.08	3,767	E	NW & N	4.05	2	4.4	8
November	29.904	402 14/30	0.08	3,795	E	W	5.52	4	4.3	8
December	29.840	386 11/38	0.09	4,183	E	W	6.70	7	4.6	6
Year { Totals	—	—	—	—	—	—	44.65	34	—	91
Year { Averages	29.997	—	0.07	3,493	E	W	—	—	4.4	—
Year { Extremes	—	562 7/31	—	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends.	22	22	22	22	22	22	(a)	20	15
January	82.1	55.2	68.7	104.2 28/32	38.2 8/38	66.0	—	33.2 17/33	243.6
February	81.7	55.0	68.4	102.6 16/19	33.0 21/33	69.6	—	26.8 21/33	203.7
March	76.2	51.0	63.6	99.2 6/38	31.0 24/35	68.2	—	25.5 24/17	221.3
April	67.0	43.8	55.4	91.0 6/38	26.5 29/17	64.5	—	17.5 29/17	196.4
May	59.5	37.2	48.4	74.7 9/19	19.0 30/24	55.7	—	12.0 28/20	156.9
June	53.2	34.2	43.7	66.2 5/17	17.8 20/35	48.4	—	9.9 20/35	127.7
July	52.1	33.3	42.7	65.0 8/19	14.0 19/24	51.0	—	10.0 (e)	146.7
August	55.6	34.8	45.2	73.0 (b)	18.0 3/19	55.0	—	11.8 5/19	174.4
September	61.4	38.2	49.7	83.2 27/19	24.7 26/36	58.5	—	17.0 26/36	209.2
October	68.1	43.0	55.6	93.8 31/19	27.0 2/18	66.8	—	22.0 (d)	231.4
November	74.9	48.3	61.6	97.7 29/36	28.1 24/15	69.6	—	20.4 11/36	231.8
December	79.6	53.2	66.4	103.4 27/38	32.0 3/24	71.4	—	31.0 (e)	238.1
Year { Averages	67.6	43.9	55.8	—	—	—	—	—	(f) 2381.2
Year { Extremes	—	—	—	104.2 28/1/32	14.0 19/7/24	90.2	—	9.9 20/6/35	—

(a) Not available. (b) 28/1923 and 23/1924. (c) 19/1924 and 24/1935. (d) 1 and 3/1923. (e) 1/1923, 3/1924 and 15 and 16/1931. (f) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).		Rel. Hum. (%).					Rainfall (inches).			Dew. Mean No. of Days Dew.
	Mean 9 a.m.	Mean 3 p.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.		
										20	
No. of yrs. over which observation extends.	20	20	20	20	24	24	24	24	24	6	
January	0.380	56	69	39	1.88	6	5.18 1919	0.07 1919	2.92 6/27	4	
February	0.404	62	75	47	1.72	6	4.07 1936	0.00 1933	2.75 23/16	6	
March	0.379	68	79	56	2.13	6	5.81 1914	0.21 1924	1.86 7/20	11	
April	0.307	75	86	63	1.59	7	3.63 1935	0.20 1925	1.94 8/21	9	
May	0.244	81	92	67	1.88	7	13.37 1925	0.06 1934	6.84 27/25	9	
June	0.214	85	93	73	2.07	9	5.86 1931	0.44 1935	3.95 22/25	7	
July	0.204	85	92	74	1.85	10	4.15 1933	0.25 1913	2.40 13/33	5	
August	0.220	81	87	67	2.12	10	3.78 1934	0.01 1914	1.90 18/25	4	
September	0.250	72	81	55	1.68	8	5.26 1915	0.36 1928	2.18 20/15	6	
October	0.290	63	73	48	2.24	9	7.50 1934	0.62 1936	2.74 25/34	7	
November	0.332	58	78	37	1.89	8	6.95 1924	0.09 1918	2.38 5/23	6	
December	0.370	57	70	42	2.10	8	4.49 1919	0.11 1925	2.10 28/29	4	
Year { Totals	—	—	—	—	23.15	94	—	—	—	7.8	
Year { Averages	0.288	70	—	—	—	—	—	—	—	—	
Year { Extremes	—	—	93	37	—	—	13.37 5/1925	0.00 2/1933	6.84 27/5/25	—	

CLIMATOLOGICAL DATA—PERTH, WESTERN AUSTRALIA.

LAT. 31° 57' S., LONG. 115° 50' E. HEIGHT ABOVE M.S.L. 197 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 34° F. in Sea level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.						Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds 9 a.m. 3 p.m. and 9 p.m.		No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.		Mean Amount of Evaporation (inches).			No. of Days Lightning.	No. of Clear Days.	
					9 a.m.	3 p.m.						
No. of yrs. over which observations extend.	54	41	41	41	40	40	40	41	31	42		
January ..	29.903	797 27/98	0.64	10,933	ESE	SSW	10.43	1.9	2.9	14.5		
February ..	29.923	650 6/08	0.60	9,499	ESE	SSW	8.66	1.4	3.1	11.9		
March ..	29.983	651 6/13	0.51	9,739	E	SSW	7.58	1.6	3.6	12.1		
April ..	30.071	955 25/00	0.37	8,043	E	SSW	4.73	1.5	4.2	8.4		
May ..	30.069	825 24/32	0.34	7,985	NE	SW	2.74	2.3	5.5	5.4		
June ..	30.063	914 17/27	0.35	7,865	NNE	WNW	1.77	2.3	5.9	4.0		
July ..	30.091	1,015 20/26	0.38	8,478	NNE	W	1.74	2.1	5.6	5.1		
August ..	30.085	966 15/03	0.42	8,821	NNE	WSW	2.36	1.6	5.6	5.5		
September ..	30.063	864 11/05	0.44	8,798	NE	WSW	3.39	1.2	4.9	6.3		
October ..	30.032	809 6/16	0.50	9,645	SE	SW	5.36	1.0	4.7	6.7		
November ..	29.991	777 18/97	0.53	9,658	SE	SW	7.69	1.4	3.9	8.4		
December ..	29.925	776 6/22	0.62	10,707	SE	SSW	9.82	1.9	3.2	12.6		
Year { Totals ..	—	—	—	—	—	—	66.27	20.2	—	100.9		
Year { Averages ..	30.017	—	0.47	9,181	E	SW	—	—	—	—		
Year { Extremes ..	—	1,015 20/7/26	—	—	—	—	—	—	4.4	—		

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observations extend.	42	42	42	42	42	42	40	40	41
January ..	84.5	63.3	73.9	110.2 21/34	48.6 20/25	61.6	177.3 22/14	40.4 1/21	324.4
February ..	84.9	63.4	74.1	112.2 8/33	47.7 1/02	64.5	173.7 4/34	39.8 1/13	273.5
March ..	81.4	61.5	71.5	106.4 14/22	45.8 8/03	60.6	167.0 19/18	36.7 8/03	269.0
April ..	76.2	57.3	66.7	99.7 9/10	39.3 20/14	60.4	157.0 8/16	31.0 20/14	219.0
May ..	68.9	52.8	60.9	90.4 2/07	34.3 11/14	56.1	146.0 4/25	25.3 11/14	175.8
June ..	64.1	49.5	56.8	81.7 2/14	35.0 30/20	46.7	135.5 9/14	26.3 11/37	145.1
July ..	62.8	47.8	55.3	76.4 21/21	34.2 7/16	42.2	132.9 25/13	25.1 30/20	164.2
August ..	63.8	48.3	56.1	81.0 12/14	35.4 31/08	45.6	145.1 29/21	26.7 24/35	186.0
September ..	66.4	50.3	58.3	90.9 30/18	38.8 18/00	52.1	153.6 29/16	29.2 21/16	209.0
October ..	68.9	52.5	60.7	95.3 30/22	40.0 16/31	55.3	157.5 31/36	29.8 16/31	244.4
November ..	75.7	56.9	66.3	104.6 24/13	42.0 1/04	62.6	167.0 30/15	35.4 6/10	289.1
December ..	81.1	60.9	71.1	107.9 20/04	48.0 2/10	59.9	168.8 11/27	39.0 (a)	325.2
Year { Averages ..	73.3	55.4	64.3	—	—	—	—	—	—
Year { Extremes ..	—	—	—	112.2 8/2/33	34.2 7/7/16	78.0	177.3 22/1/14	25.1 30/7/20	2824.7b

(a) 2/1910 and 12/1920. (b) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%.)					Rainfall (inches).				Dew. Mean No. of Days Dew.
		Mean 9 a.m.	Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
No. of yrs. over which observations extend.	42	42	42	42	63	63	63	63	63	42	
January ..	0.437	51	61	41	0.33	3	2.17 1879	0.00 (a)	1.74 27/79	2.8	
February ..	0.439	53	65	46	0.40	3	2.98 1915	0.00 (a)	1.63 26/15	4.2	
March ..	0.426	57	66	46	0.84	5	5.71 1934	0.00 (a)	3.03 9/34	6.8	
April ..	0.394	62	73	51	1.71	7	5.85 1926	0.00 1920	2.62 30/04	10.6	
May ..	0.372	73	81	61	5.09	14	12.13 1879	0.98 1903	2.80 20/79	13.1	
June ..	0.338	77	83	68	7.05	17	12.80 1923	2.16 1877	3.90 6/20	13.0	
July ..	0.324	78	84	69	6.67	17	12.28 1926	2.42 1876	3.00 4/91	13.4	
August ..	0.323	73	79	62	5.74	18	12.21 1928	0.46 1902	2.79 7/03	11.9	
September ..	0.343	67	75	58	3.40	15	7.84 1923	0.34 1916	1.82 4/31	10.7	
October ..	0.344	61	75	54	2.18	12	7.87 1890	0.49 1892	1.73 3/33	6.4	
November ..	0.376	54	63	46	0.77	6	2.78 1916	0.00 1891	1.11 30/03	3.8	
December ..	0.412	51	63	44	0.55	4	3.05 1888	0.00 } 1886 1924	1.72 1/88	2.8	
Year { Totals ..	—	—	—	—	34.73	121	—	—	—	—	
Year { Averages ..	0.371	61	—	—	—	—	—	—	—	99.5	
Year { Extremes ..	—	84	41	—	—	—	12.80 6/1923	Nil (b)	3.90 6/6/20	—	

(a) Various years. (b) Various months in various years.

CLIMATOLOGICAL DATA—ADELAIDE, SOUTH AUSTRALIA.

LAT. 34° 56' S., LONG. 138° 35' E. HEIGHT ABOVE M.S.L. 140 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.						Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.						
					9 a.m.	3 p.m.					
No. of yrs. over which observations extend.	82	61	61	61	61	61	69	67	71	57	
January ..	29.916	758 19/99	0.33	7,823	SW	SW	9.06	2.3	3.6	8.6	
February ..	29.952	691 22/96	0.28	6,583	NE	SW	7.40	2.0	3.5	7.6	
March ..	30.038	628 9/12	0.23	6,564	S	SW	6.00	2.1	4.0	7.3	
April ..	30.118	773 10/96	0.21	6,081	NE	SW	3.54	1.6	5.0	4.6	
May ..	30.124	760 9/80	0.20	6,198	NE	NW	2.09	1.6	5.8	2.4	
June ..	30.104	750 12/78	0.23	6,403	NE	N	1.28	1.9	6.2	1.8	
July ..	30.124	674 25/82	0.23	6,632	NE	NW	1.30	1.6	5.9	1.9	
August ..	30.096	773 31/97	0.27	7,106	NE	SW	1.89	2.1	5.6	2.7	
September ..	30.042	720 2/87	0.29	7,184	NNE	SW	2.90	2.2	5.2	3.4	
October ..	29.998	768 28/98	0.32	7,756	NNE	SW	4.82	3.2	5.1	3.9	
November ..	29.979	677 2/94	0.32	7,454	SW	SW	6.69	3.2	4.6	5.5	
December ..	29.920	675 12/91	0.32	7,795	SW	SW	8.53	2.6	3.9	7.1	
Year { Totals ..	—	—	—	—	—	—	55.50	26.4	—	56.8	
{ Averages ..	30.034	—	0.27	6,965	NE	SW	—	—	4.9	—	
{ Extremes ..	—	773 (a)	—	—	—	—	—	—	—	—	

(a) 10/4/96 and 31/8/97.

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observations extend.	82	82	82	82	82	82	55	78	57
January ..	85.9	61.5	73.7	116.3 26/58	45.1 21/84	71.2	180.0 18/82	36.5 14/79	306.8
February ..	86.0	61.9	73.9	113.6 12/99	45.5 23/18	68.1	170.5 10/00	35.8 23/26	262.3
March ..	80.9	59.0	69.9	110.5 9/34	43.9 21/33	66.6	174.0 17/83	32.1 21/33	239.7
April ..	73.2	54.5	63.9	98.6 5/38	39.6 15/59	59.0	155.0 1/83	30.2 16/17	180.0
May ..	65.9	50.3	58.1	89.5 4/21	36.9 (a)	52.6	148.2 12/79	25.6 19/28	149.8
June ..	60.4	46.7	53.5	76.0 23/65	32.5 27/76	43.5	138.8 18/79	22.9 12/13	123.1
July ..	59.0	44.7	51.9	74.0 11/06	32.0 24/08	42.0	134.5 26/90	22.1 30/29	136.5
August ..	62.0	45.9	54.0	85.0 31/11	32.3 17/59	52.7	140.0 31/92	22.8 11/29	163.3
September ..	66.4	48.0	57.2	90.7 23/82	32.7 4/58	58.0	160.5 23/82	25.0 25/27	185.3
October ..	72.4	51.5	61.9	102.9 21/22	36.0 —/57	66.9	162.0 30/21	27.8 (c)	225.6
November ..	78.7	55.4	67.0	113.5 21/65	40.8 2/09	72.7	166.9 20/78	31.5 2/09	263.5
December ..	83.2	58.9	71.1	114.6 29/31	43.0 (b)	71.6	175.7 7/99	32.5 4/84	299.1
Year { Averages ..	72.8	53.2	63.0	—	—	—	—	—	2535.0
{ Extremes ..	—	—	—	116.3 26/1/58	32.0 24/7/08	84.3	180.0 18/1/82	22.1 30/7/29	(d)

(a) 26/1895 and 24/1904.

(b) 16/1861 and 4/1906.

(c) 2/1918 and 4/1931.

(d) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%)				Rainfall (inches).					Dew. Mean No. of Days Dew.
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.		
										No. of yrs. over which observations extend.	
No. of yrs. over which observations extend.	71	71	71	71	100	100	100	100	100	67	
January ..	0.339	38	59	29	0.74	4	4.00	1850	Nil (a)	2.30 2/89	3.6
February ..	0.355	41	56	30	0.74	4	6.09	1925	Nil (u)	5.57 7/25	5.5
March ..	0.345	46	58	36	1.01	6	4.60	1878	Nil (a)	3.50 5/78	10.3
April ..	0.354	55	72	37	1.75	10	6.78	1853	0.03 19/23	3.15 5/60	13.9
May ..	0.317	67	76	49	2.72	13	7.75	1875	0.10 19/34	2.75 1/53	16.2
June ..	0.298	76	84	67	3.05	16	8.58	1916	0.42 18/86	2.11 1/20	16.2
July ..	0.277	76	87	66	2.62	16	5.38	1865	0.37 18/99	1.75 10/65	17.5
August ..	0.286	69	77	54	2.55	16	6.24	1852	0.35 19/14	2.23 19/51	16.9
September ..	0.296	60	72	44	2.07	14	5.83	1923	0.45 18/96	1.59 20/23	15.8
October ..	0.298	51	67	29	1.72	11	3.83	1870	0.17 19/14	2.24 16/08	12.8
November ..	0.306	42	57	31	1.14	8	4.10	1934	0.04 18/85	2.08 7/34	6.6
December ..	0.321	39	50	31	1.04	6	3.98	1861	Nil 19/04	2.42 23/13	4.4
Year { Totals ..	—	—	—	—	21.15	124	—	—	—	—	139.7
{ Averages ..	0.309	53	—	—	—	—	—	—	—	—	—
{ Extremes ..	—	—	87	29	—	—	8.58	6/16	Nil (b)	5.57 7/2/25	—

(a) Various years.

(b) Various months in various years.

CLIMATOLOGICAL DATA—BRISBANE, QUEENSLAND.
 LAT. 27° 28' S., LONG. 153° 2' E. HEIGHT ABOVE M.S.L. 137 FT.
 BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.						Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. to 3 p.m. and 9 p.m. to 3 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.		Mean Amount of Evaporation (inches).				
					9 a.m.	3 p.m.					
No. of yrs. over which observations extend.	52	28	28	28	52	52	30	52	47	30	
January ..	29.867	361 1/22	0.12	4,840	SE	E & NE	6.684	7.3	5.7	3.5	
February ..	29.901	503 5/31	0.12	4,435	S & SE	NE & E	5.450	5.8	5.7	2.5	
March ..	29.965	488 1/29	0.10	4,466	S	SE & E	5.059	4.6	5.3	5.1	
April ..	30.038	400 3/25	0.09	4,034	S	SE & E	4.023	4.0	4.5	7.8	
May ..	30.086	363 7/16	0.08	3,927	S	SE	3.056	3.2	4.3	8.4	
June ..	30.073	455 14/28	0.08	3,933	SW & S	S & W	2.399	2.4	4.2	9.1	
July ..	30.076	359 2/23	0.08	3,861	S & SW	SW	2.654	2.5	3.8	12.2	
August ..	30.100	355 4/35	0.08	3,978	S & SW	SW & NE	3.412	3.7	3.4	12.7	
September ..	30.047	329 4/31	0.08	3,921	S & SW	NE & E	4.348	5.7	3.5	12.4	
October ..	30.004	355 14/36	0.10	4,406	S	NE	5.769	6.8	4.1	8.4	
November ..	29.961	371 10/28	0.12	4,597	SE & NE	NE	6.253	8.6	4.9	5.8	
December ..	29.887	467 15/26	0.12	4,856	SE	NE	7.005	9.5	5.3	3.8	
Year { Totals ..	—	—	—	—	—	—	56.112	64.1	—	91.7	
Year { Averages ..	30.000	—	0.10	4,271	S	NE	—	—	4.6	—	
Year { Extremes ..	—	503 5/2/31	—	—	—	—	—	—	—	—	

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).			Extreme Temperature (Fahr.).			Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.	Extreme Range.	Highest in Sun.	Lowest on Grass.		
									52	
No. of yrs. over which observations extend.	52	52	52	52	52	52	44	52	30	
January ..	85.4	69.0	77.2	108.9 14/02	58.8 4/93	50.1	169.0 2/37	49.9 4/93	234.2	
February ..	84.5	68.6	76.6	105.7 21/25	58.5 23/31	47.2	165.2 6/10	49.1 22/31	210.3	
March ..	82.3	66.3	74.3	99.4 5/19	52.4 29/13	47.0	161.7 4/25	45.4 29/13	215.9	
April ..	79.0	61.5	70.2	95.2 (a)	44.4 25/25	50.8	153.8 11/16	36.7 24/25	213.3	
May ..	73.6	55.5	64.5	90.3 21/23	41.3 24/99	49.0	147.0 1/10	29.8 8/97	203.8	
June ..	69.3	51.0	60.2	88.9 19/18	36.3 29/08	52.6	136.0 3/18	25.4 23/88	184.6	
July ..	68.4	48.8	58.6	83.4 28/98	36.1 (b)	47.3	146.1 20/15	23.9 11/90	209.8	
August ..	71.2	49.9	60.5	88.5 25/28	37.4 6/87	51.1	141.9 20/17	27.1 9/99	237.8	
September ..	75.6	54.8	65.2	95.2 16/12	40.7 1/96	54.5	155.5 26/03	30.4 1/89	241.9	
October ..	79.6	60.1	69.9	101.4 18/93	43.3 3/99	58.1	157.4 31/18	34.9 8/89	257.5	
November ..	82.4	64.2	73.3	106.1 18/13	48.5 2/05	57.6	162.3 7/89	38.8 1/05	242.9	
December ..	84.9	67.4	76.2	105.9 26/93	56.4 13/12	49.5	162.1 26/37	49.1 3/94	253.3	
Year { Averages ..	78.0	59.8	68.9	—	—	—	—	—	2705.3	
Year { Extremes ..	—	—	—	108.9 14/1/02	36.1 (c)	72.8	169.0 2/1/37	23.9 11/7/90	(d)	

(a) 9/96 and 5/03. (b) 12/94 and 2/96. (c) 12/7/94 and 2/7/96. (d) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%).					Rainfall (inches).				Dew Mean No. of Days Dew.
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.		
										52	
No. of yrs. over which observations extend.	52	52	52	52	87	78	87	87	69	52	
January ..	0.638	66	79	53	6.39	13	27.72 1895	0.32 1919	18.31 21/87	9.2	
February ..	0.645	69	82	55	6.32	13	40.39 1893	0.58 1849	10.61 6/31	9.4	
March ..	0.613	72	85	56	5.60	15	34.04 1870	Nil 1849	11.18 14/08	12.6	
April ..	0.519	71	80	60	3.75	11	15.28 1867	0.05 1897	5.46 5/33	15.2	
May ..	0.425	73	85	61	2.82	10	13.85 1876	Nil 1846	5.62 9/79	16.1	
June ..	0.350	73	84	63	2.66	8	14.03 1873	Nil 1847	6.01 9/93	14.4	
July ..	0.328	72	81	61	2.21	8	8.46 1889	Nil 1841	3.54 (c)	15.6	
August ..	0.348	69	80	56	1.95	7	14.67 1879	Nil (a)	4.89 12/87	14.8	
September ..	0.408	64	76	47	1.99	8	5.43 1886	0.10 1907	2.46 2/94	14.0	
October ..	0.474	60	72	48	2.56	9	9.99 1882	0.14 1900	3.75 3/27	12.7	
November ..	0.535	60	72	45	3.81	11	12.41 1917	Nil 1842	4.46 16/86	8.8	
December ..	0.597	61	69	51	4.84	12	13.99 1910	0.35 1865	6.60 28/71	8.6	
Year { Totals ..	—	—	—	—	44.90	125	—	—	—	151.4	
Year { Averages ..	0.491	67	—	—	—	—	—	—	—	—	
Year { Extremes ..	—	—	85	45	—	—	40.39 2/93	Nil (b)	18.31 21/1/87	—	

(a) 1862, 1869, 1880. (b) Various months in various years. (c) 15/76 and 16/89.

CLIMATOLOGICAL DATA—SYDNEY, NEW SOUTH WALES.
 LAT. 33° 52' S., LONG. 151° 12' E. HEIGHT ABOVE M.S.L. 138 FT.
 BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mean 1921 and nearest dead Gage from hourly readings.	Wind.*				Prevailing Direction.		Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. 3 p.m. and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.							
No. of yrs. over which observations extend.	80	72	72	72	72	72	59	79	77	28	
January ..	29.893	627 3/33	0.27	6,967	NE	NE	5.477	5.1	5.8	4.8	
February ..	29.941	697 12/59	0.24	5,684	WNW	ENE	4.374	4.4	6.0	5.5	
March ..	30.013	734 20/70	0.18	3,806	WSW	NE	2.677	3.7	9.1	7.3	
April ..	30.067	642 6/82	0.16	3,324	W	SSE	1.853	2.9	4.9	5.5	
May ..	30.083	682 6/98	0.17	3,411	W	ENE	1.437	3.7	4.9	7.3	
June ..	30.065	642 13/68	0.21	3,836	W	WSW	1.938	2.9	4.9	8.8	
July ..	30.071	744 17/79	0.20	5,991	W	WSW	1.437	3.2	4.9	10.2	
August ..	30.069	649 22/72	0.19	3,861	NW	ESE	1.938	3.2	4.9	10.9	
September ..	30.011	771 6/74	0.22	6,104	NW	ESE	2.753	3.9	4.9	10.0	
October ..	29.968	741 4/72	0.25	6,635	NE	NE	3.911	5.0	5.6	7.9	
November ..	29.941	583 12/87	0.25	6,324	SE	NE	4.659	3.4	5.6	5.7	
December ..	29.881	750 3/84	0.26	6,933	E	E	5.447	5.9	5.7	4.7	
Totals	—	—	—	—	—	—	39.608	47.9	—	87.7	
Year Averages	30.000	—	0.22	6,115	W	NE	—	—	5.0	—	
Extremes	—	771 6/9/74	—	—	—	—	—	—	—	—	

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observations extend.	80	80	80	80	80	80	76	80	187
January ..	78.4	64.9	71.6	108.5 13/96	51.2 14/65	57.3	164.3 26/15	45.7 6/25	229.1
February ..	77.7	65.0	71.3	107.8 8/26	49.3 28/63	58.5	161.2 8/26	42.8 22/33	203.3
March ..	75.8	62.9	69.4	102.6 3/69	48.8 14/86	53.8	158.3 10/26	39.9 17/13	202.5
April ..	71.4	58.6	64.7	91.4 1/36	44.6 27/64	46.8	144.1 10/77	33.3 24/09	185.7
May ..	65.7	52.2	59.0	86.0 1/19	40.2 22/59	45.8	129.7 1/96	29.3 25/17	175.1
June ..	61.2	48.2	54.7	80.4 11/31	35.7 22/32	44.7	125.5 2/23	28.0 22/32	158.9
July ..	59.9	45.9	52.9	78.3 22/26	35.9 12/90	42.4	124.7 29/77	24.0 4/93	186.4
August ..	62.9	47.5	55.2	82.0 31/84	36.8 3/72	45.2	149.0 30/78	26.1 4/09	218.1
September ..	67.1	51.4	59.2	93.3 27/19	40.8 18/64	51.5	142.2 12/78	30.1 17/05	221.9
October ..	71.3	55.8	63.7	98.9 19/98	42.2 6/27	56.7	152.2 30/33	32.7 9/05	233.2
November ..	74.3	59.6	67.0	102.7 21/78	45.8 1/05	56.9	158.5 28/99	36.0 6/06	230.7
December ..	77.0	62.9	70.0	107.5 31/04	48.4 3/24	59.1	164.5 27/89	41.4 3/24	227.0
Year Averages	70.2	56.3	63.2	108.5	35.7	72.8	164.5	24.0	247.9
Extremes	—	—	—	131/96	22/6/32	—	27/12/89	4/7/93	(a)

(a) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%).				Rainfall (inches).				Dew Mean No. of Days Dew.			
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.				
No. of yrs. over which observation extends.	80	80	80	80	80	80	80	80	79				
January ..	0.544	67	78	58	3.64	14	15.26	1911	0.25	1932	7.08	13/11	1.6
February ..	0.558	70	81	59	4.22	13	18.56	1873	0.23	1933	8.90	25/73	2.8
March ..	0.515	73	85	62	4.86	14	18.70	1870	0.42	1876	6.52	9/13	4.9
April ..	0.446	76	87	63	5.42	14	24.49	1861	0.60	1863	7.52	29/60	7.0
May ..	0.349	78	90	66	5.01	14	23.03	1919	0.78	1860	8.36	28/89	8.0
June ..	0.307	78	89	68	4.78	13	16.30	1835	0.19	1904	5.17	16/84	6.8
July ..	0.282	76	88	66	4.76	12	13.21	1900	0.12	1862	7.80	7/31	7.5
August ..	0.294	71	84	64	2.93	11	14.89	1899	0.04	1885	5.33	2/60	6.9
September ..	0.322	66	79	49	2.85	12	14.05	1879	0.08	1882	6.69	10/79	4.9
October ..	0.388	62	77	55	2.85	12	11.14	1916	0.21	1867	6.37	13/02	3.4
November ..	0.429	63	79	42	2.80	12	9.88	1865	0.07	1915	4.23	19/00	3.4
December ..	0.488	64	77	52	2.94	13	15.82	1920	0.23	1913	4.75	13/10	1.8
Totals	—	—	—	—	47.06	154	—	—	—	—	—	—	—
Year Averages	0.410	70	—	—	—	—	—	—	—	—	—	—	—
Extremes	—	—	90	42	—	—	24.49	4/1861	0.04	8/1885	8.90	25/2/73	—

* Early records revised during 1929. Values for period 1867—September 1885, reduced 20 per cent.; for period September 1885 to March 1913, reduced 10 per cent. † From 1921 only; previous records discarded owing to faulty exposure of instruments.

CLIMATOLOGICAL DATA—HOBART, TASMANIA.

LAT. 42° 53' S. LONG. 147° 20' E. HEIGHT ABOVE M.S.L. 177 FT.
 BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mm. Sea level and Station Gravity from 9 a.m. and 3 p.m. readings.	Wind.					Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. 3 p.m. and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of yrs. over which observations extend.	54	28	28	28	33	33	28	31	76	32
January ..	29.824	500 30/16	0.19	5,951	N to NW	SE	4.795	0.9	6.0	2.3
February ..	29.917	605 4/27	0.15	4,743	N to NW	SE	3.652	1.1	6.0	2.4
March ..	29.949	513 13/38	0.13	5,000	N & NNW	SE	3.108	1.2	5.9	2.4
April ..	29.969	533 27/26	0.13	4,845	N to NW	NW & SE	1.942	0.7	6.2	1.7
May ..	29.995	484 20/36	0.12	4,737	N to NW	N to NW	1.367	0.4	6.0	2.4
June ..	29.971	569 27/20	0.12	4,462	NNW & NW	N to NW	0.902	0.4	6.1	2.4
July ..	29.937	499 19/35	0.13	4,796	NNW & NW	N & NNW	0.903	0.4	5.9	2.2
August ..	29.921	612 19/26	0.14	5,068	N to NW	N & NW	1.273	0.4	5.9	2.2
September ..	29.853	516 26/15	0.18	5,610	N & NNW	NW	1.956	0.6	6.1	1.7
October ..	29.830	461 8/12	0.20	6,107	N	SE & NW	3.046	0.6	6.4	1.1
November ..	29.817	508 18/15	0.19	5,739	N to NW	SE	3.851	0.7	6.4	1.5
December ..	29.815	562 1/34	0.17	5,656	N to NW	SE	4.380	0.7	6.4	1.3
Year { Totals	—	—	—	—	—	—	31.175	8.1	—	23.6
Year { Averages	29.900	—	0.15	5,226	N to NW	SE & NW	—	—	6.1	—
Year { Extremes	—	612 19/8/26	—	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).			Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.	Highest in Sun.		Lowest on Grass.		
No. of yrs. over which observations extend.	68	68	68	92	92	92	49	71	18*	
January ..	71.0	52.8	61.9	105.0 (a)	40.0 3/72	65.0	160.0 (b)	30.6 19/97	233.9	
February ..	71.1	53.4	62.3	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 —/87	194.2	
March ..	67.9	50.9	59.4	99.0 —/61	35.2 31/26	63.8	150.0 3/051	27.5 30/02	198.2	
April ..	62.5	47.7	55.1	90.0 1/56	30.0 25/56	60.0	142.0 18/93	25.0 —/86	142.7	
May ..	57.4	43.9	50.7	77.8 5/21	29.2 20/02	48.6	128.0 (c)	20.0 19/02	142.1	
June ..	52.7	41.0	46.9	75.0 7/74	28.0 22/79	47.0	122.0 12/94	21.0 6/87	118.2	
July ..	52.1	39.6	45.9	72.0 22/77	27.0 18/66	45.0	121.0 12/93	18.7 16/86	128.5	
August ..	55.1	41.1	48.1	77.0 3/76	30.0 10/73	47.0	129.0 —/87	20.1 7/09	159.1	
September ..	58.8	43.3	51.1	81.7 23/26	30.0 12/41	51.7	138.0 23/93	18.3 16/26	173.1	
October ..	62.6	45.6	54.1	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (d)	191.3	
November ..	65.8	48.3	57.1	98.3 26/37	35.2 5/13	63.1	154.0 19/92	26.0 1/08	220.0	
December ..	69.0	51.2	60.1	105.2 30/97	38.0 13/06	67.2	157.0 30/18	27.2 —/86	217.0	
Year { Averages	62.3	46.6	54.4	—	—	—	—	—	2,118.3	
Year { Extremes	—	—	—	105.2 30/12/97	27.0 18/7/66	78.2	165.0 24/2/98	18.3 16/9/26	(e)	

(a) 27/49 and 1/00.

(b) 5/86 and 13/05.

(c) —/89 and —/93.

(d) 1/86 and —/99.

(e) Total for year.

* Early records discarded owing to faulty instrument.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%).				Rainfall (inches).				Dew. Mean No. of Days Dew.
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
No. of yrs. over which observation extends.	52	52	52	52	96	95	96	96	72	29
January ..	0.332	59	72	46	1.85	10	5.91 1893	0.03 1841	2.96 30/16	0.6
February ..	0.355	63	77	52	1.52	9	9.15 1854	0.07 1847	4.50 27/54	1.4
March ..	0.330	67	77	58	1.76	10	7.60 1854	0.02 1843	3.27 11/32	5.1
April ..	0.298	72	84	58	1.97	12	8.50 1935	0.07 1904	5.02 20/09	9.1
May ..	0.265	78	89	65	1.84	13	6.37 1905	0.10 1843	3.22 14/58	13.2
June ..	0.240	80	91	68	2.23	14	8.15 1889	0.22 1852	4.11 13/89	8.7
July ..	0.229	80	94	72	2.15	15	6.02 1922	0.30 1850	2.51 18/22	8.9
August ..	0.239	76	92	64	1.82	14	10.16 1858	0.23 1854	4.35 12/58	8.3
September ..	0.252	67	85	58	2.06	16	7.14 1844	0.39 1847	2.75 18/44	5.3
October ..	0.269	63	73	51	2.33	15	6.67 1906	0.26 1850	2.58 4/06	2.8
November ..	0.296	60	72	52	2.43	14	8.94 1849	0.16 1868	3.97 7/49	1.1
December ..	0.316	58	67	45	2.09	12	9.00 1875	0.11 1842	2.82 21/29	0.8
Year { Totals	—	—	—	—	24.05	154	—	—	—	65.3
Year { Averages	0.285	69	—	—	—	—	10.16 8/1858	0.02 3/1843	5.02 20/4/09	—
Year { Extremes	—	—	94	45	—	—	—	—	—	—

(a) 4.18 on 28/54 also.

§ 3. Standard Times in Australia.

Prior to 1895 the official time adopted in the several colonies was for most purposes the mean solar time of the capital city of each.

In November, 1892, an intercolonial conference of surveyors was held in Melbourne to consider, among other things, the advantages of introducing the system of standard time. In this system it was proposed to make the initial meridian that of Greenwich, and to change local standard time by whole hours according to the longitude east or west of that of Greenwich. Thus for every difference of 15° in longitude a change of one hour would be required. The minutes and seconds would then be identical everywhere.

To give effect to this proposal it was suggested that Australia should be divided into three zones, the standard times for which should be respectively the mean solar times of the meridians of 120° , 135° and 150° E. longitude, thus giving standard times 8, 9 and 10 hours respectively, ahead of Greenwich time. It was proposed that the 120° zone should comprise Western Australia, that the 135° zone should comprise South Australia and the Northern Territory, and that the 150° zone should comprise Queensland, New South Wales, Victoria and Tasmania.

The matter was also considered by several intercolonial postal conferences, and eventually in 1894 and 1895 legislation was enacted by each of the colonies in accord with the recommendations of the surveyors' conference of 1892.

In 1898 the South Australian legislature amended its earlier provision, and adopted the mean solar time of the meridian $142^\circ 30'$ E. longitude as the standard time for that colony, thus reducing the difference between the standard time of Adelaide and that of the capitals of the eastern colonies from an hour to half-an-hour, and forfeiting the great advantage of the system, viz., that the minutes and seconds' should be identical throughout the world.

Particulars concerning these enactments are as follows:—

STANDARD TIMES IN AUSTRALIA.

State.	Date when Act came into Operation.	Meridian Selected.	Time Ahead of Greenwich. Hours.
New South Wales	1st February, 1895	150° E.	10
Victoria	1st February, 1895	150° E.	10
Queensland	1st January, 1895	150° E.	10
South Australia	1st February, 1895	135° E.	9
South Australia	1st May, 1899	$142^\circ 30'$ E.	$9\frac{1}{2}$
Western Australia	1st December, 1895	120° E.	8
Tasmania	1st September, 1895	150° E.	10

The standard time in the Australian Capital Territory is the same as in New South Wales.

Consequent upon the opening of the Trans-Australian Railway an arrangement has been made by which the change of time between South Australia and Western Australia (viz., $1\frac{1}{2}$ hours) is divided into two changes of 45 minutes each. Going east from Kalgoorlie the first change is made at Rawlinna, 235.18 miles out, where the time is put forward by 45 minutes. The second change of the same amount is made at Tarcoola, 794.05 miles out. Thenceforward South Australian standard time is kept. The advantage of standard time has thus been still further sacrificed, as there is not now even a whole half-hour difference; the essential idea of standard zone time has to this extent, therefore, been abandoned. The State Observatories at Sydney, Melbourne, Adelaide and Perth derive time by astronomical observation. By arrangement with the Australian Broadcasting Commission observatory time-signals are broadcast in the several States at intervals during the day. In addition, the Amalgamated Wireless (Australasia) Ltd. re-broadcasts the daily time-signals of certain overseas stations.

CHAPTER III. GENERAL GOVERNMENT.

§ 1. Scheme of Parliamentary Government.

1. **General.**—A brief account of the general legislative powers of the Commonwealth and States is given in preceding issues of the Official Year Book (see No. 13, pp. 927 to 951, and No. 22, p. 64).

2. **Powers and Functions of the Governor-General and of the State Governors.**—A detailed statement of the powers and functions of the Governor-General and of the State Governors will be found in preceding issues of the Official Year Book (see No. 13, pp. 78 to 80).

3. **Governor-General and State Governors.**—The present Governor-General is Brigadier-General the Right Honorable Alexander Gore Arkwright, Baron Gowrie, V.C., P.C., G.C.M.G., C.B., D.S.O. He assumed office on the 23rd January, 1936.

The following is a list of the Governors of the various States of the Commonwealth :—

New South Wales ..	Captain the Rt. Hon. LORD WAKEHURST, K.C.M.G.
Victoria	Major-General SIR WINSTON JOSEPH DUGAN, K.C.M.G., C.B., D.S.O.
Queensland	Colonel the Rt. Hon. SIR LESLIE ORME WILSON, G.C.S.I., G.C.M.G., G.C.I.E., D.S.O.
South Australia ..	SIR MALCOLM BARCLAY-HARVEY, K.C.M.G.
Western Australia..	Lieut.-Governor—The Hon. SIR JAMES MITCHELL, K.C.M.G.
Tasmania	SIR ERNEST CLARK, K.C.B., K.C.M.G., C.B.E.

4. **The Cabinet and Executive Government.**—(i) *General.* In both the Commonwealth and the State Legislatures the forms of government have been founded on their prototypes in the Imperial Government, and the relations established between the Ministry and the representatives of the people are in accordance with those prevailing in Great Britain. The executive powers in the Commonwealth are vested in the Governor-General in Council, and in the State Governments in the Governor in Council. The Executive Council in the Commonwealth and in the States is practically co-extensive with a group of departmental chiefs, who are usually spoken of as the Cabinet, and who change with the rise and fall of party majorities. In the Commonwealth Government, however, as well as in the States of Victoria and Tasmania, the Cabinet on leaving office remain members of the Executive Council, though they no longer attend its meetings, and it is in fact an essential feature of the Cabinet system of Government that they should not do so, except to assist the Governor in transacting purely formal business, or to advise on non-political questions.

(ii) *The Executive Council.* This body is composed of the Governor and the Ministers of State holding office for the time being. The latter are sworn both as Executive Councillors and as Ministers controlling the different administrative departments. The meetings are official in character; they are presided over by the Governor-General (or Governor) and are attended by the clerk, who keeps a formal record of the proceedings. At these meetings the decisions of the Cabinet are put into official form and made effective, appointments are confirmed, resignations accepted, proceedings ordered, and notices and regulations published.

(iii) *The Appointment of Ministers and of Executive Councillors.* Although it is technically possible for the Governor to make and unmake cabinets at his pleasure, under all ordinary circumstances his apparent liberty in choosing his Executive Council is virtually restricted by the operation of constitutional machinery. When a Ministry is defeated in Parliament or at the polls, the procedure both in the Commonwealth and the State Parliaments generally, though not invariably, follows that prevailing in the Imperial Parliament. The customary procedure in connexion with the resignation or acceptance of office by a Ministry is described fully in previous issues of the Year Book. (See No. 6, p. 942.) It is necessary to add that subsequent amending legislation has, in most of the States, obviated the necessity of responsible Ministers vacating their seats on appointment to office.

(iv) *Ministers in Upper and Lower Houses.* The subjoined table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in September, 1939 :—

AUSTRALIAN PARLIAMENTS—MINISTERS IN UPPER OR LOWER HOUSES, 1939.

Ministers with Seats in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
The Upper House ..	4	2	4	(a)	2	2	2	16
The Lower House ..	12	13	8	10	4	7	7	61
Total ..	16	15	12	10	6	9	9	77

(a) Abolished in 1922.

(v) *The Cabinet.* (a) *General.* The meetings of this body are private and deliberative. The actual Ministers of the day are alone present, no records of the meetings transpire, and no official notice is taken of the proceedings. The members of the Cabinet, being the leaders of the party in power in Parliament, control the trend of legislation, and must retain the confidence of the people and also of the Governor-General (or Governor), to whom they act as an advising body. They also in effect wield, by virtue of their seats on the Executive Council, the whole executive force of the community. In summoning, proroguing, or dissolving Parliament, the Governor-General (or Governor) is usually guided by the advice tendered him by the Cabinet, though legally in no way bound to accept such advice.

(b) *Commonwealth Ministers of State.* A statement showing the names of Ministers of State who have held office from the inauguration of the Commonwealth Government to 1925 will be found in Official Year Book No. 18, pp. 82 and 83

(c) *State Ministries.* A list of the members of the Ministry in each State in September, 1939, will be found in § 3 of this Chapter.

5. **Number and Salary of Members of the Legislatures.**—The following table shows the number and annual salary of members in each of the legislative chambers in September, 1939 :—

MEMBERS OF COMMONWEALTH AND STATE PARLIAMENTS, AND ANNUAL SALARIES, 1939.

Members in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
MEMBERS.								
Upper House ..	36	60	34	(a)	20	30	18	198
Lower House ..	75	90	65	62	39	50	30	411
Total ..	111	150	99	62	59	80	48	609
ANNUAL SALARY.								
	£	£	£	£	£	£	£	
Upper House ..	1,000	..	200	(a)	400	600	(b)370-500	..
Lower House ..	1,000	875	500	650	400	600	(b)400-500	..

(a) Abolished in 1922.

(b) According to area of electorate and distance from the Capital.

The use of the expressions "Upper House" and "Lower House" in the above statement, though not justified constitutionally, is convenient, inasmuch as the legislative chambers are known by different names in the Commonwealth and in some of the States.

6. **Enactments of the Parliament.**—In the Commonwealth, all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution Act. In the States, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in

Queensland) and Legislative Assembly or House of Assembly. The Governor-General or the State Governor acts as Viceroy as regards giving the Royal assent to or vetoing Bills passed by the Legislatures, or reserving them for the special consideration of the Sovereign. In the States, the Councils and Assemblies are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations, they may alter, repeal, or vary their Constitution. Where a law of a State is inconsistent with a law of the Commonwealth the latter prevails, and the former is, to the extent of the inconsistency, invalid.

§ 2. Parliaments and Elections.

1. **Qualifications for Membership and for Franchise.**—The conspectus in § 4 of "General Government" in Year Book No. 13 contains particulars, as in 1920, relating to the legislative chambers in the Commonwealth and State Parliaments, and shows concisely the qualifications necessary for membership and for the franchise in each House. (These are, in the main, applicable in 1938, but it must be remembered that Queensland abolished the Upper House in 1922.) It has further to be remembered that in 1925 the Commonwealth Parliament passed an Act removing the disqualification on racial grounds from (a) natives of British India and (b) persons who have become naturalized. Disqualification of persons otherwise eligible, either as members or voters, is generally on the usual grounds of being of unsound mind or attainted of treason, being convicted of certain offences, and, as regards membership, on the grounds of holding a place of profit under the Crown, being pecuniarily interested in a Government contract except as a member of an incorporated company of more than twenty-five persons, or being an undischarged bankrupt.

2. **The Commonwealth Government.**—The Senate consists of 36 members, six being returned by each of the original federating States. Members of this Chamber are elected for a term of six years, but by a provision in the Constitution half the members retire at the end of every third year, although they are eligible for re-election. In accordance with the Constitution, the total number of members of the House of Representatives must be as nearly as possible double that of the Senate. In the House of Representatives the States are represented on a population basis, and the numbers in September, 1939, were as follows:—New South Wales, 28; Victoria, 20; Queensland, 10; South Australia, 6; Western Australia, 5; Tasmania, 5; Northern Territory, 1—total, 75. The member representing the Northern Territory may join in the debates but is not entitled to vote, except on a motion for the disallowance of any ordinance of the Territory or on any amendment of any such motion. The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. In elections for Senators, the whole State constitutes the electorate. For the purpose of elections for the House of Representatives, the State is divided into single electorates corresponding in number with the number of members to which the State is entitled. In both Houses members are elected by universal adult suffrage. Further information regarding the Senate and the House of Representatives is given in earlier issues.

3. **Commonwealth Elections.**—There have been fourteen complete Parliaments since the inauguration of Federation. The fifth Parliament, which was opened on the 9th July, 1913, was dissolved on the 30th July, 1914, in somewhat unusual circumstances. Under Section 57 of the Constitution, it is provided that, should the Senate fail to pass, or pass with amendments, any proposed law previously passed by the House of Representatives, and should the latter House, after an interval of three months, again pass the proposed law, with or without the amendments of the Senate, and the Senate for a second time reject it or pass it with amendments to which the lower House will not agree, then the Governor-General may dissolve the two Houses simultaneously. For the first time in the history of the Commonwealth this deadlock between the Senate and the House of Representatives occurred in the second session of the fifth Parliament, and, in accordance with the section of the Constitution referred to above, both Houses were dissolved by the Governor-General. Until 1927 the Parliament met at Melbourne; it now meets at Canberra, the first meeting at Parliament House, Canberra, being opened by H.R.H. the Duke of York, on the 9th May, 1927. The first session of the fifteenth Parliament

opened on the 30th November, 1937. Particulars regarding Commonwealth elections since 1925 will be found in the following table:—

COMMONWEALTH ELECTIONS.

Date.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Fem.	Total.	Males.	Fem.	Total.	Males.	Fem.	Total.
THE SENATE.									
14th November, 1925	1,656,286	1,645,730	3,302,016	1,515,668	1,499,345	3,014,953	91.51	91.11	91.31
17th November, 1928	1,723,552	1,721,214	3,444,766	1,617,752	1,606,748	3,224,500	93.86	93.35	93.61
12th October, 1929	1,773,014	1,769,930	3,542,950						
19th December, 1931	1,827,079	1,822,875	3,649,954	1,741,163	1,727,140	3,468,303	95.30	94.75	95.02
15th September, 1934	1,954,339	1,948,338	3,902,677	1,862,749	1,845,829	3,708,578	95.31	94.74	95.03
23rd October, 1937	2,043,212	2,036,826	4,080,038	1,963,979	1,957,358	3,921,337	96.12	96.10	96.11

* No election.

THE HOUSE OF REPRESENTATIVES.
(CONTESTED ELECTORATES.)

14th November, 1925	1,635,842	1,632,897	3,268,739	1,499,066	1,488,194	2,987,200	91.63	91.14	91.39
17th November, 1928	1,450,202	1,463,951	2,914,153	1,362,675	1,366,137	2,728,812	93.96	93.32	93.64
12th October, 1929	1,557,525	1,560,505	3,118,030	1,479,100	1,478,447	2,957,547	94.96	94.74	94.85
19th December, 1931	1,724,739	1,733,343	3,458,073	1,643,604	1,642,870	3,286,474	95.30	94.78	95.04
15th September, 1934	1,930,418	1,934,021	3,864,439	1,843,949	1,833,774	3,677,723	95.52	94.82	95.17
23rd October, 1937	1,928,786	1,919,234	3,848,020	1,854,770	1,844,499	3,699,269	96.16	96.11	96.13

The percentage of electors who exercised the franchise at each election rose from 53.04 for the Senate and 55.69 for the House of Representatives in 1901 to 77.69 and 78.30 respectively in 1917. The next election in 1919 showed a considerable falling off, and in 1922 the decrease was still more marked, the respective percentages for that year being 57.95 and 59.36, or very little more than those for 1901. Compulsory voting was introduced prior to the election in 1925, and an exceedingly heavy vote (over 91 per cent.) was cast in that year. At each succeeding election increases in percentage have been recorded.

4. **Commonwealth Referenda.**—According to Section 128 of the Constitution, any proposed law for the alteration of the Constitution must, in addition to being passed by an absolute majority of each House of Parliament, be submitted to a referendum of the electors in each State, and must further be approved by a majority of the States and of the electors who voted before it can be presented for Royal Assent. So far eighteen proposals have been submitted to referenda and the consent of the electors has been received in three cases only, the first in relation to the election of Senators in 1906, and the other two in respect of State Debts—one in 1910 and the other in 1928. Details of the various referenda and the voting thereon were given in previous issues of the Year Book (see No. 18, p. 87, and No. 31, p. 67).

5. **The Parliament of New South Wales.**—(i) *Constitution.* The Parliament of New South Wales consists of two Chambers, the Legislative Assembly and the Legislative Council. The Assembly consists of ninety members, elected in single seat electoral districts, who hold their seats during the existence of the Parliament to which they are elected. The duration of Parliament is limited to three years. Until 1934 the Council was a nominee Chamber, consisting of a variable number of members appointed for life without remuneration, but as from 23rd April, 1934, the Council was reconstituted and became a House of sixty members to serve without remuneration for a term of twelve years, with one-quarter of the members retiring every third year. The electorate comprises members of both Chambers, who vote as a single electoral body at simultaneous sittings of both Chambers. At the first elections in 1933, four groups of fifteen members were elected to serve respectively twelve years, nine years, six years, and three years. Any person resident for at least three years in the Commonwealth and entitled to vote at the election of members of the Legislative Assembly is eligible for election as a member of the Council, if nominated by two electors, an elector being a member of either of the two Houses for the time being.

(ii) *Particulars of Elections.* Since the introduction of responsible government in New South Wales there have been thirty-one complete Parliaments, the first of which opened on the 22nd May, 1856, and was dissolved on the 19th December, 1857, while

the thirty-first was dissolved on the 24th February, 1938. The thirty-second Parliament opened on the 12th April, 1938. The elections of 1920, 1922 and 1925 were contested on the principle of proportional representation, but a reversion to the system of single seats and preferential voting was made at the later appeals to the people. Particulars of voting at elections from 1925 to 1938 are given below :—

LEGISLATIVE ASSEMBLY ELECTIONS, NEW SOUTH WALES.

Year.	Electors Qualified to Vote.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1925	678,749	660,331	1,339,080	489,126	435,853	924,979	72.06	66.00	69.07
1927	714,886	694,607	1,409,493	591,820	558,957	1,150,777	83.79	81.25	82.54
1930	724,471	716,314	1,440,785	682,747	673,676	1,356,423	95.09	94.79	94.94
1932	739,009	725,999	1,465,008	690,094	676,993	1,367,087	96.42	96.37	96.39
1935	769,220	759,493	1,528,713	654,383	640,369	1,294,752	96.09	95.60	95.85
1938	803,517	804,316	1,607,833	608,727	606,767	1,215,494	96.15	95.41	95.78

The principle of one elector one vote was adopted in 1894, and that of compulsory enrolment in 1921. Compulsory voting was introduced at the 1930 election, and, as the table above shows, the percentage of electors who voted in contested electorates rose to over 96 in 1932.

The franchise was extended to women (Women's Franchise Act) in 1902, and was exercised for the first time in 1904.

6. The Parliament of Victoria.—(i) *Constitution.* Both of the Victorian legislative Chambers are elective bodies, but there is a considerable difference in the number of members of each House, as well as in the qualifications necessary for members and electors. The number of members in the Upper House is thirty-four, and in the Lower House, sixty-five. In the Legislative Council the tenure of the seat is for six years, but one member for each of the seventeen provinces retires every third year. Members of the Legislative Assembly are elected for the duration of Parliament, which is limited to three years. Single voting is observed in elections held for either House, plurality of voting having been abolished for the Legislative Assembly in 1899 and for the Legislative Council in 1937; an elector, however, qualified in more than one district, may select the one for which he desires to record his vote. A preferential system of voting (see Year Book No. 6, p. 1182) was adopted for the first time in Victoria at the election held in November, 1911.

(ii) *Particulars of Elections.* Since the introduction of responsible government in Victoria there have been thirty-two complete Parliaments, the first of which opened on the 21st November, 1856, and closed on the 9th August, 1859, while the thirty-second was dissolved on the 6th September, 1937. The thirty-third Parliament was opened on the 19th October, 1937. The election for the Legislative Assembly in 1927 was the first held since the institution of compulsory voting for that House. At the Legislative Council elections held on the 12th June, 1937, eleven of the seventeen seats were contested and for the first time voting was compulsory. Particulars of voting at elections during the years 1922 to 1937 are given in the subjoined table :—

VICTORIAN ELECTIONS.

LEGISLATIVE COUNCIL.

Year.	Electors Enrolled.	Electors Enrolled In Contested Electorates.	Electors who Voted.	Percentage of Electors who Voted in Contested Electorates.
1922	353,440	161,731	47.00
1925	399,510	172,875	56.03
1928	444,278	268,164	85.37
1931	470,349	239,975	93.24
1934	469,395	160,980	47.37
1937	447,694	265,194	208.925

VICTORIAN ELECTIONS—*continued.*

LEGISLATIVE ASSEMBLY.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1924	433,357	467,070	900,427	190,153	180,810	370,963	63.02	55.72	59.24
1927	480,485	512,726	993,211	377,941	402,458	780,399	92.02	91.51	91.76
1929	496,996	532,174	1,029,170	308,532	330,836	639,368	94.11	93.36	93.72
1932	510,809	544,492	1,055,301	335,512	351,530	687,042	94.60	93.82	94.20
1935	532,619	566,632	1,099,251	415,081	438,389	853,470	95.00	93.82	94.39
1937	550,618	585,978	1,136,596	383,507	413,923	797,430	94.22	93.72	93.96

The franchise was extended to women by the Adult Suffrage Act 1908, while voting at elections was made compulsory for the Legislative Assembly in 1926 and for the Legislative Council in 1935.

7. **The Parliament of Queensland.**—(i) *Constitution.* As pointed out previously the Legislative Council in Queensland was abolished in 1922, the date of Royal Assent to the Act being the 23rd March, 1922. The Legislative Assembly is composed of sixty-two members, and the State is divided into that number of electoral districts. The Electoral Districts Act of 1931, assented to on the 1st October, 1931, provided that from and after the end of the twenty-fifth Parliament (dissolved on the 19th April, 1932) the number of members and electoral districts should be reduced from seventy-two to sixty-two. A system of optional preferential voting is in operation. (See Year Book No. 6, p. 1183.)

(ii) *Particulars of Elections.* Since the establishment of responsible government in Queensland there have been twenty-seven complete Parliaments, the last of which was dissolved on the 5th March, 1938. Opinions differ regarding the opening date of the first Queensland Parliament. According to the Votes and Proceedings of the Legislative Assembly the House met for the first time on 22nd May, 1860, when the members were sworn and the Speaker elected. The Governor, however, was unable to be present on that date, but he duly attended on the 29th May, 1860, and delivered the Opening Address.

At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. Of the number of electors enrolled at the 1938 elections, 92.51 per cent. went to the polls. Statistics regarding elections during the years 1923 to 1938 are given below :—

QUEENSLAND LEGISLATIVE ASSEMBLY ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1923	257,001	219,476	476,477	194,287	174,980	369,267	80.72	83.96	82.23
1926	253,571	224,526	478,097	209,139	191,916	401,055	89.77	90.13	89.94
1929	270,327	239,672	509,999	228,601	209,647	438,248	89.69	91.45	90.52
1932	274,986	250,958	525,944	236,266	220,628	456,894	92.59	93.14	92.86
1935	303,018	272,270	575,288	245,331	225,427	470,758	92.55	92.89	92.71
1938	318,402	288,157	606,559	280,841	258,196	539,037	92.09	92.97	92.51

The election of 1907 was the first State election in Queensland at which women voted, the privilege being conferred under the Elections Acts Amendment Act 1905.

8. The Parliament of South Australia.—(i) *Constitution.* In this State there is a Legislative Council composed of twenty members and a House of Assembly with thirty-nine members, both Chambers being elective. The State is divided into five districts, which return four members each to the Legislative Council, two of whom retire alternately. For the House of Assembly, thirty-nine districts return one member each. Prior to 1938 there were forty-six members representing nineteen districts. A system of preferential voting is in operation but voting is not compulsory.

(ii) *Particulars of Elections.* Since the inauguration of responsible government in South Australia there have been twenty-eight complete Parliaments, the first of which was opened on the 22nd April, 1857. The twenty-eighth Parliament opened on the 6th July, 1933, and its duration was extended from three to five years by the Constitution (Quinquennial Parliament) Act 1933. It was dissolved on the 11th February, 1938, and the twenty-ninth Parliament was opened on the 19th May, 1938. Particulars of voting at the last six elections are given below :—

SOUTH AUSTRALIAN ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.

LEGISLATIVE COUNCIL.

1921	69,986	23,062	93,048	38,597	11,309	49,906	64.23	53.96	61.57
1924	67,429	22,018	89,447	36,626	10,492	47,118	65.79	54.94	63.02
1927	100,376	37,395	137,771	46,686	17,742	64,428	67.55	59.91	65.26
1930	(a)	(a)	133,274	(a)	(a)	100,040	(a)	(a)	75.06
1933	(a)	(a)	133,152	(a)	(a)	25,309	(a)	(a)	64.21
1938	92,109	37,026	129,135	67,691	23,474	91,165	73.49	63.40	70.60

HOUSE OF ASSEMBLY.

1921	134,091	137,931	272,022	91,451	77,600	169,051	70.10	57.64	63.77
1924	141,944	147,899	289,843	87,712	73,453	161,165	69.65	56.05	62.71
1927	152,997	156,591	309,588	110,127	104,611	214,738	80.64	74.31	77.43
1930	(a)	(a)	325,244	(a)	(a)	222,819	(a)	(a)	71.36
1933	(a)	(a)	338,576	(a)	(a)	182,693	(a)	(a)	59.45
1938	(a)	(a)	364,884	(a)	(a)	223,136	(a)	(a)	63.31

(a) Not available.

South Australia was the first of the States to grant women's suffrage (under the Constitution Amendment Act 1894), the franchise being exercised for the first time at the Legislative Assembly election on the 25th April, 1896.

9. The Parliament of Western Australia.—(i) *Constitution.* In this State both Chambers are elective. For the Legislative Council there are thirty members, each of the ten Provinces returning three members, one of whom retires biennially. At each biennial election the member elected holds office for a term of six years, and automatically retires at the end of that period. The Legislative Assembly is composed of fifty members, one member being returned by each of the fifty electoral districts. Members of the Legislative Assembly are elected for three years.

(ii) *Particulars of Elections.* Since the establishment of responsible government in Western Australia there have been sixteen complete Parliaments, the first of which was opened on the 30th December, 1890, while the seventeenth Parliament was elected on

the 18th March, 1939. The preferential system of voting in use in Western Australia is described in Year Book No. 6, p. 1184. Particulars relating to more recent Assembly and Council elections are given in the tables following.

WESTERN AUSTRALIAN ELECTIONS.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
LEGISLATIVE COUNCIL.									
1928	54,822	19,076	73,898	24,877	8,151	33,028	51.99	46.75	50.59
1930	54,651	18,927	73,578	20,198	6,252	26,450	51.58	48.50	50.81
1932	57,454	19,889	77,343	17,145	5,508	22,653	56.29	48.29	54.16
1934	62,168	22,323	84,491	31,590	10,189	41,779	53.39	47.23	51.75
1936	63,407	21,987	85,394	18,479	6,394	24,873	45.03	40.03	43.62
1938	62,992	23,419	86,411	19,132	6,971	26,103	52.64	45.57	50.54
LEGISLATIVE ASSEMBLY.									
1924	101,717	88,152	189,869	55,591	43,800	99,391	66.00	59.00	62.32
1927	113,072	97,877	210,949	76,307	66,199	142,506	74.32	72.42	73.42
1930	122,576	107,500	230,076	75,206	63,807	139,013	75.44	73.30	74.44
1933	124,776	112,419	237,195	96,210	89,802	186,012	90.23	91.00	90.60
1936	130,065	117,400	247,465	71,734	64,575	136,309	71.95	68.22	70.13
1939	138,240	127,747	265,987	104,228	101,510	205,738	89.01	91.07	90.01

Women's suffrage was granted by the Electoral Act of 1899. The first woman member to be elected to an Australian Parliament was returned at the 1921 election in this State. Voting for the Legislative Assembly was made compulsory in December, 1936, the first elections for which the provision was in force being those held on 18th March, 1939.

(iii) *Secession Referendum.* On the 8th April, 1933, the people of Western Australia voted overwhelmingly in favour of the State withdrawing from the Federal Commonwealth, the voting being:—In favour, 138,653; not in favour, 70,706.

10. **The Parliament of Tasmania.**—(i) *Constitution.* In Tasmania there are two legislative Chambers—the Legislative Council and the House of Assembly, both bodies being elective. The Council consists of eighteen members, elected for six years and returned from fifteen districts, Hobart returning three, Launceston two, and the remaining thirteen districts sending one member each. Three members retire annually, and the Council cannot be dissolved as a whole. There are five House of Assembly districts, corresponding to the Commonwealth electoral divisions, each returning six members, who are elected under a system of proportional representation which first came into force at the 1909 elections (see Year Book No. 6, p. 1185). The life of the Assembly was extended from three to five years by the Constitution Act 1936.

In 1924 and again in 1925 the House of Assembly contested, with at least temporary success, the power of the Legislative Council to amend money bills. The matter was settled by the Constitution Act 1926, which provides that all money bills shall originate in the Assembly, that all money votes shall be recommended by the Governor, and that the Council may amend bills other than those for appropriating public moneys or fixing a rate for income or land tax. The Council has no power to insert a provision for the appropriation of money or to impose or increase any burden on the people.

(ii) *Particulars of Elections.* The first Tasmanian Parliament opened on 2nd December, 1856, and closed on 8th May, 1861. There have been twenty-five complete Parliaments since the inauguration of responsible government. Particulars of the voting at the last six elections for the House of Assembly are given hereunder :—

TASMANIAN ELECTIONS, HOUSE OF ASSEMBLY.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1922	54,958	55,591	110,549	38,457	31,295	69,752	69.96	56.30	63.09
1925	56,667	58,234	114,901	41,322	35,959	77,281	72.92	61.81	67.25
1928	55,058	56,898	111,956	46,769	44,910	91,679	84.94	78.94	81.90
1931	59,024	59,706	118,730	56,674	56,105	112,779	96.02	93.97	94.99
1934	63,841	63,840	127,681	60,623	59,999	120,622	94.96	93.98	94.47
1937	66,223	65,778	132,001	62,880	61,580	124,460	94.95	93.62	94.29

The present members of the Legislative Council have been elected at various dates and the following particulars are given of the last contested elections in 1938 :—Number of electors on the roll, 8,240 ; number of votes recorded, 6,814 ; percentage of persons who voted to the number on the roll, 82.69.

The suffrage was granted to women under the Constitution Amendment Act 1903 and compulsory voting came into force on the passing of the Electoral Act in 1928.

§ 3. Administration and Legislation.

I. *The Commonwealth Parliaments.*—The first Parliament of the Commonwealth was convened by proclamation dated 29th April, 1901, by His Excellency the late Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on the 9th May following by H.R.H. the Duke of Cornwall and York, who had been sent to Australia for that purpose by His Majesty the King, the Rt. Hon. Sir Edmund Barton, G.C.M.G., K.C., being Prime Minister.

The following table gives the number and duration of Parliaments since Federation :—

COMMONWEALTH PARLIAMENTS.

Number of Parliament.	Date of Opening.	Date of Dissolution.
First	9th May, 1901	23rd November, 1903
Second	2nd March, 1904	5th November, 1906
Third	20th February, 1907	19th February, 1910
Fourth	1st July, 1910	23rd April, 1913
Fifth	9th July, 1913	30th July, 1914 (a)
Sixth	8th October, 1914	26th March, 1917
Seventh	14th June, 1917	3rd November, 1919
Eighth	26th February, 1920	6th November, 1922
Ninth	28th February, 1923	3rd October, 1925
Tenth	13th January, 1926	9th October, 1928
Eleventh	9th February, 1929	16th September, 1929
Twelfth	20th November, 1929	27th November, 1931
Thirteenth	17th February, 1932	7th August, 1934
Fourteenth	23rd October, 1934	21st September, 1937
Fifteenth	30th November, 1937 .. .. .	.. .. .

(a) On this occasion, the Governor-General, acting on the advice of the Ministry, and under section 57 of the Constitution, granted a dissolution of both the Senate and the House of Representatives, this being the only occasion on which a dissolution of both Houses has occurred.

2. **Governors-General and Ministries.**—The following statements show the names of the several Governors-General, and the Ministries which have directed the administration of the affairs of the Commonwealth since its creation :—

(a) GOVERNORS-GENERAL

- Rt. Hon. EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), K.T., G.C.M.G., G.C.V.O. From 1st January, 1901, to 9th January, 1903.
 Rt. Hon. HALLAM, BARON TENNYSON, G.C.M.G. From 17th July, 1902, to 9th January, 1903 (Acting).
 Rt. Hon. HALLAM, BARON TENNYSON, G.C.M.G. From 9th January, 1903, to 21st January, 1904.
 Rt. Hon. HENRY STAFFORD, BARON NORTHCOTE, G.C.M.G., G.C.I.E., C.B. From 21st January, 1904, to 9th September, 1908.
 Rt. Hon. WILLIAM HUMBLE, EARL OF DUDLEY, G.C.B., G.C.M.G., G.C.V.O., &c. From 9th September, 1908, to 31st July, 1911.
 Rt. Hon. THOMAS, BARON DENMAN, G.C.M.G., K.C.V.O. From 31st July, 1911, to 18th May, 1914.
 Rt. Hon. SIR RONALD CRAUFURD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), G.C.M.G. From 18th May, 1914, to 6th October, 1920.
 Rt. Hon. HENRY WILLIAM, BARON FORSTER OF LEPE, G.C.M.G. From 6th October, 1920, to 8th October, 1925.
 Rt. Hon. JOHN LAWRENCE, BARON STONEHAVEN, G.C.M.G., D.S.O. From 8th October, 1925, to 22nd January, 1931.
 Lieut.-Colonel the Rt. Hon. ARTHUR HERBERT TENNYSON, BARON SOMERS, K.C.M.G., D.S.O., M.C. From 3rd October, 1930, to 22nd January, 1931 (Acting).
 Rt. Hon. SIR ISAAC ALFRED ISAACS, G.C.M.G. From 22nd January, 1931, to 23rd January, 1936.
 Brig.-General the Rt. Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE, V.C., P.C., G.C.M.G., C.B., D.S.O. From 23rd January, 1936.

(b) MINISTRIES.

- (i) BARTON MINISTRY, 1st January, 1901, to 24th September, 1903.
 (ii) DEAKIN MINISTRY, 24th September, 1903, to 27th April, 1904.
 (iii) WATSON MINISTRY, 27th April to 17th August, 1904.
 (iv) REID-MCLEAN MINISTRY, 18th August, 1904, to 5th July, 1905.
 (v) DEAKIN MINISTRY, 5th July, 1905, to 13th November, 1908.
 (vi) FISHER MINISTRY, 13th November, 1908, to 1st June, 1909.
 (vii) DEAKIN MINISTRY, 2nd June, 1909, to 29th April, 1910.
 (viii) FISHER MINISTRY, 29th April, 1910, to 24th June, 1913.
 (ix) COOK MINISTRY, 24th June, 1913, to 17th September, 1914.
 (x) FISHER MINISTRY, 17th September, 1914, to 27th October, 1915.
 (xi) HUGHES MINISTRY, 27th October, 1915, to 14th November, 1916.
 (xii) HUGHES MINISTRY, 14th November, 1916, to 17th February, 1917.
 (xiii) HUGHES MINISTRY, 17th February, 1917, to 10th January, 1918.
 (xiv) HUGHES MINISTRY, 10th January, 1918, to 9th February, 1923.
 (xv) BRUCE-PAGE MINISTRY, 9th February, 1923, to 22nd October, 1929.
 (xvi) SCULLIN MINISTRY, 22nd October, 1929, to 6th January, 1932.
 (xvii) LYONS MINISTRY, 6th January, 1932, to 7th November, 1938.
 (xviii) LYONS MINISTRY, 7th November, 1938, to 7th April, 1939.
 (xix) PAGE MINISTRY, 7th April, 1939, to 26th April, 1939.

(c) MENZIES GOVERNMENT, from 26th April, 1939.

DEPARTMENTS.	MINISTERS.
Prime Minister and Treasurer	The Rt. Hon. ROBERT GORDON MENZIES, K.C.
Attorney-General and Minister for Industry .. .	The Rt. Hon. WILLIAM MORRIS HUGHES, K.C.
Minister for Supply and Development	The Rt. Hon. RICHARD GARDINER CASEY, D.S.O., M.C.
Minister for Defence	The Hon. GEOFFREY AUSTIN STREET, M.C.
Minister for External Affairs and Minister for Information .. .	The Hon. SIR HENRY SOMER GULLETT, K.C.M.G.
Minister for Commerce	Senator the Hon. GEORGE MCLEAY.
Minister for the Interior	Senator the Hon. HATTIL SPENCER FOLL.
Postmaster-General and Minister for Repatriation .. .	The Hon. ERIC JOHN HARRISON.
Minister for Trade and Customs	The Hon. JOHN NORMAN LAWSON.
Minister for Health and Minister for Social Services .. .	The Hon. SIR FREDERICK HAROLD STEWART.
Vice-President of the Executive Council, Minister for Civil Aviation, and Minister assisting the Minister for Defence .. .	The Hon. JAMES VALENTINE FAIRBAIN.
Minister in Charge of External Territories	The Hon. JOHN ARTHUR PERKINS.
Minister assisting the Treasurer	The Hon. PERCY CLAUDE SPENDER, K.C.
Minister assisting the Minister for Commerce	Senator the Hon. PHILIP ALBERT MARTIN MCBRIDE.
Minister in Charge of War Service Homes	Senator the Hon. HERBERT BRAYLEY COLLETT, C.M.G., D.S.O., V.D.
Minister assisting the Minister for Supply and Development .. .	The Hon. HAROLD EDWARD HOLT.

3. State Ministries.—The names of the members of the Ministries in each State in September, 1939, are shown in the following statement. The date on which each Ministry was sworn in is stated in parenthesis :—

STATE MINISTERS, 1939.

NEW SOUTH WALES (5th August, 1939).

<i>Premier—</i>	<i>Minister for Labour and Industry and Social Services—</i>
HON. A. MAIR.	HON. G. C. GOLLAN.
<i>Deputy Premier and Minister for Transport—</i>	<i>Secretary for Lands—</i>
LIEUT.-COL. THE HON. M. F. BRUXNER, D.S.O.	HON. C. A. SINCLAIR.
<i>Attorney-General and Vice-President of the Executive Council—</i>	<i>Minister for Agriculture—</i>
HON. SIR HENRY MANNING, K.B.E., K.C., M.L.C.	MAJOR THE HON. A. D. REID, M.C.
<i>Minister for Education—</i>	<i>Colonial Treasurer—</i>
HON. D. H. DRUMMOND.	HON. A. RICHARDSON.
<i>Secretary for Mines and Minister for Forests—</i>	<i>Minister for Health—</i>
HON. R. S. VINCENT.	HON. H. P. FITZSIMONS.
<i>Secretary for Public Works and Minister for Local Government—</i>	<i>Assistant Ministers—</i>
HON. L. O. MARTIN.	HON. H. L. PRIMROSE.
	HON. M. E. MANFRED, M.L.C.
	<i>Minister of Justice—</i>
	HON. V. H. TREATT, M.M.
	<i>Colonial Secretary—</i>
	HON. A. U. TONKING.

VICTORIA (2nd April, 1935).

<i>Premier, Treasurer, and Solicitor-General—</i>	<i>Minister of Transport, and a Vice-President of the Board of Land and Works—</i>
HON. A. A. DUNSTAN.	HON. H. J. T. HYLAND.
<i>President of the Board of Land and Works, Commissioner of Crown Lands and Survey, and Minister of Forests—</i>	<i>Minister of Public Instruction and Minister of Public Health—</i>
HON. A. E. LIND.	HON. SIR JOHN HARRIS, K.B.E., M.L.C.
<i>Minister of Water Supply, and Minister-in-Charge of Electrical Undertakings—</i>	<i>Commissioner of Public Works, Minister-in-Charge of Immigration, and a Vice-President of the Board of Lands and Works—</i>
HON. F. E. OLD.	HON. SIR GEORGE GOUDIE, M.L.C.
<i>Minister of Agriculture, Minister of Mines, and a Vice-President of the Board of Land and Works—</i>	<i>Ministers without Portfolios—</i>
HON. E. J. HOGAN.	HON. G. J. TUCKETT, M.L.C.
<i>Chief Secretary and Attorney-General—</i>	HON. H. PYE, M.L.C.
HON. H. S. BAILEY.	HON. N. A. MARTIN.
<i>Minister of Labour—</i>	
HON. E. J. MACKRELL.	

QUEENSLAND (17th June, 1932). (Labour.)

<i>Premier and Chief Secretary—</i>	<i>Secretary for Health and Home Affairs—</i>
HON. W. FORGAN SMITH.	HON. E. M. HANLON.
<i>Secretary for Public Lands—</i>	<i>Secretary for Labour and Industry—</i>
HON. P. PEASE.	HON. T. A. FOLEY.
<i>Attorney-General—</i>	<i>Secretary for Public Works and Public Instruction—</i>
HON. J. MULLAN.	HON. H. A. BRUCE.
<i>Secretary for Agriculture and Stock—</i>	<i>Minister for Transport—</i>
HON. F. W. BULCOCK.	HON. J. LARCOMBE.
<i>Treasurer—</i>	<i>Secretary for Mines—</i>
HON. F. A. COOPER.	HON. D. A. GLEDSON.

STATE MINISTERS—*continued.*

SOUTH AUSTRALIA (5th November, 1938).

<i>Premier, Treasurer, and Minister of Immigration—</i> HON. T. PLAYFORD.	<i>Commissioner of Crown Lands, Minister of Repatriation, and Minister of Irrigation—</i> HON. R. J. RUDALL.
<i>Chief Secretary, Minister of Mines, and Minister of Health—</i> HON. SIR GEORGE RITCHIE, K.C.M.G., M.L.C.	<i>Commissioner of Public Works, Minister of Railways, Minister of Marine, and Minister of Local Government—</i> HON. M. MCINTOSH.
<i>Attorney-General, Minister of Education, and Minister of Industry and Employment—</i> HON. S. W. JEFFRIES.	<i>Minister of Agriculture and Minister of Afforestation—</i> HON. A. P. BLESING, M.L.C.

WESTERN AUSTRALIA (18th April, 1939). (Labour.)

<i>Premier, Treasurer, and Minister for Forests—</i> HON. J. C. WILLCOCK.	<i>Minister for Mines and Health—</i> HON. A. H. PANTON.
<i>Minister for Works, Water Supplies, and Employment—</i> HON. H. MILLINGTON.	<i>Chief Secretary and Minister for Education—</i> HON. W. H. KITSON, M.L.C.
<i>Minister for Lands and Agriculture—</i> HON. F. J. S. WISE.	<i>Minister for Justice and Railways—</i> HON. E. NULSEN.
<i>Minister for Labour and Industrial Development—</i> HON. A. R. G. HAWKE.	<i>Minister for the North-west—</i> HON. A. A. M. COVERLEY.
	<i>Honorary Minister—</i> HON. E. H. GRAY, M.L.C.

TASMANIA (11th June, 1939). (Labour.)

<i>Premier (Without Portfolio)—</i> HON. E. DWYER-GRAY.	<i>Minister for Lands, Works, and Mines—</i> HON. T. H. DAVIES, D.S.O., M.C.
<i>Treasurer—</i> HON. R. COSGROVE.	<i>Chief Secretary—</i> HON. E. BROOKER.
<i>Attorney-General and Minister for Education—</i> HON. E. J. OGILVIE.	<i>Honorary Ministers—</i> HON. J. F. GAHA, M.L.C. (<i>Minister for Health</i>) HON. J. McDONALD, M.L.C. HON. J. L. MADDEN.
<i>Minister for Agriculture and Minister for Transport—</i> HON. T. G. de L. D'ALTON.	

4. *The Course of Legislation.*—The actual legislation by the Commonwealth Parliament up to the end of the 1938 session is indicated in alphabetical order in "Vol. XXXVI. of the Acts of the Parliament of the Commonwealth of Australia, passed during the year 1938, with Tables, Appendix and Indexes." A "Chronological Table of Acts passed from 1901 to 1938, showing how they are affected by subsequent legislation or

lapse of time" is also given, and further "A Table of Commonwealth Legislation," for the same period, "in relation to the several provisions of the Constitution," is furnished. Reference should be made to these for complete information. In previous issues of the Official Year Book an analytic table was included showing the nature of Commonwealth legislation in force at the end of the latest year available. A classification of legislation, according to its relation to the several provisions of the Constitution, up to the end of the year 1928 will be found in No. 22, pp. 76 to 84.

§ 4. Cost of Parliamentary Government.

The following statement shows the cost of parliamentary government in the Commonwealth and in each State, as well as the cost per head of population, for the year ended 30th June, 1938. In order to avoid incorrect conclusions as to the cost of the Governor-General's or Governor's establishment, it may be pointed out that a very large part of the expenditure (with the exception of the item "Governor's salary") under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interests, and carried out at the request of the Government.

COST OF PARLIAMENTARY GOVERNMENT, 1937-38.

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
1. <i>Governor-General or Governor—</i>								
Governor's salary ..	£ 10,000	£ 5,000	£ 5,000	£ 3,002	£ 5,000 ^a	£ 2,000	£ 3,000	£ 33,002
Other salaries ..	1,791	2,977	731	1,597	809	836	661	9,402
Other expenses, including maintenance of house and grounds ..	b 25,116	19,539	6,713	6,318	947	2,360	2,783	63,776
Total ..	36,907	27,516	12,444	10,917	6,756	5,196	6,444	106,180
2. <i>Executive Council—</i>								
Salaries of Officers ..	(c)	440	563	30	..	350	(d)	1,383
Other expenses ..	(c)	51	60	61	..	..	(d)	172
Total ..	(c)	491	623	91	..	350	(d)	1,555
3. <i>Ministry—</i>								
Salaries of Ministers ..	15,782	16,724	11,227	11,800	7,750	8,170	6,500	77,953
Travelling expenses ..	2,037	..	(e)	..	..	3,151	1,700	6,888
Other ..	468	1,616	(e)	..	..	..	1,413	3,497
Total ..	18,287	18,340	11,227	11,800	7,750	11,321	9,613	88,338
4. <i>Parliament—</i>								
A. <i>Upper House :</i>								
President and Chairman of Committees ..	1,875	1,592	1,149	..	800	1,800	298	7,514
Allowance to members ..	33,877	..	5,967	..	6,737	16,603	7,696	70,880
Railway passes ..	5,760	11,558	9,000	..	1,226	4,282	1,087	32,913
Postage for members ..	1,990	40	150	..	47	140	(e)	2,367
B. <i>Lower House :</i>								
Speaker and Chairman of Committees ..	1,753	1,905	2,243	2,000	1,300	1,800	350	11,351
Allowance to members ..	70,058	52,402	27,856	34,263	15,292	28,038	11,850	239,759
Railway passes ..	12,000	17,958	(g)	13,068	2,390	7,519	1,823	54,758
Postage for members ..	3,991	2,688	800	2,538	284	350	(e)	10,651
Carried forward, Parliament	131,304	88,143	47,165	51,869	28,076	60,532	23,104	430,193

COST OF PARLIAMENTARY GOVERNMENT—*continued.*

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£	£	£	£	£	£	£	£
4. <i>Parliament</i> — <i>continued.</i>								
Brought forward ..	131,304	88,143	47,165	51,869	28,076	60,532	23,104	430,193
C. <i>Both Houses</i> :								
Standing Committee on Public Works—								
Remuneration of members .. ..	..	..	1,384	..	1,896	..	402	3,682
Salaries of staff and contingencies .. ..	..	682	721	..	755	..	40	2,198
Printing—								
<i>Hansard</i>	8,106	2,744	3,207	2,057	2,209	2,406	..	20,729
Other	14,111	11,197	6,343	1,151	7,959	998	2,862	44,621
Parliamentary reporting staff—								
Salaries	10,728	8,334	6,101	2,625	6,436	5,100	..	39,324
Contingencies	178	106	30	..	280	95	..	689
Library—								
Salaries	6,412	3,031	2,374	1,099	850	50	..	13,816
Contingencies	1,961	911	750	930	421	215	100	5,288
Salaries of other officers and staff	33,738	26,023	11,986	7,549	6,695	6,683	3,165	95,839
Other	15,927	680	..	..	390	405	..	17,402
D. <i>Miscellaneous</i> —								
Fuel, light, heat, power, water	1,872	1,314	1,370	768	1,268	104	..	7,856
Posts, telegraphs, telephones	1,769	3,929	..	948	651	277	..	3,674
Furniture, stores, and stationery	2,412	4,831	961	363	17,176	65	..	26,848
Other	61,473	10,013	105	3,330	2,398	2,174	1,281	120,852
Total	289,991	161,938	82,497	72,689	77,460	79,104	30,954	794,633
5. <i>Electoral</i> —								
Salaries	79,590	2,404	1,418	3,010	2,943	4,050	(d)	93,415
Cost of elections, contingencies, etc.	137,531	40,992	23,690	29,149	10,997	5,860	1,898	250,117
Total	217,121	43,396	25,108	32,159	13,940	9,910	1,898	343,532
6. <i>Royal Commissions, Select Committees, etc.,</i> including fees and other expenses of Commissioners, fees of counsel, costs incurred by Ministers, cost of overtime worked by Departments preparing information, bonuses, etc.	1,790	9,192	1,980	2,761	4,031	927	..	20,681
Total	1,790	9,192	1,980	2,761	4,031	927	..	20,681
GRAND TOTAL	564,096	260,873	133,879	130,417	109,937	106,808	48,909	1,354,919
<i>Cost per head of population</i>	1s. 8d.	1s. 11d.	1s. 5d.	2s. 7d.	3s. 9d.	4s. 8d.	4s. 2d.	3s. 11d.

(a) Salary of Lieut.-Governor. (b) Including rent of buildings at Melbourne, £5,277; interest and sinking fund on loans, £4,714; and non-recurring works, £1,840. (c) Included under Governor-General. (d) Duties performed by Chief Secretary's Department. (e) Not available separately. (f) Both Houses. (g) Included with Upper House. (h) Includes interest and sinking fund, Parliament House, Canberra, £38,463; and maintenance of members' rooms in capital cities, £8,342.

Figures showing total cost and cost per head during each of the last five years are given in the next table.

COST OF PARLIAMENTARY GOVERNMENT.

Year.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
TOTAL.								
1933-34	£ 389,937	£ 188,728	£ 98,721	£ 92,763	£ 74,420	£ 94,249	£ 37,909	£ 976,727
1934-35	535,162	223,513	126,742	126,741	81,471	92,884	40,277	1,226,790
1935-36	443,844	189,903	108,448	98,407	78,394	113,083	40,358	1,072,437
1936-37	533,537	198,961	139,162	108,808	86,756	102,817	49,709	1,239,750
1937-38	564,096	260,873	133,879	130,417	109,937	106,808	48,909	1,354,919

PER HEAD OF POPULATION.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1933-34	1 2	1 6	1 1	1 11	2 7	4 3	3 4	2 11
1934-35	1 7	1 8	1 5	2 8	2 9	4 2	3 6	3 8
1935-36	1 4	1 5	1 2	2 0	2 8	5 1	3 6	3 2
1936-37	1 8	1 6	1 6	2 3	2 11	4 7	4 3	3 8
1937-38	1 8	1 11	1 5	2 7	3 9	4 8	4 2	3 11

§ 5. Government Employees.

The proportion of Government employees in Australia is high compared with most countries, inasmuch as Australian Governments undertake many services such as railways, tramways, the provision of water, electric light, etc., which in other countries are left to private enterprise. At the 30th June, 1938, the number of persons so employed amounted to 365,409. Included in this total are temporary, exempt, part-time and relief workers as well as employees of statutory bodies administering works and services on behalf of the Governments. The staffs of the Commonwealth and the State Banks have also been included. Details of employment by the various Governments are as follows:—

GOVERNMENT EMPLOYEES AT 30th JUNE, 1938.

Employed by—	Permanent.		Temporary.		Total.
	Full Time.	Part Time.	Full Time.	Part Time.	
Commonwealth	47,697	115	21,589	9,939	79,340
New South Wales	75,550	386	32,123	7,366	115,425
Victoria	57,829	503	18,556	2,286	79,174
Queensland	32,422	290	3,766	305	36,783
South Australia	15,972	151	5,301	972	22,396
Western Australia	15,269	185	5,629	4,764	25,847
Tasmania	4,316	9	1,241	878	6,444
Australia	249,055	1,639	88,205	26,510	365,409

Particulars are not available in all cases regarding the sexes of part-time workers, but with their exclusion and that of relief workers, the remainder—consisting of permanent, temporary and exempt employees—was composed of 281,006 males and 47,159 females, or about one female to every six males.

§ 6. Consular Representatives of Foreign Countries in Australia.

The following tabular statement shows the number of consular representatives of foreign countries in each State for the year 1939:—

CONSULAR REPRESENTATIVES IN AUSTRALIA, 1939.

Country.	Number of Consular Representatives in—							Total Aust.
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.		
Argentine Republic	..	2	I	I	..	..	4
Belgium	..	3	I	I	I	I	8	
Bolivia	I	..	..	I	
Brazil	..	2	I	..	..	..	3
Chile	..	2	I	..	..	..	3
China	..	3	..	..	..	..	3
Colombia	..	I	I	..	..	..	2
Costa Rica	..	2	..	..	..	..	2
Czechoslovakia	..	I	I	I	I	..	5	
Denmark	..	2	2	3	2	2	12	
Dominican Republic	..	I	..	..	I	..	2
Ecuador	..	3	..	I	..	..	4
Estonia	..	I	..	..	..	..	I
Finland	..	I	I	I	I	..	5	
France	..	4	2	I	I	I	10	
Greece	..	2	2	I	2	2	9	
Honduras	..	2	..	..	..	..	2
Italy	..	2	I	3	I	I	9	
Japan	..	3	2	I	I	I	8	
Latvia	..	I	I	I	I	..	4	
Liberia	I	..	I	
Netherlands	..	4	I	4	I	I	12	
Nicaragua	..	I	..	..	..	..	I
Norway	..	3	2	4	3	4	18	
Panama	..	I	I	I	..	..	3
Paraguay	..	I	..	..	..	I	2
Peru	..	I	I	..	I	..	3	
Poland	..	I	I	..	..	..	2
Portugal	..	I	I	I	I	I	5	
Rumania	..	2	..	..	..	..	2
Salvador	I	..	..	..	I	
Siam	..	I	..	..	..	..	I
Spain	I	..	..	I	2	
Sweden	..	3	2	3	3	I	13	
Switzerland	..	I	I	I	..	..	3
United States of America	..	5	4	I	I	I	12	
Uruguay	..	I	I	..	..	..	2
Venezuela	..	I	..	..	..	..	I
Yugoslavia	..	I	I	..	..	I	3
Total	..	64	36	31	24	21	184a	

(a) In addition, Northern Territory has a Consul for the Netherlands.

Countries having Consuls-General in Sydney are Belgium, Chile, China, Costa Rica, Czechoslovakia, Denmark, Ecuador, France, Greece, Honduras, Italy, Japan, Netherlands, Nicaragua, Norway, Paraguay, Poland, Rumania, Sweden and United States.

The Consuls-General in London for Latvia, Mexico, Poland and Turkey have jurisdiction over the Commonwealth and its Territories.

Particulars of the names and addresses of the various Consular representatives, as well as their rank and year of appointment, are contained in a publication issued by the Department of External Affairs, Canberra, entitled "List of Consular Representatives of Foreign Countries in Australia and Territories under its Administration."

CHAPTER IV. LAND TENURE AND SETTLEMENT.

§ 1. Introduction.

1. **General.**—A comprehensive description of the land tenure systems of the several States was given in Official Year Book No. 4 (pp. 235 to 333), while later alterations were referred to in subsequent issues. In this chapter a summary is given of the principal features of existing land legislation. In previous issues an account of the various tenures under which Crown lands may be taken up was given. (See Year Book No. 22, pp. 133-195; also par. 2 hereunder for a conspectus of legislation at present in force.) Special sections are devoted to closer settlement, the settlement of returned soldiers on the land and advances to settlers. Particulars as to the areas of land alienated in each State and similar matter are also included.

2. **State Land Legislation.**—The legislation in force relating to Crown lands, Closer Settlement, Returned Soldiers' Settlement and other matters dealt with in this chapter is summarized in the following conspectus :—

STATE LAND LEGISLATION.

New South Wales.	Victoria.	Queensland.
CROWN LANDS ACTS.		
Crown Lands Act 1913-1935 : Western Lands Act 1901-1937 : Prickly Pear Act 1924-1934.	Land Acts 1928-1935 : Land (Crown Leases Adjustment) Act 1936	Land Acts 1910-1937 : Upper Burnett and Callide Land Settlement Acts 1923-1932 : Prickly Pear Land Acts 1923- 1936 : Sugar Workers' Sele- ctions Acts 1923-1936 : Stock Routes Improvement and Animal and Vegetable Pests Destruction Acts, 1936-1937.
CLOSER SETTLEMENT ACTS.		
Closer Settlement Act 1904-1937.	Closer Settlement Acts 1928- 1937.	Closer Settlement Acts 1906- 1934.
MINING ACTS.		
Mining Act 1906-1935 : Mining Leases (Validation) Act 1935.	Mines Acts 1928-1937 : Mines (Petroleum) Act 1935.	Mining Acts 1898-1930 : Mining for Coal and Mineral Oil Act 1912 : Petroleum Acts 1923- 1929 : Miners' Homestead Leases Act 1913-1930 : Coal Mining Acts 1925-1930.
SOLDIERS' SETTLEMENT ACTS.		
Returned Soldiers' Settlement Act 1916-1935.	Closer Settlement Acts 1928- 1934.	Discharged Soldiers' Settlement Acts 1917-1932.
ADVANCES TO SETTLERS ACTS.		
Government Savings Bank Act 1906-1932 : Returned Soldiers' Settlement Act 1916-1935 : Rural Bank Agency Act 1934.	State Savings Bank Acts 1915- 1922 : Primary Products Ad- vances Acts 1919-1922 : Closer Settlement Acts 1928-1934 : Fruit and Vegetable Act 1928 : Cultivation Advances Acts 1931-1934 : Farmers Advances Act 1935.	State Advances Acts 1916-1934 : Co-operative Agricultural Pro- duction and Advances to Farmers Acts 1914-1919 : Agri- cultural Bank Acts 1923-1934 : Farmers' Assistance (Debts Adjustment) Acts 1935-1936 : Income (Unemployment Rel- ief) Tax Acts 1930-1935 : Wire and Wire-Netting Ad- vances Act 1927 : Wire and Wire-Netting Advances Act 1933 : Marsupial Proof Fen- cing Acts 1898-1913.

STATE LAND LEGISLATION—*continued.*

South Australia.	Western Australia.	Tasmania.
CROWN LANDS ACTS.		
Crown Lands Act 1929-1937: Pastoral Act 1936.	Land Act 1933-1937.	Crown Lands Act 1935.
CLOSER SETTLEMENT ACTS.		
Crown Lands Act 1929-1937.	Closer Settlement Act 1927.	Closer Settlement Act 1929-1937.
MINING ACTS.		
Mining Act 1930-1931.	Mining Act 1904-1937: Sluicing and Dredging for Gold Act 1899: Petroleum Act 1936: Mines Regulation Act 1906.	Mining Act 1917-1937: Aid to Mining Act 1924.
SOLDIERS' SETTLEMENT ACTS.		
Discharged Soldiers' Settlement Act 1934-1935.	Discharged Soldiers' Settlement Act 1918.	Closer Settlement Act 1929-1937.
AGRICULTURAL GRADUATES SETTLEMENT ACTS.		
Agricultural Graduates Act 1922.	..	..
ADVANCES TO SETTLERS ACTS.		
Irrigation Act 1930-1936: Dis- charged Soldiers' Settlement Act 1934-1935: State Bank Act 1925-1935: Advances to Settlers Act 1930: Agri- cultural Graduates Act 1922: Loans for Fencing and Water Piping Act 1930-1935.	Agricultural Bank Act 1934: Rural Relief Fund Act 1935.	State Advances Act 1935: Closer Settlement Act 1929: Un- employed (Assistance to Primary Producers) Relief Act 1930-1934: Farmers Debt Adjustment Act 1936: Rural Rehabilitation Act 1937.

3. **Northern Territory Land Legislation.**—In the Northern Territory of Australia the legislation relating to Crown lands is embodied in the Crown Lands Ordinance 1931-1938: that relating to mining in the Northern Territory Mining Act 1903, the Mining Ordinance 1927-1938, the Gold Dredging Act 1899, the Tin Dredging Ordinance 1911-1920, the Mineral Oil and Coal Ordinance 1922-1923, and the Encouragement of Mining Ordinance 1913-1926; and that relating to advances to settlers in the Encouragement of Primary Production Ordinance 1931-1938.

4. **Australian Capital Territory Land Legislation.**—In the Australian Capital Territory the Ordinances relating to Crown lands are the Leases Ordinance 1918-1937, the City Area Leases Ordinances 1936-1938, the Church Lands Leases Ordinance 1924-1932, and the Leases (Special Purposes) Ordinance 1925-1936.

5. Administration and Classification of Crown Lands.—In each of the States there is a Lands Department under the direction of a responsible Cabinet Minister who is charged generally with the administration of the Acts relating to the alienation, occupation and management of Crown lands. The administrative functions of most of the Lands Departments are to some extent decentralized by the division of the States into what are usually termed Land Districts, in each of which there is a Lands Office, under the management of a Lands officer, who deals with applications for selections and other matters generally appertaining to the administration of the Acts within the particular district. In some of the States there is also a local Land Board or a Commissioner for each district or group of districts. In the Northern Territory the Administrator, under the control of the Minister for the Interior, is charged with the general administration of the Lands Ordinance and of Crown lands in the Northern Territory. In the Australian Capital Territory the administration of the Leases Ordinances is in the hands of the Department of the Interior.

Crown lands are generally classified according to their situation, the suitability of the soil for particular purposes, and the prevailing climatic and other conditions. The modes of tenure under the Acts, therefore, as well as the amount of purchase money or rent, and the conditions as to improvements and residence, vary considerably. The administration of special Acts relating to Crown lands is in some cases in the hands of a Board under the general supervision of the Minister.

In each of the States and in the Northern Territory there is also a Mines Department which is empowered under the several Acts relating to mining to grant leases and licences of Crown lands for mining and allied purposes.

6. Classification of Tenures.—The tabular statement which follows shows the several tenures under which Crown lands may be acquired or occupied in each State. In the Northern Territory, leases (excepting pastoral and "miscellaneous") are granted in perpetuity, pastoral and "miscellaneous" leases being restricted to periods of not more than 42 and 21 years respectively. The Lands Ordinance provides also for the grant in fee-simple of town lands, agricultural lands, garden lands and tropical lands, and for the issue of grazing, occupation and "miscellaneous" licences. The mining leases and holdings are, generally speaking, similar to those of the States. In the Australian Capital Territory leases only are issued.

STATE CROWN LANDS : TENURES.

New South Wales.	Victoria.	Queensland.
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FREE GRANTS AND RESERVATIONS.

Free Grants : Reservations.	Free Grants : Reservations.	Free Grants : Reservations.
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UNCONDITIONAL PURCHASES OF FREEHOLD.

Auction Sales : After-auction Purchases : Special Purchases : Improvement Purchases.	Auction Sales.	..
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CONDITIONAL PURCHASES OF FREEHOLD.

Residential Conditional Purchases : Non-residential Conditional Purchases : Additional Conditional Purchases : Conversions of various Leasehold Tenures into Conditional Purchases : Purchases of Town Leases, Suburban Holdings, Returned Soldiers' Special Holdings, Residential Leases, Week-end Leases.	Residential Selection Purchase Leases : Non-residential Selection Purchase Leases : Licences of Auriferous worked-out Lands : Conditional Purchase Leases of Swamp or Reclaimed Lands : Selection Purchase Leases of Mallee Lands : Murray River Settlements : Special Settlement Areas : Conversions into Selection Purchase Leases.	..
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STATE CROWN LANDS : TENURES—*continued.*

New South Wales.	Victoria.	Queensland.
LEASES AND LICENCES UNDER LAND ACTS.		
Conditional Leases : Conditional Purchase Leases : Special Conditional Purchase Leases : Homestead Selections : Homestead Farms : Settlement Leases : Special Leases : Annual Leases : Scrub Leases : Snow Leases : Inferior Lands Leases : Crown Leases : Improvement Leases and Leases under Improvement Conditions : Occupation Licences : Leases of Town Lands : Suburban Holdings : Weekend Leases : Residential Leases : Leases in Irrigation Areas : Western Lands Leases : Forest Leases : Forest Permits : Prickly Pear Leases.	Perpetual Leases : Auriferous Lands Licences : Leases of Swamp or Reclaimed Lands : Perpetual Leases of Swamp or Reclaimed Lands : Grazing Licences : Perpetual Leases (Mallee) : Miscellaneous Leases and Licences : Bee Farm Licences : Bee Range Area Licences : Eucalyptus Oil Licences : Forest Leases : Forest Licences : Forest Townships : Land (Residence Areas).	Perpetual Lease Selections : Perpetual Lease Prickly Pear Selections : Perpetual Lease Prickly Pear Development Selections : Grazing Selections : Development Grazing Selections : Prickly Pear Development Grazing Selections : Pastoral Holdings : Preferential Pastoral Holdings : Pastoral Development Holdings : Stud Holdings : Prickly Pear Leases : Forest Grazing Leases : Occupation Licences : Special Leases : Auction Perpetual Leases.
CLOSER SETTLEMENT.		
Sales by Auction and Tender : After-auction Sales and Tenders : Settlement Purchases.	Sales of Land : Conditional Purchase Leases : Conditional Purchase Leases in Mountainous Areas.	Perpetual Lease Selections : Settlement Farm Leases : Perpetual Town, Suburban and Country Leases.
LEASES AND LICENCES UNDER MINING ACTS.		
Holdings under Miners' Rights : Gold Mining Leases : Mineral Leases : Coal and Oil Mining Leases : Business Licences : Residence Areas.	Holdings under Miners' Rights : Gold Mining Leases : Mineral Leases.	Holdings under Miners' Rights : Permits to Prospect for Petroleum : Petroleum Leases : Licences to Prospect for Coal and Mineral Oil : Gold Mining Leases : Mineral Leases : Coal Mining Leases : Business Areas : Residence Areas : Miners' Homestead Leases and Miners' Homestead Perpetual Leases.
SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.		
Soldiers' Group Purchases : Returned Soldiers' Special Holding Leases : Returned Soldiers' Special Holding Purchases : also Purchases and Leases under Crown Lands Act of lands set apart for application by discharged soldiers exclusively.	(Same Tenures as under the Land and Closer Settlement Acts.)	Perpetual Lease Selections : Perpetual Town and Suburban Leases.

STATE CROWN LANDS: TENURES—*continued.*

South Australia.	Western Australia.	Tasmania.
FREE GRANTS AND RESERVATIONS.		
Free Grants: Reservations.	Free Grants: Reservations.	Free Grants: Reservations.
UNCONDITIONAL PURCHASES OF FREEHOLD.		
Auction Sales: By Private Contract (Land passed at Auction).	Auction Sales.	Auction Sales: After-auction Sales: Sales of Land in Mining Towns.
CONDITIONAL PURCHASES OF FREEHOLD.		
Agreements to Purchase: Special Agreements to Purchase (40 years' term): Homestead Blocks.	Conditional Purchases with Residence: Conditional Purchases without Residence: Conditional Purchases by Direct Payment: Conditional Purchases of Land for Vineyards, etc.: Conditional Purchases by Pastoral Lessees: Conditional Purchases of Grazing Lands: Homestead Farms: Special Settlement Leases.	Selections for Purchase: Additional Selections for Purchase: Sales by Auction: Sales by Private Contract: After-auction Sales: Special Settlement Areas.
LEASES AND LICENCES UNDER LAND ACTS.		
Perpetual Leases: Special Perpetual Leases (Free Period): Perpetual Leases of Homestead Blocks: Miscellaneous Leases: Licences: Pastoral Leases: Irrigation Blocks: Town Allotments in Irrigation Areas: Forest Leases.	Pastoral Leases: Special Leases: Leases of Town and Suburban Lands: Cropping Leases.	Grazing Leases: Pastoral Leases: Leases of Land covered with Button Grass, etc.: Leases of Mountainous Land: Miscellaneous Leases: Temporary Licences: Occupation Licences: Residences Licences: Business Licences: Forest Leases, Licences and Permits.
CLOSER SETTLEMENT.		
Sales by Auction: Agreements to Purchase: Perpetual Leases: Miscellaneous Leases.	Conditional Purchases: Town and Suburban Areas.	Leases with Right of Purchase: Special Sales.
LEASES AND LICENCES UNDER MINING ACTS.		
Holdings under Miners' Rights: Search Licences: Occupation Licences: Gold Leases: Mineral Leases: Coal Leases: Oil Leases: Dredging Leases: Business Areas: Residence Areas: Miscellaneous Leases (Salt and Gypsum).	Holdings under Miners' Rights: Gold Mining Leases: Mineral Leases: Business Areas: Residence Areas: Miners' Homestead Leases.	Holdings under Miners' Rights: Prospectors' Licences: Gold Mining Leases: Mineral Leases.
SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.		
Perpetual Leases: Pastoral Leases: Agreements to Purchase: Miscellaneous Leases.	Ordinary Tenure: Special Tenure.	Free Grants: Ordinary Tenure: Special Tenure.
AGRICULTURAL GRADUATES SETTLEMENT.		
Agreements to Purchase: Perpetual Leases.		

§ 2. Free Grants and Reservations.

1. *New South Wales.*—(i) *Free Grants.* Crown lands may, by notification in the *Gazette*, be dedicated for public purposes and be granted therefor in fee-simple. Such lands may be placed under the care and management of trustees, not less than three in number, appointed by the Minister.

(ii) *Reservations.* Temporary reservations of Crown lands from sale or lease may be made by the Minister.

(iii) *Areas Granted and Reserved.* During the year 1937-38 the total area for which free grants were prepared was 164 acres. During the same period 602 acres were dedicated and permanently reserved, the number of separate dedications being 43.

On the 30th June, 1938, the total area reserved, including temporary reserves, was 16,861,087 acres, of which 5,314,640 acres were for travelling stock, 3,779,911 acres pending classification and survey, 2,109,094 acres for forest reserves, 876,844 acres for water and camping, 1,205,661 acres for mining, and the remainder for temporary commons, railways, recreation reserves and parks, reserves for aborigines, and miscellaneous purposes. A large proportion of the total area reserved is occupied under annual, special, scrub or forestry leases or on occupation licences or permissive occupancy, and is included under the appropriate leasehold tenures described in the following sections.

2. *Victoria.*—(i) *Free Grants.* The Governor may grant, convey or otherwise dispose of Crown lands for public purposes.

(ii) *Reservations.* The Governor may temporarily or permanently reserve from sale, lease or licence any Crown lands required for public purposes, and may except any area of Crown lands from occupation for mining purposes under any miner's right.

(iii) *Areas Granted and Reserved.*—During the year 1937, 140 acres were granted without purchase, and reservations of both a permanent and temporary nature, comprising a net area of 30,625 acres, were made. At the end of 1937, the total area reserved was 8,166,220 acres, consisting of roads, 1,794,218 acres; water reserves, 310,896 acres; agricultural colleges, etc., 88,649 acres; permanent forests and timber reserves under Forests Acts, 4,083,587 acres and 730,545 acres respectively; forests and timber reserves under Land Acts, 330,027 acres; reserves in the Mallee, 410,000 acres; and other reserves, 421,298 acres.

3. *Queensland.*—(i) *Free Grants.* The Governor may grant in trust any Crown land which is or may be required for public purposes. Under the Irrigation Act, land to be used for the purpose of any undertaking under that Act may be vested in fee-simple in the Irrigation Commission.

(ii) *Reservations.* The Governor may reserve from sale or lease, either temporarily or permanently, any Crown land which is or may be required for public purposes. Reserved lands may be placed under the control of trustees who are empowered to lease the same for not more than 21 years with the approval of the Minister.

Under the State Forests and National Parks Act, the Governor may permanently reserve any Crown lands and declare them to be a State Forest or a National Park.

(iii) *Areas Granted and Reserved.* During the year 1937 the area granted in fee-simple without payment was 41 acres, the area set apart as reserves 233,304 acres, and reserves cancelled 325,505 acres. The total area reserved including roads at the end of 1937 was 21,421,311 acres, made up as follows:—Timber reserves, 3,345,298 acres; State forests and national parks, 3,248,124 acres; for use of aborigines, 5,985,853 acres; streets, surveyed roads and surveyed stock routes, 2,998,983 acres; and general, 5,843,053 acres.

4. *South Australia.*—(i) *Free Grants.* The Governor may dedicate Crown lands for any public purpose and grant the fee-simple of such lands, with the exception of foreshores and land for quays, wharves or landing-places, which are inalienable in fee-simple from the Crown.

(ii) *Reservations.* The Governor may reserve Crown lands for the use and benefit of aborigines, military defence, forest reserves, railway stations, park lands or any other purpose that he may think fit.

(iii) *Areas Granted and Reserved.* During the year 1937-38 free grants were issued for a total area of 84 acres. During the same year reserves comprising 18,343 acres were proclaimed. At the 30th June, 1938, the total area of surveyed roads, railways and other reserves was 16,500,332 acres, including 14,016,000 acres in the north-west of the State set apart as an aboriginal reserve in 1921.

5. *Western Australia.*—(i) *Free Grants.* The Governor may dispose of, in such manner as for the public interest may seem best, any lands vested in the Crown for public purposes, and may grant the fee-simple of any reserve to secure the use thereof for the purpose for which such reserve was made.

(ii) *Reservations.* The Governor may reserve any lands vested in the Crown for public purposes. Areas not immediately required may be leased from year to year. Reserves may be placed under the control of a local authority or trustees, with power to lease them for a period not exceeding 21 years, or may be leased for 99 years. Temporary reserves may also be proclaimed.

(iii) *Areas Granted or Reserved.* During the year ended 30th June, 1938, a few small areas of land were granted in fee-simple, and approximately 6,159,084 acres were reserved for various purposes. The area reserved included 5,793,400 acres which were added to the Central Australian Native Reserve. At the 30th June, 1938, the total area reserved was 48,241,203 acres, comprising State forests, 3,139,000 acres, timber reserves, 1,765,000 acres, and other reserves, 43,337,203 acres.

6. *Tasmania.*—(i) *Free Grants.* No mention is made in the Crown Lands Act respecting free grants of land, and it is expressly stated that no lands may be disposed of as sites for religious purposes except by way of sale under the Act. Under the Returned Soldiers' Settlement Act of 1916, returned soldiers who applied prior to 31st March, 1922, were eligible to receive free grants of Crown land not exceeding £100 each in value, but these grants were conditional on the land being adequately improved.

(ii) *Reservations.* The Governor in Council may except from sale or lease, and reserve to His Majesty any Crown land for public purposes, and vest for such term as he thinks fit any land so reserved in any person or corporate body. Any breach or non-fulfilment of the conditions upon which such land is reserved renders it liable to forfeiture. A school allotment, not exceeding 5 acres in area, may also be reserved.

(iii) *Areas Granted or Reserved.* The total area reserved at the end of 1937 was 1,848,007 acres, exclusive of 18,100 acres of land occupied by Commonwealth and State Departments.

7. *Northern Territory of Australia.*—(i) *Reservations.* The Governor-General may resume for public purposes any Crown lands not subject to any right of or contract for purchase, and may reserve, for the purpose for which they are resumed, the whole or any portion of the land so resumed.

(ii) *Areas Reserved.* The total area of reserves at the 30th June, 1937, was 70,602 square miles, comprising aboriginal native, 67,254 square miles; mission station, 1,609 square miles; and other reserves, 1,739 square miles.

§ 3. Unconditional Purchases of Freehold.

1. *New South Wales.*—(i) *Auction Purchases.* Crown lands, not exceeding in the aggregate 200,000 acres in any one year, may be sold by public auction in areas not exceeding half-an-acre for town lands, 20 acres for suburban lands, and 640 acres for country lands, at the minimum upset price of £8, £2 10s., and 15s. per acre respectively.

At least 10 per cent. of the purchase-money must be paid at the time of sale, and the balance within three months, or the Minister may allow the payment of such balance to be deferred for a period not exceeding 10 years, 4 per cent. interest being charged. Town blocks in irrigation areas may also be sold by auction.

(ii) *After-Auction Purchases.* In certain cases, land offered at auction and not sold may be purchased at the upset price. A deposit in accordance with the terms and conditions under which the land was previously offered must be lodged, and if the application be approved by the Minister, the balance of purchase money is payable as required by the specified terms and conditions.

(iii) *Special Purchases.* Under certain circumstances, land may be sold in fee-simple, the purchaser paying the cost of survey and of reports thereon, in addition to the purchase-money. The minimum upset price per acre is the same as in the case of land sold by auction. Areas not exceeding 5 acres in extent may be sold to recognized religious bodies and public authorities at prices determined by the local land board.

(iv) *Improvement Purchases.* The owner of improvements in land in authorized occupation by residence under any Mining or Western Lands Act of land within a gold-field or mineral field may purchase such land without competition at a price determined by the local Land Board, but at not less than £8 per acre for town lands or £2 10s. per acre for other lands. The area must not exceed $\frac{1}{4}$ acre within a town or village, or 2 acres elsewhere, and no person may purchase more than one such area within 3 miles of a similar prior purchase by him.

(v) *Areas Sold.* During the year ended 30th June, 1938, the total area sold was 3,440 acres, of which 263 acres were sold by auction and 206 acres as after-auction purchases, while 18 acres were sold as improvement purchases and 2,953 acres as special purchases including unnecessary alienated roads, 2,707 acres. The amount realized for the sale of the whole area was £106,542.

2. *Victoria.*—(i) *General.* Lands specially classed for sale by auction may be sold by auction in fee-simple, not exceeding 100,000 acres in any one year, at an upset price not less than £1 per acre. The purchaser must pay the survey fee at the time of the sale, together with a deposit of 12 $\frac{1}{2}$ per cent. of the whole price; the residue is payable in equal half-yearly instalments with interest. Any unsold land in a city, town or borough, areas specially classed for sale, isolated pieces of land not exceeding 50 acres in area, and sites for churches or charitable purposes, if not more than 3 acres in extent, may be sold by auction on the same terms. Swamp or reclaimed lands may also be sold by auction, subject to the condition that the owner keeps open all drains, etc., thereon.

(ii) *Areas sold at Auction and by Special Sales.* During the year 1937, a total of 3,126 acres was disposed of under this tenure, 2,191 acres being country lands, while 935 acres of town and suburban lands were sold by auction.

3. *Queensland.*—(i) *General.* From 1917 to 1929 the law precluded land being made available for any class of selection which gave the selector the right to acquire the freehold title. Amending legislation giving power to make land available under freehold tenures was passed in 1929 but this provision was repealed by the Act of 1932.

(ii) *Areas Sold, etc.* During the year 1937, twelve unconditional selections comprising 2,307 acres were made freehold.

4. *South Australia.*—(i) *Sales by Auction.* The following lands may be sold by auction for cash :—(a) special blocks; (b) Crown lands which have been offered for lease and not taken up within 2 years; (c) town lands; and (d) suburban lands, which the Governor excepts from the operations of the Land Board. A purchaser must pay 20 per cent. of the purchase money in cash, and the balance within one month or within such

extended time as the Commissioner of Crown Lands may allow. Town lands may be sold subject to the condition that they cannot be transferred or mortgaged within 6 years without the consent of the Commissioner.

(ii) *Areas Sold, etc.* During the year ended 30th June, 1938, the area of town lands and special blocks sold by auction was 67 acres. In addition, 18,521 acres were sold at fixed prices, and the purchases of 83,356 acres on credit were completed, making a total of 101,944 acres.

5. *Western Australia.*—(i) *Sales by Auction.* Town, suburban and village lands must be sold by auction after being surveyed into lots and notified in the *Gazette*. Ten per cent. of the purchase money must be paid in cash, together with the value of any improvements, and the balance in four equal quarterly instalments. Suburban land must be fenced within 2 years, and no Crown grant may be issued until the land is fenced.

(ii) *Areas Sold.* During the year ended 30th June, 1938, the area of town and suburban allotments sold by auction was 551 acres in 281 allotments.

6. *Tasmania.*—(i) *Sales by Auction.* Town lands may be sold by auction for cash or on credit. No town land, the price of which is less than £15, may be sold on credit.

(ii) *After-Auction Sales.* Town lands, not within 5 miles of any city, which, after having been offered at auction, have not been sold, may be sold at the upset prices by private contract.

(iii) *Sales of Land in Mining Towns.* Any person being the holder of a residence licence or business licence who shall be in lawful occupation of any residence area or business area, and who shall be the owner of buildings and permanent improvements upon such land of a value equal to or greater than the upset price of such area, shall be entitled to purchase such area at the upset price at any time prior to the day on which such area is to be offered for sale as advertised. The upset price for such area shall not be less than £10, exclusive of the value of improvements, cost of survey, and of grant deed. The area which may be so purchased may, with the consent of the Commissioner, exceed one-quarter of an acre, but shall not in any case exceed one-half of an acre.

§ 4. Conditional Purchases of Freehold.

1. *General.*—The various methods of obtaining Crown lands by conditional purchase in the several States are given in some detail in preceding issues of the Official Year Book (see No. 22, pp. 141-9).

2. *New South Wales.*—At the 30th June, 1938, the total number of conditional purchases in existence was 52,428, covering an area of 17,645,860 acres. The following table gives particulars of conditional purchases, including non-residential conditional purchases and special area conditional purchases, for the year ended 30th June, 1938, together with the total area for which deeds had been issued :—

CONDITIONAL PURCHASES : NEW SOUTH WALES.

Year ended 30th June—	Applications Received. (a)		Applications Confirmed.(a)		Areas for which Deeds have been Issued.	
	Number.	Area.	Number.	Area.	During the Year.	To end of Year.
1938	125	Acres. 17,760	74	Acres. 9,938	Acres. 690,338	Acres. 27,365,252

(a) Exclusive of 546 conversions from other tenures comprising 134,720 acres.

3. **Victoria.**—Exclusive of selection in the Mallee country, the total area purchased conditionally in 1937 was 44,906 acres, all with residence. The number of selectors was 202. The total area of Mallee country purchased conditionally in the same year was 6,778 acres, all with residence, the number of selectors being 20.

In addition the final payments were made during the year on conditional purchases comprising 773 acres in country other than Mallee and 231 acres of Mallee lands.

4. **Queensland.**—(i) *General.* From 1917 until the passing of The Land Acts Amendment Act of 1929 the law prohibited land being made available for selection with the right to acquire the freehold title. The 1929 measure, however, amended the law in this respect but a further amendment which took effect on the 1st December, 1932, precludes land being made available under any freehold tenure.

(ii) *Areas Sold, etc.* The following selections were made freehold during the year 1937:—Agricultural Farms, 197,606 acres; Agricultural Homesteads, 2,641 acres; Prickly-Pear Selections, 16,644 acres: and Prickly-Pear Development Selections, 530 acres.

5. **South Australia.**—The land allotted under agreements to purchase during the year 1937-38 was 105,709 acres, comprising Eyre's Peninsula Railway lands 17,910 acres, Murray Railway lands 4,780 acres, closer settlement lands 48,826 acres, soldiers' acquired lands 3,354 acres, surplus lands 5,841 acres, soldiers' ordinary lands 1,220 acres, agricultural graduates lands 4,510 acres, and other Crown lands 10,250 acres.

6. **Western Australia.**—During the year ended the 30th June, 1938, the number of holdings conditionally alienated was 719, the total area involved being 718,273 acres, comprising conditional purchases by deferred payments with residence and without residence of 702,557 and 225 acres respectively, and free homestead farms 15,491 acres. Under the heading "Deferred payments (with residence)" are included conditional purchases of grazing lands.

In addition, Crown grants were issued during the year for the following selections, the prescribed conditions having been complied with:—Free homestead farms 19,092 acres and conditional purchases 269,438 acres.

7. **Tasmania.**—During the year 1937, conditional purchases of 14,986 acres were completed. The total area sold conditionally was 9,609 acres, comprising selections for purchase 9,319 acres, and town and suburban allotments 290 acres. The numbers of applications received and confirmed during the year were 96 and 68 respectively.

§ 5. Leases and Licences under Land Acts.

1. **General.**—Information regarding the methods of obtaining leases and licences of Crown lands in the several States and Territories is given in preceding issues of the Official Year Book (see No. 22, pp. 149-163).

2. **New South Wales.**—On the 30th June, 1938, the area of leases and licences under the control of the Department of Lands, the Water Conservation and Irrigation Commission, and the Western Lands Commission, comprised 111,506,050 acres of Crown lands, compared with 111,110,841 acres at the close of the previous year.

The following table shows the areas which were granted under lease or licence during the year 1937-38, and those held under various descriptions of leases and licences at the end of that year :—

AREAS TAKEN UP AND OCCUPIED UNDER LEASE OR LICENCE : NEW SOUTH WALES, 1937-38.(a)

Particulars.	Area taken up during the year.	Area occupied at end of the year.
	Acres.	Acres.
<i>Areas taken up under Crown Lands Act.</i>		
Occupation licences—ordinary .. .. .	..	1,153,979
preferential .. .. .	..	597,075
Conditional leases	5,687	11,720,572
Conditional purchase leases .. .. .	..	177,195
Settlement leases	2,159	2,833,406
Improvement leases	13,240	188,162
Annual leases	81,813	609,079
Scrub leases	2,420	102,869
Snow leases	10,100	423,167
Special leases	125,238	972,205
Inferior land leases .. .. .	..	37,540
Residential leases (on gold and mineral fields)	399	4,266
Church and school lands .. .. .	..	11
Permissive occupancies	275,597	1,604,334
Prickly-pear leases	4,827	161,947
Crown leases	97,737	7,244,808
Homestead farms	16,567	4,476,577
Homestead selections and grants	538	1,650,410
Suburban holdings	818	54,450
Week-end leases	26	218
Leases of town lands .. .. .	..	67
Returned soldiers' special holdings .. .. .	..	15,620
Irrigation areas	9,311	289,693
<i>Areas taken up under Western Lands Act.</i>		
Conditional leases .. .. .	..	100,543
Perpetual leases .. .. .	..	42,762,110
Other long-term leases	99,967	34,191,314
Permissive occupancies	21,000	134,433
Total	767,444	111,506,050

(a) Exclusive of mining leases and forest leases and occupation permits.

3. Victoria.—During 1937 Crown lands taken up under leases and licences comprised 96 acres of auriferous lands (licences), together with numerous grazing licences of a temporary nature. The area of Crown lands occupied under leases and licences in 1937 was 5,474,100 acres (a decrease of 89,185 acres compared with the previous year) comprising grazing licences (exclusive of Mallee) 3,528,794 acres, Mallee lands 1,829,408 acres, auriferous lands (licences) 23,941 acres, swamp lands (leases) 3,714 acres, perpetual leases (other than Mallee) 4,977 acres, perpetual leases (Mallee) under Land Act 1928, 77,011 acres, and other leases, 5,355 acres.

4. Queensland.—The total area taken up under lease or licence during the year 1937, including land in the Dawson Valley Irrigation Area, was 15,266,526 acres, made up as follows :—Pastoral leases 12,297,120 acres; occupation licences 929,040 acres; grazing farms (all classes), 653,949 acres; grazing homesteads (all classes), 499,657 acres; perpetual lease selections 207,457 acres; perpetual lease prickly pear selections 8,958 acres; perpetual lease prickly-pear development selections 113,076 acres; auction perpetual leases—town 186 acres, suburban 45 acres, and country 906 acres; special leases 71,315 acres; leases of reserves 31,427 acres; and forest grazing leases 452,400 acres.

The gross area held at the end of the year 1937 under pastoral tenure was 387,900 square miles.

The total areas occupied under lease or licence will be found in a table at the end of this chapter.

5. **South Australia.**—The total area leased during 1937–38 under the different forms of lease tenure was 3,788,261 acres, made up as follows :—Perpetual leases—irrigation and reclaimed lands 478 acres, and other Crown lands 262,336 acres; pastoral leases 3,176,960 acres; and miscellaneous leases—grazing and cultivation 348,487 acres.

The total areas held under lease are given in the table at the end of this chapter.

6. **Western Australia.**—The number of leases issued by the Lands Department during the year ended 30th June, 1938, was 828 and the total area of leases issued 3,884,942 acres, comprising pastoral leases 3,395,160 acres, special leases (including leases under Section 116 of Land Act 1933 for grazing purposes) 296,169 acres, leases of reserves 193,063 acres, and residential leases 550 acres.

The total areas leased are given in the table at the end of this chapter.

7. **Tasmania.**—The area of pastoral leases issued during the year 1937 was 152,220 acres.

The total areas leased are given in the table at the end of this chapter.

8. **Northern Territory.**—The total area held under lease, licence and permit at the 30th June, 1937, was 215,161 square miles, comprising pastoral leases 178,466 square miles, pastoral permits 696 square miles, grazing licences 35,482 square miles, agricultural leases 120 square miles, and miscellaneous leases, including water leases, 397 square miles.

9. **Australian Capital Territory.**—The number of leases granted under the City Area Leases Ordinances 1936–1938 to the 30th June, 1938 (excluding leases surrendered and determined), was 376, representing a capital value of £191,928. During the year 32 new leases were granted.

Fourteen leases have been granted under the Church Lands and Special Purposes Ordinances for church and scholastic purposes. In addition a lease in perpetuity has been granted under the Church of England Land Ordinance 1926 for church purposes.

§ 6. Leases and Licences under Mining Acts.

1. **General.**—Information regarding the various forms of leases and licences under Mining Acts in the several States and the Northern Territory is given in preceding issues of the Official Year Book (see No. 22, pp. 170–7).

2. **New South Wales.**—The following table gives particulars of operations on Crown lands for the year 1937–38 :—

AREAS TAKEN UP UNDER MINING ACTS: NEW SOUTH WALES, 1937–38.

Purposes for which Issued or Occupied.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining	5,787	19,128
Mining for other minerals	8,187	169,944
Authorities to prospect	10,912	10,900
Other purposes	409	7,315
Total	25,295	207,287

The area of land held under lease only at the 30th June, 1938, was 187,892 acres.

3. *Victoria*.—During the year 1937, 366 leases, licences, etc. (including 241 for gold mining) were issued covering an area of 290,112 acres, the rent, fees, etc., for which amounted to £3,925. The area occupied at the end of the year was 426,583 acres, comprising 125,351 acres for gold, 284,706 acres for oil, 12,968 acres for coal and 3,558 acres for miscellaneous purposes.

4. *Queensland*.—During the year 1937, the number of miners' rights issued was 7,122, and of business licences 8. The following table gives particulars regarding the areas of lands taken up under lease or licence and the total areas occupied for the year 1937. In addition, an area estimated at 25,000 acres was at the end of 1937 held under miners' rights and dredging claims.

AREAS TAKEN UP UNDER MINING ACTS : QUEENSLAND, 1937.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining	2,831	7,818
Mining for other minerals	1,497	25,319
Miners' homestead leases	13,991	379,947
Petroleum-prospecting permits.	88,400	109,405
Coal prospecting areas	1,600	1,600
Total	108,319	524,089

In addition the following authorities to prospect were held :—Petroleum, 39,987 square miles ; tin, 2,100 acres ; and gold, 2,740 acres.

The area of land held under lease only at the 31st December, 1937, was 424,937 acres.

5. *South Australia*.—The following table gives particulars of operations for the year 1937-38.

AREAS TAKEN UP UNDER MINING ACTS : SOUTH AUSTRALIA, 1937-38.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining leases	50	1,851
Mineral and miscellaneous	3,114	57,909
Claims	3,889	6,402
Search licences and permits	18,560	18,560
Occupation licences .. .. .	..	48
Total	25,613	84,770

6. *Western Australia*.—The following table gives particulars of operations for the year 1937, the figures being exclusive of holdings under miners' rights and mineral oil licences. Of the areas shown as taken up in 1937, the area under lease was 6,002 acres for gold-mining, 992 for mining for other minerals, 485 for miners' homesteads, and 250 for miscellaneous—a total of 7,729 acres. The balance was taken up under licences.

AREAS TAKEN UP UNDER MINING ACTS : WESTERN AUSTRALIA, 1937.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining	49,054	60,346
Mining for other minerals	14,791	54,705
Other purposes	4,102	40,118
Total	67,947	155,169

7. Tasmania.—During the year 1937, the number of leases issued was 227, of which 11 were for gold-mining, covering 287 acres; and 94 for tin, covering 2,627 acres. The following table gives particulars for the year 1937:—

AREAS TAKEN UP UNDER MINING ACTS: TASMANIA, 1937.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining	695	2,619
Mining for other minerals	6,027	21,368
Licences to search for coal or oil	500	10,600
Other purposes	414	3,617
Mining for coal	518	6,067
Total	8,154	44,271

8. Northern Territory.—At the 30th June, 1937, there existed 19 mineral leases comprising 325 acres, and 22 gold-mining leases, comprising 800 acres. There were also 360 protected gold-mining lease applications for 12,808 acres, 120 protected mineral lease applications for 4,365 acres, 13 gold reef claims for 155 acres, 46 mineral reef claims for 569 acres, 2 dredging lease applications for 488 acres, and 23 machinery and tailings areas for 70 acres. In addition, 18 exclusive prospecting licences covering 56 square miles, and 10 mineral oil and coal licences covering 10,900 square miles were issued.

9. Summary.—The following table shows the areas under leases and licences for mining purposes and the total areas occupied for the years 1923, 1928 and 1935 to 1937:—

CROWN LANDS, LEASES AND LICENCES FOR MINING PURPOSES.

Year.	N.S.W. (a)	Victoria.	Q'land.(b)	S. Aust.(b)	W. Aust.(c)	Tas. (b)	Total.(d)
AREAS FOR WHICH LEASES AND LICENCES ISSUED DURING YEAR.							
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1923 ..	28,492	9,207	67,754	610,377	37,567	47,535	800,932
1928 ..	(e) 944,119	8,302	1,793,028 ^f	196,521	47,975	23,910	3,013,855
1935 ..	13,580	71,368	17,399	(a) 55,799	115,386	6,830	280,362
1936 ..	72,892	117,510	169,387	(a) 28,395	76,749	16,525	481,458
1937 ..	25,295	299,112	108,319	(a) 25,613	67,947	8,154	534,440

TOTAL AREAS OCCUPIED AT END OF YEAR.

1923 ..	299,688	47,361	444,586	653,899	127,829	77,627	1,650,900
1928 ..	310,497	39,904	2,810,262	242,682	132,536	54,362	3,590,249
1935 ..	249,322	155,578	458,127	(a) 133,238	178,815	36,549	1,211,629
1936 ..	260,733	214,404	567,909	(a) 127,556	155,443	45,025	1,371,079
1937 ..	207,287	426,583	524,089	(a) 84,770	155,169	44,271	1,442,169

(a) Year ended 30th June following. (b) Exclusive of lands held under miners' rights only.
 (c) Exclusive of holdings under miners' rights and mineral oil licences. (d) Exclusive of Northern Territory.
 (e) Includes one area of 900,000 acres. (f) Mainly Petroleum-prospecting permits.

§ 7. Closer Settlement.

I. General.—Particulars regarding the methods of acquisition and disposal of land for closer settlement in the several States are given in preceding Year Books (see No. 22, pp. 163-9).

2. **New South Wales.**—Since the inception of closer settlement in 1905, 1,847 estates totalling 4,049,185 acres have been purchased by the Crown for purposes of closer settlement of civilians and returned soldiers. The total area set apart and the number of farms made available to 30th June, 1938, are as follows :—

CLOSER SETTLEMENT AREAS (a) : NEW SOUTH WALES.

To 30th June—	Areas.			Values.		
	Acquired Lands.	Adjoining Crown Lands.	Total.	Cost of Acquired Lands.	Value of Adjoining Crown Lands.	Total.
	Acres.	Acres.	Acres.	£	£	£
1938.. ..	4,049,185	204,455	4,253,640	14,671,933	349,565	15,021,498

(a) Includes 70 long-term leases resumed for closer settlement, but excludes areas acquired for village sites, 3,665 acres.

The following table gives particulars regarding the disposal of the farms by closer settlement purchase at the 30th June, 1938 :—

CLOSER SETTLEMENT ALLOTMENTS : NEW SOUTH WALES.

At 30th June—	Farms Allotted to Date.			Total Amount received in respect of Closer Settlement Farms.
	Number.	Area.	Capital Value.	
	No.	Acres.	£	£
1938.	8,899	4,099,504	13,672,398	11,098,948

3. **Victoria.**—The following statement shows the operations under the provisions of the Closer Settlement Acts to the 30th June, 1938 :—

**CLOSER SETTLEMENT : VICTORIA.
(INCLUDING IRRIGATED AREAS.)**

To 30th June—	Total Area Acquired.	Total Cost of Purchases. (a)	How Made Available for Settlement.							Total Receipts (Land and Advances).	Repayments of Principal (Land and Advances).	Area Available for Settlement at 30th June.
			Farm Allotments.	Workmen's Homes Allotments.	Agricultural Labourers' Allotments.	Town Allotments. (b)	Roads and Reserves.	Number of Farms, etc.				
	Acres.	£	Acres.	Acres.	Acres.	Acres.	Acres.	No.	£	£	Acres	
1938	1,402,568	10,244,023	1,162,676	790	3,484	86,599	14,775	8,722	14,297,492	4,779,268	1,006	

(a) Includes value of Crown Lands taken over. Conditional Purchase Lease.

(b) Includes all land sold other than under

In the above table the area and cost of land acquired for closer settlement purposes include, in addition to 133,128 acres purchased for £1,246,722 and transferred subsequently to discharged soldiers, a total area of 512,757 acres costing £4,125,822 which was purchased originally for the settlement of discharged soldiers.

4. **Queensland.**—Separate records relating to the closer settlement of re-purchased land are no longer kept by the Land Administration Board, and the operations under this heading are now included with "Leases and Licences under Land Acts." The total area

acquired to 31st December, 1934, was 970,778 acres, costing £2,292,881. At the same date the area allotted amounted to 915,690 acres distributed over 3,048 selections, consisting of 2,155 agricultural farms, 257 unconditional selections, 544 perpetual lease selections, 9 prickly-pear selections, 6 perpetual lease prickly-pear selections and 77 settlement farm leases. An area of 13,038 acres was sold by auction.

5. **South Australia.**—The following table shows the area of land acquired for the purposes of closer settlement, and the manner in which it had been dealt with to the 30th June, 1938:—

CLOSER SETTLEMENT : SOUTH AUSTRALIA.

To 30th June—	Area of Lands Re- purchased (exclusive of land afterwards set apart for other purposes).	Agree- ments with Covenants to Purchase.	Total Area Leased as Homestead Blocks.		Perpetual Leases.	Mis- cellaneous Leases.	Sold.	Remainder Un- occupied (including roads and land in course of allotment).
			Right of Purchase.	Perpetual Lease.				
1938 ..	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
	817,913	490,829	260	1,286	44,813	14,811	239,883	27,317

The total area repurchased at 30th June, 1938, was 912,456 acres at a cost of £2,880,632. Included in these figures are 64,766 acres purchased for £282,762 and afterwards set apart for discharged soldiers, 3,214 acres reserved for forest and waterworks purposes, the purchase money being £16,185, and also 26,563 acres of swamp and other lands which were purchased for £111,580 in connexion with reclamation of swamp-lands on the River Murray. Of the total area, 790,596 acres have been allotted to 2,782 persons, the average area to each being 280 acres.

6. **Western Australia.**—The total area acquired for closer settlement up to the 30th June, 1938, was 905,713 acres, costing £1,180,443. Of this area, 23,535 acres have been set aside for roads, reserves, etc., leaving a balance of 882,178 acres available for selection. Particulars of operations under the Act for the year ending 30th June, 1938, are as follows:—Area selected during the year 13,834 acres; number of farms, etc., allotted to date 1,513; total area occupied to date 745,564 acres; balance available for selection 136,614 acres; and total revenue £920,363.

7. **Tasmania.**—Up to the 30th June, 1938, 37 areas had been opened up for closer settlement. The total purchase money paid by the Government was £367,680 and the total area acquired amounted to 103,366 acres, including 12,053 acres of Crown Lands. The number of farms allotted was 331.

8. **Summary.**—The following table gives particulars of operations under the Closer Settlement Acts at the 30th June, 1938:—

**CLOSER SETTLEMENT : TOTAL AREAS ACQUIRED AND ALLOTTED AT
30th JUNE, 1938.**

Particulars.	N.S.W.	Victoria.	Q'land. (d)	S. Aust.	W. Aust.	Tas.	Total.
Area acquired(a) acres	4,253,640	1,402,568	970,778	817,913	905,713	103,366	8,453,978
Purchase price (b) £	14,671,933	10,195,818	2,292,881	2,470,105	1,180,443	367,680	31,178,860
Farms, etc., { No. (c)	8,899	8,722	3,048	2,782	1,513	331	25,295
alotted { acres	4,099,504	1,300,078	915,690	790,596	745,564	103,366	7,954,763

(a) Includes Crown lands—New South Wales, 204,455 acres; Victoria, 70,433 acres; Tasmania 12,053 acres.

(b) Private lands only.

(c) Includes 1,710,272 acres in New South Wales and 133,128 acres in Victoria subsequently transferred to soldier settlement, and their subdivisions into allotments.

(d) As at 31st December, 1934.

(e) Area acquired. Area actually allotted not available.

(f) Area sold by auction, etc., 86,599 acres.

§ 8. Settlement of Returned Soldiers and Sailors.

1. **General.**—Information in regard to the methods adopted in each State for providing land for the settlement of returned soldiers and sailors, together with the conditions under which such land could be acquired, is given in earlier issues of the Official Year Book (see No. 13, pp. 1016–1023, and No. 18, pp. 187–189). Later modifications have been made with a view to simplifying procedure and liberalizing the conditions under which holdings may be acquired.

Particulars respecting the position of soldier settlement in each State at the latest available date are given in the paragraphs immediately following.

2. **New South Wales.**—At the 30th June, 1938, the area set apart for soldiers was 9,755,264 acres, of which 1,710,272 acres comprised acquired land purchased at a cost of £8,113,956. The number of settlers to whom farms, etc., had been allotted up to the 30th June, 1938, was 9,675. Four thousand nine hundred and twenty-seven soldiers have either transferred or abandoned their farms, leaving 4,748 in occupation of 7,342,347 acres, of which 5,975,924 acres were Crown lands (including 3,687,465 acres in the Western Division taken up under the Western Lands Act), 1,278,647 acres acquired lands, and 87,776 acres within Irrigation Areas. These totals exclude 703 discharged soldiers who purchased privately-owned land with their own capital and were granted advances for the purchase of stock and plant or for effecting improvements.

3. **Victoria.**—At the 30th June, 1938, the area acquired or set apart for soldier settlement was 2,482,286 acres consisting of 1,763,241 acres of private land purchased at a cost of £13,361,266, 133,128 acres costing £1,246,722 taken over from Closer Settlement, and 585,917 acres of Crown lands valued at £447,622. Subsequently 512,757 acres valued at £4,125,822 were transferred to Closer Settlement. Up to the 30th June, 1938, the number of settlers to whom farms, etc., had been allotted was 12,126, and the number of farms, etc., allotted was 9,784 (including 955 farms originally purchased for closer settlement purposes) containing 2,365,518 acres. In addition, 802 share farmers and holders of leasing agreements and private land had received assistance. The number of farms, etc., occupied at the 30th June, 1938, was 8,426 (including 1,001 originally purchased for closer settlement) containing 1,734,370 acres.

4. **Queensland.**—At the 30th June, 1929, the area acquired or set apart for soldier settlement was 577,633 acres, of which 41,101 acres comprised private land, purchased at a cost of £270,480. The number of farms occupied was 1,148, containing 440,992 acres. Some of these selections were acquired under the ordinary provisions of the Land Act, and do not include areas specially set apart for soldiers.

As special records are not now kept respecting the areas held by discharged soldier settlers later information cannot be given.

5. **South Australia.**—At the 30th June, 1938, the area of land acquired or set apart for soldier settlement was 1,336,612 acres, of which 1,202,653 acres comprised private land purchased at a cost of £3,863,572. These figures are exclusive of mortgages discharged, £494,770 on 360,403 acres representing 300 farms, etc., and 314 settlers. The number of soldiers to whom assistance had been granted under the Discharged Soldiers' Settlement Acts up to the 30th June, 1938, was 4,185, and the area of farms, etc. (including mortgages discharged), on which assistance had been granted was 2,746,744 acres. At the 30th June, 1938, farms, etc., occupied numbered 1,843 containing 1,455,272 acres.

6. **Western Australia.**—At the 30th June, 1938, the area of land acquired or set apart for soldier settlement was 14,287,643 acres, of which 345,110 acres comprised private land purchased at a cost of £605,076. Up to the 30th June, 1938, assistance had been given to 5,213 returned soldiers, and the Agricultural Bank held 3,169 properties as security for advances. The area held, including pastoral leases, was approximately 25,830,000 acres, and advances approved amounted to £6,699,321. The number of farms, etc., occupied by returned soldiers at the 30th June, 1938, was 1,900.

7. Tasmania.—At the 30th June, 1938, the area acquired or set apart for soldier settlement was 343,137 acres, of which 273,772 acres comprised private land purchased at a cost of £2,059,864. Up to the 30th June, 1938, the number of settlers to whom farms, etc., had been allotted was 2,380, and the number of farms, etc., allotted was 2,189 containing 343,137 acres. The number of farms, etc., occupied at the 30th June, 1938, was 1,531 containing 302,878 acres.

8. Summary.—The following table gives a summary of the area acquired, the purchase price thereof, the number of settlers assisted, and the number and area of farms occupied in all the States to the 30th June, 1938 :—

SOLDIER SETTLEMENT : AREAS ACQUIRED, SETTLERS ASSISTED AND FARMS OCCUPIED, 30th JUNE, 1938.

Particulars.	New South Wales.	Victoria.	Queensland.(c)	Sth. Australia.	Western Australia.	Tasmania.	Total.
Area acquired or set apart—							
(i) Private land acquired acres	1,710,272	1,896,369	41,101	1,202,653	345,110	273,772	5,469,277
(ii) Crown lands set apart acres	8,044,992	585,917	536,532	133,959	13,942,533	69,365	23,313,298
Total land acquired or set apart acres	9,755,264	2,482,286	577,633	1,336,612	14,287,643	343,137	28,782,575
Price paid by Government for private lands £	1,113,956	1,607,988	270,480	3,863,572	605,076	2,059,864	29,520,936
Number of settlers to whom farms, etc., had been allotted up to the 30th June, 1938	9,675	12,126	(g)	(e) 4,185	(e) 5,213	2,380	(g)
Farms, etc., occupied at the 30th June, 1938	4,748	8,426	1,148	(f) 1,843	1,900	1,531	19,596
acres	7,342,347	1,734,379	440,992	1,455,272	(g)	302,878	(g)

(a) Included with closer settlement. (b) Including 512,757 acres costing £4,125,822 subsequently transferred to closer settlement, or its subdivision into farms, etc. (c) At 30th June, 1929; later information not available. (d) Excludes mortgages discharged, £494,770 on 360,403 acres representing 300 farms, etc., and 314 settlers. (e) Number of soldiers to whom assistance had been granted under the Discharged Soldiers' Settlement Acts. (f) Including mortgages discharged. (g) Not available.

9. Losses on Soldier Settlements.—(i) *General.* At the Premiers' Conference in Melbourne in 1917, it was agreed that the States should undertake the work of settling on the land returned soldiers and munition and war workers, and that the Commonwealth should raise the necessary loans for the States for this purpose.

The original arrangement provided that the Commonwealth should take the responsibility of finding up to £500 per settler as working capital for improvements, implements, seed, etc., an amount which was subsequently increased to £625, together with £375 per settler for resumptions and works incidental to land settlement approved by the Commonwealth. Loans were to be advanced to the settlers by the States at reasonable rates of interest not exceeding 3½ per cent. in the first year, increasing by ½ per cent. each subsequent year to the full rate of interest at which the money had been raised, plus working expenses, the difference between these rates and the cost of the money to the Government to be borne equally by the Commonwealth Government and the State Government. This provision respecting interest loss was not ultimately carried out as passed, the Commonwealth Government assuming responsibility for more than one-half of the interest loss, viz., a rebate of interest equal to 2½ per cent. per annum during a period of five years from the date of payment to the State of each instalment of loan money.

(ii) *Report by Mr. Justice Pike.* In addition to this expected loss of interest other losses have occurred in connexion with soldier settlement, and in 1927 Mr. Justice Pike, of the Land Valuation Court of New South Wales, was commissioned to report, not only on the losses, but on the principles on which financial responsibility should be divided. His report in 1929, to which reference should be made for fuller information, found that in all the negotiations concerning soldier settlement on the land the States insisted on

undivided control, and that financial responsibility went along with control except so far as the Commonwealth definitely promised to give assistance. The undertaking of the Commonwealth to share equally with the States the cost of lower interest rates to soldier settlers was made the basis of a practical compromise, and the report recommended that the total loss should be shared equally between the two parties.

The gross losses were assessed at £23,525,522 distributed amongst the States as follows :—New South Wales, £7,003,950; Victoria, £7,721,891; Queensland, £1,853,315; South Australia, £3,565,829; Western Australia, £2,059,368; and Tasmania, £1,321,169. Other concessions granted by the Commonwealth Government increased its proportion of the losses to £12,333,000.

§ 9. Tenure of Land by Aliens.

Information regarding the terms and conditions under which land can be held by aliens is contained in earlier issues of the Official Year Book (see No. 18, pp. 190-1).

§ 10. Advances to Settlers.

1. **General.**—A detailed statement regarding the terms and conditions governing advances to settlers in the several States and the Northern Territory will be found in preceding issues of the Official Year Book (see No. 22, pp. 179-186).

In this section are summarized the loans and advances made by the various Government lending agencies in the States including the transactions in lands acquired under closer and soldier settlement schemes. The balances owing on former Crown lands sold on the conditional purchase, etc., system, however, are not included.

The amounts outstanding do not represent the actual differences between the total advances and settlers' repayments, for considerable remissions of indebtedness have been made in all States as a result of reappraisements of land values and the writing down of debts.

2. **New South Wales.**—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1938 :—

ADVANCES TO SETTLERS: NEW SOUTH WALES.

Advances.	Advances made during 1937-38.	Total Advances at 30th June, 1938.	Amount outstanding at 30th June, 1938.	
			Number of Loans Current.	£ -
Department of Lands—	£	£		
Closer and Soldier Land Settlement	89,623	14,658,218	8,477	12,237,076
Soldier Settlers	307	3,195,151	2,558	1,062,937
Wire Netting	15,678	1,413,829	4,205	425,084
Prickly Pear	6,061	116,378	479	20,466
Rural Bank—				
Rural Bank Department	1,765,411	33,269,436	16,421	15,067,427
Government Agency Department—				
Necessitous Farmers	84,320	5,839,130	2,736	1,036,277
Unemployment Relief and Dairy Promotion	30,125	1,243,959	4,240	856,377
Farmers' Relief Agency(c)	1,072,818	3,174,982	4,599	1,651,142
Shallow Boring	17,586	760,597	1,119	241,827
Irrigation Areas	98,470	(b)	(b)	1,563,265
Government Guarantee Agency	8,202	13,053	12	8,384
Closer Settlement Agency	5,580	5,580	9	5,630
Total	3,194,181	63,690,313	44,855	34,175,892

(a) In addition, the sum of £1,899,963 has been expended on developmental works on soldiers' settlements. (b) Not available. (c) Includes Debt Adjustment Advances (Commonwealth Monies); amount outstanding, £949,924.

3. Victoria.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1938 :—

ADVANCES TO SETTLERS : VICTORIA.

Advances.	Advances made during 1937-38.	Total Advances at 30th June, 1938.	Amount outstanding at 30th June, 1938.	
			Number of Persons.	£
	£	£		
Crédit Foncier—				
Civilians	183,169	10,692,024	4,484	4,191,540
Discharged Soldiers	2,139	839,817	418	397,038
Treasurer—				
Cool Stores, Canneries, etc. .. .. .	..	615,582	(b) 18	318,235
Closer Settlement Commission—				
Closer Settlement Settlers	44,535	20,141,885	5,240	5,974,240
Soldier Settlers .. .. .	..	26,757,255	5,448	8,181,122
Cultivators of Land	11,242	1,561,283	1,209	241,961
Wire Netting	14,226	535,850	(c)	236,193
Total	255,311	61,143,696	16,817	19,540,329

(a) Represents Consolidated Debts of settlers (Section 40, Act 4001). (b) Companies and Co-operative Societies. (c) Not available. (d) Debts adjusted by Closer Settlement Commission under Section 32 of the Closer Settlement Act 1932.

4. Queensland.—The following table gives particulars of advances to 30th June, 1938. The figures are exclusive of transactions in land :—

ADVANCES TO SETTLERS : QUEENSLAND.

Advances.	Advances made during 1937-38.	Total Advances at 30th June, 1938.	Amount outstanding at 30th June, 1938.	
			Number of Persons.	£
	£	£		
Agricultural Bank	258,313	7,741,988	4,745	1,615,565
Discharged Soldiers' Settlement (a)	3,379	2,446,522	1,617	579,259
Water Facilities .. .. .	..	58,079	296	42,806
Wire Netting, etc.	29,164	980,039	3,369	468,880
Seed Wheat	14,151	(b) 109,973	(c)	15,624
Drought Relief .. .. .	..	294,458	(c)	126,046
Income (Unemployment Relief) Tax (e)	68,122	869,936	4,951	611,021
Irrigation	4,083	53,720	68	31,904
Other	233	1,761	42	670
Total	377,445	12,556,476	(d)	3,491,775

(a) Includes advances to group settlements through the Lands Department, as well as advances through the Agricultural Bank. (b) Includes accrued interest. (c) Not available. (d) Incomplete. (e) Largely for rural development (ringbarking, clearing, fencing, etc.).

5. South Australia.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1938 :—

ADVANCES TO SETTLERS : SOUTH AUSTRALIA.

Particulars.	Advances made during 1937-38.	Total Advances at 30th June, 1938.	Amount outstanding at 30th June, 1938.		Arrears of Interest at 30th June, 1938.
			Number of Persons.	£	
	£	£			£
Department of Lands—					
Advances to soldier settlers ..	38,543	4,733,708	1,084	2,954,924	677,970
Advances to blockholders ..	..	41,451	4	18	..
Advances for sheds and tanks ..	..	75,693	301	48,643	16,803
Advances under Closer Settlement Acts ..	30,101	2,416,813	1,370	1,369,866	101,508
Advances under Agricultural Graduates Settlement Act ..	4,966	46,334	28	44,191	434
Farmers Assistance Board—					
Advances in drought-affected areas	295	2,601,758	1,356	624,058	113,622
Advances under Farmers Relief Acts (a) ..	448,554	3,706,438	1,017	642,182	4,268
Irrigation Branch—					
Advances to civilians ..	1,959	266,977	407	112,250	41,399
Advances to soldier settlers ..	1,822	1,076,818	759	950,786	239,404
State Bank of South Australia (C. F. Department) ..	55,562	4,965,729	1,939	975,107	31,075
Advances to settlers for improvements ..	7,729	886,387	1,199	312,438	93,476
Advances under Vermin and Fencing Acts ..	10,795	1,357,096	7,158	451,603	35,424
Advances under Loans to Producers Act ..	2,419	323,544	325	240,381	11,338
Total	602,745	22,498,746	16,947	8,726,447	1,366,721

(a) Previously shown under Advances in drought-affected areas.

6. Western Australia.—The following table gives particulars respecting advances etc., under State Authorities to 30th June, 1938 :—

ADVANCES TO SETTLERS : WESTERN AUSTRALIA.

Particulars.	Advances made during year 1937-38.	Total Advances at 30th June, 1938.	Amount outstanding at 30th June, 1938.	
			Number of Persons.	£
	£	£		
Development loans ..	228,264	9,724,492	6,624	5,133,447
Soldier settlement loans ..	43,672	6,051,351	3,169	4,280,936
Cropping advances ..	136,829	13,441,423	2,094	1,029,151
Group Settlement Advances	3,295	6,259,513	1,591	1,261,838
Repurchased Estates—				
Under A.L.P. Act 1909 ..	..	575,368	288	74,499
Soldier Settlement ..	..	605,076	625	173,676
Wire and Wire Netting Advances	4,189	517,699	2,870	472,478
Total	416,249	37,174,922	17,261	12,426,025

7. **Tasmania.**—The following table gives particulars respecting advances under State Authorities to 30th June, 1938. Although not regarded as an outstanding by the State Authority the figures in connexion with closer and soldier land settlement have been included in the table for comparative purposes; the areas so purchased have been leased on 99 year terms having an option of purchase which the leaseholder may exercise at any time.

ADVANCES TO SETTLERS : TASMANIA.

Advances.	Advances made during year 1937-38.	Total Advances at 30th June, 1938.	Amount outstanding at 30th June, 1938.	
			Number of Persons.	£
Agricultural Bank—	£	£		
State Advances Act and Rural Credits	113,297	783,421	1,450	363,930
Orchardists' Relief, 1926 .. .. .	..	46,832	49	1,830
Unemployed (Assistance to Primary Producers) Relief Act, 1930-1931	8,069	114,302	930	65,443
Bush Fire Relief Act, 1934 .. .. .	..	14,855	345	7,587
Flood Sufferers' Relief Act, 1929 .. .. .	..	35,523	130	8,777
Crop Losses, 1934-35 .. .. .	..	10,086	306	5,531
Minister for Agriculture—				
Soldier Settlers—				
Advances	29,597	783,593	1,265	111,519
Purchase of Estates, etc.	9,908	2,403,692	(a) 1,526	1,607,382
Closer Settlers—				
Advances	11,345	62,473	193	32,710
Purchase of Estates, etc.	8,781	467,281	(a) 306	379,638
Total	180,997	4,722,058	..	2,584,347

(a) Number of leaseholders and includes those to whom advances have been made.

8. **Northern Territory.**—During the financial year 1936-37 the amount of £145 was advanced, the total amount advanced to 30th June, 1937, being £22,920 (approximately). The balance outstanding from 49 settlers, at 30th June, 1937, including interest, was £6,593.

9. **Summary of Advances.**—The following table gives a summary for each State and the Northern Territory to the 30th June, 1938. With the exception of Queensland, where the figures are incomplete, the particulars so far as they are available represent the total sums advanced to settlers including amounts spent by the various Governments in the purchase and improvement of estates disposed of by closer and soldier land settlement, while the amounts outstanding reveal the present indebtedness of settlers to the Governments, including arrears of principal and interest but excluding amounts written off debts and adjustments for land revaluations.

ADVANCES TO SETTLERS : AUSTRALIA.

State.	Advances made during year 1937-38.	Total Advances at 30th June, 1938.	Amount outstanding at 30th June, 1938.	
			Number of Persons.	£
	£	£		
New South Wales	3,194,181	63,690,313	44,855	34,175,892
Victoria	255,311	61,143,696	16,817	19,540,320
Queensland	377,445	12,556,476	..	3,491,775
South Australia	602,745	22,498,746	16,947	10,093,168
Western Australia	416,249	37,174,922	17,201	12,426,025
Tasmania	180,997	4,722,058	..	2,584,347
Northern Territory (a)	145	22,920	49	6,593
Total	5,027,073	201,809,131	..	82,318,129

(a) Figures for 1936-37.

§ 11. Alienation and Occupation of Crown Lands.

1. **General.**—The figures given in the previous parts of this chapter show separately the areas alienated, in process of alienation, or occupied under various tenures. The following tables set out in summarized form the position in regard to the tenure of land in each State, in the Northern Territory, and in the Australian Capital Territory during the latest year for which information is available. Particulars for each year from 1927 onward will be found in *Production Bulletin*, No. 32, Part 1, page 9. The area unoccupied includes roads, permanent reserves, forests, etc. In some cases, lands which are permanently reserved from alienation are occupied under leases and licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

2. **New South Wales.**—Of the total area of New South Wales, 23.9 per cent. had been alienated at the 30th June, 1938, 10.6 per cent. was in process of alienation, 57.5 per cent. was held under leases and licences, and the remaining 8.0 per cent. was unoccupied or held by the Crown.

The following table gives particulars for the year ended 30th June, 1938 :—

ALIENATION AND OCCUPATION OF CROWN LANDS : NEW SOUTH WALES, 30th JUNE, 1938.

Particulars.	Acres.	Particulars.	Acres.
1. Alienated. (granted and sold prior to 1862 7,146,579 Sold by auction and other sales, 1862 to date 15,083,349 Conditionally sold, 1862 to date 27,365,252 Granted under Volunteer Land Regulations, 1867 to date 172,198 Granted for public and religious purposes 261,438 <hr/> 50,028,816 Less lands resumed or reverted to Crown 2,610,241 <hr/> Total 47,418,575		3. Held under Leases and Licences. Homestead Selections and Grants 1,650,410 Alienable leases, long term and perpetual 26,689,996 Other Long-term Leases 78,523,994 Short-term Leases and Temporary Tenures 4,641,650 Forest Leases and Occupation Per- mits 2,124,231 Mining Leases and Permits 187,892 <hr/> Total 113,818,173	
2. In Process of Alienation. Conditional purchases 17,645,860 Closer settlement purchases 2,875,738 Soldiers' group purchases 410,446 Other forms of sale 122,487 <hr/> Total 21,054,531		4. Unoccupied (a), Particulars of Lord Howe Island not being available the area, 3,220 acres, is included under unoccupied, (Approximate) 15,745,221	

Area of State—198,036,500 acres.

(a) Of this area only 3,433,747 acres are available for selection, the balance being reservations for roads and for various public purposes, water frontages, and river and lake surfaces.

3. **Victoria.**—The total area of the State of Victoria is 56,245,760 acres, of which 48.3 per cent. had been alienated up to the end of the year 1937; 9.9 per cent. was in process of alienation under deferred payments and closer settlement schemes; 10.5 per cent. was occupied under leases and licences; while 31.3 per cent. was unoccupied or held by the Crown.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : VICTORIA,
31st DECEMBER, 1937.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i>	27,171,853	3. <i>Leases and Licences held—</i>	
2. <i>In Process of Alienation—</i>		Under Lands Department—	
Exclusive of Mallee and Closer		Perpetual Leases	82,888
Settlement Lands	1,150,087	Other Leases and Licences ..	33,010
Mallee Lands (exclusive of		Temporary (Yearly) Graz-	
Closer Settlement Lands) ..	3,767,355	ing Licences	5,358,202
Closer Settlement Lands	666,383	Under Mines Department	426,583
Village Settlements	16	Total	5,900,683
Total	5,583,841	4. <i>Occupied by the Crown or</i>	
		<i>Unoccupied (a)</i>	17,589,383

Total area of State—56,245,760 acres.

(a) These Crown lands comprise reservations for roads and for various public purposes, 8,166,158 acres; water frontages, beds of rivers, lakes, etc., and unsold land in cities, towns and boroughs 3,903,337 acres; and other lands (unoccupied) 5,519,888 acres.

4. *Queensland.*—The total area of this State is 429,120,000 acres, of which, on the 31st December, 1937, 4.7 per cent. was alienated; 1.8 per cent. was in process of alienation; and 78.6 per cent. was occupied under leases and licences. The remainder 14.9 per cent. was either unoccupied or held as reserves or for roads.

The distribution is shown in the following table :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : QUEENSLAND,
31st DECEMBER, 1937.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated—</i>		3. <i>Occupied under Leases and</i>	
By Purchase	20,013,284	<i>Licences—</i>	
Without Payment	91,903	Pastoral Leases	239,606,080
Total	20,105,187	Occupation Licences	7,273,720
		Grazing Selections and Settle-	
2. <i>In Process of Alienation</i>	7,799,442	ment Farm Leases	81,350,958
		Leases—Special Purposes	1,184,758
		Under Mines Department	424,937
		Perpetual Lease Selections,	
		Perpetual Lease Prickly-	
		pear Selections and Irriga-	
		tion Leases	6,065,814
		Auction Perpetual Leases	25,083
		Prickly-pear Leases	194,560
		Forest Grazing Leases	1,181,400
		Total	337,307,315
		4. <i>Reserves, Surveyed Roads and</i>	
		<i>Surveyed Stock Routes (a)</i>	21,421,311
		5. <i>Unoccupied</i>	42,486,745

Total area of State—429,120,000 acres.

(a) Includes reserves of a total area of 18,422,328 acres.

5. *South Australia.*—The area of the State of South Australia is 243,244,800 acres and at the 30th June, 1938, 5.1 per cent. was alienated; 1.2 per cent. in process of alienation; 52.4 per cent. occupied under leases and licences; and 41.3 per cent. unoccupied or occupied by the Crown.

The subjoined table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : SOUTH AUSTRALIA,
30th JUNE, 1938.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> — Sold Granted for Public Purposes	12,218,120 183,558	3. <i>Held under Lease and Licence</i> — Right of Purchase Leases .. Perpetual Leases, including Irrigation Leases Pastoral Leases Other Leases and Licences .. Mining Leases and Licences ..	1,055,300 16,067,837 107,683,565 2,545,035 84,770
Total	12,401,678	Total	127,437,607
2. <i>In Process of Alienation</i>	2,989,951	4. <i>Area Unoccupied (a)</i>	100,416,064

Total area of State—243,244,800 acres.

(a) Includes surveyed roads, railways and other reserves, 16,500,332 acres; salt water lakes and lagoons, 7,680,000 acres; and fresh water lakes, 224,000 acres.

6. Western Australia.—The total area of Western Australia is 624,588,800 acres, of which, at the 30th June, 1938, 2.8 per cent. was alienated; 2.5 per cent. was in process of alienation; while 33.0 per cent. was occupied under leases and licences issued either by the Lands or the Mines Departments. The balance of 61.7 per cent. was unoccupied.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : WESTERN AUSTRALIA,
30th JUNE, 1938.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i>	17,645,460	3. <i>Leases and Licences in Force</i> — (i) Issued by Lands Department— Pastoral Leases Special Leases Leases of Reserves Residential Lots (ii) Issued by Mines Department— Gold-mining Leases Mineral Leases Miners' Homestead Leases (iii) Issued by Forests Department— Timber Permits	202,022,987 759,006 1,205,853 6,392 29,515 38,775 31,563 1,898,064
2. <i>In Process of Alienation</i> — Midland Railway Concessions Free Homestead Farms Conditional Purchases Selections from the late W. A. Company Selections under the Agricultural Lands Purchase Act Homestead or Grazing Leases Poison Land Leases or Licences Town and Suburban Lots	54,800 596,254 5,674,078 5,297 435,302 8,576,756 17,089 3,863	Total	205,992,155
Total	15,363,439	4. <i>Area Unoccupied (a)</i>	385,587,746

Total area of State—624,588,800 acres.

(a) Includes reservations for roads and for various public purposes, 48,241,203 acres.

7. Tasmania.—At the end of the year 1937, 34.9 per cent. of the total area had been alienated; 2.6 per cent. was in process of alienation; 16.4 per cent. was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement; the remainder (46.1 per cent.) was unoccupied or occupied or reserved by the Crown.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : TASMANIA.
31st DECEMBER, 1937.**

Particulars.	Acres.	Particulars.	Acres.
1. Alienated	5,860,594	3. Leases and Licences—continued.	
		(i) Issued by Lands Department	
		—continued.	
		Soldier Settlement ..	106,000
		Short-Term Leases ..	131,000
		Other	21,000
2. In Process of Alienation ..	437,720	(ii) Issued by Mines Department	44,271
3. Leases and Licences—			
(i) Issued by Lands Department—			
Islands	103,505	Total	2,754,337
Ordinary Leased Land ..	1,959,999		
Land Leased for Timber	308,562	4. Area Occupied by the Crown or	
Closer Settlement	80,000	Unoccupied (a)	7,725,349

Total area of State—16,778,000 acres.

(a) Includes reservations for roads and for various public purposes, 1,970,080 acres.

8. Northern Territory.—The area of the Northern Territory is 335,116,800 acres, of which, at the 30th June, 1937, only 0.2 per cent. was alienated; 54.6 per cent. was held under leases and licences; while the remaining 45.2 per cent. was unoccupied.

The following shows the mode of occupancy of areas at the 30th June, 1937 :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : NORTHERN TERRITORY,
30th JUNE, 1937.**

Particulars.	Acres.
1. Alienated	478,085
2. Leased—	
Pastoral Leases	114,218,560
Other leases, licences, reserves and mission stations ..	68,837,147
Total	183,055,707
3. Unoccupied	151,583,008
4. Total area	335,116,800

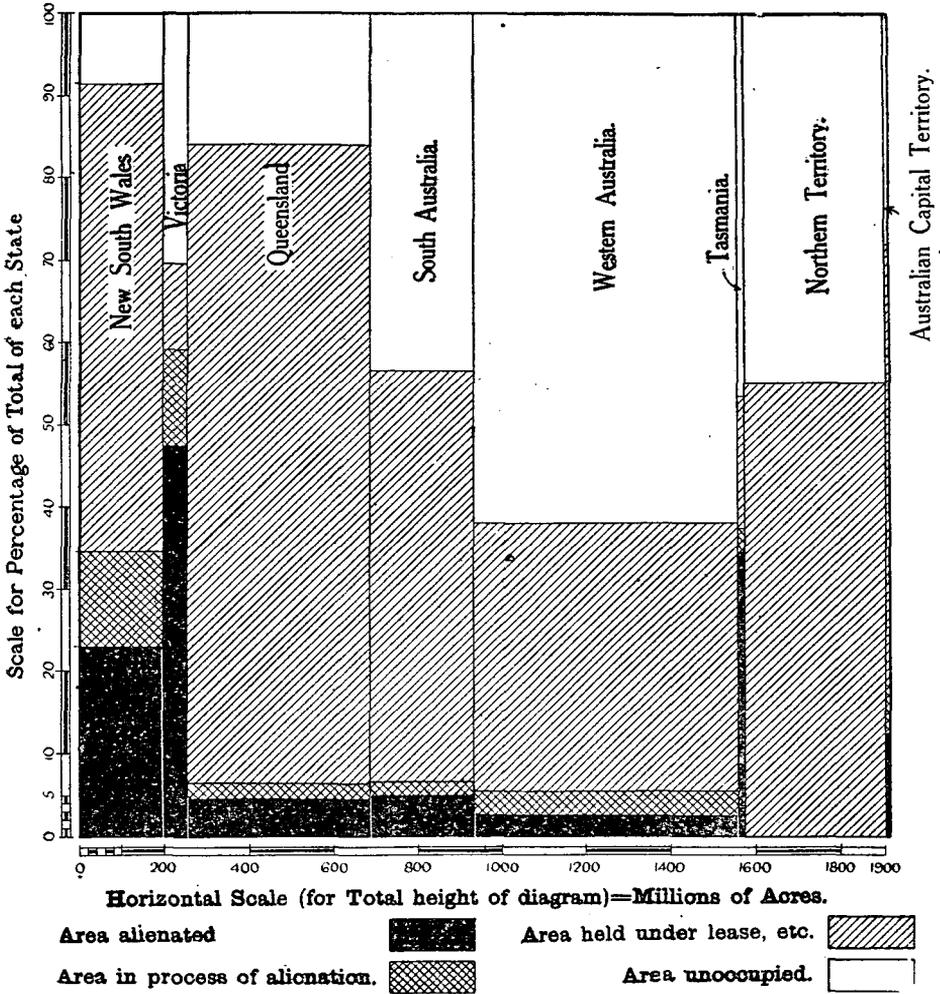
9. Australian Capital Territory.—Particulars of the alienation and occupation of Crown lands in the Territory (exclusive of Jervis Bay area) for the year 1937 are as follows :—Alienated 69,820 acres; in process of alienation 35,474 acres; leased 307,057 acres; and unoccupied 171,309 acres. The area of acquired lands was 213,854 acres. The total area of the Territory (exclusive of Jervis Bay area, 17,920 acres) is approximately 583,660 acres.

Alienated land at the end of 1937 comprised 12.5 per cent. of the total area, land in process of alienation 5.8 per cent., land held under lease 53.6 per cent., and unoccupied land 28.1 per cent. of the total area.

10. Diagram showing Condition of Public Estate.—The following diagram shows the condition of the public estate at the end of the year 1937. The square itself represents the total area of Australia, while the relative areas of individual States are shown by the vertical rectangles. The areas alienated from the State; those in process of alienation

under various systems of deferred payments; and the areas held under leases or licences are indicated by the differently-shaded areas as described in the reference given below the diagram, while the areas unoccupied are left unshaded.

LAND TENURE



§ 12. Classification of Alienated Holdings According to Size.

The classification of private holdings according to their area is of interest chiefly in relation to the efforts made by the several States in recent years to promote settlement on the land on blocks of suitable size, especially by means of the Closer Settlement Acts.

The following table gives particulars of the number and area of holdings of alienated land and land in process of alienation at the latest date for which the information has been compiled.

CLASSIFICATION OF HOLDINGS (ONE ACRE AND OVER) IN AREA SERIES.

Size of Holdings.	N.S.W. 1936-37. (c)	Victoria. 1937-38.	Q'land. 1933-34. (b)	S. Aust. 1930-31.	W. Aust. 1937-38.	Tasmania. 1936-37.	Aus. Cap. Ter. 1933-34.	Total. (a)
NUMBER.								
1 and under 50 acres	13,640	18,588	4,895	6,409	5,125	2,791	2	51,450
50 " 100 "	6,058	8,007	4,694	1,883	715	2,120	2	23,479
100 " 500 "	23,474	26,023	17,092	5,787	3,728	4,993	8	81,105
500 " 1,000 "	12,020	10,969	3,166	4,513	2,199	734	12	33,613
1,000 " 5,000 "	14,612	7,823	1,792	5,266	8,660	801	16	38,970
5,000 " 10,000 "	1,708	310	91	134	558	138	4	2,943
10,000 " 20,000 "	656	85	36	34	112	64	1	988
20,000 " 50,000 "	347	19	10	9	24	31	..	440
50,000 and over	118	..	4	..	7	8	..	137
Total	72,633	71,824	31,780	24,035	21,128	11,680	45	233,125
AREA.								
1 and under 50 acres	Acres. 262,380	Acres. 363,003	Acres. 114,063	Acres. 118,847	Acres. 61,271	Acres. 62,980	Acres. 66	Acres. 982,610
50 " 100 "	436,384	576,809	352,728	144,657	50,211	151,147	160	1,712,096
100 " 500 "	5,878,254	6,366,019	3,932,885	1,662,220	882,640	1,042,546	2,123	19,766,696
500 " 1,000 "	8,561,005	7,719,795	2,204,296	3,339,608	1,721,505	503,880	8,874	24,058,963
1,000 " 5,000 "	29,873,751	13,365,684	3,121,906	9,401,700	17,531,366	1,724,001	29,452	75,047,860
5,000 " 10,000 "	11,453,609	2,078,770	628,727	929,107	3,617,310	925,092	32,124	19,664,739
10,000 " 20,000 "	8,852,257	1,119,830	485,824	459,109	1,495,791	878,272	11,002	13,302,175
20,000 " 50,000 "	10,348,737	565,139	292,706	237,112	635,411	853,509	..	12,932,614
50,000 and over	10,483,297	..	1,556,310	..	448,214	613,434	..	13,101,255
Total	86,149,674	32,155,049	12,689,445	16,292,459	26,443,719	6,754,861	83,801	180,569,008

(a) Information not available for the Northern Territory. (b) The figures for Queensland refer to freehold land and leased and crown lands held in conjunction with freehold which are used for general farm purposes. Holdings used solely for pastoral purposes are not included. (c) Including 6,030,087 acres under perpetual lease.

CHAPTER V.

TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 1. System of Record.

In the system of recording statistics of oversea shipping Australia is considered as a unit, and, therefore, only one entry and one clearance are counted for each voyage, without regard to the number of States visited.

On the arrival at, or departure from, a port in Australia, whether from or for an oversea country or from another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month the information so obtained is forwarded to the Commonwealth Bureau of Census and Statistics. Similar documents furnish information regarding oversea migration and interstate migration by sea. This arrangement has been in operation since the 1st July, 1924.

From the 1st July, 1914, the Trade and Shipping of Australia has been recorded for the fiscal years ending 30th June.

In the following tables, commencing with the year 1935-36, a change has been made in the classification of sailing vessels with auxiliary engines. Particulars of these vessels, previously included in the columns headed "Steam", are now included in those headed "Sailing", as this classification is considered more correct, in view of the fact that the main method of propulsion of these vessels is sail.

§ 2. Oversea Shipping.

1. **Total Movement.**—The following table gives the number and net tonnage of oversea steam and sailing vessels entering Australian ports during the years 1927-28 to 1937-38:—

OVERSEA SHIPPING : VESSELS ENTERED, AUSTRALIA.

Year.	Steam.		Sailing.		Total.	
	Vessels.	Net Tons.	Vessels.	Net Tons.	Vessels.	Net Tons.
1927-28	1,544	5,373,485	33	45,560	1,577	5,419,045
1928-29	1,564	5,521,725	18	29,858	1,582	5,551,583
1929-30	1,499	5,413,192	23	31,254	1,522	5,444,446
1930-31	1,517	5,562,230	17	19,287	1,534	5,581,517
1931-32	1,497	5,653,731	22	33,167	1,519	5,686,898
1932-33	1,531	5,891,878	23	41,446	1,554	5,933,324
1933-34	1,356	5,308,584	24	43,987	1,380	5,352,571
1934-35	1,559	5,951,226	23	43,024	1,582	5,994,250
1935-36	1,550	6,199,583	(a) 65	(a) 38,093	1,615	6,237,676
1936-37	1,542	6,245,767	99	28,423	1,641	6,274,190
1937-38	1,800	7,096,656	105	31,748	1,905	7,128,404

(a) See last paragraph, § 1, above.

The average tonnage per vessel entered has risen from 3,436 tons per vessel in 1927-28 to 3,742 tons in 1937-38.

Particulars regarding the total oversea movement of shipping for each year from 1822 to 1920-21 will be found in Official Year Book No. 15, p. 507.

2. **Total Oversea Shipping, States.**—The following table gives the numbers and net tonnages of vessels which entered and cleared the various States direct from and to overseas countries during the year 1937-38 :—

**SHIPPING ENTERED FROM AND CLEARED TO OVERSEA COUNTRIES DIRECT,
1937-38.**

State or Territory.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ..	664	2,545,984	571	2,028,513
Victoria	230	831,156	218	846,410
Queensland	278	950,783	306	1,132,484
South Australia ..	184	643,121	198	761,093
Western Australia ..	445	1,970,514	511	2,185,940
Tasmania	30	130,882	21	83,119
Northern Territory ..	74	49,964	79	55,499
Total	1,905	7,128,404	1,904	7,093,058

3. **Shipping Communication with various Countries.**—Records, as they are invariably made, of the number and tonnage of vessels arriving from and departing to particular countries may be misleading for the reason that the tonnage of a vessel can be recorded against one country only, notwithstanding that the same vessel on the same voyage may carry cargo or passengers to or from Australia from or to several countries. For instance, a mail steamer on a voyage from the United Kingdom to Australia, through the Suez Canal, may call at Marseilles, Genoa, Port Said, Aden and Colombo, yet can be credited only to the United Kingdom, the country where the voyage commenced, to the exclusion of all of the others from the records. Also a number of vessels touch at New Zealand ports on their voyages to and from the United States of America and Canada, but their tonnages are not included in the records of Australian shipping trade with New Zealand. Similarly, the record of shipping engaged in trade between Australia and the United Kingdom via South African ports does not show tonnage to and from South Africa, the whole of it being included in the figures for United Kingdom. In view of this defect, statistics relating to the direction of the shipping to and from Australia are restricted to the following tables in which countries situated on the main trade routes are grouped together. This grouping into larger geographical divisions to some extent avoids the limitations referred to, except, as already pointed out, in the case of Africa and New Zealand.

DIRECTION OF OVERSEA SHIPPING : AUSTRALIA.

Countries.	Cargo and Ballast.	1934-35.	1935-36.	1936-37.	1937-38.
NET TONNAGE ENTERED.					
United Kingdom and European Countries	Cargo	1,698,613	1,812,263	1,679,282	1,791,963
	Ballast	376,291	281,157	232,995	361,870
New Zealand ..	Cargo	539,443	557,091	732,104	774,280
	Ballast	107,662	134,200	169,170	204,025
Asiatic Countries and Islands in the Pacific	Cargo	1,476,957	1,721,540	1,832,771	2,051,105
	Ballast	520,769	353,102	230,813	280,938
Africa	Cargo	22,535	34,983	59,136	55,213
	Ballast	143,468	172,302	194,360	290,795
North and Central America	Cargo	1,105,873	1,161,903	1,134,797	1,233,213
	Ballast	..	6,240	5,941	55,975
South America ..	Cargo	2,639	2,895	2,821	5,372
	Ballast	..	..	..	23,655
Total	Cargo	4,846,060	5,290,675	5,440,911	5,911,146
	Ballast	1,148,190	947,001	833,279	1,217,258
Total		5,994,250	6,237,676	6,274,190	7,128,404

NET TONNAGE CLEARED.					
United Kingdom and European Countries	Cargo	2,517,126	2,719,463	2,735,452	3,003,968
	Ballast	20,364	16,709	3,170	27,338
New Zealand ..	Cargo	512,487	537,359	832,200	918,096
	Ballast	28,863	73,948	39,789	37,522
Asiatic Countries and Islands in the Pacific	Cargo	1,653,931	1,695,483	1,473,801	1,543,996
	Ballast	422,053	526,048	587,925	818,775
Africa	Cargo	35,573	50,108	43,172	112,057
	Ballast	..	344	2,880	50,070
North and Central America	Cargo	615,644	591,144	519,017	498,384
	Ballast	83,355	87,944	91,991	80,854
South America ..	Cargo	5,398	4,719	8,184	1,998
	Ballast	..	3,615	..	..
Total	Cargo	5,340,159	5,598,276	5,611,826	6,078,499
	Ballast	554,635	708,668	725,755	1,014,559
Total		5,894,794	6,306,884	6,337,581	7,093,058

4. Nationality of Oversea Shipping.—The greater part of the shipping visiting Australia is of British nationality. The proportion of British tonnage declined slightly during 1937-38, as also did the percentage of vessels arriving with cargo.

Particulars of the nationality of oversea shipping for the last five years are given in the following table :—

OVERSEA SHIPPING : NATIONALITY OF VESSELS ENTERED, AUSTRALIA.

Nationality.	Net Tonnage.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
BRITISH—					
Australian	289,172	310,186	314,439	326,652	363,086
United Kingdom	2,788,464	3,137,192	3,334,332	3,447,244	4,021,272
Canadian	79,268	76,101	95,889	41,694	30,910
New Zealand	335,513	321,481	322,296	523,436	505,976
Other British	221,647	215,597	276,162	242,843	236,907
Cargo	3,032,040	3,323,552	3,732,921	3,944,272	4,297,122
Ballast	682,024	737,005	610,197	637,597	861,029
Total British	3,714,064	4,060,557	4,343,118	4,581,869	5,158,151
Per cent. on total	69.39	67.74	69.63	73.03	72.36
FOREIGN—					
Danish	75,753	48,613	54,689	53,233	55,753
Dutch	164,469	176,424	150,012	173,011	199,913
French	114,715	137,142	102,031	82,636	102,952
German	121,829	134,231	126,500	152,506	180,314
Italian	83,055	62,205	39,465	43,222	70,451
Japanese	333,109	461,400	464,311	344,304	318,499
Norwegian	335,775	426,539	462,884	439,845	482,470
Swedish	110,927	141,265	134,502	104,281	116,036
United States	247,959	240,474	233,047	199,794	216,083
Other Foreign	50,916	105,400	127,117	99,489	227,782
Cargo	1,449,576	1,522,508	1,557,754	1,496,639	1,614,024
Ballast	188,931	411,185	336,804	195,682	356,229
Total Foreign	1,638,507	1,933,693	1,894,558	1,692,321	1,970,253
Per cent. on total	30.61	32.26	30.37	26.97	27.64
Cargo	4,481,616	4,846,060	5,290,675	5,440,911	5,911,146
Per cent. on total	83.73	80.85	84.82	86.72	82.92
Ballast	870,955	1,148,190	947,001	833,279	1,217,258
Per cent. on total	16.27	19.15	15.18	13.28	17.08
Grand Total	5,352,571	5,994,250	6,237,676	6,274,190	7,128,404

The Australian tonnage which entered Australia from overseas during the year 1937-38 represented 5.09 per cent. of the total tonnage entered and was mainly confined to the New Zealand and Pacific Island trade.

§ 3. Shipping of Ports.

The total shipping tonnage—oversea, interstate and coastwise—which entered the more important ports of Australia during the year 1937-38, together with similar information in regard to some of the ports of New Zealand and of the United Kingdom for the year 1937, will be found in the next table:—

SHIPPING OF PORTS: AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM.

Port.	Net Tonnage Entered.	Port.	Net Tonnage Entered.
AUSTRALIA—		ENGLAND AND WALES—	
Sydney (N.S.W.) ..	11,653,127	London ..	31,249,463
Melbourne (Vic.) ..	8,624,754	Liverpool (including Birkenhead) ..	17,689,368
Adelaide (S.A.) ..	5,393,501	Southampton ..	13,757,353
Newcastle (N.S.W.) ..	5,332,450	Tyne Ports ..	9,098,162
Brisbane (Qld.) ..	4,751,803	Cowes (including coast of Isle of Wight) ..	8,049,845
Fremantle (W.A.) ..	3,792,004	Cardiff ..	7,721,732
Townsville (Qld.) ..	1,511,046	Hull ..	6,238,925
Kembla (N.S.W.) ..	1,188,653	Plymouth ..	6,096,645
Hobart (Tas.) ..	1,079,916	Dover ..	4,111,828
Geelong (Vic.) ..	1,072,878	Manchester (including Runcorn) ..	3,966,483
Whyalla (S.A.) ..	863,978	Bristol ..	3,725,986
Pirie (S.A.) ..	845,126	Swansea ..	3,698,833
Burnie (Tas.) ..	836,443	Middlesbrough ..	3,338,685
Cairns (Qld.) ..	793,701	Sunderland ..	3,007,997
Mackay (Qld.) ..	606,053	Blyth ..	2,984,665
Rockhampton (Qld.) ..	518,382	Harwich ..	2,809,231
Devonport (Tas.) ..	466,699	Newport ..	2,596,986
Launceston (Tas.) ..	456,959	Portsmouth ..	2,485,798
Albany (W.A.) ..	453,187	SCOTLAND—	
Gladstone (Qld.) ..	450,141	Glasgow ..	6,419,360
Lincoln (S.A.) ..	448,081	Greenock (including Port Glasgow) ..	3,444,723
Bowen (Qld.) ..	312,915	Leith ..	2,173,220
Thursday Island (Qld.) ..	309,513	NORTHERN IRELAND—	
NEW ZEALAND—		Belfast ..	7,627,054
Wellington ..	3,987,274		
Auckland ..	3,140,495		
Dunedin ..	2,225,749		
Lyttelton ..	1,184,587		

Figures relating to ports of the United Kingdom have been obtained from the British Board of Trade's *Annual Statement of the Navigation and Shipping of the United Kingdom, 1937*, and those relating to New Zealand from the *New Zealand Official Year Book, 1939*.

§ 4. Vessels Built and Registered.

1. **Vessels Built.**—The following table shows the number and tonnage of vessels built in Australia during each of the calendar years 1934 to 1938, so far as such information can be ascertained from the Shipping Registers of the various States. The Merchant Shipping Act, under which vessels are registered in Australia, does not, however, make it compulsory to register vessels under 15 tons burthen if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners.

VESSELS BUILT IN AUSTRALIA.

Year.	Steam.		Motor (a).		Sailing.		Total.					
	Tonnages.		Tonnages.		Tonnages.		Tonnages.					
	No.	Gross.	Net.	No.	Gross.	Net.	No.	Gross.	Net.			
1934	21	642	389	5	92	91	26	734	480
1935	15	377	287	2	25	23	17	402	310
1936 ..	2	719	192	14	543	358	1	9	9	17	1,271	559
1937	8	177	141	1	2	2	9	179	143
1938	9	682	365	..	..	..	9	682	365

(a) Includes vessels with auxiliary motors

2. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing and other vessels on the registers of the States and of the Northern Territory on the 31st December, 1938:—

VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1938.

State or Territory.	Steam and Motor.		Sailing.				Barges, Hulks, Dredges, &c., not Self-propelled.		Total.	
			Propelled by Sail Only.		Fitted with Auxiliary Power.		No.	Net Tons.		
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.			No.	Net Tons.
New South Wales	344	57,810	204	6,763	312	15,807	45	11,164	905	91,544
Victoria	164	166,852	48	665	60	1,406	55	23,015	327	191,938
Queensland	42	6,875	88	1,189	69	2,836	27	3,941	226	14,841
South Australia	71	10,556	17	341	47	2,185	42	6,742	177	19,824
Western Australia	37	5,390	257	3,991	36	777	19	4,277	349	14,435
Tasmania	43	4,226	63	2,257	64	1,842	1	382	171	8,707
Northern Territory	..	..	15	145	5	88	..	..	20	233
Total	701	251,709	692	15,351	593	24,941	189	49,521	2,175	341,522

3. **World's Shipping Tonnage.**—The table hereunder shows the number and gross tonnage of steam and motor, and of sailing vessels owned by the most important maritime countries, together with the proportion of the grand total owned by each country:—

WORLD'S SHIPPING TONNAGE, 1st JULY, 1938.

Nationality.	Steamers and Motorships.		Sailing Vessels and Barges.		Total.		Percentage on Total.	
	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.
United Kingdom	6,843	17,075	360	105	7,203	17,780	23.3	26.2
Australia and New Zealand	529	674	10	5	539	679	1.7	1.0
Canada (a)	787	1,212	94	81	881	1,293	2.8	1.9
Other British	902	1,158	154	38	1,056	1,196	3.4	1.8
Total, British Empire	9,061	20,719	618	229	9,679	20,948	31.2	30.9
Belgium	206	431	..	..	206	431	0.7	0.6
Denmark	694	1,129	1	..	695	1,129	2.3	1.7
France	1,246	2,881	61	23	1,307	2,904	4.2	4.3
Germany	2,321	4,232	7	12	2,328	4,244	7.5	6.2
Greece	638	1,889	..	..	638	1,889	2.1	2.8
Holland	1,473	2,852	9	3	1,482	2,855	4.8	4.2
Italy	1,156	3,259	137	31	1,293	3,290	4.2	4.8
Japan	2,187	5,007	..	..	2,187	5,007	7.1	7.4
Norway	1,963	4,613	2	1	1,965	4,614	6.3	6.8
Spain	793	948	46	11	839	959	2.7	1.4
Sweden	1,239	1,571	7	5	1,246	1,576	4.0	2.3
United States of America (b)	2,955	11,515	436	535	3,391	12,050	10.9	17.8
Other Foreign Countries	3,477	5,824	257	126	3,734	5,950	12.0	8.8
Total, Foreign Countries	20,348	46,151	963	747	21,311	46,898	68.8	69.1
Grand Total	29,409	66,870	1,581	976	30,990	67,846	100.0	100.0

(a) Including Great Lakes shipping.

(b) Including Philippine Islands and Great Lakes shipping.

The foregoing figures have been compiled from *Lloyd's Register of Shipping*, and only vessels of 100 tons or upwards have been included.

§ 5. Interstate Shipping.

1. **System of Record.**—*Interstate Shipping* comprises two elements: (a) Vessels engaged solely in interstate trade: and (b) Vessels trading between Australia and oversea countries and in the course of their voyage proceeding from one State to another. (It should be mentioned that these vessels, except under special circumstances, do not now engage in interstate carrying.) No complexity enters into the record of those in category (a), but with regard to the method of recording the movements of the overseas vessels (b) some explanation is necessary. Each State desires that its shipping statistics (which are prepared in the Commonwealth Bureau of Census and Statistics) shall show in full its shipping communication with oversea countries, but at the same time it is necessary to avoid any duplication in the statistics for Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an overseas country—say United Kingdom—*via* another State, is recorded in the second State as from United Kingdom *via States*, thus distinguishing the movement from a *direct* oversea entry. Continuing the voyage, the vessel is in the third State again recorded for the statistics of the State concerned as from United Kingdom *via* other States. On an inward voyage the *clearance* from the first State to the second State is a *clearance* interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movements, must for the individual States be recorded as “Overseas *via* other States” or “Interstate” according to the direction of the movement. The significance of the record of these movements will be more clearly seen from the following tabular presentation of the inward and outward voyages to and from Australia of a mail steamer which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage—Sydney (New South Wales)—*via* the States of South Australia and Victoria. From the terminal port the vessel will commence the outward voyage, and retrace its inward track.

ITINERARY OF AN OVERSEAS VESSEL ON AUSTRALIAN COAST.

Particulars.	Recorded as—	
	For the State and for Australia.	For the States.
Inward Voyage—		
Enters Fremantle from United Kingdom	Overseas direct	
Clears Fremantle for Adelaide	Interstate direct
Enters Adelaide from United Kingdom
<i>via</i> Fremantle	Overseas <i>via</i> States
Clears Adelaide for Melbourne	Interstate direct
Enters Melbourne from United Kingdom
<i>via</i> Adelaide	Overseas <i>via</i> States
Clears Melbourne for Sydney	Interstate direct
Enters Sydney from United Kingdom
<i>via</i> Melbourne	Overseas <i>via</i> States
Outward Voyage—		
Clears Sydney for United Kingdom <i>via</i> Melbourne	Overseas <i>via</i> States
Enters Melbourne from Sydney	Interstate direct
Clears Melbourne for United Kingdom <i>via</i> Adelaide
Enters Adelaide from Melbourne	Overseas <i>via</i> States
Clears Adelaide for United Kingdom <i>via</i> Fremantle	Interstate direct
Enters Fremantle from Adelaide
Clears Fremantle for United Kingdom	Overseas direct	Interstate direct

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows:—(a) The aggregate of all ships recorded for each State as "Oversea direct" gives the oversea shipping for Australia as a whole; (b) the aggregate for all ships recorded in any State as "Oversea direct" plus those recorded as "Oversea via States" gives the total oversea shipping for that State; and (c) the aggregate for all ships recorded as "Oversea via States" may also be used, together with those recorded as "Interstate direct," to furnish figures showing the total interstate movement of shipping.

It should be remembered, however, that all overseas vessels do not follow the same itinerary as the vessel in the table above.

2. **Vessels and Tonnage Entered.**—(*Interstate direct.*) The following table gives the number and tonnage of vessels recorded as having entered each State from any other State during each of the years 1933-34 to 1937-38. The shipping of the Murray River, between the States of New South Wales, Victoria and South Australia, is not included:—

INTERSTATE SHIPPING: NUMBER AND TONNAGE OF VESSELS ENTERED.

State or Territory.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
NUMBER.					
New South Wales ..	1,679	1,945	1,862	2,076	2,179
Victoria ..	1,777	1,908	1,966	2,146	2,255
Queensland ..	508	587	567	599	652
South Australia ..	694	842	865	924	988
Western Australia ..	326	347	358	366	383
Tasmania ..	1,008	1,035	1,065	1,216	1,261
Northern Territory ..	23	27	22	29	25
Total ..	6,015	6,691	6,705	7,356	7,743
NET TONNAGE.					
New South Wales ..	4,664,917	5,334,778	5,105,740	5,693,751	5,977,315
Victoria ..	3,791,069	4,062,750	4,361,171	4,640,688	4,743,317
Queensland ..	1,281,334	1,410,487	1,495,200	1,616,188	1,674,662
South Australia ..	2,335,796	2,761,195	2,898,358	3,043,302	3,176,924
Western Australia ..	1,763,371	1,855,593	1,916,546	1,869,071	1,978,260
Tasmania ..	1,282,947	1,101,544	1,335,725	1,559,603	1,562,790
Northern Territory ..	56,694	59,011	66,710	71,057	72,996
Total ..	15,176,128	16,585,328	17,179,450	18,493,660	19,186,264

3. **Oversea Vessels Moving Interstate.**—(*Oversea via States.*) To ascertain the aggregate movement of shipping between the States during the year 1937-38 including the total interstate movements of oversea vessels, the figures in the following table

which give the number and tonnage of vessels entered from or cleared for oversea countries via other Australian States, must be added to those in the table preceding:—

SHIPPING ENTERED AND CLEARED FROM AND TO OVERSEA COUNTRIES VIA OTHER AUSTRALIAN STATES, 1937-38.

State or Territory.	Entered.		Cleared.		Total.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ..	501	2,643,380	473	2,600,441	974	5,243,821
Victoria ..	534	2,963,384	473	2,675,439	1,007	5,638,823
Queensland ..	306	1,842,669	260	1,506,727	566	3,349,396
South Australia ..	318	1,890,738	252	1,556,374	570	3,447,112
Western Australia ..	35	150,148	10	31,147	45	181,295
Tasmania ..	86	508,626	110	667,483	196	1,176,109
Northern Territory ..	..	..	..	..	..	..
Total ..	1,780	9,998,945	1,578	9,037,611	3,358	19,036,556

Oversea vessels moving interstate are with few exceptions not engaged in the active interstate trade of Australia, but are merely proceeding to the several States in continuation of their oversea voyages.

4. **Total Interstate Movement of Shipping.**—(i) *Australia.* The appended table shows the total interstate movement of shipping including oversea vessels moving interstate for each of the years 1933-34 to 1937-38:—

TOTAL INTERSTATE MOVEMENT OF SHIPPING: AUSTRALIA.

Year.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
1933-34	7,463	23,114,881	7,462	23,282,301
1934-35	8,279	25,369,207	8,288	25,460,522
1935-36	8,502	26,857,399	8,508	26,860,842
1936-37	9,061	27,773,851	9,106	27,792,951
1937-38	9,523	29,185,209	9,540	29,136,482

(ii) *States.* The following table shows the number and tonnage of vessels which entered and cleared each State from and for other States during 1937-38, including the interstate movements of oversea vessels:—

INTERSTATE SHIPPING OF EACH STATE, 1937-38.

State or Territory.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ..	2,680	8,620,695	2,782	9,158,843
Victoria ..	2,789	7,706,701	2,773	7,674,454
Queensland ..	958	3,517,331	908	3,262,918
South Australia ..	1,306	5,067,662	1,281	4,919,220
Western Australia ..	418	2,128,408	355	1,925,231
Tasmania ..	1,347	2,071,416	1,419	2,128,354
Northern Territory ..	25	72,996	22	67,462
Total ..	9,523	29,185,209	9,540	29,136,482

5. **Vessels engaged Solely in Interstate Trade.**—The following table gives the number and net tonnage of vessels engaged solely in interstate trade which entered the ports of each state direct from other states during the year 1937-38 :—

VESSELS SOLELY IN INTERSTATE TRADE: NUMBER AND TONNAGE OF VESSELS ENTERED, 1937-38.

State or Territory.	Vessels Entered.	
	No.	Net Tonnage.
New South Wales	1,704	3,620,676
Victoria	1,896	2,794,327
Queensland	474	1,029,955
South Australia	759	1,763,575
Western Australia	117	436,647
Tasmania	1,186	1,081,461
Northern Territory	9	20,786
Total	6,145	10,747,427

The above figures have been compiled direct from the shipping returns, and are comparable with similar figures for the year 1936-37. Previous to that year, however, the figures were derived from calculations based on an assumption which did not hold in all cases.

6. **Interstate and Coastal Services.**—The subjoined table gives particulars, so far as they are available, of all steamships engaged in regular interstate or coastal services at the end of each of the years 1934 to 1938 :—

INTERSTATE AND COASTAL STEAMSHIP SERVICES IN AUSTRALIA.

Particulars.	1934.	1935.	1936.	1937.	1938.
Number of companies operating ..	31	30	29	30	30
Number of steamships	155	156	160	162	167
Tonnage { Gross	302,897	324,891	352,661	353,280	366,182
{ Net	168,056	180,468	197,256	197,130	200,131
Horse-power (Nominal)	33,510	36,037	37,188	37,887	39,598
Number of { 1st class	3,914	4,311	4,450	4,410	3,909
{ passengers for which licensed (a) { 2nd class and steerage	1,755	1,920	1,695	1,801	1,719
Complement of Crew { Masters and officers	505	513	547	545	557
{ Engineers	419	548	579	585	606
{ Crew	4,045	4,264	4,458	4,515	4,663

(a) Exclusive of purely day passenger accommodation.

§ 6. Tonnage of Cargo.

1. **Oversea and Interstate Cargo.**—(i) *Australia.* The table hereunder shows the aggregate tonnage of oversea cargo discharged and shipped and the tonnage of interstate cargo shipped in all ports for the years 1933-34 to 1937-38. Cargo which was stated in cubic feet has been converted to tons measurement on the basis of 40 cubic feet to the ton.

CARGO MOVEMENT.

Year.	Oversea Cargo.				Interstate Cargo.	
	Discharged.		Shipped.		Shipped.	
	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.
1933-34	2,606,101	1,395,291	4,260,182	738,846	4,278,159	1,201,617
1934-35	2,969,914	1,722,485	5,220,757	857,976	5,244,386	1,346,422
1935-36	3,531,839	1,948,508	5,214,194	893,509	5,540,938	1,502,813
1936-37	3,655,623	2,024,051	5,027,746	933,416	6,501,393	1,596,869
1937-38	4,365,946	2,279,653	5,730,665	1,088,575	7,032,080	1,876,938

(ii) *Principal Ports.* The following table shows the tonnage of Oversea and Interstate Cargo discharged and shipped at principal ports, 1937-38 :-

TONNAGE OF CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1937-38.

Port.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sydney	2,217,376	1,290,246	3,507,622	1,266,804	909,609	2,176,413
Newcastle	194,976	1,669,272	1,864,248	445,305	2,500,635	2,945,940
Kembla	83,342	550,871	634,213	108,301	254,572	362,873
Other .. ..	..	..	..	22,391	14,199	36,590
Total, New South Wales	2,495,694	3,510,389	6,006,083	1,842,801	3,679,015	5,521,816
Melbourne	1,845,796	2,460,597	4,306,393	1,933,719	1,133,013	2,166,732
Geelong	270,610	218,035	488,645	482,140	69,595	551,735
Other	24,206	6,265	30,471	6,913	6,258	13,171
Total, Victoria	2,140,612	2,684,897	4,825,509	1,522,772	1,208,866	2,731,638
Brisbane	357,245	545,145	902,390	210,932	207,069	418,001
Cairns	16,064	44,653	60,717	155,909	110,785	266,694
Townsville	67,997	69,829	137,826	245,527	48,639	294,166
Other	16,321	82,427	98,748	244,348	77,094	321,442
Total, Queensland	457,627	742,054	1,199,681	856,716	443,587	1,300,303
Adelaide	585,343	880,677	1,466,020	526,716	483,328	1,010,044
Pirie	128,916	252,772	381,688	419,286	160,262	579,548
Walleroo	38,355	733	39,088	186,473	14,076	200,549
Whyalla .. ..	..	..	..	164,478	1,871,160	2,035,638
Other	39,945	6,790	45,835	212,808	19,132	231,940
Total, South Australia	791,659	1,140,972	1,932,631	1,509,761	2,547,958	4,057,719
Fremantle	559,288	375,535	934,823	514,816	50,330	565,146
Bunbury	41,532	624	42,156	204,325	27,181	231,506
Geraldton	50,404	7,918	58,322	130,092	..	130,092
Other	15,754	18,061	33,815	50,039	18,151	68,190
Total, Western Australia	666,978	402,138	1,069,116	899,272	95,662	994,934
Hobart	77,919	296,022	373,941	142,639	238,194	380,833
Launceston	6,824	121,044	127,868	24,703	101,257	125,960
Devonport	777	33,933	34,710	..	389,318	389,318
Other	4,965	80,433	85,398	20,457	202,603	223,060
Total, Tasmania	90,485	531,432	621,917	187,799	931,372	1,119,171
Darwin (Northern Territory)	2,544	10,782	13,326	119	2,558	2,677
Total, AUSTRALIA	6,645,599	9,022,664	15,668,263	6,819,240	8,909,018	15,728,258

2. **Nationality.**—The following table shows the total oversea cargo discharged and shipped according to the nationality of the vessels carrying during the years 1933-34 to 1937-38:—

TONNAGE(a) OF OVERSEA CARGO DISCHARGED AND SHIPPED.

Vessels Registered at Ports in —	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
British—					
Australia	257,497	307,440	329,208	329,990	437,346
United Kingdom	4,796,937	5,813,352	6,181,120	6,831,581	8,033,271
Canada	115,125	127,379	154,914	81,313	65,146
New Zealand	357,087	323,630	398,238	390,892	456,505
Other British	403,757	392,606	534,585	451,409	488,828
Total British	5,930,403	6,964,407	7,598,065	8,085,185	9,481,096
Per cent. on Total	65.89	64.66	65.57	69.46	70.41
Foreign—					
Denmark	184,626	154,172	160,285	159,640	209,716
France	108,736	169,802	140,435	113,584	150,424
Germany	276,821	297,020	346,544	392,269	462,246
Italy	103,921	66,319	33,520	58,491	109,570
Japan	635,142	913,552	914,856	542,761	378,065
Netherlands (b)	280,509	308,187	228,726	315,640	350,136
Norway	814,447	1,023,612	1,207,673	1,164,105	1,218,807
Sweden	325,114	408,462	390,080	310,934	316,300
United States of America	246,858	240,271	300,974	261,746	258,969
Other Foreign	93,843	225,328	266,892	236,481	529,510
Total Foreign	3,070,017	3,806,725	3,989,985	3,555,651	3,983,743
Per cent. on Total	34.11	35.34	34.43	30.54	29.59
Grand Total	9,000,420	10,771,132	11,588,050	11,640,836	13,464,839

(a) Tons weight and tons measurement combined.

(b) Includes Netherlands East Indies.

NOTE.—A summary of particulars relating to Shipping and Cargo for the year 1938-39 will be found in the Appendix to this volume.

§ 7. Miscellaneous.

1. **Lighthouses.**—*Transport and Communication Bulletin* No. 14, published by this Bureau, contained a list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light so far as particulars were available.

2. **Distances by Sea.**—A statement giving the distances by sea between the ports of the capital cities of Australia and the most important ports in other countries which trade with Australia was also included in *Transport and Communication Bulletin* No. 14.

3. **Shipping Freight Rates.**—The *Quarterly Summary of Australian Statistics* gives a list of the ruling freight rates for general merchandise both in respect of oversea and interstate shipments. The latest figures available, which give the rates current at 31st March, 1939, show that the rate for general merchandise from Australia to United Kingdom and Continent was 63s. per ton weight or measurement, while the rates for

wheat (parcels) and wool (greasy) were respectively 31s. 3d. per ton weight and 1d. per lb. plus 5 per cent., less 10 per cent. The charter rates for wheat ranged between 31s. and 32s. per ton.

4. **Depth of Water at Main Ports.**—A table, compiled from information supplied by the Director of Navigation, showing the depth of water at the main ports of Australia at 1st January, 1939, was included in *Transport and Communication Bulletin* No. 29.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a Magistrate assisted by skilled assessors, and when necessary are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping casualties reported on or near the coast during the year 1938 are shown in *Transport and Communication Bulletin* No. 29. This information also was furnished by the Director of Navigation.

6. **Commonwealth Navigation and Shipping Legislation.**—(i) *General.* An account in some detail of the Commonwealth navigation and shipping legislation was published in *Official Year Book* No. 17 (pp. 1053-5).

(ii) *Recent legislation.* Under the provisions of the Navigation Act the coasting trade of the Commonwealth in passengers and cargo is reserved by section 288 to ships licensed to engage in that trade. Licences are granted to ships complying with Australian conditions respecting wages, manning crew, accommodation and so on, stipulations which have confined the trade to Australian-owned vessels.

Provision was made in the Act for permits to be granted to unlicensed British ships to carry cargo and passengers on the coast when it was shown that the licensed service was inadequate. The permit system, however, was not entirely satisfactory and in 1926 the Act was amended to allow the Governor-General, by notice in the *Gazette*, to permit unlicensed British ships of a specified size and speed to engage in the passenger trade between particular ports. Exemptions under the Act were placed on a statutory basis by the Navigation Act of 1935 which permits unlicensed British ships of not less than 10,000 tons and a sea speed of not less than 14 knots to carry passengers between any two ports in Australia not connected by rail. In every case the voyage must be made in one ship without break of journey, transshipment, or second call at any port. On arriving at the port of destination the passenger may be taken on to the first port of call of the ship, which is either the first port of embarkation, or alternatively, a port connected with it by rail.

In the Navigation Act of 1935 also the carriage of wireless equipment was extended to all ships engaged in interstate trade. A similar provision for intra-state vessels has been made by some of the States.

The Navigation (Maritime Conventions) Act of 1934 was an amendment of the Navigation Act to enable the Commonwealth to give effect to the provisions of a number of maritime conferences of recent years, of which the most important were those dealing with the safety of life at sea and load lines.

In an effort to protect the interests of British shipping in the Pacific against subsidized foreign competition the New Zealand Government recently introduced a measure prohibiting foreign vessels from embarking passengers or cargo in a New Zealand port for any destination in Australia. On 3rd December, 1936, the British Shipping Protection Bill, designed to implement the New Zealand legislation, was introduced into the Australian Senate. After the speech on the second reading, the debate was adjourned.

7. **Ports and Harbours.**—A report in two volumes on "Transport in Australia," with special reference to Ports and Harbours facilities, was submitted to the Commonwealth Government by Sir George Buchanan, and published as two Parliamentary Papers (No. 86 printed 14th March, 1927, and No. 108 printed 9th May, 1927).

B. RAILWAYS.

§ 1. General.

1. **Introduction.**—The policy of Government ownership and control of railways has been adopted in each State and at the 30th June, 1938, only 787 route miles of the 27,973 open for general traffic in Australia were privately owned. Those owned by the

State Governments amounted to 24,985 miles, and those owned by the Commonwealth, 2,201 miles. In the following tables details of the four lines owned by the Commonwealth are grouped and shown with the totals for the various State-owned systems. Separate particulars for each Commonwealth line are given in *Transport and Communication Bulletin* No. 29, issued by this Bureau, and they were also given in Year Book No. 31, p. 125 *et seq.*

2. **Improvement of Railway Statistics.**—Earlier issues of the Year Book contain a condensation of the report issued in 1909 by the Commonwealth Statistician to the Minister for Home Affairs on the subject of "The Desirability of Improved Statistics of Government Railways in Australia" (see Year Book No. 7, p. 598).

Considerable improvement, both as regards the volume of information and the mode of presentation thereof in the statistical tables appearing in the reports of the several Railway Commissioners, has been made during recent years.

In an endeavour to adhere more closely to the figures used by the Railways Commissioners and to obtain greater uniformity, certain changes were made in the compilation of railways statistics from and including the year 1935-36; consequently the figures for the last three years are not entirely comparable with those for previous years. The differences, however, are relatively unimportant.

3. **Railway Communication in Australia.**—An account of the progress of railway construction in Australia since the opening of the first line in 1854 will be found in Year Book No. 6, p. 681. Further information regarding railway communication in Australia and proposals for unification of gauge in the various systems are given in Year Book No. 22, pp. 259 to 261.

4. **Government Railways. Lines under Construction and Lines Authorized, 1938.**—

(i) *Lines under Construction.* In spite of the great extensions of State railways since the year 1875 and also the construction of various railways by the Commonwealth Government, there are still, in some of the States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent settlement has been accomplished. The general policy of the States is to extend the existing lines inland in the form of light railways as settlement increases, and while it is true that lines which were not likely to be commercially successful in the immediate future have been constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting is kept in view.

(a) *New South Wales.* In addition to that shown under (b) below, preliminary construction work has been commenced on the Sandy Hollow to Maryvale (approximately 147 miles), Sutherland to Cronulla (6.31 miles) and Bungendore to Captain's Flat (21.18 miles) railways in New South Wales. Construction work was also commenced on the Circular Quay section of the underground railway of Sydney.

(b) *Victoria.* In this State 35.50 miles of 5 ft. 3 in. gauge lines have been partially constructed, from Nowingi to Millewa South, work thereon being temporarily suspended. Under the provisions of the Border Railways Act 1922 (Vic. 3194) the following lines are under construction in New South Wales territory:—Euston to Lette (30.25 miles); and Yarrawonga to Oaklands (38 miles). Work has been suspended on the former line while traffic on the latter is being conducted by the Constructing Authority pending the transfer to the Railways Commissioners. On completion, these lines, which are of 5 ft. 3 in. gauge, will be taken over and operated by the Victorian Railways Commissioners.

(c) *Queensland.* In previous issues of the Year Book details were given of the scheme of railway construction under the provisions of the North Coast Railway Act 1910 (see Year Book No. 15, p. 551). On the 30th June, 1938, no railway construction work was in progress. The following lines are partially constructed, but work thereon is temporarily suspended:—Goondoon to Kalliwa Creek (18 miles); Yaraka to Powell's Creek (27 miles); Dajarra to Moonah Creek (41 miles); Rannes to Monto (63 miles); and Winton to 37-Mile (37 miles): a total of 186 miles.

(d) *Other.* At 30th June, 1938, no railway construction work was in progress in South Australia, Western Australia, Tasmania, or for the Commonwealth Government.

(ii) *Lines Authorized for Construction.* (a) *New South Wales.* At the 30th June, 1938, the following lines had been authorized for construction but not commenced:—Gilgandra to Collie (21.54 miles); Jerilderie towards Deniliquin (25 miles); Rand to Bull Plain (27.55 miles); Canowindra to Gregra (33.87 miles); St. Leonards to Eastwood (9.07 miles); Inverell to Ashford (32 miles); Gwabegar to Burren Junction (36.25 miles); Eastern Suburbs to Bondi (7.75 miles); and Western Suburbs to Western Road (5.55 miles); a total distance of 198.58 miles.

(b) *Victoria.* The following lines were authorized, but construction had not been commenced up to the end of June, 1938:—5 ft. 3 in. gauge: La La Siding to Big Pat's Creek (2.50 miles); Casterton to Nangeela (9 miles); and Orbost to Brodribb (6 miles). Under the Border Railways Act 1922, the following line has been authorized for construction in New South Wales Territory:—Mildura to Gol Gol (22 miles).

(c) *Queensland.* In addition to the new lines upon which work has been commenced, Parliament has authorized the construction of the following parts of the Great Western Railway: Section A, from Quilpie to Eromanga (120 miles); Section B, from Powell's Creek (224 miles); Section C, from 37-Mile to Springvale (324 miles); and Section D from Moonah Creek (216 miles). The following lines were also authorized for construction: Texas to Silverspur (9 miles); Mount Edwards to Maryvale (28 miles); Lanefield to Rosevale (17 miles); Gatton to Mount Sylvia (11 miles); Wandoan to Taroom (42 miles); Dirranbandi extension (52 miles); Yarraman to Nanango (16 miles); Brooloo to Kenilworth (10 miles); Dobbyn to Myally Creek (50 miles); and Pearamon towards Boongee (11 miles).

(d) *South Australia.* Parliament has authorized the construction of a line on the 3 ft. 6 in. gauge from Kielpa to Mangalo Hall (26.25 miles). The survey has been completed, but the work cannot be started without a special resolution of both Houses of Parliament.

(e) *Western Australia.* The following lines were authorized for construction up to the 30th June, 1938:—Yarramongy to Merredin (85 miles); Brookton to Dale River (28 miles); Boyup Brook to Cranbrook (95.23 miles); Manjimup to Mount Barker (107 miles); Leighton to Robb's Jetty (4.62 miles); Southern Cross—Southwards (27.38 miles); Yuna to Dartmoor (52 miles); a total distance of 399.23 miles. The surveys have been completed in respect of all the above lines, except the Boyup Brook to Cranbrook, the Manjimup to Mount Barker, and the Leighton to Robb's Jetty lines.

(f) *Tasmania.* There were no new railways authorized at 30th June, 1938.

(g) *Commonwealth.* There were no new railways authorized at 30th June, 1938.

5. **Grafton-South Brisbane (Uniform Gauge) Line.**—The line from Grafton (New South Wales) to Brisbane (Queensland) which was opened for traffic on 27th September, 1930, was constructed to overcome the break of gauge between Sydney and Brisbane; and was the first step towards uniform gauge railway communication between the capitals of the mainland States. To 30th June, 1938, the capital cost of construction and equipment was £4,362,500, the interest charge for the year 1937-38 being £218,125. During the same period, the working of the line, which is the responsibility of the New South Wales and Queensland Railways Commissioners, resulted in losses of £39,183 being shown on the New South Wales section and £10,330 on the Queensland section. In addition, the following amounts were paid as interest:—New South Wales, £72,179, and Queensland £27,029, the remainder, £118,917, being borne by the Commonwealth. Figures relating to the operation, etc., of the line are incorporated as far as possible with those for New South Wales and Queensland in the tables which follow. Year Book No. 31, p. 122, contains further particulars of the construction of the line.

6. **Mileage Open for Traffic, all Lines.**—(i) *General.* Almost all the railways open for general traffic in Australia are owned and controlled by the State or Commonwealth Governments. Private lines have been laid down for the purpose of opening up forest lands, mining districts or sugar areas. These lines are not generally used for the conveyance of passengers or the public conveyance of goods, and it should be understood that the private lines included in the tables below form only a small part of all private railways in Australia.

The subjoined table shows the route mileage of Commonwealth, State and private lines open for general traffic (exclusive of sidings and cross-overs) in each State for each of the years 1933-34 to 1937-38.

GOVERNMENT AND PRIVATE RAILWAYS : MILEAGE OPEN.

State or Territory.	1933-34.	1934-35.	1935-36	1936-37.	1937-38.
	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales	6,246.53	6,246.53	6,204.64	6,214.42	6,204.02
Victoria	4,745.71	4,745.71	4,745.71	4,745.71	4,745.71
Queensland	6,836.55	6,836.54	6,812.80	6,795.17	6,779.04
South Australia	3,775.81	3,775.90	3,775.90	3,776.29	3,860.67
Western Australia	5,090.87	5,089.50	5,089.33	5,088.04	5,106.82
Tasmania	786.45	776.46	776.46	782.57	782.55
Northern Territory	489.73	489.73	489.73	489.73	489.73
Aust. Cap. Territory	4.94	4.94	4.94	4.94	4.94
Australia	27,976.59	27,965.31	27,899.51	27,896.87	27,973.48

In previous issues of the Year Book particulars of mileage open were given for different periods from 1855 onwards. (See No. 15, p. 537.)

(ii) *Government and Private Lines Separately.* The next table shows for each State (a) the length of lines open for traffic owned by the State Government, and by the Commonwealth Government in that State and (b) the length of private lines available for general use by the public.

GOVERNMENT AND PRIVATE RAILWAYS : MILEAGE CLASSIFIED, 1937-38.

State or Territory.	Government Lines—		Private Lines available for General Traffic.	Total Open for General Traffic.
	State.	Commonwealth.		
	Miles.	Miles.	Miles.	Miles.
New South Wales	6,113.79	..	90.23	6,204.02
Victoria	4,720.77	..	24.94	4,745.71
Queensland	6,566.65	..	212.39	6,779.04
South Australia	2,557.38	1,252.39	50.90	3,860.67
Western Australia	4,375.83	453.99	277.00	5,106.82
Tasmania	651.00	..	131.55	782.55
Northern Territory .. ..	..	489.73	..	489.73
Aust. Cap. Territory .. ..	..	4.94	..	4.94
Australia	24,985.42	2,201.05	787.01	27,973.48

7. *Comparative Railway Facilities.*—The mileage of line open to the public for general traffic (including both Government and private lines) is shown in the subjoined statement in relation to both population and area at the 30th June, 1938 :—

GOVERNMENT AND PRIVATE RAILWAYS : COMPARISON OF FACILITIES, 1937-38.

Particulars.	N.S.W.	Vic.	Q'd.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Mileage of Railway— Per 1,000 of population	2.28	2.54	6.76	6.52	11.10	3.34	84.89	0.43	4.06
Per 1,000 sq. miles of Territory	20.05	54.00	10.11	10.16	5.23	29.85	0.94	5.26	9.40

8. Classification of Lines according to Gauge, 1937-38.—The next table gives a classification according to gauge of the route mileage open of (i) Commonwealth railways, given in the State or Territory in which situated; (ii) State railways; and (iii) Private railways open to the public for general traffic. Particulars of Government railways are up to the 30th June, 1938, and of private railways open for general traffic to the 31st December, 1938, as nearly as possible.

GOVERNMENT AND PRIVATE RAILWAYS : GAUGES, 1937-38.

State or Territory in which situated.	Route mileage having a gauge of—					Total.
	5 ft. 3 in.	4 ft. 8½ in.	3 ft. 6 in.	2 ft. 6 in.	2 ft. 0 in.	
COMMONWEALTH RAILWAYS.						
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
South Australia ..	..	654.21	598.18	..	..	1,252.39
Western Australia ..	..	453.99	..	..	..	453.99
Northern Territory ..	..	..	489.73	..	..	489.73
Aust. Cap. Territory ..	..	4.94	..	..	..	4.94
Total ..	..	1,113.14	1,087.91	..	..	2,201.05
STATE RAILWAYS.						
New South Wales ..	..	6,113.79	..	..	..	6,113.79
Victoria ..	4,599.00	..	..	121.77	..	4,720.77
Queensland ..	..	68.82	6,407.57	..	30.26	6,566.65
South Australia ..	1,480.49	..	1,076.89	..	..	2,557.38
Western Australia ..	..	..	4,375.83	..	..	4,375.83
Tasmania ..	..	..	639.07	..	11.33	651.00
Total ..	6,079.49	6,182.61	12,559.96	121.77	41.59	24,985.42
PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.						
New South Wales ..	..	53.50	36.73	..	..	90.23
Victoria ..	13.94	..	(a) 11.00	..	..	24.94
Queensland ..	..	..	80.87	..	131.52	212.39
South Australia ..	..	..	50.90	..	..	50.90
Western Australia ..	..	..	277.00	..	..	277.00
Tasmania ..	..	..	125.05	..	6.50	131.55
Total ..	13.94	53.50	581.55	..	138.02	787.01
ALL RAILWAYS OPEN FOR GENERAL TRAFFIC.						
New South Wales ..	..	6,167.29	36.73	..	..	6,204.02
Victoria ..	4,612.94	..	(a) 11.00	121.77	..	4,745.71
Queensland ..	..	68.82	6,548.44	..	161.78	6,779.04
South Australia ..	1,480.49	654.21	1,725.97	..	..	3,860.67
Western Australia ..	..	453.99	4,652.83	..	..	5,106.82
Tasmania ..	..	..	764.72	..	17.83	782.55
Northern Territory ..	..	..	489.73	..	..	489.73
Aust. Cap. Territory ..	..	4.94	..	..	..	4.94
GRAND TOTAL	6,093.43	7,349.25	14,229.42	121.77	179.61	27,973.48

(a) 3 ft. 0 in. gauge.

9. Summary of Operations, 1937-38.—In the following table a summary is given of the working of all railways open for general traffic in Australia during the year ended 30th June, 1938 :—

GOVERNMENT AND PRIVATE RAILWAYS : SUMMARY OF OPERATIONS, 1937-38.

Particulars.	Common-wealth Railways.	State Railways.	Private Railways. (a)	Total for Australia.
Mileage open (route) 30th June, 1938 Miles	2,201.05	24,985.42	787.01	27,973.48
Capital cost £	16,897,209	297,849,449	4,812,258	319,558,916
Cost per mile £	7,677	11,921	6,115	11,424
Gross revenue £	442,933	44,831,222	739,320	46,013,475
Gross revenue per train mile d.	140.19	141.22	133.47	141.09
Working expenses £	511,510	33,739,925	450,908	34,693,343
Working expenses per train mile d.	161.90	106.26	81.40	106.38
Net revenue £	-68,577	11,100,297	288,412	11,320,132
Net revenue per train mile d.	-21.71	34.97	52.07	34.71
Train miles run Miles	758,259	76,183,562	1,329,399	78,271,220
Passengers carried No.	99,670	384,842,376	1,360,009	386,302,055
Tons of goods, etc., carried Tons	132,050	35,596,795	4,499,682	40,228,527
Average number of employees No.	(b) 1,701	(b) 101,742	(c) 1,164	104,607
Average wage £	256	253	249	253

(a) Approximate. Complete particulars not available for all items.

(b) Exclusive of Construction Branch.

(c) Employees at 31st December, 1938.

§ 2. Government Railways.

1. Cost of Construction and Equipment.—The following table gives particulars of the mileage open and the capital cost of Government railways in Australia. The cost shown for Australia (£314,746,658) does not represent the total expenditure on construction and equipment as in three States, namely, Victoria, Queensland and Tasmania, legislation has been introduced for the purpose of reducing the capital indebtedness of the railways. Figures relating to capital cost do not include charges for works in the course of construction, surveys, discounts and flotation charges on loans allocated to the railways.

GOVERNMENT RAILWAYS : MILEAGE AND COST TO 30TH JUNE, 1938.

System.	Mileage Open.		Total Cost of Construction and Equipment.	Average Cost per Route Mile Open.	Cost per Head of Population.	Route Mileage per 1,000 of Population.
	Route.	Track.				
	Miles.	Miles.	£	£	£	Miles.
New South Wales	6,113.79	8,151.50	146,808,073	24,013	54.00	2.25
Victoria (a) ..	4,720.77	6,093.67	51,764,255	10,965	27.73	2.53
Queensland (a) ..	6,566.65	7,411.00	37,446,264	5,702	37.33	6.55
South Australia ..	2,557.38	3,090.51	29,582,615	11,568	49.95	4.32
Western Australia	4,375.83	4,917.59	25,779,661	5,891	56.02	9.51
Tasmania (a) ..	651.00	(b)	2,106,081	3,235	8.99	2.78
Commonwealth ..	2,201.05	2,316.37	16,897,209	7,677	..	..
Australia (a) ..	27,186.47	31,980.64	314,746,658	11,921	45.66	3.94

(a) See below. (b) Not available. (c) Excluding Tasmania. (d) Includes Grafton-South Brisbane line, £4,362,500.

The reductions made in the capital indebtedness referred to above were :—Victoria £25,684,423; Queensland, £28,000,000; and Tasmania, £4,378,000. After adding these figures to the capital costs of the respective States and adjusting the route mileage

for New South Wales and Queensland to exclude portions of the Grafton-South Brisbane line, the cost per route mile open in each State and for the Commonwealth railways is as follows:—New South Wales, £24,115; Victoria, £16,406; Queensland, £10,072; South Australia, £11,568; Western Australia, £5,891; Tasmania, £10,513; Commonwealth, £7,677; and for all Government railways in Australia, £13,726. The lowest average cost is in Western Australia, while the highest is in New South Wales. Very few engineering difficulties were encountered in Western Australia, and the fact that contractors were permitted to carry traffic during the term of their contract considerably reduced expenditure.

Adjusted figures for the cost per head of population for each State and for Australia are as follows:—New South Wales, £54.00; Victoria, £41.48; Queensland, £65.25; South Australia, £49.95; Western Australia, £56.02; Tasmania, £29.23; All Government railways in Australia, £54.14.

2. Expenditure on Construction and Equipment from Revenue and from Loans.—The following table gives particulars of the expenditure on construction and equipment from revenue and from loans:—

GOVERNMENT RAILWAYS: CAPITAL EXPENDITURE FROM REVENUE AND LOANS.

System.	Expenditure from Revenue to 30th June, 1938.	Net Loan Expenditure.			Total to 30th June, 1938.
		1935-36.	1936-37.	1937-38.	
	£	£	£	£	£.
New South Wales ..	666,864	2,201,837	1,864,088	2,343,455	149,507,395
Victoria (a) ..	5,458,243	280,900	361,893	492,208	75,634,178
Queensland ..	..	692,830	505,216	630,953	64,607,253
South Australia ..	..	420,233	160,011	112,537	34,497,721
Western Australia ..	640,020	(b) 116,240	(b) 175,412	(b) 346,373	b 25,289,007
Tasmania ..	18,121	47,859	81,856	59,660	(c) 7,272,441
Commonwealth ..	2,185,795	106,975	358,241	Cr. 938	11,433,544
Australia ..	8,969,043	3,866,874	3,506,717	3,983,348	d370,687,544

(a) Gross Loan Expenditure. (b) Includes expenditure on railways provided in Unemployment Relief Work programmes. (c) Includes Losses funded. (d) Includes £2,446,005 Commonwealth Loan Expenditure on Grafton-South Brisbane line.

3. Gross Revenue.—(i) General. The total revenue from all sources, the revenue per average mile worked and the revenue per train-mile run during the last five years were as follows:—

GOVERNMENT RAILWAYS: GROSS REVENUE.

Year.	N.S.W.(a)	Vic.(b)	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia.
TOTAL GROSS REVENUE.								
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1933-34 ..	15,690	9,175	6,230	2,560	2,920	391	330	37,296
1934-35 ..	16,803	9,421	7,167	2,658	3,312	400	346	40,107
1935-36 ..	17,754	9,690	6,697	2,878	3,446	449	388	41,302
1936-37 ..	18,616	10,135	7,092	3,008	3,462	479	442	43,234
1937-38 ..	20,286	9,735	7,383	3,285	3,678	464	443	45,274

(a) Includes £800,000 per annum contribution from consolidated revenue towards losses on working of country development lines. (b) Includes contributions from consolidated revenue in respect of losses on non-paying lines, 1933-34, £134,424; 1934-35, £140,614; 1935-36, £163,859; 1936-37, £230,574 (includes £19,113 guarantees in respect of losses); and in 1937-38, £10,000 guarantees in respect of losses on certain lines.

GOVERNMENT RAILWAYS: GROSS REVENUE—*continued.*

Year.	N.S.W.(a)	Vic.(b)	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia.
GROSS REVENUE PER AVERAGE MILE WORKED.								
	£	£	£	£	£	£	£	£
1933-34 ..	2,546	1,943	949	1,012	671	606	154	1,375
1934-35 ..	2,726	1,996	1,092	1,051	760	620	161	1,478
1935-36 ..	2,899	2,053	1,020	1,138	791	696	181	1,525
1936-37 ..	3,040	2,147	1,080	1,189	795	735	206	1,596
1937-38 ..	3,318	2,062	1,124	1,285	841	714	202	1,666
GROSS REVENUE PER TRAIN-MILE RUN.								
	d.	d.	d.	d.	d.	d.	d.	d.
1933-34 ..	149.59	143.82	134.23	124.62	129.99	82.72	143.82	140.67
1934-35 ..	153.48	145.54	132.73	125.59	135.44	78.00	154.75	142.63
1935-36 ..	153.82	141.88	129.78	126.46	135.70	(c)64.90	159.86	141.05
1936-37 ..	156.51	141.33	131.30	128.76	136.77	61.63	147.31	142.16
1937-38 ..	161.20	130.40	129.83	129.00	138.52	57.70	140.19	141.22

(a) Includes £800,000 per annum contribution from consolidated revenue towards losses on working of country development lines. (b) Includes contributions from consolidated revenue in respect of losses on non-paying lines, 1933-34, £134,424; 1934-35, £140,614; 1935-36, £163,859; 1936-37, £230,574 (includes £19,113 guarantees in respect of losses); and in 1937-38, £10,000 guarantees in respect of losses on certain lines. (c) Includes steam and petrol rail car mileages excluded prior to 1935-36.

(ii) *Coaching, Goods and Miscellaneous Receipts.* (a) *Totals.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The subjoined table shows the gross revenue from 1934 to 1938, classified according to the three chief sources of receipts. The total of the three items specified has already been given in the preceding paragraph.

GOVERNMENT RAILWAYS: COACHING, GOODS AND MISCELLANEOUS RECEIPTS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
COACHING TRAFFIC RECEIPTS.								
1933-34 ..	5,555	3,905	1,873	647	688	128	114	12,910
1934-35 ..	5,868	4,088	1,946	654	731	133	136	13,556
1935-36 ..	6,187	4,130	1,974	686	742	141	141	14,001
1936-37 ..	6,394	4,232	1,934	737	742	141	158	14,338
1937-38 ..	6,844	4,119	1,995	728	717	138	167	14,708
GOODS AND LIVE STOCK TRAFFIC RECEIPTS.								
1933-34 ..	7,802	4,572	4,147	1,763	2,060	248	142	20,734
1934-35 ..	8,583	4,556	4,987	1,853	2,405	255	135	22,774
1935-36 ..	9,155	4,768	4,482	2,027	2,527	294	173	23,426
1936-37 ..	9,661	5,029	4,903	2,098	2,541	324	195	24,751
1937-38 ..	10,831	4,945	5,121	2,353	2,769	311	190	26,520
MISCELLANEOUS RECEIPTS.								
	(a)	(b)						
1933-34 ..	2,333	698	211	150	171	15	74	3,652
1934-35 ..	2,352	778	233	152	175	12	75	3,777
1935-36 ..	2,412	792	241	164	178	13	74	3,874
1936-37 ..	2,561	875	255	172	179	14	89	4,145
1937-38 ..	2,611	671	267	203	192	16	86	4,046

(a) See note (a) to Gross Revenue table above.

(b) See note (b) to Gross Revenue table above.

(b) *Percentages.* The following table shows for each of the past two years the percentage which each class of receipts bears to the total gross revenue:—

GOVERNMENT RAILWAYS : PERCENTAGES OF RECEIPTS.

System.	1936-37.			1937-38.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
	%	%	%	%	%	%
New South Wales ..	34.35	51.89	13.76	33.74	53.39	12.87
Victoria ..	41.75	49.62	8.63	42.31	50.79	6.90
Queensland ..	27.28	69.13	3.59	27.02	69.36	3.62
South Australia ..	24.51	69.77	5.72	22.17	71.64	6.19
Western Australia ..	21.43	73.40	5.17	19.48	75.30	5.22
Tasmania ..	29.51	67.66	2.83	29.72	66.89	3.39
Commonwealth ..	35.75	44.12	20.13	37.73	42.95	19.32
Australia ..	33.16	57.25	9.59	32.48	58.58	8.94

4. *Working Expenses.*—(i) *General.* In order to make an adequate comparison of the working expenses, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the different systems of the State and Commonwealth railways, but also on different portions of the same systems. When traffic is light, the percentage of working expenses is naturally greater than when traffic is heavy; and this is especially true in Australia, where ton-mile rates are in many cases based on a tapering principle—i.e., a lower rate per ton-mile is charged upon merchandise from remote interior districts—and where on many of the lines there is but little back loading.

The following table shows the total annual expenditure, the percentage thereof on gross revenue, and the expenditure per average mile worked and per train-mile run for the years 1934 to 1938:—

GOVERNMENT RAILWAYS : WORKING EXPENSES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
TOTAL WORKING EXPENSES.								
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1933-34 ..	11,204	6,242	4,494	2,029	2,186	385	376	26,916
1934-35 ..	11,565	6,506	5,087	2,241	2,383	472	380	28,634
1935-36 ..	11,848	6,857	5,213	2,414	2,488	561	387	29,768
1936-37 ..	12,355	7,259	5,465	2,557	2,620	620	411	31,287
1937-38 ..	13,760	7,830	5,887	2,867	2,710	676	512	34,242
PERCENTAGE ON GROSS REVENUE.								
	%	%	%	%	%	%	%	%
1933-34 ..	71.40	68.03	72.14	79.25	74.90	98.59	114.01	72.17
1934-35 ..	68.83	69.06	70.98	84.31	71.95	118.06	109.83	71.40
1935-36 ..	66.74	70.76	77.84	83.87	72.20	125.05	99.84	72.07
1936-37 ..	66.37	71.62	77.07	85.00	75.68	129.54	92.89	72.37
1937-38 ..	67.83	80.43	79.74	87.28	73.68	145.60	115.48	75.63

GOVERNMENT RAILWAYS: WORKING EXPENSES—*continued.*

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
PER AVERAGE MILE WORKED.								
	£	£	£	£	£	£	£	£
1933-34 ..	1,818	1,322	684	802	503	598	175	992*
1934-35 ..	1,876	1,378	775	886	547	732	177	1,055
1935-36 ..	1,935	1,452	794	954	571	870	181	1,099
1936-37 ..	2,017	1,538	832	1,011	601	953	192	1,155
1937-38 ..	2,251	1,659	897	1,122	620	1,039	233	1,260

PER TRAIN-MILE RUN.								
	d.	d.	d.	d.	d.	d.	d.	d.
1933-34 ..	106.81	97.83	96.83	98.76	97.36	81.55	163.96	101.52
1934-35 ..	105.64	100.50	94.21	105.89	97.44	92.08	169.96	101.83
1935-36 ..	102.65	100.39	101.01	106.06	97.97	(a)81.15	159.76	101.66
1936-37 ..	103.87	101.22	101.18	109.44	103.51	79.83	136.84	102.88
1937-38 ..	109.34	104.89	103.53	112.60	102.06	84.01	161.90	106.81

(a) See note (c), par. 3 (i) p. 118.

(ii) *Distribution.* The subjoined table shows the distribution of working expenses under four chief heads of expenditure for the years 1934 to 1938:—

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
MAINTENANCE OF WAY AND WORKS.								
1933-34 ..	2,654	1,565	1,162	368	553	96	168	6,566
1934-35 ..	2,433	1,570	1,291	394	553	116	152	6,509
1935-36 ..	2,161	1,517	1,344	445	569	122	145	6,303
1936-37 ..	2,320	1,627	1,451	471	610	130	139	6,748
1937-38 ..	2,614	1,777	1,537	528	644	135	179	7,414

ROLLING STOCK.

1933-34 ..	4,193	2,157	1,852	952	957	176	127	10,414
1934-35 ..	4,573	2,182	1,800	1,097	1,088	183	137	11,440
1935-36 ..	4,843	2,333	2,205	1,150	1,140	214	149	12,034
1936-37 ..	4,982	2,492	2,295	1,205	1,181	246	169	12,570
1937-38 ..	5,562	2,888	2,544	1,340	1,214	281	208	14,037

TRANSPORTATION AND TRAFFIC.

1933-34 ..	2,613	1,648	1,211	457	578	90	49	6,646
1934-35 ..	2,726	1,714	1,320	485	621	99	56	7,021
1935-36 ..	2,925	1,798	1,350	531	648	112	59	7,423
1936-37 ..	3,006	1,874	1,394	576	693	128	64	7,735
1937-38 ..	3,324	2,121	1,460	648	715	143	83	8,494

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES
—continued.

Year.	N.S.W. £'000.	Victoria. £'000.	Q'land £'000.	S. Aust. £'000.	W. Aust. £'000.	Tasmania. £'000.	C'wealth. £'000.	Australia. £'000.
OTHER CHARGES.								
1933-34 ..	1,743	873	270	252	99	22	31	3,290
1934-35 ..	1,833	1,040	295	265	121	(a) 75	35	3,664
1935-36 ..	1,919	1,208	314	289	131	(a) 112	34	4,007
1936-37 ..	2,048	1,265	326	304	136	(a) 115	40	4,234
1937-38 ..	2,259	1,044	348	351	137	(a) 117	42	4,298

(a) Includes £54,000, 1935, and £94,000, 1936, 1937 and 1938, to replacement and depreciation fund.

5. Net Revenue.—The following table shows the net earnings, i.e., the excess of gross earnings over working expenses, and the amount of such net earnings per average mile worked and per train-mile run for the last five years:—

GOVERNMENT RAILWAYS: NET REVENUE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
NET REVENUE.								
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1933-34 ..	4,487	2,933	1,736	531	733	5	46	10,379
1934-35 ..	5,237	2,915	2,080	417	929	— 72	34	11,472
1935-36 ..	5,906	2,833	1,485	464	958	— 112	..	11,534
1936-37 ..	6,261	2,877	1,626	451	842	— 141	31	11,947
1937-38 ..	6,526	1,905	1,496	418	968	— 212	69	11,032

NET REVENUE PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£	£
1933-34 ..	728	621	265	209	168	9	22	383
1934-35 ..	850	618	317	165	213	— 112	16	423
1935-36 ..	964	601	226	184	220	— 174	..	426
1936-37 ..	1,023	609	248	178	193	— 218	14	441
1937-38 ..	1,067	403	228	163	221	— 325	31	406

NET REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.	d.
1933-34 ..	42.78	45.99	37.40	25.86	32.63	1.17	—20.14	39.15
1934-35 ..	47.84	45.04	38.52	19.70	38.00	—14.08	—15.21	40.80
1935-36 ..	51.17	41.49	28.77	20.40	37.73	a—16.25	0.10	39.39
1936-37 ..	52.64	40.11	30.12	19.32	33.26	—18.21	10.47	39.28
1937-38 ..	51.86	25.52	26.30	16.40	36.46	—26.31	—21.71	34.41

(a) See note (c), par. 3 (i) p. 118.

In the graphs accompanying this Chapter the gross and net revenue and working expenses are shown from 1870 to 1938.

6. **Interest.**—The amount of interest payable on expenditure from loans for the construction and equipment of the Government railways in Australia during the five years ended 30th June, 1938, was as follows :—

GOVERNMENT RAILWAYS : INTEREST ON RAILWAY LOAN EXPENDITURE.

AMOUNT OF INTEREST PAYABLE.

Year.	N.S.W. (a)	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia. (a)
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1933-34 ..	5,971	3,182	1,565	1,089	1,008	247	442	13,607
1934-35 ..	5,678	3,057	1,577	1,056	1,029	248	438	13,184
1935-36 ..	5,700	3,033	1,592	1,061	1,016	248	414	13,190
1936-37 ..	5,444	3,005	1,613	1,061	1,009	88	412	12,758
1937-38 ..	5,340	1,841	1,633	1,071	988	90	377	11,459

(a) Including interest charges on the Grafton-South Brisbane line, which for the year 1937-38 amounted to £218,125 and was contributed by New South Wales, £72,179; Queensland, £27,029; and the Commonwealth, £118,917. See par. 5, p. 113.

The interest payable on the cost of construction and equipment, after the expenditure from Consolidated Revenue (£8,969,043) for that purpose had been deducted, was at the rate of 3.75 per cent. in 1937-38.

Exchange on interest payments abroad and loan management and flotation expenses are not included in the above table. These items are not charged against the railways in Queensland, Western Australia and Tasmania and the figures for these States are not available. In the remaining States the amounts payable in 1937-38 were :—New South Wales, £764,312; Victoria, £184,014; and South Australia, £130,138.

7. **Profit or Loss.**—The following table shows, for the last five years, the actual profit or loss after deducting working expenses, interest and all other charges, excepting exchange, from the gross revenue :—

GOVERNMENT RAILWAYS : PROFIT OR LOSS.

PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES, INTEREST AND OTHER CHARGES.

Year.	N.S.W. (a)	Victoria. (b)	Q'land. (a) (b)	S. Aust.	W. Aust.	Tasmania. (b)	C'wealth.	Australia. (a)
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1933-34 ..	- 1,485	- 248	171	- 557	- 277	- 241	- 488	- 3,228
1934-35 ..	- 440	- 142	503	- 639	- 99	- 320	- 472	- 1,712
1935-36 ..	206	- 199	- 107	- 597	- 57	- 360	- 414	- 1,656
1936-37 ..	817	- 129	14	- 609	- 167	- 230	- 381	- 811
1937-38 ..	1,186	64	- 138	- 653	- 20	- 302	- 445	- 427

(a) See note (a), par. 6, above.

(b) See par. 1 p. 116.

8. **Traffic.**—(i) *General.* Reference has already been made to the difference in the traffic conditions on many of the lines. These conditions differ not only in the several State and Commonwealth systems, but also on different lines in the same system, and apply to both passenger and goods traffic. By far the greater part of the population of Australia is confined to a fringe of country near the coast, more especially in the eastern

and southern-districts. A large proportion of the railway traffic between the chief centres of population is therefore carried over lines in the neighbourhood of the coast, and is thus, in some cases, open to seaborne competition. In more recent years the competition from the air is an important factor,

The following table gives particulars for the years 1933-34 to 1937-38 :—

GOVERNMENT RAILWAYS : TRAFFIC.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
NUMBER OF PASSENGER JOURNEYS.								
	'000.	'000.	'000.	'000.	'000.	'000.	'000.	'000.
1933-34 ..	142,521	131,367	22,878	16,325	12,103	1,789	88	327,071
1934-35 ..	160,212	139,689	24,328	16,660	12,876	2,134	98	355,997
1935-36 ..	171,143	139,539	25,244	17,431	12,421	2,322	96	368,196
1936-37 ..	177,837	141,343	25,527	17,777	12,710	2,331	109	377,634
1937-38 ..	189,349	137,895	25,688	17,632	12,011	2,267	100	384,942

PER AVERAGE MILE OF LINE WORKED.

	No.	No.	No.	No.	No.	No.	No.	No.
1933-34 ..	23,122	27,826	3,484	6,454	2,782	2,775	41	12,059
1934-35 ..	25,992	29,589	3,705	6,587	2,954	3,308	46	13,122
1935-36 ..	27,945	29,559	3,844	6,891	2,850	3,600	45	13,592
1936-37 ..	29,038	29,941	3,887	7,028	2,917	3,581	51	13,938
1937-38 ..	30,970	29,209	3,912	6,901	2,746	3,482	45	14,163

TONNAGE OF GOODS AND LIVE STOCK CARRIED.

	'000.	'000.	'000.	'000.	'000.	'000.	'000.	'000.
1933-34 ..	11,364	5,858	4,215	2,142	2,652	561	88	26,880
1934-35 ..	13,019	6,010	4,879	2,333	2,903	678	87	29,909
1935-36 ..	13,839	6,424	4,663	2,465	2,887	770	101	31,149
1936-37 ..	14,685	6,813	4,975	2,383	2,798	824	127	32,605
1937-38 ..	16,480	7,258	5,061	2,879	3,062	857	132	35,729

PER AVERAGE MILE OF LINE WORKED.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933-34 ..	1,844	1,241	642	847	610	869	41	991
1934-35 ..	2,112	1,273	743	922	666	1,052	41	1,102
1935-36 ..	2,260	1,361	710	974	662	1,194	47	1,150
1936-37 ..	2,398	1,443	758	942	642	1,265	59	1,203
1937-38 ..	2,696	1,537	771	1,127	700	1,316	60	1,315

(ii) *Metropolitan and Country Passenger Traffic and Revenue 1937-38.* A further indication of the difference in passenger traffic conditions is obtained from the comparison of the volume of metropolitan and suburban and country traffic shown below.

**GOVERNMENT RAILWAYS : METROPOLITAN AND SUBURBAN, AND COUNTRY
PASSENGER TRAFFIC AND RECEIPTS, 1937-38.**

System.	Passenger Journeys.			Revenue.		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
	No.	No.	No.	£	£	£
N.S.W. ..	176,737,169	12,612,129	189,349,298	2,917,989	3,076,553	5,994,542
Victoria ..	132,044,095	5,850,581	137,894,676	2,281,235	1,403,144	3,684,379
Queensland ..	20,669,318	5,019,170	25,688,488	301,669	1,234,013	1,535,682
S. Australia ..	16,495,587	1,136,538	17,632,125	228,180	342,589	570,769
W. Australia ..	10,731,572	1,279,641	12,011,213	132,551	400,101	532,652
Tasmania ..	(a)	(a)	2,266,576	(a)	(a)	116,354
Commonwealth ..	..	99,670	99,670	..	120,737	120,737
Australia	356,677,741	25,997,729	384,942,046	5,861,624	6,577,137	12,555,115
	(b)	(b)		(b)		

(a) Not available. (b) Incomplete, exclusive of Tasmania.

(iii) *Goods Traffic.* (a) *Classification.* Some indication of the differing conditions of the traffic in each system is also given by an examination of the tonnage of the various classes of commodities carried, and of the revenue derived therefrom. The following table shows the number of tons of various representative commodities carried during the year 1937-38 :—

GOVERNMENT RAILWAYS : CLASSIFICATION OF COMMODITIES CARRIED, 1937-38.

'000 TONS CARRIED.

System.	Coal and Coke.	Other Minerals.	Grain and Flour.	Hay, Straw and Chaff.	Wool.	Live Stock.	All other Commodities.	Total.
N.S.W. ..	8,022	1,863	1,885	290	185	891	3,344	16,480
Victoria ..	247	209	1,544	204	84	757	4,213	7,258
Q'land ..	733	595	278	(a)	83	479	2,893	5,061
S. Aust. ..	135	652	884	22	35	173	975	2,876
W. Aust. ..	307	297	909	42	27	114	1,366	3,062
Tas. ..	496	(b)	63	22	6	28	242	857
C'wealth ..	8	1	(a)	(a)	4	38	81	132
Australia	9,948	3,617	5,563	580	424	2,480	13,114	35,726

(a) Included with " Other."

(b) Included with " Coal and Coke."

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1937-38 :—

GOVERNMENT RAILWAYS : REVENUE FROM GOODS AND LIVE STOCK, 1937-38.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
General Merchandise ..	6,693	4,017	3,332	1,570	2,271	193	121	18,197
Wool ..	711	184	408	76	70	5	9	1,463
Live stock ..	1,324	608	672	198	138	22	57	3,019
Minerals—								
Coal and coke ..	1,566	74	327	37	180	(a) 21	1	2,206
Others ..	537	62	382	472	110	(b) 70	2	1,635
Total ..	10,831	4,945	5,121	2,353	2,769	311	190	26,520

(a) Native coal.

(b) Minerals other than native coal.

(iv) *Passenger-Mileage.* The subjoined table gives particulars of passenger-mileage in respect of the Government railways in Australia for the years 1935-36 to 1937-38.

GOVERNMENT RAILWAYS : SUMMARY OF "PASSENGER-MILES."

Year ended 30th June	Passenger Train-Mileage.	Total Passenger-Miles.	Average Passengers' per Train-Mile.	Average Mileage per Passenger Journey.	Passenger Earnings.			Density of Traffic per Average Mile Worked.	
					Gross.	Per Average Mile Worked.	Per Passenger-Mile.		
									£
'000.	'000.	No.	Miles.	£'000.	£	d.	d.	No.	
NEW SOUTH WALES.									
1936	17,448	1,864,368	107	10.89	5,433	887	0.70	74.73	304,427
1937	17,837	1,952,887	109	10.98	5,623	918	0.69	75.66	318,881
1938	18,742	2,132,966	114	11.26	5,995	980	0.67	76.76	348,878
VICTORIA.									
1936	11,458	1,180,297	103	8.46	3,713	787	0.76	77.78	250,022
1937	11,886	1,233,554	104	8.73	3,807	806	0.74	76.86	261,303
1938	12,088	1,203,812	100	8.73	3,684	780	0.73	73.15	255,003
QUEENSLAND. (a)									
1936	5,430	(b)	(b)	(b)	1,470	226	(b)	64.95	(b)
1937	5,504	(b)	(b)	(b)	1,447	223	(b)	63.09	(b)
1938	5,696	(b)	(b)	(b)	1,494	228	(b)	62.97	(b)
SOUTH AUSTRALIA.									
1936	3,423	189,061	55	10.85	549	217	0.70	38.46	74,747
1937	3,504	205,329	59	10.55	592	234	0.69	40.56	81,179
1938	3,679	200,144	54	11.35	571	223	0.68	37.23	78,319
WESTERN AUSTRALIA.									
1936	2,386	(b)	(b)	(b)	564	129	(b)	55.78	(b)
1937	2,398	(b)	(b)	(b)	559	128	(b)	55.93	(b)
1938	2,544	(b)	(b)	(b)	533	122	(b)	50.25	(b)
TASMANIA.									
1936	(c) 858	32,911	39	14.17	120	187	0.88	33.66	51,033
1937	949	34,653	37	14.86	121	185	0.84	30.51	53,231
1938	1,045	32,917	32	14.52	116	179	0.85	26.72	50,563
COMMONWEALTH. (d)									
1936	256	22,952	90	237.84	105	49	1.10	98.25	10,702
1937	344	25,797	75	237.14	117	54	1.09	81.39	12,028
1938	385	25,965	67	257.92	121	55	1.12	75.30	11,817

(a) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line. (b) Not available. (c) Estimated. (d) Railways controlled by Commonwealth Government.

(v) *Ton-Mileage.* Particulars regarding total "ton-miles" are given in the following table for each of the years 1935-36 to 1937-38:—

GOVERNMENT RAILWAYS: SUMMARY OF "TON-MILES."

Year ended 30th June—	Goods-Train-Mileage.	Total "Ton-miles."	Average Freight Paying Load		Goods and Livestock Earnings.				Density of Traffic per Average Mile Worked.
			per Ton.	per Ton.	Gross.	Per Average Mile Worked.	"Per Ton-Mile."	Per Goods-Train-Mile.	
	'ooo.	'ooo.	Tons.	Miles.	£'ooo.	£	d.	d.	Tons.
NEW SOUTH WALES.									
1936	10,253	1,666,603	163	123.32	9,155	1,495	1.31	214.30	272,134
1937	10,711	1,731,904	162	120.80	9,661	1,577	1.34	216.48	282,797
1938	11,461	1,854,936	162	114.05	10,831	1,772	1.40	226.80	303,402
VICTORIA.									
1936	4,933	759,037	154	118.15	4,768	1,010	1.51	231.98	160,787
1937	5,325	838,002	157	123.00	5,029	1,065	1.44	226.65	177,514
1938	5,829	927,444	159	127.78	4,945	1,047	1.28	203.61	196,460
QUEENSLAND. (a)									
1936	6,847	615,972	90	134.22	4,412	679	1.72	154.63	94,797
1937	7,343	665,989	91	139.89	4,824	742	1.73	157.68	105,658
1938	7,847	715,917	91	146.98	5,056	770	1.69	154.63	109,023
SOUTH AUSTRALIA.									
1936	2,039	312,789	153	126.91	2,027	801	1.56	238.64	123,664
1937	2,102	314,462	150	131.97	2,099	830	1.60	239.58	124,325
1938	2,432	365,012	150	126.80	2,353	921	1.55	232.20	142,834
WESTERN AUSTRALIA.									
1936	(b)3,709	353,011	92	122.29	2,527	580	1.72	163.48	80,997
1937	(b)3,677	346,777	94	123.92	2,541	583	1.76	165.85	79,588
1938	(b)3,828	390,913	102	127.67	2,769	633	1.70	173.62	89,372
TASMANIA. (c)									
1936	(b) 801	37,837	47	50.74	275	456	1.74	82.26	58,672
1937	(b) 915	41,151	45	51.50	302	498	1.76	84.98	63,212
1938	(b) 887	37,916	43	45.76	289	443	1.83	78.07	58,243
COMMONWEALTH. (d)									
1936	326	24,721	76	243.84	173	81	1.68	127.15	11,526
1937	376	29,742	79	234.59	195	91	1.57	124.34	13,868
1938	374	28,526	76	216.02	190	86	1.60	121.90	12,983

(a) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line.
 (b) Estimated. (c) Exclusive of particulars of livestock carried. (d) Railways controlled by the Commonwealth Government.

9. **Rolling Stock.**—The following table shows the numbers of rolling stock in use at the 30th June for each of the years 1936 to 1938. Further details may be found in *Transport and Communication Bulletin* No. 29.

GOVERNMENT RAILWAYS : ROLLING STOCK.

System.	At 30th June—								
	1936.			1937.			1938.		
	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.
New South Wales ..	1,378	2,704	23,340	1,346	2,725	23,293	1,310	2,790	23,704
Victoria ..	602	2,450	21,056	588	2,474	21,021	574	2,458	21,029
Queensland ..	750	1,381	18,738	753	1,397	18,744	748	1,398	18,704
South Australia ..	365	610	8,720	327	608	8,436	329	606	8,013
Western Australia ..	420	489	11,096	417	485	11,070	420	477	11,097
Tasmania ..	92	220	2,045	93	226	2,046	94	233	2,073
Commonwealth ..	105	88	1,354	105	89	1,384	113	89	1,383
Australia ..	3,712	7,942	86,349	3,629	8,004	85,994	3,588	8,051	86,003

10. **Accidents.**—The following table gives particulars of the numbers of persons killed and injured through train accidents and the movement of rolling stock on the Government railways of Australia for each of the years 1935-36, 1936-37 and 1937-38 :—

GOVERNMENT RAILWAYS : ACCIDENTS.

System.	1935-36.		1936-37.		1937-38.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales ..	66	442	55	479	66	593
Victoria ..	46	188	55	144	48	442
Queensland ..	20	156	26	143	25	166
South Australia ..	14	143	14	172	21	182
Western Australia ..	14	383	18	703	14	190
Tasmania ..	4	17	3	46	6	66
Commonwealth ..	..	23	..	30	..	38
Australia ..	164	1,352	171	1,717	180	1,677

Further details relating to the number of passengers, employees and other persons affected by railway accidents are published on page 25 of *Transport and Communication Bulletin* No. 29.

11. **Consumption of Oil and Fuel.**—The appended table shows the quantities and values of oil and fuel consumed by the various Government Railway Departments during the year 1937-38 :—

GOVERNMENT RAILWAYS : CONSUMPTION AND VALUE OF OIL AND FUEL, 1937-38.

System.	Oil.				Coal.	
	Lubricating.		Fuel and Light, etc.		Tons.	Value.
	Gallons.	Value.	Gallons.	Value.		
New South Wales ..	404,038	45,852	1,202,550	42,381	1,502,326	994,049
Victoria ..	200,630	18,749	1,681,295	58,396	549,387	531,759
Queensland ..	211,225	22,508	502,346	32,933	439,209	401,802
South Australia ..	86,756	10,311	1,130,608	56,353	198,799	241,100
Western Australia ..	74,153	8,520	387,483	16,003	336,202	245,531
Tasmania ..	40,304	4,203	452,615	12,869	53,347	67,806
Commonwealth ..	23,574	2,470	150,934	6,132	27,450	41,721
Australia ..	1,040,680	112,613	5,507,831	225,067	3,106,720	2,523,768

12. **Staff Employed.**—The following table gives details of the average staff employed by the Government railways of Australia during 1937–38. Further details under this head may be found in *Transport and Communication Bulletin* No. 29.

GOVERNMENT RAILWAYS : AVERAGE STAFF EMPLOYED, 1937–38.

System.	Operating Staff.		Construction Staff.		All Employees—Staff.	
	Salaried.	Wages.	Salaried.	Wages.	Salaried.	Wages.
New South Wales ..	6,787	34,341	47	1,715	6,834	36,056
Victoria ..	3,478	20,467	(a)	(a)	3,478	20,467
Queensland ..	3,122	14,590	7	151	3,129	14,741
South Australia ..	1,336	7,064	3	25	1,339	7,089
Western Australia ..	1,302	7,176	2	85	1,304	7,261
Tasmania ..	208	1,871	(b)	(b)	208	1,871
Commonwealth ..	158	1,543	5	122	163	1,665
Australia ..	16,391	87,052	64	2,098	16,455	89,150

(a) In the State of Victoria, railway construction work is not under the control of the Railways Commissioners. (b) Construction work has been placed under the direction of the Chief Engineer of the Way and Works Section.

§ 3. Private Railways.

1. **Total Mileage Open, 1937–38.**—The bulk of the private railways in Australia have been laid down for the purpose of hauling timber, firewood, sugar-cane, coal, or other minerals, and they are not generally used for the conveyance of passengers or for public traffic. In many cases the lines are practically unballasted and easily removable.

The railways referred to in this section include only lines open to the public for general passenger and goods traffic. Complete particulars of lines used for special purposes only are not available.

2. **Lines Open for General Traffic.**—The following statement gives a summary of the operations of private railways open for general traffic for the year 1937–38 :—

PRIVATE RAILWAYS : SUMMARY OF OPERATIONS, 1937–38.

State.	Route-Miles Open.	Capital Cost.	Gross Revenue.	Working Expenses.	Train-Miles Run.	Passenger Journeys.	Goods, etc., Carried.	Employees at end of Year.
	Miles.	£'000.	£	£	'000.	'000.	'000 Tons.	No.
N.S.W. (a)	90.23	1,261	365,500	206,477	609	1,283	1,769	494
Vic. ..	24.94	82	8,595	7,982	24	9	39	18
Q'land (a)	212.39	309	32,109	27,630	96	4	246	49
S.A. (a) ..	50.90	(b)	(b)	(b)	91	..	2,076	39
W.A. ..	277.00	2,254	180,121	80,863	282	25	144	283
Tas. (a) ..	131.55	906	152,995	127,956	227	39	226	281
Australia (a)	787.01	4,812	739,320	450,908	1,329	1,360	4,500	1,164

(a) Incomplete. (b) Not available.

Some of the particulars given in the table are incomplete in respect of the States of New South Wales, Queensland, South Australia and Tasmania. In New South Wales and Queensland several lines, although owned by private companies, are operated by the Government Railway Departments, and Government rolling stock is used thereon, while some of the companies are not able to supply particulars of the capital cost, revenue and

working expenses of the lines which they operate. In some cases the figures relating to tonnage of goods, etc., include particulars of coal, ores, timber, sugar cane, etc., carried for private purposes, as figures relating to goods carried for the general public are not kept separate.

C. TRAMWAYS.

1. Systems in Operation.—(i) *General.* Tramway systems are in operation in all the States, and in recent years considerable extension has been made in the use of electrical traction, the benefit of which is now enjoyed in a number of the larger towns.

In many parts of Australia private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways (see above), and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present section.

(ii) *Total Mileage Open and Classification of Lines.* The following tables show for each State the total mileage of tramway lines open for general passenger traffic for the year 1937-38, classified (a) according to the controlling authority, (b) according to the motive power used, and (c) according to gauge:—

TRAMWAYS : ROUTE MILEAGE OPEN, 1937-38.

Controlling Authority, Nature of Motive Power, and Gauge.	N.S. Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Total Australia.
-----------------------------------------------------------------	----------------	-----------	---------	---------------------	-----------------------	-----------	---------------------

ACCORDING TO CONTROLLING AUTHORITY.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Government ..	175.36	176.04	..	..	58.63	..	410.03
Municipal ..	..	..	66.70	76.84	11.90	29.29	184.73
Private ..	3.50	..	..	..	9.40	..	12.90
Total ..	178.86	176.04	66.70	76.84	79.93	29.29	607.66

ACCORDING TO MOTIVE POWER.

Electric ..	175.36	164.99	60.05	76.84	71.63	29.29	578.16
Steam or Petrol ..	3.50	..	6.65	..	8.30	..	18.45
Cable ..	..	11.05	..	..	..	..	11.05
Total ..	178.86	176.04	66.70	76.84	79.93	29.29	607.66

ACCORDING TO GAUGE.

Gauge—							
5 ft. 3 in. ..	..	5.18	..	..	..	..	5.18
4 ft. 8½ in. ..	178.86	170.86	60.05	76.84	..	..	486.61
3 ft. 6 in. ..	..	..	6.65	..	79.93	29.29	115.87
Total ..	178.86	176.04	66.70	76.84	79.93	29.29	607.66

Further details on this subject may be obtained from page 28 of *Transport and Communication Bulletin* No. 29.

(iii) *Cost of Construction and Equipment.* The table hereunder shows the total cost of construction and equipment of all tramways to the 30th June, 1938, classified according to the nature of the motive power. Further details relating to controlling authorities are available on page 28 of *Transport and Communication Bulletin* No. 29.

TRAMWAYS : COST OF CONSTRUCTION AND EQUIPMENT, 1937-38.

Nature of Motive Power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
ACCORDING TO MOTIVE POWER.							
Electric	£ 8,943,388	£ 8,030,238	£ 2,341,403	£ 4,409,385	£ 1,751,078	£ 656,203	£ 26,131,695
Steam or Petrol	20,000	..	53,235	..	75,412	..	148,647
Cable ...	..	678,944	..	..	..	..	678,944
Total ..	8,963,388	8,709,182	2,394,638	4,409,385	1,826,490	656,203	26,959,286

(iv) *Summary of Operations, 1934 to 1938.* The following table gives a summary of the working of all tramway systems in Australia for the years 1934 to 1938 :—

TRAMWAYS : SUMMARY OF OPERATIONS.

Particulars.	1934.	1935.	1936.	1937.	1938.
Mileage open for traffic .. Miles	622.20	619.07	611.90	613.02	607.66
Cost of Construction and Equipment .. £'000.	25,614	26,068	26,654	26,949	26,959
Cost per mile £	41,166	42,108	43,559	43,961	44,366
Gross Revenue £'000.	7,176	7,398	7,567	7,735	7,835
Working Expenses £'000.	5,153	5,419	5,464	5,609	5,975
Net Earnings £'000.	2,023	1,979	2,103	2,126	1,860
Interest £'000.	1,204	1,166	1,135	1,102	1,117
Percentage of Working Expenses on Gross Revenue %	71.80	73.24	72.20	72.51	76.26
Percentage of Net Earnings on Capital Cost %	7.90	7.59	7.89	7.89	6.90
Tram-miles run ,000 miles	80,757	81,084	81,481	82,295	83,806
Gross revenue per tram mile .. d.	21.33	21.90	22.29	22.56	22.44
Working expenses per tram mile .. d.	15.31	16.04	16.09	16.36	17.11
Net earnings per tram mile d.	6.02	5.86	6.20	6.20	5.33
Passengers carried ,000	646,161	672,523	688,123	701,941	754,957
Passengers carried per tram mile .. No.	8.00	8.29	8.45	8.53	8.49
Average revenue per passenger journey .. d.	2.67	2.64	2.64	2.64	2.64
Persons employed at end of year .. No.	17,066	17,572	17,712	17,864	18,073

2. *Electric Tramways.*—(i) *Financial Operations.* The following table gives the capital cost and the financial results of electric tramways for each State during 1937-38, together with similar details for Australia for the last five years.

ELECTRIC TRAMWAYS : CAPITAL COST AND FINANCIAL RESULTS.

State.	Route-Miles Open at 30th June, 1938.	Capital Cost.	Gross Revenue.	Working Expenses.	Net Revenue.	Interest.	Employees at 30th June, 1938.
STATES, 1937-38.							
New South Wales ..	175.36	£8,944	£3,529	£2,942	£587	£400	8,351
Victoria ..	164.99	8,030	2,033	1,320	713	265	4,302
Queensland ..	60.05	2,341	818	612	206	122	1,882
South Australia ..	76.84	4,410	692	471	221	238	1,788
Western Australia ..	71.63	1,751	358	304	54	46	806
Tasmania ..	29.29	656	172	134	38	41	335
Australia ..	578.16	26,132	7,602	5,783	1,819	1,112	17,464

AUSTRALIA, 1933-34 TO 1937-38.

	Miles.	£'000.	£'000.	£'000.	£'000.	£'000.	No.
1933-34 ..	573.59	24,026	6,731	4,794	1,937	1,191	15,774
1934-35 ..	570.46	24,539	6,936	5,050	1,886	1,155	16,291
1935-36 ..	570.64	25,428	7,201	5,165	2,036	1,123	16,789
1936-37 ..	577.96	25,984	7,438	5,361	2,077	1,092	17,143
1937-38 ..	578.16	26,132	7,602	5,783	1,819	1,112	17,464

(ii) *Traffic and Accidents.* Particulars of the traffic of electric tramways and the accidents which occurred in the movement of rolling stock are shown in the following table for each State during 1937-38, and for Australia during the last five years:—

ELECTRIC TRAMWAYS : TRAFFIC AND ACCIDENTS.

State.	Average Mileage Open for Year.		Car-Miles Run.	Passenger Journeys.	Average Number Passengers per Car-Mile.	Accidents.	
	Route.	Track.				Killed.	Injured.
STATES, 1937-38.							
New South Wales	Miles. 175.36	Miles. 334.81	'000. 35,790	'000. 328,446	No. 9.18	No. 33	No. 1,571
Victoria ..	164.99	306.76	22,705	167,495	7.38	20	360
Queensland ..	60.05	106.49	7,874	89,534	11.37	6	532
South Australia ..	76.84	144.82	8,291	51,674	6.23	4	129
Western Australia ..	71.63	108.26	4,400	37,348	8.49	7	249
Tasmania ..	28.70	43.60	1,978	14,789	7.48	1	12
Australia ..	577.57	1,044.74	81,038	689,286	8.51	71	2,853
AUSTRALIA, 1933-34 TO 1937-38.							
	Miles.	Miles.	'000.	'000.	No.	No.	No.
1933-34 ..	573.43	1,019.69	74,858	602,234	8.04	57	1,784
1934-35 ..	570.12	1,009.00	75,203	626,901	8.34	65	1,882
1935-36 ..	570.42	1,016.63	76,684	652,491	8.51	70	2,226
1936-37 ..	576.79	1,025.99	78,526	673,227	8.57	74	2,535
1937-38 ..	577.57	1,044.74	81,038	689,286	8.51	71	2,853

D. MOTOR VEHICLES.

1. **The Motor Car and Motor Industry.**—(i) *Evolution of the Motor Car.* In the issue of the Year Book for 1927 (No 20, p. 319) a short history of the evolution of the motor car is given.

(ii) *Motor Industry.* Although motor cars are not entirely manufactured in Australia the capital invested in assembling and body-building plants is considerable. The importance of the industry is shown by the following figures which relate to the local manufacture of motor bodies and the importation of motor cars, fuel and tyres during the past three years :—

MOTOR VEHICLES, ETC. : LOCAL MANUFACTURE AND IMPORTS.

Particulars.	Unit.	1935-36.	1936-37.	1937-38.
Motor bodies built	No.	67,337	77,191	92,061
	£	6,043,735	6,461,314	7,400,497
Imports—				
Motor bodies	No.	1,699	786	646
	£	149,593	81,380	63,810
Chassis	No.	75,652	69,915	87,632
	£	5,507,957	5,458,640	7,355,586
Crude petroleum	Mil. gal.	65	60	70
	£	539,693	520,517	603,216
Petroleum spirit, etc.	Mil. gal.	255	282	333
	£	3,792,950	4,525,939	5,503,085
Pneumatic tyres and tubes	lb.	225,087	342,651	341,178
	£	18,826	27,032	30,968

Although precise figures are not available, the value of motor tyres and tubes produced in Australia during 1937-38 was approximately £4,000,000, and a thriving industry is engaged in the manufacture of spares, batteries and accessories.

2. **Registration.**—The arrangements for the registration of motor vehicles and the licensing of drivers and riders thereof are not uniform throughout Australia. Methods of registration, licence fees payable, etc., in each State were referred to in Official Year Book No. 16, pp. 337-340, and later issues up to No. 25.

3. **Public Vehicles.**—In all the capital cities of the States and in many of the most important provincial centres taxi-cabs and other vehicles ply for hire under licence granted either by the Commissioner of Police or the Local Government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. **Motor Omnibuses.**—In both urban and provincial centres motor omnibus traffic has assumed considerable proportions during recent years, and has had a marked effect on railway and tramway services. The constitution of Boards empowered to allocate the routes over which omnibuses may operate arose from the belief that the economic waste resulting from duplication, by running services parallel with or contiguous to existing railway and tramway systems, is thus avoided. The general principle governing the allocation of routes is that the omnibus services should act as feeders to existing transport facilities. In some States the railway and tramway systems run motor services complementary to their main services to meet the competition of private enterprise and to endeavour to protect the existing transport utilities provided by public bodies. Such services are conducted in New South Wales by the Department of

Road Transport and Tramways, in Victoria by the Victorian Railways Commissioners, in South Australia by the South Australian Railways Commissioners and by the Municipal Tramways Trust, Adelaide, and in Tasmania by the Municipality of Hobart.

5. Motor Vehicles on the Register, etc.—(i) Year 1937–38. Particulars of the registration of motor vehicles, licences issued and revenue received for the year 1937–38 are contained in the subjoined table :—

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, 1937–38.

State or Territory.	Motor Vehicles Registered at 30th June, 1938. (a)					Drivers' and Riders' Licences in force at 30th June, 1938.	Gross Revenue derived from—			
	Motor Cars.(b)	Commercial Vehicles (c)	Motor Cycles.	Total.	Per 1,000 of Population at 30th June, 1938.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
New South Wales	205,802	73,569	24,032	303,403	111.59	430,109	2,293,306	223,335	90,370	2,607,011
Victoria	145,179	477,943	27,333	250,455	134.14	340,438	1,730,644	85,214	38,804	1,854,662
Queensland	72,225	38,737	7,846	118,808	118.43	151,179	716,813	58,908	58,404	834,125
South Australia	56,882	23,206	10,048	90,136	152.18	137,627	615,590	60,135	10,065	685,790
Western Australia	36,386	22,596	7,079	66,061	143.56	83,564	381,548	25,840	25,675	433,063
Tasmania	16,648	4,511	3,646	24,805	105.92	29,090	133,749	14,543	10,737	159,029
Northern Territory	354	835	44	1,233	213.73	1,313	1,682	551	..	2,233
Australian Capital Territory	1,487	354	86	1,927	166.67	2,556	11,515	1,527	106	13,148
Australia	534,963	241,751	80,114	856,828	124.30	1,175,786	5,884,847	470,053	234,161	6,589,061

(a) Exclusive of Trailers (15,831), Road Tractors, etc. (1,659), and Dealers' Plates (3,741). (b) Includes Taxis and Hire Cars. (c) Includes Lorries, Vans, Buses and Utility Trucks. (d) Includes 44,579 vehicles registered as Primary Producers'.

Particulars relating to the number of motor vehicles registered at 30th June 1939, will be found in the Appendix to this volume.

(ii) *Quinquennium* 1934–1938. The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1933–34 to 1937–38 :—

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, AUSTRALIA.

Year.	Motor Vehicles Registered at 30th June.					Drivers' and Riders' Licences in force at 30th June.	Gross Revenue derived from—			
	Motor Cars.	Commercial Vehicles.	Motor Cycles.	Total.	Per 1,000 of Population at 30th June.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
1933–34	455,199	a 116,341	73,104	644,644	96.6	863,982	4,154,331	341,685	107,080	4,603,096
1934–35	457,684	b 155,721	75,045	688,450	102.4	910,218	4,507,034	363,194	153,586	5,023,814
1935–36	484,832	b 180,567	77,467	742,866	109.6	979,343	5,017,888	386,322	215,949	5,620,159
1936–37	499,289	b 214,296	77,912	791,497	115.9	1,092,973	5,413,282	448,914	218,671	6,080,867
1937–38	534,963	b 241,751	80,114	856,828	124.3	1,175,786	5,884,847	470,053	234,161	6,589,061

(a) Incomplete, Queensland commercial vehicles included with motor cars. (b) Includes Primary Producers' Vehicles, Victoria.

(iii) *Relation to Population.* The table hereunder gives the number of vehicles (exclusive of motor cycles) registered per 1,000 of population in each State at the 31st December, 1921, and at 30th June for each of the years 1934 to 1938 :—

MOTOR VEHICLES (EXCLUSIVE OF MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.
31st Dec. 1921 ..	15	16	8	24	12	13	(a)	..	15
30th June, 1934 ..	78	90	89	99	97	65	129	143	86
„ 1935 ..	83	97	96	98	105	70	95	148	91
„ 1936 ..	89	105	102	110	110	77	185	160	98
„ 1937 ..	96	112	105	119	119	82	191	162	104
„ 1938 ..	103	120	111	135	128	90	206	159	113

(a) Not available.

(iv) *Revenue per Motor Vehicle.* The following table gives the average revenue per vehicle (exclusive of motor cycles) received in respect of registration and motor tax in the several States for each year from 1933-34 to 1937-38. In some States the revenue from motor tax on cycles is not separately recorded. In these cases an amount based on the flat rate provided for cycles in the registration acts has been deducted from the total revenue received, and the average amounts shown must therefore be regarded as approximate only.

AVERAGE REVENUE PER VEHICLE FROM REGISTRATION FEES AND MOTOR TAX (EXCLUSIVE OF MOTOR CYCLES).

State or Territory.	1933-34.			1934-35.			1935-36.			1936-37.			1937-38.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
New South Wales ..	7	6	5	7	11	0	7	14	2	7	16	0	7	17	11
Victoria ..	7	0	2	7	3	5	7	5	11	7	5	10	7	7	8
Queensland ..	6	1	3	5	18	8	6	0	8	6	3	0	6	5	10
South Australia ..	7	19	2	8	11	11	8	8	6	a7	14	0	7	4	7
Western Australia ..	6	4	10	5	17	5	5	16	11	6	11	5	6	5	2
Tasmania ..	5	14	3	5	15	0	5	14	3	5	13	0	5	17	6
Northern Territory ..	b1	0	0	b1	0	0	1	5	0	1	7	0	1	8	1
Aust. Cap. Territory	5	3	9	5	12	1	5	12	2	6	6	0	5	18	7
Australia ..	6	19	6	7	2	2	7	4	0	7	4	9	7	5	2

(a) Decrease as compared with figures for 1935-36 largely due to the introduction during the year of a change in the method of registering, which enabled persons to register vehicles for six-monthly periods, instead of annually only, as before.

(b) Estimated.

6. **New Vehicles Registered.**—(i) *Year 1937-38.* The following table gives the number of new vehicles registered in the various States during the year 1937-38:—

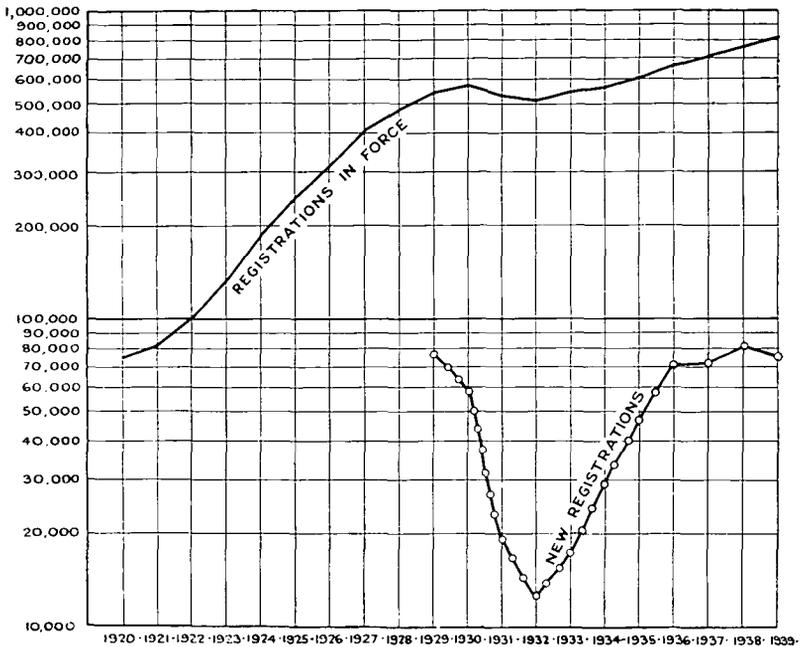
NEW MOTOR VEHICLES REGISTERED, 1937-38.

State or Territory.	Motor Cars.	Commercial Vehicles, etc.	Motor Cycles.	Total.
New South Wales ..	23,633	10,358	2,748	36,739
Victoria ..	14,954	(a) 8,604	2,946	26,504
Queensland ..	6,765	4,443	999	12,207
South Australia (b) ..	5,507	2,575	906	8,988
Western Australia (c) ..	2,273	663	416	3,352
Tasmania ..	1,802	707	287	2,796
Australian Capital Territory ..	191	52	21	264
Total ..	55,125	27,402	8,323	90,850

(a) Includes vehicles registered as Primary Producers'. (b) Excludes Northern Territory. (c) Metropolitan Area only.

Particulars of New Vehicles Registered during 1938-39 will be found in the Appendix to this volume.

MOTOR VEHICLE REGISTRATION—AUSTRALIA, 1920 TO 1939.

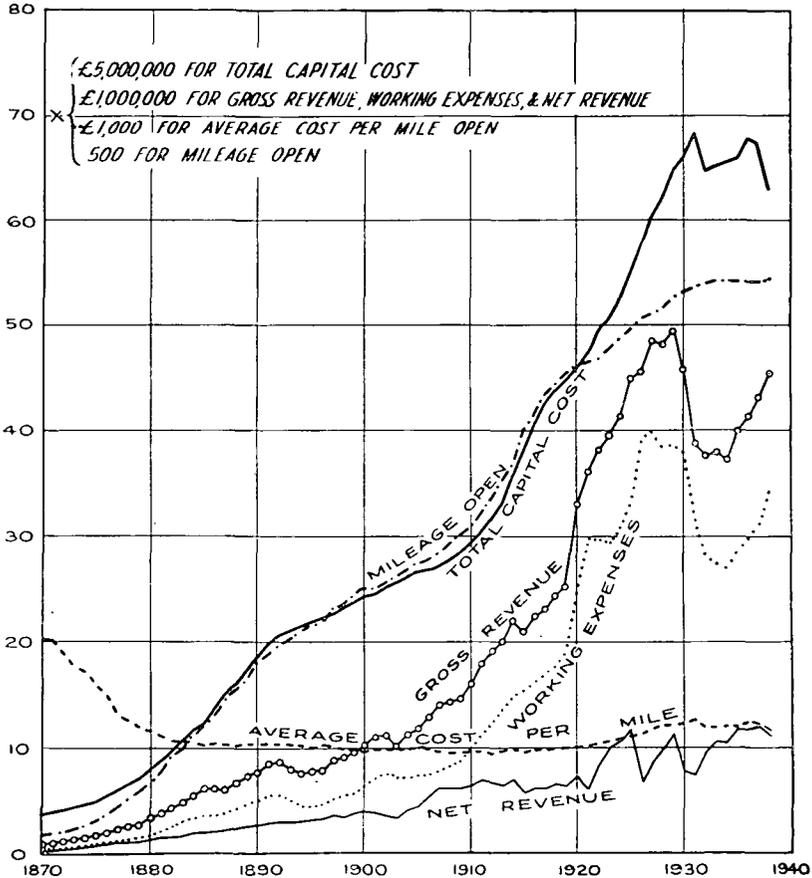


(See page 133.)

EXPLANATION.—This is a ratio graph, the vertical scale being logarithmic, and the curves rise and fall according to the rate of increase or decrease. Actual numbers are indicated by the scale at the side of the graph.

The graphs show for all motor vehicles other than motor cycles the registrations in force at 30th June each year and the number of new registrations during the year.

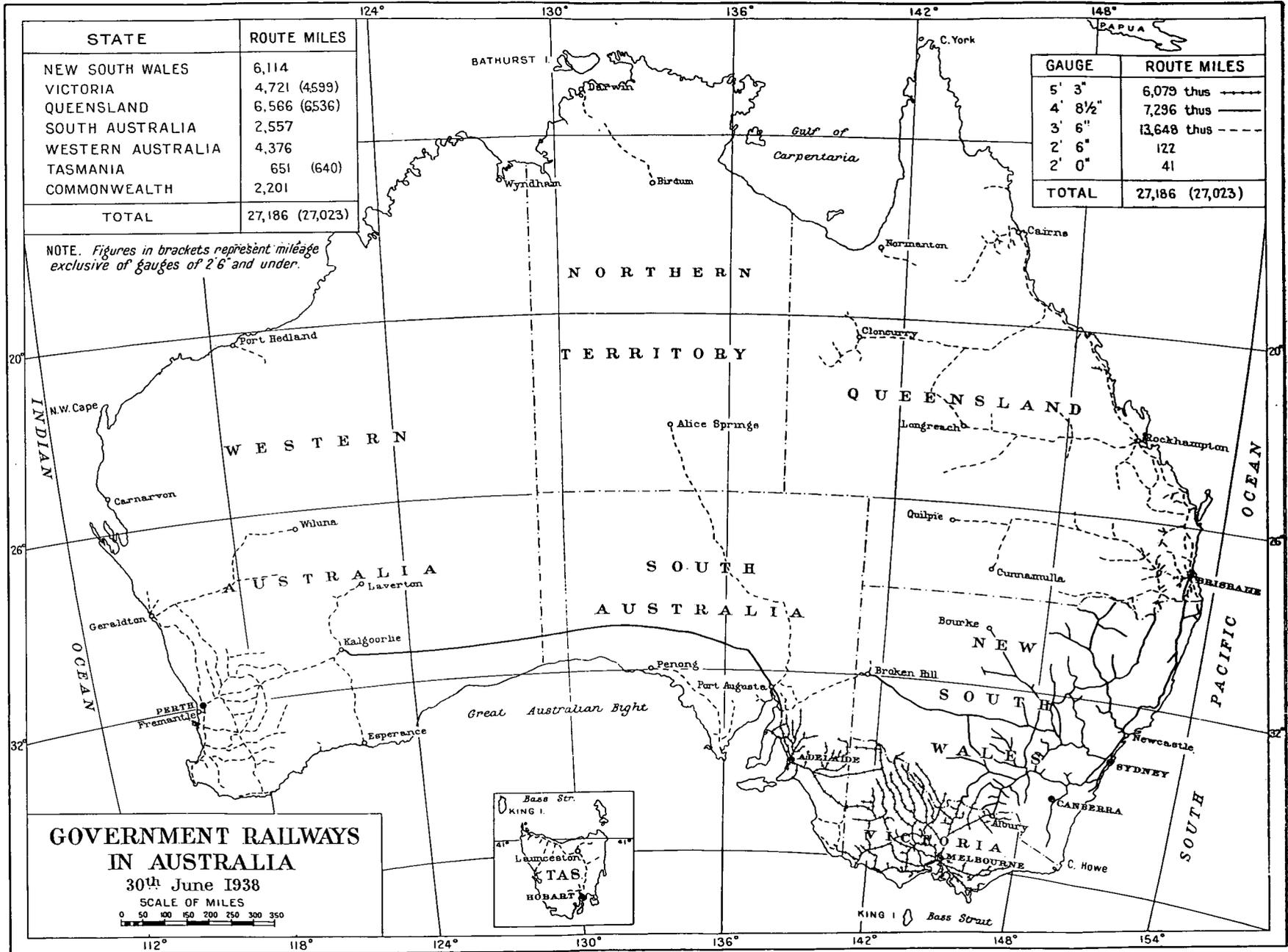
FINANCIAL POSITION OF THE GOVERNMENT RAILWAYS OF AUSTRALIA, 1870 TO 1938.

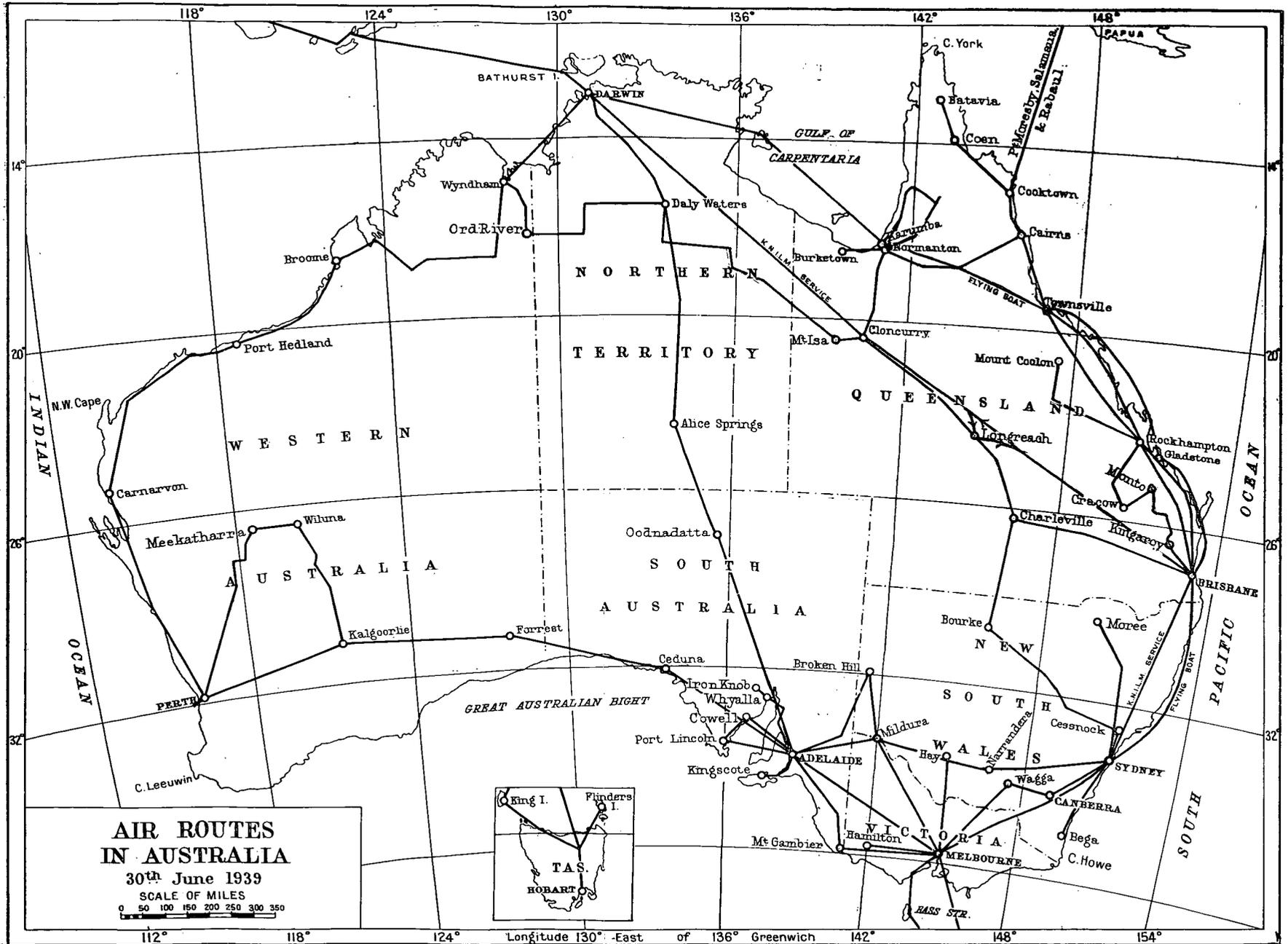


EXPLANATION.—The base of each square represents throughout ten years. The significance of the vertical height of each square varies according to the nature of the several curves.

In the curve for the total capital cost, the vertical side of each square represents £50,000,000.

In the curves for (i) gross revenue; (ii) working expenses; and (iii) net revenue, the vertical side of each square represents £10,000,000. For the curve of average cost per mile open, the vertical side of each square represents £10,000. The mileage open is shown by a broken line, the vertical side of each square representing 5,000 miles.





(ii) *Quinquennium*. 1934-1938. Particulars of new vehicles registered in Australia during the years 1933-34 to 1937-38 appear in the following table:—

NEW MOTOR VEHICLES REGISTERED : AUSTRALIA.(a)

Year.	Motor Cars.	Commercial Vehicles, etc.	Motor Cycles.	Total.
1933-34	(b) 20,427	(b) 7,931	3,936	32,294
1934-35	(b) 32,085	(b) 14,146	5,249	52,380
1935-36	50,427	19,851	6,673	76,951
1936-37	48,587	24,191	7,479	80,257
1937-38	55,125	27,402	8,323	90,850

(a) Excludes Northern Territory and extra-Metropolitan Area of Western Australia; also Australian Capital Territory prior to 1935-36. The footnote in Year Book No. 31 stated that figures for earlier years were approximate. Details for new cars and new commercial vehicles registered have now been revised, and may be taken as substantially accurate. (b) Revised.

7. World Motor Vehicle Statistics, 1939.—The result of the 1939 World Motor Census, conducted by the "American Automobile" magazine, from which the following particulars have been extracted, shows that there were 42,942,694 motor cars, trucks, and buses registered in various countries of the world at 1st January, 1939. This shows an increase of 1.2 per cent. on the figure for the previous year, 42,446,814, and is the highest figure yet attained.

The following table shows the number of motor vehicles registered in each continent at 1st January, 1939:—

MOTOR VEHICLES : WORLD REGISTRATIONS AT 1st JANUARY, 1939.

Continent.	Total Automobiles.	Motor Cars.(a)	Motor Trucks and Buses.(a)	Motor Cycles.(a)
Africa	655,755	521,696	131,234	54,820
America (exclusive of United States of America) ..	2,214,626	1,747,085	467,581	25,270
United States of America ..	29,211,651	25,081,121	4,130,531	110,126
Asia	666,550	413,268	251,232	101,958
Europe	9,065,475	6,301,286	2,639,189	2,507,180
Oceania	1,128,637	840,259	287,778	100,818
Total	42,942,694	34,904,715	7,907,545	2,900,172

(a) Not complete for all territories.

The next table gives the numbers of motor vehicles registered in various countries. For the purposes of comparison, the approximate population in millions of each country is also shown:—

COMPARATIVE MOTOR VEHICLE STATISTICS, 1st JANUARY, 1939.

Country.	Approximate Population in Millions.	Motor Cars, Trucks and Buses.	Motor Cycles.
Australia	7	799,750	80,250
Argentina	13	279,267	2,000
Canada	11	1,381,103	12,034
France	42	2,250,000	..
Germany	77	1,707,496	1,582,872
Great Britain	47	2,590,428	439,149
India	353	178,124	11,417
Italy	43	399,375	154,500
Japanese Empire	101	140,000	62,000
New Zealand	2	265,028	19,733
Union of South Africa	2	339,084	27,500
United States of America	130	29,211,651	110,126

The foregoing figures are in some cases approximations based on estimates furnished by Trade Commissioners or representative motor trade organizations in the several countries, and in other cases are incomplete, especially in relation to motor cycles.

E. TRAFFIC ACCIDENTS.

1. *General.*—The practice of reporting accidents occurring in a public thoroughfare is not uniform throughout the Commonwealth. Some States, like New South Wales, have not enforced the reporting of minor accidents while others, like Victoria, require that all accidents be reported. Because of this, the figures for each State are not comparable with regard to the number of accidents, and to a lesser extent with regard to the number of persons injured.

2. *Total Accidents Registered.*—(i) *Year 1937-38.* The following table gives particulars of the number of persons killed or injured in accidents (known to the police) which occurred in public thoroughfares during the year 1937-38 :—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : PERSONS KILLED AND INJURED, 1937-38.

State or Territory.	Accidents.	Persons Killed.			Persons Injured.		
		Total.	Per 1,000 of Mean Population	Per 100 Motor Vehicles Registered	Total.	Per 1,000 of Mean Population	Per 100 Motor Vehicles Registered
New South Wales ..	12,575	600	0.22	0.20	8,615	3.18	2.84
Victoria	19,305	436	0.23	0.17	7,682	4.13	3.07
Queensland	8,813	178	0.18	0.15	3,713	3.73	3.13
South Australia ..	12,210	116	0.20	0.13	3,205	5.43	3.56
Western Australia ..	4,944	105	0.23	0.16	692	1.51	1.05
Tasmania	4,338	46	0.20	0.19	1,163	4.95	4.69
Aus. Cap. Territory	78	2	0.19	0.10	27	2.58	1.40
Total	62,263	1,483	0.22	0.17	25,097	3.66	2.93

The ages of the persons killed or injured are given below :—

AGES OF PERSONS KILLED OR INJURED, 1937-38.

State or Territory.	Under 10 years.		10 to 59 years.		60 years and over.		Age not known.		Total.	
	Persons Killed.	Persons Injured.	Persons Killed.	Persons Injured.	Persons Killed.	Persons Injured.	Persons Killed.	Persons Injured.	Persons Killed.	Persons Injured.
New South Wales ..	40	684	471	7,211	89	720	..	..	600	8,615
Victoria ..	29	525	321	6,281	86	620	..	256	436	7,682
Queensland ..	11	275	128	2,998	29	286	10	154	178	3,713
South Australia ..	7	186	88	2,808	21	211	..	..	116	3,205
Western Australia ..	(a) 12	(a) 74	(b) 72	(b) 581	21	37	..	..	105	692
Tasmania ..	3	84	39	999	4	80	..	..	46	1,163
Aus. Cap. Territory ..	..	1	2	21	..	2	..	3	2	27
Total ..	(c) 102	(c) 1,829	(c) 1,121	(c) 20,899	250	1,956	10	413	1,483	25,097

(a) Under 16. (b) Sixteen and under 60. (c) Approximate.

(ii) Years 1929-30 to 1937-38. Approximate figures relating to the persons killed and injured in traffic accidents in Australia during the years 1929-30 to 1937-38 are given hereunder :—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : PERSONS KILLED AND INJURED, AUSTRALIA(a).

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Persons killed ..	1,054	916	818	914	952	1,100	1,350	1,387	1,483
Persons injured ..	16,385	14,297	13,728	15,073	18,039	19,189	22,131	22,940	25,097

(a) Prior to 1935 figures were compiled by three States for the calendar year, and by one State or the years 1935 and 1936.

3. Accidents Involving Casualties.—The following table gives, for accidents in which persons were killed or injured, the causes of the accidents under forty-nine different headings. The table does not include particulars of South Australia or Extra-Metropolitan Western Australia. Twenty-five accidents, 77 deaths and 143 injuries occurring in New South Wales are duplicated in the table, accidents being included under two or more headings where the sole or main cause could not be determined :—

ACCIDENTS INVOLVING CASUALTIES CLASSIFIED ACCORDING TO DETAILED CAUSES : AUSTRALIA(a) 1937-38.

Cause of Accident.	Accidents.	Persons Killed.	Persons Injured.
Driver or rider—			
Skidding on roadway ..	..	..	..
Cutting in ..	..	..	..
Failure to exercise care at intersection ..	..	..	..
Excessive speed ..	..	..	..
Not keeping to left ..	..	..	..
Swerving to avoid vehicle or animal or other object or person ..	..	..	..
	504	21	630

(a) See above.

ACCIDENTS INVOLVING CASUALTIES CLASSIFIED ACCORDING TO
DETAILED CAUSES: AUSTRALIA(a) 1937-38—continued.

Cause of Accident.	Accidents.	Persons Killed.	Persons Injured.
<i>Driver or rider—continued.</i>			
Overtaking on near side or without sufficient clearance	332	22	422
Stopping or turning in front of other vehicle or leaving kerb without warning	566	16	637
Level crossing	66	24	79
Insufficient clearance to avoid passing vehicle	65	..	88
Vehicle overloaded (passengers)	24	1	40
Rounding corner carelessly or on wrong side	290	17	351
Reversing without due care	76	4	77
Obscured vision (except by rain)	178	16	191
Failing to give right of way	527	9	685
Breaking traffic regulations or failing to obey traffic officer's signal	205	10	246
Careless, negligent or inefficient driving	2,230	161	2,635
Insufficient clearance to avoid halting vehicle	112	..	128
Failing to see signal given by car ahead or mis-interpreting signal	129	2	150
Dazzled by sun or light	255	14	324
Vision obscured by rain	229	22	264
Driver or rider drunk	243	22	325
Hit and run motorist	175	11	193
Infirmity of driver or rider	98	10	126
Other	815	43	1,013
Total Driver or Rider	11,458	848	14,338
<i>Vehicle—</i>			
Defective mechanism and tyres	776	62	1,145
No lights	267	33	352
Unattended, out of control	28	4	33
Vehicle overloaded (not passengers)	40	5	42
Other (Queensland only)	3	1	2
Total Vehicle	1,114	105	1,574
<i>Pedestrian—</i>			
Crossing without due care	1,648	118	1,596
Walking in roadway	236	38	227
Running across roadway	728	35	713
Passing from behind or in front of stationary vehicle	340	17	337
Hesitating and/or faltering in crossing	262	21	263
Playing in roadway	186	10	180
Alighting from or boarding vehicle in motion	342	28	321
Alighting from moving vehicle on wrong side	33	3	34
Slipping or falling in crossing	45	5	40
Stepping from kerb or refuges without care	216	11	212
Standing in roadway	66	3	70
Pedestrian drunk	352	29	341
Infirmity of pedestrian	103	10	94
Other	30	2	31
Total Pedestrian	4,587	330	4,459
<i>Other—</i>			
Falling from moving vehicle	147	18	135
Horses shying, bolting or stumbling	152	27	144
Road faults including bad lighting	392	51	533
Animals obstructing roadway	108	2	129
Other	293	24	307
Total Other	1,092	122	1,248
GRAND TOTAL (a)	18,251	1,405	21,619

(a) See above.

F. AVIATION.

1. **Historical.**—A short review of the progress of civil aviation in Australia up to the date of foundation of a Civil Aviation Administration was given in Official Year Book No. 16, pp. 334-5.

2. **Foundation of Civil Aviation Administration.**—A brief account of the foundation and objects of this Administration will be found in Official Year Book No. 19, p. 299. In 1936 the organization was changed and the responsibility of regulating and controlling civil aviation in the Commonwealth was entrusted to a Board, consisting of four members and a secretary. The Board was a branch of the Defence Department. In January, 1939, the Civil Aviation Board was disbanded and the Civil Aviation Administration was made a separate Department under the Minister for Civil Aviation. The permanent head of the Department is the Director-General of Civil Aviation.

3. **Air Services.**—Since the year 1920 the grant of financial assistance for the establishment and maintenance of regular air transport services has been part of the Government's policy for the development of civil aviation in Australia. At the 30th June, 1939, twelve subsidized services were operating under contracts with the Civil Aviation Department, which provided that such space as is required on each trip must be reserved for mails.

The successful inauguration of the Empire Flying Boat Service from England to Australia in August, 1938, necessitated a re-organization of the internal air services. Mails for the Southern States and Western Australia are now distributed from Darwin. The use of faster aircraft has resulted in the mails being distributed to all States in the Commonwealth within two days of the arrival of the flying boat at Darwin.

Approval was granted in July, 1938, for the K.N.I.L.M. Company to extend their air route from Batavia to Sydney via Darwin. This service is operated twice weekly in each direction.

The extension of the flying boat service from Sydney to New Zealand has been considered by the respective Governments and it is expected this service will commence towards the end of 1939.

During the past year the most notable additions to Australia's network of air services has been the inauguration of the Sydney-Rabaul Air Service, weekly in each direction. This service commenced on the 30th May, 1938, and the frequency of the service between Sydney and Salamaua was increased to twice weekly in each direction on the 4th June, 1939. A twice daily service in each direction was also started between Brisbane and Toowoomba. Extensions and alterations to schedules have also been made to other subsidized and unsubsidized services.

A scheme for the rationalization of air mail services in Australia has been the subject of continuous negotiation during the past nine months, and as a preliminary the Government and a number of operating companies have entered into a short-term contract of six months commencing from 3rd July, 1939. The chief variation of the previous services is an alteration of the Ansett Airways route, minor alterations to Australian National Airways' routes and schedules, including a thrice weekly in each direction one-day trip between Melbourne and Perth, and an extension of Guinea Airways' routes to southern parts of South Australia. Two new services—Darwin-Dilli (Timor) (Guinea Airways) and Alice Springs-Wyndham (Connellan)—will also be commenced during the year. The following is a list of aircraft companies operating services in Australia as at the 30th June, 1939 :—

SUBSIDIZED AIR SERVICES AS AT 30th JUNE, 1939.

Service.	Route Mileage.	Frequency.	Operating Company and Type of Aircraft Used.	Miles Flown per week.	Miles Flown per year.
Sydney-Darwin-Singapore ..	4,669	Thrice WED.	Qantas Empire Airways Ltd., Short Empire Boat S-23	28,014	1,456,728
Perth-Darwin ..	2,316	Twice WED.	MacRobertson-Miller Aviation Co. Ltd., D.H.86, Lockheed Vega	9,264	481,728
Adelaide-Darwin ..	1,700	Thrice WED.	Guinea Airways Ltd., Lockheed Electra 10-A	10,200	530,400
Perth-Adelaide ..	1,453	Thrice WED.	Australian National Airways Pty. Ltd., Douglas DC.2	8,718	453,336
Adelaide-Melbourne ..	410	DED. (a)	Australian National Airways Pty. Ltd., Douglas DC.2	4,920	255,840
Brisbane-Cloncurry ..	997	Twice WED.	Qantas Empire Airways Ltd., D.H.86	3,988	207,376
Cloncurry-Mount Isa ..	63	Twice WED.	Qantas Empire Airways Ltd., D.H.90	252	13,104
Mount Isa-Daly Waters ..	568	WED.	Qantas Empire Airways Ltd., D.H.90	1,136	59,072
Daly Waters-Wyndham (b) ..	529	WED. ..	MacRobertson-Miller Aviation Co. Ltd., D.H.84; D.H.83	1,058	55,016
Cloncurry-Normanton (b) ..	216	WED. ..	Qantas Empire Airways Ltd., D.H.83	432	22,464
Sydney-Charleville ..	728	Twice WED.	Butler Air Transport Co., D.H.84	2,912	151,424
Sydney-Rabaul ..	2,522	WED. ..	W. R. Carpenter & Co., D.H. 86-B	5,044	262,288
Melbourne-Launceston-Hobart	408	DED., in- cluding Sundays(c)	Australian National Airways Pty. Ltd., Douglas DC.3	5,712	297,024
Melbourne-King Island-Laun- ceston	396	Thrice WED.	Australian National Airways Pty. Ltd., D.H.89; D.H.86	2,376	123,552
Launceston-Flinders Island ..	109	DED. ..	Australian National Airways Pty. Ltd., D.H.89; D.H.86	1,308	68,016
Brisbane-Cracow ..	290	WED. ..	Aircrafts Pty. Ltd., D.H.84 ..	580	30,160
Rockhampton-Mount Coolon ..	330	WED. ..	Air Taxis Pty. Ltd., Monospar ST-12	660	34,320
Sydney-Bega ..	205	Twice WED. (d)	Adastra Airways Ltd., D.H.90; Waco	820	42,640
Adelaide-Whyalla ..	150	Thrice WED. (e)	MacRobertson-Miller Aviation Co. Ltd., D.H.84; Fokker Universal	900	46,800
Perth-Wiluna-Kalgoorlie ..	813	WED. ..	Airlines (W.A.) Ltd., D.H.84; Stinson Reliant SR.7B	1,626	84,552
Melbourne-Mildura-Broken Hill -Adelaide-Renmark-Mildura- Melbourne	1,199	Round trip daily	Ansett Airways Ltd., Lockheed Electra 10-B	7,194	374,088
Melbourne-Narrandera-Wagga- Cootamundra-Sydney	520	DED. ..	Ansett Airways Ltd., Lockheed Electra 10-B	6,240	324,480
Melbourne-Hamilton ..	160	DED. ..	Ansett Airways Ltd., Airspeed Envoy	1,920	99,840
Cairns-Normanton-Burketown	450	WED. ..	Airlines of Aust., D.H.84 ..	900	46,800
Normanton-Koolatah-Norman- ton	370	Round trip fortnightly	Airlines of Aust., D.H.84 ..	185	9,620
Cairns-Cooktown ..	106	2½ times WED.	Airlines of Aust., D.H.84 ..	530	27,560
Brisbane-Townsville ..	725	7 times WED.	Airlines of Aust., D.H.84 .. Douglas DC.2; Stinson Model A	10,150	527,800
Townsville-Cairns ..	174	Twice DED. and once Sundays	Airlines of Australia Ltd., D.H. 89	4,524	235,248
Sydney-Brisbane ..	475	Twice DED. and once Sundays	Airlines of Australia Ltd., Douglas DC.3	12,350	642,200
Cairns-Batavia ..	350	Fortnightly each direction	Airlines of Australia Ltd., D.H.84	350	18,200
	23,491			134,263	6,981,676

(a) The contractor operates the Adelaide-Melbourne service six times weekly in each direction but is subsidized for the Civil Aviation Vote for three return trips weekly. Mails are carried on all trips.

(b) Aircraft specially fitted as ambulance carrier.

(c) No subsidy is paid in respect of the Sunday trips.

(d) The contractor operates the Sydney-Bega service six times weekly in each direction, but is subsidized for, and carries mails on, only two return trips weekly. Additional trips are shown in Schedule "B".

(e) The contractor operates the Adelaide-Whyalla service thrice weekly in each direction, but is subsidized for only one return trip weekly. Mails are carried on all trips.

NOTE.—"WED." signifies Weekly in each direction; "DED." signifies Daily in each direction.

UNSUBSIDIZED AIR SERVICES AS AT 30th JUNE, 1939.

Service.	Route Mileage.	Frequency.	Operating Company and Type of Aircraft Used.	Miles Flown per week.	Miles Flown per year.
Brisbane-Rockhampton-Cracow-Monto-Brisbane	786	Round trip once weekly	Aircrafts Pty. Ltd., D.H.84 ..	..	..
(a) Brisbane - Rockhampton-Monto-Brisbane	719	Round trip once weekly	Aircrafts Pty. Ltd., D.H.84 ..	719	37,388
(a) Brisbane-Kingaroy ..	90	DED. ..	Aircrafts Pty. Ltd., D.H.84 ..	1,080	56,160
(a) Brisbane-Toowoomba ..	80	Twice DED. and once Sunday	South Queensland Airways Ltd., D.H.84	2,080	108,160
Melbourne-Adelaide (via Mount Gambier and Narracoorte)	473	DED. ..	Australian National Airways Pty. Ltd., D.H.89	5,676	295,152
Melbourne-Sydney ..	455	Twice DED. and one return trip Sunday	Australian National Airways Pty. Ltd., Douglas DC.2	11,830	615,160
Melbourne-Hay ..	233	DED. ..	Victorian and Interstate Airways Pty. Ltd., Miles Merlin	2,796	145,392
(a) Sydney-Bega (b) ..	205	Four times WED. (b)	Adastra Airways Ltd., D.H.90; Waco	1,640	85,280
Sydney-Moree ..	330	Thrice WED.	North Western Airlines Ltd., D.H.90	1,980	102,960
Adelaide - Cowell - Cleve - Port Lincoln-Adelaide	378	Round trip three times weekly	Guinea Airways Ltd., D.H.89 ..	1,134	58,968
Adelaide-Kangaroo Island ..	95	Four times WED.	Guinea Airways Ltd., D.H.89 ..	760	39,520
Whyalla-Iron Knob ..	35	WED. ..	MacRobertson-Miller Aviation Co. Ltd., Fokker. Universal; D.H.84	70	3,640
	3,879			29,765	1,547,780

(a) Mails not carried.

(b) See subsidized services.—In addition company operates service twice weekly in each direction, with aid of Governmental subsidy.

NOTE.—“ WED.” signifies Weekly in each direction; “ DED.” signifies Daily in each direction.

AIR TRANSPORT SERVICES IN AUSTRALIA AS AT 30th JUNE, 1939 : SUMMARY.

	Aggregate Route Mileage of Operating Companies.	Miles Flown per week.	Miles Flown per year.
Subsidized Services	23,401	134,263	6,981,676
Unsubsidized Services	3,879	29,765	1,547,780
Total	27,280	164,028	8,529,456
K.N.I.L.M. Service (Darwin-Sydney)	2,225	8,900	462,800
Grand Total	29,505	172,928	8,992,256

4. Air Ambulance Services.—Air ambulance services were first established in Australia in 1928, when an agreement was entered into between the Queensland and Northern Territory Aerial Services Ltd. (now Qantas Empire Airways) and the Australian Inland Mission. The company provided the aircraft and pilot and the mission authorities the doctor. The base of the operations at that time was Cloncurry, and flights were made to outback centres in Western and Northern Queensland.

The value of the scheme was readily apparent and has resulted in the establishment of other such centres to serve the sparsely populated parts of the Commonwealth not readily accessible by other means of transport. Considerable impetus to the efficiency of the air ambulance service in ameliorating the hardships of settlers in the “ outback ”

was given by the introduction of a system of wireless communication by means of pedal transceivers. The simplicity of these small wireless units contributes largely to their value, power being supplied by a dynamo operated by bicycle pedals and morse messages may be transmitted by manipulating an automatic keyboard transmitter similar to a typewriter.

At the present time air ambulances services, popularly known as the "Flying Doctor" services, are established at the following centres:—Cloncurry, Port Hedland, Wyndham, Kalgoorlie, Broken Hill, Alice Springs. These services are operated by the Australian Aerial Medical Services. A flying doctor service operates from Katherine and is controlled by the Department of Health.

The Government recognizes the national importance of the scheme in making accessible medical aid to outback settlers, and an annual grant of £5,000 is provided for maintenance and extension of air ambulance services. This grant is administered by the Health, Postmaster-General's and Civil Aviation Departments.

5. **Training of Air Pilots.**—(i) *Subsidized Aero Clubs.* To encourage flying training activities the Government has adopted the policy of subsidizing selected aero clubs which have proved over a period that flying training operations can be carried on at such centres with success and continuity of operation. These approved clubs are encouraged by an increased bonus payment to extend their training activities to country centres. The following clubs are subsidized:

Royal Aero Club of New South Wales; Royal Victorian Aero Club; Royal Queensland Aero Club; Royal Aero Club of South Australia; Royal Aero Club of Western Australia; Tasmanian Aero Club; Newcastle Aero Club; Broken Hill Aero Club and Spencers Gulf Aero Club.

A three-year agreement, which expires on the 31st December, 1939, was entered into with the approved clubs and the measure of assistance included free hangar accommodation and use of aerodromes, as well as an establishment grant of £200 per annum, maintenance grant of £50 per annum for each aircraft which completes 200 hours flying in the year, bonus payments of £20 per annum for each pupil trained to private pilot's licence standard and £10 per annum for each pilot who renews his licence on club aircraft. These bonus payments are increased to £25 and £12 10s. respectively for licences obtained at club training centres which are more than 25 miles distant from the head-quarters of the club.

Air pageants and displays are held by the clubs from time to time at urban and rural centres, and these functions have an educational value in stimulating air-mindedness. During the year ended 30th June, 1939, 258 pupils qualified for private pilot's licences. Many graduates completed advanced training courses and others also qualified for their commercial pilots' and flying instructors' licences.

(ii) *Unsubsidized Training Organizations.* Flying training is also carried out by a number of private companies, clubs and private owners at various centres throughout the Commonwealth. These organizations do not receive financial assistance from the Government. During the year ended the 30th June, 1939, 188 pupils graduated for private pilots' licences, making a total of 446 pilots from all flying training organizations.

6. **Gliding.**—The Government subsidizes approved gliding clubs on the basis of £5 per primary glider, £7 10s. per secondary glider, and £10 per sailplane. Subsidized gliding clubs are in operation at Sydney, Melbourne, Brisbane, Perth, Hobart and Waikerie, South Australia. The total number of gliders owned by these clubs is twenty.

7. **Meteorological Aids to Aviation.**—In conjunction with the Commonwealth Meteorological Bureau the Civil Aviation Department has arranged a comprehensive network of aviation meteorological facilities for the use of air services. The organization is gradually being expanded to meet the needs of new air services and meteorological personnel have been and are being trained in the special application of the science of meteorology to aviation requirements.

Full forecasting aviation meteorological stations are now established at the following aerodromes:—Darwin, Broome, Perth, Adelaide, Melbourne, Sydney, Brisbane, Townsville, Port Moresby, Launceston, Canberra and Hobart. Secondary aviation meteorological

stations are in operation at the following aerodromes and flying boat bases :—Onslow, Kalgoorlie, Ceduna, Rockhampton, Cloncurry, Cooktown, Salamaua, Karumba, Groote Eylandt, Daly Waters and Oodnadatta. A secondary aviation station will be opened at Alice Springs at an early date. Rabaul, Willis Island and Hotham Heights also act as secondary aviation stations. Provision has also been made for the formation of reporting stations at Nhill, Holbrook and Kempsey when night flying is introduced between the capital cities. In preparation for the early commencement of the Tasman Air Service upper air and observing stations have been established at Lord Howe and Norfolk Islands and an observer is stationed on one of the boats which regularly crosses the Tasman Sea.

Forecasts over the whole of each air route section will be given by meteorological officers when required. This information is compiled from observations taken throughout the Commonwealth with the addition of other information received from specially selected stations on or in the vicinity of the various air routes. Pilots on regular air services are required to report to the meteorological officer prior to each flight and also on arriving at an aerodrome where a meteorological station is established. In this way the meteorologist receives further first hand information of the meteorological conditions of the particular route. Operation of aeradio stations over the whole of the routes of regular air services provides means for the rapid transmission of meteorological observations necessary for aircraft operation.

8. Radio.—The main portion of the radio organization referred to in previous issues of the Year Book has now been placed in operation, and it is now possible for aircraft to fly on ultra high frequency radio beacon courses between Brisbane—Sydney—Melbourne—Adelaide and Melbourne—Launceston—Hobart. Permanent aeradio communication stations are in operation at all points at which a radio beacon station is in operation. At most of these stations an additional navigation facility is provided by the use of Bellini-Tosi direction finding receivers. Aeradio communication facilities have also been provided at Perth, Cloncurry, Groote Eylandt and Karumba. Direction finding facilities of the Bellini-Tosi type are also available at these points and high frequency D/F receivers will be installed in the ensuing year. It is expected that the permanent communication stations at Kalgoorlie and Ceduna will be placed in operation in July, 1939. These two stations will also be equipped with H.F. D/F receivers later in the year. Radio communication equipment was installed in six control launches for the purpose of directing the arrival and departure of flying boats at and from flying boat bases.

Consequent upon the distribution of overseas air mails at Darwin and the resultant re-organization of the internal air routes to meet this new condition, it was essential that radio aids for air navigation be provided on the Darwin—Perth and Darwin—Adelaide routes. Low powered temporary aeradio stations were established at Port Hedland and Onslow, and use made of the coastal radio stations at Geraldton, Broome and Wyndham on the Perth—Darwin route. On the Darwin—Adelaide route low powered temporary stations were also established at Oodnadatta, Alice Springs and Daly Waters. These stations will all be replaced by permanent installations as soon as funds are available, as at present they do not provide a thoroughly efficient service. A contract has been let for the provision of the necessary equipment for the establishment of aeradio stations at Darwin, Townsville and Rockhampton. It is expected that these stations will be in operation by September, 1939, when the temporary facilities at these points will be superseded. During the year a contract was let for the supply of eighteen high frequency direction finding receivers. The first of these receivers will be available in July and they will be installed at Sydney and Lord Howe Island very soon after delivery.

It was necessary that an aeradio organization be established to provide radio facilities for the Trans-Tasman Air Mail Service and stations are being established at Lord Howe Island and Sydney. As well as the usual ground to air communication facilities, provision is being made for point to point working between Sydney and Auckland (New Zealand), and Sydney and Lord Howe Island. This organization will be placed in operation by September, 1939, together with the high frequency direction finding service at Sydney and Lord Howe Island.

9. **Aerodromes and Landing Grounds.**—On the 30th April, 1939, 256 landing grounds were directly controlled and maintained by the Commonwealth Government for civil aviation purposes. These aerodromes and emergency landing grounds are located at intervals over the following approved air routes :—Brisbane–Darwin, 2,028 miles; Adelaide–Darwin, 1,730 miles; Cloncurry–Normanton, 216 miles; Cootamundra–Charleville, 629 miles; Perth–Daly Waters, 2,252 miles (connecting with Brisbane–Darwin service); Ord River–Wyndham, 154 miles; Perth–Adelaide, 1,453 miles; Adelaide–Melbourne, 410 miles; Adelaide–Sydney (via Mildura and Cootamundra), 737 miles; Melbourne–Sydney, 455 miles; Melbourne–Hobart, 413 miles; Sydney–Brisbane, 475 miles; Brisbane–Cooktown, 1,006 miles.

A direct north-south route through Central Australia has been added to the list of trunk air routes maintained by the Civil Aviation Department. The preparation of this route necessitated the establishment of a number of emergency landing grounds and the improvement of existing aerodromes.

The construction of aerodromes at Cairns and Cooktown has been completed and these grounds are now being used as stopping places on the Sydney–Rabaul Air Service.

During the last year several additional aerodromes on the Inter-Capital Air Routes were equipped for night flying. The equipment generally consists of rotating and identification beacons, boundary and obstruction lighting, together with floodlights or flares for landing. On 30th April, 1939, night flying facilities were available at the following aerodromes :—Archerfield (Brisbane), Evans Head, Coff's Harbour, Kempsey, Kingsford Smith (Sydney), Goulburn, Holbrook, Cootamundra, Canberra, Benalla, Essendon (Melbourne), Nhill, Parafield (Adelaide), Cambridge (Hobart), Western Junction (Launceston), Maylands (Perth), and Darwin. The Cloncurry–Longreach section of the Brisbane–Darwin route and the Kalgoorlie–Cook section of the Perth–Adelaide route are also equipped for night flying. Aerodrome lighting installation is nearing completion at Tintinara, South Australia. Airway rotating beacons have also been installed at the following intermediate points along the main air routes :—Bowral, Adelong (New South Wales), Chiltern, Yea (Victoria), Bordertown, Tailem Bend, Mount Lofty and Oodnadatta (South Australia), Wiluna (Western Australia). These lights are visible up to 80 miles under conditions of good visibility and are a useful aid to air navigation.

Considerable activity has been displayed in the establishment of aerodromes by local authorities and private individuals, and at the 30th April, 1939, 227 aerodromes had been licensed by the Civil Aviation Department. The Department, in pursuance of its policy, provides technical advice to local authorities desirous of establishing landing grounds and this service has been largely availed of during the year. The total number of recognized landing grounds in Australia and New Guinea on the 30th April, 1939, was 485.

10. **Aircraft Parts and Materials.**—The increased use of locally-produced products in the maintenance and repair of aircraft has caused an appreciable rise in the number of firms authorized by the Department of Civil Aviation to issue release notes for aircraft materials and component parts certifying to compliance with approved specifications or designs. Of the 80 firms which have now been authorized to issue release notes (some issuing the certificates in more than one State), 49 are engaged in the manufacture of aircraft components or materials to designs and specifications approved by the Department of Civil Aviation and 33 are distributors of aircraft supplies imported under cover of satisfactory evidence of compliance with acceptable specifications, such as release notes issued with the approval of the airworthiness authorities of the country of origin, or of manufacturers' affidavits.

11. **Aircraft Maintenance.**—The system under which certificates of repair are issued is now well established, and an increasing number of firms who wish to perform repair work on aircraft or aero engine components, instruments or accessories, have had their workshop inspected by the Department. When the equipment has been found to be suitable and adequate for the performance of the intended overhaul and repair work, and the staff sufficiently qualified and experienced, authority is given to issue certificates of repair. A ground engineer's licence is issued to a senior employee who is responsible for signing the certificates of repair. This man inspects and supervises repair and overhaul

work, and where possible the repaired goods are impressed by him with an identification stamp which is loaned by the Department of Civil Aviation for the purpose. One copy of every certificate of repair issued is forwarded to the Department of Civil Aviation. These certificates serve as evidence to the aircraft operator that repair work not done by his own maintenance organization has been executed in properly equipped workshops by competent tradesmen in accordance with practices approved by the Department of Civil Aviation. Thirty-two (32) firms have now been extended authority to issue certificates of repair.

12. Statistical Summary.—The collection and compilation of aircraft statistics were undertaken by the Commonwealth Bureau of Census and Statistics on the 1st July, 1922. The subjoined table gives a summary of operations for the years ended 30th June, 1934 to 1938 :—

CIVIL AVIATION IN AUSTRALIA : SUMMARY.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Registered Aircraft Owners					
(a) No.	114	123	124	102	139
Registered Aircraft (a) No.	188	208	228	214	286
Licensed Pilots—(a)					
Private No.	429	569	714	744	937
Commercial No.	201	210	236	265	323
Licensed Navigators (a) No.	..	13	22	29	47
Licensed Aircraft Radio Telegraph Operators (a)					
.. .. . No.	..	7	8	9	23
Licensed Aircraft Radio Telephone Operators (a)					
.. .. . No.	..	..	7	4	5
Licensed Ground Engineers (a) No.	261	297	295	346	437
Aerodromes—(a)					
Government No.	64	65	63	72	74
Public No.	126	146	171	183	197
Government Emergency Grounds No.	135	138	148	151	153
Hours flown No.	35,487	45,693	62,479	84,010	113,647
Approx. Mileage Miles	3,061,449	3,854,424	5,819,751	8,731,612	12,291,570
Passengers carried—					
Paying No.	54,119	45,540	60,476	85,574	133,408
Non-paying No.	10,117	11,743	14,643	16,590	25,495
Total No.	64,236	57,283	75,119	102,164	158,903
Goods, weight carried (b) lb.	296,983	249,415	442,407	822,724	1,169,207
Mails, weight carried lb.	43,627	67,908	121,187	167,601	228,581
Accidents—					
Persons killed No.	10	28	20	19	10
Persons injured No.	12	10	6	14	4

(a) At 30th June. (b) Prior to 1935 stage freight has been included in some instances in South Australia and Western Australia.

Separate particulars of flying over the Darwin-Singapore Section of the Imperial Airways route, also included in the above table, are shown below :—

Particulars.	1934-35. (a)	1935-36.	1936-37.	1937-38.
Hours flown No.	1,186	2,159	3,767	3,788
Miles flown No.	140,706	290,542	494,105	488,417
Passengers carried No.	49	177	351	522
Goods, weight carried lb.	1,019	8,564	17,582	28,080
Mails, weight carried lb.	24,828	69,436	89,647	113,117

(a) December, 1934 to June, 1935.

Preliminary figures relating to the Operations of Civil Aircraft in Australia during the year 1938-39 will be found in the Appendix to this volume.

13. **New Guinea Activities.**—Since the discovery of gold in New Guinea in 1927, air transport has been introduced to the gold-fields as the most efficient means of communication and transport owing to the nature of the terrain of the country. Aviation has progressed considerably since 1927 and to-day air services operate to practically every part of the country. The greatest activity is between Salamaua and Lae on the north-east coast of the mainland of New Guinea to Wau and Bulolo, the two main centres of the gold-fields. Wau and Bulolo are located inland about 70 miles by native track over very mountainous country, and the journey occupies about a week. The approximate time by air is 25 minutes.

The European population of the gold-fields is over 1,200 and indentured native labourers number over 14,000. Every requirement for this number of people, including all types of mining and dredging machinery, motor cars, trucks, horses, cattle, building and other heavy materials, are carried by aircraft. The petrol required for the operation of motor transport on the gold-fields alone amounts to more than 12,000 gallons per month and this is also transported by air. During the year 1938 the average weight of cargo and mails carried per day was 32 tons.

The companies and persons operating in New Guinea and Papua are :—Guinea Airways Ltd., Bulolo Gold Dredging Ltd., Mandated Airlines Ltd., Stephens Aviation Ltd., Parers Air Transport Co., Catholic Mission Alexisshafen, Lutheran Mission Tinschhafen, Ray Parer, A. Collins and Australian Petroleum Company Ltd. W. R. Carpenter & Co. Ltd. operate a twice weekly service from Sydney to Port Moresby and Salamaua and a once weekly service from Salamaua to Rabaul. Mails, official passengers and cargo are carried by Guinea Airways Ltd. and Mandated Airlines Ltd. under contract with the New Guinea Administration between Salamaua and Lae, Bulolo, Wau, Surprise Creek, Madong, Wewak.

The subjoined table gives a summary of operations for the years ended 30th June, 1934 to 1938.

CIVIL AVIATION IN TERRITORY OF NEW GUINEA: SUMMARY.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Registered Aircraft Owners					
(a) .. No.	10	9	12	9	10
Registered Aircraft (a) No.	26	25	38	34	40
Licensed Pilots—(a)					
Private .. No.	4	3	5	4	12
Commercial .. No.	24	27	27	22	24
Licensed Navigators (a) No.		1	1		2
Licensed Ground Engineers					
(a) .. No.	37	42	41	36	37
Aerodromes—(a)					
Government .. No.	3	3	15	18	21
Public .. No.	3	5	15	19	19
Government Emergency Landing Grounds No.	15	3	6	8	6
Hours flown .. No.	10,061	13,022	18,114	16,371	15,445
Approximate mileage Miles	811,440	1,094,308	1,486,983	1,466,355	1,560,179
Passengers carried—					
Paying .. No.	10,799	14,200	15,943	11,718	12,247
Non-paying .. No.	209	203	616	1,382	1,017
Total .. No.	11,008	14,403	16,559	13,100	13,264
Goods, weight carried lb.	14,985,723	17,447,746	21,883,413	24,441,860	25,574,028
Mails, weight carried lb.	90,046	97,889	128,982	122,063	166,643
Accidents—					
Persons killed .. No.		2	1		1
Persons injured .. No.	1	3			1

(a) At 30th June.

Preliminary figures relating to the Operations of Civil Aircraft in New Guinea during the year 1938-39 will be found in the Appendix to this volume.

G. POSTS, TELEGRAPHS AND TELEPHONES.

§ 1. General.

1. **The Commonwealth Postal Department.**—In previous issues of the Year Book some account was given of the procedure in connexion with the transfer to the Federal Government of the postal, telegraphic and telephonic facilities of the separate States. (See Year Book No. 15, p. 601.)

Under the provisions of the Commonwealth Post and Telegraph Act, 1901, the Commonwealth Postal Department was placed under the control of a Postmaster-General, being a responsible Minister with Cabinet rank. The Director-General of Posts and Telegraphs controls the Department under the Postmaster-General, whilst the principal officer in each State is the Deputy Director, Posts and Telegraphs.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The subjoined statement shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices) in each State and in Australia at the 30th June, 1938. In order to judge clearly the relative postal facilities provided in each State, the area of country to each office as well as the number of inhabitants per office should be taken into account. The returns given for South Australia in this and all succeeding tables include those for the Northern Territory, while the returns for the Australian Capital Territory are included in those for New South Wales.

**POSTAL FACILITIES : RELATION TO AREA AND POPULATION,
AT 30th JUNE, 1938.**

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
Number of post offices (a) ..	2,521	2,564	1,242	789	612	512	8,240
Number of square miles of territory to each office in State ..	123	34	540	1,145	1,595	51	361
Number of inhabitants to each office	1,083	728	808	758	752	457	837
Number of inhabitants per 100 square miles ..	880	2,124	150	66	47	893	232

(a) Includes " Official," " Semi-Official," and " Non-Official " Offices.

The foregoing table does not include " telephone " offices at which there is no postal business.

(ii) *Number of Offices.* The following table shows the number of post offices in each State for the years 1908, 1918, 1928 and 1938 :—

NUMBER OF POST OFFICES.

State.	At 31st December—		At 30th June—					
	1908.		1918.		1928.		1938.	
	Official and Semi-Official.	Non-Official. (a)						
New South Wales ..	2,492	466	2,113	455	2,228	433	2,088	
Victoria ..	2,346	277	2,327	286	2,462	269	2,295	
Queensland ..	1,395	204	1,098	215	1,064	187	1,055	
South Australia ..	715	135	678	146	657	143	646	
Western Australia ..	392	125	494	130	559	126	486	
Tasmania ..	414	47	434	47	471	42	470	
Australia ..	7,754	1,254	7,144	1,279	7,441	1,200	7,040	

(a) Includes offices previously designated as " Allowance " and " Receiving " Offices.

(iii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States at specified dates is given in the appended table :—

POSTAL EMPLOYEES AND MAIL CONTRACTORS.

State.	At 31st December—		At 30th June—					
	1908.		1918.		1928.		1938.	
	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.
Central Office ..	(a)	..	92	..	170	..	320	..
New South Wales ..	7,343	1,305	11,684	1,972	13,856	1,947	15,933	2,463
Victoria ..	5,989	776	8,249	1,105	10,950	1,142	12,628	1,465
Queensland ..	3,073	550	4,477	794	5,504	870	5,914	1,464
South Australia ..	1,871	237	2,737	368	4,144	413	3,814	371
Western Australia ..	1,670	206	2,462	271	2,883	358	3,228	386
Tasmania ..	843	177	1,212	250	1,509	236	1,673	225
Australia ..	20,789	3,251	30,913	4,760	39,016	4,966	43,510	6,374

(a) Included in Victorian Staff.

3. **Gross Revenue, Postmaster-General's Department.—Branches.** The gross revenue (actual collections) in respect of each branch of the Department during each of the last five years is shown in the table hereunder :—

GROSS REVENUE, POSTMASTER-GENERAL'S DEPARTMENT : BRANCHES.

Branch and Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Postal—							
1933-34 ..	2,431	1,674	873	463	402	165	6,008
1934-35 ..	2,557	1,765	917	469	433	177	6,318
1935-36 ..	2,705	1,850	959	593	452	193	6,662
1936-37 ..	2,825	1,915	994	521	471	200	6,926
1937-38 ..	2,992	2,010	1,039	550	491	208	7,290
Telegraph—							
1933-34 ..	379	264	203	131	120	40	1,137
1934-35 ..	433	302	222	119	140	44	1,260
1935-36 ..	443	322	225	112	144	44	1,290
1936-37 ..	496	348	229	115	146	37	1,371
1937-38 ..	508	342	231	117	143	37	1,378
Wireless—							
1933-34 ..	128	119	28	36	17	9	337
1934-35 ..	133	110	30	37	19	10	339
1935-36 ..	141	118	35	39	22	11	366
1936-37 ..	163	136	44	45	27	14	429
1937-38 ..	185	156	52	51	33	16	493
Telephone—							
1933-34 ..	2,202	1,647	819	535	309	136	5,648
1934-35 ..	2,361	1,750	884	563	328	142	6,028
1935-36 ..	2,583	1,892	946	594	356	151	6,522
1936-37 ..	2,825	2,066	976	628	395	171	7,061
1937-38 ..	3,083	2,192	1,024	669	415	189	7,572
All Branches—							
1933-34 ..	5,140	3,704	1,923	1,165	848	350	13,130
1934-35 ..	5,484	3,927	2,053	1,187	922	372	13,945
1935-36 ..	5,872	4,181	2,165	1,249	974	399	14,840
1936-37 ..	6,309	4,465	2,243	1,309	1,039	422	15,787
1937-38 ..	6,768	4,700	2,346	1,387	1,082	450	16,733
Total revenue per capita—							
	£	£	£	£	£	£	£
1933-34 ..	1.96	2.03	2.02	1.98	1.93	1.53	1.97
1934-35 ..	2.07	2.14	2.14	2.01	2.08	1.62	2.08
1935-36 ..	2.20	2.27	2.23	2.11	2.18	1.73	2.20
1936-37 ..	2.34	2.41	2.28	2.20	2.30	1.82	2.32
1937-38 ..	2.48	2.52	2.34	2.32	2.35	1.92	2.43

Compared with the corresponding figures for the previous year, an increase of 6.0 per cent. is shown in the gross revenue earned, the increases in the several branches being as follows:—Postal 5.3 per cent., Telegraph 0.5 per cent., Wireless 14.9 per cent., and Telephone 7.2 per cent.

4. **Expenditure, Postmaster-General's Department.**—(i) *Distribution.* The following table shows, as far as possible, the distribution of actual expenditure on various items in each State during the year ended 30th June, 1938. The table must not be regarded as a statement of the working expenses of the Department, since items relating to new works, interest, etc. are included therein.

EXPENDITURE, POSTMASTER-GENERAL'S DEPT.: DISTRIBUTION, 1937-38.

Particulars.	Central Office.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£	£
Expenditure from Ordinary Votes—								
Salaries and payments in the nature of salary ..	58,294	2,028,709	1,454,186	761,649	502,283	382,064	188,147	5,375,332
General expenses ..	12,301	170,649	114,692	46,580	35,395	26,945	9,738	416,300
Stores and material ..	2,387	73,412	48,347	26,975	16,013	13,972	6,900	188,006
Mail services ..	260,525	432,530	274,692	223,467	78,310	82,926	36,980	1,389,430
Engineering services (other than New Works) ..	64,623	1,177,151	766,423	405,665	281,702	220,332	136,125	3,052,021
Other services ..	41,243	..	..	..	..	..	..	41,243
Total ..	439,373	3,882,451	2,658,340	1,464,336	913,703	726,239	377,890	10,462,332
Pensions and retiring allowances ..	..	25,180	28,372	..	..	24,783	..	78,335
Rent, repairs, maintenance, fittings, etc. ..	..	49,331	29,318	16,188	9,067	10,356	3,092	117,352
Proportion of audit expenses ..	..	4,220	2,884	1,541	925	709	371	10,650
New Works—								
Telegraph, telephone and wireless ..	..	1,224,704	1,009,646	280,388	144,000	154,162	87,615	2,900,515
New buildings, etc. ..	..	(b) 146,746	56,993	(b) 19,007	12,410	6,153	4,263	(b) 245,572
Other expenditure not allocated to States ..	3,320,804	..	..	..	..	..	..	3,320,804
	(c)							
Grand Total ..	3,760,177	5,332,632	3,785,553	1,781,460	1,080,105	922,402	473,231	17,135,560
								(d)

(a) Orient Steam Navigation Company's Overseas Mail Contract and expenditure on air mail services. (b) Includes credit of £451 (New South Wales, £300; Queensland, £151)—Repayment of Loan Expenditure of previous years. (c) Particulars of apportionment to States not available. (d) Including expenditure not apportioned to States.

(ii) *Total, 1934 to 1938.* The next table gives the actual payments made, as shown by records kept for Treasury purposes in respect of the Postal Department, for each of the last five years:—

EXPENDITURE, POSTMASTER-GENERAL'S DEPARTMENT, 1933-34 TO 1937-38.

Expenditure.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Total ..	12,288,173	13,458,581	14,424,388	15,622,255	17,135,560

The total expenditure increased by 9.6 per cent. during 1937-38.

5. Profit or Loss, Postmaster-General's Department.—(i) *States, 1937-38.* The foregoing statements of gross revenue and expenditure represent actual collections and payments made and cannot be taken to represent the actual results of the working of the Department for the year. The net results for each branch in the several States after providing for working expenses, depreciation and interest charges, including exchange, were as follows :—

PROFIT OR LOSS, POSTMASTER-GENERAL'S DEPARTMENT, 1937-38.

Branch.	Profit or Loss.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
Postal	{ Profit	874,536	656,698	288,900	145,013	104,987	24,427	2,094,561
	{ Loss	..	..	..	..	..	..	..
Telegraph	{ Profit	33,932	51,949	..	..	191	..	73,020
	{ Loss	..	..	2,561	7,723	..	2,818	..
Wireless	{ Profit	53,612	48,560	..	11,560	..	..	82,211
	{ Loss	..	..	8,793	..	15,744	6,984	..
Telephone	{ Profit	672,562	455,045	196,018	2,984	1,818	..	1,283,684
	{ Loss	..	..	..	..	..	44,743	..
All Branches	{ Profit	1,634,692	1,212,252	473,564	151,834	91,252	..	3,533,470
	{ Loss	..	..	..	..	..	30,118	..

After providing for depreciation, pensions and retiring allowances and interest on capital, the year 1937-38 closed with a surplus of £3,533,476. For the preceding year a surplus of £3,340,930 was shown.

(ii) *Branches, 1934 to 1938.* The following statement gives particulars of the operating results of each branch for the period 1934 to 1938 :—

PROFIT OR LOSS, POSTMASTER-GENERAL'S DEPARTMENT : BRANCHES.

Year—	Branch Profits.				
	Postal.	Telegraph.	Wireless.	Telephone.	All Branches.
	£	£	£	£	£
1933-34	1,684,608	41,012	87,235	269,273	2,000,104
1934-35	1,828,279	15,019	162,343	402,332	2,407,973
1935-36	1,948,385	64,993	86,184	884,423	2,983,985
1936-37	2,055,903	79,791	87,718	1,117,458	3,340,930
1937-38	2,094,561	73,020	82,211	1,283,684	3,533,470

(a) Minus sign (-) denotes loss.

6. *Capital Account.*—The appended statement shows particulars of the fixed assets of the Postmaster-General's Department at 30th June, 1938 :—

FIXED ASSETS, POSTMASTER-GENERAL'S DEPARTMENT, 30th JUNE, 1938.

Particulars.	Net Value, 1st July, 1937.	Capital Expenditure, 1937-38.	Gross Value, 30th June, 1938.	Less Deprecia- tion, &c., 1937-38. (a)	Net Value, 30th June, 1938.
	£	£	£	£	£
Telephone service plant (ex- clusive of trunk lines) ..	35,918,074	3,099,405	39,017,479	739,175	38,278,304
Trunk and telegraph service plant (aerial wires) ..	10,548,021	256,337	10,804,358	86,473	10,717,885
Telegraph service plant ..	667,326	22,477	689,803	7,799	682,004
Postal service plant ..	420,564	8,922	429,486	3,344	426,142
Wireless plant ..	389,629	79,786	469,415	5,537	463,878
Sites, buildings, furniture and office equipment ..	9,785,461	311,560	10,097,021	50,456	10,046,565
Miscellaneous plant ..	752,739	124,412	877,151	66,244	810,907
Total	58,481,814	3,902,899	62,384,713	959,028	61,425,685

(a) Includes dismantled assets, depreciation written off, and assets transferred.

During the past quinquennium the value of the fixed assets has increased by 16.0 per cent., the net value at 30th June, 1933, being £52,955,384.

§ 2. Posts.

1. **Postal Matter Dealt With.**—(i) *Australia.* The following table gives a summary of the postal matter dealt with in Australia during the five years 1934 to 1938. Although mail matter posted in Australia for delivery therein is necessarily handled at least twice, only the numbers dispatched are included in the following table, which consequently gives the number of distinct articles handled :—

POSTAL MATTER DEALT WITH : AUSTRALIA.

Year.	Letters, Postcards, Letter Cards and Packets.		Newspapers.		Parcels.		Registered Articles other than Parcels.	
	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.
POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.								
1933-34 ..	733,506	110,217	121,600	18,272	8,549	1,285	6,223	935
1934-35 ..	752,112	112,215	125,088	18,663	8,456	1,262	6,576	981
1935-36 ..	775,469	114,869	129,290	19,152	8,606	1,275	6,814	1,009
1936-37 ..	792,869	116,519	133,034	19,550	8,811	1,295	7,144	1,046
1937-38 ..	825,128	119,704	138,129	20,039	9,072	1,316	7,439	1,079
TOTAL POSTAL MATTER DEALT WITH.								
1933-34 ..	790,166	118,731	142,040	21,343	8,942	1,344	6,870	1,032
1934-35 ..	809,729	120,812	147,662	22,031	8,876	1,324	7,273	1,085
1935-36 ..	832,685	123,344	150,755	22,331	9,058	1,342	7,539	1,117
1936-37 ..	853,676	125,455	156,123	22,943	9,264	1,362	7,950	1,164
1937-38 ..	889,771	129,082	162,682	23,601	9,572	1,389	8,489	1,231

(ii) *States.* The next table shows the postal matter dealt with in each State during the year 1937-38.

POSTAL MATTER DEALT WITH : STATES 1937-38.(a)

State.	Letters, Postcards, Letter Cards and Packets.		Newspapers.		Parcels.		Registered Articles other than Parcels.	
	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.
POSTED FOR DELIVERY WITHIN AUSTRALIA.								
New South Wales	334,010	122,327	68,310	25,018	3,848	1,409	2,895	1,060
Victoria ..	236,393	126,614	27,674	14,822	1,805	967	1,980	1,060
Queensland ..	104,133	103,803	22,399	22,328	1,816	1,810	1,097	1,094
South Australia ..	60,159	100,590	7,503	12,546	789	1,320	607	1,015
Western Australia	54,199	117,783	6,352	13,805	686	1,490	578	1,256
Tasmania ..	36,234	154,729	5,891	25,155	128	549	282	1,205
Australia ..	825,128	119,704	138,129	20,039	9,072	1,316	7,439	1,079
OVERSEA DISPATCHED.								
New South Wales	11,207	4,105	2,475	906	112	41	280	102
Victoria ..	8,787	4,706	3,622	1,940	53	29	128	69
Queensland ..	3,357	3,346	920	917	4	13	47	46
South Australia ..	2,656	4,442	397	663	8	14	14	24
Western Australia	3,640	7,909	553	1,201	15	32	34	73
Tasmania ..	2,675	11,422	215	917	3	14	3	14
Australia ..	32,322	4,689	8,182	1,187	205	30	506	73
OVERSEA RECEIVED.								
New South Wales	13,142	4,813	8,246	3,020	144	53	302	111
Victoria ..	10,084	5,401	3,187	1,707	85	45	149	80
Queensland ..	2,780	2,771	1,596	1,591	24	24	35	35
South Australia ..	1,846	3,086	1,087	1,817	16	26	18	31
Western Australia	3,386	7,359	1,864	4,050	21	46	34	74
Tasmania ..	1,083	4,627	392	1,673	5	22	6	24
Australia ..	32,321	4,689	16,372	2,375	295	43	544	79

(a) See explanation in paragraph (i).

2. *Value-Payable Parcel Post.*—(i) *General.* The Postal Department undertakes to deliver registered articles sent by parcel post within Australia, or between Papua or Nauru and Australia, to recover from the addressee on delivery a specified sum of money fixed by the sender, and to remit the sum to the sender by money order, for which the usual commission is charged. The object of the system is to meet the requirements of persons who wish to pay at the time of receipt for articles sent to them, also to meet the requirements of traders and others who do not wish their goods to be delivered except on payment.

(ii) *Summary of Business.* The next statement gives particulars regarding the value-payable parcels posted in each State for the years 1934 to 1938 :—

VALUE-PAYABLE PARCEL POST : SUMMARY OF BUSINESS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF PARCELS POSTED.							
	No.	No.	No.	No.	No.	No.	No.
1933-34 ..	395,972	40,769	204,459	21,309	79,030	1,782	653,321
1934-35 ..	309,024	36,959	200,358	19,940	76,174	1,720	644,175
1935-36 ..	324,800	39,700	192,539	20,340	76,946	2,023	656,348
1936-37 ..	326,045	35,510	186,439	20,367	75,068	1,573	645,002
1937-38 ..	328,459	34,681	184,080	20,592	70,719	1,168	639,699
VALUE COLLECTED.							
	£	£	£	£	£	£	£
1933-34 ..	377,752	55,395	248,002	22,502	83,524	1,970	789,055
1934-35 ..	364,750	50,469	244,829	19,965	83,364	1,936	765,313
1935-36 ..	389,595	55,577	236,608	22,347	81,538	2,597	788,262
1936-37 ..	398,582	50,529	230,656	22,343	84,382	2,111	788,603
1937-38 ..	395,969	48,250	232,797	24,124	78,196	1,591	780,927

REVENUE INCLUDING POSTAGE, COMMISSION ON VALUE, REGISTRATION AND MONEY ORDER COMMISSION.

	£	£	£	£	£	£	£
1933-34 ..	40,356	5,460	26,947	2,827	10,452	213	86,255
1934-35 ..	39,653	5,012	24,623	2,307	8,912	215	80,722
1935-36 ..	43,285	5,334	24,830	2,546	8,775	242	85,012
1936-37 ..	43,214	4,761	25,081	2,448	8,666	191	84,361
1937-38 ..	41,958	4,672	23,816	2,507	8,102	139	81,194

The number and value of parcels forwarded in New South Wales and Queensland are much higher than in any of the other States, although the system has also found favour in Western Australia. These three States have the largest areas, and consequently more people at long distances from business centres who avail themselves of the value-payable system. Although South Australia also has a large area, the population of that State is, comparatively, not widely spread.

3. *Sea-borne Mail Services.*—(i) *General.* In earlier issues of this work particulars of sea-borne mail services were included, but owing to the restrictions of space the insertion of this information terminated with Year Book No. 22.

(ii) *Amount of Subsidies Paid.* The following table shows the amounts of subsidies paid by the Commonwealth Postal Department for ocean and coastal mail services during the year ended 30th June, 1938 :—

MAIL SUBSIDIES : OCEAN AND COASTAL SERVICES, 1937-38.

Service.	Orient S.N. Co.	Queens- land Ports.	South Australian Ports.	Western Australian Ports.	Tas- manian Ports.
	£ Stg.	£	£	£	£
Annual subsidy ..	110,000	975	3,800	5,500	55,379

4. **Total Cost of Carriage of Mails.**—During the year 1937–38 the total amount paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, was £1,396,578. Details appear hereunder:—

CARRIAGE OF MAILS: TOTAL COST, 1937–38.

Inland Mails.		Non-Contract Vessels.	Overland and Sea Transit.	Coastwise Mails.	Mails to Europe. (a)	Air Mails.	Tasmanian Subsidy.	Total.
By Road.	By Railway.							
£	£	£	£	£	£	£	£	£
527,167	464,265	39,092	6,378	11,501	137,500	180,875	29,800	1,396,578

(a) Orient contract.

5. **Transactions of the Dead Letter Offices.**—The table hereunder shows the number of letters, postcards and letter-cards, and packets and circulars, including Inland, Interstate and International, dealt with by the Dead Letter Offices in 1937–38, and the methods adopted in the disposal thereof:—

DEAD LETTER OFFICES: TRANSACTIONS, 1937–38.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
LETTERS, POSTCARDS AND LETTER-CARDS.							
Returned to writers or delivered ..	487,443	241,812	189,738	85,108	107,336	57,444	1,168,881
Destroyed in accordance with Act ..	86,349	31,716	16,473	8,855	5,260	3,840	152,493
Returned to other Countries as unclaimed ..	31,642	14,565	7,489	2,852	6,846	1,206	64,600
Total ..	605,434	288,093	213,700	96,815	119,442	62,490	1,385,974
PACKETS AND CIRCULARS.							
Returned to writers or delivered ..	247,322	148,417	217,016	11,247	56,784	36,066	716,852
Destroyed in accordance with Act ..	108,614	16,293	21,461	624	7,381	1,572	155,945
Returned to other Countries as unclaimed ..	1,165	6,473	3,996	2,068	850	414	14,966
Total ..	357,101	171,183	242,473	13,939	65,015	38,052	887,763
Grand Total (letters, packets, etc.) ..	962,535	459,276	456,173	110,754	184,457	100,542	2,273,737

During the year 1937–38 money and valuables to the amount of £89,314 were found in undeliverable postal articles.

6. **Money Orders and Postal Notes.**—(i) *General.* The issue of money orders and postal notes is regulated by sections 74 to 79 of the Post and Telegraph Act, 1901. A money order may be issued for payment of sums up to £20 within Australia, and not

exceeding £40 (in some cases £20, and in Mauritius £10) in places abroad. A postal note, which is payable only within Australia and in Papua, cannot be issued for a larger sum than twenty shillings.

(ii) *States, 1937-38.* Particulars regarding the business transacted in each State for the year 1937-38 are given hereunder :—

MONEY ORDERS AND POSTAL NOTES : TRANSACTIONS, 1937-38.

State.	Value of Money Orders Issued.	Value of Money Orders Paid.	Net Money Order Commission Received.	Value of Postal Notes Issued.	Poundage Received on Postal Notes.
	£	£	£	£	£
New South Wales ..	8,597,338	8,661,014	43,990	3,397,159	78,295
Victoria ..	3,463,670	3,716,856	20,412	2,183,188	53,126
Queensland ..	2,694,599	2,521,923	17,525	893,396	20,877
South Australia ..	1,027,235	1,013,405	5,902	524,348	12,655
Western Australia ..	1,528,092	1,417,563	9,540	501,139	11,202
Tasmania ..	647,915	604,668	3,402	206,459	4,793
Australia ..	17,958,849	17,935,429	100,771	7,705,689	180,948

(iii) *Australia, 1934 to 1938.* The next table shows the total number and value of money orders and postal notes issued and paid in Australia from 1933-34 to 1937-38 :—

MONEY ORDERS AND POSTAL NOTES : TRANSACTIONS, AUSTRALIA.

Year.	Money Orders.				Postal Notes.			
	Issued.		Paid.		Issued.		Paid.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
	'000.	£'000.	'000.	£'000.	'000.	£'000.	'000.	£'000.
1933-34 ..	2,769	14,646	2,762	14,589	19,595	6,397	19,446	6,370
1934-35 ..	2,859	15,185	2,847	15,169	19,557	6,650	19,489	6,631
1935-36 ..	2,968	16,303	2,938	16,260	21,083	7,221	21,103	7,222
1936-37 ..	3,066	17,098	3,057	17,105	20,622	7,348	20,538	7,313
1937-38 ..	3,191	17,959	3,175	17,935	21,426	7,706	21,375	7,692

(iv) *Classification of Money Orders Issued and Paid. (a) Money Orders Issued.* The next table shows the number and value of money orders issued during the year 1937-38, classified according to the country where payable :—

MONEY ORDERS ISSUED : COUNTRY WHERE PAYABLE, 1937-38.

Where Issued.	Where Payable.				Total.
	In Australia.	In New Zealand.	In United Kingdom.	In Other Countries.	
	NUMBER.				
Australia ..	3,027,340	22,280	98,910	42,921	3,191,451
	VALUE.				
Australia ..	£ 17,534,390	£ 68,252	£ 213,310	£ 142,897	£ 17,958,849

(b) *Money Orders Paid.* The number and value of money orders paid during the year 1937-38, classified according to the country where issued, are given hereunder :—

MONEY ORDERS PAID : COUNTRY OF ISSUE, 1937-38.

Where Paid.	Where Issued.				Total.
	In Australia.	In New Zealand.	In United Kingdom.	In Other Countries.	
NUMBER.					
Australia	3,045,166	56,555	44,514	28,449	3,174,684
VALUE.					
Australia	£ 17,533,072	£ 147,458	£ 168,705	£ 86,194	£ 17,935,429

In the tables above, money orders payable or issued in foreign countries which have been sent from or to Australia through the General Post Office in London are included in those payable or issued in the United Kingdom.

(v) *Postal Notes Paid.* The subjoined table shows the number and value of postal notes paid in each State during the year 1937-38. Particulars regarding the total number and value of postal notes issued and paid in each of the last five years have been given previously.

POSTAL NOTES PAID : STATE OF ISSUE, 1937-38.

Issued in—	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
NUMBER.							
Same State	'000. 7,792	'000. 3,825	'000. 1,921	'000. 873	'000. 1,073	'000. 435	'000. 15,919
Other States	821	543	890	108	64	3,031	5,457
Total	8,613	4,368	2,811	981	1,137	3,466	21,376
VALUE.							
Same State	£'000. 2,862	£'000. 1,417	£'000. 724	£'000. 325	£'000. 406	£'000. 152	£'000. 5,886
Other States	302	221	312	45	19	907	1,806
Total	3,164	1,638	1,036	370	425	1,059	7,692

The number and value of postal notes paid in Australia during the year showed increases of 4.1 per cent. and 5.2 per cent. respectively on the corresponding figures for the year 1936-37.

§ 3. Telegraphs.

1. *General.*—(i) *Development of System.* A review of the development of the Telegraph Services in Australia was given in a previous issue of this work (see Year Book No. 15, p. 625). During the past few years substantial improvements in both the speed and grade of telegraph service throughout Australia have been effected, the entire system being subjected to intensive reorganization.

(ii) *External Circulation or Routing of Traffic.* The external circulation system of the Australian telegraph service has been considerably modified, direct communication having been established between cities and towns which formerly were served through intermediate repeating centres. The reorganization has eliminated the loss of time in transit, improved the grade of service, and led to economy as regards the labour formerly required in manual re-transmission. As a result of the reorganization there are now only five repeating centres, eighteen centres having been abolished.

(iii) *Carrier Wave System.* This system which permits a number of messages to be transmitted simultaneously over the one pair of wires is now in operation between Perth and Adelaide, Adelaide and Melbourne, Melbourne and Sydney, and Sydney and Brisbane. There are now 41,158 miles of one-way telegraph carrier channels in operation.

(iv) *Voice-Frequency System.* This system, which enables a number of telegraph channels to be superposed on a single telephone channel by employing frequencies from 420 to 2,460 cycles per second, was first introduced between Sydney and Tamworth. Between these two points 18 duo-directional channels have been provided by adopting the voice-frequency principle, equivalent to 9,360 miles of uni-directional channels. The system was extended to the Perth and Kalgoorlie route during 1937-38, and in view of its service and economic advantages, extensions to other main telegraph routes are contemplated.

(v) *Direct Telegraph Communication over Great Distances.* The telegraph system in Australia provides direct communication between many places separated by great distances as indicated in the following examples:—Sydney-Perth, 2,695 miles; Perth-Wyndham, 1,933 miles; Melbourne-Brisbane, 1,246 miles; Brisbane-Cairns, 1,056 miles; Brisbane-Cloncurry, 1,215 miles; Adelaide-Perth, 1,627 miles; Melbourne-Perth, 2,104 miles; Adelaide-Darwin, 1,940 miles; and Sydney-Adelaide, 1,068 miles. These direct channels provide a speedy service between the centres named, the average time involved in the transmission of a telegram being ten minutes.

(vi) *Machine Telegraphy.* In order to speed up transmission, machine printing telegraph systems have been introduced between capital cities and between important country centres. Murray multiplex machine apparatus is in operation between Sydney and Melbourne, Sydney and Brisbane, Sydney and Adelaide, Sydney and Perth, Sydney and Canberra, Sydney and Lismore, Sydney and Newcastle, Sydney and Wagga Wagga, Melbourne and Brisbane, Melbourne and Adelaide, Melbourne and Perth, Melbourne and Canberra, Adelaide and Perth, Brisbane and Rockhampton, and Brisbane and Townsville, providing telegraph outlets which permit the carriage of very heavy loads with a minimum transit time. The operation of the apparatus has been steadily improved, and the system now gives a high output. Between Melbourne and Mildura, Melbourne and Launceston, Sydney and Tamworth, Brisbane and Toowoomba, Brisbane and Mackay, Perth and Fremantle, and Perth and Kalgoorlie, start-stop telegraph printing systems are in operation.

(vii) *Phonogram Service.* Telephone subscribers may now telephone telegrams for onward transmission, or have messages telephoned to them. The fee for the service is small, and the innovation means, in effect, that the telegraph system is brought into the home of every telephone subscriber. The number of telegrams lodged by telephone during the twelve months ended 30th June, 1938, was 2,922,472 or 18.6 per cent. of the total lodgments, and the popularity of this facility is growing.

(viii) *Radiograms within Australia.* On 1st May, 1929, the rates for radiograms between Flinders Island, Wave Hill, Brunette Downs and other places within the Commonwealth were reduced to 1½d. per word with a minimum charge of two shillings. Communication at these rates was extended to Lord Howe Island in August, 1929.

(ix) *Pedal Wireless Stations.* A number of privately operated pedal wireless transceiver stations have been established at various centres throughout the Commonwealth, enabling telegrams to be exchanged with departmental telegraph offices. These pedal stations are sponsored by the Australian Aerial Medical Services and communicate by wireless with base stations established at Wyndham, Port Hedland, Cloncurry, Kalgoorlie, Broken Hill, Yunta, Nonning, Dalwallinu, Wave Hill, Camooweal and Port Lincoln. The radiogram rates of 1½d. per word with a minimum charge of two shillings apply to pedal station telegrams.

(x) *Picturegram Service.* During the year ended 30th June, 1938, 410 picturegrams were transmitted between Sydney and Melbourne, the revenue being £944. Any kind of picture or document may be accepted for transmission, the charges varying from 30s. to 67s. 6d. according to the size of the picture or document and the grade of transmission desired.

(xi) *Overseas Phototelegram Service.* An overseas phototelegram service, "via Beam," was inaugurated in October 1934, permitting the transmission in either direction of facsimiles between Sydney or Melbourne and England, of dimensions up to a maximum of ten inches by seven inches. The charges are calculated at the rate of three shillings and three pence per square centimetre with a minimum charge of £16 5s. as for 100 square centimetres.

(xii) *Ornamental Telegram Forms.* The use of appropriately designed telegram forms for conveying Christmas and New Year greetings continues to increase in volume and popularity. In 1938, 363,877 Greeting Telegrams were sent, an increase of 152.5 per cent. on the number (144,102) sent in 1929, the year of inception of the service.

During the year 1933-34 telegram forms of special design and attractive colouring in connexion with Mothers' Day messages, Birthday greetings and Congratulatory telegrams were placed at the disposal of the public. The popularity of these facilities is indicated by the increase in the number of Mothers' Day telegrams from 16,091 in 1934 to 58,468 in 1939. Complete statistics are not available in respect of Birthday greetings and Congratulatory messages, but it is estimated that the number of telegrams in these categories is approximately 750,000 annually. In 1936 two additional greeting facilities employing ornamental telegram stationery were introduced, one for the conveyance of social greetings and the other for use during Easter-tide. The number of Easter Greeting telegrams in 1935, prior to the introduction of the special form for the occasion, was 4,164. This figure increased to 13,636 in 1939. Extensive use is also being made of the Social telegram service, which is popular for conveying "bon voyage" greetings and for making social engagements.

(xiii) *Private Wire Teletypewriter and Printergram Services.* In conformity with its policy of placing at the service of the public new developments in communication, the Department has now introduced the teletypewriter service. This may be briefly defined as typewriting over electrical circuits, teletypewriters being similar in performance to typewriters, except that the keyboard and distant printer are electrically connected by means of a telegraph line.

This facility combines the speed of the telegraph and the flexibility and personal touch of the telephone with the accuracy and permanency of the printed word. It affords the great advantage of direct and instantaneous communication between points within the same building or separated by distances up to thousands of miles. Communications are automatically produced at both ends exactly as sent, and information may be dispatched with the utmost privacy even in exposed situations where other means are unsuitable. It affords two-way communication at speeds up to 60 words a minute.

Printergram services connecting any business premises with the local Telegraph Office for the transmission and reception of telegrams are also available. This saves time and labour, while providing a permanent record of each transaction.

Forty-two private wire services employing 110 teleprinter units have already been installed, including a stock ticker service enabling the simultaneous communication of information from a single transmitting unit located in the Sydney Stock Exchange to each of 31 printer units installed in the offices of city stock-brokers.

2. **Telegraph Offices, Length of Lines and Wire.**—(i) *States.* The following table shows the number of telegraph offices and the length of telegraph lines and of telegraph wire available for use in each State at the 30th June, 1938 :—

TELEGRAPH OFFICES AND LINES : STATES, 30th JUNE, 1938.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
Number of offices ..	3,056	2,452	1,562	824	929	536	9,359
Length of wire (miles)—							
Telegraph purposes only	12,875	7,686	14,836	6,422	8,544	664	51,027
Telegraph and telephone purposes ..	58,057	15,756	36,545	13,898	9,270	1,448	134,974
Length of line (miles)—							
Conductors in Morse cable	2,711	1,406	491	..	181	24	4,813
Conductors in submarine cable (statute miles) ..	4,057	413	323	230	193	477	5,693
Pole routes (miles) ..	32,743	19,146	14,718	14,961	12,057	3,495	97,120

A total length of 186,001 miles of wire is available for telegraph purposes, of which 134,974 miles are also used for telephone purposes. Compared with those for the previous year, the figures show an increase of 9,017 miles (5.1 per cent.) in the total length and an increase of 13,186 miles (10.8 per cent.) in the length of line used for both telegraph and telephone purposes.

(ii) *Summary for Australia.* The following table gives corresponding particulars for Australia for the years 1934 to 1938 :—

TELEGRAPH OFFICES AND LINES : AUSTRALIA, At 30th JUNE.

Particulars.	1934.	1935.	1936.	1937.	1938.
Number of offices ..	9,199	9,255	9,252	9,320	9,359
Length of wire (miles)—					
Telegraph purposes only ..	54,655	54,806	56,292	55,196	51,027
Telegraph and telephone purposes ..	102,953	104,203	113,277	121,788	134,974
Length of line (miles)—					
Conductors in Morse cable ..	4,538	4,694	4,815	4,863	4,813
Conductors in submarine cable (statute miles) ..	4,764	4,883	5,193	5,421	5,693
Pole routes (miles) ..	96,395	97,694	97,850	96,917	97,120

3. **Number of Telegrams Dispatched.**—(i) *States.* The following table shows the total number of telegrams dispatched in each State during 1937–38 according to the class of message transmitted :—

TELEGRAMS DISPATCHED(a) : STATES, 1937–38.

Class of Message Transmitted within Australia.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	No.	No.	No.	No.	No.	No.	No.
Paid and Collect—							
Ordinary ..	5,301,928	3,411,438	2,626,481	1,065,096	1,635,883	282,064	14,322,890
Urgent ..	220,511	63,055	69,115	34,349	42,425	7,767	437,222
Press ..	204,889	107,169	76,347	42,094	46,273	42,821	519,593
Lettergram ..	74,454	38,657	55,049	28,300	91,161	20,965	308,586
Radiogram ..	37,231	2,894	8,316	6,332	3,762	2,904	61,439
Total ..	5,839,013	3,623,213	2,835,308	1,176,171	1,819,504	356,521	15,649,730
Unpaid—							
Service ..	166,605	63,888	71,247	40,800	52,444	22,148	417,132
Shipping ..	22,866	82,505	16,054	3,734	12,759	4,864	142,782
Meteorological ..	232,309	107,537	110,776	145,733	118,046	41,291	755,692
Total ..	421,780	253,930	198,077	190,267	183,249	68,303	1,315,606
Grand Total ..	6,260,793	3,877,143	3,033,385	1,366,438	2,002,753	424,824	16,965,336

(a) Including radiogram traffic with islands adjacent to the Commonwealth and to ships at sea.

(ii) *Australia.* The number of telegrams dispatched to destinations within Australia during each of the last five years is given hereunder :—

TELEGRAMS DISPATCHED : AUSTRALIA, 1933–34 TO 1937–38.

Telegrams.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
Number (a) ..	13,393,627	14,617,871	15,508,843	16,268,416	16,965,336

(a) See Note (a) above.

The increase in the volume of telegraph business has averaged 837,461 messages during each of the past five years.

4. **Letter-telegrams.**—Letter-telegrams are accepted at any hour at telegraph offices which are open for business after 7 p.m., subject to the condition that delivery is effected by posting at the letter-telegram office of destination.

5. **Revenue and Expenditure.**—Particulars of the revenue and net operating results of the telegraph systems for the years 1933–1934 to 1937–38 are given in earlier pages.

6. **Telegraph Density.**—The latest statistics available disclose that, on a population basis, Australia now occupies a pre-eminent position in the world in the use of the Telegraph Service, with an average of 2.4 messages annually per head of population. The United States of America has the second highest average of 1.5 followed by the United Kingdom with 1.3 per head of population. The following table gives the figures for the more important countries :—

TELEGRAPH DENSITY STATISTICS : PRINCIPAL COUNTRIES.

Country.	Percentage of Telegraph to Total Wire Communication.	Telegraph Communication per Head of Population.
Australia	3.1	2.4
Belgium	1.9	0.7
Canada	0.5	1.0
Czechoslovakia	1.4	0.3
Denmark	0.3	0.5
Finland	0.3	0.2
France	3.0	0.7
Germany	0.7	0.3
United Kingdom	2.9	1.3
Hungary	1.2	0.2
Japan	1.2	0.9
Netherlands	0.7	0.3
Norway	1.1	1.0
Poland	0.7	0.1
Spain	3.0	1.0
Sweden	0.4	0.6
Switzerland	0.6	0.4
Union of South Africa	2.4	0.7
United States of America	0.7	1.5

§ 4. Overseas Cable and Radio Communication.

1. **First Cable Communication with the Old World.**—In earlier issues of the Year Book will be found a detailed account of the connexion of Australia with the old world by means of submarine cables. (See No. 6, p. 770.)

2. **General Cable Service.**—Descriptions of the various cable services between Australia and other countries are given in Year Book No. 22, pp. 335 and 336.

3. **Merging of Cable and Wireless Interests.**—Following upon the recommendations of the Imperial Wireless and Cable Conference in London in 1928 which examined the situation that had arisen as the result of the competition of the Beam Wireless with the Cable services, the Imperial and International Communications Limited (since renamed Cable and Wireless Ltd.) was formed and took over the operations of the Pacific Cable Board and the control of the Eastern Extension Cable Company and the Marconi Wireless Company. Further particulars in relation to wireless services will be found in par. 5 of this section and in § 6, Radio Telegraphy and Telephony.

4. **Overseas Cable and Radio Traffic.**—(i) *States.* The number of telegrams received from and dispatched overseas in each State during the year 1937–38 is given hereunder :—

INTERNATIONAL TELEGRAMS : STATES, 1937–38.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number received ..	380,210	225,013	26,306	34,453	30,326	9,041	705,349
Number dispatched	373,575	248,196	31,942	37,793	43,143	10,185	744,834
Total ..	753,785	473,209	58,248	72,246	73,469	19,226	1,450,183

(ii) *Australia.* The subjoined table shows the number of international telegrams received from and dispatched overseas in Australia during 1936–37 and 1937–38 :—

INTERNATIONAL TELEGRAMS.—AUSTRALIA.

Messages.	Number Received.		Number Dispatched.		Total Number Received and Dispatched.	
	1936–37.	1937–38.	1936–37.	1937–38.	1936–37.	1937–38.
Number ..	692,727	705,349	746,739	744,834	1,439,466	1,450,183

5. **Cable and Beam Wireless Rates.**—(i) *Ordinary Messages.* As from the 25th April, 1938, the Cable and Beam Wireless rates per word for telegrams exchanged between Australia and British Empire Countries were reduced to the following levels:—Urgent, 2s. 6d.; Ordinary, 1s. 3d.; C.D.E. (5 letter code), 10d., (minimum 5 words); Deferred, 7½d.; British Government, 7½d.; Daily Letter Telegram, 5d., (minimum charge 10s. 5d. as for 25 words). Where, however, the charges between Australia and certain Empire countries (e.g., New Zealand, Fiji and some Pacific Islands) were below these levels, the rates were unaltered. No change was effected in the rates for traffic exchanged between Australia and foreign countries.

The following are the ordinary rates at present operating in regard to traffic with the principal countries, other than members of the British Empire:—

INTERNATIONAL TELEGRAM RATES.

To—	Rate per Word and Route.	
	Via Cable.	Via Beam.
European Countries	2s. 6d. to 2s. 7d.	1s. 11½d. to 2s. 5½d.
Asiatic Countries	2s. 5d. to 4s. 7d.	.. .. .
Africa	2s. 6d. to 5s. 6d.	2s. 2½d. to 2s. 11d.
United States of America	2s. 4d. to 2s. 8d.	2s. 1½d. to 2s. 5d.
Central America	3s. 2½d. to 4s. 4½d.	2s. 11½d. to 4s. 4½d.
West Indies	3s. 0d. to 5s. 1d.	2s. 8½d. to 4s. 11d.
South America	3s. 9d. to 5s. 9d.	3s. 8d. to 5s. 2½d.

(ii) *Deferred Telegrams (via Cable or Beam).* Under this system a reduction of 50 per cent. in the ordinary charge for international telegrams is made under certain conditions. Deferred telegrams are transmitted after ordinary rate telegrams and ordinary press telegrams have been disposed of.

(iii) *Daily Letter Telegrams.* The Daily Letter Telegram service was inaugurated in September, 1923, between Australia and Great Britain and Canada, later being extended to most countries in the British Empire and in Europe, to the United States and to certain other places. The charges are based on one-third of the tariff per word for ordinary messages, subject to a minimum charge as for 25 words. These messages are delivered on the morning of the second day following that of lodgment.

(iv) *Night Letter Telegrams.* A Night Letter Telegram service was introduced between Australia and New Zealand on 1st May, 1924, and was extended to Fiji on 1st December, 1924. The minimum charge for messages is fixed as for 25 words, the rates being— to New Zealand, 3s. 9d. minimum, 2d. for each additional word beyond 25; Suva, 5s. 10d. minimum, 3d. for each additional word; other places in Fiji, 7s. 4d. minimum, and 4d. for each additional word. Night Letter Telegrams are delivered on the morning following the day of lodgment.

(v) *Overseas Press Telegrams.* The rate on ordinary press telegrams exchanged with Great Britain prior to 15th April, 1939, was 4d. per word and on deferred press 3d. per word. As from this date a uniform tariff of 2½d. a word is applied uniformly to all Empire countries except Canada, Sudan, Palestine and Transjordan. In all cases where the reduced rate applies the deferred press service has been abolished.

(vi) *Social Greetings Telegram Service.* As from 1st May a Social Greeting Service was introduced between Australia and Empire points excluding Canada, India, Burma, New Zealand, Fiji and certain Pacific Islands. The minimum charge for messages is 5s. for thirteen words the indicator GLT being counted and charged for as one word. A charge of 5d. is made for each additional word. The texts of such telegrams are restricted to messages of a greeting character. This service replaces the special Christmas, Easter and Jewish New Year Greeting Telegram Service previously available to Empire points. These facilities are still available, on payment of the prescribed rates, to the Empire points which exclude the Social Greeting facility and also to foreign countries.

(vii) *De-Luxe Telegram Service.* A de-luxe telegram service has been established between Australia and certain of the more important overseas countries whereby, on payment of an additional fee of sixpence per telegram, the message will be delivered to the addressee on an ornamental form enclosed in a decorative envelope.

§ 5. Telephones.

1. Telephone Services.—(i) *Mileage in Australia.* The following table shows the mileage of lines for telephone purposes, giving trunk lines separately, at 30th June in each of the years 1935 to 1938 :—

TELEPHONE LINES : AUSTRALIA.

Particulars.	At 30th June—			
	1935.	1936.	1937.	1938.
Ordinary Lines—				
Conduits duct miles	7,128	7,771	8,546	9,664
" route miles	4,467	5,094	5,869	6,942
Conductors in aerial and underground cables miles	847,393	861,437	892,795	965,209
Working conductors in cables for junction circuits, not included above				
loop mileage	74,849	75,094	77,889	84,437
Open conductors single wire mileage	417,640	421,075	425,857	428,106
Trunk Lines—				
Telephone trunk lines only .. miles	231,125	230,684	224,447	218,146
Telegraph and telephone purposes ..	104,203	113,277	121,788	134,974

(ii) *Comparison with Other Countries.* During 1937–38 the service expanded at the satisfactory rate of 35,320 new telephones, which exceeded by 10 per cent. the corresponding figure for the preceding year. A notable feature was the marked improvement in the rate of development in country districts, the net additions being 9,707 telephones, the best total recorded for nine years. With an average of 91 telephones per 1,000 of population Australia occupies seventh place among the countries of the world having the greatest density of telephones. The average length of wire per instrument in Australia is 4.5 miles.

(iii) *Trunk Line System.* An underground telegraph and trunk line cable has been laid between Melbourne and Geelong (Victoria), about 46 miles, and will be placed in service at an early date. It accommodates the tele-communication channels serving Tasmania and the Western Districts of Victoria. An underground cable is also being laid between Sydney and West Maitland (New South Wales) to carry the channels to the Northern districts of New South Wales and to Brisbane. The Sydney–Brisbane group of channels was recently increased to ten and the Melbourne–Adelaide group to nine. Twelve additional circuits will be provided between Sydney and Melbourne during 1939, thus bringing the total number to 30.

The new semi-automatic positions which are to be installed in the Main Trunk Exchange, Melbourne, to deal with Interstate traffic, have been delivered and the preliminary work in connexion with their installation is in progress. In the Sydney Main Trunk Exchange up-to-date operating positions have been installed and additional facilities will shortly be provided to improve the service.

(iv) *Automatic Exchanges.* At the 30th June, 1938, there were 130 automatic or semi-automatic exchanges in operation, providing facilities for 311,836 automatic telephones, representing 49.5 per cent. of the total telephones in use.

(v) *Rural Automatic Exchanges.* Progress has been made with the establishment of automatic exchanges in country districts, and on the 30th June, 1938, 50 units were in operation. The rate of installation is being accelerated and equipment has been ordered for additional exchanges. The provision of automatic facilities in rural areas enables the residents concerned to enjoy the benefits of a continuous telephone service, which it is not practicable to furnish under manual conditions because of the heavy outlay entailed.

(vi) *Summary for States.* Particulars relating to the telephone service in each State for the years ended 30th June, 1936 to 1938, will be found in the following table :—

TELEPHONE SERVICES: SUMMARY.

Particulars.	Year (30th June).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. tralia.
Exchanges ..	1936	1,967	1,651	995	561	647	345	6,166
	1937	1,985	1,663	1,012	570	652	354	6,236
	1938	2,004	1,682	1,029	509	652	355	6,291
Telephone Offices (in- cluding Exchanges)	1936	2,981	2,342	1,461	815	910	505	9,014
	1937	2,986	2,354	1,497	816	926	509	9,088
	1938	3,036	2,356	1,516	820	903	510	9,141
Lines connected ..	1936	160,323	128,313	53,784	39,911	23,020	12,310	417,661
	1937	170,724	135,751	55,796	41,467	23,838	12,895	440,471
	1938	181,458	143,657	58,626	43,307	24,968	13,482	465,498
Instruments con- nected	1936	215,803	177,397	70,844	52,585	30,882	15,357	562,868
	1937	229,727	187,753	73,793	55,019	32,346	16,217	594,855
	1938	244,590	198,761	77,929	57,630	34,210	17,055	630,175
(a) Subscribers' in- struments	1936	210,099	173,436	68,288	50,954	29,553	14,511	546,841
	1937	223,712	183,613	71,092	53,319	30,970	15,349	578,061
	1938	238,283	194,451	75,122	55,874	32,807	16,170	612,707
(b) Public tele- phones	1936	3,561	2,412	1,633	834	896	542	9,878
	1937	3,758	2,465	1,672	875	900	551	10,221
	1938	3,941	2,506	1,726	906	904	549	10,532
(c) Other local in- struments	1936	2,143	1,549	923	797	433	304	6,149
	1937	2,257	1,675	1,029	825	470	317	6,573
	1938	2,366	1,804	1,081	850	499	336	6,936
Instruments per 100 of population	1936	8.06	9.60	7.23	8.88	6.85	6.67	8.31
	1937	8.50	10.12	7.44	8.98	7.12	6.98	8.71
	1938	8.96	10.65	7.77	9.63	7.43	7.28	9.14
Earnings ..		£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
	1936	2,646	1,940	966	599	378	160	6,689
	1937	2,903	2,116	1,002	640	397	178	7,236
1938	3,194	2,250	1,063	685	425	194	7,811	
Working expenses ..	1936	1,592	1,222	560	458	277	168	4,277
	1937	1,753	1,280	603	470	292	176	4,574
	1938	1,936	1,361	652	516	326	192	4,983
Percentage of working expenses on earn- ings		%	%	%	%	%	%	%
	1936	60.16	62.97	57.97	70.55	73.41	105.10	63.95
	1937	60.41	60.46	60.14	73.42	73.55	99.11	63.21
1938	60.63	60.47	61.36	75.31	76.57	99.01	63.78	

The number of instruments per 100 of population increased from 8.71 in 1936-37 to 9.14 in 1937-38. The net addition during 1937-38 totalled 35,320 telephones, a gain of 5.94 per cent. Of the total instruments connected at 30th June, 1938, 245,680, or 39 per cent., were served by exchanges situated beyond the limits of the telephone networks of the six State capital cities. The metropolitan networks are limited to a radius of 15 miles from the General Post Office in Sydney and Melbourne, and 10 miles in the other State capital cities. Instruments of the modern handset pattern are rapidly increasing

in popularity. During 1937-38, 61,050 handsets were installed, compared with 51,363 in 1936-37, bringing the number in service to 191,095 or 30 per cent. of the total connexions.

(vii) *Systems in Use.* Automatic lines connected comprised 49 per cent. of the total lines in service in Australia, while magneto and common battery lines comprised 44 per cent. and 7 per cent. respectively. Details for each State are shown in *Transport and Communication Bulletin* No. 29 issued by this Bureau.

(viii) *Subscribers' Lines and Calling Rates.* The next table gives the number of subscribers' lines and the daily calling rate at central, suburban and rural telephone exchanges in the several States for the year 1937-38 :—

TELEPHONES : SUBSCRIBERS' LINES AND DAILY CALLING RATE, 1937-38.

State.	Central Exchanges.		Suburban Exchanges.		Rural Exchanges.		Total.	
	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.
	No.	No.	No.	No.	No.	No.	No.	No.
New South Wales ..	20,237	12.89	88,619	4.48	65,845	2.49	174,701	4.70
Victoria ..	10,773	10.12	78,294	4.16	49,714	1.78	138,781	3.77
Queensland ..	8,186	10.42	16,224	3.54	32,165	2.61	56,575	4.01
South Australia ..	6,032	9.90	17,057	3.45	18,325	1.77	42,014	3.64
Western Australia ..	8,006	6.99	6,036	4.07	9,956	1.88	23,998	4.14
Tasmania ..	3,236	4.67	1,562	2.56	8,072	2.29	12,870	2.92
Australia ..	56,470	10.38	208,392	4.17	184,077	2.21	448,939	4.15

A comparison of the daily calling rates for each class of exchange shows that New South Wales registered the greatest number per line at central and suburban, and Queensland at rural exchanges. For Australia as a whole, the average number of calls per line at central exchanges was more than double the number registered at suburban exchanges, while the average for suburban exchanges was almost double the number shown for rural exchanges.

(ix) *Effective Paid Local Calls.* The numbers of effective paid local calls from subscribers and public telephones in the various States during the years ended 30th June, 1937 and 1938 appear hereunder :—

TELEPHONES : NUMBER OF EFFECTIVE PAID LOCAL CALLS.

State.	Subscribers' Calls.		Calls from Public Telephones.		Total Calls.	
	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.
	'000.	'000.	'000.	'000.	'000.	'000.
New South Wales ..	205,850	224,794	19,184	21,021	225,034	245,815
Victoria ..	142,524	152,305	9,369	10,078	151,893	162,383
Queensland ..	58,266	61,371	4,218	4,638	62,484	66,009
South Australia ..	38,821	41,028	3,248	3,511	42,069	44,539
Western Australia ..	25,920	27,507	1,366	1,432	27,286	28,939
Tasmania ..	9,330	10,159	735	799	10,065	10,958
Australia ..	480,711	517,164	38,120	41,479	518,831	558,643

(x) *Trunk Line Calls and Revenue.* In the next table the number of telephone trunk line calls recorded, the amount of revenue received, and the average revenue per call are shown for each of the States for the years 1935-36 to 1937-38 :—

TELEPHONES : TRUNK LINE CALLS AND REVENUE.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Total Calls—	'000.	'000.	'000.	'000.	'000.	'000.	'000.
1935-36 ..	12,441	9,778	6,527	3,733	1,991	1,471	35,941
1936-37 ..	13,245	10,322	6,541	3,942	2,118	1,573	37,741
1937-38 ..	14,217	11,007	6,851	4,211	2,230	1,727	40,243
Total Revenue—	£	£	£	£	£	£	£
1935-36 ..	599,000	432,635	365,237	165,208	102,328	49,351	1,713,759
1936-37 ..	644,434	470,541	368,171	178,043	113,219	61,185	1,835,593
1937-38 ..	711,872	518,212	387,431	194,909	122,915	68,114	2,003,453
Average Revenue per Call—	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1935-36 ..	11.65	10.62	13.43	10.62	12.33	8.06	11.44
1936-37 ..	11.68	10.93	13.51	10.84	12.83	9.33	11.67
1937-38 ..	12.02	11.30	13.57	11.11	13.22	9.47	11.95

The number of trunk line calls during 1937-38 increased by two and a half millions or by 6.63 per cent. compared with the figures for the previous year, while the average revenue per call increased by 0.28d.

2. *Revenue from Telephones.*—Particulars regarding the revenue from telephone services are included in tables in § 1.

§ 6. Radio Telegraphy and Telephony.

1. *General.*—A statement in regard to the initial steps taken to establish radio telegraphy in Australia was given in Official Year Book No. 18, p. 343.

2. *Wireless Licences.*—(i) *General.* Under the Wireless Telegraphy Act and Regulations, no wireless station can be installed or operated without a licence from the Postmaster-General. Licences are issued for the following :—(a) Coast Stations, which are operated at various points around the coast and in Papua and New Guinea by Amalgamated Wireless (Australasia) Ltd., under agreement with the Commonwealth ; (b) Ship Stations (regulations under the Navigation Act 1935 require that all ships registered in Australia and engaged in interstate traffic shall have an efficient radio telegraph installation, which in the case of cargo vessels of less than 750 tons gross register shall include apparatus for automatically transmitting prescribed signals of distress, these vessels not being required to carry fully qualified operators ; similar legislation, designed to ensure the safety of life at sea, has also been introduced by the Governments of New South Wales, Victoria and Queensland) ; (c) Land Stations to be operated where no telegraph or telephone facilities exist ; (d) Broadcasting Stations, other than those of the National Broadcasting Service ; (e) Broadcast Listeners' Receiving Sets ; (f) Portable Stations on motor cars, etc. ; (g) Aircraft Stations ; (h) Experimental Stations ; and (i) Special Stations, i.e., stations other than those named above.

The following table shows the number of each class of licence issued in each State or Territory during the year 1937-38 :—

WIRELESS LICENCES, 1937-38.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Coast ..	2	1	6	1	5	3	1	..	19
Ship ..	89	95	13	11	5	1	1	..	215
Aircraft ..	10	14	7	5	2	..	1	..	39
Land (a) ..	8	3	43	20	64	8	35	..	181
Broadcasting (b)	32	18	18	8	8	8	..	1	93
Broadcast Listeners' ..	402,315	315,406	117,487	111,622	71,324	36,013	165	1,663	1,055,995
Experimental ..	724	539	251	179	131	59	..	8	1,891
Portable ..	15	5	5	4	4	1	5	..	39
Special ..	39	24	16	..	6	..	..	..	85
Total Issued	403,234	316,105	117,846	111,850	71,549	36,093	208	1,672	1,058,557

(a) In addition to the licensed stations there were two operated by the Postmaster-General's Department, viz., Wave Hill (N.T.) and Carnooeal (Q.). (b) There were also twenty-four stations operated by the National Broadcasting Service, including a short-wave station (VLR, Lyndhurst, Victoria).

Similar particulars to the above in relation to the year 1938-39 will be found in the Appendix to this volume.

(ii) *Broadcast Listeners'*. The striking development of the use of the radio in Australia is illustrated by the following table, which gives the number of broadcast listeners' licences in force at the 30th June for each year from 1925 to 1938 :—

NUMBER OF BROADCAST LISTENERS' LICENCES.

In force at 30th June—	N.S.W. (a)	Victoria.	Q'land. (b)	S. Aust. (c)	W. Aust.	Tas.	Australia.
1925 ..	33,719	19,243	1,061	3,118	3,417	501	61,059
1926 ..	36,292	63,494	8,100	12,105	3,866	1,170	125,047
1927 ..	56,908	113,612	22,226	15,904	3,616	1,142	213,408
1928 ..	79,931	137,503	25,211	20,247	3,727	3,141	269,760
1929 ..	100,798	142,534	24,660	23,944	3,841	4,751	300,528
1930 ..	111,080	139,887	23,263	25,671	5,715	6,032	311,648
1931 ..	122,470	137,005	24,108	30,238	9,075	8,232	331,128
1932 ..	141,450	139,323	28,958	37,142	12,679	9,540	369,092
1933 ..	178,000	170,995	36,186	50,150	20,536	12,563	468,430
1934 ..	226,831	206,995	52,038	64,174	31,404	16,547	597,989
1935 ..	278,648	236,886	67,369	76,365	41,176	20,088	720,532
1936 ..	315,731	263,414	83,028	87,335	49,987	24,118	823,613
1937 ..	358,292	288,717	101,358	99,033	61,151	29,780	938,331
1938 ..	403,978	315,406	117,496	111,787	71,324	36,013	1,056,004

(a) Includes Australian Capital Territory. (b) Includes Papua. (c) Includes Northern Territory.

3. **Broadcasting.**—(i) *The National Broadcasting Service.* The technical services for the National Service are provided by the Postmaster-General's Department, and the programmes by the Australian Broadcasting Commission, a body consisting of five members, constituted under the provisions of the Australian Broadcasting Commission

Act. The fee for a broadcast listener's licence is 21s. per annum for a receiver situated approximately within 250 miles from a station of the National Service, and 15s. per annum in the territory beyond. Licences are issued free to blind persons. The Commission receives 12s. from each fee, the Department retaining the balance.

The National Broadcasting System of the Commonwealth at present comprises 26 transmitting stations, as follows:—2FC and 2BL Sydney, 2NC Newcastle, 2CO Corowa, 2NR Lawrence, 2CR Cummoek, 2CY Canberra, 3LO and 3AR Melbourne, 3GI Sale, 3WV Doon, 4QG and 4QR Brisbane, 4QN Townsville, 4RK Rockhampton, 5CL and 5AN Adelaide, 5CK Crystal Brook, 6WF and 6WN Perth, 6WA Minding, 6GF Kalgoorlie, 7ZR and 7ZL Hobart, 7NT Kelso, and Short Wave Station VLR Lyndhurst.

With the exception of VLR, all transmitters operate in the broadcast frequency band 550 to 1,500 kilocycles per second. Contracts are current for the supply of a further broadcast band station for installation at Dalby, Queensland, and for a second short wave station for installation at Perth, Western Australia.

Country regional stations normally radiate programmes from the central studio of the nearest capital city. To permit of this, each station is joined to its respective studio by a high quality programme transmission circuit, the total length of such circuits in use in the Commonwealth being 3,377 miles. A Commonwealth-wide system of network broadcasting is being more and more utilized, the total length of Interstate lines in use permanently for this purpose for the National Broadcasting Service alone being 4,552 miles. As occasion demands, wide-band telephone circuits to the extent of several thousands of miles are employed to supplement the Interstate network. Programme carrier channels having a 7,500 cycle band width and operating on the lower side band of a 42.5 k.c. carrier are extensively employed.

Short-wave programmes radiated by overseas stations, particularly from the Empire stations at Daventry, are received regularly at the departmental high-frequency receiving station at Mont Park, and are re-radiated over the National network when the subject matter is of sufficiently wide local interest.

(ii) *Commercial Broadcasting Stations.* The services of other broadcasting stations are conducted by private enterprise under licence from the Postmaster-General. Licences are granted on conditions which ensure satisfactory alternative programmes for listeners. The fee for a broadcasting station licence is £25 and the maximum period of a licence is three years, although they may be renewed annually at the discretion of the Postmaster-General. Licensees of these stations do not share in the listeners' licence fees, but rely for their income on revenue received from the broadcasting of advertisements and other publicity. The number of these stations in operation at 30th April, 1939, was 97, and there are several stations in prospect.

(iii) *Radio Inductive Interference.* The Postmaster-General's Department takes active measures to suppress, so far as possible, interference with broadcast reception resulting from the radiations of energy from electric machinery and appliances. During the year, the Department received 7,257 complaints of interfering noises, which, in all but a few instances, were satisfactorily disposed of.

(iv) *Prosecutions Under the Wireless Telegraphy Act.* During the year 2,656 persons were convicted for using unlicensed broadcasting receiving equipment. The total fines amounted to £4,810.

(v) *World Licence Distribution.* The following table shows the number of listeners' licences and the ratio of licences to population in the leading "radio" countries. These particulars are compiled from figures supplied by L'Union Internationale de Radio-diffusion.

WORLD LICENCE DISTRIBUTION, 31st DECEMBER, 1937.

Country.	Listeners' Licences.	
	Total.	Per 100 of Population.
United States of America	26,411,000 (a)	20.43
Denmark	704,062	18.99
Great Britain	8,479,500	18.35
Sweden	1,074,473	17.05
New Zealand	280,387	17.60
Australia	1,008,595	14.73
Germany	9,707,077	13.02
Netherlands	1,071,869	12.83
Belgium	1,018,108	12.20
Switzerland	504,132	12.09
Norway	304,913	10.52
France	4,163,692	9.93
Argentine	1,095,000	9.90
Canada (b)	1,103,768	9.78
South Africa	180,227	8.80
Czechoslovakia	1,044,382	6.89
Finland	231,696	6.26
Latvia	114,305	5.82
Estonia	48,949	4.33
Hungary	383,274	4.26
Eire	112,192	3.78
Japan	3,402,489 (a)	3.47
Poland	861,256	2.51
Soviet Union (c)	3,760,400	2.21
Palestine	28,515	2.15
Mexico	350,000 (a)	2.08
Italy	795,000	1.83

(a) Listeners are not licensed and the totals shown are estimates only of the number of receiving sets in operation. (b) At 31st March, 1938. (c) December, 1936 figures.

Australia ranks sixth amongst countries of the world in relation to licences per 100 of population.

4. Oversea Communication by Wireless.—(i) *Beam Wireless*. The Beam Wireless stations provided for under the agreement between the Commonwealth Government and Amalgamated Wireless (Australasia) Ltd. were completed early in 1927, and a direct beam wireless service to England was established on 8th April, 1927. A similar service to North America was opened on 16th June, 1928. Satisfactory communication is maintained daily over a period of hours, and the services are being well patronized by the public. A comparison of the rates charged for "Beam" and Cable messages is given in § 4, Overseas Cable and Radio Communication. Particulars of international traffic via "Beam" are given in par. (iv) (a) following.

(ii) *Overseas Wireless Telephone Service*. The volume of business transacted over the radio telephonic services terminating in Australia continues to grow at a satisfactory rate and the number of calls connected between the opening of the first of these services on the 30th April, 1930, and the 30th April, 1939, was 23,543. Of this total 13,319 calls originated in Australia.

Sixteen thousand and eighty-three calls have been completed over the Anglo-Australian service, 6,874 on the Australia-New Zealand channel, 61 on the Australia-Java service, 187 between Australia and Rabaul, 124 between Australia and the M.V. *Awatea* whilst that vessel was at sea and 214 over the direct Australia-United States of America service which was established on the 21st December, 1938.

The Australian telephone subscriber now has access to 36,500,000 telephones, or approximately 93 per cent. of the world's total. Telephone communication is practicable between the Commonwealth and 52 other countries, as well as to a number of Atlantic liners and the M.V. *Awatea* which trades between Australia and New Zealand.

(iii) *Wireless Communication in the Pacific.* New Zealand, the territories of New Guinea and Papua and the various small islands in the Pacific Ocean are served by a comprehensive system of wireless communication. In New Guinea and Papua, nine wireless telegraphy stations are established under an agreement between the Commonwealth and Amalgamated Wireless (Australasia) Ltd. for communication with ships at sea, and for inter-communication. Three of these stations Rabaul (New Guinea) and Port Moresby and Samarai (Papua) also have direct communication with the mainland of Australia. In addition, there are in New Guinea several low powered transmitters established by the New Guinea Administration for interior communication, while in both Papua and New Guinea several small stations are operated by gold exploration parties, missionary societies and others.

Direct communication by wireless telegraphy exists between Sydney and Suva (Fiji) and Noumea (New Caledonia), while Wellington (New Zealand) is linked with Sydney by wireless telephone. Other wireless telegraph stations in the Pacific include Auckland, Awarua and Chatham Islands (New Zealand), Port Vila (New Hebrides), Apia (Samoa), Tulagi and Vanikoro (Solomon Islands), Nauru (Marshall Islands), Ocean Island (Gilbert and Ellice Group), Truk and Yappu (Caroline Islands), and Guam (Marian Islands).

(iv) *Radiotelegraphic Traffic.* (a) *International.* The following statement shows particulars of international traffic "via Beam" to and from United Kingdom and other places during the year ended 30th June, 1938:—

RADIO TRAFFIC : INTERNATIONAL, 1937-38.

Class of Traffic.	Number of Words Transmitted to—			Number of Words Received from—		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary (a) ..	1,647,156	740,927	2,388,083	1,386,127	274,528	1,660,655
Deferred (Ordinary) ..	1,151,903	554,516	1,706,419	1,170,837	176,731	1,347,568
Government (a) ..	100,659	18,294	118,953	96,438	10,306	106,744
Press (including deferred press) ..	207,077	27,077	234,154	2,270,674	78,421	2,349,095
Daily letter and greeting telegrams ..	1,678,281	938,597	2,616,878	1,255,014	366,362	1,621,376
Total ..	4,785,076	2,279,411	7,064,487	6,179,090	906,348	7,085,438

(a) Includes Code telegrams.

(b) *Coast Stations.* Particulars of the traffic handled by the several coast stations during the year 1937-38 are as follows :—

RADIO TRAFFIC : COAST STATIONS, 1937-38.

State or Territory.	Total Paying Words.	Particulars.			
		Messages.			
		Paying.	Service.	Weather.	Total.
	No.	No.	No.	No.	No.
New South Wales	1,525,671	95,428	9,636	7,687	112,751
Victoria	102,257	11,093	70	1,900	13,063
Queensland	273,466	20,218	289	5,130	25,637
South Australia	66,862	6,158	604	778	7,540
Western Australia	184,092	12,606	897	3,556	17,059
Tasmania	96,667	6,058	656	4,274	10,988
Northern Territory	63,732	3,246	641	3,527	7,414
Australia	2,312,747	154,807	12,793	26,852	194,452
Papua	690,229	32,663	1,169	1,782	35,614
Grand Total	3,002,976	187,470	13,962	28,634	230,066

(c) *Island Stations.* Particulars of the island radio traffic dealt with during the year 1937-38 are given in the following table :—

RADIO TRAFFIC : ISLAND STATIONS, 1937-1938.

Particulars.	To Australia.	From Australia.	Inter-Island.	Ship.	Total.
	No.	No.	No.	No.	No.
Messages	26,838	21,726	26,776	2,440	77,780
Words	415,550	369,315	360,970	29,736	1,175,571

5. *Proficiency Certificates.*—Every transmitting station, in respect of which a licence is issued, must be operated by a person holding a certificate of proficiency.

During the year ended 30th April, 1939, 511 Operators' Certificates of Proficiency were awarded.

The number of each class were :—Commercial—First Class, 70 ; Second Class, 72 ; Third Class, 18 ; Aircraft—First Class, 2 ; Second Class, 12 ; Third Class, 75 ; Broadcast Station, 73 ; and Amateur, 189.

CHAPTER VI.

EDUCATION.

§ 1. Evolution of Educational Systems in Australia.

1. Educational Systems of the States.—(i) *Place of New South Wales in Australian Education.* The first settlement in Australia being in New South Wales, it is but natural that Australian Education should have had its beginning in that State. In the evolution of educational method and system in Australia also, New South Wales has played a leading part, and has had practically a dominating influence. The subject is dealt with in some detail in No. I. and No. II. issues of the Official Year Book, but it is not repeated in the present volume. (See also par. 2 hereunder.)

(ii) *Educational Systems of other States.* A more or less detailed account of the origin and development of the educational systems of the other States also appears in No. I. and No. II. issues of the Year Book.

(iii) *Medical Inspection of State School Children.* See Chapter IX., "Public Hygiene."

2. Later Development in State Educational Systems.—Issues of the Official Year Book up to No. 22 contained an outline of later developments of the educational systems of the various States, but owing to the necessity for economy it was not found possible to repeat this information in subsequent volumes.

Reference, however, may be made here to an interesting experiment tried in New South Wales in 1932. For many years, special consideration has been given to the backward child, but it has recently been recognized that, at the other extreme, the pupil of outstanding ability was also entitled to some special consideration. Children of superior ability were, therefore, selected by means of psychological and scholastic tests and grouped in classes where every opportunity is given them to progress at a rate in accordance with their natural ability. Special sixth classes for boys and girls were established at two of the metropolitan schools in 1932, and the scheme was extended in 1933 to include special fifth classes. Thus, on completion of the primary course, the pupils will have the benefit of two years in special classes. The results achieved by these classes were sufficiently favourable to warrant the establishment of additional classes at Artarmon Public School in 1936.

As pointed out in previous issues, the educational system of New South Wales may now be considered as a more or less homogeneous entity, the various stages succeeding one another by logical gradation from kindergarten to university. In the other States development is proceeding on somewhat similar lines, activity in this respect being greatly helped by interstate conferences of directors of education and of inspectors and teachers as well as by the Council alluded to in par. 4 hereunder. At the Eleventh Biennial Conference of Directors of Education held in Brisbane in April, 1936, a comprehensive agenda was discussed, including matters affecting teachers generally, special schools, extra-curricular activities, primary education, vocational guidance and unemployment, radio and visual education, school libraries, school medical services, and the raising of the school age.

3. School Age.—The statutory school age for children in each State, set out briefly, is as follows:—New South Wales, 7 to 14 years; Victoria, 6 to 14 years; Queensland, 7 to 14 years; South Australia, 6 to 14 years; Western Australia, 6 to 14 years; and Tasmania, 7 to 14 years.

It is provided in some States that in cases where any child is living outside stated distances from a State school, the age at which the child must commence school is increased. Provision is also made that a scholar having attained a certain standard may leave school before reaching the statutory leaving age.

At the 1936 Conference of Directors of Education a resolution was passed urging the necessity of raising the compulsory school leaving age to 15 years. This resolution was subsequently submitted to a conference in Sydney of Ministers of Education who agreed to recommend to their respective Governments legislation to implement the proposal by the year 1940.

4. **Australian Council for Educational Research.**—This Council, which was constituted on 10th February, 1930, is financed by the Carnegie Corporation of New York which has undertaken to provide payments at the rate of £7,500 a year for a ten year period. The Council consists of nine members, of whom six are elected by State Institutes for Educational Research which have been established in each of the Australian States. One full meeting of the Federal body is held each year. The publications of the Council appear in the form of a Research Series published by the Melbourne University Press. Up to the end of 1938, 53 numbers had appeared. Since its inception the Council has granted 181 applications for assistance to persons who wish to carry out investigations, or have their works published. The Council also initiates investigations itself; at the present time for example it is conducting an inquiry into secondary education, is making a survey of the teaching profession in Australia, and is preparing the first number of an Australian Year Book of Education. Authorized expenditure on grants to the end of June, 1938, amounted to £15,262. In addition to organizing and supporting research, the Council acts as a centre for the collection and dissemination of information concerning Australian education. The Council was instrumental in arranging for the survey of Australian libraries conducted for the Carnegie Corporation during 1934 by Mr. Ralph Munn and Mr. E. R. Pitt. As a result of their report there are strong movements in several States aiming at the removal of the serious deficiencies revealed by the report in existing library services in Australia. In conjunction with the New Education Fellowship of England, the Council arranged an important educational conference in Australia in August and September, 1937, which had over 9,000 full members and attracted a great deal of public interest. The Council is recognized by the Institute of Intellectual Co-operation, Paris, as the National Centre for Educational Information in Australia. It also acts as the Australian representative of the Institute of International Education, New York. Articles on Australian Education are supplied by the Council each year for publication in the English Year Book of Education. The headquarters of the Council are situated at 145 Collins-street, Melbourne.

§ 2. State Schools.

1. **General.**—The State Schools, or, as they are sometimes termed, the "public" schools, of Australia comprise all schools directly under State control, in contradistinction to the so-called "private" schools, the bulk of which, though privately managed, nevertheless cater for all classes of the community. Separate information regarding Technical Education is given in § 6, but the junior technical schools are included hereunder. The returns include figures relating to correspondence schools as well as subsidized schools, but evening schools and continuation classes, where such are in existence, are not included, but are dealt with separately in par. 4 (iv) hereinafter.

2. **Returns for Year 1937.**—(i) *General.* The following table shows the number of State Schools, together with the teachers employed and the average enrolment and attendance in each State during the year 1937 :—

STATE SCHOOLS, 1937.

State or Territory.	Schools.	Teachers.	Enrolment.	Average Attendance.	Percentage of Attendance on Enrolment.
New South Wales (a) ..	3,372	12,697	350,054	307,157	87.7
Victoria (c)	2,742	8,588	227,711	182,518	80.2
Queensland	1,684	4,322	138,638	115,309	83.2
South Australia	1,075	3,284	78,508	72,729	92.6
Western Australia	850	2,390	58,530	54,255	92.7
Tasmania (c)	472	1,361	33,003	29,393	89.1
Northern Territory (b) ..	10	19	538	487	90.5
Australia	10,205	32,661	886,982	761,848	85.9

(a) Including Australian Capital Territory. (b) Year ended 30th June, 1938. (c) Excluding the number of junior technical schools as they are not separate establishments, being worked in conjunction with senior technical schools.

The most noticeable feature of the returns for State schools was the decline in the percentage of attendance on enrolment in Victoria from 88.9 per cent. in 1936 to 80.2 per cent. in 1937, owing to the epidemic of infantile paralysis.

Extraordinary epidemics apart, it would appear from the steadiness of the returns in recent years that the percentage of attendance on enrolment is approaching its maximum under present conditions in Australia. Recurring epidemics of contagious diseases, minor illnesses, bad weather and long distances are all serious factors limiting the full attendance of pupils at school.

The methods of calculating enrolment are not quite identical throughout the States, but the figures may be taken as representing the averages of the weekly enrolment of individual pupils. In Queensland, however, the average of the four quarterly gross enrolments is the only figure available, and consequently the percentage of attendance is not comparable with those of the other States. The actual attendance in Queensland is in all probability just as high as in the other States, for in a calculation based on comparable mean quarterly enrolments in 1937 the percentage of attendance was slightly higher in Queensland than in New South Wales. The matter of securing uniformity in this respect has been under consideration for some time, and the Council for Educational Research, alluded to in § 1, 4 *ante*, is devoting attention to the question of securing greater uniformity in methods of collection and presentation of educational data generally.

(ii) *Schools in the Australian Capital Area.*—(a) *General.* During the year 1937 fourteen State Schools were in operation in the Australian Capital Territory. The individual pupils enrolled numbered 1,643 and the average attendance 1,361. Cost of upkeep amounted to £18,885. By arrangement with the Commonwealth Government these schools are conducted by the New South Wales Education Department in the same way as the ordinary State Schools, the Department being recouped for expenditure. Ample provision has been made for both primary and secondary education, and this will be increased to meet requirements. The figures quoted, other than expenditure, do not include enrolment, etc., at the Trade School and the Evening Continuation School.

(b) *The Canberra University College* (see § 5 *hereinafter*).

3. *Average Attendance.*—The average attendance at the State Schools in Australia is shown below for the year 1891 and at varying intervals to 1937 :—

STATE SCHOOLS : AVERAGE ATTENDANCE, AUSTRALIA.

Year.	Total Population. (a)	Average Attendance.	Year.	Total Population. (a)	Average Attendance.
1891	3,421	350,773	1933	6,657	805,334
1901	3,825	450,246	1934	6,706	792,892
1911	4,574	463,799	1935	6,753	790,186
1921	5,511	666,498	1936	6,807	792,148
1931	6,553	817,262	1937 .. ..	..	761,848

(a) At 31st December, in thousands.

It is possible, for Census years, to relate with reasonable accuracy the average attendance of scholars at State Schools to the number of children who are approximately of school age. For this purpose the ages 5 to 15 years, both included, have been taken and the average attendance per thousand children was :—1891, 455; 1901, 464; 1911, 477; 1921, 544; and 1933, 585. Although other factors might have affected the results in a minor degree it would appear that considerable improvement has taken place in school attendance during the last twenty years.

4. *Distribution of Educational Facilities.*—(i) *In Sparsely-settled Districts.*—(a) *General.* The methods adopted in the various States to carry the benefits of education into the remotest and most sparsely-settled areas are set out in some detail in previous issues of the Official Year Book (see No. 22, pp. 430-31). (b) *Correspondence Teaching.* Teaching by correspondence has been adopted to meet the needs of children out of reach of the ordinary means of education, including those incapacitated from attending school by reason of physical ailment. Approximately 18,467 children received instruction in

this way during 1937, the respective numbers in each State being: New South Wales, 7,517; Victoria, 1,087; Queensland, 5,829; South Australia, 1,759; Western Australia, 1,887; Tasmania, 358. In the Northern Territory, 30 children received tuition by correspondence during the year.

(ii) *Centralization of Schools.* The question of centralization of schools adopted so successfully in America and Canada has received some attention in Australia, and particularly in New South Wales. It is recognized that a single adequately staffed and well equipped central institution can give more efficient teaching than a congeries of small scattered schools in the hands of less highly trained teachers, and the small schools in some districts were therefore closed and the children conveyed to the central institution. The principle was first adopted in New South Wales in 1904, and in 1937 a sum of £21,665 was expended in boarding allowance and conveyance to central schools. Cost of conveyance to State Schools in Victoria during 1937-38 was returned as £11,917. In South Australia the sum of £4,844 was disbursed in connexion with travelling expenses of school children in 1937, while £15,127 was spent in Western Australia during 1936-37, and £10,517 in Tasmania in 1937. (It may be pointed out, however, that the parents are often reluctant to part with the small schools which form as it were, "heart centres" in their little community, while the kindly help of the teachers is a great asset in the social and intellectual life of the districts served by the schools.)

(iii) *Education of Backward and Defective Children.* This subject was alluded to at some length in preceding issues of the Official Year Book (see No. 22, pp. 431-2).

(iv) *Evening Schools.* Evening Continuation Schools have been in existence for many years in some of the States, but their progress has been uncertain. The aim of these schools is to provide a means of furthering the education of those who have left school at the termination of the primary course. Practical and cultural subjects are combined in the curriculum to be of assistance to those attending in their occupations and their civic life. In New South Wales the 36 Evening Continuation Schools had an average weekly enrolment in 1937 of 3,780 and an average attendance of 2,885. The schools are divided into three groups, junior technical, domestic science, and commercial. Attendances at the schools for boys numbered 2,227, and at those for girls 658. Unemployed pupils receive free tuition, and all fees are refunded to others with a satisfactory record of attendance. In Western Australia evening continuation classes were held at 23 centres in 1930, with an average enrolment of 2,777 pupils, but the classes were discontinued at the end of that year and preparatory technical classes were substituted wherever there was a technical school in operation.

(v) *Higher State Schools.* In all the States higher schools have been established which provide advanced courses of instruction for pupils who have completed the primary grades. Reference to the development of these schools will be found in preceding Official Year Books (see No. 22, pp. 433-4).

(vi) *Agricultural Training in State Schools.* Extended reference to the methods adopted in the teaching of agriculture in State Schools was incorporated in preceding Official Year Books (see No. 22, pp. 434-7).

5. Teachers.—The number of teachers in the State Schools during 1937 is shown in the following table. The figures are inclusive of students in training and teachers of subsidized schools :—

STATE SCHOOLS : TEACHING STAFF, 1937.

State or Territory.	Males.	Females.	Total.
New South Wales	6,154	6,543	12,697
Victoria	3,890	4,698	8,588
Queensland	2,331	1,991	4,322
South Australia	1,486	1,798	3,284
Western Australia	899	1,491	2,390
Tasmania	405	956	1,361
Northern Territory	6	13	19
	15,171	17,490	32,661

6. *Training Colleges.*—The development of the training systems of the various States was referred to at some length in earlier issues of the Year Book (see No. 22, pp. 437-9).

7. *Expenditure.*—(i) *Maintenance—All Schools.* The net expenditure on maintenance in all grades of schools, excepting senior technical schools and in Victoria and Tasmania junior technical schools, and the cost per head of average attendance for the five years ended 1937 are shown in the following table. The figures do not include expenditure on buildings, which is given separately in a subsequent table. In the case of Queensland allowance has been made in calculating cost per head of average attendance for the number of State scholarship holders attending non-State schools. In all expenditure tables the figures for Victoria and Western Australia relate to the financial year ending six months later than the stated calendar year.

STATE SCHOOLS : EXPENDITURE ON MAINTENANCE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
TOTAL (INCLUDING SECONDARY SCHOOLS).								
	£	£	£	£	£	£	£	£
1933	3,267,223	2,098,686	1,296,206	703,722	543,517	203,860	4,303	8,117,517
1934	3,312,614	2,163,111	1,312,758	666,593	575,340	215,105	3,897	8,249,418
1935	3,523,552	2,335,096	1,235,724	721,275	625,847	250,759	5,594	8,697,847
1936	3,642,321	2,528,177	1,261,461	761,847	674,083	268,579	5,763	9,142,231
1937	3,994,646	2,602,114	1,337,120	786,942	695,584	298,246	6,307	9,720,959

PER HEAD OF AVERAGE ATTENDANCE.

	£	s.	d.																					
1933	10	6	6	9	19	5	11	10	10	9	1	9	9	19	2	6	15	1	13	12	4	10	2	10
1934	10	13	9	10	11	9	11	11	8	8	14	7	10	15	1	7	6	9	14	5	6	10	9	8
1935	11	6	8	11	10	9	10	18	2	9	12	1	11	18	2	8	12	0	18	2	1	11	2	0
1936	11	14	8	12	12	1	10	13	4	10	6	4	12	14	6	9	4	3	13	3	5	11	12	10
1937	13	0	1	14	16	6	11	11	11	10	16	5	12	16	5	10	6	2	12	19	0	12	17	9

The expenditure on State schools which had been on a rising scale for some years in all States reached its maximum of £10,087,570 in 1929. The economic depression was responsible for heavy reductions in subsequent years, but the expenditure is again expanding.

(ii) *Maintenance—Secondary Schools.* The figures given in the preceding table refer to expenditure on maintenance of all State primary and secondary schools, exclusive of technical colleges. It has been thought desirable by the State Education Departments to give separate information in regard to the cost of secondary education. The difficulty of making any satisfactory allocation of the kind, however, will be understood when it is realized that both elementary and higher education are in some instances given in the same school and by the same teacher. Unfortunately, too, the term "secondary" does not indicate the same thing in all States. It might be mentioned here that similar difficulties arise in connexion with the apportionment amongst the various branches of expenditure on administration, inspection and the training of teachers. The figures quoted in regard to cost hereunder have been extracted from the Reports of the State Education Departments, and are subject to the qualifications enumerated above.

STATE SECONDARY SCHOOLS: EXPENDITURE ON MAINTENANCE, 1937.

State.	Cost.	
	£	s. d.
New South Wales	694,233	5 2
Victoria	418,250	4 6
Queensland	144,445	2 11
South Australia	116,598	3 11
Western Australia	(a) 141,430	6 2
Tasmania	35,380	3 0

(a) Year 1936-37.

The figures in all cases are exclusive of cost of buildings. In the case of Victoria the total includes the expenditure on "intermediate" education amounting (excluding administration costs) to £108,523. For Queensland, the figure quoted does not include the cost of the Agricultural High School and College, which amounted in 1937 to £22,904. For Western Australia the total includes £84,730 on account of "post primary" education.

(iii) *Buildings.* Expenditure on school buildings exclusive of Technical Colleges in each of the years quoted was as follows:—

STATE SCHOOLS: EXPENDITURE ON BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£.	£	£	£	£	£	£	£
1933	360,194	94,850	213,181	52,697	52,955	9,926	156	783,959
1934	300,999	104,591	285,358	44,120	66,515	24,973	54	826,610
1935	406,662	132,744	347,735	60,656	102,634	53,589	897	1,104,917
1936	377,403	167,428	211,169	69,627	56,191	60,810	726	943,354
1937	467,920	163,532	325,865	76,775	71,344	62,117	786	1,168,339

The totals for the various States in 1937 include the following amounts expended from loan and unemployment relief funds:—New South Wales, £209,194; Victoria, £73,233; Queensland, £229,283; South Australia, £44,218; Western Australia, £52,354; and Tasmania, £49,533.

(iv) *Total.* The net total cost during the year 1937 was as follows:—

STATE SCHOOLS: NET TOTAL COST, 1937.

Item.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
Net cost of education, including buildings ..	4,462,566	2,765,646	1,662,985	863,717	766,928	360,363	7,093	10,889,298

The figures in this and the preceding tables refer to all grades of State schools (with the exception of senior technical schools and in Victoria and Tasmania junior technical schools). Including buildings, the net cost per scholar in average attendance for the whole of the State schools in Australia amounted in 1937 to £14 8s. 8d., as compared with £4 9s. 3d. in 1901.

3. **School Banking.**—With the object of inculcating principles of thrift amongst the children, agencies of the Savings Banks have been established at many of the schools throughout the Commonwealth. Particulars for each State at 30th June, 1938, were as follows:—

SCHOOL SAVINGS BANKS AT 30th JUNE, 1938.

State.	Agencies.	Depositors.	Amount on Deposit.	Average for Depositor.	
				No.	£
New South Wales	2,803	183,256	291,946	£	s. d.
Victoria ^(a)	2,767	198,349	288,866	1	9 2
Queensland	1,469	68,391	167,601	2	9 0
South Australia	1,184	81,802	148,026	1	16 2
Western Australia	777	38,860	89,080	2	5 10
Tasmania ^(a)	505	31,181	48,003	1	10 9
Northern Territory	5	261	526	2	0 4
Total	9,510	602,100	1,034,048	1	14 4

(a) Including inoperative accounts.

§ 3. Private Schools.*

1. **Returns for 1937.**—The following table shows the number of private schools, together with the teachers engaged therein, and the enrolment and average attendance in 1937:—

PRIVATE SCHOOLS, 1937.

State or Territory.	Schools.	Teachers.	Enrolment.	Average Attendance.
New South Wales	750	4,995	94,200	84,734
Victoria	520	2,492	73,099	65,753
Queensland	224	1,523	33,867	29,074
South Australia	171	903	13,824	12,522
Western Australia	151	624	14,078	12,827
Tasmania	62	320	6,582	5,047
Northern Territory (a)	2	9	165	144
Total	1,880	10,866	235,815	210,101

(a) Year ended 30th June following.

The figures for Queensland include the returns from Grammar schools, of which there are eight—five for boys and three for girls, with an enrolment of 1,080 boys and 541 girls. These schools are governed by boards of trustees, partly nominated by the Government, and partly by the subscribers to the funds. The trustees make regulations regarding the fees of scholars, the salaries of teachers, and generally for the management of the schools. The Government endowment received in 1937 amounted to £11,600. In addition, a sum of £11,672 was received by way of fees for the tuition of State scholarship holders. The Grammar schools are inspected annually by officers of the Department of Public Instruction.

* Private schools include all schools not wholly under State control. The term "private," though popularly applied, is, of course, a misnomer.

2. Growth of Private Schools.—The enrolment and average attendance at private schools in 1891 and at varying intervals to 1937 were as follows:—

PRIVATE SCHOOLS: ENROLMENT AND ATTENDANCE.

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891	124,485	99,588	1933	222,625	189,984
1901	148,659	120,742	1934	223,538	190,927
1911	160,794	132,588	1935	229,525	200,539
1921	198,688	164,073	1936	234,278	206,026
1931	221,387	189,665	1937	235,815	210,101

3. Registration of Private Schools.—Conditions in regard to the registration of private schools were alluded to in previous Year Books (*vide* No. 18, p. 451).

§ 4. Free Kindergartens.

The following information regarding Free Kindergartens has been compiled from particulars supplied by the principals of the chief institutions or the organizing secretary in each State, except in the case of Western Australia where the details were furnished by the Education Department:—

FREE KINDERGARTENS, 1938.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistants.
New South Wales ..	16	794	44	83	40
Victoria	30	1,386	82	58	255
Queensland	6	203	10	22	3
South Australia ..	10	365	16	20	40
Western Australia ..	8	365	19	11	(a) 20
Tasmania	2	89	5	1	2
Total	72	3,202	176	195	360

(a) Estimated.

The kindergartens in the above table are all in the metropolitan areas of the various States, with the exception of three country centres, two at Geelong and one at Ballarat, which are included in the Victorian returns. The average attendance at these country schools in 1938 was 141 children. In each capital city there is a training college and the number of students in training during 1938 was 83 in Sydney, 58 in Melbourne, 22 in Brisbane, 85 in Adelaide, 11 in Perth, and 1 in Hobart.

The information given above refers to institutions under private kindergarten unions or associations, and is exclusive of the kindergarten branches in the Government schools of the various States.

§ 5. Universities.

1. **Origin and Development.**—A brief account of the origin and development of the Universities in the various States is given in preceding issues of the Official Year Book (see No. 22, pp. 442–3).

2. **Teachers and Students.**—The following table shows the number of professors and lecturers, and the students in attendance at each of the State Universities during the year 1937 :—

UNIVERSITIES : TEACHERS AND STUDENTS, 1937.

University.	Professors.	Lecturers and Demonstrators.	Students attending Lectures.		
			Matriculated.	Non-matriculated.	Total.
Sydney	50	204	2,975	403	3,378
Melbourne	36	226	(a)	(a)	(b) 3,325
Queensland (Brisbane)	21	99	1,015	211	1,226
Adelaide	18	118	1,201	912	(c) 2,113
Western Australia (Perth)	19	40	786	..	786
Tasmania (Hobart)	8	25	199	71	270

(a) Not available. (b) Exclusive of 234 students at Conservatorium of Music. (c) Exclusive of 235 students at Conservatorium of Music.

The Conservatorium in Sydney, while attached to the Education Department, is not under the control of the University.

3. **University Revenue.**—The revenue of the Universities is derived principally from Government aid, the fees of students, and income from private foundations. The receipts from all sources other than new bequests during the year 1937 are set out in the table below. With the exception of New South Wales, receipts from public examinations are included as University revenue under lecture and examination fees. In South Australia Government grants and income from private foundations include amounts in respect of the Waite Agricultural Research Institute. The returns for Western Australia are exclusive of the private foundations account as these figures are not made available by the University authorities.

UNIVERSITIES : REVENUE, 1937.

University.	Government Grants.	Lecture and Examination Fees.	Income from Private Foundations.	Other.	Total.
	£	£	£	£	£
Sydney	69,738	84,915	63,493	3,028	221,174
Melbourne	64,200	105,597	30,722	24,368	224,887
Queensland (Brisbane)	36,473	29,647	23,687	2,397	92,204
Adelaide	65,266	31,216	29,118	10,557	136,157
Western Australia (Perth) (a)	37,500	1,408	1,788	5,004	45,700
Tasmania (Hobart)	14,740	4,762	1,232	3,100	23,834
Total	287,917	257,545	150,040	48,454	743,956

(a) Excludes revenue on account of bequests, endowments, etc., not taken into general account.

The figures in the above table do not include the value of new foundations received during the year which amounted to £5,125 in New South Wales, £68,568 in Victoria, £25,216 in Queensland, £31,375 in South Australia, £750 in Western Australia, and £800 in Tasmania.

In preceding issues of the Official Year Book information was given in some detail in regard to the extent to which the Universities have benefited from private munificence. Space will permit of reference to the more important benefactions only herein.

The endowments to the Sydney University include the Challis Fund, £374,688; the G. H. Bosch Fund, £257,962; the P. N. Russell Fund, £100,386; and the Fisher Estate, £42,563. In addition, the University receives a large annual revenue from the trustees of the McCaughey bequest. Excluding the principal of the latter, the credit balances of the private foundations amounted to £1,160,799 on the 31st December, 1937. In 1930 a sum of £100,000 was received from the Rockefeller Foundation in aid of the building and equipment of a clinical laboratory for the medical school.

Mr. Sidney Myer's gifts to the Melbourne University amounted to £60,000, while Sir Samuel Gillott, Mr. Edward Wilson (Argus Trust), and Sir Samuel Wilson contributed £41,000, £34,000, and £30,000 respectively. £40,000 was received from the estate of the late Miss Helen Mackie for the establishment of pre-clinical chairs while Mr. R. B. Ritchie's gifts for the endowment of a Chair of Economics amounted to £30,000, and a similar sum was received from the Supreme Court Library Fund for the endowment of a Chair of Public Law. Dr. James Stewart founded Scholarships in Anatomy, Medicine and Surgery to the value of £26,000. The Hon. Francis Ormond contributed £20,000 to the University as well as benefactions to Ormond College amounting to considerably over £100,000 and the late Dr. F. Haley left £20,000 for medical research.

Queensland University, to the 28th February, 1939, had received £182,738 from the McCaughey estate, and £34,321 from the Walter and Eliza Hall Trust, while the Hon. T. C. Beirne gave £20,000 in 1935 for the endowment of a chair of Law in Queensland. The permanent site for the University and other land valued at £62,000 were presented by Dr. and Miss Mayne. The chief benefactors to the Adelaide University were Sir Thomas Elder, £100,000; Sir Langdon Bonython, £71,000; Miss M. T. Murray, £45,000; Mr. T. E. Barr Smith, £35,000; Mrs. Jane Marks, £30,000; Edward Neale, £27,000; Mrs. R. F. Mortlock and J. T. Mortlock, £25,000; Family of John Darling, £25,000; R. B. Smith and family, £21,000; and Sir William Mitchell, £20,000. Several valuable properties, in addition to shares which realized £58,450, were also bequeathed to this University by Mr. Peter Waite, the total value of the bequest being estimated at £100,000. Under the will of Sir Winthrop Hackett the University of Western Australia received £425,000, while the late Robert Gledden bequeathed an estate valued at £60,000.

4. University Expenditure.—The principal item of University disbursements consists of salaries. In the following table is given the expenditure incurred during 1937, excluding capital expenditure on buildings :—

UNIVERSITIES : EXPENDITURE, 1937.

University.	Salaries.	Scholarships and Bursaries.	Buildings and Grounds. (c)	Maintenance, Equipment, &c.(d)	Total.
	£	£	£	£	£
Sydney	178,534	7,625	7,600	38,186	231,945
Melbourne	153,145	7,875	10,528	55,261	226,809
Queensland (Brisbane)	54,921	1,403	464	33,214	90,002
Adelaide	(b) 75,367	1,192	3,055	(b) 55,904	135,518
Western Australia (Perth) (a)	32,193	..	3,037	13,655	48,885
Tasmania (Hobart)	15,070	974	939	5,065	22,048
Total	509,230	19,069	25,623	201,285	755,207

(a) Excludes expenditure on account of bequests, endowments, &c., not taken into General Account. (b) Includes salaries, £18,055 and maintenance and equipment, £14,011, in respect of the Waite Agricultural Research Institute. (c) Excluding capital expenditure on new buildings. (d) Including expenses of public examinations for all States other than New South Wales.

Capital expenditure on new buildings during 1937 amounted to £280,986 distributed as follows:—New South Wales, £143,430; Victoria, £67,080; Queensland, £26,673; South Australia, £23,059; and Western Australia, £20,744.

5. **University Extension.**—Some account of the initiation and progress of university extension is given in preceding Official Year Books (see No. 22, p. 446).

6. **The Canberra University College.**—The question of the establishment of a University at the Australian Capital is still under consideration, and in the meantime a University College has been established under the Canberra University College Ordinance 1929–1936. By virtue of a temporary regulation of the University of Melbourne, which expires on the 31st December, 1940, the College is empowered to provide approved lectures in the subjects of the Arts, Science, Commerce and Law courses in preparation for certain degrees and diplomas of that University. Lectures commenced in 1930 with the aid of several part-time lecturers, and 30 students were enrolled during the year. The curriculum has since been extended and three full-time and fourteen part-time lecturers have been appointed. In 1938 and 1939 the students numbered 151 and 140 respectively. The examinations are conducted by the University of Melbourne.

7. **The New England University College.**—New England University College is a branch of the University of Sydney. It is situated at Armidale, on the Northern Tablelands of New South Wales. The present main University Building (serving both as a residential College and for lecture rooms and library) stands in 183 acres of land and was given to the University of Sydney by Thomas Richmond Forster, Esq., in 1937. The Government of New South Wales bore the expense of converting it to its present use. Under the direction of the University of Sydney lectures began at the College on 14th March, 1938, in the Faculty of Arts, and on 13th March, 1939 in the Faculty of Science. Students wishing to proceed to degrees in Economics, Medicine, Veterinary Science and Agriculture may take the earlier courses at the College. In 1939 there were 13 lecturers, including one part-time, 63 students were taking courses leading to degrees and 22 students attended Extension Board Courses.

8. **'Workers' Educational Association.**—In 1913 Workers' Educational Associations were formed in all the States of Australia, and later in New Zealand. The movement has for its object the bringing of the University into closer relationship with the masses of the people, and thereby providing for the higher education of the workers in civic and cultural subjects. There are now direct grants from all State Governments except Western Australia. The particulars of grants for classes in 1938 were as follows:—New South Wales, £4,650, 68 classes and 9 study circles; Victoria, £3,120, 28 tutorial classes, 17 study circles and extension work; Tasmania, £691, 13 classes; South Australia, £2,250, 10 tutorial classes, 12 lecture classes, 10 study circles and extension lectures at country centres; Queensland, £1,650, 15 classes. In addition, the New South Wales Association receives a Government grant for general organizing purposes of £750, and the Queensland and South Australian Associations received grants of £850 and £240 respectively. The Carnegie Corporation has in recent years shown its interest in the work by allotting substantial grants to the Associations and to the Universities. The principal subjects chosen in all States are Industrial History, Economics, Political Science and Sociology, but there is an increasing number of classes in other subjects such as History, Psychology, Philosophy, Literature, Music, Physiology and Biology. Each University co-operates with the W.E.A. in the formation of a joint committee for tutorial classes, which supervises the work with the assistance of a University officer with the title of Director of Tutorial Classes. In addition to the longer University tutorial classes, many preparatory classes, study circles, and summer schools are organized by the Association, numerous courses of public lectures are delivered, educational conferences promoted, and an extensive book service is spreading educational literature throughout Australia.

§ 6. Technical Education.

1. **General.**—Although provision has been made in all of the States for many forms of technical education, the total provision made would imply that this branch of education has not been regarded as of outstanding importance. As will be seen later the expenditure on technical education for the whole of Australia is comparatively small. In preceding issues of the Official Year Book an outline was given of the origin and development of technical education in each State (see No. 22, pp. 447-51), but considerations of space preclude the inclusion of more up-to-date information in later volumes.

2. **Returns for Year 1937.**—Returns for the year 1937 in regard to enrolments and attendances, etc., in each State are given in the table hereunder :—

TECHNICAL EDUCATION : ENROLMENTS, ETC., 1937.

State.	Teachers.	Net Enrolments.	Fees Received.
			£
New South Wales	848	26,188	48,692
Victoria (a)	1,085	33,084	79,484
Queensland	486	15,652	15,380
South Australia	262	15,472	14,413
Western Australia	156	10,318	2,829
Tasmania (a)	123	1,782	1,977
Total	2,960	102,496	162,775

(a) Includes junior enrolments, viz., 8,954 in Victoria and 554 in Tasmania, as teaching staff and expenditure cover both senior and junior sections.

Figures for earlier years will be found in preceding volumes. Owing to the considerable differences in scope and methods in the States, and in the presentation of the returns in connexion therewith, effective comparison of the results is somewhat difficult. The practice which has been in operation for several years of permitting students unable to pay fees to defer payment was continued during 1937. As a result of improved conditions the number applying for this concession is steadily diminishing. In Victoria, school councils are empowered to grant, up to 10 per cent. of the number of fee-paying students, free admission to classes to qualified unemployed applicants whose parents are unable to afford the necessary fees. Towards the end of the year 1931 the Education Department in Queensland, in conjunction with the Department of Labour and Industry, established a series of free classes in various centres for unemployed young men and women, and these classes were continued in 1937.

3. **Expenditure on Technical Education.**—The expenditure on technical education in each State for the year 1937 is shown below :—

TECHNICAL EDUCATION : EXPENDITURE, 1937.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1936 { (a)	272,963	350,792	78,856	63,003	24,208	26,814	816,636
(b)	199,022	82,990	11,129	4,726	599	2,962	301,428

(a) Maintenance.

(b) Buildings.

In addition to the amount shown above for Victoria, fees collected in that State totalling £79,484 were retained and spent by the Technical School Councils. Similar receipts in the other States were paid into Consolidated Revenue, and should be deducted from the above figures to obtain the respective net expenditures.

The expenditure on maintenance for technical education in 1937 amounted to 2s. 5d. per head of the population of Australia, as compared with 28s. 5d. per head expended in maintenance for primary and secondary education.

§ 7. Business Colleges and Shorthand Schools.

There has been a considerable development in recent years both in the number and scope of privately conducted institutions which aim at giving instruction in business methods, shorthand, typewriting, the use of calculating machines, etc. Particulars for all States, so far as they are available, are given in the following table. Owing to the varying methods employed in the States it is not possible to give any comparative figures of enrolment :—

BUSINESS COLLEGES, SHORTHAND SCHOOLS, ETC., 1937.

State.	Schools.	Teachers.	Average Attendance of Students.	
			Males.	Females.
New South Wales	48	304	1,950	4,216
Victoria	13	144	2,471	2,778
Queensland	14	52	174	642
South Australia	15	69	(a) 1,535	(a) 1,655
Western Australia	13	70	(b) 4,243	(b) 1,066
Tasmania	4	24	115	294
Total	107	663	10,488	10,651

(a) Individual students enrolled.

(b) Average weekly enrolment.

In addition to those shown above for South Australia there were 3,220 males and 51 females receiving instruction from interstate schools by correspondence. Particulars regarding fees received in 1937 are available for Western Australia and Tasmania only, the respective figures being £37,397 and £5,775.

§ 8. Miscellaneous.

1. *Scientific Societies.*—(i) *Royal Societies.* In previous issues of the Official Year Book an outline was given of the origin and progress of the Royal Society in each State (see No. 22, pp. 454-5). The accompanying table contains the latest available statistical information regarding these institutions, which in every case have their head-quarters in the capital cities.

ROYAL SOCIETIES : PARTICULARS, 1938.(a)

Heading.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
Year of origin	1,866	1,854	1,884	1,853	1,913	1,843
Number of members	273	203	204	145	172	244
Vols. of transactions issued	71	79	49	62	24	72
Number of books in library	36,500	18,000	7,000	8,000	4,850	19,267
Societies on exchange list .. .	361	347	210	270	169	274
Income £	1,242	789	158	545	287	275
Expenditure £	898	746	195	742	349	260

(a) The Royal Society of Australia, with head-quarters at Canberra, was founded on the 25th July 1930, and received permission to use its title on the 14th January, 1931. The members, including associates, numbered 87 in 1938. Income and expenditure for the year amounted to £19 and £24 respectively.

(ii) *The Australian and New Zealand Association for the Advancement of Science.* This Association was founded in 1887. Its head-quarters are at Science House, Gloucester-street, Sydney, and meetings are usually held biennially within the various States and in the Dominion of New Zealand. The next meeting will be held at Adelaide in August, 1940. The library of the Association contains 4,000 volumes, and is now housed by the Council for Scientific and Industrial Research.

(iii) *Other Scientific Societies.* The Linnean Society of New South Wales, with head-quarters in Sydney, was founded in 1874. The soundness of its present position is due to the benefactions of Sir William Macleay, who during his lifetime and by his will endowed the Society to the amount of £67,000, which has been increased by judicious investment to over £80,000. The Society maintains a research bacteriologist and offers annually 4 research fellowships in various branches of natural history. Four fellowships were awarded in 1938. The library comprises some 14,000 volumes, valued at about £7,000. Sixty-three volumes of proceedings have been issued, and the Society exchanges with some 234 kindred institutions. The ordinary membership at the end of 1938 was 186.

The British Astronomical Society has a branch in Sydney, and in each of the States the British Medical Association has a branch.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation.

2. *Libraries.*—(i) *Commonwealth*—(a) *Parliamentary and National Library.* When the Commonwealth Parliamentary Library was created in 1902, it was recognized that at such time as the Australian Capital was established it would be necessary to have available there, for the use of Members, Government Departments and the public, a library sufficient for their requirements, and therefore wider in scope than would be the case with a purely Parliamentary Library. The ideal of a great general library was kept in view, and standard works were systematically acquired. At the same time, the first Library Committee conceived the idea of a National Library for the use and benefit of the people of Australia. The policy was therefore pursued of securing, as far as possible, all works and documents connected with the discovery, settlement and early history of Australia, New Zealand and the Pacific Islands.

In 1909 a valuable collection of *Australiana*, comprising about 10,000 volumes and 6,500 pamphlets, maps, documents and pictures—the library of Mr. E. A. Petherick—was acquired. In 1912 a provision was included in the Commonwealth Copyright Act requiring the publisher of every book, pamphlet, etc., printed in Australia to supply a copy free to the library. In the same year the publication of the *Historical Records of Australia* was begun, and 34 volumes were issued before publication was temporarily suspended in 1926.

The rapid development of the Australian and National sections of the Library persuaded the Library Committee in 1923 that the title "Commonwealth National Library" should be given to those sections, and that at Canberra a division of the Parliamentary and National collections should be effected, the former to be housed in Parliament House, the latter in a separate building to which the public would be given free access. The erection of the first wing of the permanent National Library building has been completed, and it is designed to meet the requirements of University students and the general public, to whom the privileges of the Library have been extended in respect to borrowing as well as reference. The design for the complete building makes ample provision for the housing of special collections and for the proper display of the valuable records of Australian history which the Library possesses. In 1935 a further development in the scope of the National Library was the establishment of an Historical Film and Speaking Record Section. This is being developed in co-operation with the Department of Commerce and is controlled by a Committee consisting of the Librarian, the Officer-in-Charge of the Cinema and Photographic Branch of the Department of Commerce, and a representative of the Film Industry—Mr. H. Gratton Guinness.

The work of the National Library was also extended in 1936 as the result of a grant of \$7,500 in three annual instalments of \$2,500 from the Carnegie Corporation of New York for the establishment of library and reading facilities to outlying Commonwealth

Territories. Collections of books are regularly sent to the Northern Territory, Papua, New Guinea, Central Australia, Norfolk Island and Nauru. After remaining for a period in one Territory they are sent on to another and are then finally distributed among the Territories for permanent retention so as to help build up a Central Library for each Territory.

The number of volumes in the National and Parliamentary collections—both of which are under the same administration—was, at the end of June, 1938, 138,760 books and 8,850 pamphlets, the outstanding feature of the National collection being a unique collection of Captain Cook manuscripts, while the Parliamentary section contains an extensive series of official publications of Great Britain, the Dominions, and Foreign countries. The following publications are issued by the Library: Historical Records of Australia—34 volumes, 12s. 6d. per volume; Parliamentary Handbook and record of elections—nine issues, 10s. 6d. per volume; Annual catalogue of Australian publications—three issues, 2s. per volume; Select list of representative works dealing with Australia (reprinted from the Official Year Book of the Commonwealth)—five issues.

(b) *Patent Office Library.* The free library attached to the Commonwealth Patent Office, Canberra, contains over 52,000 volumes. Patent specifications are received from the principal countries of the world, together with official publications dealing with Patents and Trade Marks. A wide range of technical literature and periodicals is available.

(ii) *States.* In each of the capital cities there is a well-equipped Public Library, the institutions in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere. The following statement gives the number of volumes in the Public Library of each capital city at the 30th June, 1938:—

METROPOLITAN PUBLIC LIBRARIES, 1937-38.

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Canberra (a)	128,760	10,000	(b)	138,760
Sydney	(c) 415,857	(d)	86,625	502,482
Melbourne (e)	441,104	79,589	16,201	536,894
Brisbane	40,464	..	..	40,464
Adelaide	183,996	(f)	(g) 7,530	191,526
Perth	151,604	..	(h) 26,681	178,285
Hobart (e)	36,096	(i) 8,712	..	44,808

(a) Includes Parliamentary section. (b) Books are loaned to libraries or students throughout Australia whenever necessary for research work. (c) Including 144,087 volumes in the Mitchell Library. (d) The maintenance and control of the ordinary lending branch of the Public Library at Sydney were transferred in 1908 to the Municipal Council. At 31st December, 1937, the books numbered 48,824. (e) Year ended 31st December, 1937. (f) The Adelaide Circulating Library at 30th June, 1938, contained 88,000 books. (g) Including 4,012 volumes in Children's Branch. (h) Includes 6,792 volumes in the School Children's Travelling Branch. (i) Includes 2,077 volumes in the Children's Branch.

In connexion with the Country Lending Branch of the Sydney Public Library, it may be noted that books are forwarded on loan to State schools, to approved associations, to Schools of Arts and to individual students. During the year 1937-38, about 84,000 books were lent to small State schools, 16,747 to Schools of Arts, 7,249 to branches of the Teachers' Federation and 1,949 to Agricultural Bureaux, while 60,115 reference works were loaned to individual country students.

A special research staff attached to the Public Library gives valuable assistance in making readily available to inquirers the store of information contained in books, etc., which, owing to limitations of space, are not in open access. Approximately 11,212 books and periodicals were added to the library in 1937-38.

The Mitchell Library in Sydney of more than 60,000 volumes and pamphlets, and 300 paintings, principally relating to Australasia, and valued at £100,000, was bequeathed to the trustees of the Public Library in 1907 by Mr. D. S. Mitchell, together with an endowment of £70,000. The testators stipulated that the regulations of the British Museum were to be adopted as far as practicable, hence the library is the resort of specialists. There are now 144,000 volumes in the library in addition to valuable manuscripts, collections of Australian postage and fiscal stamps, and various pictures, coins, etc.

Amongst other important libraries in New South Wales may be mentioned the library at the Australian Museum, 28,948 volumes; the Teachers' College Library, 53,492; Sydney Technical College Library, 25,395; Public School Libraries, 553,531; the Library at the Railways' Institute, 124,704; and the Cooper Library of the New South Wales Public School Teachers' Federation and the library at the Botanic Gardens, each of 10,000 volumes. At the end of 1937 the Parliamentary Library contained 84,215 volumes.

The reading room at the Melbourne Public Library ranks among the finest in the world. It was opened in 1913, and has a diameter of 114 feet, with a similar height and is capable of seating 320 readers at a time, all of whom are under observation from the centre of the room. The Library forwards volumes on loan to Mechanics' Institutes and Free Libraries, and to individual borrowers in the country. Railway transport is used as far as possible in transporting the volumes. During the year 1937 the volumes added to the Reference branch by purchase, donation, etc., numbered 10,831, while additions to the lending branch numbered 6,064.

For some years past efforts have been made in South Australia to collect original documents likely to be of service in compiling a history of the State. So far back as 1914, Professor Henderson, of Adelaide University, under commission from the South Australian Government, visited and reported on the system of keeping archives in England, France, Belgium, Holland and Ceylon, and obtained valuable information also from the United States and Canada. A department of historical documents has been created under the care of an archivist, and valuable work has been done in connexion with examination, classification and permanent preservation of the valuable papers. A suitable building for housing the documents and the staff was provided in 1921. At the 30th June, 1938, the collection numbered 307,539 documents, 16,229 views and 1,372 maps.

For the year ended 30th June, 1938, accessions to the Public Library at Perth numbered 3,905 books including bound volumes of periodicals.

During 1922 the Tasmanian Public Library adopted the plan of lending books to individual country borrowers and to families or committees of residents in country districts. The Public Library at Launceston contains 40,000 volumes. Books added to the Public Libraries at Hobart and Launceston during the year 1937 numbered 423 and 300 respectively.

Statistics in regard to other libraries are not available for all States, while the information supplied is not in all cases complete. Returns for Victoria in 1937 showed a total of about 420 libraries in receipt of State or municipal aid, but apart from the Melbourne Public Library statistics are now only collected from 25 institutions in Greater Melbourne and 44 in the chief extra metropolitan towns. These libraries contained approximately 478,000 volumes. Queensland returned a total of 211 libraries, with 574,341 books, although during 1937-38 libraries other than the State Public Library did not receive Government aid. Although 273 suburban and country institutions were recorded in South Australia during 1937 statistics were collected from only 248 which returned 712,824 volumes, while in Tasmania 86,000 volumes were distributed between 27 libraries other than the Hobart and Launceston public institutions.

(iii) *University Libraries.* The libraries of the Australian universities perform two important functions in Australian life and development: they provide material not only for the education of graduates and undergraduates, but for scholars, research workers and practical investigators all over the continent, since no genuine student is refused access to them. Much of the material they contain is not available elsewhere, for although in most cases smaller, they are in many directions more highly specialized

than the public libraries, whose resources they are thus able to supplement. They lend to one another and to State and private institutions as well as to individual investigators, and they both lend to and borrow from the public and scientific libraries. Each of them is governed by a librarian, who is responsible as a rule to an executive sub-committee and a committee which is practically co-extensive with the professorial staff. In size the library of the University of Sydney is the third in Australia, and the libraries of the Universities of Adelaide and Melbourne are respectively seventh and eighth. The following table shows the sizes and rates of growth of the Australian university libraries; it is impossible to give borrowing statistics, as they differ too widely to be comparable without much explanation:—

UNIVERSITY LIBRARIES, 1938.

University.	Number of Volumes.	Yearly Accessions.	Number of Current Periodicals.
Sydney	246,000	7,850	3,168
Melbourne	107,300	4,276	1,320
Queensland	48,631	2,801	900
Adelaide	115,700	6,100	2,100
Western Australia	54,560	4,309	465
Tasmania	39,700	1,500	250

The first books were bought for the library of the University of Sydney as early as 1851; only since 1910, however, has it possessed a building of its own. It is named after its principal benefactor, Thomas Fisher, who bequeathed to it in 1885 the sum of £30,000. It contains an up-to-date bookstack of glass and steel, but the design of the otherwise fine reading room is such as to make it difficult to install a satisfactory system of shelving; the library is therefore conducted on the closed access system. Undergraduates, however, as well as graduates and members of the teaching staff, are encouraged to borrow freely. The library possesses a large number of periodicals, especially scientific, valuable collections of seventeenth century pamphlets and Elizabethan translations from the classics, and an extensive collection of Australian literature. Besides a medical branch, there are a number of departmental libraries.

Early in 1854 the Council of the University of Melbourne made its first allocation for books, but the library was housed in temporary and unsatisfactory quarters for a number of years, and consequently growth was slow and complaints frequent. In recent years the University authorities have treated the library generously, and there have been some welcome benefactions, but accommodation is insufficient and a new library building is one of the most pressing needs of the University. All the books are accessible on open shelves, and though the library is intended primarily for reference purposes, borrowing, except of text-books and certain valuable volumes, is made as easy as possible. There are branches in the science departments, and a separate medical library.

The Library of the University of Queensland began 26 years ago with £3,000 worth of books, £2,000 having been raised by public subscription and £1,000 granted by the Government. At present it shares a building with a science department. There are several departmental libraries.

The Adelaide University Library bears the name of its original benefactor, Robert Barr Smith, who, with members of his family in and after 1892, gave the University about £50,000 for library purposes. Some 20,000 volumes are shelved in the reading room, and available to the ordinary student. Up-to-date steel bookstacks provide accommodation for about 100,000 volumes, and additions now planned will be capable of housing a further 500,000. At present borrowing by students is restricted to honours and post-graduate research students. There are medical, law and departmental libraries.

In the University of Western Australia the first permanent library staff was not appointed until 1927. A special feature is the use made of student co-operation. The whole collection is accessible on open shelves, and there are several departmental libraries.

The Library of the University of Tasmania was founded in 1893, but for many years it comprised little more than a collection of text-books. In 1913 a substantial increase of funds was allotted and important gifts received. In 1919 it was organized for the first time in accordance with modern library practice. Its growth has been steady since 1925.

3. Public Museums and Art Galleries.—Previous issues of the Official Year Book contained a brief description of the public museums and art galleries in each State (see No. 22, pp. 457-9), but considerations of space preclude the incorporation of this matter in the present volume.

4. State Expenditure on Education, Science and Art.—The expenditure in each State on education, science and art during the year 1937-38 is given in the following table. Owing to the details not being available in all States the figures are exclusive of officers' pensions and interest and sinking fund on capital expended on buildings. The cost of the medical inspection of school children is also excluded, as this service is more appropriately classified under Public Health, etc. :-

STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART, 1937-38.

State	Expenditure from—				Receipts.	Net Expenditure.
	Revenue.	Loan.	Other Funds.	Total.		
	£	£	£	£	£	£
New South Wales	5,122,834	497,435	..	5,530,269	111,897	5,418,372
Victoria ..	3,094,110	137,138	14,278	3,245,526 ^a	63,464	3,182,062
Queensland ..	1,754,243	228,470	6195,102	2,177,815	24,230	2,153,585
South Australia ..	1,057,432	66,537	..	1,123,969	36,266	1,087,703
Western Australia	837,053	52,430	..	889,483	27,781	861,702
Tasmania ..	373,722	54,453	..	428,175	1,739	426,436
Total ..	12,239,394	946,463	209,380	13,395,237	265,377	13,129,860

(a) In addition fees in respect of technical education amounting to £79,484 were received and spent by the School Councils.

(b) From Unemployment Relief Tax Fund.

CHAPTER VII.

PUBLIC JUSTICE.

§ 1. Police.

1. *General*.—In early issues of the Year Book (see No. 4, p. 918) a résumé was given of the evolution of the police force in Australia up to the passing of the Police Act of 1862 (25 Vic. No. 16) in New South Wales.

2. *Strength of Police Force*.—(i) *General*. The strength of the police force in each State during the five years ended 1937 is given in the table hereunder. It may be mentioned that the police forces (with the exception of the small body of Commonwealth police maintained in the Northern Territory and at the Australian Capital) are entirely under State control, but, by arrangement, the Commonwealth Government utilizes their services in various directions, such as the collection of particulars for Commonwealth electoral rolls, etc.

STRENGTH OF POLICE FORCES.

State or Territory.	Area of State in Sq. Miles.	1933.	1934.	1935.	1936.	1937.
New South Wales..	309,432	3,600	3,600	3,593	3,726	3,816
Victoria ..	87,884	2,148	2,170	2,247	2,289	2,280
Queensland (a) ..	670,500	1,275	1,320	1,325	1,363	1,390
South Australia (a)	380,070	762	766	817	837	882
Western Australia (a)	975,920	559	583	592	585	582
Tasmania (a) ..	26,215	260	281	284	282	283
Northern Territory (a)	523,620	40	41	41	41	43
Aust. Cap. Territory	940	13	14	14	15	15
Total ..	2,974,581	8,657	8,775	8,913	9,138	9,291

(a) 30th June of year following.

The figures for New South Wales for 1937 are exclusive of 12 "black trackers," i.e., natives employed in detection of offenders chiefly in outlying districts, 4 matrons and 2 relieving matrons, while the Victorian returns are exclusive of 3 matrons and 2 black trackers. For Queensland the figures exclude 39 native trackers, for South Australia 3 wardresses, and for the Northern Territory 34 black trackers. There are also 39 black trackers and 4 female searchers in Western Australia not included in the table. According to the returns, women police are employed in all the States, the respective numbers included in the table above being :—New South Wales 8, Victoria 7, Queensland 2, South Australia 14, Western Australia 6, and Tasmania 1. Their work is mainly preventive, and the importance and usefulness of their duties have been referred to in very high terms by the Chief Officers of Police. In his Report for the year 1937 the Inspector General of Police in New South Wales stated that "there is no doubt that the activities of the women Special Constables have resulted in the rescue of many girls from downfall." The Inspector-General also refers to the valuable assistance rendered by the women police to detectives and the ordinary police in connexion with crimes against women and children, and to the protection given to lost children at large public carnivals. They also carry out escort duties in respect of female prisoners. The experience in other States has been of a similar nature.

(ii) *Proportion to Population*.—The average number of inhabitants in the various States to each police officer during the same period is shown in the following table. In considering these figures allowance must, of course, be made for the unequal area and unequal distribution of the population of the various States.

POLICE FORCES IN RELATION TO POPULATION.

State or Territory.	Number of Persons per Sq. Mile, 1933 Census.	Inhabitants to each Police Officer.				
		1933.	1934.	1935.	1936.	1937.
New South Wales	8.41	726	732	740	720	710
Victoria	20.71	849	847	820	809	816
Queensland (a)	1.41	753	733	740	728	722
South Australia (a)	1.53	762	763	718	703	672
Western Australia (a)	0.45	785	764	756	777	791
Tasmania (a)	8.68	875	814	809	825	827
Northern Territory (a)	0.01	120	125	130	133	134
Aust. Cap. Territory	9.52	712	707	666	652	683
Total	2.23	769	764	758	745	740

(a) 30th June of year following.

3. **Duties of the Police.**—In addition to the ordinary employment attaching to their office, the police are called upon to perform many duties which in other countries are carried out by various functionaries. Thus, in New South Wales, according to the Report of the Inspector-General, the time of one-fifth of the force was taken up during 1921 in extraneous duties unconnected with the protection of life and property, while the cash value of the services rendered to other Government departments was stated as over £200,000 per annum. The Queensland Commissioner refers to the circumstance that in 1937–38 no less than 54 important subsidiary offices were held by the police. In South Australia, the Commissioner alludes to the large number of subsidiary duties performed by police officers, and mentions that for the year ended June, 1938, 272,272 inquiries were made on behalf of other departments. While these special tasks doubtless involve some degree of sacrifice of ordinary routine duties, the fact that the general intelligence of the police is adequate for their performance, besides being most creditable, results in a large saving of the public money.

4. **Interstate Police Conferences.**—In February, 1921, a Conference of the chief officers of the police forces of the various States was held in Melbourne. In addition to the discussion of matters of common interest, arrangements were made for the interchange of detectives. The results were so satisfactory that it was decided to hold similar Conferences annually. Amongst other matters discussed at the Hobart Conference in 1927, particular attention was given to the subject of traffic regulation in view of the large and increasing number of motor vehicles. Conferences were held at Melbourne in 1928, and at Perth in 1929, but owing to the need for economy no further meetings have been held.

§ 2. Lower (Magistrates') Courts.

1. **General.**—In considering the criminal returns of the various States, due allowance must be made for certain factors, such as the relative powers of the courts, both lower and higher, etc. In the case of lower courts, the actual number of laws in each State the breach of which renders a person liable to fine or imprisonment must be taken into account. Again, the attitude of the magistracy and police towards certain classes of offences is a factor, for in the case of liquor laws, or laws connected with vagrancy or gaming, the views of the magistrates, and instructions issued to the police, may be responsible for considerable variations in the returns. The strength and distribution of the police forces, and the age-constitution and distribution of the States' population, also influence the results. Due weight should also be given to the prevalence of undetected crime, but information on this point is not available for all States. It may be mentioned that each State has its own separate judicial system, the Commonwealth jurisdiction being confined to the High Court of Australia, which is largely a Court of Appeal intermediate to the Privy Council although it has also original jurisdiction, the Commonwealth Court of Conciliation and Arbitration and the Federal Court of Bankruptcy. Full particulars regarding the judicial power of the Commonwealth will be found in Chapter III. of the Commonwealth Constitution.

2. Powers of the Magistrates.—Preceding issues of the Official Year Book contained a brief statement of the powers of the magistrates in the various States (see No. 22, page 462), but this information is not repeated in the present volume.

3. Cases Tried at Magistrates' Courts.—The total number of cases tried at Magistrates' Courts in each State is given below for the five years 1933 to 1937:—

CASES TRIED AT MAGISTRATES' COURTS.

State or Territory.	1933.	1934.	1935.	1936.	1937.
New South Wales ..	126,134	127,960	134,900	144,707	125,791
Victoria ..	58,406	57,070	65,973	82,118	74,222
Queensland (a) ..	28,259	28,922	31,909	34,359	33,467
South Australia ..	15,285	15,916	17,299	17,213	19,543
Western Australia ..	(b) 13,544	(b) 14,575	19,255	22,611	24,430
Tasmania ..	7,271	7,197	8,345	8,948	8,388
Northern Territory ..	353 ^a	401	308 ^a	370 ^a	461 ^a
Australian Capital Territory	166	210	135	165	216
Total ..	249,418	252,251	278,124	310,491	286,518

(a) Year ended 30th June following.

(b) Principal offence only counted in multiple charges.

Investigation of the returns shows that considerable variations in the figures for single States are occasioned by breaches of new Acts, or the more stringent enforcement of the provisions of existing Acts. Any deductions drawn from the total returns as to the increase or otherwise of criminality must, therefore, be largely influenced by a careful analysis of the detailed list of offences. Thus, the considerable increase in the total offences in Victoria for the year 1936 as compared with the previous year was chiefly due to a rise of 14,800 in the miscellaneous class, the bulk of which consisted of charges under the Motor Car, Education and Licensing Acts, and breaches of the Traffic Code which came into operation in June, 1936.

4. Convictions and Committals.—The figures given in the tabulation above include, of course, a number of people who were wrongly charged, and statistically are not of general importance. The actual number of convictions in connexion with the persons who appeared before the lower courts in each year from 1933 to 1937 is, therefore, given in the next table. A separate line is added showing the committals to higher courts.

CONVICTIONS AND COMMITTALS AT MAGISTRATES' COURTS.

State or Territory.		1933.	1934.	1935.	1936.	1937.
New South Wales ..	Convictions	100,075	104,018	110,135	117,490	103,272
	Committals	2,202	1,732	1,748	1,620	1,771
Victoria ..	Convictions	47,079	45,748	54,666	70,752	64,772
	Committals	1,404	1,531	1,587	1,482	1,545
Queensland (a) ..	Convictions	25,430	25,997	29,527	31,575	29,893
	Committals	367	256	209	238	251
South Australia ..	Convictions	13,060	13,728	14,838	14,920	17,297
	Committals	343	325	269	237	230
Western Australia ..	Convictions	12,244	13,585	17,966	21,120	22,777
	Committals	70	144	102	113	181
Tasmania ..	Convictions	6,849	6,464	7,658	8,347	7,927
	Committals	89	62	79	71	91
Northern Territory	Convictions	296 ^a	365	262 ^a	316 ^a	397 ^a
	Committals	17 ^a	9	8 ^a	10 ^a	16 ^a
Australian Capital Territory	Convictions	151	187	125	155	195
	Committals	2	..	1	4	3
Total ..	Convictions	205,184	210,092	235,177	264,675	246,530
	Committals	4,494	4,059	4,003	3,775	4,088

(a) Year ended 30th June following.

5. *Convictions for Serious Crime.*—While the figures given in the preceding table refer to the entire body of convictions, the fact must not be overlooked that they include a large proportion of offences of a technical nature, many of them unwittingly committed against various Acts of Parliament. Cases of drunkenness and minor breaches of good order, which, if they can be said to come within the category of crime at all, at least do so in a very different sense from some other offences, also help to swell the list. The following table has therefore been prepared for the purpose of showing the convictions at magistrates' courts for what may be regarded as the more serious offences, i.e., against the person and property, either separately or conjointly, and forgery and offences against the currency :—

CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS.

State or Territory.	1933.	1934.	1935.	1936.	1937.
NUMBER.					
New South Wales	11,104	11,920	12,069	13,220	12,468
Victoria	4,715	4,438	4,955	5,240	5,289
Queensland (a)	2,254	2,329	2,311	2,400	2,278
South Australia	1,343	1,434	1,382	1,121	1,246
Western Australia	1,316	1,404	1,691	1,741	2,011
Tasmania	713	856	936	963	1,007
Northern Territory	20(a)	26	15(a)	32(a)	26(a)
Australian Capital Territory	38	13	11	21	25
Total	21,503	22,420	23,370	24,738	24,350

PER 10,000 OF THE POPULATION.

New South Wales	42.67	45.43	45.62	49.55	45.99
Victoria	25.90	24.24	26.94	28.36	28.44
Queensland (a)	23.71	24.24	23.77	24.39	22.71
South Australia	23.11	24.58	23.62	19.08	21.08
Western Australia	(b) 29.99	(b) 31.79	37.97	38.69	43.99
Tasmania	31.21	37.35	40.76	41.68	42.14
Northern Territory	40.87(a)	52.71	29.41(a)	61.97(a)	45.07(a)
Australian Capital Territory	41.96	14.04	11.72	21.51	24.40
Total	32.43	33.57	34.75	36.50	35.41

(a) Year ended 30th June following.

(b) Principal offence only counted in multiple convictions.

6. *Rate of Convictions, 1881 to 1937.* Statistics of convictions reveal a consistent increase in the rate of serious crime from 1925 to 1931, when 37.1 convictions per 10,000 of the population were recorded. Following this comparatively high figure the rate declined to 32.43 in 1933 but has since risen

considerably. The rate of convictions over a series of years is included below; only the more serious offences particularized in the preceding sub-section have been taken into consideration.

**RATE OF CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS,
1881 TO 1935.**

Year.							Convictions per 10,000 Persons.
1881 .. .. .	..	..	..	..	..	..	69.3
1891 .. .. .	..	..	..	..	..	..	44.8
1901 .. .. .	..	..	..	..	..	..	29.1
1911 .. .. .	..	..	..	..	..	..	24.6
1921 .. .. .	..	..	..	..	..	..	29.2
1931 .. .. .	..	..	..	..	..	..	37.1
1937 .. .. .	..	..	..	..	..	..	35.4

7. *Drunkness.*—(i) *Cases and Convictions.* The number of cases of drunkness and the convictions recorded in connexion therewith during the period 1933 to 1937 will be found in the following table:—

DRUNKNESS: CASES AND CONVICTIONS.

State or Territory.	1933.		1934.		1935.		1936.		1937.	
	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.
New South Wales ..	25,727	25,421	26,872	26,344	28,450	27,823	31,383	30,297	29,672	27,651
Victoria ..	9,240	7,975	8,666	7,244	10,221	9,217	10,390	10,247	10,433	10,296
Queensland (a) ..	6,697	6,662	7,583	7,531	8,383	8,362	10,436	10,409	10,450	10,183
South Australia ..	2,373	2,357	2,430	2,418	2,748	2,737	2,639	2,628	2,529	2,520
Western Australia ..	1,992	1,960	2,016	1,999	2,686	2,671	2,879	2,849	2,708	2,678
Tasmania ..	228	222	312	309	419	411	386	384	379	365
Northern Territory ..	133 ^a	133 ^a	159	154	134 ^a	134 ^a	87 ^a	87 ^a	145 ^a	145 ^a
Aust. Cap. Terr.	69	69	95	95	55	55	63	63	92	91
Total ..	46,459	44,799	48,133	46,094	53,096	51,410	58,263	56,964	56,408	53,929

(a) Year ended 30th June following.

Under the heading "drunkness" are included cases of ordinary drunkness, drunkness and disorderliness, and habitual drunkness. In the figures quoted for Western Australia, convictions for disorderliness attributable to drink were formerly included in the second category, but since 1929 the returns relate only to drunkness either as a single or concurrent offence.

The number of convictions is, as might naturally be expected, almost identical with the number of cases. Until 1936 this was not so in the case of Victoria for in this State offenders are generally discharged on a first appearance and no conviction is recorded, a similar procedure being also adopted in the case of those arrested on Saturday and detained in custody till Monday. Since 1936, however, these cases have been included as convictions.

(ii) *Convictions per 10,000 of Population.* The convictions for drunkenness per 10,000 of the population during each of the years from 1933 to 1937 are given hereunder:—

CONVICTIONS FOR DRUNKENNESS PER 10,000 INHABITANTS.

State or Territory.	1933.	1934.	1935.	1936.	1937.
New South Wales	97.7	100.4	105.2	113.5	102.0
Victoria	43.8	39.6	50.1	55.5	55.4
Queensland (a)	70.1	78.4	86.0	105.8	101.5
South Australia	40.6	41.5	46.8	44.7	42.6
Western Australia	44.7	45.3	60.0	63.3	58.6
Tasmania	9.7	13.5	17.9	16.6	15.3
Australian Capital Territory	76.2	102.6	58.6	64.5	88.8
Total	67.6	68.9	76.4	83.7	78.4

(a) Year ended 30th June following.

In the twenties the convictions for drunkenness averaged approximately 100 per 10,000 inhabitants, but the rate fell away considerably during the depression years and was only 57.1 in 1931; with the improvement in the social condition of the people following that year, the average rose steadily to 83.7 in 1936, but declined somewhat in 1937. Figures for the consumption of beer have followed a very similar course. From an average of 11½ gallons consumed per head of the population for some years prior to the depression the amount declined to 7.32 gallons in 1931, and thereafter rose each year to more than 11½ gallons in 1937-38.

The convictions for drunkenness taken by themselves are not an altogether satisfactory test of the relative sobriety of the inhabitants of each State, inasmuch as several important factors must be taken into consideration. The age and sex constitution of the people, for example, are by no means identical in all the States. (Owing to the smallness of the population the figures for the Northern Territory are, of course, abnormal and have not, therefore, been included in the above table.) The avocations of the people affect the result, since persons engaged in strenuous callings are, on the whole, more likely to indulge in alcoholic stimulants than those employed in less arduous ones. The distribution of the population is also a factor, the likelihood of arrest or summons for drunkenness obviously being greater in the more densely populated regions, while allowance must be made for the attitude of the magistracy, the police and the public generally in regard to the offence. Due account also must be taken of the effect of legislation dealing with the limitation of hours during which liquor may be sold in hotels.

(iii) *Consumption of Intoxicants.* The following table shows the consumption of spirits, wine and beer per head of the population in Australia during each year of the quinquennium 1933-34 to 1937-38:—

CONSUMPTION OF INTOXICANTS IN AUSTRALIA.

Year.	Consumption per Head of Population.		
	Spirits.	Wine.	Beer.
	Imp. Galls.	Imp. Galls.	Imp. Galls.
1933-34	0.19	} 0.82	8.02
1934-35	0.21		8.68
1935-36	0.21		9.60
1936-37	0.21		10.34
1937-38	0.22		11.62

(iv) *Treatment of Drunkenness.* (a) *General.* Though the problem of the correct method of dealing with dipsomania is by no means an easy one, it seems fairly clear that the present plan of bringing offenders before magistrates, and subjecting them to the penalty of imprisonment or fine, has little deterrent effect, as the same offenders are constantly reappearing before the courts. Further, the casting of an inebriate into prison and placing him in his weakened state in the company of professional malefactors certainly lowers his self-respect, and doubtless tends to swell the ranks of criminals. Examination of the prison records in New South Wales some years ago disclosed the fact that over 40 per cent. of the gaol population had commenced their criminal career with a charge of drunkenness. During the last few years the dangers of moral contamination in this way have been more accurately appreciated, and a system of classification of prisoners has been adopted whereby the petty offender is as far as possible kept from association with the more evilly-disposed.

(b) *Remedial.* Legislation has been passed in each State providing for the commitment of inebriates to special Government institutions. The laws in the various States are as follows:—New South Wales, Inebriates Act 1912; Victoria, Inebriates Act 1928; Queensland, Inebriate Institutions Act 1896; South Australia, Inebriates Act 1908 amended in 1920 and 1934, Convicted Inebriates Act 1913 amended in 1934; Western Australia, Inebriates Act 1912-19; Tasmania, Inebriates Act 1885, Inebriate Hospitals Act 1892. Curative work was first undertaken by the Government of New South Wales in 1907. In most cases the institutes are connected with the gaols, and, naturally, custodial measures are still a strong feature in their management; nevertheless, the results of remedial measures have been encouraging.

8. *First Offenders.*—In all the States statutes dealing with first offenders have been in force for many years. Existing legislation is as follows:—New South Wales, Crimes Act 1900 amended in 1924 and 1929, First Offenders (Women) Act 1919; Victoria, Crimes Act 1928; Queensland, Criminal Code Acts 1899 to 1931; South Australia, Offenders Probation Act 1913 amended in 1934; Western Australia, Criminal Code Act 1913; Tasmania, Probation of Offenders Act 1934. The method of procedure is practically the same in all cases, i.e., with regard to most first offenders the magistrate or judge is empowered to allow the offender to go free on recognizances being entered into for his good behaviour for a certain period. In practice, this humane law has been found to work excellently, very few of those to whom its provisions have been extended having been found to relapse into crime.

9. *Children's Courts.*—Special courts for the trial of juvenile offenders have been established in New South Wales, Victoria, Queensland, Western Australia, Tasmania and New Zealand, while Children's Courts, although not under that title, are provided for by the Maintenance Act of 1926 in South Australia. The object of these courts is to avoid, as far as possible, the unpleasant surroundings of the ordinary police court.

10. *Committals to Superior Courts.*—(i) *General.* In a previous paragraph it has been pointed out that comparisons of criminality based on a consideration of the total returns from magistrates' courts are somewhat inadequate, seeing that the figures include numbers of cases which are merely technical breaches of laws having in some instances a purely local significance. The committals to higher courts give a better basis of comparison, although even in this connexion allowance must be made for the want of uniformity in jurisdiction. The table below gives the number of committals in each year from 1933 to 1937, with the rate of such committals per 10,000 of the population :—

COMMITTALS TO SUPERIOR COURTS.

State or Territory.	1933.	1934.	1935.	1936.	1937.
NUMBER.					
New South Wales ..	2,202	1,732	1,748	1,620	1,771
Victoria	1,404	1,531	1,587	1,482	1,545
Queensland (a) ..	367	256	209	238	251
South Australia ..	343	325	269	237	230
Western Australia ..	70	144	102	113	181
Tasmania	89	62	79	71	91
Northern Territory ..	17 ^a	9	8 ^a	10 ^a	16 ^a
Australian Capital Territory	2	..	1	4	3
Total	4,494	4,059	4,003	3,775	4,088

PER 10,000 OF THE POPULATION.

New South Wales ..	8.5	6.6	6.6	6.1	6.5
Victoria	7.7	8.4	8.6	8.0	8.3
Queensland (a) ..	3.9	2.7	2.1	2.4	2.5
South Australia ..	5.9	5.6	4.6	4.0	3.9
Western Australia ..	1.6	3.3	2.3	2.5	4.0
Tasmania	3.9	2.7	3.4	3.1	3.8
Northern Territory ..	34.7 ^(a)	18.2	15.7 ^(a)	19.4 ^(a)	27.7 ^(a)
Australian Capital Territory	2.2	..	1.1	4.1	2.9
Total	6.8	6.1	6.0	5.6	5.9

(a) Year ended 30th June following.

(ii) *Rate of Committals since 1881.* With occasional variations the rate of committals for serious crime has remained fairly stable during recent years, and if the comparison be carried back further, the movement in the rate has undergone very little change during the present century. The rate at intervals since 1881 is as follows :—

RATE OF COMMITTALS: AUSTRALIA, 1881 TO 1937.

Year	1881.	1891.	1901.	1911.	1921.	1931.	1937.
Committals per 10,000 inhabitants ..	12	11	8	6	7	8	6

§ 3. Superior Courts.

1. **Convictions at Superior Courts.**—The number of convictions at superior courts and the rate per 10,000 of the population are given below for each of the years 1933 to 1937:—

CONVICTIONS AT SUPERIOR COURTS.

State or Territory.	1933.	1934.	1935.	1936.	1937.
NUMBER.					
New South Wales (a) ..	855	862	766	623	695
Victoria	594	550	569	533	565
Queensland (a) ..	206	129	222	154	173
South Australia ..	224	206	172	171	183
Western Australia ..	38	81	55	52	103
Tasmania	59	55	54	47	42
Northern Territory ..	4	4	6a	10a	14a
Australian Capital Territory	1	..	..	2	1
Total	1,981	1,887	1,844	1,592	1,771

PER 10,000 OF THE POPULATION.

New South Wales (a) ..	3.3	3.3	2.9	2.4	2.6
Victoria	3.3	3.0	3.1	2.9	3.0
Queensland (a) ..	2.2	1.3	2.3	1.6	1.7
South Australia ..	3.9	3.5	2.9	2.9	3.1
Western Australia ..	0.9	1.8	1.2	1.2	2.3
Tasmania	2.6	2.4	2.4	2.0	1.8
Northern Territory ..	8.2	8.1	11.8(a)	19.4(a)	24.2(a)
Australian Capital Territory	1.1	..	..	2.0	1.0
Total	3.0	2.8	2.7	2.3	2.6

(a) Year ended 30th June following.

The rate of convictions has improved during recent years, the figure for 1936 being the lowest on record. Owing to the smallness of the population and the particular conditions prevailing there the rates for the Territories naturally show considerable variation.

2. **Offences for which Convictions were recorded at Superior Courts.**—In the following table will be found a classification of the principal offences for which persons were convicted at the higher courts during each year of the period 1933 to 1937. Owing to lack of uniformity in the presentation of the returns the information is confined to the chief offences against the persons only.

**CONVICTIONS FOR OFFENCES AGAINST THE PERSON AT SUPERIOR COURTS :
AUSTRALIA.**

Offences.	1933.	1934.	1935.	1936.	1937.
Murder, and attempts at ..	21	17	25	13	20
Manlaughter	15	15	15	21	18
Rape, and attempts at ..	16	6	10	14	29
Other offences against females ..	130	134	143	140	127
" " " the person ..	216	191	188	182	227
Total	398	363	381	370	412

The total convictions for similar offences in 1901 amounted to 432. Stated according to the proportion per 10,000 of mean population, the rate in 1937 amounted to 0.6 as compared with a rate of 1.1 in 1901.

3. **Habitual Offenders.**—Some account of the methods adopted in each State in connexion with habitual offenders is given in preceding Year Books (see No. 22, pp. 469-70).

4. **Capital Punishment.**—The table below gives the number of executions in each State during the period 1933 to 1937 :—

EXECUTIONS.

State.	1933.	1934.	1935.	1936.	1937.
New South Wales (a)	2	..	1
Victoria	2	..
South Australia
Western Australia
Tasmania
Total	2	2	1

(a) Year ended 30th June following.

Under the Criminal Code Amendment Act of 1922 capital punishment was abolished in Queensland.

In the early days of the history of Australia the penalty of death was attached to a large number of offences, many of which at the present time would be dealt with in the lower or magistrates' court. With the growth of settlement, and the general amelioration in social and moral conditions, the list was, however, considerably curtailed, and the existing tendency is practically to restrict death sentences to cases of murder. It may be remarked in cases of rape, which is a capital offence in some of the Australian States, the penalty has been but sparingly inflicted during the last few years. Juries are reputed to be loth to convict on this charge, owing to the uncertainty whether sentence of death will be pronounced.

The average annual number of executions in Australia from 1861 to 1880 was 9; from 1881 to 1900, 6; from 1901 to 1910, 4; from 1911 to 1920, 2; while the average for the last ten years has fallen to one.

§ 4. Prisons.

1. Prison Accommodation and Prisoners, 1937.—The table below shows the number of prisons in each State, the accommodation therein, and the number of prisoners in confinement at the end of 1937:—

PRISON ACCOMMODATION AND PRISONERS, 1937.

State or Territory.	Number of Prisons.	Accommodation in—		Prisoners at End of Year.
		Separate Cells.	Wards.	
New South Wales (a)	22	(b) 2,369	..	1,176
Victoria	12	1,316	446	1,030
Queensland	6	544	94	276
South Australia	15	761	173	231
Western Australia	19	607	506	260
Tasmania	1	142	4	87
Northern Territory (a)	3	14	90	22
Total	78	5,753	1,313	3,082

(a) Year ended 30th June following.

(b) Total accommodation.

The figures refer to prisoners under sentence and are exclusive of aborigines. There are no gaols in the Australian Capital Territory, but there are lock-ups attached to the police stations at Canberra and Jervis Bay, where offenders are held while awaiting trial, and sentences not exceeding one week imposed by a magistrate may be served.

2. Prisoners in Gaol, 1933 to 1937.—The number of prisoners in gaol at the 31st December in each of the years 1933 to 1937 and the proportion per 10,000 of the population are given in the following table. The figures refer to prisoners under sentence and are exclusive of aborigines.

PRISONERS IN GAOL.

State or Territory.	1933.	1934.	1935.	1936.	1937.
NUMBER.					
New South Wales (a)	1,515	1,398	1,330	1,183	1,176
Victoria	1,347	1,225	1,159	1,092	1,030
Queensland	331	339	301	272	276
South Australia	296	294	260	242	231
Western Australia	229	249	264	264	260
Tasmania	104	100	104	114	87
Northern Territory (a)	20	28	25	20	22
Total	3,842	3,633	3,443	3,187	3,082

(a) 30th June of year following.

PRISONERS IN GAOL—*continued.*

State.	1933.	1934.	1935.	1936.	1937.
PER 10,000 OF THE POPULATION.					
New South Wales (a) ..	5.8	5.3	5.0	4.4	4.3
Victoria	7.4	6.7	6.3	5.9	5.5
Queensland	3.5	3.5	3.1	2.8	2.8
South Australia ..	5.1	5.0	4.4	4.1	3.9
Western Australia ..	5.2	5.6	5.9	5.9	5.7
Tasmania	4.6	4.3	4.5	4.9	3.6
Total	5.8	5.4	5.1	4.7	4.5

(a) 30th June of year following.

After remaining stationary at 6.5 per 10,000 for the four years ended 1932 the proportion of prisoners in gaol to the total population declined to 4.5 in 1937, which figure contrasts most favourably with that obtaining in 1891 when the proportion was as high as 16 per 10,000. Rates for the Northern Territory have not been included on account of the abnormal conditions prevailing there.

3. Improvement in Prison Methods.—In previous issues of the Official Year Book a more or less detailed account was given of the improvements effected in each State during recent years in regard to methods of prison management (see Official Year Book No. 22, pp. 471-4), but this information is not repeated in the present volume.

§ 5. Civil Courts.

1. Lower Courts.—The total number of plaints entered together with the amounts awarded to plaintiffs during 1937 are given in the table hereunder. Particulars for earlier years will be found in preceding issues of the Official Year Book.

CIVIL CASES AT LOWER COURTS, 1937.

State.	1937.	State or Territory.	1937.
New South Wales	{ Cases No. 64,741 Amount £ 345,241	Western Australia	{ Cases No. 26,950 Amount £ 162,438
Victoria	{ Cases No. 100,818 Amount £ 607,495	Tasmania	{ Cases No. 17,792 Amount £ 62,809
Queensland (a) ..	{ Cases No. 16,047 Amount £ 179,437	Australian Capital Territory	{ Cases No. 516 Amount £ 3,285
South Australia ..	{ Cases No. 24,991 Amount £ 163,639	Total	{ Cases No. 251,855 Amount £ 1,524,344

(a) Year ended 30th June, 1938.

Particulars in regard to the amount of judgments involved in the 419 civil cases in the Northern Territory during the year ended 30th June, 1938, are not available.

The figures just given represent the returns from the Small Debts Courts in New South Wales, the Petty Sessions Courts in Victoria, the Petty Debts Courts in Queensland, the Local Courts of South Australia and Western Australia, the Courts of Requests in Tasmania, and the Court of Petty Sessions in the Australian Capital Territory.

2. **Superior Courts.**—In the next table will be found the transactions on the civil side in the Superior Courts during the year 1937. The particulars given below include the number and amount of judgments entered by default or consent, and differ from those in issues of the Year Book prior to No. 29 which related in most States only to cases actually tried during the year.

The New South Wales returns refer to judgments in the District Courts only, and are exclusive of 2,132 judgments signed in the Supreme Court, for which the amount is not available.

CIVIL CASES AT SUPERIOR COURTS, 1937.

State.	1937.	State or Territory.	1937.
New South Wales	{ Causes No. 6,584 Amount £ 319,655	Western Australia	{ Causes No. 131 Amount £ 59,451
Victoria..	{ Causes No. 3,257 Amount £ 225,497	(b) Tasmania	{ Causes No. 245 Amount £ 21,601
Queensland (a)	{ Causes No. 440 Amount £ 67,607	Australian Capital Territory	{ Causes No. 1 Amount £ 300
South Australia	{ Causes No. 297 Amount £ 33,926	Total	{ Causes No. 10,955 Amount £ 728,037

(a) Year ended 30th June, 1938.

(b) Judgments signed and entered.

3. **Divorces and Judicial Separations.**—The number of divorces and judicial separations in each State during the period 1933 to 1937 is shown below. The figures refer in the case of divorces to decrees made absolute in each year and include decrees for nullity of marriage.

DIVORCES AND JUDICIAL SEPARATIONS.

State.	1933.		1934.		1935.		1936.		1937.	
	Divorces.	Judicial Separations.								
New South Wales ..	1,014	22	1,092	13	1,133	15	1,160	12	1,272	11
Victoria ..	499	..	621	..	602	6	689	1	797	3
Queensland (a) ..	109	5	153	1	152	..	162	2	210	..
South Australia ..	163	2	189	1	212	1	213	..	207	3
Western Australia ..	121	..	157	..	159	..	192	..	236	..
Tasmania ..	42	..	60	..	86	1	61	1	30	..
Northern Territory (a)	2	..	4	..	4	..
Australian Capital Territory	10	..	11	..	2	..	3	..
Total ..	1,948	29	2,282	15	2,357	23	2,483	16	2,759	17

(a) Year ended 30th June following.

The average annual number of divorces and judicial separations in Australia at decennial periods from 1871 to 1930 and the proportion per 10,000 existing marriages were as follows:—

DIVORCES AND JUDICIAL SEPARATIONS: AUSTRALIA.

	1871-80.	1881-90.	1891-1900.	1901-10.	1911-20.	1921-30.
Averages ..	29	70	358	401	707	1,699
Per 10,000 existing marriages ..	0.98	1.74	6.86	6.15	8.13	15.45

The rapid increase of divorce during the period 1891-1900 occurred largely in New South Wales and Victoria where legislation passed respectively in 1899 and 1889 made the separation of the marriage tie comparatively easy.

4. Probates.—Information in regard to probates and letters of administration will be found in Chapter XXVI. "Private Finance."

5. Bankruptcies.—Particulars relating to bankruptcy in each State up to the end of the year 1927 were incorporated under this heading in preceding issues of the Official Year Book. Under the terms of the Bankruptcy Act 1924-1933 jurisdiction in bankruptcy and insolvency was taken over by the Commonwealth from 1st August, 1928. The Act makes provision for the declaration of districts, and each State (except Queensland) has been declared a bankruptcy district. The bankruptcy district of New South Wales includes the Australian Capital Territory, while Queensland has been divided into three districts corresponding to the three Supreme Court districts in that State. The Northern Territory was also declared a separate bankruptcy district. Operations under the Act for the year ended 31st July, 1938, are given in the following table. For the purposes of comparison, figures for each of the preceding two years have been appended to the table.

COMMONWEALTH BANKRUPTCY ACT RETURNS, 1937-38.

Heading.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia	
Sequestration Orders and Orders for Administration of Deceased Debtors' Estates	Number ..	280	255	93	154	41	45	..	868
	Liabilities £	279,794	250,282	108,806	210,280	54,270	12,192	..	915,624
	Assets £	98,833	74,138	64,989	135,576	19,938	3,963	..	397,437
Compositions, etc., after Bankruptcy	Number ..	11	2	..	2	..	1	..	16
	Liabilities £	12,830	3,015	..	7,451	..	3,062	..	26,358
	Assets £	6,003	2,548	..	3,248	..	406	..	12,205
Compositions, etc., without Bankruptcy	Number ..	2	9	2	306	63	3	..	385
	Liabilities £	1,072	11,217	1,223	1,286,746	139,945	6,537	..	1,446,740
	Assets £	358	5,553	950	954,583	114,860	5,124	..	1,081,428
Deeds of Arrangement ..	Number ..	172	121	41	1	4	5	..	344
	Liabilities £	258,564	199,581	85,071	4,013	7,980	10,087	..	565,296
	Assets £	230,078	114,401	83,161	3,571	19,017	8,461	..	458,689
Total, 1937-38	Number ..	465	387	136	463	108	54	..	1,613
	Liabilities £	552,260	464,095	195,100	1,508,490	202,195	31,878	..	2,954,018
	Assets £	335,272	196,640	149,100	1,096,978	153,815	17,954	..	1,949,759
Total, 1936-37	Number ..	472	344	207	480	106	62	..	1,673
	Liabilities £	671,666	446,865	323,255	1,632,519	237,956	55,382	4,658	3,372,301
	Assets £	471,781	141,404	222,767	1,152,099	177,490	34,600	3,975	2,204,116
Total, 1935-36	Number ..	447	343	196	582	90	55	..	1,713
	Liabilities £	687,943	432,364	206,908	1,812,748	250,799	32,949	..	3,423,711
	Assets £	414,632	237,834	144,830	1,263,610	204,283	10,936	..	2,276,125

The Commonwealth Attorney-General's Report for the year ended 31st July, 1929, states that comparative tables have not been prepared in relation to State bankruptcy or insolvency for previous years, as the methods of collection and presentation do not afford a reliable common basis. It is also pointed out that the procedure

in certain States has been largely influenced by the procedure in force prior to the passing of the Commonwealth Act, and that, therefore, no particular significance attaches to the large number of compositions, etc., in South Australia and Western Australia. The Bankruptcy Act 1930 created a Federal Court of Bankruptcy and gave power to appoint two Judges thereto. In 1930 a Federal Judge in Bankruptcy was appointed to deal with bankruptcy work, in addition to the State Judges, in New South Wales and Victoria, the Courts in these States having been unable to cope with the business. All the bankruptcy cases in these States are now heard by the Federal Judge who sits in Sydney and Melbourne alternately.

6. **High Court of Australia.**—Under the provisions of section 71 of the Commonwealth Constitution Act, the judicial power of the Commonwealth is vested in a Federal Supreme Court, called the High Court of Australia, and in such other courts as the Parliament creates or invests with federal jurisdiction. The Federal High Court possesses both original and appellate jurisdiction. The powers of the Court are defined in Chapter III. of the Constitution Act and in the Judiciary Act 1903–1937. At present the Court consists of a Chief Justice and five other judges. Sittings of the Court are held in the capitals of the various States as occasion may require. The High Court functions as a Court of Appeal for Australia. The following statement shows the transactions of the High Court for the years 1937 and 1938. Figures for previous years are given in preceding issues.

TRANSACTIONS OF COMMONWEALTH HIGH COURT, 1937 AND 1938.

Original Jurisdiction.			Appellate Jurisdiction.		
	1937.	1938.		1937.	1938.
Number of writs issued	35	26	Number of appeals, set down for hearing..	118	101
Number of causes entered for trial ..	13	29	Number allowed ..	32	49
Verdicts for plaintiffs	9	15	Number dismissed ..	61	48
Verdicts for defendants	6	3	Otherwise disposed of	12	15
Otherwise disposed of	5	8			
Amount of judgments	£104,943	£6,656			

During the years 1937 and 1938 respectively the Court dealt also with the following : Appeals from Assessments under Taxation Assessment Act, 25, 24; Special cases stated for the opinion of the Full Court, 2, 8; Applications for Prohibitions, etc., 10, 9. The fees collected amounted to £910 in 1937 and £711 in 1938.

7. **Commonwealth Court of Conciliation and Arbitration.**—A more or less detailed statement regarding the operation of this Court, which was established under the provisions of the Commonwealth Conciliation and Arbitration Act of 1904–1934, will be found in the Chapter dealing with Labour, Wages, etc.

§ 6. Cost of Administration of Justice.

1. **Expenditure by the States.**—The table below shows the net expenditure from Consolidated Revenue during the year 1937–38 in connexion with the administration of justice in each of the States.

It is difficult to obtain comparable figures of the total costs of the various services under this heading, and net costs have been substituted for gross expenditure in this issue of the Year Book. It will be noted that in the States of South Australia and Western Australia the receipts for legal fees and registrations exceed the actual expenditure under "Justice".

NET EXPENDITURE ON JUSTICE IN EACH STATE, 1937-38.

State.	Net Expenditure.			Per Head of Population.		
	Justice.	Police.	Prisons.	Justice.	Police.	Prisons.
	£	£	£	s. d.	s. d.	s. d.
New South Wales ...	162,668	1,446,209	190,932	1 2	10 8	1 5
Victoria ...	105,939	799,708	103,204	1 2	8 7	1 1
Queensland ...	63,162	557,944	34,005	1 3	11 3	0 8
South Australia ...	-17,632	254,107	34,300	0 7	8 7	1 2
Western Australia ...	-27,469	238,711	27,907	1 2	10 5	1 3
Tasmania ...	25,641	131,510	15,713	2 2	11 2	1 4
Total ..	312,309	3,428,189	406,061	0 11	10 0	1 2

2. Federal Expenditure.—The expenditure shown in the foregoing table is that incurred by the State Governments only, and does not include expenditure in connexion with the Commonwealth Attorney-General's Department, which is given hereunder for the period 1934-35 to 1937-38:—

EXPENDITURE OF THE COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT.

Year.	Gross Expenditure.	Receipts.	Net Expenditure.
	£	£	£
1934-35	223,258	95,742	127,516
1935-36	239,702	97,116	142,586
1936-37	252,158	102,613	149,545
1937-38	263,319	107,600	155,719

The totals for each year include expenditure in connexion with patents and copyright which amounted in 1937-38 to £67,686. As pointed out previously, the Commonwealth took over jurisdiction in bankruptcy in August, 1928, and the expenditure thereon in 1937-38 amounted to £42,249, including the salary of the Federal Judge, £2,500. Expenditure in connexion with the Australian Capital Territory police amounted in 1937-38 to £6,121, while £2,972 was expended on miscellaneous items including the Law Court, Titles Office and Industrial Arbitration Board. Revenue in connexion with the Attorney-General's Department amounted for the year to £107,600, comprising £61,435 for patents, copyright, trademarks and designs, £36,441 for bankruptcy and £9,724 miscellaneous including fees and fines.

In addition to the foregoing a sum of approximately £33,000 was expended in the Northern Territory by the Department of the Interior on the administration of justice including the costs of the police force and prisons.

CHAPTER VIII.

PUBLIC BENEVOLENCE.

§ 1. Introductory.

Charity and charitable effort in Australia may be classified under three headings: (a) State; (b) public; and (c) private. To the first belong all institutions wholly provided for by the State, such as the principal hospitals for the insane in the various States, the Government and leased hospitals in Western Australia, and the Government asylums for the infirm in New South Wales. The other classes comprise public institutions of two kinds, viz.:—(i) those partially subsidized by the State or State endowed, but receiving also private aid, and (ii) those wholly dependent upon private aid. To the former division belong such institutions as the principal metropolitan hospitals. In the latter are included institutions established and endowed by individuals for the benefit of the needy generally. All charitable movements of a private character are included in the third group. A more or less accurate statistical account is possible in classes (a) and (b), but in regard to (c) complete tabulation is, for obvious reasons, impossible. Owing to differences in the method and date of collection and tabulation it is impossible to bring statistics of charitable institutions to a common year. In general, there is considerable want of harmony in the statistical information available for the different States.

No poor-rate is levied in Australia. Reference to old-age pensions, invalid pensions and maternity allowances, which are provided by the Commonwealth Government, will be found in the Chapter XXVII. "Public Finance".

From time to time relief funds have been organized for famine-stricken countries in various parts of the world, or for places where plagues, flood, fire, or earthquake have shown the need of urgent relief. Special funds were also raised for persons disabled or bereaved through war. Complete statistical information in regard to these forms of charity is not, however, available. It may be mentioned that the daily Press frequently accepts the duty of collectorship in charity appeals. In regard to subscriptions to the various patriotic funds which were instituted in consequence of the war of 1914-1918, the total for Australia was estimated to exceed £12,500,000.

§ 2. The Larger Charities of Australia.

1. Public Hospitals (other than Hospitals for the Insane).—(i) *General*. All the State capitals have several large and well-equipped hospitals, and there is at least one in every important town. In large centres there are hospitals for infectious diseases, consumptives, women, children, incurables, etc.

The particulars given herein refer to public hospitals at the latest available date, and include all institutions affording hospital relief, whether general or special, with the exception of the hospitals for the insane and private hospitals conducted commercially. It is considered that the extension of the scope of these statistics to embrace both general and special institutions will afford a better comparison as between the various States than the statistics previously issued relating to general hospitals only. The particulars for New South Wales in the following tables relate to hospitals operating under the Public Hospitals Act, 1929-1937.

(ii) *Principal Hospitals in each State*. In earlier issues of the Official Year Book (See No. 22, pp. 481-2) particulars respecting staff, accommodation, etc., of each of the principal hospitals were given.

(iii) *Number, Staff and Accommodation, 1937.* Details regarding the number of hospitals, staffs and accommodation for the year 1937, or nearest available year, are given in the appended table:—

PUBLIC HOSPITALS : NUMBER, STAFF AND ACCOMMODATION, 1937.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Hospitals ..	207	71	117	54	92	19	560
Medical Staff—							
Honorary	1,696	885	215	258	124	72	3,250
Salaried	264	223	167	65	22	32	773
Total	1,960	1,108	382	(b) 323	146	104	4,023
Nursing Staff	4,933	2,558	2,655	989	1,045	429	12,609
Accommodation—							
Number of beds and cots	13,792	7,435	6,054	2,453	3,179	1,628	34,541

(a) The figures relate to the years ended as follows:—New South Wales, Queensland, Western Australia and Tasmania—30th June, 1938; South Australia—31st December, 1937; Victoria—30th June, 1937.

(b) Exclusive of particulars of Lying-in Homes, Sanatoria and Convalescent Homes.

The figures for accommodation shown in the above table include, where available, a considerable number of beds and cots for certain classes of cases in out-door or verandah sleeping places.

(iv) *Patients Treated.* The table hereunder furnishes particulars respecting patients treated.

PUBLIC HOSPITALS : PATIENTS TREATED, 1937.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Indoor Relief—Inmates at beginning of year—							
Males	4,799	2,566	2,117	736	1,028	399	11,645
Females	5,124	2,866	1,938	775	891	455	12,049
Total	9,923	5,432	4,055	1,511	1,919	854	23,694
Admissions and Re-admissions during year—							
Males	106,468	38,852	53,038	16,080	21,412	8,822	244,672
Females	118,036	49,338	50,613	18,627	19,997	10,365	266,976
Total	224,504	88,190	103,651	34,707	41,409	19,187	511,648
Discharges—							
Males	100,771	36,076	50,315	15,015	20,449	8,158	230,784
Females	113,973	47,366	49,122	17,889	19,331	9,949	257,630
Total	214,744	83,442	99,437	32,904	39,780	18,107	488,414
Deaths—							
Males	5,429	2,821	2,550	1,015	1,111	469	13,395
Females	3,691	2,021	1,437	713	584	321	8,767
Total	9,120	4,842	3,987	1,728	1,695	790	22,162
Inmates at end of year—							
Males	5,067	2,521	2,290	786	880	594	12,138
Females	5,496	2,817	1,992	800	973	550	12,628
Total	10,563	5,338	4,282	1,586	1,853	1,144	24,766
Average Daily Number Resident—							
Males	(b)	(b)	(b)	802	(b)	482	(b)
Females	(b)	(b)	(b)	852	(b)	496	(b)
Total	10,306	5,284	4,232	(c) 1,654	1,867	978	24,321

(a) See footnote (a) to previous table. (b) Not available. (c) See footnote (b) to previous table.

(v) *Revenue and Expenditure.* The revenue and expenditure for the year 1937 were as follows:—

PUBLIC HOSPITALS: REVENUE AND EXPENDITURE, 1937.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Revenue—	£	£	£	£	£	£	£
Government Aid ..	1,244,220	440,263	496,602	224,983	265,616	70,199	2,741,883
Municipal Aid ..	..	76,570	206,822	42,603	2,236	1,867	330,098
Public Subscriptions, Legacies, etc. ..	(b)579,225	347,984	32,144	29,442	83,818	9,785	1,082,398
Fees ..	528,413	239,159	265,906	106,797	148,740	68,377	1,357,392
Other ..	73,791	208,265	199,203	7,830	36,643	10,792	536,524
Total ..	2,425,649	1,312,241	1,200,677	411,655	537,053	161,020	6,048,295
Expenditure—							
Salaries and Wages	1,073,019	449,285	448,091	180,394	221,504	131,537	2,503,830
Upkeep and Repair of Buildings and Grounds ..	80,541	14,686	17,143	25,941	3,356	7,586	149,253
All Other Ordinary	889,947	471,165	519,906	177,495	186,560	23,414	2,268,487
Capital(c) ..	431,859	277,472	185,011	38,388	111,184	..	1,043,914
Total ..	2,475,366	1,212,608	1,170,151	422,218	522,604	162,537	5,965,484

(a) See note (a) to table on page 211.

(b) Includes systematic contributions, £332,214.

(c) Includes such items as Purchases of Land, Cost of New Buildings and Additions to Buildings.

(vi) *Summary for Five Years, 1933 to 1937.* Returns for the last five years of the number of hospitals in Australia, beds, admissions, indoor patients treated, deaths and expenditure are given in the following table. The figures relate to both general and special hospitals. It should be noted that the statistics for the States cannot be brought to a common year, and consequently the following particulars relate to a combination of calendar and financial years.

PUBLIC HOSPITALS: AUSTRALIA.

Particulars.	1933.	1934.	1935.	1936.	1937.
Number of institutions ..	530	526	526	557	560
Number of beds ..	30,480	31,190	31,727	33,377	34,541
Admissions during year ..	405,190	422,896	451,761	481,727	511,648
Total indoor cases treated ..	424,877	443,061	472,804	504,521	535,342
Deaths ..	17,915	19,705	20,805	21,601	22,162
Expenditure ..	£ 3,809,570	4,222,174	4,608,878	5,134,247	5,965,484

In addition to those admitted to the institutions, there are large numbers of out-patients. So far as the returns show there were 595,600 out-patients treated in New South Wales, 255,482 in Victoria, 249,685 in Queensland, and 49,476 in South Australia.

2. *Benevolent and Destitute Asylums.*—(i) *General.* The public provision for the care of indigent old people has been a feature of the social development of recent years in most countries. Numerous establishments exist in Australia for the housing and protection of persons no longer able to provide for themselves. These institutions are supported by Government and municipal aid, public subscriptions, bequests, etc.; while in many cases relatives of poor and afflicted persons contribute to their maintenance.

An entirely satisfactory statistical tabulation in regard to all forms of charitable aid is especially difficult in the case of benevolent institutions, because the services provided by these institutions are not always identical. For example, in Western Australia, the Home for Destitute Women includes a maternity ward, for which statistics are not kept separately. Since the chief function of the institution is to help the destitute, it has been included amongst benevolent asylums. In Victoria, although several of the hospitals were formerly also benevolent asylums, a separation was effected and asylum patients were transferred to appropriate institutions.

(ii) *Principal Institutions.* Particulars respecting the accommodation and the numbers of inmates of the principal institutions were published in earlier issues of the Official Year Book (See No. 22, p. 485).

(iii) *Revenue and Expenditure.* Details regarding revenue and expenditure for the year 1937 are given in the following table:—

BENEVOLENT ASYLUMS : REVENUE AND EXPENDITURE, 1937.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue—							
Government Aid ..	122,029	42,461	33,777	13,371	8,627	16,582	236,847
Municipal Aid ..	..	886	..	..	..	..	886
Public Subs., Legacies etc.	428	17,157	6,130	..	1,270	16	25,001
Fees	4,796	45,127	38,836	5,914	18,013	5,476	118,162
Other	38,816	13,426	21,627	1,848	106	1,252	77,075
Total	166,069	119,057	100,370	21,133	28,016	23,326	457,971
Expenditure—							
Salaries and Wages ..	86,494	34,462	32,323	7,288	13,020	17,577	191,164
Upkeep and Repair of Buildings	5,970	4,242	3,470	3,226	1,117	556	18,581
All Other (b)	75,039	70,852	66,923	10,619	14,108	5,193	242,734
Total	167,503	109,556	102,716	21,133	28,245	23,326	452,479

(a) The figures relate to the years ended as follows:—New South Wales and South Australia—31st December, 1937; Victoria—30th June, 1937; and Queensland, Western Australia and Tasmania—30th June, 1938. (b) Including £13,954 in Victoria, £18,470 in Queensland and £94 in Western Australia, covering such items as Purchases of Land, Cost of New Buildings and Additions to Buildings.

3. **Orphanages, Industrial Schools, etc.**—(i) *General.* The methods of caring for orphans and neglected children differ extensively, inasmuch as some of the children are more or less segregated in orphanages and industrial schools, while others are boarded-out with their mothers or female relatives or with approved foster mothers. The children in orphanages and similar institutions may receive, in addition to primary education, some craft training. In all cases employment is found for the children on their discharge from the institution, and they remain for some time under the supervision of the proper authorities. The conditions under which orphans, neglected children and children boarded-out live, are subject to frequent inspections. Apart from the amounts shown in (iii) below the gross expenditure on orphanages, etc., in 1937 was approximately £400,000.

(ii) *Principal Institutions.* Particulars concerning the principal institutions in each State were published in earlier Year Books (See No. 22, p. 486).

(iii) *Transactions of State Departments.* The following table summarizes the transactions during 1937 of State Departments in connexion with children under their

control or supervision. In addition to neglected children, the figures include uncontrollable and convicted children who are wards of a Government authority, as well as poor children whose parents obtain assistance from the Government without giving up the legal right of custody.

CHILDREN UNDER GOVERNMENT AUTHORITY: SUMMARY, 1937.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<i>A. Children maintained or subsidized by the State.</i>							
In State shelters, industrial schools, reformatories, etc. (b)	780	489	955	206	35	211	2,676
In licensed or approved institutions .. .. .	..	1,391	..	..	610	..	2,001
Boarded-out—							
With own mothers ..	9,681	7,939	5,330	} d7009 (c)	} { 2,670 269 }	} d3382	42,348
With licensed foster mothers, guardians, relatives and friends	3,392	2,131	545				
Total children maintained or subsidized by the State	13,853	11,950	6,830	7,215	3,584	3,593	47,025
<i>B. Children not maintained or subsidized by the State.</i>							
In licensed or approved institutions	1,162	..	..	..	..	..	1,162
Boarded-out	320	..	..	1,258	440	..	2,018
On probation (from Institutions or Children's Courts)	1,834	1,312	112	229	428	..	3,915
In service or apprenticed	211	378	431	201	136	..	1,357
Adopted or otherwise placed	331	..	5	12	..	..	348
Total children not maintained or subsidized by the State	3,858	1,690	548	1,700	1,004	..	8,800
Total children under State control or supervision	17,711	13,640	7,378	8,915	4,588	3,593	55,825
Gross cost of children's relief	£ 425,078	£ 284,237	£ 197,785	£ 33,875	£ 26,034	£ 14,148	£ 981,157
Receipts from parents' contributions, etc.	20,511	9,790	9,511	1,807	9,210	780	51,609
Net cost to State	404,567	274,447	188,274	32,068	16,824	13,368	929,548

(a) The figures relate to the years ended as follows:—New South Wales, Victoria and Queensland—31st December, 1937; Other States—30th June, 1938. (b) Including inmates of hospitals. (c) Including 6,153 children in receipt of Ration Relief. (d) Mostly with own mothers. (e) In addition there were 271 children at Fairbridge Farm School.

The total expenditure on children's relief in the previous table shows considerable variation amongst the States owing to the different methods of treating assistance to mothers with dependent children. In South Australia, Western Australia and

Tasmania, large amounts have been excluded from the total expenditure on this account owing to the difficulty of obtaining separate amounts for allowances made in respect of the dependent children only.

4. **Leper Hospitals.**—Isolation hospitals for the care and treatment of lepers have been established in New South Wales (Little Bay); Queensland (Peel Island, near Brisbane); Western Australia (Derby); and the Northern Territory (Channel Island, near Darwin). At the end of 1938 there were 11 cases in residence at Little Bay, 74 at Peel Island, 114 at Derby, and 121 at Channel Island. There were also 5 cases isolated in the south of Western Australia and 1 case in Victoria, which were European cases infected elsewhere.

During the year 1938, 12 cases of leprosy were notified in Australia of which 5 were in Queensland and 7 in the Northern Territory. There were 10 deaths from leprosy registered during 1938 and 14 in 1937.

5. **Hospitals for the Insane.**—(i) *General.* The methods of compiling statistics of insanity are fairly uniform throughout the States, but comparisons are of doubtful validity, because of an element of uncertainty as to possible differences in diagnosis in the early stages of the disease.

(ii) *Hospitals, Staff, etc., 1937.* Particulars regarding the number of institutions, the medical and nursing staffs, and accommodation are given in the appended table for the year 1937:—

HOSPITALS FOR THE INSANE : NUMBER, STAFFS, ACCOMMODATION, 1937.(a)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Institutions ..	13	(b) 12	4	2	4	1	36
Medical Staff—							
Males	33	29	6	6	5	2	81
Females	5	..	1	..	..	1	7
Total	38	29	7	6	5	3	88
Nursing Staff and Attendants—							
Males	1,043	701	302	138	133	79	2,396
Females	1,063	665	241	133	102	76	2,280
Total	2,106	1,366	543	271	235	155	4,676
Accommodation—							
Number of beds and cots	11,347	6,321	3,538	1,888	1,500	693	25,287

(a) The figures relate to years ended as follows:—New South Wales, Queensland and Tasmania—30th June, 1938; other States—31st December, 1937. (b) Includes three licensed private houses, in which cases at the end of the year numbered 70; other particulars are not available.

(iii) *Patients, 1937.* Information regarding patients treated, deaths, etc., for the year 1937 is given in the table hereunder:—

HOSPITALS FOR THE INSANE : PATIENTS, DEATHS, ETC., 1937.(a)

Particulars.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of distinct persons treated during year (c)—							
Males	6,677	3,842	2,329	1,011	1,044	378	15,281
Females	6,095	4,230	1,735	886	628	390	13,964
Total	12,772	8,072	4,064	1,897	1,672	768	29,245

(a) See footnote (a) to previous table. (b) Including 23 males and 70 females in licensed private houses. (c) Exclusive of transfers to other Institutions.

HOSPITALS FOR THE INSANE : PATIENTS, DEATHS, ETC., 1937(a)—continued.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of patients on books at beginning of year—							
Males	5,860	3,432	1,978	863	925	318	13,385
Females	5,276	3,777	1,473	764	563	329	12,182
Total	11,145	7,209	3,451	1,627	1,488	647	25,567
Admissions and re-admissions exclusive of absconders retaken and transfers from other Institutions—							
Males	808	410	351	148	119	60	1,896
Females	819	453	262	122	65	61	1,782
Total	1,627	863	613	270	184	121	3,678
Discharges (including absconders not retaken)—							
Males	370	177	113	51	54	43	808
Females	337	209	120	30	30	39	765
Total	707	386	233	81	84	82	1,573
Deaths—							
Males	333	213	154	55	48	25	828
Females	259	171	133	52	19	26	660
Total	592	384	287	107	67	51	1,488
Number of patients on books at end of year—							
Males	5,974	3,452	2,062	905	942	310	13,645
Females	5,499	3,850	1,482	804	579	325	12,539
Total	11,473	7,302	3,544	1,709	1,521	635	26,184
Average daily number resident—							
Males	5,526	(b)2,878	1,093	881	911	310	12,499
Females	4,970	(b)3,283	1,414	783	542	324	11,316
Total	10,496	(b)6,161	3,407	1,664	1,453	634	23,815
Number of patients on books at end of year per 1,000 of population—							
Males	4.35	3.76	3.93	3.06	3.90	2.60	3.94
Females	4.08	4.09	3.10	2.72	2.68	2.82	3.70
Persons	4.22	3.93	3.53	2.89	3.33	2.71	3.82
Average number of patients resident in hospitals for insane per 1,000 of mean population—							
Males	4.04	3.14	3.83	2.99	3.80	2.60	3.62
Females	3.71	3.50	2.98	2.66	2.53	2.80	3.36
Persons	3.87	3.32	3.42	2.82	3.20	2.70	3.49

(a) See footnote (a) to previous table.

(b) Exclusive of three licensed private houses.

In some States persons well advanced towards recovery are allowed to leave the institutions and reside with their relatives or friends, but they are under supervision and their names are kept in the records.

(iv) *Revenue and Expenditure, 1937.* The revenue of Government asylums is small in comparison with their cost, and consists chiefly of patients' fees. The proportion of expenditure borne by the State amounts to about 86 per cent.

HOSPITALS (GOVERNMENT) FOR THE INSANE : FINANCES, 1937.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue (Exclusive of Government Grants)—							
Fees of Patients	106,304	53,606	29,076	29,347	17,035	7,940	243,308
Other	9,000	5,697	1,258	13	3,234	257	19,459
Total	115,304	59,303	30,334	29,360	20,269	8,197	262,767
Expenditure—							
Salaries and Wages	494,029	286,248	157,331	60,371	61,981	41,685	1,101,645
Upkeep and Repair of Buildings and Grounds	7,477	39,939	4,137	6,772	1,943	993	61,261
All Other (b)	339,101	164,351	81,130	55,374	41,888	22,420	704,264
Total	840,607	490,538	242,598	122,517	105,812	65,098	1,867,170
Expenditure per Average Daily Resident	£80/1/9	£79/12/5	£71/4/1	£73/12/7	£72/16/6	£102/13/7	£78/8/1

(a) The figures relate to years ended as follows:—South Australia—31st December, 1937; other States—30th June, 1938. (b) Includes the following amounts for capital expenditure on Purchases of Land, Cost of New Buildings, and Additions to Buildings: New South Wales, £69,641; Queensland, £4,944; South Australia, £3,295; Western Australia, £5,158.

(v) *Summary for Australia, 1933 to 1937.* The table hereunder gives a summary of hospitals for the insane in Australia during each of the five years 1933 to 1937. The figures for the States cannot be brought to a common year; consequently the following particulars relate to a combination of calendar and financial years. Licensed houses are included in all particulars save revenue and expenditure for New South Wales and Victoria. The figures are exclusive of reception houses and observation wards in gaols. In New South Wales the expenditure includes cost of Broken Hill patients treated in South Australian hospitals:—

HOSPITALS FOR THE INSANE : SUMMARY, AUSTRALIA.

Particulars.	1933.	1934.	1935.	*1936.	1937.
Number of institutions	37	36	35	34	36
" " beds	24,427	24,217	24,880	25,017	25,287
Admissions	3,471	3,651	3,819	3,565	3,678
Discharged as recovered, relieved, etc.	1,566	1,598	1,715	1,566	1,573
Deaths	1,498	1,467	1,577	1,553	1,488
Expenditure—Total	£1,374,111	1,527,021	1,659,523	1,771,406	1,867,170
" —Per Average Daily Resident	£62/14/5	£68/5/8	£72/6/4	£75/15/9	£78/8/1

(vi) *Number of Insane, 1933 to 1937.* The proportion of insane, as well as the total number returned as under treatment, shows a continuous increase during the period covered by the following table. A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an earlier stage, and an increase in the number of recorded cases, therefore, does not necessarily imply an actual increase in insanity.

INSANE PERSONS IN INSTITUTIONS.

State.	1933.	1934.	1935.	1936.	1937.
NUMBER.					
New South Wales	10,367	10,681	11,009	11,145	11,473
Victoria	6,812	6,927	7,059	7,209	7,302
Queensland	3,214	3,319	3,321	3,368	3,544
South Australia	1,465	1,519	1,572	1,627	1,709
Western Australia	1,331	1,355	1,441	1,488	1,521
Tasmania	667	631	636	647	635
Australia	23,856	24,432	25,038	25,484	26,184
PER 1,000 OF POPULATION.					
New South Wales	3.95	4.04	4.13	4.14	4.22
Victoria	3.73	3.77	3.83	3.89	3.93
Queensland	3.35	3.43	3.39	3.39	3.53
South Australia	2.51	2.60	2.68	2.76	2.89
Western Australia	3.02	3.06	3.22	3.30	3.33
Tasmania	2.93	2.76	2.77	2.78	2.71
Australia	3.58	3.64	3.71	3.74	3.82

The difference between States in the number of insane persons in institutions per 1,000 of population may be due to some extent to differences in classification.

(vii) *Causes of Insanity.* The general information available respecting the causes of the insanity of persons admitted to institutions is too unsatisfactory to be given in detail.

(viii) *Length of Residence in Hospital, 1937.* (a) *New South Wales and Victoria.* Particulars are not available regarding the average length of residence in hospitals of persons who died or were discharged during the year.

(b) *Queensland.* The average residence of those who died during the year was 9 years 234 days for males, and 8 years 50 days for females; of those discharged, 357 days for males, and 1 year 235 days for females.

(c) *South Australia.* The average residence of those who died during the year was 8 years 5 months 26 days for males, and 6 years 1 month 14 days for females; of those discharged, 11 months 15 days for males, and 9 months 22 days for females.

(d) *Western Australia.* The average residence of those who died was 15 years 3 months 22 days for males, and 6 years 3 months 28 days for females; of those discharged, 2 years 5 months 26 days for males, and 1 year 11 months and 12 days for females.

(e) *Tasmania.* The average residence of those who died during the year was 8 years 2 months and 28 days for males, and 12 years 7 months and 17 days for females; of those discharged, 1 year 11 months and 25 days for males, and 4 years 7 months and 24 days for females.

6. **Care of the Feeble-minded.**—An account of the treatment of the feeble-minded, supplied by the Public Health Department of Tasmania, appeared in Official Year Book No. 19, pp. 477 and 478.

7. **Protection of Aborigines.**—For the protection of the aboriginal Australian race there are institutions, under the supervision of Aborigines Boards, where these people are housed and encouraged to work, the children receiving elementary education. The work is usually carried on at mission stations, but many of the natives are nomadic, and receive food and clothing when they call, whilst others but rarely come near the stations. The native race is extinct in Tasmania. The expenditure from Consolidated Revenue in 1937–38 was: New South Wales, £53,773; Victoria, £7,568; Queensland £61,878; South Australia, £32,234; Western Australia, £35,526; Northern Territory £15,795; total for Australia, £206,774. According to the latest census taken by the Commonwealth Bureau of Census and Statistics, the numbers of full-blood and half-caste aborigines living in supervised camps in each State at 30th June, 1938, were as follows:—

ABORIGINES IN SUPERVISED CAMPS, 30th JUNE, 1938.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Northern Territory.	Total.
	No.	No.	No.	No.	No.	No.	No.
Full-bloods	497	50	8,186	94	2,908	6,050	17,785
Half-castes	3,859	281	3,269	839	2,041	624	(a)10,999

(a) Including 86 in the Australian Capital Territory.

Particulars regarding total numbers of aborigines in each State will be found in the Chapter dealing with Population.

8. **Royal Life Saving Society.**—In each of the State capitals, “centres” of the Royal Life Saving Society have been established, and in some States sub-centres have also been established in the larger provincial districts. In 1934 an Australian Federal Council of this Society was formed with head-quarters at Melbourne, and each State centre or branch as it is now called is controlled by the new Organization. Saving of life from drowning and other forms of asphyxiation is the object of the Society, and its immediate aims are (a) educative and (b) remedial. The encouragement of swimming and life-saving in schools, colleges, clubs, etc., will bring about a more widespread knowledge of these necessary matters, and there is increasing provision of life-belts, reels, lines, and other first-aid appliances on ocean beaches, wharves and other suitable places. Numerous certificates of proficiency in various grades are issued annually after examination throughout Australia, the numbers for the individual States for 1936–37 being:—New South Wales, 7,501; Victoria, 1,964; Queensland, 834; South Australia, 631; Western Australia, 1,374; Tasmania, 89; and Fiji, which comes under the control of the Australian Federal Council, 108.

9. **Royal Humane Society.**—The Royal Humane Society of Australasia has for its objects (a) to grant awards for skill, promptness and perseverance in life-saving, where the rescuer has risked his or her life; (b) to provide assistance in cases of danger and apparent death; (c) to restore the apparently drowned; (d) to collect and circulate the latest information regarding approved methods and apparatus for life-saving. Awards of medals and certificates are made numbering about 100 annually. Upwards of 300 lifebuoys have been provided at various places on the coasts, rivers, lakes and reservoirs in the various States. Swimming is encouraged amongst school children, and awards are made for proficiency.

10. **Other Charitable Institutions.**—Owing to variety of name and function of other charitable institutions it has been found impracticable to give detailed results. The aid given in kind—food, clothing, tools of trade, etc.—is considerable, whilst the shelter and treatment afforded range from a bed for a night for casual callers in establishments ministering minor charity, to indoor treatment over long periods in those that exist for the relief of the aged and the infirm. The institutions not so particularized include asylums for the deaf, dumb and blind, infant homes, homes for the destitute and aged poor, industrial colonies, night shelters, crèches, homes of hope, rescue homes, free kindergarten and ragged schools, auxiliary medical charities, free dispensaries, benevolent societies and nursing systems, ambulance and health societies, boys' brigades, humane and animals' protection societies, prisoners' aid associations, shipwreck relief societies, bush fires and mining accident relief funds, etc.

11. **Total Expenditure on Charities.**—Issues of the Official Year Book, prior to No. 24, embodied statistics of expenditure on charities. The returns available, however, included a portion only of direct expenditure by Governments, and, in general, there is lack of harmony in the information available for the different States. Pending the result of further inquiry it has been decided to omit this table from the present chapter.

CHAPTER IX.

PUBLIC HYGIENE.

§ 1. Public Health Legislation and Administration.

Reference to the various public health authorities, Commonwealth and State, their functions, and the legislation administered, may be found in earlier issues of the Official Year Book (see No. 22, pp. 493 to 495).

§ 2. Inspection and Sale of Food and Drugs.

Legislation in force in all States provides for the inspection of food and drugs with the object of assuring that all those goods which are sold shall be wholesome, clean and free from contamination or adulteration; and that all receptacles, places and vehicles used for their manufacture, storage or carriage shall be clean. For further particulars in this connexion, and with respect also to the sale and custody of poisons, reference should be made to Official Year Book, No. 22, pp. 495-497.

§ 3. Supervision of Dairies, Milk Supply, Etc.

1. **General.**—In earlier issues (see No. 22, p. 498), allusion is made to the legislation in force in the various States to ensure the purity of the milk supply and of dairy produce generally.

2. **Number of Dairy Premises Registered.**—The following table shows, so far as the particulars are available, the number of dairy premises registered and the number of cows in milk thereon. In some States registration is compulsory within certain proclaimed areas only.

DAIRY PREMISES REGISTERED, AND COWS IN MILK THEREON, 1938.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.
Premises registered ..	21,387	25,005	29,226	13,281	377	8,485
Cows in milk thereon ..	660,167	550,997	691,945	104,767	10,697	(b)

(a) Premises within a district extending 25 miles north and 90 miles south of Perth only.

(b) Not available.

§ 4. The National Health and Medical Research Council.

In 1926, the Commonwealth Government established a Federal Health Council, in accordance with a recommendation of the Royal Commission on Health (1925), "for the purpose of securing closer co-operation between Commonwealth and State Health Authorities". This Council held sessions each year except 1932. In 1936, the Commonwealth Government decided to create a body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions:—

To advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research:

- To advise the Commonwealth Government as to the expenditure of money specifically appropriated as money to be spent on the advice of this Council ;
- To advise the Commonwealth Government as to the expenditure of money upon medical research and as to projects of medical research generally ;
- To advise Commonwealth and State Governments upon the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition.

The constitution of the Council consists of the Commonwealth Director-General of Health as Chairman, with two officers of his Department, the official head of the Health Department in each State, together with representatives of the Federal Council of the British Medical Association, the Royal Australasian College of Surgeons, the Australian Association of Physicians, and (jointly) the four Australian Universities having medical schools. A prominent layman and laywoman, appointed by the Commonwealth Government, also serve on the Council.

The first session of the National Health and Medical Research Council met at Hobart in February, 1937 ; the sixth session met at Adelaide in May, 1939.

Under the Medical Research Endowment Act 1937, the Commonwealth Government has made an annual appropriation of £30,000 to provide assistance—

- (a) to Departments of the Commonwealth or of a State engaged in medical research ;
- (b) to Universities for the purpose of medical research ;
- (c) to institutions and persons engaged in medical research ;
- (d) in the training of persons in medical research.

Approved Research Institutions under this system now number 23. During the year 1938, grants numbered 41 in the following fields: bacteriology, biochemistry, clinical medicine, dentistry, epidemiology, experimental pathology, industrial hygiene, leprosy, obstetrics, ophthalmology, physiology and pharmacology, poliomyelitis, tuberculosis and virus diseases. In certain instances, equipment and apparatus have been made available by the Council ; this has greatly facilitated some specialized lines of research.

The work that is being done under these grants is already yielding results ; beyond this practical achievement, the original objectives of the Council are being attained in encouraging young graduates to take up research work and in securing a continuity and permanence of medical research in Australia.

§ 5. The Commonwealth Advisory Council on Nutrition.

During 1935, Australian delegates to the Assembly of the League of Nations and the International Labour Conference were largely instrumental in inspiring a concerted international inquiry into world-wide problems of nutrition, with a view to improving the public health by greater consumption of protective foods for the prevention of malnutrition and the benefit of agriculture. Within Australia itself, in 1936, the Commonwealth Government appointed a Commonwealth Advisory Council of Nutrition, under the chairmanship of the Commonwealth Director-General of Health, and composed of experts representing health and agricultural interests, the Commonwealth Council for Scientific and Industrial Research, the University medical schools and the practising medical and dental professions.

The inquiries of this Council proceeded along two main lines of activity, a survey of household dietaries in Sydney, Melbourne, Brisbane, Adelaide and Perth, and a survey of the nutritional state of children in inland areas. The statistical compilation of the records obtained and parallel work of chemical analysis were carried out by the special technical staff at the School of Public Health and Tropical Medicine, Sydney. The local organization of the inquiry was furthered by the appointment of State committees. Five progress reports were published and a final report was presented in September, 1938. This report reviewed in comprehensive detail the work and recommendations of the Council.

Having completed this inquiry in accordance with its terms of reference, the Council disbanded, with definite proposals for future effective work in this field. In accordance with these proposals, a specialist nutrition committee has been appointed to co-ordinate Australian activities in relation to the National Health and Medical Research Council. Research work into nutritional aspects of the growing child is a feature of the activities of the Australian Institute of Anatomy at Canberra, and this work is being done in close association with the development of kindergarten schools throughout Australia.

§ 6. Control of Infectious and Contagious Diseases.

1. **General.**—The provisions of the various Acts in regard to the compulsory notification of infectious diseases and the precautions to be taken against the spread thereof may be conveniently dealt with under the headings—Quarantine; Notifiable Diseases, including Venereal Diseases; and Vaccination.

2. **Quarantine.**—The Quarantine Act is administered by the Commonwealth Department of Health, and uniformity of procedure has been established in respect of all vessels, persons and goods arriving from overseas ports or proceeding from one State to another, and in respect of all animals and plants brought from any place outside Australia. In regard to interstate movements of animals and plants, the Act becomes operative only if the Governor-General be of opinion that Federal action is necessary for the protection of any State or States; in the meantime the administration of interstate quarantine of animals and plants is left in the hands of the States. The Commonwealth possesses stations in each State for the purposes of human and of animal quarantine.

Further information concerning the chief provisions of the Act and its administration is given in some detail in earlier issues (see No. 22, p. 500).

3. **Notifiable Diseases.**—A. **General.**—(i) *Methods of Prevention and Control.* Provision exists in the Health Acts of all the States for the observance of precautions against the spread and for the compulsory notification of infectious disease. When any such disease occurs, the local authority must at once be notified, and in some States notification must be made to the Health Department also. The duty of giving this notification is generally imposed first, on the head of the house to which the patient belongs, failing whom on the nearest relative present, and, on his default, on the person in charge of or in attendance on the patient, and, on his default, on the occupier of the building. Any medical practitioner visiting the patient is also bound to give notice.

As a rule the local authorities are required to report from time to time to the Central Board of Health in each State as to the health, cleanliness and general sanitary state of their several districts, and must report the appearance of certain diseases. Regulations are prescribed for the disinfection and cleansing of premises, and for the disinfection or destruction of bedding, clothing, or other articles which have been exposed to infection. Bacteriological examinations for the detection of plague, diphtheria, tuberculosis, typhoid and other infectious diseases within the meaning of the Health Acts are continually being carried out. Regulations are provided in most of the States for the treatment and custody of persons suffering from certain dangerous infectious diseases, such as small-pox and leprosy.

(ii) *Details by States.* In earlier Year Books (see No. 22, p. 501) information was given concerning the notification, etc., of diseases under State headings.

(iii) *Diseases Notifiable and Cases Notified in each State and Territory.* The following table, which has been compiled by the Commonwealth Department of Health, shows for the year 1938 the diseases which are notifiable in each State and Territory and the number of cases notified. Diseases not notifiable in a State or Territory are indicated by an asterisk.

**DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY AND NOTIFICATIONS
FOR THE YEAR ENDED 31st DECEMBER, 1938.**

Disease.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Aust. Cap. Ter.	Aust.
Anchylostomiasis	..	..	10	..	..	..	4	..	14
Anthrax	..	..	..	1	..	..	..	..	1
Beri-Beri	..	..	..	..	..	..	5	..	5
Bilharziasis	..	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis	22	17	2	..	..	3	..	1	45
Cholera	..	..	..	..	..	..	..	..	..
Coastal Fever (a)	..	..	6	..	..	..	..	..	6
Dengue	..	..	..	..	..	..	115	..	115
Diphtheria	3,944	1,824	993	779	921	343	..	27	8,831
Dysentery (b)	..	4	5	8	4	2	2	..	25
Encephalitis Lethargica	..	1	3	1	1	..	..	..	18
Erysipelas	..	..	..	81	..	..	..	..	81
Favus	..	..	..	..	..	..	..	..	..
Filariasis	..	..	2	..	..	..	..	..	2
Helminthiasis	..	..	..	..	..	..	..	..	..
Hydatid	..	19	..	..	..	..	..	..	19
Influenza	..	..	..	42	..	..	136	..	178
Leprosy	..	..	5	..	..	..	7	..	12
Malaria	..	2	..	1	..	..	1	..	6
Measles	..	..	..	85	..	..	15	3	103
Plague	..	..	..	..	..	..	..	..	..
Polio-myelitis	687	807	162	284	47	707	1	3	2,698
Psittacosis	..	2	..	..	..	..	..	..	2
Puerperal Fever	258	37	37	55	29	14	..	..	430
Scarlet Fever	2,588	1,714	455	500	551	123	..	1	5,932
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	..	10	..	..	..	..	..	..	10
Trachoma	..	41	..	..	..	..	..	..	41
Tuberculosis (c)	1,797	728	311	308	247	173	6	2	3,572
Typhoid Fever (d)	89	40	101	33	37	15	..	..	315
Typhus (Endemic) (e)	6	..	50	8	38	..	..	..	102
Undulant Fever (f)	..	5	..	..	..	..	..	..	5
Variella	..	..	..	..	..	..	9	..	9
Weil's Disease	..	..	8	..	..	..	..	..	8
Whooping Cough	..	..	..	184	..	..	1	63	248
Yellow Fever	..	..	..	..	..	..	..	..	..

* Not notifiable.

(a) Includes Mossman and Sarina Fever. (b) Includes amoebic and bacillary. (c) Includes all forms except in New South Wales and Northern Territory where only pulmonary tuberculosis is notified. (d) Includes enteric fever and paratyphoid. (e) Cases reported are all of the mild type known as Brill's disease or endemic typhus. (f) Notifiable in South Australia since 8th September, 1938.

B. Venereal Diseases.—(i) *General.* The prevention and control of venereal diseases are undertaken by the States. Each State has a Venereal Diseases Act, or provisions in the Health Act govern the working of the measures taken to combat these diseases. Under these Acts notification has been made compulsory in every State except South Australia, where the Venereal Diseases Act has not yet been proclaimed. Steps have been taken to ensure free treatment by medical practitioners or in subsidized hospitals and clinics. Registered pharmaceutical chemists are allowed to dispense prescriptions only when signed by medical practitioners. Clinics have been established and, in some cases, beds in public hospitals have been set aside for patients suffering from these diseases.

Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person or the employment of an infected person in the manufacture or distribution of foodstuffs.

For several years the Commonwealth Government granted a subsidy to each of the States to assist in providing hospital treatment and administrative control of venereal diseases, but this subsidy has been discontinued.

In 1927 a Division of Tuberculosis and Venereal Disease was established in the Commonwealth Department of Health, with a medical officer as Director. This Division ceased to exist in April, 1932.

(ii) *Details by States.* A statement of the preventive provisions in each State together with certain statistical data, appeared in earlier Year Books (see No. 22, pp. 503 and 504).

4. **Vaccination.**—(i) *Demand for Vaccine.* In New South Wales there is no statutory provision for compulsory vaccination, though in all the other States, such provision exists. Jennerian vaccine for vaccination against small-pox is prepared at the Commonwealth serum laboratories in Melbourne. A moderate demand exists for the vaccine in Victoria, but in the other States the normal requirements are small, as is also the proportion of persons vaccinated.

(ii) *Details by States.* In earlier issues of the Year Book (see No. 22, pp. 504 and 505) information was given concerning the provisions regarding vaccination in each State.

5. **Commonwealth Serum Laboratories.**—The establishment for the preparation of Jennerian vaccine situated at Royal Park, near Melbourne, formerly known as the "Calf Lymph Depot," was in 1918 greatly enlarged by the Commonwealth. The remodelled institution is designated the "Commonwealth Serum Laboratories," and is administered by the Commonwealth Department of Health. The list of biological preparations produced by the laboratories has been extended to cover a wide range, thus forming a valuable national provision for the protection of public health.

6. **Health Laboratories.**—The Commonwealth Department of Health has established health laboratories at Rabaul in New Guinea, at Lismore in New South Wales, at Bendigo in Victoria, at Townsville, Toowoomba, Rockhampton and Cairns in Queensland, at Port Pirie in South Australia, at Kalgoorlie and Broome in Western Australia, at Launceston in Tasmania and at Darwin in the Northern Territory.

The laboratory at Rabaul, which until 1930 was carried on in conjunction with the hookworm campaign, and was working in close co-operation with the health organization of the New Guinea Administration, was formally transferred to the Administration at the beginning of 1930.

The Bendigo Laboratory, which was the first of these laboratories to be established, was opened in 1922. Besides carrying on the ordinary diagnostic and educational work of a health laboratory it possesses an X-ray equipment, and undertakes the examination, diagnosis and treatment of persons suffering from miner's disease and tuberculosis.

By arrangements between the Commonwealth and Western Australian Governments a special medical survey of persons engaged in the mining industry in Western Australia was carried out in 1925-26 by the Commonwealth Health Laboratory at Kalgoorlie. A further arrangement provided for the re-examination annually of mine employees in the Kalgoorlie district, and, by means of a mobile X-ray unit, in outlying districts. This work is still being carried out.

7. **Industrial Hygiene.**—The Industrial Hygiene Division of the Commonwealth Department of Health was established in December, 1921. Its objects were the collection of reliable data, the investigation of industrial conditions affecting health, and the issue of advice to employers and employees for the improvement of conditions of work and for the safeguarding of health. Publications were issued dealing with the scope of industrial hygiene and with health hazards in industry. With a view to the adoption of a concerted scheme of action and a uniform basis for standards and records throughout Australia, conferences of delegates from the State Health and Labour Departments and the Commonwealth Department of Health were held in 1922, 1924 and in 1927. This Division ceased to exist with the reorganization of the Department in April, 1932.

A special article entitled "Industrial Hygiene in Australia" will be found in Official Year Book No. 18, pp. 522 to 555.

8. **Veterinary Hygiene and Plant Quarantine.**—In 1927 Directors were appointed to control divisions of the Commonwealth Department of Health, which have been created to deal with veterinary hygiene and plant quarantine.

§ 7. Tropical Diseases.

1. **General.**—The remarkable development of parasitology in recent years, and the increase in knowledge of the part played by parasites in human and animal diseases, have shown that the difficulties in the way of tropical colonization, in so far as these arise from the prevalence of diseases characteristic of tropical countries, are largely removable by preventive and remedial measures. Malaria and other tropical diseases are coming more and more under control, and the improvements in hygiene and the production of new synthetic drugs for treatment which science has accomplished, have resulted in a new outlook on the question of white settlement in countries formerly regarded as unsuitable for colonization by European races. In Australia the most important aspect of this matter is at present in relation to such diseases as hookworm, filariasis, dengue fever and malaria, which, although practically unknown in southern Australia, occur in many of the tropical and sub-tropical parts.

A Division of Tropical Hygiene of the Commonwealth Department of Health was established to deal with these diseases and other aspects of tropical hygiene. This Division ceased to exist as such with the reorganization of the Department in April, 1932.

2. **Transmission of Disease by Mosquitoes.**—Information under this heading has appeared in earlier issues (see No. 22, pp. 506 and 507).

3. **Control of Introduced Malaria and Bilharziasis.**—Reference to this subject may be found in earlier Year Books (see No. 22, p. 507).

4. **Hookworm.**—Reference to this subject may be found in earlier Year Books (see No. 25, pp. 416 and 417).

5. **Australian Institute of Tropical Medicine.**—The Australian Institute of Tropical Medicine was founded at Townsville in January, 1910. From 7th March, 1921, to 3rd March, 1930, when it was merged in the School of Public Health and Tropical Medicine, Sydney University, the Institute was administered by the Commonwealth Department of Health, and a full account of its activities from its foundation up to 1922 will be found in Official Year Book No. 15, pp. 1010-1012.

6. **School of Public Health and Tropical Medicine, Sydney University.**—The Commonwealth Government, under an agreement with the Sydney University, established a School of Public Health and Tropical Medicine at the Sydney University as from 4th March, 1930, for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new School, and the staff, equipment and material have been transferred to Sydney.

The work of the School comprises both teaching and investigation. Courses are held for the University post-graduate diploma of public health and the diploma of tropical medicine and tropical hygiene. Lectures are given in public health and preventive medicine as prescribed for the fifth year of the medical curriculum. Other classes include students in architectural, social, and school hygiene, and lay officers and nurses in the tropical service and missionaries. Three classes of native medical assistants from Papua have attended a special course of instruction at the School.

Investigational work covers a wide field of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out not only in Australia but in co-operation with the local administrations in Papua, New Guinea, Norfolk Island and Nauru. Further details may be found in previous Year Books (see No. 29, p. 334).

7. **Royal Commission on National Health, etc.**—Information concerning the following subjects may be found in previous Year Books (see No. 22, pp. 509 and 510):—(a) Royal Commission on National Health appointed by the Commonwealth Government in 1924; (b) Travelling Study Tours under the League of Nations; (c) International Sanitary Convention; and (d) Far Eastern Epidemiological Bureau, Singapore.

8. **International Pacific Health Conferences, 1926 and 1935.**—In Official Year Books No. 22, page 510, and No. 29, page 334, information was given relating to the First International Pacific Health Conference which met at Melbourne in December, 1926 and the second Conference convened by the Commonwealth Government at Sydney in September, 1935.

§ 8. Organization for the Control of Cancer.

The persistent increase in cancer mortality has led to the development in Australia of a national organization directed towards the control of this disease. The Commonwealth Department of Health has actively participated in this movement. Since 1928 the Australian Cancer Conferences, convened by the Department, have provided an opportunity each year for those actively engaged in the campaign against the disease to meet for the discussion of problems and the determination of lines of action and further development. The tenth conference in this series met in New Zealand in February, 1939, and so marked an association which has been maintained between the Commonwealth and the Dominion since the inception of the conferences.

A large amount of radium purchased in 1928 by the Commonwealth Government for use in treatment and research has been distributed on loan to treatment centres throughout Australia. Under the terms of this loan, treatment at well-equipped clinics is available to all requiring it, irrespective of ability to pay. This work is co-ordinated by the Department. Records of treatment and the results obtained are kept by all treatment centres on uniform lines and are collected and analysed. These records, in respect of certain parts of the body, are also collated in accordance with the international inquiry carried out under the auspices of the Cancer Commission of the Health Organization of the League of Nations in collaboration with the International Radiological Association.

Close co-operation is maintained between research workers, physicists and biochemists and the medical men engaged in the clinical investigation and treatment of the disease, so that problems are mutually investigated and treatment applied with the highest attainable degree of scientific accuracy.

Realizing the essential importance of accuracy in determining the quality of radiation used in the treatment of cancer and in measuring the dosage of this radiation actually delivered to the tumour, and the need for the investigation of physical problems in connexion with the utilization of X-rays and radium in the treatment of disease, the Commonwealth Department of Health has now extended the work of the Commonwealth Radium Laboratory, which was established in 1929, to include the investigation of the physical problems of radiation therapy generally. This laboratory which is now known as the Commonwealth X-ray and Radium Laboratory was established at the University of Melbourne by agreement with the Council of the University, and is maintained, controlled and staffed by the Commonwealth Department of Health. It is accommodated in a separate laboratory building of sixteen rooms specially designed for X-ray and radium work, and is well provided with all necessary equipment for research work, including a high tension generator capable of supplying 500,000 volts to an X-ray tube. This laboratory is actively at work and its specialist officers co-operate closely with the local physical services which are being developed at the Universities in the other capital cities of the Commonwealth. The laboratory also continues its earlier work of production of radon for treatment, the repair of radium apparatus, and research into problems of treatment and protection. During the year 1938 a total quantity of 48,803 millicuries of radon was prepared and issued by this laboratory and the associated centres in Sydney, Brisbane and Perth. Used in the treatment of cancer and for research purposes, this production represents a continuing increase over the output of previous years.

§ 9. Medical Inspection of School Children.

1. **General.**—Medical inspection of school children is carried out in all the States. Medical staffs have been organized, and in some States travelling clinics have been established to deal with dental and ocular defects.

2. **New South Wales.**—A complete system of medical inspection of school children came into operation in this State in 1913. The scheme includes, in country districts, the medical examination of every child at least twice during the usual period of school attendance (6–14 years). In the metropolitan area, the scheme provides for the full medical examination of all children in first and sixth classes, and the review of children

in other classes who have been found defective in previous years. Parents are notified of the defects found, and urged to have them treated. In the metropolitan area, these notices are reinforced by "follow up" work of school nurses, who also arrange hospital and clinic treatment in many cases.

In 1938 the staff comprised 19 medical officers (including a psychiatrist for the Child Guidance Clinic, and an oculist), 18 dental officers, 8 dental assistants, 12 school nurses, 1 psychologist, 1 social worker and 6 clerical officers. Eight medical officers were engaged in country districts, and 9 in the metropolitan area, and of the 18 travelling dental clinics (8 of which were each staffed by a dental officer and dental assistant), 9 were engaged in metropolitan schools and 9 in country districts. One of the metropolitan officers was also engaged half-time at the clinic attached to the Out-patients' Department of the Royal Alexandra Hospital for Children.

Special attention is paid to the supervision of the health of High School pupils, both girls and boys, and High Schools in the metropolitan area, as well as certain country schools, are medically inspected annually.

Every student, before entering the Teachers' College, is medically examined, and any defects found must be remedied before final acceptance. Health supervision is maintained at these Colleges by women Medical Officers—whole-time at the Sydney College and part-time at the Armidale College. Also, a course of lectures on hygiene, which every student attends, is given by these officers.

The medical and psychological examination of delinquent boys brought before the Children's Court is carried out by a male Medical Officer, who examined 906 boys in 1937, and 1,057 in 1938. Similar examinations are made in the case of girl delinquents.

Towards the end of 1936 a Child Guidance Clinic was established by the Education Department. This Clinic functions as part of the School Medical Service, a psychiatrist having been appointed to take charge of the work of the clinic. Cases are referred through School Medical officers, teachers, and officers of the Child Welfare Department, no fee being charged for any examination.

The medical and/or psychological examination of many children referred from schools, also certain children under the jurisdiction of the Child Welfare Department, Widows' Pensions Branch (Family Endowment Department) and Soldiers' Children Education Board is also carried out by medical officers of this service, either at this Department or at Child Welfare Department institutions. The total examined in this way, including those examined at the Child Guidance Clinic, during 1938, was 1,662.

The following summary furnishes particulars of children medically examined in schools in 1938:—

Number fully examined (routine inspection)	..	..	45,669
Number reviewed	..	..	23,597
Of those examined—percentage notified for defects, medical and/or dental	..	..	37.44 per cent.

These figures do not include record of the medical examination and health supervision of children in residence at the Glenfield Special School for backward children, which is carried out by a woman medical officer; or a total of 210 children medically examined at Stewart House Preventorium and the Christmas Camp organized under the Far West Children's Health Scheme.

The School Medical Service carries out regular and/or periodical investigations into problems affecting the health of children, such as goitre, crippling, mental deficiency, stammering, left-handedness, nutrition, trachoma, acute rheumatism, and special investigations into outbreaks of infectious diseases occurring in schools. A special physical and orthopaedic survey was carried out in 1938. The sanitary condition of school buildings is also inspected and reported on.

The above statement does not include record of the numerous medical examinations of teachers, and other Departmental work of a medical nature, done by the School Medical Service.

3. **Victoria.**—The system adopted provides for the medical examination of each child once every three years during its school life. With the doubling of the medical staff in 1925 the Department concentrated on country work, and medical inspection has been undertaken since that date in country and rural districts, reaching the most remote corners of the State. Medical inspection is now undertaken in all high schools, in practically all country State schools, and in about half of the metropolitan State schools, but in only a few of the registered and institutional schools.

Each school is visited once in every three years, and each child examined. At this inspection every child is first weighed and measured, vision and hearing tested, then undressed to the waist and medically examined as for life assurance, but with a fuller investigation of many hygienic factors, which at that age greatly influence the health and growth of the child. Opportunity is also taken to teach the child healthy habits, how to correct faults, also to get its co-operation for the remedying of defects found. In schools with an attendance of 70 or more, the older boys are examined by a medical man and the older girls by a medical woman. School nurses employed by the Department are devoted to "follow-up" work, *i.e.*, visiting the homes and getting treatment for children found defective by the school medical officers. Owing to the smallness of the staff their work is confined to the metropolitan area.

In addition to the medical examination, each child in those schools visited by the school dentist receives dental treatment on entrance to school (if under 8 years of age), and each year thereafter, until it is 12 years of age, when it is left dentally fit. The present staff is arranged so that 3 dentists and 4 dental attendants are always on duty at the Melbourne Dental Centre, where children from the infant classes in the inner metropolitan schools are brought by the teacher for dental treatment. Two dentists with dental attendants and equipment travel along the railway line far enough to give one year's work, using practically every town large enough to provide a day's work as a base. The school committees of the outlying schools are notified of the visit, and the parents are invited to bring to the base all children eligible for treatment, *i.e.*, all children under 8 years of age, and all other children treated by the school dentists on previous visits. The time of another dentist is fully occupied treating the children in the three largest country centres, Bendigo, Ballarat and Geelong. In each of these cities a centre with a dentist, dental attendant and equipment is established for about four months of the year, where children from the infant classes of the neighbouring schools are brought by the teacher or parents. Three dentists with dental attendants are in charge of three fully-equipped dental vans, each of which has an itinerary which it completes each year.

The staff of the medical branch consists of 7 full-time medical officers, 9 dentists, 10 dental attendants and 2 school nurses.

During the year ended 30th June, 1938, 26,736 children and 1,301 teachers were medically examined, and 26,534 children received dental treatment. In addition 2,207 homes were visited by the school nurses. The number of children examined in 1937-38 was less than usual owing to the poliomyelitis epidemic.

4. **Queensland.**—The School Health Services Branch, under the direction of the Chief Medical Officer, consists of three sections known as the Medical, Dental and Nursing Sections.

Medical inspection of schools and school children is carried out by one full-time medical officer and one part-time officer under the general direction of the Chief Medical Officer, School Health Services. These officers as far as possible, examine children for cardiac and pulmonary conditions, and in addition, make a thorough examination of all children referred to them by the school nurses; 4,143 were thus medically examined in 1938, and of these 1,962 were notified as suffering from some condition requiring correction.

The nurses now number fourteen. Each nurse is assigned a group of schools, and she is instructed to make a list at each school of those children who she considers should be seen by the medical inspector at his next visit. She supervises the sanitation, cleanliness and ventilation of the school and notifies the head teacher of all infectious or verminous children or those suffering from impetigo, scabies, etc., who are then excluded. During the year 1938, school nurses examined 28,008 children. In the metropolitan area the nurses examine the teeth and report all eligible carious cases to the Dental Hospital for treatment.

The Department has in its employ a staff of sixteen dentists. These officers are each assigned a district, and such district is not changed for three years unless for reasons which the Chief Medical Officer, on the recommendation of the Chief Dental Inspector, considers advisable. During the year 1938, 29,724 children were examined; 31,143 extractions were performed; and there were 59,886 fillings and 20,415 other treatments.

At the Wilson Ophthalmic School Hostel children suffering from trachoma are treated and educated. They are admitted from time to time on the recommendation of the part-time Ophthalmic Officer. Beneficial results have already been obtained. The Institution is situated at Eildon Hill, Windsor, and is fully equipped to treat all types of eye case.

The work of Hookworm Control (the dealing with ankylostomiasis duodenale and Necator Americanus infestation) throughout the State is under the control of the Director-General of Medical Services and his deputy. This activity has resulted in a marked reduction in the incidence of this dangerous menace on the northern coastal belt. Several sisters of the School Health Services are seconded for hookworm duty. The personnel consists of a microscopist, a health inspector and five trained sisters.

In order to give the same medical and dental facilities to the children of the back country as are obtainable by city dwellers, a Rail Dental Clinic equipped on the most modern lines has been constructed. A motor car is carried on a railway waggon at the rear for use at each stopping place to visit the surrounding villages served by the rail centre. Two road motor clinics have also been provided. One functions in the south-western portion of the State with Charleville as a base, while the other operates in the central-west and the north-western territory using Longreach as the centre. The staff of each clinic consists of one qualified dental surgeon and one motor mechanic.

5. **South Australia.**—The system of medical inspection in force requires the examination of all children attending primary, central, high and technical high schools. Children in the primary schools are examined in grades I., IV. and VII.; in the central schools in grade X., while high school children are examined in their second and fourth years. Reports are furnished to the parents of any remediable defects found during these examinations. The medical inspectors meet the parents after the examination of the children and give an address on the prevention and treatment of the conditions which were found during the inspection. After these lectures the parents are given an opportunity to ask questions regarding their children. When there is an epidemic or a threatened epidemic in a district, similar lectures are given and special visits paid to all the schools in that locality. All students are examined before they enter the Teachers' College. Courses of lectures in Hygiene and in First Aid are given to these students.

The medical staff consists of a principal medical officer, two medical inspectors and a trained nurse. A psychologist, two dentists and two dental assistants are attached to the Medical Branch. The psychologist, in addition to examining retarded children and supervising their work in the opportunity classes, lectures to the students at the Teachers' College, and examines children referred to her by the Children's Court, by the Women Police, or by the Children's Welfare Department, etc.

During the year 1938, 7,112 children were examined by medical inspectors; of these 183 required notices for defective vision, 37 for defective hearing, and 342 for tonsils and adenoids. Three hundred and sixty-nine children were examined by the psychologist.

6. **Western Australia.**—Under the Public Health Act 1911-1935 the medical officers of health appointed by the local authorities became medical officers of schools and of school children. The principle aimed at is that each child shall be examined twice during its school life, once between the ages of 7 and 8 years and again between the ages of 12 and 13 years. In the Health Department there are two full-time medical officers for schools, whose duty is to conduct medical examinations, and two school nurses are employed. During 1938, 10,099 (8,286 country and 1,813 metropolitan) children were examined. In addition 1,487 metropolitan and 51 country school children were re-examined. There were 37 schools visited in the metropolitan area and 263 in country districts.

Three dental officers visited 57 schools and gave attention to 4,270 children.

7. **Tasmania.**—Tasmania was the first State in Australia to provide for the medical inspection of State school children, its system of inspection having been initiated in 1906. During the year 1931, however, for financial reasons, medical inspection ceased, and the services of all doctors were terminated. School medical and dental services are now controlled by the Department of Public Health.

At the present time (1938), two part-time medical officers conduct examinations of school children in Hobart and Launceston, and ten full-time Government Medical Officers examine school children in the various country districts. In addition four nurses visit the homes to advise the parents as to the treatment of defects disclosed by the medical examination. There are six full-time dental officers—working at dental clinics in Hobart and Launceston, and visiting the country schools.

8. **Australian Capital Territory.**—By arrangement education facilities are provided by the Education Department of New South Wales. The Commonwealth Department of Health, however, took over from the State in 1930 the medical inspection of school children and carried out examinations of entrants and those leaving during 1930.

Subsequent to 1931, examinations of entrants and those leaving the primary schools have taken place. During 1937 this examination was supplemented by examinations of all pupils of all rural schools (including Duntroon and Molonglo). During 1938 the examinations of entrants and those leaving the primary schools showed that 49.3 per cent. had dental defects, 8.5 per cent. had some pathological condition of the nasopharynx, 4.7 per cent. had eye defects, 5.2 per cent. had ear defects, 5.6 per cent. showed some evidence of minor deformity, and 2.4 per cent. were 10 per cent. or more underweight for their height and age. Of the pupils recommended for medical advice 60 per cent. received this advice, and 63.7 per cent. of those recommended for dental treatment received such treatment.

§ 10. Supervision and Care of Infant Life.

1. **General.**—The number of infantile deaths and the rate of infantile mortality for the last five years are given in the following table, which shows that during the period 1934 to 1938 no less than 22,859 children died in Australia (excluding Territories) before reaching their first birthday. With few exceptions the rate of mortality in the metropolitan area is consistently greater than that for the remainder of the State. Further information regarding infantile mortality will be found in Chapter XIII. "Vital Statistics" :—

INFANTILE DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
NUMBER OF INFANTILE DEATHS.										
New South Wales	732	602	738	702	713	1,277	1,160	1,270	1,230	1,268
Victoria ..	637	570	605	538	510	605	578	617	553	528
Queensland ..	181	190	185	201	215	524	469	494	482	569
South Australia ..	151	133	123	134	124	150	156	154	163	163
Western Australia	136	139	156	154	115	183	187	202	169	194
Tasmania ..	45	72	53	43	48	144	159	174	159	147
Australia (b) ..	1,882	1,706	1,860	1,772	1,724	2,883	2,709	2,911	2,756	2,869
RATE OF INFANTILE MORTALITY. (a)										
New South Wales	44.26	35.61	41.73	38.66	38.35	47.65	41.77	44.56	41.92	44.10
Victoria ..	48.42	43.01	44.06	37.13	34.19	41.24	39.51	40.72	36.28	34.22
Queensland ..	42.36	42.41	37.95	40.22	42.36	40.04	35.51	35.59	34.03	40.89
South Australia ..	39.89	35.11	28.62	30.94	27.36	32.09	34.81	33.38	35.02	33.42
Western Australia	41.25	40.05	44.21	42.40	29.76	40.63	40.23	40.81	33.96	36.76
Tasmania ..	40.54	73.47	50.48	39.74	43.32	42.80	45.74	49.28	42.30	37.40
Australia (b) ..	44.64	39.90	41.18	37.95	36.00	42.97	39.71	41.20	38.21	39.81

(a) Number of deaths under one year per 1,000 births registered.

(b) Exclusive of Territories.

During recent years greater attention has been paid to the fact that the health of the community depends largely on pre-natal as well as after care in the case of mothers and infants. Government and private organizations, therefore, provide instruction and treatment for mothers before and after confinement, while the health and well-being of mother and child are looked after by the institution of baby health centres, baby clinics, crèches, visits by qualified midwifery nurses, and special attention to the milk supply, etc.

2. **Government Activities.**—In all the States acts have been passed with the object of supervising and ameliorating the conditions of infant life and reducing the rate of mortality. Government Departments control the boarding-out to suitable persons of the wards of the State, and wherever possible the child is boarded-out to its mother or near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children. (See also in this connexion Chapter VIII. "Public Benevolence".) Under the provisions of the Maternity Allowance Act 1912-1937, a sum of £4 10s. is payable to the mother in respect of each confinement at which a living or viable child is born, provided the total income of the claimant and her husband for the period of twelve months preceding the date of the birth did not exceed £247. Where there are already one or two children under 14 the amount payable is £5, with an income limit of £263, and where there are three or more other children under 14 the amount payable is £7 10s. with an income limit of £338. Further particulars regarding Maternity Allowances are given in Chapter XXVII. "Public Finance".

3. **Nursing Activities.**—(i) *General.* In several of the States the Government maintains institutions which provide treatment for mothers and children, while, in addition, subsidies are granted to various associations engaged in welfare work.

(ii) *Details by States.* In earlier issues of the Year Book (see No. 22, pp. 515 and 516) information, with certain statistical data, concerning the activities of institutions in each State may be found.

(iii) *Summary.* The following table gives particulars of the activities of the Baby Health Centres and the Bush Nursing Associations :—

BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1938.

Heading.	New South Wales.	Victoria. (a)	Queens-land. (a)	South Australia.	Western Australia. (a)	Tasmania.	Aust. Capital Territory. (a)	Total.
Baby Health Centres—								
Metropolitan No.	53	71	16	41	13	2	..	196
Urban-Provincial and Rural No.	147	104	88	23	11	22	8	403
Total No.	200	175	104	64	24	24	8	599
Attendances at Centres ..	790,450	361,187	213,453	100,256	87,331	39,241	5,206	1,597,124
Visits paid by Nurses ..	68,906	89,821	12,252	23,943	18,279	15,315	2,384	230,900
Bush Nursing Association—Number of Centres ..	52	71	13	30	6	18	..	190

(a) Year ended 30th June.

The number of attendances at the Baby Health Centres has increased very considerably in recent years. The following are the figures for the years 1933 to 1937 :— 1933, 1,232,887 ; 1934, 1,178,957 ; 1935, 1,355,306 ; 1936, 1,512,198 ; and 1937, 1,657,052.

CHAPTER X. DEFENCE.

§ 1. Military Defence.

1. *State Systems.*—A detailed historical account of the Australian defence forces prior to Federation will be found in Official Year Book No. 2, pp. 1075–1080. See also Official Year Book No. 12, p. 999.

The strength of the military forces of the States on the 31st December, 1900 (the eve of Federation) was :—New South Wales, 9,338 ; Victoria, 6,335 ; Queensland, 4,028 ; South Australia, 2,932 ; Western Australia, 2,696 ; Tasmania, 2,024 ; total for Australia, 27,353. This total was exclusive of cadets, reservists and rifle club members.

2. *Commonwealth System.*—(i) *General.* Under the terms of the Constitution Act 1900, the Commonwealth took over control of defence matters in March, 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in seven phases, viz. :—

- (a) The first phase, i.e., the welding together of the military forces of the States into one homogeneous army, was entrusted by the Government in 1902 to Major-General Sir Edward Hutton, K.C.B., K.C.M.G., and a sound foundation was laid, upon which the subsequent organization and training were based.
- (b) The second phase was the introduction of Universal Training in 1911. During the year 1909 a measure providing for universal training was enacted, and the scheme came into force in 1911 after the advice and recommendations of Lord Kitchener had been obtained. By the Defence Acts of 1903 and 1904 all male inhabitants between the ages of 18 and 60 years were made liable to serve in Australia with the defence forces *in time of war*. Subsequent legislation made training and service compulsory up to the age of 26 years *in time of peace*. By the Act of 1909 the principle of universal liability to training was made law for the first time in any English-speaking community. More detailed reference to these matters will be found in Official Year Book No. 12, p. 999 *et seq.*
- (c) The third phase, *Divisional Organization*, came into operation from the 1st May, 1921. Under this system a war organization, evolved from the Australian Imperial Force, was applied to peace conditions, with a minimum of permanent personnel. Numbers of units and formations were altered to correspond with those of the A.I.F. and every effort was made to maintain the traditions established by those units in the Great War.
- (d) The fourth phase, which was initiated by the Government in 1922, entailed the reduction of the Divisional Organization to a nucleus force.
- (e) The fifth phase, the suspension of all compulsory obligations *in time of peace* (under Part XII. of the Defence Act) and the reconstitution of the forces on a basis of voluntary enlistment, was brought into operation as from 1st November, 1929. The Divisional Organization was retained, but the peace nucleus was reduced from 48,000 Citizen Forces and 16,000 Senior Cadets to 35,000 Militia Forces and 7,000 Senior Cadets, by reductions in the training establishments of units and by ceasing to maintain certain light horse regiments and infantry battalions. The peace nucleus of the Militia Forces was further reduced to 30,000 in 1931.
- (f) The sixth phase was initiated by the Government in July, 1936, whereby authority was given to raise the training strength of the Militia to 35,000, maintaining the Senior Cadets at 7,000. This strength was attained by December, 1936. The Divisional Organization was retained. Certain light horse regiments and infantry battalions which ceased to be maintained

in the fifth phase, and were linked with other light horse regiments and battalions, were now resuscitated. In addition certain new units were organized as a first step towards the modernization of the field army and coast defences. These units included light horse machine gun regiments and anti-aircraft and searchlight units.

- (g) The seventh phase was initiated by the Government in November, 1938, when authority was given to raise the training strength of the militia to 70,000. This strength was attained in March, 1939. The Divisional Organization was retained, and in order to absorb the increasing numbers the policy of increasing unit establishments was adopted, but new units were formed in a few special cases only. The strength of the Senior Cadet Corps has been maintained and on 31st December, 1938, was 8,899. The increase is due to the recruiting campaign, and will be further increased in view of the Government's decision to improve conditions regarding service and training equipment.

(ii) *Military Population.* The following particulars showing the numbers of males of military age in the population of Australia, as at the Census of the 30th June, 1933, are of interest. The total number of cadet age, between 12 and 18 years, was 371,000; at citizen soldier age, between 18 and 26 years, 482,000; and between 26 and 35 years, 472,000; making a total of 954,000 between the ages of 18 and 35, which is considered the best period for military service. It is estimated that 620,000 of the males between the ages of 18 and 35 were unmarried or widowers without children, and 334,000 were married or widowers with children. In addition to the abovementioned, there were 972,000 males between the ages of 35 and 60 in Australia at the 1933 Census.

(iii) *Allotment of Units.* The organization is territorial, and the divisions are based upon infantry units. There are 53 battalions, forming 14 brigades. The areas have approximately equal numbers of males of citizen soldier age, and each furnishes a battalion of infantry, and a proportion of other troops.

ALLOTMENTS OF UNITS TO AREAS, 31st DECEMBER, 1938.

State.	Military District.	Battalion Areas.																
		Number of Infantry Brigade Areas.	Infantry Battalions.	Light Horse Regiments.	Light Horse Machine Gun Regiments.	Armoured Car Regiments.	Providing the undermentioned Units—											
							Royal Australian Artillery (Militia)										Royal Australian Engineers (Militia).	
							Field Artillery Batteries.		Medium Artillery.		Heavy Artillery.		Artillery Survey.		Anti-aircraft Brigade.		Anti-aircraft Battery.		Field.	Fortress.
						Brigade Headquarters.	Batteries.	Brigade Headquarters.	Batteries.	Artillery Survey.	Anti-aircraft Brigade.	Anti-aircraft Battery.	Companies.	Troops.	Companies.			
New South Wales ..	2nd	5	17	6	2	1	19	1	3	1	4	1	1	3	5	3	2	
Victoria ..	3rd	5	17	4	2	1	17	1	3	1	2	1	1	5	3	1	1	
Queensland ..	1st	2	9	3	..	..	6	..	..	..	2	..	..	2	1	..	2
South Australia ..	4th	1	4	2	1	..	4	..	..	..	1	..	..	1	1	..	..
Western Australia ..	5th	1	4	1	1	..	3	..	..	1	3	..	..	1	..	1	1
Tasmania ..	6th	..	2	1	..	..	3	..	..	1	1	..	..	1	..	1	1
Total ..	..	14	53	17	6	2	52	2	6	3	13	2	1	4	15	8	7

ALLOTMENTS OF UNITS TO AREAS, 31ST DECEMBER, 1938—*continued.*

State.	Military District.	Battalion Areas.														A.A.V.C. Sections.	Army Pay Corps.	
		Providing the undermentioned Units—																
		Anti-aircraft Companies.		Signals.	Tank Corps.	A.A.S.C.				A.A.M.C.				A.A.O.C. Units.				
		Sections.	Troops.	Tank Section.	Supply Columns.	Supply Sections.	Ammunition Companies.	Ammunition Sections.	Supply Personal Companies.	Field Ambulance.	Field Hygiene Sections.	Casualty Clearing Stations.	Garrison Companies.					
New South Wales	2nd	1	26	5	1	23	..	3	..	1	7	3	1	1	8	4	1	
Victoria	3rd	1	23	5	1	23	..	3	..	1	7	3	1	1	7	4	1	
Queensland	1st	..	7	1	..	1	4	..	..	1	1	1	..	1	3	2	1
South Australia	4th	..	3	1	..	1	2	..	..	1	2	1	..	1	5	1	1
Western Australia	5th	..	5	..	..	1	..	..	..	1	1	1	..	1	3	..	1
Tasmania	6th	..	2	..	..	1	..	..	..	1	1	1	..	1	3	..	1
Total	2	66	12	2	10	6	6	4	6	21	10	2	7	29	11	6

(a) Less four sections. (b) Less one section. (c) Less two sections. (d) Less three sections.

(iv) *Strength of Military Forces.* (a) *Districts.* There was little alteration in the numbers serving in the Australian military forces from the institution of the Commonwealth to the year of the introduction of the compulsory training system. From 1913 to 1918, however, the annual increase was considerable. As a result of the International Conference which met at Washington on the 11th November, 1921, it was decided to continue the universal training law, but its operation was restricted to the more populous centres and to certain quotas only. From 1st July, 1922, to 30th June, 1925, training in the Senior Cadets was limited to two quotas instead of four, and in the Citizen Forces to two quotas instead of seven. On 1st July, 1925, Senior Cadet training was reduced to one quota only, while Citizen Force training was increased to three quotas. These conditions remained in force until 1st November, 1929, when the constitution of the forces on a voluntary basis was adopted. During the period last mentioned, Senior Cadet training commenced on 1st July of the year in which Senior Cadets reached the age of 17 years, and on 1st July of the following year they were allotted to the Citizen Forces, in which training continued until the 30th June of the year in which they attained the age of 21 years. Notwithstanding the reduction in training, all males residing within 5 miles of a training centre were required to register during the months of January or February of the year in which they reached the age of 14 years. Junior Cadet training of boys of the ages of 12 and 13 years, which was in abeyance during the years 1922-23 and 1923-24, was also supervised by the Defence Department during the period 1st July, 1925, to 31st October, 1929.

Under the voluntary enlistment system now in force men from 18 to 40 years of age may be enlisted. The first period of enlistment is for three years, and on its completion, the member concerned may be re-engaged for successive periods of two or three years until he reaches the age for retirement (48 years). The normal period of training is 18 days per annum (including 12 days in camp of continuous training).

The Senior Cadet Corps, in which enrolment is voluntary, is organized on the following basis: (a) Detachments affiliated with Militia Units:—Light Horse, Nil; Infantry, Signals and A.S.C., 25 per cent. of the establishment of the Militia Unit; Other Arms, 20 per cent. of the establishment of the Militia Unit; and (b) Detachments consisting of pupils attending approved educational establishments. The ages for enrolment in the regimental detachments are 16 and 17 years, and in the school detachments over 14 years.

TRAINING STRENGTH OF MILITARY FORCES.

(a) District.	1901. (b) 1/3/01.	1913. 30/6/13.	1922. 31/12/22.	1935. 31/12/35.	1936. 31/12/36.	1937. 31/12/37.	1938. 31/12/38.
Army Head-Qrs. (Melbourne) ..	..	(c) 277	(c) 499	(d) 86	(d) 105	(d) 143	(d) 126
1st (Q'ld.) ..	4,310	4,625	4,319	3,178	4,281	4,527	5,433
2nd (N.S.W.) ..	9,772	12,105	14,561	10,297	13,018	13,474	16,610
3rd (Vict.) ..	7,011	10,840	11,117	9,641	11,748	11,755	14,495
4th (S. Aus.) ..	2,956	3,228	3,452	2,202	2,720	2,796	4,073
5th (W. Aus.) ..	2,283	1,685	2,018	1,400	2,612	2,637	3,271
6th (Tas.) ..	2,554	1,777	1,190	1,276	1,579	1,611	1,682
Total ..	28,886	34,537	37,156	28,080	36,063	36,943	45,690

(a) Approximately coterminous with boundaries of States. (b) Date of taking over the military forces from States by Commonwealth. (c) Including cadets at Royal Military College of Australia and Staff Corps Officers abroad, unallotted, or training with other Commonwealth Departments. (d) Including cadets at Royal Military College of Australia.

(b) *Various Arms.* The numbers of the different arms of the service on the 31st December, 1938, were as follows:—

**ARMS OF THE AUSTRALIAN MILITARY FORCES, ACTIVE LIST,
31st DECEMBER, 1938.(a)**

Head-quarters Staffs	180	Survey Corps	25
Staff Corps	274	Field Engineers	1,599
Corps of Staff Cadets	40	Fortress Engineers	508
Instructional Corps	735	Anti-aircraft Searchlight Com- pany	88
Light Horse	5,319	Signals	1,749
Light Horse (Machine Gun) Regiments	1,381	Infantry	18,915
Armoured Car Regiment	306	Tank Corps	59
Royal Australian Artillery	1,004	Army Service Corps	2,397
Field Artillery	5,476	Army Medical Corps	1,781
Medium Artillery	504	Army Ordnance Corps (b)	650
Heavy Artillery	1,266	Army Veterinary Corps	267
Anti-aircraft Artillery	668	Army Pay Corps	35
Artillery Survey	169	Provost Staff	12
Royal Australian Engineers	283		
		Total	45,690

(a) Excluding civilian staff.

(b) Includes Ordnance Officers and Artificers.

(c) *Classification of Land Forces.* The following table shows the strength of the land forces in each State, classified according to nature of service, on the 31st December, 1938.

**DISTRIBUTION OF LAND FORCES,(a) ACTIVE AND RESERVE LISTS,
31st DECEMBER, 1938.**

Branch of Service.	Army Head-quarters.	1st Military District. (Qld.)	2nd Military District. (N.S.W.)	3rd Military District. (Vic.)	4th Military District. (S. Aus.)	5th Military District. (W. Aus.)	6th Military District. (Tas.)	Total.
Permanent Forces	(b) 120	349	1,267	602	108	257	92	2,795
Militia Forces	6	5,084	15,343	13,893	3,965	3,014	1,590	42,895
Engineer and Railway Staff Corps	2	10	14	12	12	9	4	63
Unattached List of Officers Reserve of Officers	4	23	43	58	10	6	10	154
Chaplains	4	758	1,887	2,668	418	348	168	6,247
		38	66	60	29	19	15	231
Total	136	6,262	18,620	17,293	4,542	3,653	1,879	52,385

(a) Excluding civilian staff

(b) Including cadets at Royal Military College of Australia.

(d) *Militia Forces and Senior Cadets, by Formations.* The following table shows the strength of Militia Forces and Senior Cadets, by formations, at the 31st December, 1938:—

**STRENGTH OF MILITIA FORCES AND SENIOR CADETS: BY FORMATIONS,
31st DECEMBER, 1938.**

State.	Military Formation.	Militia Forces.	Senior Cadets.	
			Regimental Detachments.	Educational Establishments.
Victoria ..	Army Head-quarters	6	..	..
Queensland ..	Field Troops, 1st Military District	4,714	361	927
Queensland ..	1st District Base	370	33	..
New South Wales..	1st Cavalry Division	3,160	40	57
New South Wales..	1st Division	4,581	499	632
New South Wales..	2nd Division	6,214	605	1,011
New South Wales..	2nd District Base	1,388	174	..
Victoria ..	2nd Cavalry Division	2,850	103	..
Victoria ..	3rd Division	5,514	709	877
Victoria ..	4th Division	4,602	568	469
Victoria ..	3rd District Base	927	83	..
South Australia ..	Field Troops, 4th Military District	3,712	375	387
South Australia ..	4th District Base	253	15	..
Western Australia	Field Troops, 5th Military District	2,594	285	305
Western Australia	5th District Base	420	63	..
Tasmania ..	Field Troops, 6th Military District	1,452	192	115
Tasmania ..	6th District Base	138	14	..
	Total	42,895	4,119	4,780

(e) *Numbers who served under Compulsory Provisions.* In earlier issues of the Year Book (see No. 22, pp. 578-579) tables were published showing the numbers registered and training under the compulsory system, distinguishing Citizen Forces and Senior Cadets.

(v) *Administration and Instruction.* The staff provided for the administration and training of the various arms consists of 274 officers (Staff Corps), 154 quartermasters, and 581 warrant and non-commissioned officers (Australian Instructional Corps).

(vi) *Royal Military College.* This College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the permanent military forces. In January, 1931, the College was transferred to Victoria Barracks, Sydney, but it returned to Duntroon early in 1937. Conditions of entry are prescribed in Royal Military College Regulations and provide for three categories, "normal entry", "service entry" and "special entry". The staff cadets undergoing training at the College in 1939 number 106, of whom 15 are being trained for the New Zealand permanent forces under an arrangement made in 1933 with the Government of that Dominion. Further particulars respecting the College are given on page 915 of Official Year Book No. 15.

(vii) *Railways and Defence.* A War Railway Council, consisting of military and railways officers, was instituted in 1911. Its chief duties are to furnish advice and information regarding railway transport for military purposes, and to secure co-operation between the Defence Department and the Railway Departments in regard to concentration and mobilization of troops. To prevent delay in the transport of troops, particularly

that caused by the transshipment of baggage and implements of war, the Council has recommended the adoption of a uniform railway gauge on lines linking up the State capitals. An Engineer and Railway Staff Corps has been instituted, and numbered 63 officers on 31st December, 1938. Further details will be found in Official Year Book No. 6, p. 1070.

(viii) *Rifle Clubs*. On the 30th June, 1938, there were in the Commonwealth 1,152 rifle clubs with a membership of 46,941, and 89 miniature rifle clubs having a membership of 2,589. Members of rifle clubs must fire an annual course of musketry, but do not undergo any systematic drill.

For the purposes of administration rifle club activities were placed under the control of the Military Board on the 1st March, 1931. Government Grants are made for the construction and maintenance of rifle ranges, etc., and 200 rounds of ammunition are issued free to each efficient member annually.

§ 2. Naval Defence.

1. *State Systems*.—Information regarding naval defence systems prior to 1901 will be found in Official Year Book No. 2, p. 1084.

2. *The Present System*.—(i) *General*. An outline of the development of Australian naval policy was given in Official Year Book No. 3, p. 1060, and No. 12, p. 1012. Some account of the building of the Australian Fleet, the proposed and modified cost thereof, the compact with the Imperial Government, etc., appears in Official Year Book No. 15, pp. 921 *et seq.* In 1938, the Commonwealth Government authorized the addition of the following vessels to the Royal Australian Navy:—

- 2 Cruisers.
- 2 Destroyers.
- 2 Escort Vessels.
- 3 Seaward Defence Vessels.
- 12 Motor Torpedo Boats.

The seaplane carrier *Albatross* was to be transferred to the Royal Navy where it could be more usefully employed. Arrangements were made for two cruisers of the Royal Navy to be taken over and renamed *Hobart* and *Perth*. The *Hobart* arrived in Australia in December, 1938, and the *Albatross* was handed over in September, 1938. The remaining vessels of the programme are to be constructed in Australia. The first seaward defence vessel *Kookaburra* was completed in January, 1939.

(ii) *Naval College*. A naval college was established at Geelong in 1913, and was transferred in 1915 to Captain's Point, Jervis Bay, Australian Capital Territory, and thence in 1930 to the Flinders Naval Depot, Victoria. The course is similar to that carried out in naval colleges in England. In February, 1939, there were 65 cadet midshipmen under training. A boy is eligible to sit for examination in the calendar year in which he attains the age of thirteen years, provided he is the son of natural-born or naturalized British subjects. From amongst those qualified the selection committee chooses the number required. The Commonwealth Government bears the whole expense of uniforms, victualling, travelling, as well as that of the educational course. Altogether 191 officers who have passed through the college are now serving with the Fleet.

In addition to the normal channel through the Naval College, youths between the ages of 16½ and 18½ are being selected for training as officers to meet the requirements consequent upon the expansion of the Royal Australian Navy. This "special entry" will continue for the next few years.

(iii) *Training Establishments*. Recruits from 16½ to 21 years of age receive their preliminary training at Flinders Naval Depot, Victoria, where, in addition to the entry school, instruction is given in Gunnery and Torpedo, Signals and Wireless Telegraphy, Engineering, etc.

(iv) *The Naval Station.* A description of the limits of the Australia Naval Station is contained in earlier issues of the Official Year Book (see No. 18, pp. 608-9).

(v) *Vessels.* A list of the vessels of the Royal Australian Navy is given hereunder :—

SHIPS OF THE ROYAL AUSTRALIAN NAVY, MARCH, 1939.

Vessel.	Description.	Displacement.	Power.
		Tons.	H.P.
IN COMMISSION—			
<i>Canberra</i> ..	Cruiser	9,850	80,000
<i>Sydney</i> ..	"	7,000	72,000
<i>Hobart</i> ..	"	6,980	72,000
<i>Adelaide</i> ..	"	5,100	25,000
<i>Vendetta</i> ..	Destroyer	1,090	27,000
<i>Voyager</i> ..	"	1,100	27,000
<i>Vampire</i> ..	"	1,090	27,000
<i>Swan</i> ..	Escort Vessel	1,060	2,000
<i>Yarra</i> ..	"	1,060	2,000
<i>Moresby</i> ..	Surveying Vessel	1,650	2,500
<i>Kookaburra</i> ..	Local Defence Vessel	530	450
<i>Cerberus</i> ..	Motor Boat (Flinders Naval Depot)	61	220
<i>Penguin</i> (late <i>Platypus</i>)	Depot Ship, Sydney	3,455	3,500
IN RESERVE—			
<i>Australia</i> (Refitting)	Cruiser	9,870	80,000
<i>Stuart</i> ..	Flotilla Leader	1,530	40,000
<i>Waterhen</i> ..	Destroyer	1,100	27,000
FLEET AUXILIARY—			
<i>Kurumba</i> ..	Fleet Oiler	7,930	2,000

(vi) *Naval Forces.* Besides the sea-going forces, there is a R.A.N. Reserve, which is composed of Citizen Naval Forces. The personnel of the sea-going forces, which was originally largely composed of Imperial officers and men, is now mainly Australian. The strength of the naval forces is given hereunder :—

**STRENGTH OF NAVAL FORCES (PERMANENT AND RESERVES),
28th FEBRUARY, 1939.**

Description of Force.	Numbers Borne.		
	In Training.	Officers.	Men.
Royal Australian Navy (Sea-going)	393	4,593
Royal Australian Naval Auxiliary Services	32	165
Cadet Midshipmen undergoing training at R.A.N. College	65	..	..
Royal Australian Naval Reserve (Sea-going)	68	..
Royal Australian Fleet Reserve	430
Royal Australian Naval Reserve	258	3,380
Royal Australian Naval Volunteer Reserve	99	80

§ 3. Air Defence.

I. General.—A statement in regard to the preliminary steps taken in connexion with the development of air defence will be found in Official Year Book No. 18, p. 610.

The Royal Australian Air Force is administered by a Board consisting of three Air Force members and a Finance member. To this Force is entrusted the air defence of Australia, and the training of personnel for co-operation with the naval and military

forces. The present establishment of the Force includes the following units :—(a) Headquarters Royal Australian Air Force, with representation in London; (b) a Flying Training School and a Training Depot; (c) two Aircraft Depots; and (d) ten service landplane squadrons and one service amphibian squadron.

2. **Establishment.**—The present approved establishment of the Permanent Air Force is 313 officers and 2,791 airmen, and of the Citizen Air Force, 117 officers and 435 airmen. Four aerodromes are under the control of the Air Board; all other aerodromes and air routes have been taken over by the Director-General of Civil Aviation.

3. **Air Routes.**—Aerodromes and emergency landing grounds have been prepared between the capital cities and on certain parts of the coast for service and civil purposes. At the 30th March, 1939, 257 Government aerodromes and emergency landing grounds had been prepared and 230 licensed public aerodromes were also available for use.

4. **Civil Aviation.**—Details regarding the formation and activities of the Civil Aviation Department will be found in Chapter V., Section F. Aviation.

§ 4. Expenditure on Defence.

The following table shows the expenditure on defence in 1901-2 and during each of the last five years. The figures are exclusive of war services in connexion with the war of 1914-1918 and of interest and exchange on loans. Details of the expenditure of the Defence Department and the cost of the war, repatriation and war services are given in Chapter XXVII. "Public Finance."

DEFENCE EXPENDITURE (EXCLUDING WAR SERVICES): AUSTRALIA.

Item.	1901-2.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39. (a)
	£	£	£	£	£	£
Central Administration ..	5,594	21,663	24,891	31,504	32,750	53,013
Naval	178,819	1,998,363	2,371,187	2,577,383	2,960,291	4,497,638
Military	732,626	1,328,504	1,810,751	2,232,088	2,181,536	4,388,597
Air Services—						
R. A. Air Force .. ..	..	535,938	783,498	1,162,546	1,929,899	2,816,067
Civil Aviation .. ..	..	164,439	185,644	425,676	247,170	(b)
Munitions Supply Branch ..	..	415,959	451,093	496,326	727,949	1,259,501
Rifle Clubs and Associations ..	41,653	34,781	36,796	55,009	65,678	66,100
Principal Supply Officers Committee .. ..	..	..	..	2,912	5,473	423,402
Special Appropriations—						
Naval Construction .. ..	..	513,124	663,852	550,285	133,532	831,730
Reconditioning Equipment and Purchase of Aircraft Equipment .. ..	..	81	1,427	1,427	..	..
Arms, Armament, Aircraft, Munitions, Equipment and Reserves .. ..	..	364,627	552,406	408,582	1,289,184	1,663,481
Defence Works, Buildings and Sites .. ..	..	79,324	132,767	121,404	30,066	1,006,327
Development of Civil Aviation .. ..	..	997	120	..	169,981	(b)
	958,692	5,457,800	7,014,432	8,065,142	9,773,509	17,005,856

(a) Estimated.

(b) Civil Aviation Branch created a separate Department in 1938-39.

In addition to the above, £17,170 was expended from Revenue on war services directly under the control of the Defence Department in 1937-38, and the estimated expenditure in 1938-39 was £16,600.

The total cost of war services including interest, sinking fund, war pensions, repatriation, etc., will be found in Chapter XXVII., Part B § 5—Cost of War and Repatriation.

§ 5. Munitions Supply.

1. **General.**—A statement dealing with the powers and functions of the Munitions Supply Board is given on p. 612 of Official Year Book No. 18.

2. **Factories.**—(i) *General.* The Explosives Factories at Maribyrnong, Victoria, which manufacture cordite and high explosives for cartridges and artillery ammunition, aircraft bombs, aeroplane dopes, nitro-benzine, and special paints, were established in 1911. The staff at 30th June, 1938, numbered 488.

The Clothing Factory at Melbourne, Victoria, which had a staff of 423 employees on 30th June, 1938, commenced output in July, 1912, and since that date has been able to supply the whole of the uniform clothing and head gear required for the Defence forces and the Postmaster-General's Department. It also supplies clothing required by State Departments and local public bodies.

The Small Arms Factory at Lithgow, New South Wales, which was opened on 1st June, 1912, and delivered the first instalment of Australian arms in May, 1913, had on its pay roll on 30th June, 1938, 385 employees. Rifles and machine guns for land and air services are being produced, and provision has been made for the manufacture of the Bren Rifle.

On the 1st January, 1927, the Defence Department entered into possession by purchase of the works of the Colonial Ammunition Company Limited at Footscray, Victoria. As from the 1st July, 1928, this establishment, known as the Small Arms Ammunition Factory, was amalgamated with the Gun Ammunition Factory, and this group is now known as the Ammunition Factories, where in addition to rifle and pistol ammunition, big gun fuses, detonators, cartridge cases and aircraft bombs are also produced. Brass and other non-ferrous metals required for munitions manufacture are rolled at this factory. The staff at 30th June, 1938, numbered 870.

At the Ordnance Factory, Maribyrnong, Victoria, established in 1924, provision is made for the production of guns, shells, gun carriages and military vehicles. This group includes a well equipped forge and woodworking and electrical shops. The number of employees at 30th June, 1938, was 845.

(ii) *Investment in Factories.* Up to 30th June, 1938, the capital invested in the factories now in operation was approximately as follows:—Small Arms Factory, £901,000; Explosives Factories, £1,079,000; Clothing Factory, £124,000; Ammunition Factories, £972,000; and Ordnance Factories, £1,240,000.

3. **Research Laboratory.**—At Maribyrnong, Victoria, a Research Laboratory has been established consisting of seven main sections, i.e., general chemistry, explosives and ammunition, timber, metallurgy, metrology, chemical defence and physics (including optics and electrical). Plant, buildings, fittings and furniture were valued at £151,000 on 30th June, 1938, and the staff at the same date numbered 93.

4. **Inspection Branch.**—The Inspection Branch is charged with the examination of all classes of munitions during manufacture to ensure conformity with approved service designs and requirements. The head-quarters is at Maribyrnong, Victoria, and each Munitions Factory has its complement of examiners. A General Stores Section is responsible for the examination of textiles, clothing and equipment. At Port Wakefield, South Australia, is the extensive Artillery Proof and Recovery Range, where guns and shells are tested by firing. The capital invested as at 30th June, 1938, was £158,000, and the staff at the same date numbered 128.

§ 6. Remount Depot.

Information in regard to the establishment of this branch of activity is contained in earlier issues of the Official Year Book (see No. 18, p. 613). When war was declared in 1914 little difficulty was experienced by the Remount Service in coping with the enormous task of obtaining and training horses for the mounted units of the A.I.F. and in providing for the shipment of horses to Egypt and India as required.

§ 7. Australian Contingents.

1. **General.**—In earlier issues of the Year Book an account was given of the composition, etc., of the Australian contingents dispatched for service in the New Zealand and Sudan Campaigns, in South Africa, China, and the Great War of 1914-18 (see Official Year Book No. 12, pp. 1019 *et seq.*).

2. **Australian Troops (Great War).**—Particulars of the enlistments, casualties, honours and decorations won, and engagements of the Australian Imperial Force during the Great War were given in Official Year Book No. 16, pp. 628 *et seq.*

§ 8. War Gratuity.

Reference was made in earlier Year Books (see No. 15, p. 930) to the bonus payable in accordance with the War Gratuity Acts of 1920 as a war service gratuity to soldiers and sailors who served in the Great War. Owing to limitations of space this information cannot be repeated, but it may be noted that the gratuity was paid in Treasury Bonds, maturing not later than 31st May, 1924, and bearing interest at 5½ per cent. In necessitous cases payment was made in cash when desired by the person entitled. The first gratuities were made available about the beginning of June, 1920. The total amount paid to 30th June, 1937, was £27,510,935, and bonds amounting to £13,888 had not been redeemed.

§ 9. Special Defence Legislation.

Information regarding special defence legislation enacted by the Commonwealth Government during the war of 1914-1918 was given in Official Year Book No. 15 p. 930. It may be pointed out here that the War Precautions Act Repeal Act of 1920 repealed the Act 1914-1918, but a limited number of matters dealt with under the original Act were provided for under the War Precautions Act Repeal Act of 1920-1928 or by regulations made thereunder.

CHAPTER XI. REPATRIATION.

§ 1. General.

An outline of the activities leading up to the formation of the Commonwealth Department of Repatriation was given in Official Year Book No. 15, p. 931, but limits of space preclude its repetition in the present volume. Some account was given also in the Year Book referred to, and in subsequent issues, of the policy and activities of the Department generally, while detailed information was incorporated in regard to such matters as sustenance rates and pensions to soldiers and dependants. (See Official Year Book No. 17, pp. 598 to 601). During the year ended 30th June, 1928, sustenance rates were amended to bring them into line with war pensions rates, and the scale of rates in respect to war pensions was amplified by providing for an allowance to the third or subsequent child at such a rate as will provide, together with pension in respect of that child, a sum of 15s. per fortnight. During 1935, the Government decided to provide from 1st January, 1936, free medical treatment for all ex-soldiers suffering from pulmonary tuberculosis, irrespective of whether such condition was attributable to war service.

The main activities of the Repatriation Commission at 30th June, 1938, were confined to the grant, review and assessment of war and service pensions, the provision of medical treatment, the renewal and repair of artificial replacements and surgical appliances, the grant and review of sustenance and living allowances, and the administration of the Soldiers' Children Education Scheme.

§ 2. War Pensions.

1. **General.**—Provision for the payment of war pensions to soldiers and their dependants was made by the Commonwealth Parliament in the War Pensions Act 1914 which came into operation on 21st December, 1914. The maximum pension for a private was fixed at £52 per annum with higher rates for higher ranks. The definition of dependants under the original Act was broadened by a measure passed in 1915, while both these Acts were consolidated by the War Pensions Act 1914-1916, which increased the maximum pension to a private to £3 per fortnight (£78 per annum) with higher rates for higher ranks. Scale rates of pension were definitely laid down for specific disabilities such as in cases of amputation of limbs, etc.

In 1920 the passage of the Australian Soldiers' Repatriation Act repealed the existing legislation and provided, from 1st July, 1920, a flat rate of £4 4s. per fortnight for a 100 per cent. pension for all ranks up to and including that of Lieutenant. The rates for ranks higher than that of Lieutenant were not increased. The main additional increases were:—

- (a) a pension up to £4 4s. per fortnight to widows with dependent children, or, if without dependent children, where circumstances warrant the increased amount; (the invariable practice is to grant the full £4 4s. per fortnight to widows with dependent children).
- (b) a Special Rate of pension of £8 per fortnight to blinded and to totally and permanently incapacitated soldiers; and
- (c) a Special Rate pension, not exceeding £8 per fortnight to tubercular soldiers, subject to certain conditions.

Payment of pension to the full degree of a man's disability in cases where a pre-war disability has been aggravated "to any material degree" by war service was contained in an amending Act of 1921. Hitherto a pension was payable only with respect to the degree of disability actually caused by war service.

A further amendment of the Australian Soldiers' Repatriation Act in 1922 made provision for certain "amounts" and "allowances" to limbless soldiers, in addition to existing rates of war pensions, ranging from 7s. to 76s. per fortnight. In certain double amputation cases, an allowance for an attendant was provided at 40s. or 80s. per fortnight, according to the nature of the case. An attendant's allowance was also payable to "spinal cases" at £2 per fortnight. A special rate pension of £8 per fortnight was provided to those soldiers who, although not totally blind, had no useful vision.

During 1925 the Government decided that a permanent pension of not less than £4 4s. per fortnight should be paid to all "members" proved to be suffering from pulmonary tuberculosis on or subsequent to 1st July, 1925, as the result of war service, or as the result of a pre-existing condition having been materially aggravated by war service. On 30th September, 1925, a new Regulation was gazetted, operative from 1st July, 1925, providing for the grant of an allowance, in addition to pension, not exceeding 15s. per fortnight to a soldier in receipt of pension under the Fourth Schedule to the Act with respect to loss of vision in one eye. Both these provisions were made statutory by incorporation in the Amending Act of 1934.

The general reduction of expenditure provided by the Financial Emergency Act 1931 applied also to war pensions. No reduction, however, was made in the rate of pension payment to incapacitated soldiers. The widows and children of soldiers whose death was due to war service and the widowed mothers (who became widows either prior to, or within three years after, the death of the sons) of any deceased unmarried member of the Forces were also exempted from reductions, the necessary economies being effected in payments to other classes of war pensioners. The maximum rate of pension payable on behalf of the child of an incapacitated soldier was reduced to 12s. per fortnight, and a wife married or a child born to an incapacitated member of the Forces subsequent to 1st October, 1931, were excluded from pension benefits. Considerable modifications of the reductions were included in the Financial Relief Acts of 1933 and 1934, and some classes of pension were fully restored.

During 1934 the Second Schedule to the Act was amended to include the Attendants' Allowances previously payable under regulation to blinded soldiers and to provide for eligibility for such allowances in consequence of injury or disease affecting the cerebro-spinal system or disease causing incapacity similar in effect thereto. A further amendment provided that a wife married, or a child born, to a member of the Forces after 1st October, 1931, shall be deemed to be dependants and eligible for pension benefits if the member has died or dies from the results of war service. Certain anomalies concerning the continuance or regranting of pensions were removed.

In December, 1935, the Principal Act was again amended. The principal amendments were in relation to (a) reinstatement of pensions previously commuted; (b) grant of pensions to dependants of deceased members of the forces (whatever the actual cause of death) in cases where at the date of the member's death he was in receipt of a pension under the Second Schedule to the Act or in receipt of pension as a double amputee; (c) removal of the time limit on lodgment of claims under Section 23 (2) of the Act; and (d) to provide relief by way of service pensions to aged members of the Forces, to those members and their families who are unable through mental or physical defects to engage in remunerative employment and are declared permanently unemployable, and to those members and their families who are suffering from pulmonary tuberculosis. The new provisions operated from 1st January, 1936. Financial Relief legislation, which became operative from 1st October, 1936, increased the maximum rate of pension payable to the child of an incapacitated soldier from 12s. to 15s. per fortnight.

Legislation in 1938 removed the Financial Emergency restriction on wives married or children born to incapacitated members of the forces after 1st October, 1931, and war pensions may now be granted from 1st January, 1938, provided that such marriages or births took place on or before 30th June, 1938.

2. Appeal Tribunals.—The principal Act was amended as from 1st June, 1929, whereby tribunals were created to hear appeals in regard to war pensions. The War Pensions Entitlement Appeal Tribunal is empowered to hear and decide any appeal by or on behalf of ex-members of the forces or their dependants, against a decision of the Repatriation Commission that an incapacity or the death of an ex-member did not arise out of war service. Two Assessment Appeal Tribunals were created, to hear and decide any appeal against a current assessment or a "Nil" assessment of war pension made by the Repatriation Commission in respect of an incapacity of an ex-member of the forces which had been accepted as rising out of war service. Provision was made by subsequent legislation to enable the Tribunals to hear appeals by certain applicants for service pensions.

3. War Pensions in Force.—At the 30th June, 1938, the number of war pensions was 257,214 with an annual liability of £7,725,963. The outstanding figures for 1937-38 were as follows :—

New claims granted during year	19,993
Claims rejected (gross) during year	8,357
Pensions reviewed during year	48,719
Pensions cancelled or discontinued during year.. .. .	13,136
Pensioners died during year	2,700
Number of pensions in force at 30th June, 1938	257,214
Annual pension liability on the 30th June, 1938	£7,725,963

At the 30th June, 1938, special rate pensions of £8 per fortnight were being paid to—

Blinded soldiers	143
Tubercular soldiers	910
Totally and permanently incapacitated soldiers	2,210

An analysis of the total number of new grants during the year reveals the following :—

Members (i.e., ex-soldier pensioners)	743
Wives of members	3,326
Children	15,595
Other dependants	329
	19,993

In the following table the number receiving pensions at 30th June, 1938, is shown for each class of pensioner :—

WAR PENSIONS IN FORCE AT 30th JUNE, 1938.

Class.	Number of Pensioners.
Orphan children	4,721
War widows	9,509
Soldiers	77,315
Children	87,978
Wives	61,161
Parents	16,109
Brothers and sisters	191
Others	230
Total	257,214

4. Number of Pensioners and Expenditure.—The following table shows the number of pensioners at 30th June, 1938, and the places where payments were made during 1937-38 :—

WAR PENSIONS : NUMBER OF PENSIONERS, 1938.

Where Paid.	Incapacitated Members of the Forces.	Dependants of—		Total.	Expenditure.
		Deceased Members.	Incapacitated Members.		
					£
New South Wales ..	26,013	9,014	48,809	83,836	2,661,271
Victoria ..	25,721	8,655	50,638	85,014	2,334,448
Queensland ..	8,770	2,706	17,300	28,776	874,872
South Australia ..	4,450	2,253	8,717	15,420	493,255
Western Australia ..	7,058	2,280	14,037	23,375	689,528
Tasmania ..	3,341	1,231	8,328	12,900	397,199
Total, Australia ..	75,353	26,139	147,829	249,321	7,450,573
London ..	1,644	2,255	3,108	7,007	} 310,634
South Africa ..	49	27	60	136	
New Zealand ..	247	139	314	700	
Other Overseas ..	22	2	26	50	
Total ..	77,315	28,562	151,337	257,214	7,761,207
Payments made in Australia in respect of other countries less amounts received from other countries ..	..	..	..	..	Dr. 3,545
Total, War Pensions Trust Fund Account ..	..	..	..	..	7,764,752

The subjoined table shows the numbers of pensions granted, claims rejected, and pensions in force, together with the amount paid in pensions for the years ended 30th June, 1921 and 1931, and for each of the five years ended 30th June, 1938 :—

WAR PENSIONS : SUMMARY, AUSTRALIA.

Year ended 30th June—	Pensions Granted.	Claims Rejected.	Pensions in Force.			Total.	Amount paid in Pensions.
			Incapacitated Members of the Forces.	Dependants of Incapacitated Members.	Dependants of Deceased Members.		
1921 ..	25,983	3,388	79,491	93,995	49,051	222,537	£ 7,386,842(a)
1931 ..	11,555	920	75,316	172,389	35,617	283,322	7,996,180
1934 ..	2,792	609	75,037	162,198	29,719	266,954	7,048,592
1935 ..	4,174	1,869	74,998	158,787	30,276	264,061	7,360,057
1936 ..	5,510	10,200	76,337	153,736	30,062	260,135	7,520,228
1937 ..	5,098	9,508	77,076	145,308	29,422	251,806	7,683,089
1938 ..	19,993	8,357	77,315	151,337	28,562	257,214	7,761,207

(a) Includes payments made from Trust Fund, War Pensions Account, on behalf of other countries less recoveries.

5. Cost of Administration.—The cost of administration in 1937-38 was £292,679 representing 3.32 per cent. of the total cost of benefits disbursed. The administrative costs of the three War Pensions Appeal Tribunals are included in the above figure and totalled £39,603.

§ 3. Service Pensions.

1. **General.**—The payment of service pensions was provided for in the Australian Soldiers' Repatriation Act 1935, and the scheme has operated since 1st January, 1936.

Originally fixed on a lower scale the maximum rate of service pension for a single man was increased from 16th September, 1937, to 40s. per fortnight, and for a man and his wife to 68s. per fortnight, with an additional 5s. per fortnight for each child under sixteen years of age up to four in number. The actual rate payable in any case is determined after taking into consideration all other income and property received or owned by the pensioner in question, and no service pension can be paid in any case where such other income and property has an assessable value, in the case of a single man, of £84 10s. per annum, or in the case of a man and wife, of £169 per annum between them. In addition, no service pension can be paid when the applicant is possessed of property to the value of £400 or more.

If the income from all other sources is less than the annual amounts above shown, then service pensions become payable at such rates as will, with that other income, bring the total income of the pensioner (including service pension) up to the allowed maximum, provided, of course, that such pensions cannot exceed the maximum rates of 40s. per fortnight for a single man or 68s. per fortnight for man and wife, as hereinbefore mentioned.

A female member of the forces was made eligible in 1936 for consideration of a service pension if she embarked for service abroad; previously she must have served in a theatre of war. In the same year an institutional rate of service pension not exceeding 12s. per fortnight was made available. This pension, increased to 14s. from 16th September, 1937, benefited particularly inmates of mental asylums, who were previously excluded from the scheme.

Eligibility for service pensions may be established on the following grounds:—

- (a) Sixty years of age or more, provided the applicant served in a theatre of war, but eligibility on this ground limits payment of service pension to the ex-soldier and not to his wife or children. In the case of a female member of the forces, the qualifying age is 55 years, and service abroad, not necessarily in a theatre of war, is sufficient.
- (b) Permanently unemployable, provided the applicant served in a theatre of war (or, in the case of a female member, served abroad). Under this class pensions may be paid to the ex-soldier, his wife and children—up to four in number.
- (c) Pulmonary tuberculosis, whether the applicant served in a theatre of war or not. Under this class also pensions are payable to the wife and children—up to four in number.

Only those applicants who qualify under Class (c) are entitled to receive both service and invalid pensions at the same time.

2. **Operations during Year.**—The following figures give the important facts of the service pension scheme during 1937–38:—

Claims granted during the year—

Members of the Forces	..	..	..	..	1,876
Wives	..	..	..	..	730
Children	..	..	..	..	1,935
					<u>3,641</u>

Claims rejected during the year—

Members of the Forces	..	..	..	..	1,474
Wives	..	..	..	..	893
Children	..	..	..	..	1,849
					<u>4,216</u>

Pensions cancelled or discontinued during the year	..	..	..	..	1,377
Pensioners died during year	..	..	..	..	340
Pensions in force at 30th June, 1938	..	..	..	..	10,851
Annual pension liability on 30th June, 1938	..	..	..	..	£360,815
Expenditure, 1937–38	..	..	..	..	£329,871

§ 4. Medical Treatment of Returned Soldiers Suffering from War Service Disabilities.

At 30th June, 1938, there were 1,732 in-patients and 23,559 out-patients receiving medical treatment. The expenditure to this date was £8,566,975.

§ 5. Miscellaneous.

i. *Summary of Other Departmental Activities.*—The following is a summary of the work of the Department from 8th April, 1918, to 30th June, 1938 :—

(i) *Employment.* Number of applications, 255,490; number of positions filled, 133,272.

(ii) *Vocational Training.* Number of men completed training, 27,696; number in training, nil.

(iii) *Soldiers' Children Education Scheme.* From the inauguration of the scheme in February 1921, up to 30th June, 1938, 22,292 applications for assistance had been received. Of these, 20,799 had been approved, of which 12,924 recipients of the benefits had completed their training and 6,962 were undergoing training, while 30 applications were pending and the remainder had been refused or withdrawn.

Up to 30th June, 1938, the expenditure was £1,890,389.

(iv) *Assistance Granted.* The total expenditure incurred apart from war and service pensions during the period from 8th April, 1918, to 30th June, 1938, was £22,065,259, of which £1,676,013 represented loan and £20,389,246 general expenditure. Of the total, the largest amounts were absorbed by medical treatment with £8½ million, vocational training with £5 million, and expenses of providing employment, £2½ million.

2. *Expenditure of Department of Repatriation.*—The expenditure of the Department during the twelve months ended 30th June, 1938, was £9,108,864, distributed as follows :—

Repatriation benefits—	£
Loans to soldiers	I
Grants to soldiers and general expenditure (including maintenance of training schools, medical institutions, etc.) ..	601,019
Assistance to soldiers in necessitous circumstances ..	34
Allowances to dependants of soldiers not provided for under the Act	909
Medical treatment to Home Service personnel	817
	602,780
Soldiers' Children Education Scheme	111,067
War and Service Pensions	8,094,623
Administrative costs—	£
Salaries	225,907
Contingencies	66,772
	292,679
Exchange on Remittances to London and New York	7,715
	9,108,864

The total expenditure for the previous year was £8,882,865.

3. *Losses of Soldier Settlement.*—Reference to losses incurred in connexion with settlement of returned soldiers and sailors will be found in Chapter IV., "Land Tenure and Settlement."

CHAPTER XII.

THE TERRITORIES OF THE COMMONWEALTH.

GENERAL.

The Territories under the control of the Commonwealth are:—The Northern Territory; the Australian Capital Territory; Papua (formerly British New Guinea); Norfolk Island; the Territory of New Guinea (by Mandate of the League of Nations); Nauru (under joint Mandate of the Commonwealth, Great Britain and New Zealand); the Territory of Ashmore and Cartier Islands; and the Australian Antarctic Territory.

The results of the census of the Territories at the 30th June, 1933, may be found in the separate Census bulletins and parts published by this Bureau.

In each of the external Territories Australian currency is used. In the Territory of New Guinea, however, Australian coins are being replaced by a local currency consisting of silver shillings, cupro-nickel sixpences and threepences, and bronze pennies.

THE NORTHERN TERRITORY.

§ 1. Area and Population.

1. *Introductory.*—Upon the extension of New South Wales westward to the 129th meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands it was transferred to the Commonwealth on 1st January, 1911. The total area is 523,620 square miles, or 335,116,800 acres.

2. *Population.*—(i) *Europeans.* At the census taken in 1881 there were only 670 Europeans in the Territory. The number increased slowly, reaching its maximum in 1918 with 3,767 persons. At the census of 1933 the white population had decreased to 3,306. This number, however, was 34.5 per cent. greater than the figure at the census of 1921.

(ii) *Non-Europeans.* The number of full-blood non-Europeans, excluding Australian aboriginals, in the Northern Territory on the 30th June, 1933, was 744, of whom 462 were Chinese, the remainder being, mainly, Filipinos (69), Japanese (91), and Malays (59). There were at one time over 4,000 Chinese in the Territory.

The half-caste population recorded at the census of 1933 numbered 800 of whom 743 were half-caste Australian aboriginals.

(iii) *Total Population.* The highest recorded population of all races, except aboriginals, was 7,533 in 1888. The estimated population at 31st December in each of the last five years is given in the following table:—

NORTHERN TERRITORY: POPULATION (EXCLUSIVE OF ABORIGINALS).

Year.	Males.	Females.	Total.
1934	3,440	1,504	4,944
1935	3,482	1,609	5,091
1936	3,596	1,709	5,305
1937	3,641	1,713	5,354
1938	3,825	1,820	5,645

The Census population (30th June, 1933) was 3,378 males, 1,472 females, total 4,850.

(iv) *Movement of Population.* The following is a summary of movement of population in 1938 (excluding overland migration):—

NORTHERN TERRITORY: MOVEMENT OF POPULATION, 1938.

Immigration ..	2,601	Emigration ..	2,343	Excess of immi- gration over	
Births ..	102	Deaths ..	69	emigration ..	258
				Excess of births over deaths ..	33
Increase ..	2,703	Decrease ..	2,412	Net Increase ..	291

The immigration and emigration figures for the Territory during the five years ending 1938 are shown in the following table:—

NORTHERN TERRITORY: IMMIGRATION AND EMIGRATION.

	Year	Immigration.	Emigration.
1934	680	582
1935	1,014	881
1936	1,429	1,268
1937	1,733	1,720
1938	2,601	2,343

(v) *The Aborigines.* A special article contributed by Dr. W. Ramsay-Smith on the subject of the Australian aborigines was incorporated in Year Book No. 3 (pp. 158-176). The Chapter "Population," in Year Book No. 17, contained information regarding the number and distribution of aborigines and the measures taken by the States (in the case of the Northern Territory, by the Commonwealth) to protect them and to conserve their interests. Large numbers of the aborigines in the Territory are still outside the influence of Europeans. The total number of full-blood and half-caste aborigines at 30th June, 1938, was estimated at 15,261, of whom 3,395 were in regular employment. There are fifteen "aboriginal" reserves, comprising an area of 67,254 square miles. (See also the Chapter on Population hereinafter.)

§ 2. Legislation and Administration.

On 1st January, 1911, the Territory was transferred by South Australia to the Commonwealth. The terms were outlined in Year Book No. 15, p. 940. By the Northern Australia Act 1926, the Territory was divided into two parts, Central Australia and North Australia, separated by the 20th parallel of south latitude, each administered by a Government Resident. In addition, Advisory Councils and a Development Commission were provided for. The Act of 1926 was superseded by the Northern Territory (Administration) Act 1910-1933. By this Act the provision made for Advisory Councils was cancelled, and the Development Commission abolished. The administration of the Territory was placed in the hands of an Administrator, residing at Darwin, assisted by a Deputy Administrator, residing at Stuart (Alice Springs). The designation of the latter office was later changed to that of District Officer. The Governor-General is empowered to make ordinances having the force of law in and in relation to the Territory, subject to disallowance by either House of the Commonwealth Parliament. The Territory elects a member to the House of Representatives, who may take part in the debates, but may not vote, except on a motion for the disallowance of any ordinance of the Northern Territory or on any amendment of any such motion.

§ 3. Physiography.

1. **Tropical Nature of the Country.**—The Territory is within the torrid zone, with the exception of a strip $2\frac{1}{2}$ degrees wide which lies south of the Tropic of Capricorn.

2. **Contour and Physical Characteristics.**—The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and ironstone form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries.

The principal features of the coast line are enumerated in Year Book No. 1, p. 66; the Rivers in Year Book No. 2, p. 76; the mountains in Year Book No. 3, p. 67; the lakes in Year Book No. 4, pp. 77, 78; the islands in Year Book No. 5, pp. 71, 72; and the mineral springs in Year Book No. 6, p. 65.

Inland, the country generally is destitute of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the 17th or 18th parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply of the interior systems. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

§ 4. Climate, Fauna and Flora.

1. **The Seasons.**—There are two main climatic divisions—the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Fuller particulars will be found in Year Book No. 6, p. 1116.

2. **Fauna.**—The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of freshwater fish and littoral mollusca. Butterflies and beetles are strongly represented. The white ant is a pest, anthills in the Territory sometimes attaining great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Native fauna are in some cases protected. Buffalo formerly existed in large herds, but, as pointed out later, their number has been greatly reduced by indiscriminate shooting.

3. **Flora.**—The vegetation is North Australian in type, but a number of the forms belong to the Malayan and Oceanic regions. The timber trees are not of great commercial value, but in the coastal regions tropical vegetation grows luxuriantly to the water's edge. On the wide expanses of plain country in the interior there is little vegetation, the principal orders represented being:—*Euphorbiaceae*, *Compositae*, *Convolvulaceae*, *Rubiaceae*, *Goodenoviaceae*, *Leguminosae*, *Urticaceae*.

Fuller particulars regarding fauna and flora are given in Year Book No. 6, pp. 1116–7.

§ 5. Production.

1. **Holdings.**—There were on the 30th June, 1937, 837 holdings (leases and licences) in the Northern Territory, covering an area of 217,567 square miles. Of these, 454 were held on pastoral lease or permit, 88 on agricultural lease, the remainder being held on leases for various other purposes. Rents received amounted to £26,923.

2. **Agriculture.**—Up to the present agriculture has made little progress in the Territory, although it has been proved that rice, tobacco, coconuts, mangoes, bananas, cotton, various fodder plants, and peanuts can be successfully grown. Expense of

harvesting is, at present, an obstacle to the economic production of rice, and until labour-saving machinery is procured it cannot be produced with profit. There is a large stretch of first-class coconut land on the coast, but hitherto planting has not been attempted on a commercial scale. For the encouragement of primary production a Primary Producers' Board was established in 1931. Peanuts have become the principal crop. In 1936-37 the yield was 537,600 lb. from 1,260 acres and the price averaged 4½d. per lb. in southern markets. Although the area increased to 1,550 acres in 1937-38 the yield was only 390,250 lb. valued at £7,000.

3. *Pastoral Industry.*—The pastoral possibilities of certain parts of the Northern Territory were recognized at an early date, and in 1866 stock was brought into the Macdonnell Range country from South Australia. Six years later cattle were moved from Queensland to the northern parts of the Territory, and in 1879 Mr. Giles reached the Katherine River with 2,000 head of cattle and 12,000 sheep from South Australia. For various reasons sheep-raising did not succeed. The cattle industry progressed and became the mainstay of the Territory, a great impetus being given to it in 1917 by the opening of extensive meat works at Darwin. Unfortunately the works closed down in 1920, and are still idle. The number of cattle exported by land from the Northern Territory during the year 1937-38 was about 94,869, and the number imported about 558. The cattle industry has been retarded by the ravages of ticks and by the difficulty of travelling stock through waterless country. These difficulties are, however, gradually being overcome, the former by "dipping," and the latter by adding to the number of wells on the various stock-routes and the creation of stock reserves. Buffaloes thrive in the coastal districts, but their number has been greatly reduced by indiscriminate shooting to obtain the hides.

The estimated number of live stock in the Territory in the last five years is given in the table hereunder:—

NORTHERN TERRITORY : LIVE STOCK.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Goats.	Camels.	Donkeys.	Mules.
1933 ..	33,590	859,867	18,076	397	17,356	344	992	438
1934 ..	35,094	899,679	23,356	626	20,044	319	1,196	406
1935 ..	35,152	900,535	25,483	555	20,455	298	1,056	512
1936 ..	31,056	855,398	11,162	470	17,306	310	1,503	530
1937 ..	31,662	891,640	26,856	388	17,894	311	1,301	404

4. *Mining.*—(i) *General.* Alluvial gold-digging in the Northern Territory commenced in 1869, and up to the end of 1880 gold to the value of £79,022 had been produced. In 1881 the gold production reached its maximum, the value for that year being £111,945. During the following years it fluctuated considerably, but as long as the alluvial deposits lasted the output was satisfactory. In the transition period from alluvial to reef mining the industry declined considerably. The production of metals other than gold has suffered on account of the vagaries of prices, and the high cost of transport and of white labour. Owing to the exceptionally high price of gold the search for the precious metal has been stimulated in recent years with an increasing annual production. The principal producer of gold is the Tennant Creek field which increased its production during 1937. More than 94 per cent. of the total production was raised here, and with the extension of treatment plants the output should continue to expand. A small township has been planned on the field and the population at the 31st March, 1938, was 564, including 80 women and 27 children. Although the mica deposits in the Territory are not exploited systematically or on a large scale, a number of men—mostly southern Europeans—have been engaged in this class of mining and during the year produced more than £12,000 worth of mica. Wolfram prices rose sharply in the latter part of 1937 and with the rush to the wolfram fields the output rose to record proportions.

(ii) *Mineral Production.* The following table shows the value of the total mineral production for the last five years:—

NORTHERN TERRITORY : MINERAL PRODUCTION.

Year.	Gold.	Tin Ore.	Silver-lead Ore.	Copper Ore.	Mica.	Wolfram.	Tantalite.	Total Value all Minerals.
	£	£	£	£	£	£	£	£
1933-34 ..	8,124	9,566	11	..	7,926	3,114	65	28,806
1934-35 ..	44,458	6,036	..	..	15,762	10,380	264	76,900
1935-36 ..	76,001	4,176	..	1,871	7,805	8,748	..	98,601
1936-37 ..	91,543	7,696	..	101	11,003	16,349	226	126,918
1937 ..	100,462	7,205	328	55	12,524	84,832	445	205,851

In 1934 the Governments of the Commonwealth and the States of Queensland and Western Australia agreed to co-operate in the conduct of a geological and geophysical survey of certain areas in the northern parts of Australia, including the Northern Territory. More detailed reference to the survey and its progress will be found in Chapter XVII. "Mineral Industry".

5. *Pearl, Bêche-de-Mer, and Other Fisheries.*—In 1884 mother-of-pearl-shell was discovered in the harbour of Port Darwin. Difficulty in working, principally through heavy tides and muddy water, retarded the development of the industry for many years. The production of pearl-shell in 1937-38 amounted to 804 tons of an approximate gross value of £67,000, which represents a decrease of £21,000 on the value for the previous year. Most of the yield was obtained from beds north of King and Liverpool Rivers, and 24 pearling vessels were licensed. The local pearlery, however, encounter considerable opposition from efficient Japanese fleets.

Three fishing licences and two boat licences were issued during 1937-38 in connexion with beche-de-mer fisheries. Prices were not remunerative, however, and the production was valued at only £905.

The territorial waters teem with fish, but the supply of fish was not as well maintained as in former years, and such supplies as were available were retailed at a price varying from 6d. to 9d. per lb.

The production of raw salt from the tidal salt pans at Fannie Bay during 1937-38 was 280 tons, valued at £6 10s. per ton. The salt is comparatively free of foreign matter, an analysis revealing an actual sodium chloride content of 98.05 per cent.

§ 6. Land Tenure.

A description of the system of land tenure in force in the Territory will be found in Chapter V.—Land Tenure and Settlement, Official Year Book No. 22.

§ 7. Commerce, Shipping and Air Services.

1. *Trade.*—No record is kept of the trade between the Commonwealth States and Territories. The value of the direct oversea imports and exports for 1901 and for each of the last five years is given hereunder:—

NORTHERN TERRITORY : OVERSEA IMPORTS AND EXPORTS.

Items.	1901.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£	£
Imports (a) ..	37,539	39,870	13,221	58,120	44,703	29,406
Exports (b) ..	29,191	27,411	42,330	26,645	6,053	12,729

(a) British currency values.

(b) Australian currency values.

The oversea imports into the Northern Territory consist largely of petroleum spirit, residual oil and machinery.

2. **Shipping.**—The Territory is dependent for its shipping facilities chiefly on the services of vessels trading between Melbourne and Singapore. In addition to pearlers and other small craft, larger vessels make occasional visits, while a sixty-days' service between Fremantle and Darwin is carried out by the *Koolinda*, belonging to the Western Australian State Shipping Service.

NORTHERN TERRITORY : SHIPPING.

Period.	Arrivals.		Departures.	
	No. of Vessels.	Tonnage.	No. of Vessels.	Tonnage.
1933-34	39	98,986	37	94,624
1934-35	58	108,306	47	108,909
1935-36	55	117,757	55	117,757
1936-37	100	125,840	104	122,505
1937-38	99	122,960	101	122,961

The foregoing figures are exclusive of particulars of coastwise shipping. During 1937-38 twenty-five vessels of 610 tons net were entered at Darwin as coastwise.

3. **Air Services.**—Darwin is the first port of arrival in Australia of aircraft from Europe, Singapore and Netherlands East Indies. Qantas Empire Airways Ltd., under contract to the Commonwealth Government, operates the Sydney-Darwin-Singapore section of the Empire Flying Boat Service with a regular tri-weekly service in each direction. The MacRobertson-Miller Aviation Co. Ltd. operates twice weekly in each direction between Perth and Darwin, linking up with the Qantas service at the latter point. Guinea Airways Ltd. operates a thrice weekly service in each direction between Adelaide and Darwin, and the K.N.I.L.M. Company extended their Amsterdam-Batavia air route to Sydney via Darwin in 1938, with a bi-weekly service in each direction. On the average ten machines arrive at and depart from Darwin during each week.

§ 8. Internal Communication.

1. **Railways.**—Under the agreement made between the Commonwealth and the State of South Australia for the surrender and acceptance of the Northern Territory, which was ratified by the Northern Territory Acceptance Act 1910, the Commonwealth is to construct the Northern Territory portion of the transcontinental railway line (connecting Adelaide and Darwin, via Port Augusta).

The Northern line from Adelaide terminated at Oodnadatta, about 100 miles south of the southern boundary of the Territory, but has been extended to Alice Springs, an addition of 292 miles. The line from Darwin to Katherine River, about 200 miles, has been extended as far as Birdum, 316 miles from Darwin. The completion of the remainder of the gap would give access to broad belts of pastoral and mineral country towards the centre of Australia. The Commonwealth Government acquired on 1st January, 1911, the property in the line from Port Augusta to Oodnadatta (478 miles), and on 1st January, 1926, the control thereof was transferred to the Commonwealth Railways Commissioner. (See under Federal Railways.)

2. **Posts.**—Postal communication is maintained by vessels belonging to Burns, Philp and Co., which carry on a monthly service between the Territory and the Eastern States. In addition, the vessels belonging to the State Steamship Service of Western Australia give a service once every 60 days between Fremantle and Darwin. Mail is carried between Sydney and Darwin by the Qantas Empire Airways Ltd., and between Perth and Darwin by the MacRobertson-Miller Aviation Co. Ltd. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, while the southern districts are served via Adelaide.

3. **Telegraphs.**—The transcontinental telegraph line, covering a length of 2,230 miles, was completed on the 22nd August, 1872, at a cost of nearly £500,000. The line runs in a northerly direction from Adelaide to Darwin, whence telegraphic communication is provided with Asia and Europe, via Banjoewangie (Java), Singapore and Madras. Between Darwin and Banjoewangie the submarine cable is duplicated.

High-power wireless stations have been constructed by the Federal Government at Wave Hill in the Territory, and at Camooveal, just over the eastern boundary, in Queensland.

§ 9. Finance.

In the Commonwealth finance statements separate accounts are given for Northern Territory administration. Revenue and expenditure for 1937-38 are given below:—

NORTHERN TERRITORY : REVENUE AND EXPENDITURE, 1937-38.

REVENUE.	£	EXPENDITURE.	£
Taxation—		Northern Territory Adminis-	
Customs and excise	16,073	tration	281,230
Sales tax	622	Other departments	13,539
Land and Income tax	7,172	New Works	110,149
Probate and Stamp duties ..	1,301	Repairs, maintenance, &c. ..	3,096
Postal, Telegraph, and Tele-		Railways—	
phone	17,654	Working expenses	185,379
Railways—		New Works	9,874
North Australia	37,768	Interest	272,958
Central Australia	124,417	Sinking Fund	49,492
Territorial	23,565	Post, Telegraph and Telephone	25,230
Miscellaneous	31,062	Interest	65,245
Deficiency on year's trans-		Sinking Fund	13,375
actions	790,952	Unemployment relief	8,826
		Miscellaneous	12,193
Total	1,050,586	Total	1,050,586

AUSTRALIAN CAPITAL TERRITORY.

1. **Introductory.**—In Year Books Nos. 4 and 5, information was given in Section XXXI, in regard to the events leading to the selection of the Australian Capital Territory and the necessary legislation and the progress of operations in connexion with the establishment of the capital city. The physiography of the Territory was dealt with extensively and topographical and contour maps accompanied the letterpress, as well as reproductions of the premiated designs for the laying out of the city. Considerations of space, however, preclude the repetition of this information. On the 12th March, 1913, the official ceremony to mark the initiation of operations in connexion with the establishment of the Seat of Government was carried out. At this ceremony the selection of "Canberra" as the name of the capital city was announced. The Seat of Government Acceptance Act 1938 provides that the Territory shall be known as the Australian Capital Territory. (A special article contributed by Dr. F. Watson, entitled "Canberra Past and Present", appeared on page 454 of Year Book No. 24.)

2. **Transfer of Parliament.**—On 9th May, 1927, Parliament House at Canberra was officially opened by His Royal Highness Albert, Duke of York, the occasion being the 26th anniversary of the opening of the first Parliament of the Commonwealth at Melbourne by His Royal Highness George, Duke of Cornwall and York—afterwards His Majesty King George V.—on the 9th May, 1901. (For particulars of the opening ceremony see Year Book No. 21, page 604.)

3. **Administration.**—In Year Book No. 18, a summary was given of the development of the administration prior to the taking over of the control of the Territory by the Federal Capital Commission, and in Year Book No. 22, a summary was given of the administrative activities of the Federal Capital Commission.

The administration of the Territory by the Federal Capital Commission was continued until the 30th April, 1930, when the Seat of Government (Administration) Act 1924–1929 was repealed, and the powers and functions of the Commission reverted to the Government. The new Administration provided for the general control of the Territory by the Minister for Home Affairs, with the assistance of the Department of Public Health in health matters, the Department of Works in the operation of the engineering services and in the construction of works, and the Attorney-General's Department in the administration of the Courts, Police and Probate, and the Registration of Titles.

An Advisory Council to advise the Minister on matters of local concern was established on the 1st May, 1930, by Ordinance under the Act, and a Civic Administrator was appointed under the Ordinance as Chairman of the Advisory Council and to carry on the general administration of the Territory under the Minister and subject to the specific services being undertaken by the other Commonwealth Departments mentioned.

The Advisory Council consisted of the Secretary, Department of Home Affairs; the Director-General of Health; the Secretary, Department of Works; the Civic Administrator; and three residents elected for two years under a system of adult franchise.

On the 12th April, 1932, the Departments of Home Affairs and Works were abolished and the Department of the Interior was established in lieu thereof. The office of Civic Administrator was abolished, and the constitution of the Advisory Council was altered to provide that the nominated members of the Council should consist of the Director-General of Health, and three officers of the Department of the Interior, namely, the Assistant Secretary (Works and Services); the Surveyor-General and Chief Property Officer; and the Assistant Secretary (Civic Administration). Subsequently the Constitution of the Council was altered to provide for the replacement of the Director-General of Health by an Officer nominated by the Minister for Health, and for the altered designation of the Assistant Secretary (Works and Services), to that of Assistant Secretary (Canberra Services).

Under the new administration, the general control of the Territory is exercised by the Minister for the Interior, but the specific services undertaken by the Department of Health and the Attorney-General's Department are being continued by those Departments.

4. **Progress of Work.**—The general progress of the work of construction up to the time the Territory was taken over by the Commission was outlined in Year Book No. 18. Later progress made under the Commission was described in Year Book No. 22.

Structures completed after the commencement of the Departmental form of administration comprised the Australian Institute of Anatomy with laboratories and accommodation for the museum of Australian fauna; laboratories of the divisions of Economic Entomology and Plant Industry of the Council for Scientific and Industrial Research; and a public swimming pool equipped with a modern filtration chlorination plant.

During the year 1938–39 the following buildings were completed:—233 residences, a primary school at Braddon, a broadcasting station, a garbage destructor, a cadets' barracks at Duntroon, and additions to Parliament House, the offices of the Department of the Interior and the Cotter pumping station. The following works were in progress:—A new High School, the Australian War Memorial and Museum, Patents Office, a new fire station, additions to Government House, transmission and receiving stations for Royal Australian Navy Shore Wireless Service, and 89 residences.

The following works were commenced or completed :—Construction of access roads to the Belconnen radio station and the garbage destructor, and of streets in the subdivision of Turner, within the grounds of the fire brigade station, the Royal Australian Air Force Aerodrome at Pialligo and the High School building at Acton, and in the subdivisions of Ainslie, Forrest and Griffith. The Royalla-Tuggeranong section of the Canberra-Cooma road has been regraded and re-aligned and $1\frac{1}{2}$ miles have been surfaced with bitumen. The Cotter road has been further re-aligned and improved and 6 miles of bituminous surface have been provided. The Yass and Queanbeyan roads have been regraded to improve visibility. The road between City and the Canberra aerodrome, the tourist road to the Red Hill lookout, streets in the subdivisions of Barton, Braddon, Forrest, Griffith, North Ainslie and Reid, and all internal roads at the Royal Military College, Duntroon, have been treated with bitumen. Other road works include the provision of a safety lane at Acton for testing motor vehicles, the widening and redecking of Scott's Crossing Bridge and additional kerbing, channeling and asphalt footpaths throughout the City area and the erection of white posts along main roads. The water reticulation system has been developed by the provision of measuring weirs on the upper Cotter River and Condor Creek and the installation of a new 200,000 gallons-per-hour pump at the Cotter Pumping Station. An additional pipe-head reservoir has been commenced at Mount Stromlo, and an elevated service reservoir has been erected at Oaks Estate to be served by the main, connecting it to the principal reticulation system. Reticulation of the subdivision of Turner has been commenced and extensions to the system have been made at Government House, Royal Canberra Gold Links, the Cotter picnic ground, and in the subdivisions of Forrest, Griffith, and North Ainslie, and water services have been provided for the Royal Australian Navy Shore Wireless Stations, the Royal Australian Air Force Aerodrome and the Radio Stations of Canberra Broadcasters Ltd. (2CA) and the Australian Broadcasting Commission (2CY). Sewerage reticulation services have been extended to new buildings in the subdivisions of Acton, Ainslie, and Griffith, and separate sewerage and stormwater drainage systems have been provided at the Royal Australian Navy Shore Wireless Stations and the Royal Australian Air Force Aerodrome. Development of the Canberra electric supply services has included additions to the power stations plant in collaboration with the Burrinjuck electricity supply, a new 11,000 volt line to the various broadcasting stations and provisions for supplying power at the Royal Australian Air Force Aerodrome, the Royal Australian Navy Shore Wireless Stations and residences. High tension mains have been placed underground through Forrest.

Private building was active during the year. Important works include the construction of a Catholic Church and a Soldiers' Club, while the building of an Anglican Church was commenced. The erection of 37 cottages was begun, and extensive additions were made to the Canberra Grammar School, the Canberra Girls' Grammar School and to several hotels.

5. **Forestry.**—A considerable amount of reforestation work has been undertaken, and plantations have been established at Uriarra, Mount Stromlo, Pierce's Creek and Kowan. Experimental plots have also been established in the Brindabella mountains and silvicultural work is being carried out at Black Mountain.

The total area of plantations to 30th June, 1938, was 12,232 acres. Forestry operations were begun on Mount Stromlo in 1915, and up to 1925 approximately 700 acres had been planted with pine and other trees. The plantings up to this time were chiefly on aesthetic lines, but since the initiation of the wider programme, arrangements have been made for pruning and thinning, and sawmill timber is now being obtained from the logs resulting from thinning operations. The output of sawmill logs from thinnings is gradually improving and has increased from 21,762 super. feet in 1930-31 to 343,149 super. feet in 1937-38.

In 1926 a comprehensive review was undertaken of the Territory's potentialities in regard to forest development. A system of forestry management was instituted in the existing forest areas, and a considerable amount of survey and assessment work has

been completed. In the initial stages *pinus radiata* was most extensively planted, but, as a result of experimental work, plots of better quality pines on a longer rotation, such as *pinus ponderosa*, *Jeffreyi* and *laricio* were planted during recent years.

6. **Lands.**—(i) *In the Australian Capital Territory.* Reference has been made in previous issues of the Official Year Book to the general conditions of land tenure in the Australian Capital Territory and to the area of alienated and leased land.

As considerable portions of the Territory lands are not required in connexion with the establishment of the city, large areas have been leased under special improvement conditions in regard to the extermination of noxious weeds and the destruction of rabbits and other pests. The lands are classified into three grades of agricultural and three grades of grazing land. About 320,366 acres comprising 504 leases are at present held under lease for periods varying from quarterly tenure to 25 years.

Auction sales of city leaseholds are described in Year Book No. 22, p. 599.

Five leases under the Church Lands Leases Ordinance 1924–1932, which requires the lessees to submit a definite building programme within a specified period, and one lease under the Church of England Lands Ordinance 1926 have been granted for church purposes. A further six leases under the Leases (Special Purposes) Ordinance 1925–1936 and two leases under the Leases Ordinance 1918–1937 have been granted for church and scholastic purposes.

The total number of leases granted under the City Area Leases Ordinance, not including surrendered leases, at the end of the financial year 1937–38 was 376, representing a capital value of £191,928. During the year 32 new leases were granted. The number of business and residential blocks surrendered to or determined by the Commonwealth to the end of the year was 260.

Under the terms of the City Area Leases Ordinance 1936–1938 each block is leased for a period of 99 years at a rental of £5 per centum per annum of the unimproved capital value as assessed by the Commonwealth or bid at auction. In conformity with the general reduction of interest in consequence of the financial crisis rentals under this Ordinance have been reduced to 4 per centum of the unimproved capital value until 30th June, 1941.

(ii) *In the Jervis Bay Territory.* The Commonwealth has acquired from the State of New South Wales sovereign rights over the area comprising about 28 square miles of land and water at Jervis Bay for possible use as a port in connexion with the Australian Capital. The Royal Australian Naval College was established in this area on a site known as Captain's Point, but was removed in 1930 to Flinders Naval Base, Victoria. Leases have been granted over an area of approximately 12,000 acres in the Jervis Bay Territory.

A scheme for the use by tourists of the residences and other buildings at Jervis Bay has been put into operation, and it has proved a considerable attraction, affording a seaside resort for residents of the Territory as well as for visitors from other places.

7. **Railways.**—Canberra is connected with the railway system of New South Wales by a line $4\frac{1}{2}$ miles long to Queanbeyan. This line was opened for goods traffic on the 25th May, 1914, and for passenger traffic on the 15th October, 1923. The railway terminus is situated in the area known as Kingston.

A direct passenger service is in operation connecting Canberra with Sydney and Melbourne, and trains leave both cities for Canberra daily. Improved facilities for goods traffic have also been provided.

A trial survey of a line between Canberra and Jervis Bay has been made, and plans prepared to enable an estimate of the cost of the line to be obtained, but no action in regard to this project is contemplated at present.

Under the provisions of the Seat of Government Surrender Act 1909 of New South Wales and the Seat of Government (Acceptance) Act 1909 of the Commonwealth an agreement exists between the Commonwealth and the State of New South Wales in relation to the construction of a railway from Canberra to Yass—a distance of approximately 43 miles, of which about 32 miles extend through New South Wales. The State is required to construct its portion of the line as soon as the Commonwealth builds a line to the boundary of the Territory.

8. **Population.**—The census return of population on the 30th June, 1938, was 11,290 in the Australian Capital Territory and 272 in Jervis Bay Territory, or a total of 11,562 persons. The estimated population at 31st March, 1939, was 11,824.

9. **Live Stock.**—The number of live stock depastured at 31st March, 1938, were :—Horses, 1,225, cattle, 8,325, and sheep, 263,616.

10. **Educational Facilities.**—Arrangements have been made with the New South Wales Education Department to continue for the time being the administration of education in the Territory, the expenditure involved being refunded annually to the State. There are twelve schools in the Australian Capital Territory and two in Jervis Bay Territory. The largest primary school is situated at Telopea Park, Barton, with accommodation for 750 scholars. Secondary education is provided at the Canberra High School, Acton. It has accommodation for 558 scholars, and its curriculum provides a standard of education comparable in range of subjects with that provided at the best of the Government High Schools in New South Wales, thus permitting scholars to qualify for entrance to the Universities. The School also provides for Commercial and Junior Technical Classes, and there is an Evening Continuation School attached with Evening Commercial and Matriculation Classes.

The Canberra Technical College at Kingston is provided with modern equipment and machinery for supplementary courses for apprentices, journeymen desirous of improving their trade qualifications, and others desirous of taking any of the special courses available.

The supplementary trade courses include fitting and machining, motor mechanics, carpentry and joinery, bricklaying, plastering, house painting and paperhanging, electrical fitting and electrical mechanics, and plumbing and sheet metal work. Special courses include autogenous welding, drainage, signwriting, woolclassing and housecraft. If enrolments warrant, classes will also be provided in gardening, horticulture, ticket writing, graining and marbling, cookery, tailoring and dressmaking.

Education facilities from kindergarten to secondary are provided free of cost and comparatively low fees are charged for tuition at the Canberra Technical College and Evening Continuation School.

A technical school has been established at the Canberra Technical College to prepare youths who have completed two years super-primary school work for apprenticeship trades and semi-skilled occupations. The course of study includes Mathematics, English, Civics, and workshop practice in carpentry, bricklaying, motor mechanics and plumbing and sheet metal work.

There are at present four private schools in the Territory. The Canberra Grammar School for Boys, the Canberra Church of England Grammar School for Girls, and St. Christopher's Convent School provide for primary and secondary education, and St. Patrick's School provides primary and sub-primary education.

Reference to the establishment of a University College at Canberra will be found in Chapter VI. "Education".

II. Finance.—(i) *Financial Year 1937-38.* Receipts and Expenditure for the financial year 1937-38 are given in the table hereunder:—

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND EXPENDITURE, 1937-38.

Receipts.		Expenditure.				
Items.	Amount.	Items.	Capital.	Maintenance.	Other.	Total.
	£		£	£	£	£
Rent and rates ..	162,827	Architectural services ..	149,914	32,256	..	182,170
Electricity ..	48,106	Engineering services ..	276,807	77,445	..	354,252
Motor registration and fees ..	13,180	Lands, Forestry ..	9,919	..	..	9,919
Hospital tax ..	8,328	Loans for housing, net ..	27,485	..	..	27,485
Hotels ..	20,537	Sundry works and services ..	6,888	45,855	..	52,743
Transport and City Bus Service ..	71,748	Education ..	..	..	34,804	34,804
Sales of goods, manufactured products, etc. ..	586,430	Hospital—Working expenses ..	..	..	13,250	13,250
Miscellaneous ..	38,510	Interest and Sinking Fund ..	..	..	288,017	288,017
		Administrative ..	..	..	71,110	71,110
		Hotels—Working expenses ..	..	..	..	26,317
		Transport and City Bus Service—Working expenses ..	..	..	..	64,488
		Factory Stores, etc.—Working expenses ..	..	..	577,306	577,306
		Miscellaneous—Police, Fire Brigade, etc. ..	..	..	52,665	52,665
Total Receipts ..	955,666	Total Expenditure ..	471,013	155,556	1,127,957	1,754,526

(ii) *From Date of Selection of Site to 30th June, 1938.*—The total receipts and expenditure from the date of selection of site to the 30th June, 1938, were as follows:—

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND EXPENDITURE TO 30th JUNE, 1938.

Receipts.		Expenditure.	
Items.	Amount.	Items.	Amount.
	£		£
Commonwealth Treasury—		Lands ..	915,166
Parliamentary Appropriations—		Engineering works ..	4,107,283
Revenue ..	4,905,995	Architectural works ..	2,651,810
Loan ..	5,840,083	Other capital expenditure, sundry debtors, etc. ..	837,177
			8,511,436
		Seat of Government Establishment Account, being maintenance and administration less revenue; expenditure of a capital nature for which assets no longer exist; profit and loss accounts of trading activities, etc. ..	2,234,642*
Total Receipts ..	10,746,078	Net Expenditure ..	10,746,078

* Excluding accumulated interest, £2,844,083.

The above table was prepared by the Department of the Interior and does not include the cost of National Buildings—Parliament House, the Secretariats, etc., £1,731,914, and Loans for Housing, £207,054.

NORFOLK ISLAND.

1. **Area, Location, etc.**—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude $29^{\circ} 3' 45''$ South, longitude $167^{\circ} 56' 29''$ East. Its total area is 8,528 acres, the island being about 5 miles long and 3 miles wide. From Sydney it is distant 930 miles, and from Auckland, 630 miles. The coast line is 20 miles, and its form that of an irregular ellipse. Except on the south-west, inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 49° and 85° , with a mean of 68° . The average annual rainfall is 53 inches. It has been said that the salubrious climate, coupled with the beauty of its land and sea scapes, should combine to render Norfolk Island "the Madeira of the Pacific." The island is visited annually by a number of tourists, and with improved shipping facilities this traffic is likely to increase. A tourist bureau has been established on the Island.

2. **Settlement.**—The first colonization, in 1788, was by Lieutenant King, who in H.M.S. *Supply* established a small penal station as a branch settlement of that at Port Jackson. The settlement was abandoned in 1813, and for 13 years thereafter its chief use was as a whaling station and place of call for British warships.

From 1826 to 1855 it was again made a penal station. In 1844 it was annexed to Van Diemen's Land (Tasmania).

The descendants of the *Bounty* mutineers, having become too numerous to subsist on Pitcairn Island, were removed thence to Norfolk Island in 1856. The new community numbered 94 males and 100 females—and were the descendants of British sailors and Tahitian women. Two of these were still alive at 30th June, 1939.

3. **Administration.**—In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later in 1896 it was made a dependency under the Governor of that Colony, and finally by the passage of the Norfolk Island Act 1913 it was accepted by the Federal Parliament as a territory of the Commonwealth. From July, 1914 until 1st January, 1929, Norfolk Island was administered by the Department of Home and Territories, but it is now administered by the Territories Branch of the Prime Minister's Department through an Administrator. An amending measure, the Norfolk Island Act 1935, provides for the establishment of an Advisory Council of eight elected members to advise the Administrator on any matter affecting the Island.

4. **Population.**—The population at the 30th June, 1938, was 1,059, consisting of 553 males and 506 females. In the year 1937-38, 23 births, 12 deaths, and 10 marriages were recorded. The average age of the persons who died was 53 years. Departures from the Island exceeded arrivals by 37, the respective figures being: departures 331, arrivals 294.

5. **Live Stock.**—The latest returns of live stock show that in May, 1938, there were on the island 1,972 cattle, 679 horses, 235 sheep and 82 pigs. In addition, there were 4,873 head of poultry.

6. **Production, Trade, etc.**—The soil throughout is good and is specially suitable for the cultivation of bananas, citrus and other fruits. The Canadian Wonder bean seed is one of the staple crops of the Island. Since the promulgation of the Ordinance regulating the export of seed the area planted with bean seed has increased, but as in previous years the 1937-38 crop was damaged by rain and wind storms and the exports amounted to only 923 bushels compared with 1,453 bushels in 1936-37.

Apart from the bean, agriculture generally has been depressed, but the prospects are now brighter. A modern pulping factory has been erected on the Island and 5,134 gallons of passion fruit pulp were exported during 1937-38. The pulping of cherry guavas for jelly was also experimented with and 17,980 lb. were shipped to Sydney.

Large numbers of whales pass the island throughout the season, but whaling has not been conducted for a number of years. The industry was recently revived by the formation of a whaling company. Three boats have been fitted out and manned by full crews, and it is hoped that the venture may prove successful. The preserved fish

industry which was established some years ago has been abandoned, and the fish-freezing factory has also ceased operations, although 13,120 lb. of frozen fish were exported to Australia during 1937-38. Such fish as trevalla, kingfish, schnapper and many others abound in the waters around the Island.

On the 30th June, 1938, the total area of land held under freehold and Crown leasehold amounted to 6,818 acres, consisting of 4,521 acres freehold and 2,297 leasehold.

Imports and exports for the last five years are given hereunder; the values are expressed in Australian currency :—

NORFOLK ISLAND : IMPORTS AND EXPORTS.

Country.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
IMPORTS.					
From—	£	£	£	£	£
Australia	27,760	26,260	28,657	33,825	31,188
New Zealand	716	..	..	2	119
Pacific Islands	184	258	140	210	239
Total	28,660	26,518	28,797	34,037	31,546
EXPORTS.					
To—	£	£	£	£	£
Australia	15,714	8,170	8,283	11,611	10,328
New Zealand	105	..	921	..	911
Pacific Islands	74	148	203	268	268
Total	15,893	8,318	9,407	11,879	11,507

Duties of Customs are levied on the following goods imported into Norfolk Island for home consumption :—

IMPORT DUTIES SCHEDULE.

Article.	Unit.	Rate of Duty.	Article.	Unit.	Rate of Duty.
		<i>s. d.</i>			<i>s. d.</i>
Spirits	pr. gal.	30 0	Chicory	lb.	0 3
Ale, beer, porter and cider	gal.	2 6	Petroleum, etc.	gal.	0 3
Wine, still—			Kerosene, etc.	"	0 3
Australian	"	5 0	Residual oil, etc.	"	0 3
Other	"	10 0	Oil, n.e.i.	"	0 3
Wine, sparkling—			Lubricating oils	"	0 3
Australian	"	15 0	Sugar	cwt.	3 0
Other	"	25 0	Molasses, etc.	"	2 0
Tobacco, manufactured or unmanufactured—			Biscuits	lb.	0 1
Australian leaf	lb.	2 0	Candles	"	0 1
Other leaf	"	4 0	Confectionery	"	0 3
Cigars and cigarettes	"	6 0	Dried fruits—		
Tea	"	0 3	Australian	"	0 1
Coffee	"	0 3	Other	"	0 3
			Jams, jellies and pre- serves	"	0 1

No duties are chargeable on goods imported into Australia from Norfolk Island if the goods—(a) are the produce or manufacture of Norfolk Island; and (b) are shipped direct to Australia; and (c) are not goods which if manufactured or produced in Australia would be subject to any duty of excise.

7. **Communication.**—The “all-red” cable from Great Britain via Vancouver, Fanning Island and Fiji, bifurcates at Norfolk Island, one line connecting with New Zealand, the other with Brisbane.

An alternate 12 and 30 days’ shipping service to the Territory is maintained by the vessels of Burns, Philp & Co. Ltd., Sydney, under the terms of the contract with the Commonwealth Government for the maintenance of shipping services to the Pacific Islands.

On one voyage the SS. *Morinda* leaves Sydney, calls at Lord Howe Island and Norfolk Island and then proceeds to the New Hebrides, returning to Sydney by the same route. The same vessel then makes a short trip to Norfolk Island and returns to Sydney calling at Lord Howe Island on both the outward and inward voyages.

The journey from Sydney to Norfolk Island occupies four days.

8. **Social Condition.**—Education is free and compulsory up to the age of fifteen years. The school conforms to the Australian standard of public education, ranging from kindergarten to the intermediate certificate, with a two years’ super-primary course of instruction in cultural subjects and in agriculture, woodwork, metalwork, etc. The headmaster and two assistant teachers are lent by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30th June, 1938, was 136.

The Court of Norfolk Island presided over by a Chief Magistrate is a court of record with dual jurisdiction. Sitting in its Limited Jurisdiction the Court has power to hear and determine actions of claims not exceeding £30 and to punish summarily all crimes and offences involving a pecuniary penalty or a sentence of imprisonment not exceeding six months. In its Full Jurisdiction the Court can hear and determine all actions, punish all crimes and offences, grant probate and letters of administration, hear and determine appeals from any conviction of the Court sitting in its limited jurisdiction, and has authority in all other matters. An appeal lies to the High Court of Australia from any judgment, order, decree or sentence of the Court sitting in its full jurisdiction.

9. **Finances.**—The whole of the Territorial revenue together with an annual grant from the Commonwealth Government in aid of the administrative expenses is paid to the credit of the Norfolk Island Trust Fund Account, and all administrative and developmental expenses are paid from that account. The operations for the year 1937-38 were as follows:—

NORFOLK ISLAND TRUST FUND ACCOUNT, 1937-1938.

Items.	Receipts.	Items.	Expenditure.
	£		£
Balance carried forward ..	8,751	Salaries	5,923
Commonwealth Grant—		Purchase of liquor	2,558
Ordinary	4,000	Flood damage relief	527
Special	1,840	Assistance to passion fruit	
Customs duties	3,317	industry	1,840
Sale of liquor	2,886	Repairs and maintenance ..	1,140
Miscellaneous	2,164	Miscellaneous	4,136
		Balance	6,834
Total	22,958	Total	22,958

PAPUA.

§ 1. General Description.

1. **Early Administration.**—Particulars of the early administration of Papua were given in Official Year Book No. 19, p. 576.

2. **Administration by Commonwealth of Australia.**—The Territory was placed under the authority of the Commonwealth on 1st September, 1906, by proclamation issued in pursuance of Letters Patent of the 18th March, 1902, and was accepted by the Commonwealth by the Papua Act 1905, which came into force by virtue of the

proclamation aforesaid. The transfer was made under the authority of section 122 of the Constitution. The Territory is now under the administration of the Commonwealth, but not included within it, and is divided into magisterial districts.

3. **Area, etc.**—Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude; its southernmost portion, comprising Sudest and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 800 miles; towards either end the breadth from north to south is about 200 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland, and 1,936 on the islands. The total area is about 90,540 square miles, of which 87,786 are on the mainland, and 2,754 on the islands. A reference to the physical characteristics of the Territory appears in previous issues of the Official Year Book (see No. 18, p. 633).

§ 2. Population.

The white population of Papua at the census of the 30th June, 1938, was 1,488, made up of 964 males and 524 females. The numbers recorded in previous years were:—1935, 1,229; 1936, 1,203; and 1937, 1,323.

It is not possible to give exact data regarding the number of natives, because a large area of the interior is not yet under complete Government control. The official estimate is 300,000. Such censuses of the native population as have been taken during recent years point to a slight increase. The coloured population, other than Papuans, on 30th June, 1933, was 786, and included many mission teachers from Samoa, Fiji and other Pacific Islands. On the same date, half-castes, with one of the parents a European, were 227. An Immigration Restriction Ordinance prohibits the immigration of persons who fail to pass the dictation test, or who are of bad character, or likely to become a charge upon the public. Exemptions may, however, be granted by the Lieutenant-Governor to persons of special skill required for employment as overseers or foremen.

§ 3. Native Labour, Taxation, Health, etc.

1. **Native Labour.**—Information regarding the conditions connected with the employment of native labour will be found in Official Year Book No. 22, p. 607.

The number of natives who served under contracts of service for various periods during 1937–38 was 15,427, and the approximate number of non-indentured labourers was 3,051; the latter is of course only estimated, and cannot be taken as quite reliable.

2. **Native Taxes.**—Under the Native Taxes Ordinance, 1917–1936, a tax not exceeding £1 per annum may be imposed on natives, excepting native constables, mission teachers, natives unfit for work, and those who have four living children. The proceeds of the tax must be expended on native education, or devoted to purposes directly benefiting the natives, as may be prescribed.

The taxes collected in 1937–38 amounted to £14,648, of which £4,299 was transferred to the Native Education Fund, and £8,301 to the Native Benefits Fund. The Native Education Fund during the year 1937–38 disbursed to primary and technical education £4,087, and to agricultural education £1,059, leaving a credit balance of £18,035. From the Benefits Fund the expenditure included:—Anthropology, £860; health, £5,954; village improvements, £205; family bonus, £1,312; games in villages, £32; and clerical expenses, £25.

3. **Care of Half-caste Children.**—An Ordinance was passed in 1922 to provide for the care and maintenance of neglected half-caste children. The Ordinance provides that a sum of £26 per annum shall be paid to the Commissioner for Native Affairs by the adjudged father of the child until the child, if a boy, shall reach the age of 16 years, or if a girl, 18 years.

4. **Health.**—The two principal native hospitals are in Port Moresby and Samarai; but minor hospitals are attached to the out-stations. Hospitals are also conducted by the various mission societies and plantation companies. The mission societies employ two

doctors and a number of trained nurses. Several European medical assistants are employed by the Government. In recent years parties of natives have received a six months course of instruction in first aid and in elementary physics, chemistry, anatomy, physiology and pathology at the School of Public Health and Tropical Medicine, University of Sydney. On their return to the Territory the natives are employed as travelling native medical assistants. The chief complaints treated are yaws, ulcers, lung affections, hookworm, venereal and skin diseases. The death rate amongst native labourers was 1.83 per cent. in 1937-1938.

§ 4. Land Tenure.

1. *Method of Obtaining Land.*—The broad principles upon which the land laws of Papua are based are:—(a) no land can be alienated in fee simple; (b) the rental of the land leased is assessed on the unimproved value of the land, and is subject to re-appraisal at fixed periods. The terms upon which land may be leased are very liberal. Leaseholds of the best class of agricultural land may be obtained for 99 years. No rent is payable during the first ten years of the lease on areas less than 1,000 acres. During the following ten years the rent is charged at the rate of 5 per cent. on the unimproved value of the land. The unimproved value of the land is appraised every twenty years and the rent determined accordingly. If on any appraisement the rent is raised by more than one-third the lessee may disclaim the lease and shall be entitled to receive compensation for his improvements. The unimproved value of agricultural land has been fixed at 5s. per acre. Rent is immediately payable on areas exceeding 1,000 acres, and survey fees on areas exceeding 100 acres.

2. *Holdings.*—On the 30th June, 1937, the lands of the Territory were held as follows:—

PAPUA: HOLDINGS, 1937.

Description.	Area.
	Acres.
Land held by the natives	56,828,751
Crown land	845,967
Freehold land	24,018
Leasehold land	246,864
Area of Territory	57,945,600

Private sales of land in the Territory have now ceased. The Government buys from the natives, and then leases to planters, who are forbidden to have direct dealings in land with Papuans.

Of the total area of 246,864 acres shown above, agricultural leases accounted for 227,503, pastoral leases for 17,821, special leases for 633 and mission leases for 617.

The total area of leases granted during 1936-37 was 25,724 acres, and Crown rents on leaseholds amounted to £5,359.

§ 5. Production.

1. *General.*—The products of the Territory are obtained from its agricultural, timber, fishing, mining and manufacturing industries. Gold is the principal mineral mined, and copra occupies the foremost position amongst plantation products followed by rubber. Portions of the Territory appear well suited for cotton cultivation, and there is a possibility of obtaining petroleum in marketable quantities. Bounties are paid by the Commonwealth Government on cocoa beans and shells, hemp and coir, sago, vanilla beans, bamboos and rattans, spices and kapok produced in the Territory and imported direct to Australia for home consumption.

2. *Agriculture.*—(i) *Soil and Rainfall.* Rich soils at varying elevations and heavy and evenly distributed rainfall favour the cultivation of a variety of tropical products including sugar cane, coconuts, sago palm, bread fruit, dyewoods, spices, ginger, nutmegs,

bananas and other fruits. There are large areas of rich alluvial and volcanic soils along the coast, and fertile land is found at elevations up to 6,000 feet. Heavy rainfalls occur, except over a belt of country which runs back from the coast to the hills, and which has its dry season from May to November. This "dry" area is admirably suited for the production of tobacco, fibres, cotton, etc. There are 21 meteorological stations throughout the Territory, and an economic museum and agricultural library have been established.

(ii) *Plantations.* Agricultural settlement has been mostly in the Central and Eastern Divisions with coconuts and rubber as the principal crops. The natives are compelled by an ordinance to plant coconuts for food supply. In addition to the coconuts in these plantations, many more are planted over small and widely scattered areas by the older natives in accordance with custom. The Native Plantations Ordinance provides for the establishment of plantations in which half of the proceeds is paid to the natives entitled thereto, and the remaining half paid into the Native Education Fund. The following table shows the areas under the different crops during the past five seasons:—

AREA UNDER CULTIVATION.

Crop.	1933.	1934.	1935.	1936.	1937.
	Acres.	Acres.	Acres.	Acres.	Acres.
Coconuts	47,921	49,033	47,642	48,188	45,207
Rubber	8,993	8,933	9,591	10,270	10,956
Sisal hemp	150	362	150	150	150
Kapok	79	86	128	168	119
Coffee	391	398	388	368	271
Rice	39	21	27	..	..
Sugar	53	54	50	..	..
Mauritius beans	70	80	..	..	..
Other	611	479	652	801	933
Total	58,307	59,446	58,628	59,945	57,636

The market price of the two staple products declined considerably during the year. The average price of copra dropped from £21 16s. 1d. in 1936-37 to £12 17s. 3d. in 1937-38, while the price of rubber fell from 11½d. to 7.45d. per lb. during the same period. The prices ruling during 1937-38, however, were considered to be profitable to planters.

(iii) *Government Plantations.* There are two Government plantations, the Orangerie Bay coconut plantation and the Kemp Welch rubber plantation.

3. *Forestry.*—According to the Commonwealth Inspector-General of Forests the principal softwood timber is known as "ilimo," while among satisfactory timbers of the lowlands are "nara," "medobi," and "melila." There are a large number of woods, varying from the softest to the hardest, including beautiful cabinet woods, but research is necessary to determine their usefulness. The development of a coniferous belt at the higher altitudes offers great possibilities. It is believed that teak and sandalwood are well suited for cultivation.

4. *Live Stock.*—At 31st December, 1937, the live stock in the Territory consisted of 335 horses, 8,372 head of cattle, 116 mules, 1,212 goats, 592 pigs, 64 sheep and 4,906 fowls. The introduction of rabbits, foxes, hares and monkeys is prohibited.

5. *Fisheries.*—Pearl-shell fishing occupies an important place in the industries of Papua. Considerable numbers of luggers are licensed, but the returns are mostly credited to Queensland, whose boundary approaches to within a few miles of the Papuan coast. The species of tortoise which supplies the commercial tortoise-shell is also a native of Papua. Bêche-de-mer and trochus are found along the shores and reefs, and form valuable articles of export.

6. Mining.—(i) *Variety of Minerals.* Minerals have been found over a wide range of country. Those discovered so far are—gold, copper, tin, lead, zinc, cinnabar, iron, osmiridium, gypsum, manganese, sulphur, graphite, chromite, lignite, platinum and petroleum.

The existence of petroleum has been traced at scattered intervals over a large area. Three companies hold permits under the provisions of the Petroleum (Prospecting and Mining) Ordinance 1938 and oil prospecting is being carried on in the Western, Delta, Gulf and Central Divisions.

Of precious stones, only the topaz and beryl have been obtained. Large beds of apparently good coal also exist.

(ii) *Gold.* Gold was discovered in 1888 and the search gradually spread over every division, finds being reported wherever the explorers went. Gold-mining was carried on sporadically throughout the Territory during 1937–38, the only important developments being on the Island of Misima in the Louisiade gold field. The estimated quantity in fine ounces and the value of the gold yield for the last five years are given below :—

PAPUA : GOLD YIELD.(a)

1933-34.		1934-35.		1935-36.		1936-37.		1937-38.	
Quantity. (b)	Value.	Quantity. (b)	Value.	Quantity. (b)	Value.	Quantity. (b)	Value.	Quantity. (b)	Value.
fine oz.	£	fine oz.	£	fine oz.	£	fine oz.	£	fine oz.	£
11,064	89,624	16,487	144,073	19,254	167,046	21,605	187,975	25,835	223,160

(a) Valued at average price realized for fine gold in Australia.

(b) Estimated.

Most of the rivers, with the exception of those flowing into the Gulf of Papua, have been declared open to gold-dredging, and good yields have been obtained. The total value of gold won to 30th June, 1938, was £2,517,201.

(iii) *Copper.* Owing to unprofitable prices the copper mines in Papua have suspended operations. The total value of the copper exported to the 30th June, 1938, was £369,127.

(iv) *Other Minerals.* Some good samples of galena (sulphide of lead) have been obtained, while cinnabar (sulphur of mercury), graphite (or plumbago), zinc-blende, native sulphur, and other minerals are known to exist. In 1924 a deposit of lignite was discovered on Smoky Creek, a tributary of the Era River.

A mineral laboratory and museum have been fitted up, and are available to prospectors and others interested.

7. *Water Power.*—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there are at least 10,000,000 h.p. available for this purpose.

§ 6. Trade.

1. *Customs Tariff.*—In the Schedule to the Customs Tariff of Papua 136 items are mentioned of which approximately one-third are on the free list consisting of a number of foodstuffs and certain manufactures for use in the development of the Territory or its industries. Where duties are imposed they are generally on a 10 per cent. ad valorem basis, with the exception of ale, spirits, beverages and tobacco on which high revenue rates are imposed. Preference is given to Australian wines. On the 16th July, 1931, a primage duty of 4 per cent. ad valorem was imposed on all goods whether dutiable or not in addition to the ordinary customs dues; the rate was subsequently reduced to 2½ per cent. and the duty ceased to operate on 1st July, 1937. The value of imports into Papua during 1937–38 was £631,497 and the duty collected, £58,380, including primage, £67.

The sum of £159 was received in export duties which are levied on pearl-shell, gold and copra, in the latter case only on the excess above £20 per ton of a certain declared value deemed to be the London market price.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced and imported direct from Papua (see Chapter XVI., § 2 par. 4 (iv)), and a proclamation of 25th September, 1935, exempted from primage duty goods the produce or manufacture of the Territory.

2. Imports and Exports.—Comparative tables of imports and exports during the past five years are given hereunder. The values of exports are expressed in Australian currency but it is not possible to determine accurately the meaning of the £ in the table of imports.

PAPUA: IMPORTS AND EXPORTS.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
IMPORTS.					
	£	£	£	£	£
Ale, spirits and beverages ..	7,188	8,732	9,170	11,362	14,453
Tobacco and manufactures ..	17,948	23,297	21,075	25,637	24,213
Agricultural products and groceries ..	63,451	74,945	85,205	114,621	143,937
Textiles, felts, furs, attire, etc. ..	24,670	30,127	30,985	40,987	45,492
Metals and machinery ..	35,142	49,551	49,389	98,875	124,277
Oils, paints and varnishes ..	15,072	14,179	17,327	27,519	37,139
Earthenware, cement, glass, etc. ..	1,968	2,730	2,687	5,078	6,969
Drugs and chemicals ..	5,912	8,143	7,444	9,596	12,904
Wood, wicker and cane ..	1,995	3,385	4,729	7,620	14,918
Jewellery and fancy goods ..	4,216	4,699	7,722	9,171	9,495
Leather and rubber ..	2,873	5,182	5,204	6,288	6,748
Paper and stationery ..	3,779	4,264	5,105	6,317	8,569
Miscellaneous ..	19,491	23,510	49,748	58,633	126,479
Government stores ..	16,990	16,555	22,025	30,352	55,904
Total	220,605	269,299	317,815	452,056	631,497
EXPORTS.					
	£	£	£	£	£
Bêche-de-mer	1,643	4,455	1,802	3,939	1,363
Coffee beans	4,993	7,083	5,217	7,536	6,606
Copra	42,990	57,597	100,681	191,808	91,166
Coconut, desiccated	48,000	37,895	42,467	47,137	52,628
Gold	45,933	68,922	81,034	87,003	108,141
Pearls	2,505	5,742	2,395	1,966	2,400
Rubber	61,324	79,031	89,467	124,174	129,448
Trochus shell	16,922	11,750	13,609	12,581	8,578
Other	24,825	22,268	18,485	47,857	35,263
Total	249,135	294,743	355,157	524,001	435,593

The rise in imports was occasioned chiefly by the introduction of capital equipment for the gold field at Misima and for the oil prospecting companies in the west. The fall in the market price of copra was largely responsible for the decrease in exports during 1937-38.

The trade of the Territory reached its maximum in 1925-26 when imports were valued at £470,774 and exports at £649,373. Prices for both copra and rubber were high about that time and the copper mines were producing freely.

3. Direction of Trade.—Particulars of the countries of origin of the imports into Papua and the destination of the goods shipped therefrom are shown below for the past three years :—

PAPUA : DIRECTION OF TRADE.

Country.	Imports.			Exports.		
	1935-36.	1936-37.	1937-38.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Australia	145,534	219,007	305,894	254,132	332,165	352,923
United Kingdom ..	53,670	72,580	87,910	45,329	55,338	32,622
Other British	13,317	20,717	22,453	6,025	6,245	6,477
Europe	6,985	18,761	35,839	38,291	97,392	29,915
Japan	9,104	12,888	17,969	10,558	8,381	5,509
Asia, excluding Japan	22,844	30,549	35,730	675	3,080	1,363
Dutch East Indies and Philippine Islands ..	11,320	20,657	34,381	147	..	3,017
United States of America	54,406	56,470	89,847	..	21,400	55
America, Other	635	427	1,474	..	..	..
Morocco .. ..	..	..	..	..	..	3,712
Total	317,815	452,056	631,497	355,157	524,001	435,593

§ 7. Finance and Shipping.

1. Finance.—The revenue and expenditure for the last five years were as follows :—

PAPUA : REVENUE AND EXPENDITURE.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Revenue—					
Customs	35,551	43,428	46,132	57,443	58,539
Commonwealth Grant ..	40,000	42,500	42,500	42,500	42,500
Lands	5,376	5,319	5,177	6,531	6,708
Fees, fines, etc.	4,873	6,199	5,600	6,148	7,065
Other	35,348	(a) 55,165	(a) 66,279	(a) 59,169	67,996
Total	121,148	152,611	165,688	171,791	182,808
Expenditure—					
Medical	13,759	13,398	16,203	16,718	20,884
Ordinary Votes	90,610	(b) 120,723	(b) 129,282	(b) 127,926	122,536
Public Works	14,335	15,504	17,597	23,503	35,828
Native Affairs	2,784	2,848	2,739	2,773	3,854
Total	121,488	152,473	165,821	170,920	183,102

(a) Includes Commonwealth grant to rubber growers £19,023 in 1934-35, £19,747 in 1935-36 and £6,871 in 1936-37, and Commonwealth grant for mining development, £5,000 in 1935-36.

(b) Includes expenditure of Commonwealth special grants.

2. Shipping.—The following table shows the number and tonnage of oversea vessels entered and cleared at ports during the years 1931-32 to 1937-38. All the vessels recorded in 1937-38 except 56 were of British nationality.

PAPUA : OVERSEA SHIPPING.

Year.	Vessels.	Tonnage.
1931-32	185	333,304
1932-33	170	398,451
1933-34	168	373,895
1934-35	177	341,537
1935-36	194	371,980
1936-37	181	356,476
1937-38	243	482,981

Throughout, the figures are exclusive of ships of war and Government vessels.

§ 8. Progress of Papua.

As already stated in § 1, *supra* the Territory was placed under the Commonwealth control on 1st September, 1906. The following table indicates the progress that has been made since that date :—

PAPUA : STATISTICAL SUMMARY.

Items.	Year ended 30th June—			
	1907.	1936.	1937.	1938.
White population	690	1,203	1,323	1,488
Native labourers employed	2,000	14,268	15,942	18,478
Territorial revenue	£21,813	£98,442	£122,420	£140,308
" expenditure	£45,335	£141,074	£164,048	£183,102
Value of imports	£87,776	£317,815	£452,056	£631,497
" exports	£63,756	£355,157	£524,001	£435,593
Area of plantations	(a) 1,467	(a) 58,628	(a) 59,945	a£57,636
Meteorological stations established	3	20	20	21
Gold yield fine oz.	12,439	19,254	21,605	25,835

(a) 31st December, previous year.

MANDATED TERRITORY OF NEW GUINEA.

§ 1. General Description.

The land area of the Territory of New Guinea is about 93,000 square miles and the area including the sea within the lines drawn through its extreme outer points is more than 1,000,000 square miles. The coast of the Territory not having been completely surveyed, the areas of the various islands are known only approximately.

The approximate areas of the principal islands together with the small islands adjacent thereto are as follows :—

AREA OF TERRITORY OF NEW GUINEA.

Particulars.	Approximate Area.
	Square Miles.
North East New Guinea (also called "The Mainland")	69,700
Bismarck Archipelago—	
New Britain	14,600
New Ireland	3,340
Lavongai	460
Admiralty Islands	800
	19,200
Solomon Islands—	
Bougainville	3,880
Buka	220
	4,100
Total	93,000

Information regarding physiography and climate will be found in Official Year Book, No. 22, p. 613, and in the Official Handbook of the Territory.

§ 2. Government.

1. **The Military Occupation.**—On the 17th September, 1914, the Acting Governor of German New Guinea signed terms of capitulation with the officer commanding a Naval and Military Expedition sent from Australia, and thereafter the Territory was under military administration until the establishment of Civil Government in May, 1921.

2. **Mandate.**—In 1919 it was decided by the Principal Allied and Associated Powers that the Territory of New Guinea, which Germany gave up as one of the terms of peace, should be entrusted under Mandate from the League of Nations to the Government of the Commonwealth. The issuing of the Mandate was, however, delayed, and it was not until 17th December, 1920, that its terms were settled; and the Mandate itself did not reach Australia until April, 1921.

The terms of the Mandate are given hereunder :—

THE COUNCIL OF THE LEAGUE OF NATIONS :—

Whereas by Article 119 of the Treaty of Peace with Germany signed at Versailles on 28th June, 1919, Germany renounced in favour of the Principal Allied and Associated Powers all her rights over her oversea possessions, including therein German New Guinea and the groups of islands in the Pacific Ocean lying south of the Equator other than German Samoa and Nauru; and

Whereas the Principal Allied and Associated Powers agreed that in accordance with Article 22, Part I. (Covenant of the League of Nations), of the said Treaty, a Mandate should be conferred upon His Britannic Majesty to be exercised on his behalf by the Government of the Commonwealth of Australia to administer New Guinea and the said islands, and have proposed that the Mandate should be formulated in the following terms; and

Whereas His Britannic Majesty, for and on behalf of the Government of the Commonwealth of Australia, has agreed to accept the Mandate in respect of the said territory and has undertaken to exercise it on behalf of the League of Nations in accordance with the following provisions; and

Whereas, by the aforementioned Article 22, paragraph 8, it is provided that the degree of authority, control or administration to be exercised by the Mandatory not having been previously agreed upon by the members of the League, shall be explicitly defined by the Council of the League of Nations;

Confirming the said Mandate, defines its terms as follows :—

ARTICLE 1.

The territory over which a Mandate is conferred upon His Britannic Majesty for and on behalf of the Government of the Commonwealth of Australia (hereinafter called the Mandatory) comprises the former German Colony of New Guinea and the former German islands situated in the Pacific Ocean and lying south of the Equator, other than the islands of the Samoan group and the island of Nauru.

ARTICLE 2.

The Mandatory shall have full power of administration and legislation over the territory subject to the present Mandate as an integral portion of the Commonwealth of Australia, and may apply the laws of the Commonwealth of Australia to the territory, subject to such local modifications as circumstances may require.

The Mandatory shall promote to the utmost the material and moral well-being and the social progress of the inhabitants of the territory subject to the present Mandate.

ARTICLE 3.

The Mandatory shall see that the slave trade is prohibited, and that no forced labour is permitted, except for essential public works and services, and then only for adequate remuneration.

The Mandatory shall also see that the traffic in arms and ammunition is controlled in accordance with principles analogous to those laid down in the Convention relating to the control of the arms traffic, signed on 10th September, 1919, or in any convention amending the same.

The supply of intoxicating spirits and beverages to the natives shall be prohibited.

ARTICLE 4.

The military training of the natives, otherwise than for purposes of internal police and the local defence of the territory, shall be prohibited. Furthermore, no military or naval bases shall be established or fortifications erected in the territory.

ARTICLE 5.

Subject to the provisions of any local law for the maintenance of public order and public morals, the Mandatory shall ensure in the territory freedom of conscience and the free exercise of all forms of worship, and shall allow all missionaries, nationals of any State Member of the League of Nations, to enter into, travel and reside in the territory for the purpose of prosecuting their calling.

ARTICLE 6.

The Mandatory shall make to the Council of the League of Nations an annual report to the satisfaction of the Council, containing full information with regard to the territory, and indicating the measures taken to carry out the obligations assumed under Articles 2, 3, 4, and 5.

ARTICLE 7.

The consent of the Council of the League of Nations is required for any modification of the terms of the present Mandate.

The Mandatory agrees that if any dispute whatever should arise between the Mandatory and another Member of the League of Nations relating to the interpretation or the application of the provisions of the Mandate, such dispute, if it cannot be settled by negotiation, shall be submitted to the Permanent Court of International Justice provided for by Article 14 of the Convention of the League of Nations.

The present Declaration shall be deposited in the archives of the League of Nations. Certified copies shall be forwarded by the Secretary-General of the League of Nations to all Powers Signatories of the Treaty of Peace with Germany.

Made at Geneva the 17th day of December, 1920.

3. **New Guinea Act and Statute Law.**—In anticipation of the issuing of the Mandate the Commonwealth Parliament in September, 1920, passed the New Guinea Act 1920, by which the Governor-General was authorized to accept the Mandate when issued. The Territory was, by the Act, declared to be a Territory under the authority of the Commonwealth, with the name of the Territory of New Guinea.

The Act provided for an Administrator, while power to legislate for the Territory was to be exercised by the Governor-General, and provision was made for the observance of safeguards in the interests of the natives as set out in the Mandate.

In 1932 the Act was amended to provide for the establishment of a Legislative Council and an Executive Council for the Territory, the Executive Council to consist of nine members appointed by the Governor-General of whom one shall not be an officer of the Territory. The Legislative Council is empowered to make Ordinances for the peace, order and good government of the Territory. Such Ordinances are subject to disallowance by the Governor-General who, however, is not now empowered to make Ordinances for the Territory. The amending Act was proclaimed to commence on 2nd May, 1933, and the Act is now entitled the New Guinea Act 1920-1935. The Acts of the Commonwealth Parliament do not (unless expressly so stated) extend to the Territory, but the Laws Repeal and Adopting Ordinance 1921-1937 provides that certain Acts and Ordinances shall be applied thereto.

4. **Legislative Council.**—The Legislative Council consists of the Administrator, the eight official members of the Executive Council and seven non-official members, the latter nominated by the Administrator and appointed by the Governor-General.

5. **Expropriation.**—The Treaty of Peace provided that German nationals resident in her former colonies might be repatriated, and that the property rights and interests of German nationals in former colonies might be retained and liquidated by the Allies, the proceeds being credited to Germany in part payment of the reparation payable by her under the Treaty. In pursuance of these powers, in September, 1920, the property of the principal German companies in the Territory, and in March, 1921, that of a large number of German planters, was vested in the Public Trustee. In 1926 and 1927 these plantations were transferred to private owners.

6. **Departments and Districts.**—The Administration is organized in eight Departments—Government Secretary; Treasury; District Services and Native Affairs; Public Health; Customs; Lands, Surveys, Mines and Forests; Agriculture; and Public Works.

For administrative purposes the Territory is divided into the seven following districts:—New Britain, comprising New Britain and adjacent islands; Morobe; Madang; Sepik (on the mainland); New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Kieta, the former German portion of the Solomon Islands. Each district is under a District Officer, assisted by a small staff.

7. **Reports to the League of Nations.**—Eighteen reports have been rendered to the League of Nations in compliance with Article 6 of the Mandate, the latest being for the year ended 30th June, 1938.

§ 3. Population.

1. **White Population.**—The number of the white population at various intervals since 1885 is shown in the following table. At the 30th June, 1938, the white population was 4,445, of whom 3,472 were British subjects.

TERRITORY OF NEW GUINEA: WHITE POPULATION.

Year.	Number.	Year.	Number.
1885	64	1935	4,176
1931	2,900	1936	4,281
1932	3,100	1937	4,286
1933	3,191	1938	4,445

2. **Asiatic Population.**—Malays seem to have been the first Asiatics brought by the Germans to German New Guinea; 37 of them were recorded on the mainland in 1885.

About 1889 the New Guinea Company began to bring Chinese, Malays and Javanese in growing numbers from Singapore and Java to work on the plantations; in the year 1892 there were about 1,800 Asiatics on the mainland. By 1898 the number had decreased to 300 or 400, but it had risen to 1,830 at the time of the Census in 1933 and now numbers 1,838, of whom 1,737 are Chinese and 38 Japanese. The Japanese at the 1933 Census numbered 73. The Chinese provide the skilled artisans of the Territory, and many of them are small traders. Most of the Japanese residents are employed on the plantations, or in shipyards and stores.

3. **Native Population.**—As a large portion of the Territory is not under Government influence it is not possible to obtain reliable figures in regard to the number of the natives.

The following table shows the number enumerated as at 30th June, 1938 :—

TERRITORY OF NEW GUINEA : NATIVE POPULATION AT 30th JUNE, 1938.
(Inclusive of Indentured Labourers.)

District.	Children.			Adults.			Total.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Kieta ..	9,024	7,796	16,820	15,144	13,304	28,448	24,168	21,100	45,268
Madang ..	18,752	15,641	34,393	28,019	25,864	53,883	46,771	41,505	88,276
Manus ..	2,713	2,334	5,047	5,375	4,681	10,056	8,038	7,015	15,103
Morobe ..	29,239	25,413	54,652	43,383	38,940	82,323	72,622	64,353	136,975
New Britain ..	20,870	18,666	39,536	34,196	25,911	60,107	55,066	44,577	99,643
New Ireland ..	7,421	6,507	13,928	16,743	11,952	28,695	24,164	18,459	42,623
Sepik ..	32,804	26,998	59,802	44,125	43,999	88,124	76,929	70,997	147,926
Total ..	120,823	103,355	224,178	186,985	164,651	351,636	307,808	268,006	658,134

(a) Including 5,528 Mission scholars, constabulary, etc.

The total native population of New Guinea is estimated roughly at about 666,000. Whether the number is increasing or decreasing cannot be ascertained with certainty. The number of natives indentured as labourers, mostly for plantation work, on 30th June, 1938, was 41,849, compared with 40,259 in the previous year.

§ 4. The Natives.

1. **General.**—The natives are divided into two main groups—Melanesian and Papuan—the former, with a few exceptions, constitute the population of the Bismarck Archipelago, the Solomon Islands, and of the coastal districts of the New Guinea mainland, while the latter inhabit the interior of the mainland. Odd tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and, possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (See Official Year Book, No. 16, p. 670, and Official Handbook of the Territory, Pt. V.)

2. **Land Tenure.**—Native customs in regard to the ownership and use of land may be briefly outlined as follows: The ownership and use of the land are generally individual, although, in some rare cases, particularly in North Bougainville, the communal system exists. In districts where a great many coconut palms are growing on native lands it is often found that the land is the property of a chief or of one of the old men of the tribe and that the coconut palms growing thereon are divided into small groves, and are the property of several members of the tribe. Customs with regard to the use of unoccupied forest lands vary. Right of inheritance to land is almost invariably through the maternal branch. (See Official Year Book No. 17, p. 634, and Official Handbook of the Territory.)

3. **Research Work.**—During the German occupation of the Territory a certain amount of research work was carried out, partly by scientific expeditions, and partly by missionaries and by a local resident. For many years an anthropologist was engaged consolidating the work already done, and extending it throughout the Territory. The results of his work appear in special reports.

4. **Education.**—The education of the natives is provided for in the Education Ordinance of 1922–1938 under which the Administrator is authorized to establish schools, grant money therefor, prescribe instruction, and arrange for the training of teachers and other matters. The expenditure on native education in 1937–38 was £6,726. Though the natives are liable to pay education tax, none has been collected since 1922–23. The European teachers have been seconded from the Education Department of Queensland. During the year ended 30th June, 1938, the following schools were maintained by the Administration:—Native elementary schools and native day schools, Malaguna and Nodup, near Rabaul, and Kavieng and native elementary school at Chimbu (Morobe); native technical school, Malaguna; native agricultural school, Keravat. In addition there are schools for Europeans at Rabaul, Kavieng and Wau.

A considerable amount of educational work is carried out by the missions, the schools maintained being of three classes: (a) elementary schools in villages; (b) intermediate boarding schools at headquarters; and (c) high schools and technical schools. At the end of June, 1938, the various missions maintained 51 training centres, 60 high and technical schools, 137 elementary schools, and 2,282 village schools. The pupils numbered 65,246.

The missions also conduct schools for Chinese children in Rabaul and Kavieng.

The granting of assistance to mission schools is provided for by the Education Ordinance, but no grants have hitherto been made.

5. **Health of Natives.**—In a report dealing with the health of the natives in New Britain submitted before the war, it was stated that "the natives in the districts examined are not degenerate; but they are sick." The same qualification undoubtedly applies to the native population throughout the Territory.

The diseases taking the greatest toll of native life directly or through lowering vitality are:—Malaria, respiratory diseases, dysentery, frambœsia, yaws, tropical ulcer, hookworm, filariasis and beriberi.

The Health Department of the Administration consists of:—(i) a staff of medical officers and orderlies, including travelling doctors; (ii) native hospitals at Government stations and sub-stations (its staff also supervises hospitals on plantations); (iii) a laboratory; (iv) training system for natives as medical orderlies; (v) scheme of distribution of medical necessaries; and (vi) two leper-stations. It also undertakes the general oversight of sanitary conditions. The first Infant Welfare Centre in the Territory was opened in Malabunga in August, 1931.

6. **Missions.**—Several mission societies are operating in the Territory. The Society of the Sacred Heart of Jesus works in the Bismarck Archipelago, the Society of the Holy Ghost along the coast of North-East New Guinea from Sek to the Dutch border, the Marists in Buka and Bougainville. These are Roman Catholic Missions. The Protestant Missions are the Australian Methodist Mission in New Britain and New Ireland, the New Zealand Methodist Mission in Bougainville, the Liebenzell Mission in the Admiralty Group, the Lutheran Mission (supported and staffed by the Lutheran Churches in Australia and America), which works along the coast of North-East New Guinea from Sek to the Papuan border, the Melanesian Mission (Anglican) in New Britain, and the Seventh Day Adventist Mission in Bougainville and New Britain. All these societies combine teaching and planting with their missionary work.

§ 5. Land Policy.

1. **Acquisition of Land.**—A short account of the modes of acquiring land appears in Official Year Book No. 19, p. 590, but considerations of space preclude its repetition.

2. **Land Policy of the Present Administration.**—The Land Ordinance 1922-1939 provides for sale as well as leasing of land belonging to the Administration. The divergence from the policy usually adopted by the British in the Pacific (including Papua), which provides for leasehold only, was made with a view to disposal by sale of the freehold properties taken over from Germans, and which until 1927 were controlled by the Expropriation Board. The general land policy of the Administration is based on the leasehold principle. All Administration grants or leases contain a reservation to the Administration of all minerals, including mineral oil. Leases are for a term of 99 years except where a shorter period is provided. Administration lands, except in towns, are classified by a Land Board into land suitable for agriculture (Class A) and land not so suitable (Class B), and the unimproved value of the land is assessed. In the case of agricultural leases for more than 30 years the rent is 5 per cent. of the unimproved value, with power to remit during the first ten years, and subject to reappraisal every 20 years. Pastoral leases of lands of Class B may be granted for terms not exceeding 30 years, at a rental of 2½ per cent. of the unimproved value, subject to reappraisal every 10 years.

Agricultural leases are subject to improvement conditions and pastoral leases to stocking conditions. Leases of town allotments may be granted for terms not exceeding 99 years, at a rent to be fixed at such percentage of the unimproved value as is prescribed.

A total area of 300,775 hectares (about 751,938 acres) had been alienated up to the 30th June, 1938. The area alienated in 1937-38 was 6,030 hectares (about 15,075 acres).

3. **Registration of Titles.**—Under German law there was a system of registration of titles in a "Ground Book," but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in an Ordinance entitled the Lands Registration Ordinance 1924-1938.

§ 6. Production.

1. **General.**—The natives have been described as a people of peasant proprietors, practising a crude form of agriculture. Their gardens and groves furnish but a small amount of produce for oversea trade, and the exports of the Territory grew only as European plantations were made, and natives were employed to work them. In recent years scientific methods of cultivation have been adopted, and production has been greatly increased thereby. Bounties are paid by the Commonwealth Government on cocoa beans and shells, hemp and coir, sago, vanilla beans, bamboos and rattans, spices and kapok produced in the Territory and imported direct to Australia for home consumption.

2. **Agriculture.**—(i) *General.* Under the supervision of the Director of Agriculture soil analysis has been undertaken in different parts of the Territory. A demonstration plantation has been established at Keravat where natives are being trained in tropical agriculture. A laboratory and a herbarium have been established, an entomologist and economic botanist engaged, and travelling inspectors appointed for the purpose of combating plant pests. Experiments are being carried on with a variety of crops. The foregoing measures, in conjunction with the Papua and New Guinea Bounties Act 1937 and the preference given by the Commonwealth Tariff to certain produce grown in the Territories, have greatly stimulated tropical agriculture.

(a) *Coconuts.* Coconut-growing is by far the most important industry in the Territory, but low prices have checked expansion during recent years. Although the price rose sharply during 1936-37 it was not maintained throughout 1937-38 with the result that the exports of copra declined from £1,231,309 to £847,734, with a fall in quantity of only 2,693 tons.

(b) *Tobacco.* Many planters are cultivating tobacco to cater for the local market. Two companies have manufactured tobacco suitable for issue to the natives or for trade. In some instances planters are issuing the dry leaf to the native labourers who make their own cigars and cigarettes.

(c) *Cotton.* In 1924-25 the Government obtained 1,615 lb. of cotton seed, and cultivation was tried at the experimental stations as well as by private planters, including a few natives, but little progress has been made.

(d) *Kapok.* The cultivation of kapok was continued on a small scale. The local demand is more than sufficient to absorb the available crop.

(e) *Cocoa.* Greater interest is being displayed in the cultivation of cocoa. The quality of the beans produced is good, and 179 tons, or an increase of 47 tons over the previous year's figures, were exported during the year.

(f) *Desiccated Coconut.* Three desiccated coconut factories are established in the Territory. The quantity exported during 1937-38 was 1,579 tons.

(g) *Coffee.* Two plantations of coffee are in satisfactory condition and are commencing to yield. Forty-one tons of coffee valued at £1,025 were exported during the year. The coffee is of good quality and is well received on the Australian market.

(h) *Other Crops.* The climate and soil of New Guinea are suitable for the cultivation of rice, Manilla hemp, cinchona, nutmeg, vanilla, peanuts and maize, but hitherto their cultivation has either not advanced beyond the experimental stage or has been attempted on a small scale only. Sugar-cane of many varieties flourishes, and the natives cultivate extensive areas for their own use; other indigenous food-producing plants include the sago palm and the cassava.

(i) *Plants Yielding Power Alcohol.* It seems probable that alcohol for power purposes will be obtainable economically from the Territory. The sago palm and nipa palm yield as much as 60 gallons a ton, and in places are abundant.

(ii) *Plantations.* During the year 1934-35 the Administration disposed of the several plantations maintained by it with the exception of the demonstration plantation at Keravat. The principal crops grown on plantations are shown in the table hereunder for the year ended 30th June, 1938. The figures are not complete, but they give an indication of the state of agriculture in the Territory.

TERRITORY OF NEW GUINEA : PLANTATIONS, 1937-38.

(Exclusive of Native Reserves.)

Crop.	Area Planted.(a)	Area Bearing.	Yield.
	Acres.	Acres.	Tons.
Coconuts	239,976	196,717	75,949
Cocoa	3,531	1,308	145
Coffee	1,535	937	52
Rubber	2,689	..	6
Kapok	677	348	8
Native Food (b)	3,492	1,480	767
Other	10,647	2,585	..
Total	262,547	203,375	..

(a) Includes inter-planted crops. coconut palms not yet in bearing.

(b) Native food of all kinds is mostly grown between young

The area of plantations at various periods from 1885 to 1938 is shown hereunder. As in the case of the previous table, the figures are exclusive of native plantations:—

TERRITORY OF NEW GUINEA: PLANTATIONS.

Year ended June.	Total Area.		Area Planted.	Area under Coconuts (including Area not in Bearing).
	Acres.		Acres.	Acres.
1885.	148		(b)	(a)
1895	2,152		(b)	(a)
1911	58,837		(b)	51,510
1914	84,488		(b)	76,847
1924	411,275		(b)	172,373
1932	460,942		216,730	211,882
1933	514,250		219,490	214,290
1934	486,404		218,648	210,849
1935	473,260		227,697	218,779
1936	484,358		239,867	229,227
1937	487,375		244,066	234,189
1938	496,118		262,547	239,976

(a) Not recorded. (b) Not available.

3. **Live Stock.**—The coconut plantations are now of a sufficient area to maintain numerous live stock, the stock being depastured on the indigenous grasses growing between the rows of palms. In 1937-38 there were 1,123 horses, 19,207 cattle, 1,178 sheep, 8,254 goats, and 6,679 pigs (exclusive of the large number of pigs kept by the natives).

4. **Timber.**—An investigation of the timber resources has been made by the Commonwealth Inspector-General of Forests, and a report in connexion therewith was published in 1926. According to this report, while offering no prospects of immediate gain to large saw-milling interests, the Territory possesses forest potentialities of a high order. A recent survey of the timber resources of the Morobe District has indicated, however, that a pine forest in the Bulolo Valley contains approximately 200 million super. feet of millable timber; it is proposed to harvest this forest over a period of years and progressively to re-forest the area. In North-East New Guinea the Lutheran Mission and the Holy Ghost Mission both possess up-to-date saw-milling plants, while most of the timber required in the Archipelago is supplied by the Sacred Heart Mission's sawmill and three privately owned mills in New Britain. The quantity of sawn timber produced by sawmills was approximately 1,300,000 super. feet, all of which was absorbed by the local market. The exports were confined to timber in the log and 3,103,996 super. feet were shipped to Australia.

The Forestry Ordinance 1936-1937 provides for the issue of permits and licences to cut timber. Timber growing on native lands cannot be acquired by private purchasers directly from the natives, but must be obtained through the Administration. A royalty is payable on all forest produce taken under a permit or licence. Nine timber permits were issued during the year 1937-38, embracing a forest area of 51,718 acres.

5. **Fisheries.**—The wealth of the waters of the Territory has so far been little exploited. Fish is caught at many places along the coast to supply the small local demand of the natives and of the few resident Europeans. Pearl-shell is exported in fair quantities, while bêche-de-mer, trochus-shell and tortoise-shell also figure amongst the exports. The value of marine products exported in 1937-38 was £14,819, compared with £28,310 in the previous year.

6. **Mining.**—Except for gold there has been little mining in New Guinea, and knowledge of the mineral resources is as yet but scanty. Gold has been discovered on the Waria, the Ramu, the Francisco, and the Markham Rivers, and recently in tributaries of the Sepik River. Rich gold was discovered in the Morobe District in 1926; the field is situated about 60 miles (35 by air) inland from Salamaua, the nearest coastal port. Communication has been established with the coast by a regular aeroplane service.

Osmiridium is reported to have been found on the upper tributaries of the Ramu, and platinum on the Kabenau River. Copper has been discovered in the form of chalcopyrite and malachite in the Baining District. Iron occurs as magnesite and hæmatite in the Baining District, apparently in large quantities. Sulphur occurs in several localities in the volcanic regions of the Territory. Brown coal has been found on the mainland in the vicinity of Astrolabe Bay, and in the southern portion of New Ireland.

Mining is regulated by the Mining Ordinance 1928-1936. Copies of the Ordinance and Regulations made thereunder may be obtained from the Secretary, Prime Minister's Department, Canberra, or the Administrator, Rabaul.

The following table shows the production of gold during the past five years :—

TERRITORY OF NEW GUINEA : GOLD PRODUCTION.

Year.				Quantity.	Value.(a)
				Fine oz.	£
1933-34	..	..	..	155,000	1,260,000
1934-35	..	..	..	196,483	1,715,600
1935-36	..	..	..	190,848	1,657,071
1936-37	..	..	..	223,120	1,938,694
1937-38	..	..	..	223,929	1,935,954

(a) Valued at average price realized for fine gold in Australia.

Since the high market price of gold has been maintained, the search for profitable areas in various parts of the Territory has not diminished and systematic testing by drilling and other means has been undertaken on alluvial areas previously considered unworthy of attention. Although there were no new discoveries of alluvial or reef gold during the year the gold-bearing area in the Sepik District attracted miners from the Morobe gold-field and some satisfactory results were obtained.

A search for petroleum is being actively conducted on the mainland. The Petroleum Ordinance 1936 has been superseded by the Petroleum (Prospecting and Mining) Ordinance 1938-1939, which has facilitated the carrying out of geological surveys and prospecting activities generally. On the 30th June, 1938, two permits to search for petroleum were in force.

§ 7. Trade.

1. **Customs Tariff.**—With the exception of high revenue rates on ale, spirits, beverages and tobacco and a duty of 3d. per gallon on petrol, kerosene and lubricating oil, the tariff of the Territory of New Guinea is generally on a 10 per cent. ad valorem basis. Only 55 items are mentioned in the import schedule, of which approximately 32 are on the free list consisting of articles for use by the Administrator, the Trade Commissioners and the Missions, medical supplies, live stock, meat, fish, fresh fruit, vegetables and certain essential manufactures for use in the Territory. The rate of duty for the remaining items as well as for all other goods not mentioned in the schedule is 10 per cent. ad valorem. No preferential tariff rates are provided in the schedule.

Export duties are levied on copra, trepang, shell, feathers and sulphur. When the price, or the assessed value of copra is less than £5 15s. per ton no tariff is imposed, but when the price exceeds this figure up to £11 per ton 2s. 6d. per ton is charged, which increases on a sliding scale to 17s. 6d. per ton as the price rises to £18, with an additional 2s. per ton for every further increase of £1 in the price of copra. Excluding specie the imports in 1937-38 amounted to £1,610,967 on which £218,698 was received in import duties, while £13,368 was paid in export duties and royalties.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced and imported direct from the Territory of New Guinea (see Chapter XVI. § 2 par. 4 (iv)), and a proclamation of 25th September, 1935, exempted from primage duty goods the produce or manufacture of the Territory.

2. Imports and Exports.—Values of the principal items of imports and exports for the last five years are shown hereunder. The values of exports are expressed in Australian currency, but it is not possible to determine accurately the meaning of the £ in the table of imports :—

TERRITORY OF NEW GUINEA : IMPORTS AND EXPORTS.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38
IMPORTS.					
	£	£	£	£	£
Foodstuffs of animal origin ..	88,011	94,417	127,110	142,943	157,391
Foodstuffs of vegetable origin ..	108,992	121,146	159,287	186,732	190,657
Spirituous and alcoholic liquors ..	39,757	44,215	50,665	50,550	52,385
Tobacco and preparations thereof ..	43,743	38,777	53,213	59,045	58,155
Live animals	1,287	1,630	1,617	1,870	1,843
Animal substances	276	223	636	1,227	961
Vegetable substances and fibres ..	3,018	2,355	3,884	3,539	4,191
Apparel, textiles and manufactured fibres	106,022	117,670	171,092	152,923	182,590
Oils, fats and waxes	52,867	41,374	72,956	56,982	72,080
Paints and varnishes	6,736	10,472	13,599	14,422	11,044
Stones and minerals	11,955	8,741	12,291	14,039	16,030
Metals, manufactures and machinery	337,920	312,218	426,007	431,216	635,991
Rubber and leather and manufactures	6,899	12,028	15,222	13,810	15,663
Wood and wicker	15,686	13,650	26,279	28,860	33,565
Earthenware, cement, glass, etc. ..	9,739	18,236	13,897	17,113	14,251
Paper and stationery	14,259	16,777	23,583	22,917	24,026
Jewellery and fancy goods	11,829	11,014	12,764	11,282	21,328
Optical and scientific instruments ..	11,937	17,521	22,019	18,610	21,377
Drugs, chemicals and fertilizers ..	25,580	30,905	38,716	44,907	46,878
Miscellaneous	27,803	35,035	45,951	38,636	50,561
Specie	8,500	4,589	133,600	80,400	31,500
Total	932,816	952,993	1,424,388	1,392,023	1,642,467
EXPORTS.					
	£	£	£	£	£
Copra	283,329	361,413	761,309	1,231,309	847,734
Cocoa	3,479	3,479	3,810	6,600	4,475
Ivory nuts	566	186	552	767	162
Trepanng	4,400	5,800	5,025	1,350	2,250
Shell (trochus, etc.)	20,482	20,115	24,570	26,960	12,478
Tortoise shell	88	82	103	50	91
Gold	1,367,616	1,897,244	1,704,498	2,020,667	2,028,980
Desiccated coconut	81,562	45,080	65,880	86,930	73,423
Miscellaneous	4,676	7,225	7,504	45,073	25,576
Total	1,766,198	2,340,624	2,573,251	3,419,706	2,995,169

3. Direction of Trade.—Particulars of the countries of origin of the imports into the Territory of New Guinea and the destination of the goods shipped therefrom during the past three years are as follows :—

TERRITORY OF NEW GUINEA : DIRECTION OF TRADE.

Country.	Imports.			Exports.		
	1935-36.	1936-37.	1937-38.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Australia ..	675,652	620,079	604,523	1,950,240	2,359,261	2,253,304
United Kingdom ..	184,821	148,551	159,215	264,213	289,210	172,355
Other British ..	61,927	83,490	64,920	520	6,523	480
China ..	49,553	57,705	67,165	5,599	3,445	2,528.
Japan ..	76,030	73,747	98,585	12,035	10,027	8,620
France ..	5,632	2,955	3,875	44,951	..	16,480
Germany ..	54,441	63,084	70,886	98,261	95,991	75,124
United States of America ..	204,608	215,223	434,129	5	40,359	..
Other ..	111,724	127,189	139,169	197,427	614,890	466,278
Total ..	1,424,388	1,392,023	1,642,467	2,573,251	3,419,706	2,995,169

The bulk of the imports into the Territory of foodstuffs, beer, coal, paints, boats, launches and soap comes from Australia, which also supplies large quantities of machinery and metal manufactures, drugs, explosives, tobacco, cigarettes, apparel, boots, leather manufactures, timber, stationery and polishes. In 1937-38 the imports from the United States of America consisted largely of mining machinery, followed by vehicles, oils, tobacco and other machinery in that order.

The principal export from the Territory to Australia is gold which comes for refinement and reshipment abroad. Copra in excess of requirements also comes to Australia for sale and reshipment overseas.

§ 8. Shipping and Communication.

1. *General.*—A subsidized mail service between New Guinea and Australia is maintained by Burns, Philp and Coy. Ltd., which Company also operates a two-monthly non-subsidized service between Australia, New Guinea, Hong Kong and Saigon. The vessels of the Eastern and Australian Steamship Company call at Rabaul each way on their monthly service between Australia and Japan. The Dutch Royal Packet Navigation Company's vessel also calls at Rabaul every five weeks en route from Singapore to Australia. Norddeutscher Lloyd maintained a five-weekly service throughout the year between certain proclaimed ports in the Territory and Hong Kong, while the vessels of Osaka Shosen Kaisha made regular monthly calls at Rabaul en route from Japan to New Zealand. W. R. Carpenter and Coy. Ltd. continued their service with two vessels between Europe, Australia and the Territory. Shipping within the Territory is regulated by the Shipping Ordinances 1936 and the Coastal Shipping, Ports, and Harbours Regulations.

2. *Oversea Tonnage in 1937-38.*—The number and net tonnage of oversea vessels which entered and cleared the Territory during the year 1937-38 are shown hereunder :—

TERRITORY OF NEW GUINEA : SHIPPING, 1937-38.

Nationality.	Vessels Entered.		Vessels Cleared.		Total.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
American	2	6,573	2	6,573	4	13,146
British	92	267,866	88	266,647	180	534,513
Dutch	7	17,620	7	17,620	14	35,240
Norwegian	1	2,109	1	2,109	2	4,218
German	6	8,820	7	10,290	13	19,110
Japanese	17	36,378	17	36,378	34	72,756
Total	125	339,366	122	339,617	247	678,983

3. *Local Shipping.*—Inter-island shipping services were maintained by the steamers and motor vessels of Burns, Philp and Coy. Ltd., and W. R. Carpenter and Coy. Ltd. A number of smaller motor vessels was also engaged in this trade.

4. **Land Communication.**—Means of communication on land are scanty. There are no railways. Roads lead from Rabaul to places within 30 or 40 miles, and there is a road 200 miles long in New Ireland. Elsewhere there are few roads outside plantations and the stations of the District Officers. The large rivers of the mainland are as yet but little used.

There is a high power wireless station at Rabaul, and low power installations at the out-stations, including Salamaua and Wau.

5. **Communication by Air.**—The discovery of gold in New Guinea has resulted in great aviation activity in the vicinity of the gold-fields. On account of the mountainous country and dense undergrowth between the coast and the gold-fields the task of transporting food and stores to the fields and of bringing the gold to the seaboard by land is an irksome and costly process. The fields are situated about 60 miles (35 by air) inland from Salamaua, and whereas aircraft cover the distance in approximately an hour, the nature of the country is such that a journey by other means occupies more than a week. During 1931–32 an air service was established between Port Moresby and the gold-fields, reducing the time occupied by the journey from Australia by about seven days. At 30th June, 1938, 40 aeroplanes were operating in the Territory.

A weekly subsidized air service between Sydney and Rabaul came into operation on the 30th May, 1938. Passengers and mails are carried and the route followed is Sydney, Brisbane, Rockhampton, Townsville, Cairns, Cooktown, Port Moresby, Salamaua and Rabaul.

§ 9. Revenue and Expenditure.

Details of the revenue collected from various sources and the expenditure during each of the last five years are given hereunder:—

TERRITORY OF NEW GUINEA: REVENUE.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Taxation—					
Customs (a)	157,343	164,481	207,172	233,657	247,062
Licences	10,551	10,097	10,900	12,654	13,087
Native Head Tax	23,610	19,805	19,641	21,859	20,481
Stamp duties	5,567	8,716	5,689	6,861	6,182
Postal	10,240	11,534	16,333	25,208	47,240
Lands	14,662	14,558	15,485	17,006	16,179
Mining—					
Royalty on gold	67,331	88,233	81,169	97,622	97,464
Other	22,149	27,591	18,996	24,154	19,479
Fees and fines	27,961	29,829	29,342	24,377	19,285
Sales of stores, etc.	3,231	2,215	1,615	2,605	2,472
Miscellaneous	7,706	11,112	13,578	15,067	17,467
Total	350,357	388,171	419,920	481,070	506,398

EXPENDITURE.

	£	£	£	£	£
Treasury and Audit	43,258	33,444	44,851	66,177	52,570
Agriculture	11,861	13,389	14,001	15,851	17,722
Public Justice	17,679	21,839	30,549	31,209	32,809
Public Health	61,527	61,851	68,153	73,191	80,377
Public Works	16,040	17,104	27,260	29,228	30,954
District Services and Native Affairs	108,851	99,318	97,694	109,705	115,648
New Works	30,540	61,806	76,760	66,223	70,011
Native Welfare	7,577	7,202	6,993	6,177	7,185
Other	51,484	51,517	59,533	62,357	610,137
Total	348,817	367,470	425,794	460,118	508,613

(a) Including harbour dues, wharfage and storage fees.

(b) Including £40,011, expenditure in connexion with the volcanic eruption.

NAURU (Mandated).

1. **General.**—Nauru is an oval-shaped atoll about 12 miles in circumference having an area of about 5,263 acres, of which approximately two-thirds is phosphate-bearing. It is situated in long. 166° E., and is 26 miles south of the Equator. Portion of the island between the sandy beach and the coral cliffs is fertile, and it is there that the Nauruans reside. With the exception of a small fringe around an inland lagoon, the plateau which contains the phosphate deposits possesses few food plants and is uninhabited, but portion of the area has been planted with fruit trees. The system of land tenure is governed by an old custom, and, with the exception of small allotments held by the Government, the British Phosphate Commissioners and the Missions, the whole of the island is owned by individual natives. The average shade temperature ranges between 72° and 95° F., and the average humidity between 70 and 80. The average rainfall is 85 inches, but droughts occasionally occur, and in 1916 and 1917 only 40 inches were received for the two years. Similarly in 1938 only 20.94 inches were recorded.

2. **History.**—The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea.

In November, 1914, Nauru was occupied by a detachment from the Australian Naval and Military Expedition at Rabaul, and it was included in the cession of colonies made by Germany in 1919 to the Allied and Associated Powers, whose representatives agreed that a mandate for its administration should be conferred upon His Britannic Majesty. The mandate, which is in similar terms to that for the Territory of New Guinea, was confirmed by the Council of the League of Nations on the 17th December, 1920. On 2nd July, 1919, the British, Australian and New Zealand Governments agreed that the administration of the island (which, since 1915, had been in charge of an official appointed by the British Colonial Office) should be vested in an Administrator who entered on duty in June, 1921. The first Administrator was appointed for a term of five years by the Australian Government; his term of service having expired, it was extended for another five years, but he resigned in 1927. The second Administrator was appointed in June, 1927. The third Administrator was appointed by the Commonwealth of Australia in January, 1933, and the fourth in October, 1938. The Agreement between the three Governments was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and is printed in the Schedule to that Act. A supplementary agreement concerning Nauru was drafted in May, 1923, and ratified by the Commonwealth Parliament by the Nauru Island Agreement Act 1932.

3. **Administration.**—The administration of the Island is vested in the Administrator, who is obliged to conform to instructions issued by the Government which appointed him, and all ordinances made by him are subject to confirmation or disallowance by the Governor-General of Australia (for the time being) acting on the advice of the Federal Executive Council. All expenses of administration are met from local revenue. Native industries such as canoe-building, fishing, mat-making, etc., are encouraged by the provision of prizes at annual competitions. An agency of the Commonwealth Savings Bank has been established. There is a co-operative store managed to a large extent by the natives. The books, however, are audited by Government officers. Natives are not allowed to carry or be in possession of firearms, and the use by them of intoxicating liquors and deleterious drugs is prohibited.

4. **Population.**—The population figures on 1st April in each of the years from 1934 to 1938 are given hereunder:—

NAURU : POPULATION.

Nationality.	1934.	1935.	1936.	1937.	1938.
Europeans	163	158	179	194	179
Chinese	933	931	1,092	1,261	1,533
Nauruans (a)	1,567	1,603	1,647	(b) 1,638	1,661
Other Pacific Islanders	14	4	4	4	27
Total	2,677	2,696	2,922	3,097	3,400

(a) The natives of Nauru are Micronesians.
Island on 1st April, 1937.

(b) Thirty-four Nauruans were absent from the

Births in 1938 numbered 90 (87 Nauruans, 1 European, and 2 Chinese). There were 8 marriages (6 Nauruans), and 64 deaths (55 Nauruans, 1 European, and 8 Chinese).

5. **Health.**—Cases of the usual diseases known in the Pacific occur. Venereal disease is rare, but elephantiasis is occasionally met with. An area has been set apart for the segregation of lepers, and the latest methods of treatment are applied. In 1938, there were 55 lepers in segregation. The treatment and control of leprosy have been very successful. Two hospitals are maintained on the island, one by the Administration for Nauruans, and one by the British Phosphate Commission for its employees. In common with other natives, the Nauruans are very susceptible to tuberculosis and influenza, and in 1921 an influenza epidemic caused the deaths of 230 islanders. Dysentery, both amoebic and bacillary, is endemic. A regular anti-mosquito campaign is conducted. The usual steps have been taken by the authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo a medical examination once a month. Baby clinics have been established to give help and advice to Nauruan mothers in regard to infant nurture.

6. **Education.**—On the 1st October, 1923, the Administration took over the education of the Nauruan and other native children, and native schools were established in five districts and at the leper station. Previously education had been looked after by the Missions subsidized by the Government. A school for European children is presided over by a teacher on loan from the Education Department of Victoria who also supervises educational matters generally. The curriculum is similar to that of corresponding schools in Australia, and the teaching is, as far as possible, wholly in English. Education is compulsory between the ages of six and sixteen. After the termination of ordinary school attendance, twelve months are devoted to technical training. The children in attendance at school in 1938 numbered 34 Europeans and 512 Nauruans. The schools are closed on two afternoons a week in order that the children may attend the classes in religious instruction conducted at the Mission churches. Educational classes for adults have been inaugurated. Units of the Boy Scouts and Girl Guides (Nauruan) have been established on the island.

7. **Judiciary.**—The judicial power is vested in the Administrator in a Central Court and a District Court. The right of appeal is provided.

8. **Religion.**—The London Missionary Society (Protestant) and the Sacred Heart of Jesus Mission (Roman Catholic) operate in Nauru.

9. **Phosphate Deposits.**—(i) *General.* From 1906 to 1919 the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony administered by the Colonial Office). The quantity on Nauru has been estimated at not less than 50,000,000 tons, and the exports average 85 per cent. to 88 per cent. of tricalcium phosphate.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it had workings) were bought by the British, Australian and New Zealand Governments in 1919 for £3,500,000 the purchase money being contributed in the proportions of 42, 42, and 16 per cent. respectively. The Agreement of 2nd July, 1919, provides for the working of the deposits by the British Phosphate Commission of three members, one appointed by each Government; and the three countries are to receive the output in the same proportions of 42, 42, and 16 per cent.

(ii) *Royalty on Phosphate.* By an agreement entered into between the British Phosphate Commissioners and the Nauruan landowners in 1927 provision was made, *inter alia*, for the payment of a royalty of 7½d. per ton of phosphate exported, of which—

- (a) 4d. per ton shall be paid to the Nauruan landowner concerned;
- (b) 1½d. per ton to the Administrator for the benefit of the Nauruan people;

- (c) 2d. per ton to the Administrator to be held in trust for the Nauruan landowner concerned and invested at compound interest for a period of 20 years. The capital will then remain invested and the interest thereon will be paid to the landowner.

The rates specified above are to have effect for a period not exceeding 20 years on and from 1st July, 1927, but the royalty of 4d. per ton to the Nauruan landowner is subject to adjustment for the second, third and fourth five-yearly period by increasing or decreasing it pro-rata to any increase or decrease of the export price of the phosphate. The royalty for the second five-yearly period was increased to 4½d. per ton.

In June, 1937, the price of phosphate had fallen to 14s. per ton and consequently under the terms of the original Agreement the royalty would have been reduced to 1½d. per ton. This was considered to be inequitable, and after lengthy negotiations an Interim Agreement was signed on 7th December, 1938, whereby the parties concerned agreed to extend the Agreement for a period of 20 years, or to 30th June, 1967. The royalty of 2d. per ton paid to the Administrator to be held in trust and invested was increased from 1st July, 1937, to 2½d. per ton. From the same date a royalty of 4d. per ton was paid to the Nauruan landholders instead of 1½d. per ton under the original Agreement. This rate is subject to adjustment at the end of five years, and from 1st July, 1947, is to be 5d. per ton if the price of phosphate is 12s. per ton or less, with an additional ½d. per ton for each 1s. above 12s. up to a maximum royalty of 6d. per ton.

(iii) *Nauru and Ocean Island Phosphate Industry.*—The following table gives particulars regarding exports of phosphate during the last five years:—

NAURU AND OCEAN ISLAND : EXPORTS OF PHOSPHATE.

Year.	Total.	To Australia.	To New Zealand.
		Tons.	Per cent.
1933-34	556,802	63.83	26.97
1934-35	694,726	61.14	30.43
1935-36	831,847	67.34	23.94
1936-37	1,007,990	67.86	24.22
1937-38	1,169,361	66.17	24.81

From Nauru alone during the calendar year 1938 the export was 841,050 tons.

(iv) *Accounts of Commission.* A statement for the five years ended June, 1938, is given hereunder:—

NAURU AND OCEAN ISLAND : SALES OF PHOSPHATE.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Receipts from Sales, etc. ..	684,409	769,483	835,148	916,690	944,068
F.o.b. cost, including interest on capital, sinking fund, etc.	610,239	758,845	828,818	910,673	940,059

The amount due by the British Phosphate Commission to the partner Governments for purchase money and other capital sums was £3,666,457 on 30th June, 1921, and at 30th June, 1938, this had been reduced to £3,155,579. The f.o.b. cost in 1937-38 includes a sum of £224,053 consisting of interest at 6 per cent. upon the purchase price and a contribution to a sinking fund for the redemption of the capital debt in 50 years. The redemption fund now totals £375,921.

(v) *Employees.* Apart from a limited number of Europeans and a few Pacific Islanders, the employees are Chinese engaged under a three years' contract. A few Nauruans are employed occasionally.

10. *Trade.*—The Customs Tariff of Nauru provides for the free admission of all goods other than cigars, cigarettes, tobacco, spirits, wines, beer, cider, and perry, and cylinder blocks for motor cycle engines. Articles imported by the Government for Government use and spirits for scientific purposes are exempt.

The Tariff rates apply to all countries alike. Information regarding imports and exports for the years 1934 to 1938 is appended :—

NAURU : IMPORTS AND EXPORTS.

Heading.	Year ended 31st December—				
	1934.	1935.	1936.	1937.	1938.
Imports ..	£ 98,085	168,595	154,940	144,454	272,256
Exports—					
Phosphate ..	ton 418,950	480,950	547,400	688,900	841,050
	£ 470,872	474,393	469,607	513,989	546,683

Increased purchases of hardware and machinery were mainly responsible for the marked rise in imports during 1938.

Of the total imports Australia supplied £125,438 or 46 per cent. during 1938; the balance came from United Kingdom, Borneo, China, United States and New Zealand in that order.

Phosphates were exported principally to Australia, 626,950 tons, and New Zealand 190,950 tons.

11. *Revenue and Expenditure.*—The revenue and expenditure of the Administration during the years 1934 to 1938 were as follows :—

NAURU : REVENUE AND EXPENDITURE.

Heading.	Year ended 31st December—				
	1934.	1935.	1936.	1937.	1938.
Revenue	£ 19,798	£ 23,487	£ 24,906	£ 53,343	£ 29,429
Expenditure	19,758	20,666	23,989	29,311	30,287

Of the revenue in 1938, royalty on phosphate amounted to £21,429, Post Office receipts £1,424, capitation tax £1,883, import duty £1,330, interest on investments £1,389, and harbour dues and shipping fees £203. At the close of the year 1938 the accumulated funds of the Administration amounted to £53,651.

CHAPTER XIII.
VITAL STATISTICS.

§ 1. Live Births.

1 Number in 1938.—The number of live births registered in Australia during the year ended the 31st December, 1938, is shown in the table hereunder. The numerical relation which these births bear to the population, and various other associated features, are given in later tables.

LIVE BIRTHS, 1938.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
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MALES.

Single births	23,700	15,364	9,628	4,779	4,582	2,490	52	98	60,693
Twins ..	488	269	199	82	91	51	2	2	1,184
Triplets ..	6	3	2	2	2	..	..	..	15
Total ..	24,194	15,636	9,829	4,863	4,675	2,541	54	100	61,892

FEMALES.

Single births	22,634	14,407	8,970	4,467	4,370	2,312	46	100	57,306
Twins ..	491	298	192	76	93	54	2	..	1,206
Triplets ..	..	3	1	4	3	..	..	..	11
Total ..	23,125	14,708	9,163	4,547	4,466	2,366	48	100	58,523

TOTAL.

Single births	46,334	29,771	18,598	9,246	8,952	4,802	98	198	117,999
Twins ..	(a) 979	(b) 567	(c) 391	158	(d) 184	(e) 105	4	2	(f) 2,390
Triplets ..	6	6	3	6	(g) 5	..	..	..	(g) 26
Total ..	47,319	30,344	18,992	9,410	9,141	4,907	102	200	120,415

TOTAL CONFINEMENTS (LIVE BIRTHS).

Mothers of Nuptial Children ..	44,889	28,773	17,887	9,061	8,715	4,643	83	193	114,244
Mothers of Ex-Nuptial Children ..	1,963	1,291	911	266	336	213	17	6	5,003
Total Mothers	46,852	30,064	18,798	9,327	9,051	4,856	100	199	119,247

(a) 53 stillborn twins not included. (b) 15 stillborn twins not included. (c) 7 stillborn twins not included. (d) 10 stillborn twins not included. (e) 3 stillborn twins not included. (f) 88 stillborn twins not included. (g) 1 stillborn triplet not included.

A summary of the total number of live births in each State and Territory at intervals since 1901 is given in the following table:—

LIVE BIRTHS, 1901 to 1938.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901 ..	37,875	31,008	14,303	9,079	5,718	4,930	32	(a)	102,945
1911 ..	47,537	33,026	16,984	11,057	8,091	5,437	31	30	122,193
1921 ..	54,636	35,591	20,329	11,974	7,807	5,755	79	27	136,198
1931 ..	47,721	30,332	17,833	9,079	8,549	4,762	72	161	118,509
1933 ..	44,195	28,392	17,150	8,900	7,874	4,553	74	131	111,269
1934 ..	43,335	27,828	17,360	8,459	7,801	4,470	88	134	109,475
1935 ..	44,676	27,884	17,688	8,270	8,119	4,456	84	148	111,325
1936 ..	46,193	28,883	18,755	8,911	8,479	4,581	113	158	116,073
1937 ..	47,497	29,731	19,162	8,985	8,609	4,841	99	207	119,131
1938 ..	47,319	30,344	18,992	9,410	9,141	4,907	102	200	120,415

(a) Part of New South Wales.

2. Birth Rates.—The next table gives the crude birth rates at intervals from 1901 to 1938:—

CRUDE BIRTH RATES.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901 ..	27.78	25.77	28.52	25.41	30.39	28.58	6.72	(b)	27.16
1911 ..	28.58	25.01	27.63	28.86	28.22	28.60	9.36	16.84	27.20
1921 ..	25.91	23.16	26.68	24.09	23.37	26.97	20.18	10.86	24.95
1926 ..	22.63	20.84	23.06	20.73	21.79	23.33	18.50	12.07	21.98
1927 ..	22.40	20.30	22.78	20.33	21.63	22.68	15.28	10.31	21.62
1928 ..	22.27	19.69	22.36	19.98	21.36	21.77	18.61	14.64	21.27
1929 ..	21.04	18.98	20.60	18.63	21.51	22.03	11.86	17.91	20.25
1930 ..	20.59	18.55	20.80	17.42	21.44	21.66	14.26	18.30	19.86
1931 ..	18.67	16.86	19.28	15.77	19.77	21.18	14.52	18.29	18.16
1932 ..	17.40	15.19	18.56	14.74	18.31	19.78	16.07	16.92	16.86
1933 ..	16.99	15.60	18.14	15.32	17.95	19.93	15.23	(c)14.47	16.78
1934 ..	16.52	15.20	18.17	14.50	17.66	19.51	17.84	(c)14.47	16.39
1935 ..	16.89	15.16	18.31	14.14	18.23	19.41	16.47	(c)15.77	16.55
1936 ..	17.31	15.63	19.17	15.17	18.84	19.84	21.50	(c)16.18	17.13
1937 ..	17.63	16.02	19.36	15.25	18.95	20.69	18.30	(c)20.30	17.43
1938 ..	17.39	16.25	18.98	15.88	19.87	20.82	17.81	17.98	17.46

(a) Number of births per 1,000 of the mean population for the year. (b) Part of New South Wales. (c) See footnote (c) to table on p. 352. The following are revised rates:—1933, 14.43; 1934, 14.20; 1935, 15.20; 1936, 15.35; and 1937, 18.99.

NOTE.—The birth rates in the table above are based on live births registered in the respective States and Territories. Until recently a large proportion of births in respect of which the mother's usual residence was the Australian Capital Territory took place in Queanbeyan, just over the New South Wales border, but with improved hospital facilities in the Territory the movement to outside hospitals is rapidly diminishing. The following rates, based on births in respect of which the mother's usual residence is the Australian Capital Territory, are a fairer measure of birth rates in the Australian Capital Territory:—

1926 ..	22.41	1931 ..	21.40	1935 ..	19.52
1927 ..	21.10	1932 ..	20.09	1936 ..	17.97
1928 ..	23.38	1933 ..	19.06	1937 ..	21.28
1929 ..	23.28	1934 ..	17.59	1938 ..	18.88
1930 ..	22.07				

The variations similarly caused in the birth rates for the States and Northern Territory by referring the birth registrations to the State or Territory in which the mother was usually resident are not so great as in the Australian Capital Territory, as shown by the following corrected rates for 1938:—New South Wales, 17.46; Victoria, 16.11; Queensland, 19.05; South Australia, 15.82; Western Australia, 19.88; Tasmania, 20.91; and Northern Territory, 18.69.

The preceding table shows a marked reduction in the birth rate since 1901. In the earlier years of the century the rate fluctuated somewhat and 28.60 was recorded in 1912, but from that year onwards the rate dropped almost continuously to the very low figure of 16.39 in 1934. Thereafter with the improvement in economic conditions the rate has risen slightly during each of the last four years.

The principal factor in determining the crude birth rate is the proportion of married women of child-bearing age in the community, but as the fecundity of women varies with age, the birth rate per 1,000 married women will vary according to the age composition of the group, and, other things being equal, the rate generally should be highest where the average age of married women is lowest. For the purposes of the following table the child-bearing age has been taken as from 15-44 years inclusive, and all births of which the mothers were stated to be over 45 years have been counted in the group 40-44. The calculations have been made for the last two Census periods and cover in each case the Census year together with the year immediately preceding and the year immediately following.

BIRTH RATES, AND FACTORS AFFECTING THEM.

Particulars.	1931-34. (Age Distribution at Census of 1933.)						1920-1922.	
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.	Aus- tralia.
Crude birth rate per 1,000 persons	16.97	15.33	18.29	14.85	17.97	19.74	16.68	25.15
Birth rate per 100 women 15-44 inclusive	7.25	6.46	7.93	6.31	8.05	8.71	7.14	10.74
Birth rate per 100 married women 15-44 incl. (a)	12.98	12.34	14.46	12.01	14.67	16.08	13.14	19.65
Ex-nuptial births—per cent. on all births	5.03	4.35	4.99	3.18	4.15	5.37	4.66	4.69
Ex-nuptial births per 100 unmarried women 15-44 incl.	0.78	0.56	0.83	0.41	0.70	0.96	0.69	1.05
Women 15-44 incl.—per cent. all persons	23.41	23.73	23.05	23.54	22.34	22.66	23.35	23.41
Average age of all women 15-44 incl.	29.06	29.42	28.88	29.12	28.62	28.54	29.10	28.54
Married women 15-44 incl.—per cent. on all persons	12.41	11.88	12.02	11.97	11.74	11.61	12.10	12.20
Average age of married women 15-44 incl.	33.38	34.00	33.41	33.98	33.21	32.98	33.58	32.48

(a) Nuptial births only.

The following figures give a comparison for Australia, based on data obtained at Census periods, of the total births per 1,000 women (married and unmarried) and of the nuptial births per 1,000 married women of ages 15 to 44 years inclusive:—

Particulars.	1880-82.	1890-92.	1900-02.	1910-12.	1920-22.	1932-34.
Births per 1,000 women aged 15-44	169.7	158.8	117.3	117.2	107.4	71.4
Nuptial births per 1,000 married women 15-44	321.0	332.0	235.8	236.0	196.5	131.4

3. Birth Rates of Various Countries.—(i) *Crude Rates.* A comparison with other countries for the year 1937, the latest year for which complete figures are available, shows that the Australian States occupy a midway position. The rates for the pre-war period 1908–1913 have been added for purposes of comparison :—

CRUDE BIRTH RATES(a) : VARIOUS COUNTRIES.

Country.	1908 to 1913.	1937.	Country.	1908 to 1913.	1937.
Egypt	43.6	43.5	Finland	29.5	18.9
Soviet Union	45.6	42.7(c)	Germany	29.5	18.8
Ceylon	36.9	37.8	Denmark	27.1	18.0
Rumania	43.1	30.8	Scotland	26.2	17.6
Japan	32.9	30.6	New South Wales	28.2	17.6
Portugal	34.6	27.0	Australia	27.4	17.4
Spain	32.1	25.6(d)	New Zealand	26.5	17.3
Union of South Africa (Europeans)	(b)	25.1	Czechoslovakia	31.1	17.2
Poland	37.4	24.9	U.S. of America	(b)	17.0
Argentine Republic	37.1	24.0	Victoria	25.3	16.0
Italy	32.4	22.9	South Australia	27.1	15.3
Tasmania	29.6	20.7	Norway	26.0	15.3
Canada	(b)	19.8	Great Britain and Northern Ireland	24.6	15.3
Netherlands	29.1	19.8	Belgium	23.4	15.3
Northern Ireland	23.1	19.8	Switzerland	24.7	15.0
Queensland	28.2	19.4	England and Wales	24.9	14.9
Eire	23.1	19.2	France	19.5	14.7
Western Australia	28.9	19.0	Sweden	24.4	14.3

(a) Number of births per 1,000 of the mean population. (b) Not available. (c) For 1932.
(d) For 1935.

(ii) *Nuptial Birth Rates at Child-bearing Ages.* The wide discrepancies between the crude birth rates of the various countries are, to some extent, due to differences in sex and age constitution and in conjugal condition. If the birth rates are calculated per 1,000 women of child-bearing ages, the comparison gives more reliable results. A table of results so calculated for the period 1906 to 1915 or thereabouts appeared in Year Book No. 22, p. 941, and showed that Australia, with a rate of 198 nuptial births per 1,000 married women aged 15 to 49 years, was midway between the maximum and minimum of the countries for which these rates were obtained.

4. *Masculinity of Live Births.*—(i) *General.* The masculinity of live births, i.e., the number of males per 100 females, varies considerably from State to State and from year to year. For 1938 the figures ranged from 104.62 in New South Wales to 107.40 in Tasmania. The averages for the last inter-censal period, 1921 to 1933, were as follows:—New South Wales 105.33, Victoria, 106.19, Queensland 105.34, South Australia 105.08, Western Australia 105.66, Tasmania 105.59, Australia 105.57. The following table shows the figures for Australia at intervals since 1901 :—

MASCULINITY(a) OF LIVE BIRTHS REGISTERED : AUSTRALIA.

Particulars.	1901.	1911.	1921.	1931.	1935.	1936.	1937.	1938.
Total Births	104.11	104.73	105.86	106.15	104.52	104.79	104.60	105.76
Ex-nuptial Births	105.50	103.10	106.09	102.60	107.14	101.81	103.83	104.08

(a) Number of male per 100 female births.

(ii) *Masculinity of Nuptial and Ex-nuptial Births—Various Countries.* A table showing the masculinity of nuptial and ex-nuptial births for various countries appeared on p. 942 of Official Year Book No. 22.

5. *Ex-nuptial Live Births.*—(i) *General.* The number of ex-nuptial live births reached its maximum, 7,438, in 1913, but it has since fallen considerably. On the average during the five years 1910-1914 the number of ex-nuptial live births in Australia was 7,171, while for the period 1934-1938 it was only 5,033, a decline of 29.8 per cent., whereas the annual average total live births for the same period declined by 10.7 per cent., from 129,156 to 115,284; hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.55 to 4.37 per cent. of all births.

The numbers of births and the rates at intervals from 1901 to 1938 are shown below:—

EX-NUPTIAL LIVE BIRTHS AND BIRTH RATES: AUSTRALIA.

Particulars.	1901.	1911.	1921.	1931.	1935.	1936.	1937.	1938.
Number of Ex-Nuptial Births ..	6,165	7,074	6,463	5,841	4,901	5,126	5,163	5,049
Percentage of Total Births ..	5.99	5.79	4.75	4.93	4.40	4.42	4.33	4.19

It is, of course, possible that the number of ex-nuptial births is somewhat understated owing to diffidence in proclaiming the fact of ex-nuptiality, and it is not unlikely that the majority of unregistered births are ex-nuptial.

The variations of the ex-nuptial birth rates as between the individual States and Territories for 1938 are as follows:—

EX-NUPTIAL LIVE BIRTHS AND BIRTH RATES, 1938.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
Number..	1,983	1,302	920	268	337	215	18	6	5,049
Percentage of Total Births	4.19	4.29	4.84	2.85	3.69	4.38	17.65	3.00	4.19

(ii) *Rate of Ex-nuptiality.* A further comparison is obtained by calculating the number of ex-nuptial births per thousand of the single and widowed female population between the ages of 15 and 45 years. The number of ex-nuptial births per 1,000 unmarried women of ages 15 to 45 has been found to be as follows:—Years 1880-82, 14.49; 1890-92, 15.93; 1900-02, 13.30; 1910-12, 12.53; and 1920-22, 10.50. The estimated number for the years 1930-32 was 7.87. The comparative results for various countries given on p. 944 of Official Year Book No. 22 were taken from the *Annuaire International de Statistique*, Vols. II. and V., and showed that ex-nuptial births varied from 38 per 1,000 unmarried women aged 15 to 49 years in Hungary to 4 in Ireland and Bulgaria. The rate for Australia was 12 per thousand of the average for the years 1906-15.

(iii) *Comparison of Rates.* The following table showing the relative proportions of ex-nuptial and nuptial births to the total population discloses a much greater proportional reduction in the ex-nuptial birth rate than in the nuptial rate :—

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES(a) : AUSTRALIA.

Rates.	1901.	1911.	1921.	1931.	1934.	1935.	1936.	1937.	1938.
Ex-nuptial	1.63	1.57	1.18	0.90	0.74	0.73	0.76	0.75	0.73
Nuptial ..	25.53	25.63	23.77	17.26	15.65	15.82	16.37	16.68	16.73
Total ..	27.16	27.20	24.95	18.16	16.39	16.55	17.13	17.43	17.46

(a) Number of births per 1,000 of mean population.

6. *Legitimations.*—In the several States Acts have been passed to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who comes within the scope of their intentions, born before or after the passing thereof, is deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. During 1937, 860 children were legitimized in Australia.

7. *Multiple Births.*—Among the total number of 120,415 live births registered in Australia in 1938, there were 117,999 single births, 2,390 twins and 26 triplets. The number of cases of twins was 1,239 and of triplets 9, there being 88 stillborn twins and 1 stillborn triplet. The total number of mothers was, therefore, 119,247, the proportion of mothers of twins being one in every 96, of mothers of triplets one in every 13,250, and of mothers of all multiple births one in every 96 mothers. Multiple births occurred in 1.05 per cent. of confinements.

The proportion of multiple births to total births does not vary greatly from year to year and exhibits no tendency towards increase or decrease :—

MULTIPLE BIRTHS : AUSTRALIA.

Particulars.	1911.	1921.	1931.	1934.	1935.	1936.	1937.	1938.
Mothers of Multiple Births ..	1,236	1,465	1,271	1,171	1,157	1,229	1,304	1,248
Percentage on Total Mothers	1.02	1.09	1.08	1.08	1.05	1.07	1.11	1.05
Number of Mothers to each Multiple Birth ..	98	92	92	93	95	94	90	96

8. *Ages of Parents.*—The relative ages of the parents of children registered in 1938 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births the relative

single ages of parents are shown in *Demography Bulletin* No. 56, published by this Bureau. In the present work the exigencies of space allow the insertion of a table showing the relative ages of parents of all births in groups of five years only :—

AGES OF PARENTS : AUSTRALIA, 1938.

Ages of Fathers and Type of Birth.	Total.	Ages of Mothers.								
		Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.	Unspecified.
Under 20 { Single Twins	661 5	.. 1	466 2	175 2	18 ..	2..	....	....	....	....
20 to 24 { Single Twins	14,389 108	4 ..	3,268 24	9,259 68	1,689 14	147 1	20 1	2..	....	....
25 to 29 { Single Twins Triplets	32,695 283 3	.. 14 ..	1,610 14 ..	13,967 109 1	14,650 133 2	2,249 23 ..	200 4 ..	19....	......	......
30 to 34 { Single Twins Triplets	30,699 327 1	1	407 1 ..	5,286 35 1	13,113 130 ..	10,430 134 ..	1,366 24 ..	92 3 ..	4....	......
35 to 39 { Single Twins Triplets	18,847 271 3	.. .. ..	117 1 ..	1,310 16 ..	4,300 53 1	7,322 112 1	5,231 79 1	553 9 ..	13 1 ..	1
40 to 44 { Single Twins	9,055 116	.. ..	28 ..	391 3	1,055 5	2,386 31	3,503 54	1,627 23	65..	....
45 to 49 { Single Twins Triplets	4,401 53 1	1	9	115	372 3 ..	799 9 ..	1,572 27 1	1,331 12 1	202 2..	......
50 to 54 { Single Twins	1,543 27	.. ..	3 ..	33 ..	145 1	269 10	484 8	504 7	105 1	....
55 to 59 { Single Twins	513 5	.. ..	2 ..	16 ..	43 2	87 2	153 ..	173 1	39..	....
60 to 64 Single	144	..	1	8	15	28	33	50	9	..
65 and Upwards Single	87	..	1	2	7	21	26	23	7	..
Unspecified Single	7	..	..	..	2	3	..	..	..	2
Mothers of Nuptial Children { Single Twins Triplets Total	113,041 1,195 8 114,244	6 1 .. 7	5,912 42 .. 5,954	30,562 233 2 30,797	35,409 341 3 35,753	23,743 322 1 24,066	12,588 197 1 12,786	4,374 55 1 4,430	444 4 .. 448	3 3
Mothers of Ex-Nuptial Children { Single Twins Triplets Total	4,958 44 1 5,003	37 37	1,272 4 .. 1,276	1,805 17 .. 1,822	864 10 .. 874	484 6 .. 490	312 6 1 319	147 1 .. 148	18 18	19 19
Total Mothers { Single Twins Triplets	117,999 1,239 9	43 1 ..	7,184 46 ..	32,367 250 2	36,273 351 3	24,227 328 1	12,900 203 2	4,521 56 1	462 4 ..	22
Total ..	119,247	44	7,230	32,619	36,627	24,556	13,105	4,578	466	22

9. Birthplaces of Parents.—The birthplaces of the parents of children whose births were registered during the year 1938 will be found in *Demography Bulletin* No. 56,

published by this Bureau. A summary of the results of the tabulation with the addition of the corresponding figures for 1911 follows:—

BIRTHPLACES OF PARENTS: AUSTRALIA.

Birthplace.	Fathers.		Mothers of Nuptial Children.		Mothers of Ex-nuptial Children.	
	1911.	1938.	1911.	1938.	1911.	1938.
AUSTRALASIA—						
Australia	94,834	98,269	102,073	103,415	6,570	4,641
New Zealand	1,257	877	1,201	668	68	33
EUROPE—						
England and Wales	9,849	8,299	6,067	5,630	210	201
Scotland	2,289	2,417	1,486	1,682	46	54
Eire	2,138	853	1,374	465	46	10
Other British Possessions	49	154	20	92	1	2
Western Europe	607	194	165	61	9	4
Central Europe	1,185	348	606	176	8	7
Southern Europe	360	1,794	203	1,361	6	16
Eastern Europe	168	119	81	52	..	3
ASIA—						
British Possessions	217	216	114	111	2	3
Foreign Countries	317	188	139	137	3	3
AFRICA—						
British Possessions	111	195	116	143	2	1
Foreign Countries	11	18	13	19	..	..
AMERICA—						
Canada	59	99	34	60	3	3
Other British Possessions	8	9	5	1	..	..
United States of America	182	97	87	82	3	1
Other Foreign Countries	70	28	19	23	1	..
POLYNESIA—						
British	30	36	21	36	1	3
Foreign	39	19	13	15	6	1
At Sea and Indefinite	159	15	102	15	33	17
Total	113,939	114,244	113,939	114,244	7,018	5,003

10. Occupations of Fathers.—A summary of the main groups of occupations of the fathers of all nuptial children whose births were registered in 1921, 1931 and 1938, together with the percentage of each class on the total, is given in the following table:—

OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN: AUSTRALIA.

Occupation Group.	Number of Fathers.			Percentage of Total.		
	1921.	1931.	1938.	1921.	1931.	1938.
Agricultural, Pastoral, Mining, etc.	32,405	24,760	23,130	%	%	%
Industrial	53,567	49,902	23,995	41.74	44.76	21.00
Transport and Communication	15,351	12,302	10,875	11.96	11.04	9.52
Commercial	18,298	16,030	12,082	14.26	14.38	10.57
Professional	6,204	5,991	6,497	4.84	5.37	5.69
Domestic	2,319	2,146	1,920	1.81	1.93	1.68
Indefinite	182	349	435,745	0.14	0.31	(a)31.29
Total	128,326	111,480	114,244	100.00	100.00	100.00

(a) Includes 35,389 (30.98 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

11. *Mother's Age, Duration of Marriage, and Issue.*—(i) *General.* The total number of nuptial confinements resulting in live births in 1938 was 114,244, viz., 113,041 single births, 1,195 cases of twins, and 8 cases of triplets. Ex-nuptial children, if previous issue by the same father, are included as previous issue, but children by former marriages and stillborn children are excluded. The tables cannot be given in detail but the following are their most salient features. The complete tabulations are shown in *Demography Bulletin* No. 56, issued by this Bureau.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that the duration of marriage of mothers of nuptial children ranged from less than one year up to 33 years, and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1938 was 2.54 compared with 2.60 in 1937, 2.65 in 1936, 2.74 in 1935, and 2.83 in 1934.

DURATION OF MARRIAGE AND ISSUE OF MOTHERS: AUSTRALIA, 1938.

Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.	Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.
Years.				Years.			
0-1 ..	19,786	19,944	1.01	18-19 ..	964	6,556	6.80
1-2 ..	15,867	19,217	1.21	19-20 ..	674	4,915	7.29
2-3 ..	13,358	22,136	1.66	20-21 ..	464	3,429	7.39
3-4 ..	11,004	21,669	1.97	21-22 ..	364	2,877	7.90
4-5 ..	8,821	20,363	2.31	22-23 ..	320	2,680	8.38
5-6 ..	7,009	18,474	2.64	23-24 ..	250	2,258	9.03
6-7 ..	5,439	15,831	2.91	24-25 ..	140	1,296	9.26
7-8 ..	4,577	14,675	3.21	25-26 ..	84	758	9.02
8-9 ..	4,455	15,369	3.45	26-27 ..	57	582	10.21
9-10 ..	3,838	14,331	3.73	27-28 ..	32	322	10.06
10-11 ..	3,413	13,869	4.06	28-29 ..	15	183	12.20
11-12 ..	2,926	12,826	4.38	29-30 ..	8	88	11.00
12-13 ..	2,545	11,870	4.66	30-31 ..	2	14	7.00
13-14 ..	2,104	10,297	4.89	31-32 ..	3	31	10.33
14-15 ..	1,696	9,025	5.32	33-34 ..	1	9	9.00
15-16 ..	1,443	8,258	5.72	Not Stated	2	13	6.50
16-17 ..	1,359	8,245	6.07				
17-18 ..	1,224	7,767	6.35				
				Total ..	114,244	290,177	2.54

(iii) *Ages of Mothers and Issue.* The following table shows the average number of children borne by mothers of different ages. In the younger ages there is, naturally, little difference in the average number of children to each mother, but with the increase

of the age of the mother the number of issue has fallen in comparison with past years. During the period 1911 to 1938 the average issue of mothers of all ages has fallen by 23.95 per cent.—from 3.34 in 1911 to 2.54 in 1938:—

AGES AND ISSUE OF MOTHERS: AUSTRALIA.

Ages of Mothers.	Average Number of Children.				Ages of Mothers.	Average Number of Children.			
	1911.	1921.	1931.	1938.		1911.	1921.	1931.	1938.
Under 20 years ..	1.18	1.16	1.21	1.20	40-44 years ..	6.97	6.27	6.00	5.70
20-24 years ..	1.77	1.64	1.74	1.64	45 years and over..	8.52	8.04	7.48	7.38
25-29 " ..	2.64	2.44	2.46	2.18					
30-34 " ..	3.82	3.57	3.44	2.99					
35-39 " ..	5.28	4.95	4.71	4.23	All Ages ..	3.34	3.08	2.95	2.54

(iv) *Previous Issue of Mothers, Various Ages.* A classification of mothers of various ages according to previous issue is given in the following table:—

MOTHERS OF VARIOUS AGES ACCORDING TO PREVIOUS ISSUE: AUSTRALIA, 1938.

Previous Issue.	Mothers' Ages.							Total.
	Under 20 Years.	20-24 Years.	25-29 Years.	30-34 Years.	35-39 Years.	40-44 Years.	45 Years and Over.	
0	4,884	17,343	14,070	5,596	1,657	352	18	43,920
1	969	8,941	10,635	6,390	2,138	369	(a) 19	29,461
2	106	3,266	5,561	4,591	2,133	523	22	16,202
3	2	961	3,028	2,910	1,782	541	50	9,274
4	..	230	1,435	1,953	1,505	523	(b) 37	5,683
5	..	49	681	1,190	1,195	466	52	3,633
6	..	5	235	712	812	399	57	2,220
7	..	1	80	404	654	383	30	1,552
8	..	1	24	176	412	293	33	939
9	..	..	4	96	271	226	51	648
10	..	..	..	29	121	159	28	337
11	..	..	..	12	67	108	17	204
12	..	..	..	5	27	44	13	89
13	..	..	..	1	8	23	6	38
14	..	..	..	1	3	14	10	28
15	..	..	..	..	1	4	4	9
16	..	..	..	..	..	2	3	5
17	..	..	..	..	..	..	..	..
18	..	..	..	..	..	1	..	1
19	..	..	..	..	..	..	..	..
20	..	..	..	..	..	..	1	1
Total Mothers	5,961	30,797	35,753	24,066	12,786	4,430	451	114,244

(a) Including one mother with age not stated.

(b) Including two mothers with age not stated.

(v) *Previous Issue of Mothers of Twins and Triplets.* Figures regarding the previous issue of married mothers of twins show that 372 mothers had no previous issue either living or deceased, 273 had one child previously, while 198 had two previous issue, 123 three, 79 four, 53 five, 32 six, 28 seven, 18 eight, 6 nine, 7 ten, 3 eleven, 1 twelve, 1 fourteen, and 1 fifteen previous issue.

Of the 8 cases of triplets registered during 1938, 3 mothers had no previous issue, 3 had one previous issue, 1 four, and 1 five previous issue.

12. **Interval between Marriage and First Birth.**—(i) *Interval.* The following table shows the interval between marriage and first birth for the years 1911, 1921, 1931 and 1938 respectively. Twins, triplets and quadruplets are included, the eldest only being enumerated:—

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH: AUSTRALIA.

Interval.	Number of First Children.				Percentage of Total.			
	1911.	1921.	1931.	1938.	1911.	1921.	1931.	1938.
Under 1 month ..	562	437	395	255	1.81	1.07	1.15	0.58
1 month ..	608	538	523	376	1.96	1.31	1.52	0.86
2 months ..	817	735	750	580	2.63	1.79	2.17	1.32
3 " ..	1,125	1,017	1,135	847	3.63	2.48	3.29	1.93
4 " ..	1,299	1,336	1,409	1,357	4.19	3.26	4.09	3.09
5 " ..	1,651	1,781	1,968	1,969	5.33	4.34	5.71	4.48
6 " ..	2,089	2,420	2,517	2,997	6.74	5.90	7.30	6.82
7 " ..	1,602	2,231	2,022	2,230	5.17	5.44	5.86	5.08
8 " ..	1,529	1,950	1,139	1,542	4.93	4.75	3.30	3.51
9 " ..	3,361	4,222	2,272	3,022	10.84	10.29	6.59	6.88
10 " ..	2,623	3,630	1,859	2,431	8.46	8.85	5.39	5.54
11 " ..	1,893	2,645	1,636	2,051	6.11	6.45	4.74	4.67
Total under 1 year ..	19,159	22,942	17,625	19,657	61.80	55.93	51.11	44.76
1-2 years ..	7,400	11,149	8,888	12,619	23.87	27.18	25.77	28.73
2-3 " ..	2,101	2,923	3,441	5,346	6.78	7.13	9.98	12.17
3-4 " ..	908	1,413	1,823	2,732	2.93	3.45	5.29	6.22
4-5 " ..	471	837	967	1,368	1.52	2.04	2.80	3.11
5-9 " ..	762	1,473	1,424	1,812	2.46	3.59	4.13	4.13
10-14 " ..	159	223	262	326	0.51	0.54	0.76	0.74
15-19 " ..	31	54	50	52	0.10	0.13	0.14	0.12
20 years and over ..	9	4	6	8	0.03	0.01	0.02	0.02
Total ..	31,000	41,018	34,486	43,920	100.00	100.00	100.00	100.00

The masculinity of first births was 106.20 compared with 105.76 for total births.

(ii) *Ages of Mothers and Interval.* The previous issue of mothers of ex-nuptial children is not recorded, but for the purposes of the following table all ex-nuptial births have been assumed to be first births. The table shows in a condensed form the ages of mothers in cases of ex-nuptial births, of nuptial first births occurring less than nine months after marriage, and of all ex-nuptial and nuptial first births. A comparison of the combined total of the first two columns with the total of nuptial children born nine months or more after marriage shows that for all ages the ratio was approximately 3 to 5. At all ages up to and including 21, however, there was a preponderance of ex-nuptial births and of births following on ante-nuptial conception. It must, of course, be understood that a certain number of premature births is necessarily included among the births which occurred less than nine months after marriage, but information in connexion therewith is not available, and the figures in the table must be accepted with this reservation. The tabulation in single ages of mothers appears in *Demography Bulletin* No. 56, published by this Bureau.

The last four columns show the percentage of births following ante-nuptial conception on the total nuptial first births and ex-nuptial births. These columns disclose the remarkable fact that the percentage of births due to ante-nuptial conception diminishes rapidly from about 79 per cent. among mothers under 20 years of age to a minimum of about 17.55 per cent. among mothers 25 to 34 years and then rises perceptibly for mothers of older ages.

AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, ETC. : AUSTRALIA.

Age of Mother at Birth of Child.	1938.				Percentage Column III. on Column IV.			
	Ex-nuptial Births.	Nuptial Births less than nine months after Marriage.	Total of two preceding columns.	Nuptial First Births and Ex-nuptial Births.	1911.	1921.	1931.	1938.
	I.	II.	III.	IV.	%	%	%	%
Under 20 years	1,313	3,566	4,879	6,197	83.12	79.23	82.60	78.73
20 to 24 years	1,822	6,030	7,852	19,165	53.91	45.82	48.43	40.97
25 to 29 "	874	1,779	2,653	14,944	32.50	25.60	21.89	17.75
30 to 34 "	490	548	1,038	6,086	28.06	23.05	22.20	17.06
35 to 39 "	319	178	497	1,976	32.64	29.43	30.86	25.15
40 to 44 "	148	47	195	500	36.56	35.31	38.95	39.00
45 and over ..	37	5	42	55	60.47	54.84	48.89	76.36
Total ..	5,003	12,153	17,156	48,923	48.14	39.74	43.80	35.07

13. Interval between Birth and Registration of Birth.—Detailed information for the years 1911 to 1921 regarding the period which elapsed between birth and registration of birth was contained in *Demography Bulletins* issued by this Bureau for those years. The average interval for the year 1921 was 14.22 days for all children.

§ 2. Stillbirths.

Reliable statistics of the number of children born dead in Australia are not available as registration of these births is not compulsory in all the Australian States. Based on such information as is available the estimated number of stillbirths in Australia during 1938 was approximately 3,500.

§ 3. Marriages.

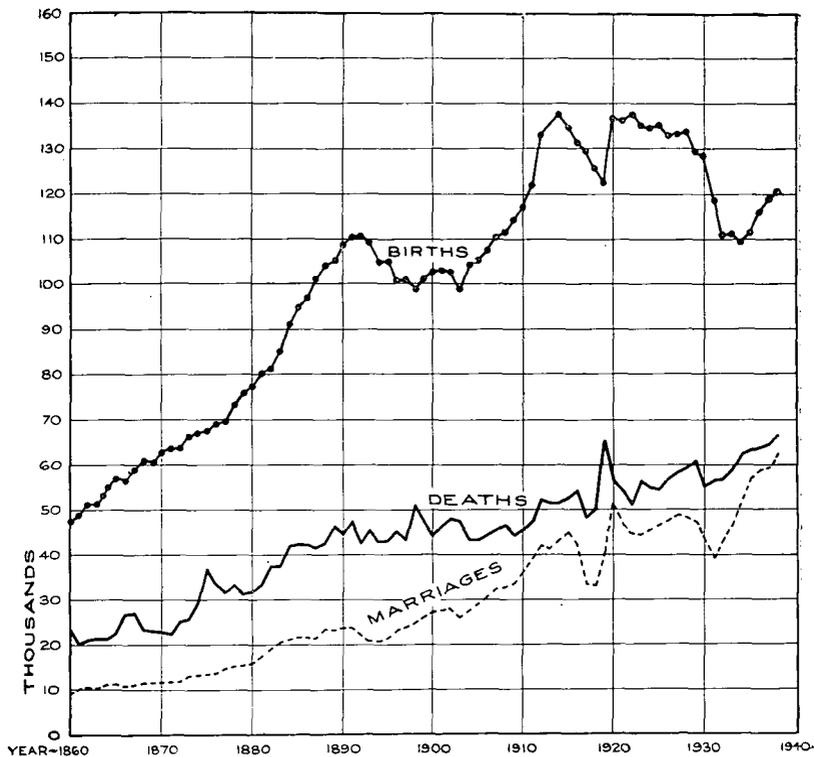
1. Marriages, 1938.—The number of marriages registered in Australia during the year ended the 31st December, 1938, was 62,411, giving a rate of 9.05 per 1,000 of the mean population for the year. A summary of the number of marriages in each State and Territory at intervals since 1901 is given in the following table:—

MARRIAGES, 1901 to 1938.

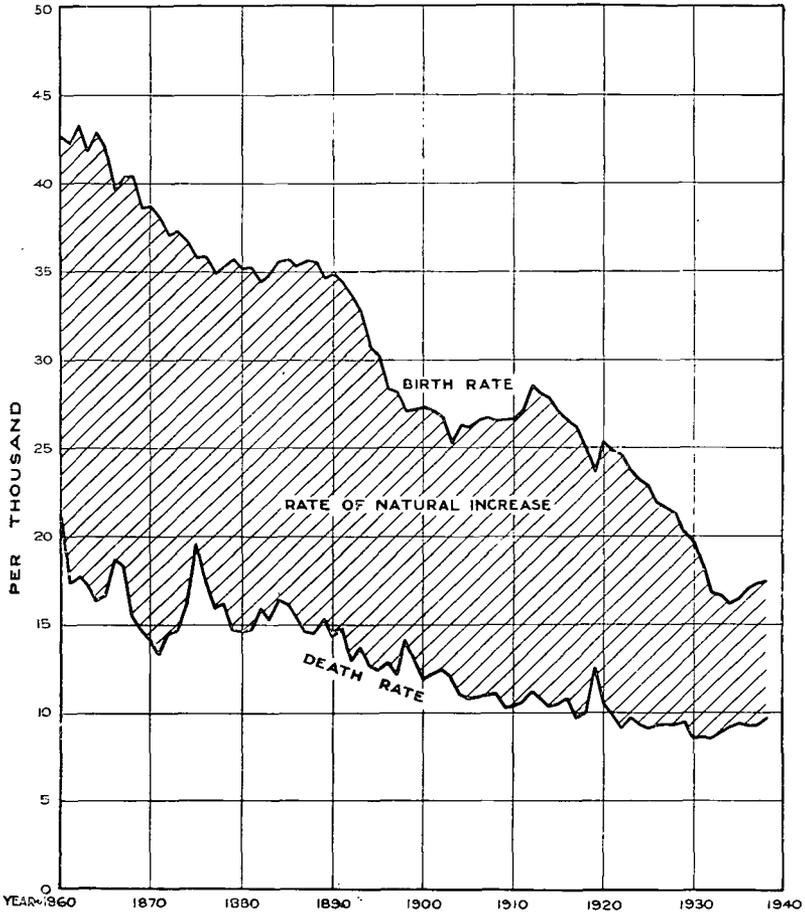
Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901 ..	10,538	8,406	3,341	2,304	1,821	1,338	5	(a)	27,753
1911 ..	15,278	11,088	5,167	4,036	2,421	1,477	10	5	39,482
1921 ..	18,506	13,676	5,963	4,383	2,656	1,668	15	2	46,869
1931 ..	15,377	10,182	5,951	3,069	2,741	1,501	25	36	38,882
1933 ..	18,399	12,668	6,471	3,973	3,374	1,629	28	53	46,595
1934 ..	20,210	13,862	7,635	4,310	3,682	1,678	30	58	51,465
1935 ..	22,361	15,499	8,280	4,845	3,940	1,875	42	74	56,826
1936 ..	22,873	15,915	8,306	5,182	4,242	2,073	41	77	58,709
1937 ..	23,188	16,226	8,353	5,340	4,169	2,042	69	61	59,448
1938 ..	24,579	17,113	8,853	5,489	4,153	2,082	67	75	62,411

(a) Part of New South Wales.

BIRTHS, DEATHS, AND MARRIAGES—AUSTRALIA, 1860 TO 1938.

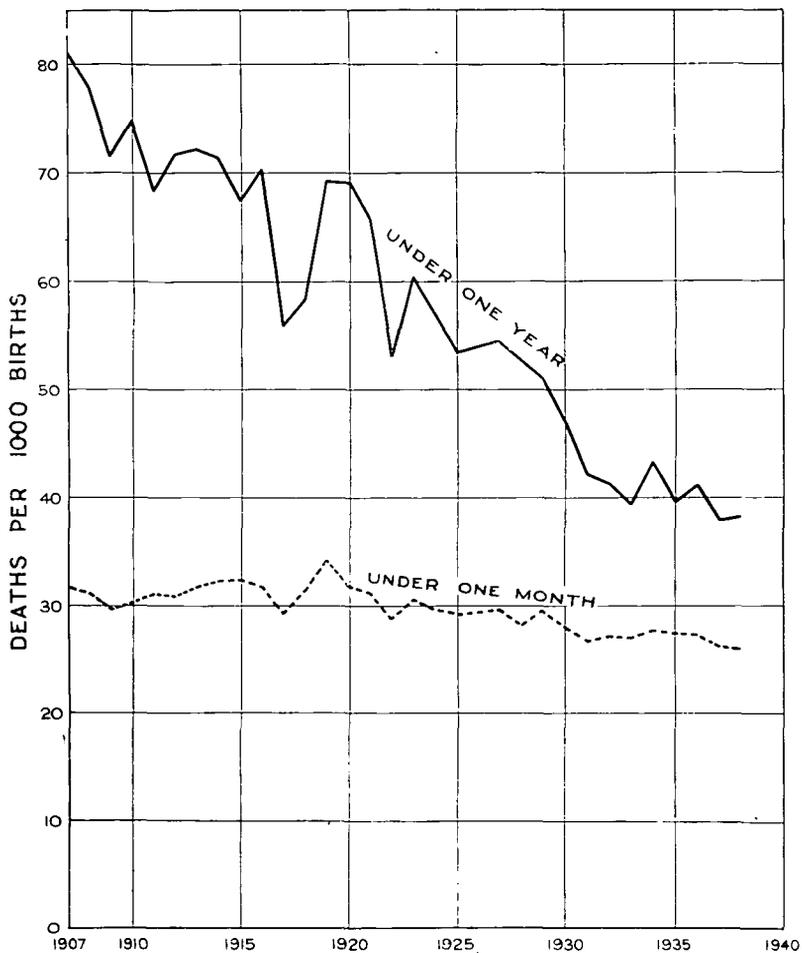


RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE--AUSTRALIA, 1860 TO 1938.



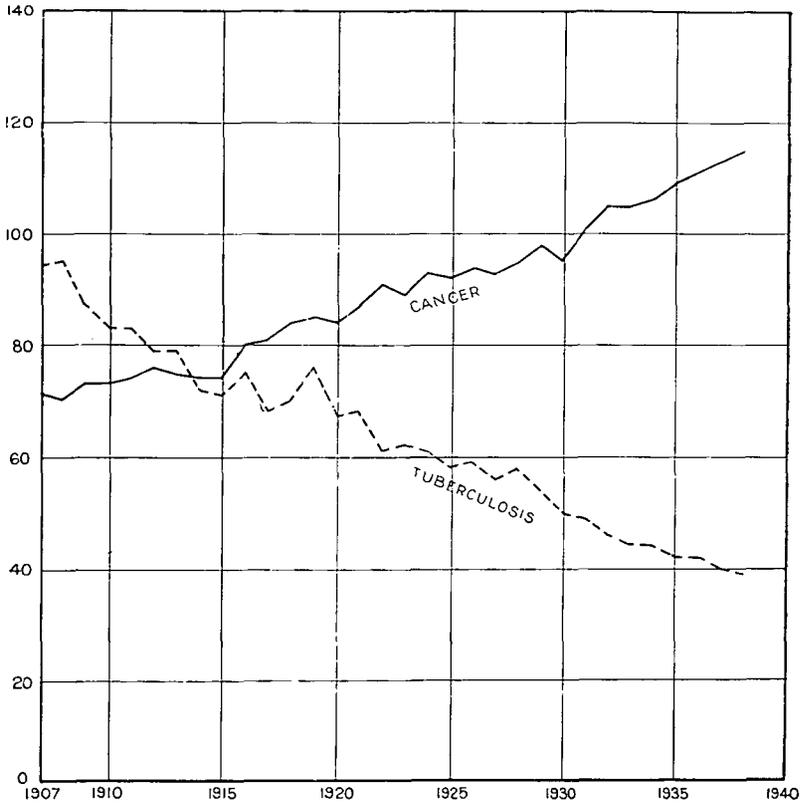
EXPLANATION.—The upper curve represents the number of births per 1,000 persons, while the lower curve represents the corresponding death rate. The distance between the two curves is the rate of natural increase.

INFANTILE MORTALITY RATES—AUSTRALIA, 1907 TO 1938.



EXPLANATION.—This graph shows the marked improvement in infantile mortality rates over the past 30 years. The improvement has been confined mainly to children over one month, very little change having occurred in the first month of life (see page 309).

DEATH RATES—CANCER AND TUBERCULOSIS—AUSTRALIA, 1907 TO 1938.



(See page 332.)

EXPLANATION.—The vertical scale represents the number of deaths per 100,000 of the population.

2. Crude Marriage Rates.—The crude marriage rates for each State and Territory for a series of years are given hereunder:—

CRUDE MARRIAGE RATES.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901 ..	7.73	6.99	6.66	6.45	9.68	7.76	1.05	..	7.32
1911 ..	9.19	8.40	8.41	9.80	8.44	7.77	3.02	2.81	8.79
1921 ..	8.78	8.90	7.82	8.82	7.95	7.82	3.83	0.80	8.59
1926 ..	8.19	7.90	7.50	8.13	7.47	6.71	3.55	2.74	7.90
1927 ..	8.34	7.88	7.21	7.96	7.93	6.72	5.84	3.88	7.93
1928 ..	8.16	7.53	7.14	7.26	8.12	6.97	5.16	3.54	7.71
1929 ..	7.80	7.31	6.87	6.50	8.00	7.86	4.48	5.03	7.43
1930 ..	6.86	6.52	6.81	5.78	7.47	6.56	6.23	3.79	6.69
1931 ..	6.02	5.66	6.43	5.33	6.34	6.68	5.04	4.09	5.96
1932 ..	6.73	6.49	6.86	6.29	6.68	6.64	4.47	4.82	6.63
1933 ..	7.07	6.96	6.84	6.84	7.69	7.13	5.76	(b)5.85	7.03
1934 ..	7.70	7.57	7.99	7.39	8.34	7.32	6.08	(b)6.26	7.71
1935 ..	8.45	8.38	8.57	8.28	8.85	8.17	8.23	(b)7.89	8.45
1936 ..	8.57	8.61	8.49	8.82	9.43	8.98	7.80	(b)7.89	8.66
1937 ..	8.61	8.74	8.44	9.06	9.18	8.73	12.75	(b)5.98	8.70
1938 ..	9.03	9.16	8.85	9.26	9.03	8.83	11.70	6.74	9.05

(a) Number of marriages (not persons married) per 1,000 of mean annual population. (b) See footnote (c) to table on p. 352. The following are revised rates:—1933, 5.84; 1934, 6.15; 1935, 7.60; 1936, 7.48; and 1937, 5.60.

As in some international tabulations the marriage rates are calculated per 1,000 of the unmarried population of 15 years and over, the corresponding rates have been worked out for Australia for the last six census periods for which the particulars are available. The figures comprise in each case the census year with the year immediately preceding and the year immediately following, and are as follows:—Years 1880–82, 48.98; years 1890–92, 45.74; years 1900–02, 42.14; years 1910–12, 50.44; years 1920–22, 56.02; and years 1932–34, 42.88. These rates refer, of course, to persons married, and not to marriages as is the case in the preceding table.

3. Marriage Rates in Various Countries.—The following table shows the marriage rate for Australia for the year 1937, in comparison with the rates for various other countries:—

CRUDE MARRIAGE RATES(a) : VARIOUS COUNTRIES.

Country.	1908 to 1913.	1937.	Country.	1908 to 1913.	1937.
Union of South Africa(b)	(c)	11.1(d)	Great Britain and Northern Ireland ..	7.3	8.6
United States ..	(c)	11.0	Finland ..	6.1	8.5
Soviet Union ..	8.6	10.6(e)	Czechoslovakia ..	7.7	8.3
New Zealand ..	8.5	9.6	Norway ..	6.2	8.3
Rumania ..	9.5	9.5	Poland ..	7.0	8.0
Japan ..	9.3	9.5	Canada ..	(c)	7.9
South Australia ..	9.1	9.3	Scotland ..	6.7	7.7
Victoria ..	8.0	9.2	Belgium ..	7.9	7.6
Germany ..	7.8	9.1	Netherlands ..	7.5	7.6
Denmark ..	7.3	9.1	Switzerland ..	7.3	7.3
New South Wales ..	8.8	9.0	Argentine Republic ..	6.8	7.2
Australia ..	8.4	9.0	Northern Ireland ..	5.2	6.7
Western Australia ..	8.1	9.0	France ..	7.9	6.6
Queensland ..	8.2	8.9	Portugal ..	6.9	6.4
Tasmania ..	7.9	8.8	Spain ..	7.0	6.1(f)
England and Wales ..	7.6	8.8	Ceylon ..	5.2	5.8
Italy ..	7.7	8.7	Eire ..	5.2	5.0
Sweden ..	6.0	8.7			

(a) Number of marriages per 1,000 of mean population. (b) European population only. (c) Not available. (d) For 1936. (e) For 1929. (f) For 1935.

4. **Ages and Conjugal Condition at Marriage.**—(i) *General.* The ages at marriage of bridegrooms and brides will be found in *Demography Bulletin*, No. 56, published by this Bureau. A summary in age-groups is given in the table hereunder, which also shows the previous conjugal condition of the contracting parties. There were 2,630 males who were less than twenty-one years of age married during 1938, while the corresponding number of females was 12,560. At the other extreme there were 71 men of sixty-five years and upwards who described themselves as bachelors, and 24 spinsters of corresponding age.

Information regarding the percentage distribution of bridegrooms and brides is shown in the last five lines of the table for the years 1911, 1921, 1931, 1937 and 1938.

AGES AND CONJUGAL CONDITION OF PERSONS MARRIED : AUSTRALIA, 1938.

Ages at Marriage.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20..	1,295	..	..	1,295	8,461	3	2	8,466
20-24 years	18,643	18	20	18,681	27,241	65	103	27,409
25-29 "	21,559	155	167	21,881	14,851	162	409	15,422
30-34 "	9,449	315	360	10,124	4,722	245	423	5,390
35-39 "	3,750	398	404	4,552	1,763	296	349	2,408
40-44 "	1,410	371	264	2,045	754	335	203	1,292
45-49 "	731	467	230	1,428	403	352	141	896
50-54 "	365	434	152	951	170	280	65	515
55-59 "	167	381	63	611	86	151	22	259
60-64 "	82	259	17	358	52	144	5	201
65 years and over ..	71	398	16	485	24	127	2	153
Total ..	57,522	3,196	1,693	62,411	58,527	2,160	1,724	62,411
Percentage on Total	%	%	%	%	%	%	%	%
1911 ..	93.70	5.84	0.46	100.00	94.60	4.68	0.72	100.00
1921 ..	92.43	6.37	1.20	100.00	92.85	5.91	1.24	100.00
1931 ..	92.04	6.09	1.87	100.00	93.89	4.02	2.09	100.00
1937 ..	92.42	5.02	2.56	100.00	93.85	3.51	2.64	100.00
1938 ..	92.17	5.12	2.71	100.00	93.78	3.46	2.76	100.00

(ii) *Relative Ages, Bridegrooms and Brides.* The relative ages of bridegrooms and brides are shown for single years in *Demography Bulletin*, No. 55. A condensation into age-groups of five years is given below :—

RELATIVE AGES OF PERSONS MARRIED : AUSTRALIA, 1938.

Ages of Bridegrooms.	Total Bridegrooms.	Ages of Brides.							
		Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.
Under 20 years ..	1,295	3	929	332	26	3	2	..	..
20 to 24 ..	18,681	9	4,767	11,548	2,158	164	26	6	3
25 to 29 ..	21,881	3	2,064	11,201	7,222	1,197	161	25	8
30 to 34 ..	10,124	3	512	3,177	3,920	1,960	416	103	(a) 33
35 to 39 ..	4,552	..	135	828	1,443	1,171	713	185	77
40 to 44 ..	2,045	1	21	219	399	466	444	322	173
45 to 49 ..	1,428	..	11	64	160	257	348	270	318
50 to 54 ..	951	..	4	21	64	114	163	202	383
55 to 59 ..	611	..	2	13	17	34	77	102	366
60 to 64 ..	358	..	2	3	9	15	30	48	251
65 years and over ..	485	..	..	3	4	9	28	29	412
Total Brides ..	62,411	19	8,447	27,409	15,422	5,390	2,408	1,292	2,024

(a) Including one case where the age of bride was not stated.

(iii) *Average Ages, Bridegrooms and Brides.* The age at marriage of brides declined slightly during recent years to an average of about 25½ years, but in 1937 and 1938 this decline has been arrested and the average has risen again to almost 26 years. The figures for the past five years are:—1934, 25.65; 1935, 25.70; 1936, 25.23; 1937, 25.86; and 1938, 25.92. For the five years 1907–11 the average age was 25.70 years compared with 25.92 years for the five years 1912–16, 26.07 years for the five years 1917–21, and 25.76 years for the five years 1925–29. The average age of bridegrooms was in 1934, 29.24; in 1935, 29.25; in 1936, 28.76; in 1937, 29.41; and in 1938, 29.52 years. It follows, therefore, that brides are, generally speaking, three and one-half years younger than bridegrooms.

5. *Previous Conjugal Condition.*—The number of bachelors and spinsters, widowed and divorced persons, who were married during the year 1938, has already been given. The following table shows the conjugal condition of the contracting parties:—

PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED: AUSTRALIA, 1938.

Conjugal Condition of Bridegrooms.	Total Bridegrooms.	Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors	57,522	55,226	1,127	1,169
Widowers	3,196	2,008	878	310
Divorced	1,693	1,293	155	245
Total Brides ..	62,411	58,527	2,160	1,724

6. *Birthplaces of Persons Married.*—The following table shows the birthplaces of persons who were married in 1911, 1921 and 1938. In *Demography Bulletin*, No. 56, the relative birthplaces of bridegrooms and brides married in 1938 will be found tabulated in detail:—

BIRTHPLACES OF PERSONS MARRIED: AUSTRALIA.

Birthplace.	Bridegrooms.			Brides.		
	1911.	1921.	1938.	1911.	1921.	1938.
AUSTRALASIA—						
Australia	31,298	37,925	54,265	33,922	40,137	57,596
New Zealand	450	405	573	303	280	386
EUROPE—						
England and Wales	3,023	3,590	4,435	1,675	2,488	2,631
Scotland	739	867	1,160	460	656	799
Eire	494	470	414	363	281	171
Other British Possessions	16	30	48	9	14	23
Western Europe	205	175	123	45	45	44
Central Europe	311	149	223	92	61	107
Southern Europe	62	139	570	21	56	349
Eastern Europe	47	83	61	18	21	27
ASIA—						
British Possessions	59	59	97	27	24	41
Foreign Countries	83	57	53	16	12	35
AFRICA—						
British Possessions	42	58	120	20	39	52
Foreign Countries	1	3	8	2	5	8
AMERICA—						
Canada	44	45	85	6	11	31
Other British Possessions	6	8	3	..	5	..
United States of America	58	90	88	16	25	39
Other Foreign Countries	44	11	16	15	10	13
POLYNESIA—						
British	13	9	29	7	11	25
Foreign	25	18	17	7	13	15
At Sea and Indefinite	41	22	23	37	19	19
Total	37,061	44,213	62,411	37,061	44,213	62,411

7. Occupations and Ages of Bridegrooms.—On the experience of 1931 the average ages at marriage of bridegrooms in the larger classes of occupations were as follows:—Professional, 30.01 years; Domestic, 30.47 years; Commercial, 29.20 years; Transport, 28.71 years; Industrial, 28.08 years; and Primary Producers, 30.15 years.

8. Fertility of Marriages.—The quotient obtained by division of the nuptial births registered, e.g., during the five years 1934 to 1938, by the number of marriages registered during the five years 1929 to 1933, i.e., the period antecedent by five years to the period of the births, has been called the "fertility of marriages." The quotient for this period is 2.62—in other words, the number of children to be expected from every marriage in Australia is under three. This method, while not absolutely accurate, generally furnishes results which agree fairly well with those found by more elaborate and careful investigation. For the following five-yearly periods the results were:—1929–33, 2.91; 1930–34, 2.58; 1931–35, 2.54; 1932–36, 2.29; 1933–37, 2.44; and 1934–38, 2.62.

9. Celebration of Marriages.—In all the States marriages may be celebrated either by ministers of religion whose names are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1938 belonged to more than forty different denominations, some of which, however, can hardly be regarded as having any valid existence. A number of these have been omitted from the tabulation and are bracketed under the heading "Other Christian." The figures for 1938 are shown in the following table:—

MARRIAGES IN EACH DENOMINATION, 1938.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Nor. Ter.	A.C.T.	Australia.	
									No.	Per Cent.
Church of England ..	9,901	4,894	2,696	1,374	1,525	813	16	44	21,263	34.07
Roman Catholic ..	5,042	3,175	1,942	576	765	358	15	11	11,884	19.04
Methodist ..	2,836	2,576	1,352	1,672	528	340	17	5	9,326	14.94
Presbyterian ..	2,854	3,761	1,466	236	327	124	..	7	8,775	14.06
Baptist ..	460	667	168	216	60	106	..	..	1,677	2.69
Congregational ..	481	388	150	258	111	66	..	..	1,454	2.33
Church of Christ ..	122	418	68	217	67	23	8	..	923	1.48
Lutheran ..	55	91	207	278	4	..	..	..	635	1.02
Salvation Army ..	114	116	79	46	24	12	..	..	391	0.63
Seventh-Day Adventist ..	65	39	21	17	21	8	..	..	171	0.27
Greek Catholic ..	44	18	5	10	8	..	..	..	85	0.14
Unitarian ..	2	40	..	13	..	..	..	..	55	0.09
Other Christian ..	143	90	269	34	15	37	..	..	588	0.94
Hebrew ..	72	69	1	4	12	..	..	..	158	0.25
Registrar's Office	2,388	771	429	538	686	195	11	8	5,026	8.05
Total ..	24,579	17,113	8,853	5,489	4,153	2,082	67	75	62,411	100.00
Marriages celebrated by Ministers of Religion										
per cent.	90.28	95.49	95.15	90.20	83.48	90.63	83.58	89.33	91.95	..
Marriages celebrated by Civil Officers										
per cent.	9.72	4.51	4.85	9.80	16.52	9.37	16.42	10.67	8.05	..

§ 4. Deaths.

1. Deaths, 1938.—The following table shows the number of deaths, male and female, registered in each State during the year :—

DEATHS, 1938.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
Male ..	14,748	10,026	5,384	2,917	2,646	1,233	52	40	37,046
Female ..	11,357	8,929	3,817	2,622	1,588	1,055	17	20	29,405
Total ..	26,105	18,955	9,201	5,539	4,234	2,288	69	60	66,451

A summary of the total number of deaths in each State and Territory at intervals since 1901 is given in the following table :—

DEATHS, 1901-1938.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901 ..	16,021	15,904	6,007	3,974	2,519	1,814	91	(a)	46,330
1911 ..	17,146	15,216	6,544	4,038	2,923	1,927	65	10	47,869
1921 ..	20,026	16,165	7,142	4,982	3,480	2,197	80	4	54,076
1931 ..	21,270	17,033	7,525	4,888	3,681	2,057	70	36	56,560
1933 ..	22,322	17,456	8,354	4,904	3,790	2,192	61	38	59,117
1934 ..	23,474	18,648	8,192	5,403	4,076	2,345	60	31	62,229
1935 ..	24,547	18,456	8,851	5,163	4,118	2,353	70	41	63,599
1936 ..	24,376	18,778	8,593	5,464	4,230	2,387	60	44	63,932
1937 ..	25,235	18,613	9,006	5,247	4,065	2,225	63	42	64,496
1938 ..	26,105	18,955	9,201	5,539	4,234	2,288	69	60	66,451

(a) Part of New South Wales prior to 1911.

2. Crude Death Rates.—The crude death rates at intervals from 1901 to 1938 are shown in the following table :—

CRUDE DEATH RATES.(a)

Year and Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901 ..	11.75	13.22	11.98	11.12	13.39	10.51	19.10	(b)	12.22
1911 ..	10.31	11.52	10.65	9.81	10.19	10.14	19.63	5.61	10.66
1921 ..	9.50	10.52	9.37	10.02	10.42	10.30	20.44	1.61	9.91
1926 ..	9.44	9.63	9.58	8.81	8.79	8.94	16.22	6.60	9.40
1927 ..	9.46	9.71	9.28	9.07	8.65	9.54	17.07	6.06	9.42
1928 ..	9.21	10.11	9.01	9.02	8.93	9.89	15.92	5.73	9.42
1929 ..	9.82	9.44	9.26	8.80	9.34	9.99	14.55	4.57	9.52
1930 ..	8.39	8.93	8.19	8.46	8.80	8.82	15.46	3.57	8.56
1931 ..	8.32	9.47	8.14	8.49	8.51	9.15	14.12	4.09	8.67
1932 ..	8.27	9.29	8.35	8.58	8.54	8.90	14.85	3.25	8.63
1933 ..	8.58	9.59	8.84	8.44	8.64	9.60	12.55	(c)4.20	8.92
1934 ..	8.05	10.19	8.57	9.26	9.23	10.23	12.16	(c)3.35	9.32
1935 ..	9.28	10.03	9.16	8.83	9.25	10.25	13.72	(c)4.37	9.46
1936 ..	9.14	10.16	8.78	9.30	9.40	10.33	11.42	(c)4.51	9.43
1937 ..	9.36	10.03	9.10	8.91	8.95	9.51	11.64	(c)4.12	9.44
1938—									
Male ..	10.74	10.86	10.28	9.84	10.91	10.31	13.41	6.62	10.62
Female ..	8.42	9.45	8.00	8.85	7.30	9.09	9.20	3.94	8.63
Total ..	9.59	10.15	9.19	9.35	9.20	9.71	12.05	5.39	9.64

(a) Number of deaths per 1,000 of annual mean population. (b) Part of New South Wales prior to 1911. (c) See footnote (c) to table on p. 352. The following are revised rates :—1933, 4.19; 1934, 3.29; 1935, 4.21; 1936, 4.27; and 1937, 3.85.

3. *Index of Mortality.*—(i) *General.* The death rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking the age constitution into consideration. Other conditions being equal, however, the death rate of a country will be low if it contains a large percentage of young people (not infants). In order to obtain a comparison of the mortality of various countries on a uniform basis so far as sex and age constitution are concerned, the standard population compiled by the International Institute of Statistics according to age distribution (eleven age-groups) of the population of nineteen European countries at their censuses nearest to the year 1900 is used in the computation of the "Index of Mortality" as distinguished from the crude death rate. Full details of the "Standard Population" will be found in Year Book No. 22, page 962.

(ii) *Comparison of Rates.* For the year 1938 on the basis of the crude rates there is a range of 0.86 per 1,000 persons between the lowest rate in Queensland (9.19) and the highest rate in Victoria (10.15). On the standardized rates the range was 1.18 per 1,000, i.e., between 8.34 in South Australia and 9.52 in New South Wales. In its application to the figures for 1938 the process of adjustment altered mainly the relative positions of the middle States from those determined by the crude rates. Thus Victoria and Queensland which were the highest and lowest respectively in the crude rates became fourth highest and second highest while Tasmania, which was second highest, had on the standardized basis the second lowest rate of all the States. The index of mortality for each State for 1921, 1931, 1937 and 1938 is shown in the following table:—

INDEX OF MORTALITY.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Aus-tralia.
1921	10.35	10.79	10.24	10.38	11.88	10.83	13.71	1.89	10.58
1931	8.41	8.78	8.36	7.85	8.66	8.58	16.37	5.27	8.49
1937	9.30	9.02	9.32	8.02	9.25	8.77	8.90	7.94	a 9.09
1938	9.52	9.07	9.51	8.34	9.47	8.90	14.68	8.16	a 9.28

(a) See letterpress below.

In view of the changing age constitution of the population, comparisons by means of the indexes of mortality published for years other than the Census and immediately adjoining years need to be made with caution. For the purpose of computing the indexes for each State and the Commonwealth, the ages of the people are estimated for each year on the basis of the proportions ascertained at the previous Census, and hence the results obtained represent the position as it would be had the age constitution remained constant since the Census. Actually considerable variations in ages have occurred during recent years which make this assumption misleading, but owing to lack of data it is impracticable to measure the effects in the States individually. For the Commonwealth as a whole, however, the changes in the ages of the population since the Census of 1933 have been measured from year to year from the records of migration and deaths in separate age-groups and of births in each successive year, and on re-calculating the indexes of mortality for the Commonwealth for each year since the Census on the basis of the new age composition so ascertained the more reliable results of 8.92 for 1934, 8.83 for 1935, 8.70 for 1936, 8.58 for 1937, and 8.59 for 1938 are obtained. These rates are considerably lower than the indexes previously calculated, the difference being due to the ageing of the Australian population. Unfortunately, it is not possible to indicate with accuracy the corresponding variations in the indexes for individual States.

4. Crude Death Rates of Various Countries.—The following table gives the crude death rates of various countries for a pre-war period and the latest available year:—

CRUDE DEATH RATES(a): VARIOUS COUNTRIES.

Country.	1908-13.	1937.	Country.	1908-13.	1937.
Netherlands ..	13.9	8.8	Finland	16.4	12.3
South Australia ..	10.1	8.9	England and Wales ..	14.1	12.4
Western Australia ..	10.3	9.0	Great Britain and		
New Zealand ..	9.3	9.1	Northern Ireland ..	14.5	12.6
Queensland ..	10.3	9.1	Belgium	15.7	13.1
New South Wales ..	10.3	9.4	Czechoslovakia ..	21.0	13.3
Australia	10.7	9.4	Scotland	15.5	13.9
Tasmania	10.7	9.5	Poland	21.0	14.0
Union of South Africa			Italy	20.4	14.2
(Europeans) ..		10.0	France	18.6	15.0
Victoria	11.7	10.0	Northern Ireland ..	16.9	15.1
Canada	(b)	10.2	Eire	16.9	15.3
Norway	13.6	10.4	Spain	22.8	15.3(d)
Denmark	13.2	10.8	Japan	20.5	17.0
United States ..	(b)	11.2	Soviet Union ..	28.9	18.8(c)
Switzerland ..	15.2	11.3	Rumania	24.7	19.3
Germany	16.5	11.7	Ceylon	31.4	21.7
Argentine Republic ..	17.5	11.9	Egypt	25.8	27.2.
Sweden	14.0	12.0			

(a) Number of deaths per 1,000 of mean population. (b) Not available. (c) For 1928.
(d) For 1935.

5. Infantile Deaths and Death Rates.—(i) *Australia*, 1901 to 1938. The universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births is confirmed by the fact that out of 294,931 male infants born from 1934 to 1938, 13,151 (44.59 per 1,000) died during their first year of life, while of 281,488 female infants only 9,969 (35.42 per 1,000) died during the first year. Stillbirths are not included in any of the tables relating to deaths.

INFANTILE DEATHS AND DEATH RATES: AUSTRALIA.

Year.	Registered deaths under one year.			Rate of Infantile Mortality.(a)		
	Males.	Females.	Total.	Males.	Females.	Total.
1901 ..	5,888	4,778	10,666	112.13	94.73	103.61
1911 ..	4,745	3,624	8,369	75.91	60.72	68.49
1921 ..	5,111	3,841	8,952	72.97	58.06	65.73
1931 ..	2,889	2,105	4,994	47.34	36.62	42.14
1934 ..	2,697	2,075	4,772	48.29	38.69	43.59
1935 ..	2,537	1,892	4,429	44.59	34.76	39.78
1936 ..	2,668	2,110	4,778	44.92	37.23	41.16
1937 ..	2,565	1,969	4,534	42.11	33.82	38.06
1938 ..	2,684	1,923	4,607	43.37	32.86	38.26

(a) Number of deaths under 1 year per 1,000 live births registered.

(ii) *States, 1901 to 1938.* For the States and Territories the rates of infantile mortality during the period 1901-38 were as follows:—

INFANTILE MORTALITY RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A.C.T.	Australia.
1901-05..	97.02	95.91	94.35	86.60	124.79	90.00	149.35	(c)	96.91
1906-10..	77.30	79.90	71.27	68.38	89.80	83.18	143.79	(c)	77.61
1911-15..	71.05	72.23	65.68	67.26	72.43	70.91	85.11	32.56	70.32
1916-20..	64.82	67.18	63.04	61.93	61.73	63.84	67.15	40.40	64.67
1921-25..	58.11	61.93	50.99	54.19	59.14	60.44	40.82	60.24	57.88
1926-30..	54.74	52.34	47.41	46.95	49.27	53.37	66.09	71.31	51.99
1931-35..	41.92	42.76	39.46	35.12	40.81	44.47	80.60	34.48 ^b	41.27
1934 ..	46.36	44.63	40.61	35.58	40.89	42.28	68.18	7.46	43.59
1935 ..	39.44	41.17	37.26	34.95	40.15	51.84	83.33	47.30	39.78
1936 ..	43.47	42.31	36.20	31.09	42.22	49.55	26.55	25.32	41.16
1937 ..	40.68	36.70	35.64	33.06	37.52	41.73	30.30	14.49	38.06
1938 ..	41.84	34.21	41.28	30.50	33.80	39.74	58.82	40.00	38.26

(a) Number of deaths under 1 year per 1,000 live births registered. (b) Based on deaths of infants born in the Australian Capital Territory. (c) Part of New South Wales prior to 1911.

INFANTILE MORTALITY RATES : UNDER ONE MONTH AND UNDER ONE YEAR.

State.	Under one month.				One month and under one year.			
	1911-15.	1921-25.	1931-35.	1938.	1911-15.	1921-25.	1931-35.	1938.
New South Wales ..	31.75	29.97	27.64	27.75	39.30	28.14	14.28	14.09
Victoria ..	33.07	32.19	27.76	24.65	39.16	29.74	14.98	9.56
Queensland ..	30.73	27.44	28.02	28.38	34.95	23.55	11.47	12.90
South Australia ..	29.07	27.83	23.00	20.94	38.19	26.36	12.13	9.56
Western Australia..	30.87	27.56	25.11	20.13	41.56	31.58	15.68	13.67
Tasmania ..	32.68	31.73	30.07	28.53	38.23	28.71	14.40	11.21
Australia ..	31.69	29.91	27.28	25.99	38.63	27.97	13.99	12.27

These tables disclose the striking decrease in infantile mortality, the rate for 1938 being much less than half that of 1901-05. The second table reveals the fact that relatively little improvement has taken place in the first month of life, but that the principal decrease has occurred among the older children and has been due to the decline in preventable diseases.

The deaths of infants under one year of age during 1938 numbered 4,607, the mortality rate being 38.26. Among the States, South Australia had the lowest and New South Wales the highest rate.

(iii) *Districts.* The total number of births and of deaths of children under one year of age for 1938 are shown in *Demography Bulletin*, No. 56, for each of the sixty-four districts for which vital statistics have been tabulated.

(iv) *Various Countries and Cities.* Compared with other countries the States of Australia occupy a very favourable position, being surpassed only by New Zealand, although in 1937, the latest year for which satisfactory figures are available, both New South Wales and Tasmania had slightly less favourable rates than the Netherlands, while Norway had a slightly lower rate than Tasmania. The Australian cities, Adelaide, Melbourne and Sydney, are among the ten cities having the lowest rates in the list shown on the next page. The list is headed by Oslo (25), Wellington (29) and Adelaide (31), the next seven cities being Amsterdam, San Francisco, Stockholm, Auckland, Melbourne, Chicago and Sydney. The highest rate recorded of the cities named in the table was

245 in Bombay. A study of the respective rates shows that a high birth rate is often though not invariably accompanied by a high infantile death rate:—

INFANTILE MORTALITY RATES(a) : VARIOUS COUNTRIES.

Country.	Infantile Mortality Rate. (a)		Crude Birth Rate, (b) 1937.	Country.	Infantile Mortality Rate. (a)		Crude Birth Rate, (b) 1937.
	1906-15.	1937.			1906-15.	1937.	
New Zealand ..	61	31	17.3	Germany ..	168	64	18.8
South Australia ..	68	33	15.3	France ..	122	65	14.7
Queensland ..	68	36	19.4	Denmark ..	103	66	18.0
Victoria ..	76	37	16.0	Northern Ireland	92	71	19.8
Australia ..	74	38	17.4	Scotland ..	113	71	17.6
Western Australia	81	38	19.0	Eire ..	92	73	19.2
Netherlands ..	115	38	19.8	Canada ..	(c)	76	19.8
New South Wales	74	41	17.6	Belgium ..	139	80	15.3
Norway ..	68	41	15.3	Japan ..	151	106	30.6
Tasmania ..	77	42	20.7	Italy ..	144	109	22.9
Sweden ..	74	46	14.3	Spain ..	156	110(f)	25.6(f)
Switzerland ..	108	47	15.0	Czechoslovakia ..	(c)	122	17.2
England and Wales	113	50	14.9	Ceylon ..	(c)	158	37.8
Great Britain and Nth. Ireland ..	..	53	15.3	Egypt ..	(c)	165	43.5
Union of South Africa (Europeans) ..	(c)	58	25.1	Soviet Union ..	(c)	173(d)	42.7(e)
				Rumania ..	(c)	178	30.8

(a) Number of deaths under 1 year per 1,000 births registered.
mean population. (c) Not available. (d) For year 1930.

(b) Number of births per 1,000
For year 1932. (e) For year 1932. (f) For

INFANTILE MORTALITY RATES(a) : VARIOUS CITIES.

City.	Rate of Infantile Mortality.(a)		City.	Rate of Infantile Mortality.(a)	
	1921.	1937.		1921.	1937.
Oslo ..	54	25	Hamburg ..	95	56
Wellington ..	61	29	Leipzig ..	136	56
Adelaide ..	74	31	Paris ..	95	59
Amsterdam ..	54	32	London ..	80	60
San Francisco ..	50	33	Birmingham	82	60
Stockholm ..	61	34	Breslau ..	170	60
Auckland ..	54	37	Washington ..	83	61
Melbourne ..	74	37	Berlin ..	135	61
Chicago ..	84	37	Antwerp ..	98	66
Sydney ..	62	39	Munich ..	126	66
Brisbane ..	62	40	Cologne ..	140	66
Perth ..	81	42	Leeds ..	98	67
Christchurch ..	54	43	Aberdeen ..	108	67
Detroit ..	83	43	Edinburgh ..	96	70
New York City ..	72	44	Manchester ..	94	76
Philadelphia ..	78	45	Liverpool ..	105	82
Hobart ..	75	45	Montreal ..	158	93
Toronto ..	91	45	Belfast ..	115	94
Cape Town ..	82	47	Madrid ..	..	98 (b)
Dresden ..	115	48	Dublin ..	123	102
Los Angeles ..	68	52	Glasgow ..	106	104
Copenhagen ..	67	53	Cairo ..	..	196
Sheffield ..	99	55	Madras ..	281	219
Johannesburg ..	101	55	Bombay ..	402	245

(a) Number of deaths under 1 year per 1,000 births registered.

(b) For 1935.

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR: AUSTRALIA, 1938.

Age at Death.	Measles.	Whooping Cough.	Diphtheria.	Erysipelas.	Mononuclear Meningitis.	Respiratory Tuberculosis.	Tubercular Meningitis.	Tuberculosis, other forms.	Syphilis.	Meningitis.	Convulsions.	Acute Bronchitis.
Under 1 week	..	..	..	..	..	..	..	..	..	..	..	..
1 week and under 2 weeks	..	..	..	..	..	..	..	..	..	..	..	..
2 weeks	..	..	..	..	..	..	..	..	..	..	..	..
3 " " 1 month	..	..	..	..	..	..	..	..	..	..	..	..
1 month	..	..	..	..	..	..	..	..	..	..	..	..
2 months	..	..	..	..	..	..	..	..	..	..	..	..
3 " " 4 " "	..	..	..	..	..	..	..	..	..	..	..	..
4 " " 5 " "	..	..	..	..	..	..	..	..	..	..	..	..
5 " " 6 " "	..	..	..	..	..	..	..	..	..	..	..	..
6 " " 7 " "	..	..	..	..	..	..	..	..	..	..	..	..
7 " " 8 " "	..	..	..	..	..	..	..	..	..	..	..	..
8 " " 9 " "	..	..	..	..	..	..	..	..	..	..	..	..
9 " " 10 " "	..	..	..	..	..	..	..	..	..	..	..	..
10 " " 11 " "	..	..	..	..	..	..	..	..	..	..	..	..
11 " " 1 year	..	..	..	..	..	..	..	..	..	..	..	..
Total under 1 year	1	89	18	8	3	3	4	6	14	47	29	22
Infantile Mortality (a)—												
1911	0.34	1.57	0.25	0.16	..	0.08	0.31	0.22	0.85	1.83	2.55	2.34
1921	0.15	1.97	0.59	0.24	0.03	0.07	0.18	0.08	0.56	1.10	1.45	1.50
1931	0.10	1.58	0.25	0.11	0.08	0.03	0.22	0.04	0.20	0.32	0.39	0.32
1938	0.01	0.74	0.15	0.07	0.03	0.03	0.03	0.05	0.12	0.39	0.24	0.18
Ex-nuptial deaths under 1 year included in above, 1938	..	8	2	..	..	..	..	..	3	8	2	1
Infantile Mortality (b)—												
1925	0.16	2.06	0.32	0.16	0.48	..	0.32	..	1.27	0.32	2.38	0.48
1931	0.51	1.71	0.34	..	0.17	..	0.34	..	0.51	..	0.51	0.86
1938	..	1.58	0.40	..	..	..	..	..	0.60	1.58	0.40	0.70

Age at Death.	Broncho-Pneumonia.	Pneumonia.	Other Diseases of the Stomach.	Diarrhoea and Enteritis.	Hernia and Intestinal Obstruction.	Malformation.	Congenital Deformity. (c)	Premature Birth.	Injury at Birth.	Icterus, Sclerema and other Diseases of Early Infancy.	Other Causes.	Total.
Under 1 week	22	14	1	1	4	268	140	1,322	421	376	63	2,648
1 week and under 2 weeks	10	9	..	..	..	51	16	81	31	33	27	269
2 weeks	14	9	..	5	..	21	7	32	4	7	18	122
3 " " 1 month	7	3	..	5	..	1	24	7	19	3	7	91
1 month	43	16	1	11	2	45	12	20	5	10	41	244
2 months	3	34	16	16	3	33	11	6	1	2	20	177
3 " " 4 " "	27	13	..	23	2	21	6	..	1	2	24	145
4 " " 5 " "	22	10	..	24	4	17	4	..	1	1	18	114
5 " " 6 " "	23	16	2	19	5	16	1	..	..	..	20	115
6 " " 7 " "	21	17	1	25	9	6	..	1	2	1	35	131
7 " " 8 " "	27	12	2	31	6	6	3	1	..	..	22	116
8 " " 9 " "	21	15	9	20	2	7	2	..	..	..	34	116
9 " " 10 " "	22	8	..	26	2	5	1	..	..	..	24	101
10 " " 11 " "	12	13	..	20	2	8	2	..	..	..	25	98
11 " " 1 year	20	10	..	29	4	7	..	..	..	..	31	120
Total under 1 year	325	181	10	257	40	535	212	1,484	469	439	411	4,607
Infantile Mortality (a)												
1911	2.86	1.90	0.47	16.99	0.72	2.99	22.41	..	4.07	5.58	68.49	..
1921	3.08	2.08	0.71	15.01	0.57	3.74	7.64	15.29	5.53	4.16	65.73	..
1931	2.82	1.62	0.13	3.26	0.41	4.23	2.60	14.04	2.81	3.29	42.14	..
1938	2.70	1.50	0.08	2.14	0.33	4.44	1.76	12.32	3.89	3.65	31.11	38.26
Ex-nuptial deaths under 1 year included in above, 1938	22	16	..	43	1	20	14	102	20	17	49	331
Infantile Mortality (b)												
1925	8.09	2.38	1.11	19.18	0.47	3.64	9.51	20.93	1.90	2.69	6.98	84.83
1931	5.31	3.43	0.34	8.39	0.17	4.28	7.19	21.92	3.08	3.77	5.82	68.65
1938	4.36	3.17	..	8.52	0.20	3.66	2.77	20.20	2.06	3.47	0.76	64.66

(a) Rate per 1,000 total births.

(b) Rate per 1,000 ex-nuptial births

(c) Including Icterus and Sclerema prior to 1931.

(v) *Causes of Deaths of Children under one Year.* The preceding table gives for twenty-three causes the ages of all children who died under one year of age during 1938. The infantile mortality rates for 1911, 1921, 1931 and 1938 have been added for all births, and for 1925, 1931 and 1938 for ex-nuptial births. Particulars for males and females during 1938 may be found in *Demography Bulletin*, No. 56.

Pre-natal influences, such as malformation, congenital debility and premature birth, together with injuries at birth, accounted for 2,165 or 47 per cent. of all deaths under one year; and of these 2,165 deaths, 1,883, or 87 per cent., occurred less than a week after birth. Among the survivors of the first week, broncho-pneumonia caused the greatest number of deaths. This disease was responsible for 325 deaths, representing 7 per cent. of all deaths under one year, or 2.70 per 1,000 births, while a further 181 deaths were due to pneumonia of unspecified nature. Diarrhoea and enteritis caused 257 deaths and whooping cough 89 deaths.

(vi) *Deaths of Ex-nuptial Children under one Year.* The deaths of ex-nuptial children were tabulated by this Bureau for the first time in 1925. The causes of death of these children in 1938 and the rates in respect of 1925, 1931 and 1938 are shown as an addendum to the preceding table.

Pre-natal influences such as malformation, congenital debility, premature birth and injuries at birth accounted for 136, or 41 per cent., and broncho-pneumonia for 22, or 7 per cent., of the total deaths of ex-nuptial children under 1 year.

6. *Deaths in Age-Groups.*—A distribution into age-groups has been made of the 320,707 deaths which occurred in Australia during the past five years, and the results are shown in the following table.

A table giving the corresponding percentages for earlier periods from the year 1901 has been added to show the movement over a longer term. The most striking change is the substantial decrease in the group "under 1 year". At the other end of the table, the group "65 years and over" has increased by a similar amount. The percentages in all age-groups under 40 have fallen and those in all age-groups from 40 onwards have risen. These changes are due partly to improvement in the efficiency of medical science and partly to changes in the age distribution of the population. The latter changes are themselves in part due to increased length of life made possible by medical science and in part to changes in the volume of migration and the falling birth-rate:—

DEATHS IN AGE-GROUPS : AUSTRALIA, 1934 TO 1938.

Age-Group.	Males.	Females.	Total.	Percentage of Total Males.	Percentage of Total Females.	Percentage of Total.
				%	%	%
Under 1 year ..	13,151	9,969	23,120	7.34	7.04	7.21
1 year and under 5 ..	4,240	3,634	7,874	2.37	2.57	2.45
5 years and under 20	7,243	5,084	12,327	4.04	3.59	3.84
20 years and under 40	15,838	14,378	30,216	8.84	10.16	9.42
40 years and under 60	39,097	27,178	66,275	21.82	19.21	20.67
60 years and under 65	15,909	10,542	26,451	8.88	7.45	8.25
65 years and over ..	83,644	70,707	154,351	46.67	49.97	48.13
Age unspecified ..	83	10	93	0.04	0.01	0.03
Total ..	179,205	141,502	320,707	100.00	100.00	100.00

DEATHS IN AGE-GROUPS : PERCENTAGES, AUSTRALIA.

Age-Group. (Years.)	Males.			Females.			Persons.		
	1901-10.	1916-20.	1921-30.	1901-10.	1916-20.	1921-30.	1901-10.	1916-20.	1921-30.
	%	%	%	%	%	%	%	%	%
Under 1 ..	19.80	15.16	13.18	21.47	15.27	12.98	20.51	15.20	13.10
1-4 ..	5.84	5.61	4.35	7.28	6.58	4.72	6.45	6.03	4.51
5-19 ..	5.84	5.18	4.86	7.08	5.73	4.85	6.37	5.42	4.85
20-39 ..	13.85	13.57	11.00	16.54	16.34	13.59	14.99	14.76	12.12
40-59 ..	19.70	22.55	21.76	15.67	18.41	18.96	17.99	20.77	20.55
60-64 ..	5.71	7.58	9.01	4.77	5.86	7.27	5.31	6.84	8.26
65 and over ..	29.08	30.18	35.71	27.15	31.77	37.61	28.26	30.86	36.53
Age Unspecified	0.18	0.17	0.13	0.04	0.04	0.02	0.12	0.12	0.08
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

7. Deaths at Single Ages and in Age-Groups.—(i) *General.* The 64,451 deaths registered in Australia in the year 1938 will be found tabulated in groups of five years for each State and Territory and in single ages for the Commonwealth in the latest *Demography Bulletin*. The deaths during the first fifteen years of life have been tabulated in single ages and for the first year of life in shorter periods. A summary for Australia is given in the following table:—

DEATHS AT SINGLE AGES AND IN AGE-GROUPS : AUSTRALIA, 1938.

Ages.	Males.	Fe- males.	Total.	Ages.	Males.	Fe- males.	Total.
Under 1 week ..	1,559	1,089	2,648	Total 5-9 years ..	403	309	712
1 week and under 2 ..	138	131	269	" 10-14 ..	397	260	657
2 weeks and under 3 ..	80	42	122	" 15-19 ..	561	397	958
3 weeks and under 1 month ..	45	46	91				
Total under 1 month	1,822	1,308	3,130	" 20-24 ..	791	580	1,371
				" 25-29 ..	734	685	1,419
				" 30-34 ..	695	701	1,396
				" 35-39 ..	933	811	1,744
				" 40-44 ..	1,152	918	2,070
				" 45-49 ..	1,735	1,306	3,041
1 month and under 3 ..	274	147	421				
3 months and under 6 ..	206	168	374	" 50-54 ..	2,299	1,556	3,855
6 months and under 12 ..	382	300	682	" 55-59 ..	2,797	1,795	4,592
Total under 1 year ..	2,684	1,923	4,607	" 60-64 ..	3,233	2,140	5,373
				" 65-69 ..	3,963	2,859	6,822
				" 70-74 ..	4,532	3,588	8,120
				" 75-79 ..	4,445	3,790	8,235
				" 80-84 ..	3,078	2,876	5,954
1 year and under 2 ..	342	309	651	" 85-89 ..	1,299	1,531	2,830
2 years ..	209	163	372	" 90-94 ..	378	571	949
3 ..	147	103	250	" 95-99 ..	93	130	223
4 ..	114	89	203	" 100 and over ..	13	15	28
				Age Unspecified ..	19	..	19
Total under 5 years ..	3,496	2,587	6,083	Total All Ages ..	37,046	29,405	66,451

(ii) *Rates.* The following table gives the average annual death rates per 1,000 living in age-groups for the period 1932 to 1934, i.e., the Census year 1933 and the years immediately preceding and following. Deaths in the Northern Territory and the Australian Capital Territory are included in the total for Australia but not in any of the States. Similar details for the years 1920 to 1922 may be found in *Official Year Book*, No. 22, p. 975.

AVERAGE ANNUAL DEATH RATES: AGE GROUPS, 1932 TO 1934.

Age Group.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
MALES.							
Years.							
0-4 ..	12.51	12.65	12.21	9.91	12.81	12.77	12.33
5-9 ..	1.41	1.72	1.56	1.21	1.56	2.08	1.53
10-14 ..	1.23	1.38	1.08	1.04	1.40	1.27	1.24
15-19 ..	1.60	1.76	1.93	1.71	1.76	2.05	1.76
20-24 ..	2.28	2.31	2.81	2.31	2.52	2.73	2.41
25-29 ..	2.21	2.58	2.93	2.50	2.85	2.98	2.52
30-34 ..	2.81	2.82	3.50	2.53	3.10	3.78	2.96
35-39 ..	3.76	3.85	4.61	3.26	4.01	4.71	3.92
40-44 ..	5.34	4.93	6.04	4.71	5.69	4.85	5.28
45-49 ..	7.91	7.61	7.98	6.80	8.81	6.90	7.76
50-54 ..	11.62	11.25	11.82	9.81	13.48	9.96	11.45
55-59 ..	17.70	18.68	17.58	15.15	21.43	14.47	17.89
60-64 ..	25.74	26.66	26.92	25.08	28.26	23.92	26.27
65-69 ..	39.99	41.17	39.94	36.14	42.40	35.11	40.03
70-74 ..	62.28	63.96	58.90	57.29	63.40	59.22	61.85
75-79 ..	95.52	98.12	94.59	92.66	105.14	94.23	96.26
80-84 ..	156.44	157.81	168.61	146.83	176.82	160.80	158.70
85-89 ..	231.04	233.33	218.42	239.45	264.96	204.45	230.75
90 and over	313.38	348.76	314.86	303.07	380.77	401.97	327.55
FEMALES.							
Years.							
0-4 ..	10.05	7.04	10.72	8.30	8.64	10.42	10.00
5-9 ..	1.17	1.30	1.03	1.03	1.27	1.54	1.19
10-14 ..	0.83	0.97	0.93	0.90	0.99	0.91	0.90
15-19 ..	1.36	1.39	1.50	1.23	1.26	2.22	1.39
20-24 ..	2.03	2.00	2.77	2.35	1.94	2.58	2.11
25-29 ..	2.44	2.50	2.81	2.74	2.75	3.74	2.60
30-34 ..	2.88	2.87	3.44	2.64	3.13	3.03	2.97
35-39 ..	3.75	3.37	4.05	3.88	4.24	4.43	3.74
40-44 ..	4.24	4.32	4.89	4.10	5.79	4.88	4.37
45-49 ..	6.02	6.11	6.14	5.78	6.35	5.44	6.03
50-54 ..	8.27	8.81	8.61	8.07	9.08	10.08	8.56
55-59 ..	11.62	12.49	12.02	11.26	10.69	11.62	15.54
60-64 ..	17.27	18.73	17.19	17.78	17.32	16.87	17.77
65-69 ..	29.55	29.91	27.01	27.13	29.81	30.46	29.21
70-74 ..	45.95	48.18	49.03	42.31	44.10	48.31	46.70
75-79 ..	74.78	81.13	76.29	75.65	74.42	83.58	77.47
80-84 ..	125.55	127.91	126.63	120.74	120.99	125.15	125.68
85-89 ..	119.40	204.57	208.19	207.40	192.39	195.28	199.94
90 and over	292.10	327.19	370.23	233.58	397.20	363.63	306.24
PERSONS.							
Years.							
0-4 ..	11.31	11.37	11.48	9.12	11.35	11.62	11.19
5-9 ..	1.29	1.51	1.30	1.12	1.41	1.81	1.36
10-14 ..	1.03	1.18	1.01	0.97	1.20	1.09	1.07
15-19 ..	1.52	1.57	1.72	1.47	1.51	2.14	1.58
20-24 ..	2.16	2.16	2.60	2.35	2.24	2.66	2.26
25-29 ..	2.32	2.54	2.87	2.61	2.80	3.35	2.56
30-34 ..	2.85	2.85	3.47	2.59	3.12	3.71	2.96
35-39 ..	3.76	3.61	4.34	3.57	4.12	4.56	3.83
40-44 ..	4.79	4.62	5.50	4.40	5.15	4.86	4.83
45-49 ..	6.99	6.84	7.14	6.29	7.67	6.19	6.92
50-54 ..	10.00	10.00	10.37	8.93	11.47	10.02	10.04
55-59 ..	14.70	15.46	14.86	13.19	16.63	13.09	14.88
60-64 ..	21.56	22.46	22.41	21.35	23.44	20.52	22.04
65-69 ..	34.90	35.29	34.06	31.39	37.01	32.87	34.69
70-74 ..	54.31	55.68	54.55	49.43	55.28	53.89	54.38
75-79 ..	85.18	89.06	86.33	83.92	91.08	88.97	86.82
80-84 ..	140.43	140.48	148.56	132.56	149.72	142.64	141.13
85-89 ..	209.89	215.56	213.10	220.66	222.90	199.07	214.17
90 and over	301.13	334.60	341.25	253.61	389.21	376.36	314.41

8. Deaths of Centenarians.—Particulars concerning the twenty-eight persons—thirteen males and fifteen females—who died in 1938 aged 100 years and upwards, are given in the following table. While the Registrars-General of the various States verify the figures as far as possible, absolute reliance cannot be placed on their accuracy, owing to the well-known tendency of very old people to overstate their ages. In connexion with this question it may be noted that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically from 1874 only, the Act of 1836 having left many loopholes for those unwilling to register the births of their children.

DEATHS OF CENTENARIANS: AUSTRALIA, 1938.

Age.	Locality where Death occurred.	State.	Cause of Death.	Occupation.	Birthplace.	Length of Residence in Australia.	Conjugal Condition.
MALES.							
100	Nanango ..	Queensland	Cardiac exhaustion, Chronic bronchitis	Pensioner	Not stated	Not stated	Single
100	Perth ..	West. Aust.	Senility ..	Retired ..	England ..	" "	Married
100	Mount Morgan ..	Queensland	Senile debility	Not stated	South Sea Islands	" "	Single
100	Albury ..	N.S.W. ..	Senility ..	Vigneron ..	England ..	88 years ..	Married
100	St. Kilda ..	Victoria ..	Arterio sclerosis	" ..	" ..	44 years ..	"
100	Wellington	West. Aust.	Cerebral hæmorrhage, Senility	Labourer ..	Singapore	80 years ..	Single
100	Perth ..	" "	Senility, Myocardial failure	Printer ..	Scotland ..	47 years ..	"
101	Young ..	N.S.W. ..	Senility ..	Independent Chef ..	England ..	72 years ..	Married
101	Rozelle ..	" ..	Broncho-pneumonia	" ..	" ..	63 years ..	"
104	Ballarat ..	Victoria ..	Senility ..	Labourer ..	Ireland ..	92 years ..	"
104	Bundaberg	Queensland	" ..	" ..	Austria ..	64 years ..	"
104	Granville ..	N.S.W. ..	Pneumonia, Cerebral thrombosis, Senility	" ..	N.S.W. ..	" ..	Single
105	Rodney ..	Victoria ..	Arterio sclerosis, Myocarditis	" ..	Scotland ..	Unknown	Unknown
FEMALES.							
100	Mitcham ..	Sth. Aust.	Senility ..	" ..	England ..	80 years ..	Married
100	Sandringham	Victoria ..	" ..	" ..	" ..	93 years ..	"
100	Bellarine ..	" ..	" ..	" ..	" ..	87 years ..	"
100	Hurstville ..	N.S.W. ..	" ..	" ..	" ..	81 years ..	"
100	Drummoyne	" ..	" ..	" ..	Ireland ..	73 years ..	"
100	Glebe ..	" ..	" ..	" ..	England ..	98 years ..	"
100	Sydney ..	" ..	Senile decay, Pneumonia	" ..	Ireland ..	85 years ..	"
100	Ryde ..	" ..	Hypostatic pneumonia, Senility	" ..	" ..	76 years ..	"
101	Caulfield ..	Victoria ..	Senility ..	" ..	England ..	78 years ..	"
101	Grafton ..	N.S.W. ..	Auricular fibrillation, Senility	" ..	Ireland ..	75 years ..	"
101	Freeling ..	Sth. Aust.	Myocardial degeneration, Hypostatic pneumonia	" ..	Germany ..	63 years ..	"
103	Sorell ..	Tasmania	Septic absorption, Senile gangrene	" ..	Tasmania	" ..	"
104	Fitzroy ..	Victoria ..	Senility ..	" ..	India ..	75 years ..	"
105	Tenterfield	N.S.W. ..	Cerebral thrombosis, Uraemia, Arterio-sclerosis, Chronic nephritis	" ..	England ..	86 years ..	"
105	Launceston	Tasmania	Cardiac failure, Chronic myocarditis	" ..	Tasmania	" ..	"

NOTE.—The particulars shown in this table are those given in the death registers, and no attempt has been made by the Commonwealth Bureau of Census and Statistics to verify them.

9. Length of Residence in Australia of Persons who Died.—The length of residence in Australia of all persons whose deaths were registered in the year 1938 is shown in the following table :—

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1938.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in Australia ..	26,685	22,479	49,164	Resident 25 to 29 years	1,092	768	1,860
Resident under 1 year	47	18	65	.. 30 to 34 ..	481	201	682
.. 1 year ..	19	15	34	.. 35 to 39 ..	274	153	427
.. 2 years ..	17	13	30	.. 40 to 44 ..	532	224	756
.. 3 ..	15	10	25	.. 45 to 49 ..	562	343	905
.. 4 ..	16	10	26	.. 50 to 54 ..	1,587	1,063	2,650
.. 5 ..	23	7	30	.. 55 to 59 ..	925	614	1,539
.. 6 ..	16	5	21	.. 60 to 64 ..	796	597	1,393
.. 7 ..	12	13	25	.. 65 yrs. and over	1,079	1,385	2,464
.. 8 ..	20	21	41	Length of residence not stated	1,603	505	2,108
.. 9 ..	26	27	53				
.. 10 to 14 years	469	359	828				
.. 15 to 19 ..	375	309	684				
.. 20 to 24 ..	375	266	641				
				Total	37,046	29,405	66,451

10. Birthplaces of Persons who Died.—The following table provides a summary of birthplaces of persons whose deaths were registered in 1911 and 1938. More detailed information in respect of 1938 will be found in *Demography Bulletin*, No. 56 :—

BIRTHPLACES OF PERSONS WHO DIED: AUSTRALIA.

Birthplace.	1911.			1938.		
	Males.	Females.	Total.	Males.	Females.	Total.
AUSTRALASIA—						
Australia	14,476	12,279	26,755	26,685	22,479	49,164
New Zealand	126	79	205	342	243	585
EUROPE—						
England and Wales	5,639	3,541	9,180	4,979	3,688	8,667
Scotland	1,666	1,112	2,778	1,238	924	2,162
Eire	2,837	2,528	5,365	1,397	1,237	2,634
Other British Possessions	40	26	66	37	24	61
Western Europe	365	62	427	342	73	415
Central Europe	678	292	970	435	269	704
Southern Europe	122	15	137	251	62	313
Eastern Europe	71	6	77	85	28	113
ASIA—						
British Possessions	102	28	130	143	41	184
Foreign Countries	470	8	478	296	20	316
AFRICA—						
British Possessions	29	18	47	41	24	65
Foreign Countries	2	1	3	1	..	1
AMERICA—						
Canada	73	15	88	49	23	72
Other British Possessions	5	6	11	14	7	21
United States of America	72	18	90	52	38	90
Other Foreign Countries	35	12	47	11	9	20
POLYNESIA—						
British	47	4	51	15	7	22
Foreign	44	10	54	32	6	38
At Sea and Indefinite	692	218	910	601	203	804
Total	27,591	20,278	47,869	37,046	29,405	66,451

11. Occupations of Males who Died.—Information as to the main groups of the occupations of the 37,046 males who died in Australia in 1938 is contained in the following table. Corresponding data for 1921 and 1931 have been added for purposes of comparison.

OCCUPATIONS OF MALES WHO DIED : AUSTRALIA.

Occupation Group.	Number of Male Deaths.			Percentage of Total.		
	1921.	1931.	1938.	1921. %	1931. %	1938. %
Professional	1,307	1,534	2,085	4.26	4.82	5.63
Domestic	830	846	874	2.71	2.66	2.36
Commercial	2,739	3,727	3,299	8.94	11.72	8.91
Transport and Communica- tion	1,841	2,189	2,817	6.01	6.89	7.60
Industrial	8,613	10,330	6,116	28.10	32.49	16.51
Agricultural, Pastoral and Mining, &c.	5,711	6,157	7,315	18.63	19.36	19.74
Indefinite	1,436	1,802	410,139	4.68	5.67	(a)27.37
Dependent	8,175	5,211	4,401	26.67	16.39	11.88
Total Male Deaths ..	30,652	31,796	37,046	100.00	100.00	100.00

(a) Includes 7,194 (19.42 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial."

12. Causes of Death.—(i) *General.* The classification adopted by the Commonwealth Bureau of Census and Statistics is that of the International Institute of Statistics, as amended by the Committees of Revision which met in Paris in 1909, 1920 and 1929. The last meeting was held in 1938, and the consequent amendments will be adopted in 1940.

(ii) *Mortality Statistics for 1907 and Subsequent Years.* The statistics relating to causes of death in Australia from the year 1907 onward have been tabulated in the Commonwealth Bureau of Census and Statistics in accordance with the above-mentioned classification, and the system is being employed also in the various State statistical offices.

(iii) *Classification of Causes of Death, according to the Intermediate and the Abridged International Classifications.* An abridged classification, which enumerates forty-three diseases and groups of diseases according to the revised classification, has been in use in many European countries and American States until recently, and a table has been prepared in past issues of the Year Book showing the causes of death according to the abridged classification, so that the results may be compared with those of other countries which used the abridged index.

As the result of an international treaty signed in London in 1934, the intermediate classification of causes of death, or the "minimum nomenclature," covering 85 main causes or groups of causes, has now been adopted in most countries for the purpose of making international comparisons. This classification appears in the pages following and shows the number of deaths during 1938 in Australia for each cause enumerated. To preserve continuity with former statistics, particulars for 1938 have been compiled in the abridged form also and are shown on p. 325 in conjunction with those for the previous four years, while averages over quinquennial periods to 1931-35 are shown in the same form on p. 326.

The compilations for the years 1934 to 1938 will be found in full detail in the Bulletins of Australian Demography, Nos. 52 to 56. In the following tables in which the intermediate classification has been employed, tables A, B and C show deaths of males, females and persons for the year 1938. Table D shows in the abridged form the number of persons who died in each of the years 1934 to 1938 and gives the rate per million of population for the last-named year.

Since death rates are subject to continual fluctuation, it is unsafe to base deductions on the figures relating to a single year. In order, therefore, to furnish a valid basis for comparison, Table E giving the number of deaths and the rates per 1,000,000 persons for three quinquennial periods has been prepared. While the absolute number of deaths has increased, the death rate has shown a very satisfactory decrease, which is reflected in the great majority of the causes specified in the table.

A.—CAUSES OF DEATH: MALES, 1938.

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Aus-tralia.
1. Typhoid and Paratyphoid Fever (1)	1, 2	17	4	8	2	4	..	..	..	35
2. Typhus Fever (2)	3	..	..	1	..	3	..	..	..	4
3. Small-pox (3)	6	..	..	..	..	..	..	..	..	..
4. Measles (4)	7	..	..	4	..	..	..	..	..	4
5. Scarlet Fever (5)	8	6	7	4	..	..	..	..	..	17
6. Whooping Cough (6)	9	34	..	25	1	..	1	..	..	61
7. Diphtheria (7)	10	79	21	23	12	20	5	..	..	160
8a. Influenza—Pneumonic (8a)	11 (a)	135	35	50	3	10	1	..	2	236
8b. Influenza—Other (8b)	11 (b)	43	22	18	5	7	2	..	..	97
9. Dysentery (14)	13	12	11	6	3	5	..	..	..	37
10. Plague (9)	14	..	..	..	..	..	..	..	..	..
11. Tuberculosis of the Respiratory System (10)	23	607	369	194	108	134	60	4	1	1,477
12a. Tubercular Meningitis (11a)	24	14	11	..	9	3	3	..	..	40
12b. Other forms of Tuberculosis (11b)	25-32	47	32	7	9	4	6	..	..	105
13. Syphilis (12)	34	44	33	23	17	10	11	..	..	138
14. Purulent Infection, Septicæmia (non-puerperal) (14)	36	12	11	5	2	8	1	..	..	39
15. Malaria (13)	38	2	2	2	1	..	..	..	..	7
16. Diseases due to other Protozoal Parasites or Helminths (14)	30-42	12	5	5	1	1	4	..	..	28
17. Other Infectious and Parasitic Diseases (14)	*	61	42	36	19	12	35	2	..	207
18. Cancer and other Malignant Tumors (15)	45-53	1,546	1,158	595	316	327	119	2	1	4,094
19. Tumors, Non-malignant or of which the nature is not specified (16)	54, 55	79	36	31	15	11	1	..	..	173
20. Acute Rheumatic Fever (20)	56	38	49	21	7	6	3	..	..	124
21. Chronic Rheumatism and Gout (17)	57, 58	15	27	4	5	10	..	..	..	61
22. Diabetes Mellitus (18)	59	145	137	61	38	20	15	..	1	417
23. Nutritional Diseases (20)	60-64	1	..	1	..	1	..	..	..	3
24. Diseases of the Thyroid and Parathyroid Glands (20)	66	16	6	8	3	3	4	..	..	38
25. Other General Diseases (20)	65, 67-69	9	10	16	4	10	3	..	..	52
26. Anæmias (20)	71	27	41	9	13	4	7	..	..	101
27. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	70, 72-74	83	54	22	18	14	5	1	2	199
28. Alcoholism (acute or chronic) (19)	75	20	8	12	4	5	..	..	..	49
29. Other Chronic Poisonings (20)	76, 77	1	..	7	1	..	..	..	..	9
30. Meningitis (23)	79	50	35	17	6	10	2	..	1	121
31. Progressive Locomotor Ataxia (21) (tabes dorsalis)	80	19	9	3	1	2	2	..	..	36
32. Cerebral Hæmorrhage, Cerebral Embolism and Thrombosis (22)	82	453	395	178	155	88	57	..	..	1,326
33. General Paralysis of the Insane (21)	83	41	20	8	5	7	..	..	..	81
34. Dementia Præcox and other Psychoses (23)	84	18	10	7	1	1	..	..	..	37
35. Epilepsy (23)	85	44	25	14	7	5	7	..	..	102
36. Other Diseases of the Nervous System (23)	*	126	103	56	41	17	13	..	..	356
37. Diseases of the Eye, Ear and their Annexa (23)	88, 89	22	19	8	2	3	1	..	..	55
38. Pericarditis (24)	90	9	8	1	1	1	..	..	..	21
39. Acute Endocarditis (24)	91	32	19	5	6	3	2	..	..	67
40. Chronic Endocarditis, Valvular Diseases (24)	92	382	255	167	82	56	44	2	3	991
41. Diseases of the Myocardium (24)	93	2,309	1,146	693	369	310	126	5	3	4,961
42. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	998	636	295	177	143	68	7	..	2,325
43. Other Diseases of the Heart (24)	95	242	186	92	42	57	24	1	..	643
44. Aneurysm (except of the Heart) (25)	96	87	44	28	4	13	6	..	..	183
45. Arteriosclerosis and Gangrene (25)	97, 98	756	632	208	138	91	53	1	1	1,880

A.—CAUSES OF DEATH: MALES, 1938—*continued.*

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Aus-tralia.
46. Other Diseases of the Circulatory System (25)	99-103	37	40	37	13	7	11	1	..	146
47a. Acute Bronchitis (26a)	106 (a) (C)	37	13	11	12	3	3	..	..	79
47b. Chronic Bronchitis (26b)	106 (b) (I)	109	114	31	34	23	12	1	..	324
48. Pneumonias (27)	107-109	1,133	649	324	178	184	89	1	..	2,558
49. Pleurisy (28)	110	49	19	28	11	8	7	..	..	122
50. Other Diseases of the Respiratory System (28) (Tuberculosis excepted)	104, 105, 111-114	117	149	80	63	53	23	1	2	488
51. Ulcer of the Stomach and Duodenum (32b)	117	156	98	48	25	34	9	1	..	371
52. Diarrhoea and Enteritis (under 2 years of age) (29a)	119	92	27	22	17	38	1	2	..	199
53. Diarrhoea and Enteritis (2 years and over) (29b)	120	50	35	13	1	38	3	..	..	140
54. Appendicitis (30)	121	154	59	64	26	27	8	..	2	340
55. Hernia, Intestinal Obstruction (32a)	122	122	74	43	26	18	11	..	1	295
56. Cirrhosis of the Liver (31a)	124	89	59	44	13	14	5	..	..	224
57. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31b)	125-127	53	67	22	11	16	5	1	..	175
58. Other Diseases of the Digestive System (32b)	*	81	61	39	15	20	6	..	..	222
59. Nephritis (33)	130-132	838	567	376	140	106	59	4	3	2,093
60. Other Diseases of the Kidneys and Ureters (34)	133	56	45	23	8	14	5	..	..	151
61. Calculi of the Urinary Passages (34)	134	35	22	11	11	3	..	..	..	82
62. Diseases of the Bladder (tumors excepted) (34)	135	8	24	12	5	14	2	1	..	66
63. Diseases of the Urethra, Urinary Abscess, &c. (34)	136	9	17	1	1	1	2	..	..	31
64. Diseases of the Prostate (34)	137	169	189	80	50	39	45	..	..	572
65. Diseases of the Genital Organs, not specified as Venereal	138, 139	1	..	2	1	..	..	..	..	4
71. Diseases of the Skin and Cellular Tissue (37)	151-153	32	20	12	7	13	2	..	..	86
72. Diseases of the Bones and Organs of Locomotion (Tuberculosis and Rheumatism excepted) (37)	154-156	44	30	15	10	6	5	..	..	110
73. Congenital Malformations (Still-births not included) (38)	157	146	102	62	23	37	16	..	1	387
74. Congenital Debility (38)	158	51	27	14	13	12	8	..	3	128
75. Premature Birth (Still-births not included) (38)	159	367	197	165	44	51	34	..	1	859
76. Injury at Birth (Still-births not included) (38)	160	132	49	53	20	11	13	..	..	278
77. Other Diseases Peculiar to Early Infancy (38)	161	89	85	40	12	16	13	..	..	255
78. Senility (39)	162	344	579	146	146	91	38	3	..	1,347
79. Suicide (40)	163-171	254	106	102	47	54	11	..	..	574
80. Homicide (41)	172-175	23	18	7	1	1	2	..	..	52
81. Accident (42)	176-194	1,093	696	152	107	237	81	6	4	2,769
82. Violent Deaths of which the nature (Accident, Suicide, Homicide) is unknown (42)	195	50	90	..	5	7	3	4	..	159
83. Wounds of War (Execution of Civilians by Belligerent Armies included) (42)	196, 197	..	5	3	1	2	1	..	..	12
84. Legal Executions (42)	198	1	..	..	1	..	..	..	..	2
85. Cause of Death not Specified or Ill-defined (43)	199, 200	34	21	24	48	9	5	7	1	149
Total Males .. .. .	..	14,748	10,026	5,384	2,917	2,046	1,233	52	40	37,046

* No. 58:—115, 116, 118, 123, 128, 129.

NOTE. - Figures in parentheses indicate the abridged classification number in each instance.

B.—CAUSES OF DEATH : FEMALES, 1938.

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Australia.
1. Typhoid and Paratyphoid Fever										
(1)	1, 2	3	2	3	4	1	..	..	..	13
2. Typhus Fever (2)	3	..	..	1	..	..	..	..	..	1
3. Small-pox (3)	6	..	..	..	..	1	..	..	..	1
4. Measles (4)	7	..	..	5	..	..	1	..	..	6
5. Scarlet Fever (5)	8	6	2	1	2	..	..	..	..	11
6. Whooping Cough (6)	9	45	5	32	..	1	..	..	..	83
7. Diphtheria (7)	10	77	15	16	14	21	5	..	..	148
8a. Influenza—Pneumonic (8a)	11 (a)	134	18	45	5	4	..	..	1	207
8b. Influenza—Other (8b)	11 (b)	42	25	12	2	4	1	..	1	83
9. Dysentery (14)	13	3	1	5	..	2	..	..	..	11
10. Plague (9)	14	..	..	..	..	..	..	..	..	..
11. Tuberculosis of the Respiratory System (10)	23	339	306	100	85	43	47	1	..	921
12a. Tubercular Meningitis (11a)	24	19	15	..	1	2	4	..	..	41
12b. Other forms of Tuberculosis (11b)	25-32	20	31	9	6	3	3	..	..	72
13. Syphilis (12)	34	12	9	11	4	1	3	..	..	40
14. Purulent Infection, Septicæmia (non-puerperal) (14)	36	17	7	10	3	4	2	..	..	43
15. Malaria (13)	38	1	..	2	..	..	..	..	..	3
16. Diseases due to other Protozoal Parasites or Helminths (14)	39-42	11	6	5	2	1	..	1	..	26
17. Other Infectious and Parasitic Diseases (14)	*	39	33	17	12	6	25	1	..	133
18. Cancer and other Malignant Tumors (15)	45-53	1,421	1,207	413	423	232	136	1	2	3,835
19. Tumors, Non-malignant or of which the nature is not specified (16)	54, 55	95	54	46	20	19	3	..	..	237
20. Acute Rheumatic Fever (20)	56	45	54	18	5	9	13	..	..	144
21. Chronic Rheumatism and Gout (17)	57, 58	29	53	13	11	5	2	..	..	113
22. Diabetes Mellitus (18)	59	298	234	117	102	36	16	..	..	803
23. Nutritional Diseases (20)	60-64	4	1	2	..	..	..	..	..	7
24. Diseases of the Thyroid and Parathyroid Glands (20)	66	86	43	33	8	9	10	..	1	190
25. Other General Diseases (20)	65, 67-69	16	12	10	5	5	5	..	..	53
26. Anaemias (20)	71	48	50	18	13	4	5	..	..	138
27. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	70, 72-74	59	39	28	13	11	2	..	..	152
28. Alcoholism (acute or chronic) (19)	75	1	2	3	..	..	..	..	..	6
29. Other Chronic Poisonings (20)	76, 77	..	..	4	..	1	..	..	..	5
30. Meningitis (23)	79	21	21	5	3	9	1	1	..	61
31. Progressive Locomotor Ataxia (21) (tabes dorsalis)	80	3	1	..	1	1	1	..	..	7
32. Cerebral Hæmorrhage, Cerebral Embolism and Thrombosis (22)	82	539	627	169	230	98	72	..	1	1,736
33. General Paralysis of the Insane (21)	83	6	5	2	1	1	..	..	..	15
34. Dementia Præcox and other Psychoses (23)	84	29	10	17	8	..	2	..	..	66
35. Epilepsy (23)	85	22	27	12	7	3	3	..	..	74
36. Other Diseases of the Nervous System (23)	*	109	91	51	34	14	18	1	..	318
37. Diseases of the Eye, Ear and their Annexa (23)	88, 89	14	11	2	4	3	1	..	..	35
38. Pericarditis (24)	90	7	5	4	1	2	1	..	..	20
39. Acute Endocarditis (24)	91	32	19	9	6	5	5	..	..	76
40. Chronic Endocarditis, Valvular Diseases (24)	92	315	248	95	80	46	37	..	2	823
41. Diseases of the Myocardium (24)	93	1,824	1,032	499	317	193	131	..	1	3,997
42. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	484	299	124	89	58	26	..	..	1,080
43. Other Diseases of the Heart (24)	95	134	163	74	30	30	28	..	..	459
44. Aneurysm (except of the Heart) (25)	96	24	20	17	2	4	2	..	..	69
45. Arteriosclerosis and Gangrene (25)	97, 98	734	742	187	136	56	66	..	1	1,922
46. Other Diseases of the Circulatory System (25)	99-103	32	54	17	15	10	7	..	..	135
47a. Acute Bronchitis (26a)	106 (a) (r)	51	10	8	11	2	2	..	..	84

* No. 17:—4, 5, 12, 15-22, 33, 35, 37, 43, 44; No. 36: 78, 81, 86, 87.

B.—CAUSES OF DEATH: FEMALES, 1938—*continued.*

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Australia.
47b. Chronic Bronchitis (26b) ..	106 (b) (d)	61	97	20	17	10	9	..	..	214
48. Pneumonias (27) ..	107-109	767	524	233	149	96	70	3	2	1,844
49. Pleurisy (28) ..	110	11	15	10	5	2	..	..	..	43
50. Other Diseases of the Respiratory System (28) (Tuberculosis excepted) ..	104, 105, 111-114	..	78	57	42	18	12	..	..	298
51. Ulcer of the Stomach and Duodenum (32b) ..	117	47	41	17	10	10	2	..	..	127
52. Diarrhoea and Enteritis (under 2 years of age) (29a) ..	119	56	25	29	8	23	3	..	..	144
53. Diarrhoea and Enteritis (2 years and over) (29b) ..	120	47	64	32	11	20	1	..	..	175
54. Appendicitis (30) ..	121	80	52	28	13	8	4	..	..	185
55. Hernia, Intestinal Obstruction (32a) ..	122	87	79	39	21	17	12	1	..	256
56. Cirrhosis of the Liver (31a) ..	124	30	40	6	9	4	3	..	..	92
57. Other Diseases of the Liver and Biliary Passages including Biliary Calculi (31b) ..	125-127	111	128	46	30	17	11	..	..	343
58. Other Diseases of the Digestive System (32b) ..	*	91	68	25	14	17	8	1	..	224
59. Nephritis (33) ..	130-132	697	534	297	119	88	67	..	4	1,806
60. Other Diseases of the Kidneys and Ureters (34) ..	133	49	56	13	13	8	4	1	..	144
61. Calculi of the Urinary Passages (34) ..	134	14	9	10	1	1	..	..	..	35
62. Diseases of the Bladder (Tumors excepted) (34) ..	135	6	3	2	1	3	..	..	..	15
63. Diseases of the Urethra, Urinary Abscess, &c. (34) ..	136	..	1	..	..	..	..	..	..	1
64. Diseases of the Prostate (34) ..	137	..	..	..	..	..	..	..	..	..
65. Diseases of the Genital Organs not specified as Venereal (34) ..	138, 139	58	34	29	9	14	3	..	..	147
66. Accidents of Pregnancy (36) ..	141-143	18	14	15	5	7	..	..	1	60
67. Puerperal Hæmorrhage (36) ..	144	31	16	16	6	3	4	..	..	76
68a. Post-abortion Sepsis (35a) ..	140 (a)	9	3	15	2	6	4	..	..	39
68b. Criminal Abortion (35b) ..	140 (b)	50	46	..	3	5	1	..	..	105
68c. Puerperal Septicæmia (35c) ..	145	38	5	11	3	4	2	..	..	63
69. Toxæmias of Pregnancy: Albuminuria, Eclampsia, &c. (36) ..	146, 147	46	29	21	17	7	2	1	..	123
70. Other Puerperal Causes (36) ..	148-150	39	23	16	8	5	5	..	..	96
71. Diseases of the Skin and Cellular Tissue (37) ..	151-153	29	20	15	8	4	4	..	..	80
72. Diseases of the Bones and Organs of Locomotion (Tuberculosis and Rheumatism excepted) (37) ..	154-156	27	13	5	4	4	2	..	..	55
73. Congenital Malformations (Stillbirths not included) (38) ..	157	122	57	41	25	22	16	..	..	283
74. Congenital Debility (38) ..	158	33	19	8	5	10	9	..	..	84
75. Premature Births (Stillbirths not included) (38) ..	159	265	148	119	42	29	19	2	1	625
76. Injury at Birth (Stillbirths not included) (38) ..	160	90	34	38	10	15	4	..	..	191
77. Other Diseases peculiar to early Infancy (38) ..	161	68	58	23	15	5	14	..	1	184
78. Senility (39) ..	162	474	688	128	142	67	42	2	1	1,544
79. Suicide (40) ..	163-171	76	31	24	25	11	5	..	..	172
80. Homicide (41) ..	172-175	10	7	5	4	3	..	..	..	29
81. Accident (42) ..	176-194	349	220	143	90	63	22	..	..	887
82. Violent Deaths of which the Nature (Accident, Suicide, Homicide) is unknown (42) ..	195	21	30	..	2	2	2	..	..	57
83. Wounds of War (Execution of Civilians by Belligerent Armies included) (42) ..	196, 197	..	..	..	..	..	..	..	..	..
84. Legal Executions (42) ..	198	..	..	..	..	..	..	..	..	..
85. Cause of Death not Specified or Ill-defined (43) ..	199, 200	9	11	10	21	2	3	..	..	56
Total Females ..	..	11,357	8,929	3,817	2,622	1,588	1,055	17	20	29,405

* No. 58:—115, 116, 118, 123, 128, 129.

NOTE.—Figures in parentheses indicate the abridged classification number in each instance.

C.—CAUSES OF DEATH : PERSONS, 1938.
INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Aus-tralia.
1. Typhoid and Paratyphoid Fever (1)	1, 2	20	6	11	6	5	..	..	..	48
2. Typhus Fever (2)	3	..	..	2	..	3	..	..	..	5
3. Small-pox (3)	6	..	..	..	..	1	..	..	..	10
4. Measles (4)	7	..	..	9	..	..	1	..	..	10
5. Scarlet Fever (5)	8	12	9	5	2	..	..	..	..	28
6. Whooping Cough (6)	9	79	5	57	1	1	1	..	..	144
7. Diphtheria (7)	10	156	36	39	26	41	10	..	..	308
8a. Influenza—Pneumonic (8a)	11(a)	269	53	95	8	14	1	..	3	443
8b. Influenza—Other (8b)	11(b)	85	47	30	5	9	3	..	1	180
9. Dysentery (14)	13	15	12	11	3	7	..	..	..	48
10. Plague (9)	14	..	..	..	..	..	..	..	..	..
11. Tuberculosis of the Respiratory System (10)	23	946	675	294	193	177	107	5	1	2,398
12a. Tubercular Meningitis (11a)	24	33	26	..	10	5	7	..	..	81
12b. Other forms of Tuberculosis (11b)	25-32	67	63	16	15	7	9	..	..	177
13. Syphilis (12)	34	56	42	34	21	11	14	..	..	178
14. Purulent infection, Septicæmia (non-puerperal) (14)	36	29	18	15	5	12	3	..	..	82
15. Malaria (13)	38	3	2	4	1	..	..	..	..	10
16. Diseases due to other Protozoal Parasites or Helminths (14)	39-42	23	11	10	3	2	4	1	..	54
17. Other Infectious and Parasitic Diseases (14)	*	100	75	53	31	18	60	3	..	340
18. Cancer and other Malignant Tumors (15)	45-53	2,967	2,365	1,008	769	559	255	3	3	7,929
19. Tumors, non-malignant or of which the nature is not specified (16)	54, 55	174	90	77	35	30	4	..	..	410
20. Acute Rheumatic Fever (20)	56	83	103	39	12	15	16	..	..	268
21. Chronic Rheumatism and Gout (17)	57, 58	44	80	17	16	15	2	..	..	174
22. Diabetes Mellitus (18)	59	443	371	178	140	56	31	..	1	1,220
23. Nutritional Diseases (20)	60-64	5	1	3	..	1	..	..	..	10
24. Diseases of the Thyroid and Parathyroid Glands (20)	66	102	49	41	9	12	14	..	1	228
25. Other General Diseases (20)	65, 67-69	25	22	26	9	8	..	..	..	105
26. Anaemias (20)	71	75	91	27	26	15	12	..	..	239
27. Leucaemias, Pseudo-leucaemias, and other Diseases of the Blood and Blood-making Organs (20)	70, 72-74	142	93	50	31	25	7	1	2	351
28. Alcoholism (acute or chronic) (19)	75	21	10	15	4	5	..	..	..	55
29. Other Chronic Poisonings (20)	76, 77	1	..	11	1	1	..	..	..	14
30. Meningitis (23)	79	71	56	22	9	19	3	1	1	182
31. Progressive locomotor ataxia (21) (tabes dorsalis)	80	22	10	3	2	3	3	..	..	43
32. Cerebral Hæmorrhage, Cerebral Embolism and Thrombosis (22)	82	992	1,022	347	385	186	129	..	1	3,062
33. General Paralysis of the Insane (21)	83	47	25	10	6	8	..	..	..	96
34. Dementia Praecox and other Psychoses (23)	84	47	20	24	9	1	2	..	..	103
35. Epilepsy (23)	85	66	52	26	14	8	10	..	..	176
36. Other Diseases of the Nervous System (23)	*	235	194	107	75	31	31	1	..	674
37. Diseases of the Eye, Ear and their Annexa (23)	88, 89	36	30	10	6	6	2	..	..	90
38. Pericarditis (24)	90	16	13	5	2	3	2	..	..	41
39. Acute Endocarditis (24)	91	64	38	14	12	8	7	..	..	143
40. Chronic Endocarditis, Valvular Diseases (24)	92	697	503	262	162	102	81	2	5	1,814
41. Diseases of the Myocardium (24)	93	4,133	2,178	1,192	686	503	257	5	4	8,958
42. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	1,482	935	419	266	201	94	1	7	3,405
43. Other Diseases of the Heart (24)	95	376	349	166	72	87	52	..	..	1,102
44. Aneurysm (except of the heart) (25)	96	111	64	45	6	17	8	1	..	252
45. Arteriosclerosis and Gangrene (25)	97, 98	1,490	1,374	395	274	147	119	1	2	3,802
46. Other Diseases of the Circulatory System (25)	99-103	69	94	54	28	17	18	1	..	281
47a. Acute Bronchitis (26a)	106 (a) (e)	88	23	19	23	5	5	..	..	163
47b. Chronic Bronchitis (26b)	106 (b) (d)	170	211	51	51	33	21	1	..	538
48. Pneumonias (27)	107-109	1,900	1,173	557	327	280	159	4	2	4,402

* No. 17:—4, 5, 12, 15-22, 33, 35, 37, 43, 44; No. 36:—78, 81, 86, 87.

C.—CAUSES OF DEATH: PERSONS. 1938—*continued.*

INTERMEDIATE CLASSIFICATION.

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Australia.
49. Pleurisy (28)	110	60	34	38	16	10	7	..	..	165
50. Other Diseases of the Respiratory System (28) (Tuberculosis excepted)	104, 105 111-114	208	227	137	105	71	35	1	2	786
51. Ulcer of the Stomach and Duodenum (32b)	117	203	139	65	35	44	11	1	..	498
52. Diarrhoea and Enteritis (under 2 years of age) (29a)	119	148	52	51	25	61	4	2	..	343
53. Diarrhoea and Enteritis (2 years and over) (29b)	120	97	99	45	12	58	4	..	..	315
54. Appendicitis (30)	121	234	111	92	39	35	12	..	2	525
55. Hernia, Intestinal Obstruction (32a)	122	209	153	82	47	35	23	1	1	551
56. Cirrhosis of the Liver (31a)	124	119	99	50	22	18	8	..	..	316
57. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31b)	125-127	164	195	68	41	33	16	1	..	518
58. Other Diseases of the Digestive System (32b)	*	172	129	64	29	37	14	1	..	446
59. Nephritis (33)	130-132	1,535	1,101	673	259	194	126	4	7	3,899
60. Other Diseases of the Kidneys and Ureters (34)	133	105	101	36	21	22	9	1	..	295
61. Calculi of the Urinary Passages (34)	134	49	31	21	12	4	..	..	..	117
62. Diseases of the Bladder (Tumors excepted) (34)	135	14	27	14	6	17	2	1	..	81
63. Diseases of the Urethra, Urinary Abscess, etc. (34)	136	9	18	1	1	1	2	..	..	32
64. Diseases of the Prostate (34)	137	169	189	80	50	39	45	..	..	572
65. Diseases of the Genital Organs, not specified as Venereal (34)	138, 139	59	34	31	10	14	3	..	..	151
66. Accidents of Pregnancy (36)	141-143	18	14	15	5	7	..	..	1	60
67. Puerperal Haemorrhage (36)	144	31	16	16	6	3	4	..	..	76
68a. Post-abortive Sepsis (35a)	140(a)	9	3	15	2	6	4	..	..	39
68b. Criminal Abortion (35b)	140(b)	50	46	..	3	5	1	..	..	105
68c. Puerperal Septicaemia (35c)	145	38	5	11	3	4	2	..	..	63
69. Toxaemias of Pregnancy: Albuminuria, Eclampsia, etc. (36)	146, 147	46	29	21	17	7	2	1	..	123
70. Other Puerperal Causes (36)	148-150	39	23	16	8	5	5	..	..	96
71. Diseases of the Skin and Cellular Tissue (37)	151-153	61	40	27	15	17	6	..	..	166
72. Diseases of the Bones and Organs of Locomotion (Tuberculosis and Rheumatism excepted) (37)	154-156	71	43	20	14	10	7	..	..	165
73. Congenital Malformations (Still-births not included) (38)	157	268	159	103	48	59	32	..	1	670
74. Congenital Debility (38)	158	84	46	22	18	22	17	..	3	212
75. Premature Birth (Still-births not included) (38)	159	632	345	284	86	80	53	2	2	1,484
76. Injury at Birth (Still-births not included) (38)	160	222	83	91	30	26	17	..	..	469
77. Other Diseases peculiar to Early Infancy (38)	161	157	143	63	27	21	27	..	1	439
78. Senility (39)	162	818	1,267	274	288	158	80	5	1	2,891
79. Suicide (40)	163-171	330	137	126	72	65	16	..	..	746
80. Homicide (41)	172-175	33	25	12	5	4	2	..	..	81
81. Accident (42)	176-194	1,442	916	595	287	300	106	6	4	3,656
82. Violent Deaths of which the Nature (Accident, Suicide, Homicide) is unknown (42)	195	71	120	..	7	9	5	4	..	216
83. Wounds of War (Execution of Civilians by Belligerent Armies included) (42)	196, 197	..	5	3	1	2	1	..	..	12
84. Legal Executions (42)	198	1	..	..	1	..	..	..	..	2
85. Cause of Death not Specified or Ill-defined (43)	199,200	43	32	34	69	11	8	7	1	205
Total .. .. .	..	26,105	18,955	9,201	5,539	4,234	2,288	69	60	66,451

* No. 58:—115, 116, 118, 123, 128, 129.

NOTE.—Figures in parentheses indicate the abridged classification number in each instance.

D.—CAUSES OF DEATH : ABRIDGED CLASSIFICATION, AUSTRALIA, 1934 TO 1938.

Abridged Classification.	General Classification Numbers.	1934.	1935.	1936.	1937.	1938.	1938— Rate per 1,000,000 Population.
1. Typhoid Fever	1, 2	68	63	58	62	48	7
2. Typhus Fever	3	..	6	8	3	5	1
3. Small-pox	6	..	..	..	..	..	..
4. Measles	7	77	129	43	18	10	1
5. Scarlet Fever	8	45	26	56	33	28	4
6. Whooping Cough	9	443	162	257	179	144	21
7. Diphtheria	10	418	412	454	314	308	45
8a. Influenza—Pneumonic	11(a)	646	871	323	261	443	64
8b. Influenza—Other	11(b)	297	297	151	133	180	26
10. Tuberculosis of the Respiratory System	23	2,588	2,553	2,537	2,462	2,398	348
11a. Tubercular Meningitis	24	123	105	109	104	81	12
11b. Other Tuberculous Diseases	25-32	196	195	190	190	177	26
12. Syphilis	34	173	162	169	141	178	26
13. Malaria	38	28	17	11	9	10	1
14. Other Infectious or Parasitic Diseases	*	501	487	496	574	524	76
15. Cancer and other Malignant Tumours	45-53	7,080	7,310	7,551	7,691	7,929	1,150
16. Tumors, Non-Malignant or of Unspecified Nature	54, 55	356	409	449	428	410	59
17. Chronic Rheumatism, Gout	57, 58	192	174	152	155	174	25
18. Diabetes Mellitus	59	1,046	1,088	1,052	1,149	1,220	177
19. Acute and Chronic Alcoholism	75	42	41	54	64	55	8
20. Other General Diseases .. .. .	..	1,101	1,121	1,194	1,114	1,215	176
21. Locomotor Ataxy, General Paralysis of Insane	80, 83	143	162	157	149	139	20
22. Cerebral Hæmorrhage, Embolism, etc.	82	3,124	3,029	3,030	2,962	3,062	444
23. Other Diseases of Nervous System and Sense Organs	*	1,319	1,172	1,203	1,116	1,225	178
24. Diseases of the Heart	90-95	12,907	13,862	13,782	14,692	15,463	2,243
25. Other Diseases of the Circulatory System	96-103	3,122	3,448	3,759	4,064	4,335	629
26a. Acute Bronchitis	106(a)(c)	227	180	199	172	163	24
26b. Chronic Bronchitis	106(b)(d)	592	606	542	500	538	78
27. Pneumonia (all forms)	107-109	4,358	4,629	4,396	4,212	4,402	638
28. Other Diseases of the Respiratory System	104, 105, 110-114	1,080	904	1,039	957	951	138
29a. Diarrhœa and Enteritis (under two years of age)	119	385	317	358	331	343	50
29b. Diarrhœa and Enteritis (two years and over)	120	427	314	336	333	315	46
30. Appendicitis	121	546	608	554	552	525	76
31a. Cirrhosis of the Liver	124	259	289	284	281	316	46
31b. Other Diseases of the Liver and Biliary Calculi	125-127	484	457	476	426	518	75
32a. Hernia, Intestinal Obstruction	122	582	598	551	635	551	80
32b. Other Diseases of the Digestive System	*	906	913	986	980	944	137
33. Nephritis	130-132	3,725	3,721	3,695	3,838	3,899	565
34. Other Diseases of the Genito-Urinary System	133-130	1,068	1,173	1,190	1,181	1,248	181
35a. Post-Abortive Sepsis	140(a)	63	58	86	59	39	6
35b. Criminal Abortion	140(b)	96	98	127	91	105	15
35c. Puerperal Septicæmia	145	98	89	125	62	63	9
36. Other Diseases of Pregnancy and Labour	{ 141-144, 146-150 }	374	345	358	339	355	51
37. Diseases of the Skin, Bones, etc.	151-156	359	325	368	357	331	48
38. Congenital Debility, Malformations, Premature Birth, etc.	157-161	3,171	3,161	3,303	3,231	3,274	475
39. Senility	162	2,878	2,756	2,884	2,910	2,891	419
40. Suicide	163-171	826	791	789	721	746	108
41. Homicide	172-175	108	105	97	107	81	12
42. Accidental or Violent Death (except Suicide and Homicide)	176-198	3,270	3,411	3,609	3,938	3,886	564
43. Non-specified and Ill-Defined Causes	199, 200	310	359	335	207	205	30
Total .. .. .	..	62,229	63,599	63,932	64,496	66,451	9,638

* No. 14:—4, 5, 12, 13, 15-22, 33, 35-17, 39-44; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 81, 84-89; No. 32b:—115-118, 123, 128, 120.

E.—CAUSES OF DEATH : ABRIDGED CLASSIFICATION, AUSTRALIA, NUMBERS AND RATES.

Abridged Classification.	General Classification Numbers.	Number of Deaths.			Average Rate per 1,000,000 of Population.		
		1911-15.	1921-25.	1931-35.	1911-15.	1921-25.	1931-35.
1. Typhoid Fever	1, 2	2,848	1,209	379	119	42	12
2. Typhus Fever	3	..	4	15	..	..	1
3. Small-pox	6	6	4	1	..	..	..
4. Measles	7	1,505	582	391	63	20	12
5. Scarlet Fever	8	237	235	331	10	8	10
6. Whooping Cough	9	1,657	1,612	1,186	69	57	36
7. Diphtheria	10	3,677	2,565	2,083	154	90	63
8a. Influenza—Pneumonic	11(a)	1,894	1,808	2,859	79	64	86
8b. Influenza—Other	11(b)	1,344	1,326	..	47	47	40
9. Plague	14	1	72	..	3	..	..
10. Tuberculosis of the Respiratory System	23	15,737	15,321	13,221	659	538	400
11a. Tubercular Meningitis	24	1,158	876	618	48	31	19
11b. Other Tuberculous Diseases	25-32	1,460	1,404	1,016	61	49	31
12. Syphilis	34	837	632	803	35	22	24
13. Malaria	35	112	150	97	5	3	3
14. Other Infectious or Parasitic Diseases	36	2,820	3,063	2,649	118	108	80
15. Cancer and other Malignant Tumours	45-53	17,838	25,794	34,825	746	906	1,053
16. Tumours, Non-Malignant or of Unspecified Nature	54, 55	546	633	1,817	23	22	55
17. Chronic Rheumatism, Gout	57, 58	552	862	847	23	30	26
18. Diabetes Mellitus	59	2,322	3,355	5,095	97	118	154
19. Acute and Chronic Alcoholism	75	920	763	235	38	27	7
20. Other General Diseases	*	4,039	5,355	5,437	169	188	164
21. Locomotor Ataxy, General Paralysis of Insane	No. 83	1,074	1,118	797	45	39	24
22. Cerebral Haemorrhage, Embolism, etc.	82	10,957	13,637	15,264	458	479	461
23. Other Diseases of Nervous System and Sense Organs	*	12,550	10,323	5,971	525	363	181
24. Diseases of the Heart	90-95	24,358	31,588	60,227	1,019	1,109	1,817
25. Other Diseases of the Circulatory System	96-103	7,860	7,101	14,511	329	253	438
26a. Acute Bronchitis	106(a)(c)	2,250	1,580	1,078	94	56	33
26b. Chronic Bronchitis	106(b)(d)	4,962	4,053	2,966	208	142	90
27. Pneumonia (all-forms)	107-109	15,201	18,400	20,157	636	646	608
28. Other Diseases of the Respiratory System	104, 105, 110-114	4,583	5,781	5,045	192	203	152
29a. Diarrhoea and Enteritis (under two years of age)	119	15,207	9,866	2,043	636	346	62
29b. Diarrhoea and Enteritis (two years and over)	120	4,027	3,144	1,922	169	110	58
30. Appendicitis	121	1,761	2,035	2,680	74	71	81
31a. Cirrhosis of the Liver	124	1,932	1,531	1,321	81	54	40
31b. Other Diseases of the Liver and Biliary Calculi	125-127	1,445	1,796	2,326	60	63	70
32a. Hernia, Intestinal Obstruction	122	2,335	2,648	2,792	98	93	84
32b. Other Diseases of the Digestive System	*	3,968	4,053	4,404	166	142	133
33. Nephritis	130-132	10,751	12,803	17,754	450	450	536
34. Other Diseases of the Genito-Urinary System	133-139	3,065	4,146	5,388	128	146	163
35a. Post-Abortive Sepsis	140(a)	†	†	336	†	†	10
35b. Criminal Abortion	140(b)	†	†	425	†	†	13
35c. Puerperal Septicæmia	145	1,072	1,138	466	45	40	14
36. Other Diseases of Pregnancy and Labour	141-144, 146-150	2,060	2,321	1,833	86	82	56
37. Diseases of the Skin, Bones, etc.	151-156	994	1,556	1,696	42	55	51
38. Congenital Debility, Malformations, Premature Birth, etc.	157-161	21,410	21,511	15,909	896	755	481
39. Senility	162	20,904	20,429	14,021	875	717	424
40. Suicide	163-171	3,123	3,106	3,988	131	109	121
41. Homicide	172-175	446	439	530	19	15	16
42. Accidental or Violent Death (except Suicide and Homicide)	176-198	14,842	13,875	15,639	621	487	472
43. Non-specified and Ill-Defined Causes	199, 200	3,026	3,460	1,542	127	122	46
Total .. .. .	..	256,337	271,171	298,262	10,726	9,522	9,011

* No. 14 :—4, 5, 12, 13, 15-22, 33, 35-37, 39-44 ; No. 20 :—56, 60-74, 76, 77 ; No. 23 :—78, 79, 81, 84-89 ; No. 32b :—115-118, 123, 128, 129. † Not available, included in 35c and 36.

13. Deaths from Principal Specific Causes.—(i) *General*. In the preceding tables particulars have been given for each of the causes of death comprising the Intermediate and the Abridged Classifications. The more important of these causes are treated in detail hereunder. The intermediate classification number is indicated in parenthesis for each cause or group of causes.

(ii) *Tuberculosis of the Respiratory System* (11). Of the various forms of tuberculosis prevalent in Australia, phthisis, or tuberculosis of the lungs, has attracted the most attention. The intimate relation, however, between tuberculosis of the lungs and of other parts of the respiratory system renders it desirable that all forms of tuberculosis of the respiratory system should be brought under one head for investigations concerning the age incidence and duration of this disease.

The decline in the toll levied by this disease on the community is plainly disclosed by the table on page 326, which shows how both the number of deaths and the death rate have declined since the period 1911 to 1915.

During 1938 there were 2,398 deaths (1,477 males and 921 females) from tuberculosis of the respiratory system, which compares favourably with the average of 2,547 for the preceding five years. The deaths in 1938 represented a rate of 348 per 1,000,000 persons living.

(iii) *Tuberculosis of the Meninges* (12a). The number of deaths ascribed to this cause in 1938 was 81, which is below the average of 108 for the preceding five years.

(iv) *Other Forms of Tuberculosis* (12b). The 177 deaths in 1938 comprised the following:—Tuberculosis of the intestines and peritoneum, 36; vertebral column, 35; other bones and joints, 11; skin and sub-cutaneous cellular tissue, 1; lymphatic system, 5; genito-urinary system, 26; other organs, 1; and disseminated tuberculosis—acute 53, chronic 1 and unspecified 8.

(v) *All Forms of Tuberculosis* (11, 12)—(a) *General*. The total number of deaths in 1938 was 2,656, viz., 1,622 males and 1,034 females.

(b) *Ages at Death*. The following table shows the ages of these 2,656 persons; corresponding figures are also given for the year 1911:—

TUBERCULAR DISEASES: DEATHS IN AGE-GROUPS, AUSTRALIA.

Ages.	1911.			1938.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years	124	114	238	34	26	60
5 years and under 10	30	31	61	11	11	22
10 " " 15	44	42	86	11	14	25
15 " " 20	70	148	218	29	64	93
20 " " 25	168	260	428	66	142	208
25 " " 30	219	255	474	102	141	243
30 " " 35	220	206	426	100	143	243
35 " " 40	187	176	363	133	116	249
40 " " 45	246	140	386	155	85	240
45 " " 50	223	100	323	192	65	257
50 " " 55	164	49	213	190	51	241
55 " " 60	140	49	189	198	49	247
60 " " 65	89	43	132	140	39	179
65 " " 70	64	37	101	126	32	158
70 " " 75	42	19	61	78	29	107
75 " " 80	15	6	21	43	19	62
80 " " over	7	6	13	13	8	21
Age unspecified	3	..	3	1	..	1
Total	2,055	1,681	3,736	1,622	1,034	2,656

(c) *Occupations at Death, Males*. A tabulation of occupations of the males who died from tubercular diseases in 1921, 1931 and 1938, together with the percentage which each class bears to the total male deaths from these diseases, is given hereunder:—

TUBERCULOSIS (ALL FORMS): DEATH RATES AND PROPORTION OF
TOTAL DEATHS—*continued.*

State or Territory.	Proportion per 10,000 Deaths from all Causes.					
	1911.			1938.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	737	737	737	453	333	401
Victoria	801	936	862	411	394	403
Queensland	613	648	626	373	286	337
South Australia	775	995	877	432	351	394
Western Australia	718	870	770	533	302	446
Tasmania	839	854	846	560	512	538
Northern Territory	1,356	..	1,231	769	588	725
Australian Capital Territory .. .. .	..	2,000	1,000	250	..	167
Australia	745	829	780	438	352	400

(f) *Death Rates, Various Countries.* The following comparative table for various countries shows that Australia occupies a very favourable position as regards the death rate from this disease:—

TUBERCULOSIS: DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Respiratory System.	All Forms.	Country.	Year.	Respiratory System.	All Forms.
Queensland	1937	29	30	Belgium	1936	56	72
Union of South Africa (Europeans)	1936	30	34	Germany	1935	62	73
New South Wales	1937	37	40	Scotland	1936	55	74
Australia	1937	36	40	Italy	1936	65	87
Western Australia	1937	38	43	Switzerland	1936	73	95
Victoria	1937	38	43	Sweden	1934	85	103
South Australia	1937	38	44	Northern Ireland	1936	78	103
New Zealand	1936	36	46	Norway	1935	86	106
Denmark	1936	37	47	Spain	1935	(a)	107
Netherlands	1936	36	50	Eire	1936	92	117
Tasmania	1937	36	51	France	1934	109	126
United States	1936	51	56	Greece	1936	104	128
Egypt	1936	45	56	Czechoslovakia	1936	114	129
Ceylon	1937	55	(a)	Japan	1936	105	142
Canada	1936	50	61	Hungary	1936	127	152
England and Wales	1936	58	69	Portugal	1937	125	153
Great Britain and Northern Ireland	1936	58	71	Poland (b)	1937	135	153
				Finland	1936	179	210

(a) Not available.

(b) In towns with over 100,000 inhabitants.

(vi) *Cancer and other Malignant Tumours (18).*—(a) *General.* The number of deaths from cancer increased continuously to 6,256 in 1929, declined slightly to 6,120 in 1930, but rose again progressively to 7,929 in 1938. Of the deaths registered during 1938, 4,094 were of males, viz., 1,546 in New South Wales, 1,158 in Victoria, 595 in Queensland, 346 in South Australia, 327 in Western Australia, 119 in Tasmania, 2 in the Northern Territory, and 1 in the Australian Capital Territory; while 3,835 were of females, viz.,

1,421 in New South Wales, 1,207 in Victoria, 413 in Queensland, 423 in South Australia, 232 in Western Australia, 136 in Tasmania, 1 in the Northern Territory, and 2 in the Australian Capital Territory.

(b) *Type and Seat of Disease.* Tables showing the type and seat of disease, in conjunction with age and with conjugal condition, of the persons dying from cancer in 1938 will be found in *Demography Bulletin*, No. 56. A summary regarding type and seat of disease for the year 1938 is given below. It may be pointed out that the significance of the numbers of deaths shown for the various types of cancer enumerated hereunder is doubtful owing to the fact that in the absence of a post-mortem it is impracticable for the certifying doctor in the majority of cases to make an accurate diagnosis as to type in the detail required for the following classification. On this account it is proposed to discontinue the use of the present classification and to adopt as soon as possible a simpler grouping showing only the more important types of cancer.

DEATHS FROM CANCER: TYPE AND SEAT OF DISEASE, AUSTRALIA, 1938.

Type of Disease.	Males.	Fem.	Persons.	Seat of Disease.	Males.	Fem.	Persons.
Cancer	341	393	734	Buccal Cavity and Pharynx ..	308	47	355
Carcinoma—				Digestive Tract and Peritoneum—			
Carcinoma Simplex	3,106	2,914	6,020	Stomach and Duodenum ..	1,124	651	1,775
Epithelioma ..	125	51	176	Rectum ..	249	148	397
Scirrhus ..	3	28	31	Colon ..	287	328	615
Rodent Ulcer ..	38	36	74	Other ..	700	627	1,327
Adeno-Carcinoma	27	47	74	Respiratory Organs	285	93	378
Colloid Carcinoma	5	..	5	Uterus ..	..	551	551
Paget's Disease ..	..	2	2	Other Female Genital Organs ..	..	199	199
Sarcoma—				Breast ..	8	780	788
Sarcoma ..	139	119	258	Male Genito-Urinary Organs ..	681	..	681
Myeloma ..	6	5	11	Skin ..	163	86	249
Endothelioma ..	8	5	13	Other or Unspecified Organs ..	289	325	614
Melanoma—							
Melanotic Sarcoma	25	12	37				
Melano-Carcinoma	8	5	13				
Embryonic Tumours—							
Hypernephroma	28	9	37				
Teratoma ..	3	1	4				
Malignant Disease..	232	208	440				
Total Deaths	4,094	3,835	7,929	Total Deaths	4,094	3,835	7,929

(c) *Ages at Death.* The ages of the persons who died from cancer in 1911 and 1938 are given below. Inferences drawn from the great increase in the number of deaths from cancer in 1938 compared with 1911 need qualification in view of the altered age constitution of the population since the earlier year. The number of people reaching the older ages at which cancer risks are greatest has more than doubled in the last twenty years, and it is only in the extreme old age groups from 60 onwards that the rate of mortality has definitely increased. For all groups up to age 60 there has been no increase in mortality rates since 1911. In the higher age groups no increase has been recorded in the female rate while the rate for males has shown only a slight increase. It is also probable that a proportion of the increased number of deaths recorded from cancer in recent years has been due to more correct diagnosis and certification on the part of medical practitioners rather than to any actual increase in the disease itself.

DEATHS FROM CANCER : AGES, AUSTRALIA.

Ages.	1911.			1938.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 15 years	21	8	29	13	18	31
15 years and under 20 ..	10	6	16	5	10	15
20 " " 25 ..	10	7	17	8	14	22
25 " " 30 ..	12	17	29	21	26	47
30 " " 35 ..	25	35	60	39	34	73
35 " " 40 ..	29	59	88	51	89	140
40 " " 45 ..	81	100	181	98	178	276
45 " " 50 ..	132	173	305	199	288	487
50 " " 55 ..	208	203	411	297	360	657
55 " " 60 ..	203	179	382	434	400	834
60 " " 65 ..	243	177	420	523	454	977
65 " " 70 ..	306	194	500	655	532	1,187
70 " " 75 ..	203	160	363	747	564	1,311
75 " " 80 ..	150	136	286	586	466	1,052
80 " " 85 ..	83	67	150	328	274	602
85 years and over ..	44	39	83	89	128	217
Unspecified	1	..	1	1	..	1
Total Deaths	1,761	1,560	3,321	4,094	3,835	7,929

(d) *Occupations.* A tabulation in summarized form of occupations of the males who died from cancer in 1921, 1931 and 1938, together with the percentage of each class to the total male deaths from this disease, is given hereunder :—

OCCUPATION OF MALES WHO DIED FROM CANCER : AUSTRALIA.

Occupation Group.	Number of Male Deaths.			Percentage of Total.		
	1921.	1931.	1938.	1921.	1931.	1938.
				%	%	%
Professional	133	188	244	5.45	5.40	5.96
Domestic	76	97	103	3.11	2.78	2.52
Commercial	275	446	389	11.27	12.80	9.50
Transport and Communica- tion	212	295	388	8.69	8.47	9.48
Industrial	940	1,346	793	38.52	38.63	19.37
Agricultural, Pastoral, Mining, etc.	639	843	952	26.19	24.20	23.25
Indefinite	129	130	21,209	5.29	3.73	29.53 ^a
Dependent	36	139	16	1.48	3.99	0.39
Total Male Deaths	2,440	3,484	4,094	100.00	100.00	100.00

(a) Includes 880 (21.49 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

(e) *Death Rates.* The following table shows the death rates per 100,000 of mean population from cancer in each State for the years 1911 and 1938. The substantial increase in the death rate since 1911 is reflected in both sexes and in all States :—

DEATHS FROM CANCER : RATES.(a)

State or Territory.	1911.			1938.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	77	71	74	113	105	109
Victoria	80	85	82	126	128	127
Queensland	71	56	64	114	87	101
South Australia	70	76	73	117	143	130
Western Australia	65	57	62	135	107	122
Tasmania	77	60	69	100	117	108
Northern Territory	37	..	30	52	54	52
Australian Capital Territory	99	..	56	17	39	27
Australia	75	72	74	117	113	115

(a) Number of deaths from cancer per 100,000 of mean population.

(f) *Proportion of Total Deaths.* While the death rate from all causes has diminished substantially in recent years, the rate from cancer has risen almost continuously, the result being that out of 10,000 deaths from all causes, 1,193 were due to cancer in 1938, as against 693 per 10,000 total deaths in 1911.

DEATHS FROM CANCER : PROPORTIONS PER 10,000 DEATHS.

State or Territory.	1911.			1938.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	662	783	713	1,048	1,251	1,137
Victoria	637	819	719	1,155	1,352	1,248
Queensland	586	628	602	1,105	1,082	1,096
South Australia	675	828	745	1,186	1,613	1,388
Western Australia	557	700	605	1,236	1,461	1,320
Tasmania	723	629	680	965	1,289	1,115
Northern Territory	170	..	154	385	588	435
Australian Capital Territory	2,000	..	1,000	250	1,000	500
Australia	638	769	693	1,105	1,304	1,193

(g) *Comparison with Tuberculosis.* In recent years the death rate from tuberculosis has shown a tendency to decrease, while that from cancer has displayed an almost continuous increase. The table hereunder shows that for each of the periods under review the decline in the death rate from tuberculosis has been accompanied by an almost equal increase in the rate for cancer. Thus in the thirty-five years comprised in the quinquennial averages shown below the death rate for tuberculosis declined by 44 while the rate for cancer increased by 42 per 100,000 persons. This equal but opposite tendency may be demonstrated by stating that the death rate from tuberculosis and cancer combined remains almost constant from period to period, the figures being :—1901-05, 152 per 100,000; 1906-10, 145; 1911-1915, 152; 1916-20, 154; 1921-25, 153; 1931-35, 150; and 1938, 154.

TUBERCULOSIS AND CANCER: DEATH RATES(a), AUSTRALIA.

Period.	Death Rate (a) from Tuberculosis.			Death Rate (a) from Cancer.		
	Males.	Females.	Total.	Males.	Females.	Total.
1901-05 ..	100	77	89	64	61	63
1906-10 ..	81	69	75	71	70	70
1911-15 ..	84	69	77	75	74	75
1916-20 ..	84	59	71	86	80	83
1921-25 ..	71	52	62	93	88	91
1931-35 ..	52	37	45	108	102	105
1938 ..	47	30	39	117	113	115

(a) Number of deaths per 100,000 of mean population.

(h) *Death Rates, Various Countries.* The following table shows the Australian death rate from cancer in comparison with that for other countries:—

CANCER: DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Ceylon	1937	10	Australia	1937	113
Egypt	1936	26	New Zealand	1936	118
Japan	1936	48	Eire	1936	121
Greece	1936	50	Czechoslovakia	1936	126
Portugal	1937	51	Sweden	1934	127
Spain	1935	68	Norway	1935	127
Italy	1936	84	Northern Ireland	1936	130
France	1934	96	Netherlands	1936	131
Union of South Africa (Europeans)	1936	97	Germany	1935	145
Finland	1936	100	Denmark	1936	151
Poland (a)	1936	104	Scotland	1936	159
Canada	1936	106	Switzerland	1936	161
Belgium	1936	110	Great Britain and Northern Ireland	1936	168
Hungary	1936	110	England and Wales	1936	169
United States	1936	111			

(a) In towns with over 100,000 inhabitants.

(vii) *Diseases of the Heart* (38 to 43). The number of deaths in 1938 was 15,463, viz., 9,008 males and 6,455 females. Of these deaths, 41 were attributed to pericarditis, 132 to acute infective endocarditis, 11 to other acute endocarditis, 333 to aortic valve disease, 672 to mitral valve disease, 75 to aortic and mitral valve disease, 188 to endocarditis not returned as acute or chronic, 546 to other or unspecified valve disease, 150 to acute myocarditis, 89 to fatty heart, 6,797 to other myocardial degeneration, 1,922 to myocarditis not returned as acute or chronic, 2,900 to diseases of coronary arteries, 168 to angina pectoris with record of coronary disease, 337 to other angina pectoris, 332 to disordered action of the heart, 50 to cardiac dilatation (cause unspecified), and 720 to heart disease undefined. The sex and territorial distribution of the deaths will be found in the tables on pages 319 to 324. This class is the largest among causes of death, the death rate having grown from 1,019 per million in 1911-15 to 1,817 in 1931-35 and 2,243 in 1938. The increase in the numbers of deaths recorded from heart diseases has been particularly pronounced during the past six years. The rapid increase in mortality is partly a reflection of the ageing of the population, but has been influenced mainly by improved diagnosis and certification by medical practitioners. Many deaths of elderly people formerly attributed to senility or other indefinite causes are believed to be now more frequently certified as associated with some form of heart disease, usually myocardial degeneration. The improvement in diagnosis has been particularly

evident in the case of diseases of the coronary arteries. As a result of a change of classification adopted in 1931, all forms of this disease have been included among heart diseases from that year onwards. Although deaths recorded from coronary diseases were not numerically important in 1931, this type of disease has since become prominent in medical science, and in 1938 the number of deaths assigned to this cause was 2,900, an increase of 2,336, or over 400 per cent., since 1931. The death rates and proportions per 10,000 deaths in 1938 were as follows :—

**DISEASES OF THE HEART: DEATH RATES(a) AND PROPORTION OF
10,000 TOTAL DEATHS, 1938.**

State or Territory.	Death Rates (a) from Diseases of the Heart.			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	289	207	249	2,693	2,462	2,593
Victoria	244	187	215	2,244	1,978	2,119
Queensland	239	169	206	2,327	2,109	2,237
South Australia	229	177	203	2,321	1,995	2,166
Western Australia	235	154	197	2,154	2,103	2,135
Tasmania	222	196	209	2,149	2,161	2,155
Northern Territory	206	..	140	1,538	..	1,159
Australian Capital Territory	215	59	144	3,250	1,500	2,667
Australia	258	190	224	2,432	2,195	2,327

(a) Number of deaths from diseases of the heart per 100,000 of mean population.

(viii) *Diarrhoea and Enteritis (Children under two years of age)* (52). The number of deaths due to these causes was 343 in 1938, which is slightly under the average of 346 for the previous five years. During 1938, 5,258 children died before reaching their second birthday, and of these 343, or 6.5 per cent., died from diarrhoea and enteritis. The ages of children dying from these diseases during the first year of life will be found on page 312.

The number of deaths under 2 years of age, the death rates, and proportions of 10,000 deaths due to diarrhoea and enteritis for 1911-15, 1921-25, 1931-35 and 1938 are given in the following table. Reference to the last four lines of the table will reveal the very satisfactory decrease in the number of deaths due to these diseases. In view of changed birth-rates, however, the death-rates per 100,000 of mean population are not true measures of changes in the force of mortality. A better measure would be the estimated number of children in every 1,000 born who died from these diseases before reaching their second birthday. The numbers are estimated to be as follows :—

Period—	1911-15	Males, 24.6	Females, 20.9	Total, 22.8
"	1921-25	" 16.5	" 13.3	" 14.9
"	1931-35	" 3.7	" 2.8	" 3.3

DIARRHŒA AND ENTERITIS (UNDER 2 YEARS OF AGE): DEATHS AND DEATH RATES(a), AUSTRALIA, 1938.

State.	Number of Deaths from Diarrhœa and Enteritis. (Under 2 years of age.)			Death Rates (a) from Diarrhœa and Enteritis. (Under 2 years of age.)			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	92	56	148	7	4	5	62	49	57
Victoria	27	25	52	3	3	3	27	28	27
Queensland	22	29	51	4	6	5	41	76	55
South Australia	17	8	25	5	2	4	58	31	45
Western Australia	38	23	61	16	10	13	144	145	144
Tasmania	1	3	4	1	3	2	8	28	17
Northern Territory	2	..	2	52	..	35	385	..	290
Australia 1938	199	144	343	6	4	5	54	49	52
Annual Average—									
1911-15	1,687	1,354	3,041	68	59	64	569	627	593
1921-25	1,114	859	1,973	38	31	35	362	366	364
1931-35	234	175	409	7	5	6	70	68	69

(a) Number of deaths from these diseases per 100,000 of mean population.

(ix) *Puerperal Septicæmia* (including Post-Abortive Sepsis, but excluding Criminal Abortion) (68a,c). Mortality from puerperal septicæmia and post-abortive sepsis during 1938 was exceptionally light, the 102 deaths resulting being the lowest recorded during the past eight years. Figures prior to 1931 for these particular causes are not available on a strictly comparable basis, as it is probable that some of the deaths now included under criminal abortion were classified with puerperal septicæmia in earlier years. The death rate per 1,000 live births during 1938 was 0.84, while corresponding rates for preceding years were:—1931, 1.51; 1932, 1.40; 1933, 1.44; 1934, 1.46; 1935, 1.32; 1936, 1.82; and 1937, 1.02. The rate in 1938 per 1,000 live births of the 207 deaths from puerperal septicæmia, including criminal abortion, was 1.66. The 207 deaths mentioned were made up as follows:—Post-abortive sepsis 39, criminal abortion 105, puerperal septicæmia 63.

(x) *Other Diseases or Accidents of Pregnancy and Labour* (66, 67, 69, 70). The deaths under this heading numbered 339 in 1933; 374 in 1934; 345 in 1935; 358 in 1936; 339 in 1937; and 355 in 1938. Included in the 355 deaths in 1938 were the following:—Abortion not returned as septic, 24; ectopic gestation, 31; other accidents of pregnancy, 5; puerperal hæmorrhage, 76; puerperal albuminuria and convulsions, 95; other toxæmias of pregnancy, 28; phlegmasia alba dolens and thrombosis, 3; embolism or sudden death, 33; other accidents of childbirth, 56 (Caesarean section, 19; others 37); other or unspecified conditions of the puerperal state, 4.

(xi) *All Puerperal Causes* (66 to 70). The 562 deaths in 1938 under the preceding two headings, including criminal abortion, correspond to a death rate of 16.5 per 100,000 females or 30.6 per 100,000 women between the ages of 15 and 45 years. The rate is also equivalent to 4.64 deaths per 1,000 live births. The death rate may be expressed in other terms by stating that 1 of every 212 women giving birth to a live child in 1938 died from puerperal causes; the corresponding ratios for married women were 1 of every 236, and for single women 1 in every 65. More detailed information will be found in a series of tables in *Demography Bulletin*, No. 56.

The following table shows the death rate per 1,000 live births from puerperal causes in various countries. Care is needed in comparing the Australian rates with the figures for other countries. In the rates for Australian States and the Commonwealth deaths from criminal abortion have been excluded from puerperal sepsis deaths but included with deaths from other puerperal causes and in the total. Definite information is not available as to the practice in other countries but it is very probable that the rates for the countries given hereunder totally exclude deaths from criminal abortion.

CHILDBIRTH: DEATHS PER 1,000 LIVE BIRTHS, VARIOUS COUNTRIES.

Country.	Year.	Rates per 1,000 Live Births from—		
		Puerperal Sepsis.	Other Puerperal Causes.	All Puerperal Causes.
Japan	1936	0.64	1.67	2.31
France	1934	1.00	1.50	2.50
Norway	1935	1.38	1.43	2.81
Italy	1936	1.23	1.76	2.99
Netherlands	1936	0.99	2.04	3.03
Sweden	1934	1.60	1.70	3.30
Spain	1935	2.00	1.40	3.60
England and Wales (b)	1936	1.34	2.31	3.65
New Zealand	1936	0.92	2.78	3.70
Denmark	1936	1.30	2.60	3.90
Tasmania	1937	1.24	2.69	3.93
Great Britain and Northern Ireland	1936	1.52	2.58	4.10
Western Australia	1937	0.69	3.49	4.18
Greece	1936	2.20	2.00	4.20
Hungary	1936	2.53	1.80	4.33
Victoria	1937	0.64	3.70	4.34
Switzerland	1936	(c)	(c)	4.36
Queensland	1937	1.10	3.39	4.49
Belgium	1936	1.60	3.00	4.60
Australia	1887	1.02	3.61	4.63
Eire	1936	1.79	2.91	4.70
Germany	1935	1.99	2.86	4.85
Czechoslovakia	1936	2.88	2.03	4.91
New South Wales	1937	1.10	3.81	4.91
Union of South Africa (Europeans)	1936	2.39	2.71	5.10
South Australia	1937	1.78	3.34	5.12
Scotland	1936	2.19	3.36	5.55
Canada	1936	2.00	3.60	5.60
United States	1936	2.15	2.53	5.68
Northern Ireland	1936	2.24	3.82	6.06
Egypt (a)	1936	2.67	7.15	9.85

(a) Localities having Health Bureaux. (b) Rate per 1,000 live and still-births. (c) Not available.

A tabulation of puerperal causes for Australia according to age at death for married and single women separately will also be found in *Demography Bulletin*, No. 56.

The total number of children left by the 485 married mothers who died was 1,096, an average of 2.3 children per mother.

Twenty-nine of the mothers who died had been married less than one year, 64 between one and two years, and 56 between two and three years. The duration of marriage ranged up to 29 years, apart from 3 cases in which the date of marriage was not stated. Tabulations distinguishing the ages at marriage and at death will be found in *Demography Bulletin*, No. 56, which also includes a table showing in combination the duration of marriage and previous issue.

(xii) *Congenital Malformation, Debility and Premature Birth* (73 to 77). The deaths under this heading in 1938 numbered 3,274 of which 3,139 were of children under one year of age. Of all deaths of children under one year of age 68 per cent. was due to these causes. The number of deaths for 1938 is given in the following table:—

DEATHS FROM CONGENITAL DEBILITY, ETC., AND MALFORMATION, 1938.

State or Territory.	Congenital Malformation.			Premature Birth and Injury at Birth.			Congenital Debility and other Diseases peculiar to Early Infancy.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	146	122	268	499	355	854	140	101	241
Victoria ..	102	57	159	246	182	428	112	77	189
Queensland ..	62	41	103	218	157	375	54	31	85
South Australia ..	23	25	48	64	52	116	25	20	45
Western Australia	37	22	59	62	44	106	28	15	43
Tasmania ..	16	16	32	47	23	70	21	23	44
Northern Territory	..	..	..	..	2	2	..	..	..
Australian Capital Territory ..	1	..	1	1	1	2	3	1	4
Australia ..	387	283	670	1,137	816	1,953	383	268	651
Number of deaths under one year	321	214	535	1,137	816	1,953	383	268	651
Number of deaths under one year per 1,000 births	5.19	3.66	4.44	18.37	13.94	16.21	6.19	4.59	5.41

(xiii) *Suicide* (79).—(a) *General*. The deaths from suicide rose each year from 533 in 1922 to 943 in 1930, but the number had declined to 754 in 1932. Since the latter year the deaths from this cause have fluctuated as follows:—1933, 790 deaths—633 males and 157 females; 1934, 826—643 males and 183 females; 1935, 791—612 males and 179 females; 1936, 789—611 males and 178 females; 1937, 721—573 males and 148 females; and 1938, 746—574 males and 172 females.

(b) *Modes Adopted*. The modes adopted by persons who committed suicide in the years 1931–35, 1937 and 1938 were as follows:—

SUICIDE : MODES ADOPTED, AUSTRALIA.

Mode of Death.	Males.			Females.			Persons.		
	Average of 5 years, 1931–35.	1937.	1938.	Average of 5 years, 1931–35.	1937.	1938.	Average of 5 years, 1931–35.	1937.	1938.
Poisoning	139	112	103	67	54	67	206	166	170
Poisonous gas	39	45	38	20	23	17	59	68	55
Hanging or Strangulation	83	62	72	17	14	24	100	76	96
Drowning	46	48	33	28	18	24	74	66	57
Firearms	199	190	207	11	14	15	210	204	222
Cutting or piercing instruments	89	88	83	9	15	11	98	103	94
Jumping from a high place	15	8	15	6	4	6	21	12	21
Crushing	13	11	9	2	3	4	15	14	13
Other Modes	12	9	14	3	3	4	15	12	18
Total	635	573	574	163	148	172	798	721	746

(c) *Death Rates.* The death rates from suicide and the proportion per 10,000 of total deaths are given in the following table for 1938, corresponding rates for the periods 1911-15, 1921-25, 1931-35, 1935, 1936 and 1937 being shown at the foot of the table:—

SUICIDE : DEATHS, DEATH RATES(a), AND PROPORTION OF TOTAL DEATHS, 1938.

State or Territory.	Number of Deaths.			Death Rates (a) from Suicide.			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	254	76	330	19	6	12	172	67	126
Victoria ..	106	31	137	12	3	7	106	35	72
Queensland ..	102	24	126	20	5	13	189	63	137
South Australia..	47	25	72	16	8	12	161	95	130
Western Australia	54	11	65	22	5	14	204	69	154
Tasmania ..	11	5	16	9	4	7	89	47	70
Northern Territory	..	..	..	..	..	..	..	..	..
Australian Capital Territory ..	..	..	..	..	..	..	..	..	..
Australia, 1938 ..	574	172	746	17	5	11	155	58	112
" 1937 ..	573	148	721	17	4	11	158	52	112
" 1936 ..	611	178	789	18	5	12	171	63	123
" 1935 ..	612	179	791	18	5	12	171	64	124
Average—1931-35	635	163	798	19	5	12	190	62	134
" 1921-25	509	112	621	18	4	11	166	48	114
" 1911-15	509	115	624	21	5	13	172	53	122

(a) Number of deaths from suicide per 100,000 of mean population.

(d) *Ages.* From the following table, which shows the ages of the persons who committed suicide in 1938, it will be seen that both extreme youth and extreme old age are represented:—

AGES OF PERSONS WHO COMMITTED SUICIDE : AUSTRALIA, 1938.

Ages.	M.	F.	Total.	Ages.	M.	F.	Total.
10 years and under 15	3	1	4	60 years and under 65	53	9	62
15 " " 20	13	6	19	65 " " 70	33	4	37
20 " " 25	32	13	45	70 " " 75	18	2	20
25 " " 30	46	17	63	75 " " 80	12	4	16
30 " " 35	52	23	75	80 " " 85	14	..	14
35 " " 40	54	18	72	85 " " 90	3	3	6
40 " " 45	49	17	66	90 " " 95	..	..	..
45 " " 50	75	14	89	95 " " 100	..	..	..
50 " " 55	53	20	73	Not stated	4	..	4
55 " " 60	60	21	81	Total Deaths ..	574	172	746

(e) *Occupations of Males.* The next table gives the occupations of the males who committed suicide in 1921, 1931 and 1938 :—

OCCUPATIONS OF MALES WHO COMMITTED SUICIDE : AUSTRALIA.

Occupation Group.	Number of Male Deaths.			Percentage of Total.		
	1921.	1931.	1938.	1921.	1931.	1938.
Professional	32	29	33	6.27	4.21	5.75
Domestic	20	22	21	3.92	3.19	3.66
Commercial	81	106	66	15.88	15.38	11.50
Transport and Communica- tion	42	52	38	8.24	7.55	6.62
Industrial	180	256	89	35.29	37.16	15.51
Agricultural, Pastoral, Min- ing, etc.	131	182	134	25.69	26.41	23.34
Indefinite	21	39	(a) 188	4.12	5.66	(a) 32.75
Dependent	3	3	5	0.59	0.44	0.87
Total Male Deaths ..	510	689	574	100.00	100.00	100.00

(a) Includes 143 (24.91 per cent.) clerks, labourers, etc., not specified as belonging to any industry who were formerly included under "Commercial" or "Industrial".

(f) *Death Rates, Various Countries.* The following comparative table for various countries shows that Australia occupies a fairly favourable position as regards the death rate from suicide :—

SUICIDE : DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Egypt	1936	2.0	New South Wales ..	1937	11.0
Eire	1936	3.3	Great Britain and Nor- thern Ireland ..	1936	12.2
Spain	1935	3.9	Queensland	1937	12.3
Northern Ireland ..	1936	4.0	England and Wales ..	1936	12.4
Greece	1936	5.7	United States	1936	14.2
Norway	1935	6.5	Western Australia ..	1937	14.5
Italy	1936	7.9	Japan	1936	15.1
Netherlands	1936	8.1	Sweden	1934	15.3
Union of South Africa (a)	1936	8.3	Finland	1936	16.2
Tasmania	1937	8.5	Belgium	1935	16.8
Victoria	1937	8.6	Denmark	1935	19.4
Canada	1937	8.8	France	1934	21.4
South Australia ..	1937	9.5	Poland (b)	1936	22.0
Scotland	1936	10.0	Germany	1935	27.5
New Zealand	1936	10.0	Switzerland	1936	27.8
Portugal	1937	10.6	Czechoslovakia ..	1936	27.8
Australia	1937	10.6	Hungary	1936	31.0

(a) European population only.

(b) In towns with over 100,000 inhabitants.

(xiv) *Homicide (80).* Deaths from homicide in 1938 numbered 81, or 26 less than the previous year. The average for the five years 1933 to 1937 was 103. See paragraph (xvi).

(xv) *Accidental or Violent Deaths (except Suicide and Homicide).* Deaths from accidents in 1938 numbered 3,656 compared with an average of 3,316 for the previous five years. Of the deaths in 1938, 1,442 occurred in New South Wales; 916 in Victoria; 595 in Queensland; 287 in South Australia; 300 in Western Australia; 106 in Tasmania; 6 in Northern Territory; and 4 in the Australian Capital Territory. Other deaths of a violent nature numbered 216. See paragraph (xvi).

(xvi) *Accidental or Violent Deaths (including Homicide and Suicide).* The following table shows the various kinds of violent deaths, including homicides and suicides, recorded in Australia for the year 1938.

DEATHS FROM EXTERNAL VIOLENCE : AUSTRALIA, 1938.

Cause of Death.	Males.	Females.	Persons.
Suicide (see paragraph (xiii))	574	172	746
Infanticide (murder of children under 1 year) ..	4	3	7
Homicide by firearms	17	7	24
Homicide by cutting or piercing instruments ..	11	6	17
Homicide by other means	20	13	33
Homicide Total	52	29	81
Poisoning by venomous animals—			
(a) Snakebite	7	7	14
(b) Other	2	1	3
Poisoning by food	10	8	18
Accidental absorption of irrespirable or poisonous gas	17	7	24
Other acute accidental poisonings (gas excepted) ..	19	18	37
Conflagration	15	4	19
Accidental burns (conflagration excepted) ..	102	89	191
Accidental mechanical suffocation	26	9	35
Accidental drowning	282	40	322
Accidental injury by firearms	60	11	71
Accidental injury by cutting or piercing instruments	10	4	14
Accidental injury by falling, crushing, etc.—			
In mines and quarries	93	..	93
By machinery	60	..	60
Connected with methods of transport—			
Railways	125	23	148
Tramways	42	15	57
Automobiles	1,107	284	1,391
Other land vehicles	163	18	181
Transport by water	23	18	41
Transport by air	39	8	47
Fall not otherwise specified	258	249	507
Other crushings	79	3	82
Cataclysm	1	..	1
Injuries by animals (not poisoning)	28	1	29
Starvation, thirst, fatigue	7	..	7
Excessive cold	3	4	7
Excessive heat	20	16	36
Lightning	12	1	13
Other accidental electric shocks	36	5	41
Other and unstated forms of accidental violence—			
Inattention at birth	8	4	12
Other	115	40	155
Violent deaths of unstated nature (open verdict)—			
Drowning	76	29	105
Firearms	23	..	23
Cutting or piercing instrument	1	..	1
Fall	9	3	12
Crushing	9	2	11
Other	41	23	64
War wounds	12	..	12
Capital punishment	2	..	2
External Violence, excluding Suicide and Homicide	2,942	944	3,886
Total Deaths from External Violence ..	3,568	1,145	4,713

The following table of death rates per million of mean population reveals for External Violence (excluding Suicide and Homicide), which consists mainly of accidents, a decrease to 1921-25, but an increase in the rates for 1926-30 to which the growth of automobile accidents contributed very largely. A decreased death rate was recorded during the period 1931-1935, but the rate has been rising steadily since 1933.

DEATH RATES,(a) ETC., EXTERNAL VIOLENCE : AUSTRALIA.

Period.	Death Rates (a) from Homicide.			Death Rates (a) from External Violence excluding Suicide and Homicide.			Death Rates (a) from all External Violence.			All External Violence Proportion of 10,000 Deaths.
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	
1911-15 ..	21	16	19	948	268	621	1,170	330	770	718
1921-25 ..	17	13	15	753	211	487	950	260	610	643
1926-30 ..	19	15	17	843	240	549	1,070	300	690	746
1931-35 ..	21	11	16	714	223	472	923	284	609	676
1933 ..	18	11	15	678	214	440	883	273	582	654
1934 ..	21	11	15	738	234	490	949	301	630	676
1935 ..	21	11	16	764	243	507	964	308	641	677
1936 ..	19	10	14	802	255	533	999	318	663	703
1937 ..	22	9	16	877	268	575	1,065	321	697	739
1938 ..	15	9	12	843	277	564	1,023	336	684	709

(a) Number of deaths per 1,000,000 of mean population.

(xvii) "Other Diseases." The intermediate and the abridged classifications of causes of death used in Tables A to E in the preceding pages differ from that used in issues of the Official Year Book previous to No. 25 in that no residue of "other diseases" is shown at the foot. The items are ranged in classes or groups of classes and each class or group of classes is made complete by the addition of an "other diseases" item for that class or group of classes. These "other diseases" items of the intermediate classification are expanded into their constituent causes in the following table:—

F.—DEATHS FROM "OTHER DISEASES" : AUSTRALIA, 1938.

Causes.	G.C.N. (*)	M.	F.	Total.
17 OTHER INFECTIOUS OR PARASITIC DISEASES.				
Erysipelas	15	18	12	30
Acute Poliomyelitis	16	98	61	159
Encephalitis Lethargica	17	7	10	17
Cerebrospinal Fever	18	11	3	14
Tetanus	22	34	16	50
Leprosy	33	7	3	10
Venereal Diseases, other than Syphilis	35	..	..	..
Mycoses	43	3	3	6
Mumps	44 ^a	..	3	3
Other	44 ^b	26	22	48
Total .. .. .	..	204	133	337

(*) G.C.N. = General Classification Number.

F.—DEATHS FROM "OTHER DISEASES": AUSTRALIA, 1938—*continued.*

Causes.	G.C.N.	M.	F.	Total.
25. OTHER GENERAL DISEASES.				
Diseases of the Pituitary Gland	65	7	8	15
Diseases of the Thymus Gland	67	12	4	16
Diseases of the Adrenals (Addison's Disease)	68	12	24	36
Other General Diseases	69	21	17	38
Total .. .. .	..	52	53	105
27. LEUCÆMIAS, ETC., AND OTHER DISEASES OF THE BLOOD AND BLOOD-MAKING ORGANS.				
Hæmorrhagic Conditions	70	15	25	40
Leucæmia, Lymphadenoma—				
Leucæmia	72a	112	77	189
Aleucæmia (Lymphadenoma)	72b	58	35	93
Diseases of the Spleen	73	11	10	21
Other Diseases of the Blood and Blood-forming Organs	74	3	5	8
Total .. .. .	..	199	152	351
29. OTHER CHRONIC POISONINGS.				
Chronic Poisoning by Organic Substances	76	1	..	1
Chronic Poisoning by Mineral Substances—				
Chronic Lead Poisoning	77a	8	4	12
Other	77b	..	1	1
Total .. .. .	..	9	5	14
36. OTHER DISEASES OF NERVOUS SYSTEM.				
Encephalitis (not epidemic)—				
Cerebral Abscess	78a	23	7	30
Others	78b	24	29	53
Other Diseases of the Spinal Cord	81	118	83	201
Convulsions of Infants under Five years of Age	86	21	21	42
Other Diseases of the Nervous System—				
Chorea	87a	2	2	4
Neuralgia and Neuritis	87b	4	8	12
Paralysis Agitans	87c	80	85	165
Disseminated Sclerosis	87d	49	47	96
Idiocy, Imbecility	87e	10	5	15
Other Diseases	87f	2	1	3
Total .. .. .	..	333	288	621
46. OTHER DISEASES OF THE CIRCULATORY SYSTEM.				
Other Diseases of the Arteries	99	36	26	62
Diseases of the Veins (Varices, Hæmorrhoids, Phlebitis, etc.)	100	23	21	44
Diseases of the Lymphatic System, Lymphangitis, etc.	101	6	4	10
Abnormalities of Blood Pressure	102	76	67	143
Other Diseases of the Circulatory System	103	7	2	9
Total .. .. .	..	148	120	268

* G.C.N. = General Classification Number.

F.—DEATHS FROM "OTHER DISEASES": AUSTRALIA, 1938—*continued.*

Causes.	G.C.N.	M.	F.	Total.
50. OTHER DISEASES OF THE RESPIRATORY SYSTEM.				
Diseases of the Nasal Fossae and Annexa	104	11	8	19
Diseases of the Larynx	105	25	11	36
Congestion, Hæmorrhagic Infarction of Lung	111	167	194	361
Asthma	112	68	48	116
Pulmonary Emphysema	113	17	1	18
Other Diseases of the Respiratory System, Tuberculosis excepted—				
Chronic Interstitial Pneumonia	114a	169	13	182
Gangrene of the Lung	114b	9	2	11
Other Diseases	114c	22	21	43
Total .. .. .	..	488	298	786
58. OTHER DISEASES OF THE DIGESTIVE SYSTEM.				
Diseases of the Buccal Cavity, Pharynx, etc.—				
Buccal Cavity and Annexa	115a	16	15	31
Pharynx and Tonsils	115b	62	60	122
Diseases of the Oesophagus	116	4	8	12
Other Diseases of the Stomach (Cancer excepted)	118	37	35	72
Other Diseases of the Intestines	123	36	42	78
Diseases of the Pancreas	128	23	23	46
Peritonitis (without specified cause)	129	44	41	85
Total .. .. .	..	222	224	446
70. PUERPERAL CAUSES.				
Phlegmasia Alba Dolens, Embolism, etc.—				
Phlegmasia Alba Dolens and Thrombosis	148a	..	3	3
Embolism and Sudden Death	148b	..	33	33
Other Accidents of Childbirth—				
Cæsarean Section	149a	..	19	19
Other Surgical Operations and Instrumental Delivery	149b	..	3	3
Others	149c	..	34	34
Other or Not Specified Conditions of the Puerperal State—				
Puerperal Diseases of the Breast	150a	..	2	2
Others	150b	..	2	2
Total .. .. .	..	..	96	96

* G.C.N. = General Classification Number.

14. Causes of Deaths in Classes.—The figures in the preceding sub-sections relate to specific causes of death, and are of greater value in medical statistics than a mere grouping under general headings. The classification under eighteen general headings adopted by the compilers of the International Nomenclature is, however, shown in the

following table, together with the death rates and proportions of total deaths pertaining to those classes. A further table furnishes the death rates for the quinquennia 1911-15, 1921-25 and 1931-35 :—

DEATHS, DEATH RATES,(a) ETC., IN CLASSES : AUSTRALIA, 1938.

Class.	Total Deaths.			Death Rates.(a)			Proportion of 10,000 Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Parasitic and Infectious Diseases	2,692	1,843	4,535	77	54	66	727	627	682
2. Cancer and Other Tumours	4,267	4,072	8,339	122	119	121	1,152	1,385	1,255
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases	695	1,310	2,005	20	38	29	187	446	302
4. Diseases of the Blood and Blood-forming Organs	300	290	590	9	9	9	81	99	89
5. Chronic Poisonings and Intoxications	58	11	69	2	1	1	16	4	10
6. Diseases of the Nervous System and of the Organs of Sense	2,114	2,312	4,426	61	68	64	571	786	666
7. Diseases of the Circulatory System	11,217	8,581	19,798	322	252	287	3,028	2,918	2,979
8. Diseases of the Respiratory System	3,571	2,483	6,054	103	73	88	964	844	911
9. Diseases of the Digestive System	1,966	1,546	3,512	56	45	51	531	526	528
10. Diseases of the Genito-Urinary System and Annexa	2,999	2,148	5,147	86	63	75	809	730	775
11. Pregnancy, Labour and Puerperal State	..	562	562	..	16	8	..	191	85
12. Diseases of the Skin and of the Cellular Tissue	86	80	166	2	2	2	23	27	25
13. Diseases of the Bones and Organs of Locomotion	110	55	165	3	2	2	30	19	25
14. Congenital Malformations	387	283	670	11	8	10	104	96	101
15. Early Infancy	1,520	1,084	2,604	44	32	38	410	309	392
16. Old Age	1,347	1,544	2,891	38	45	42	364	525	435
17. External Causes	3,568	1,145	4,713	102	34	68	963	389	709
18. Causes of Death not Determined	149	56	205	4	2	3	40	19	31
Total	37,046	29,405	66,451	1,062	863	964	10,000	10,000	10,000

(a) Number of deaths per 100,000 of mean population.

QUINQUENNIAL DEATH RATES IN CLASSES : AUSTRALIA.

Class.	Number of Deaths per 100,000 of Mean Population.								
	1911 to 1915.			1921 to 1925.			1931 to 1935.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Parasitic and Infectious Diseases	..	..	..	..	..	..	92	70	81
2. Cancer and Other Tumours	..	..	..	..	..	..	113	108	110
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases	..	..	..	..	..	..	..	..	..
4. Diseases of the Blood and Blood-forming Organs	261	236	249	248	222	236	18	33	25
5. Chronic Poisonings and Intoxications	..	..	..	..	..	..	9	9	9
6. Diseases of the Nervous System and of the Organs of Sense	..	..	..	..	..	..	2	..	1
7. Diseases of the Circulatory System	112	93	103	93	83	88	66	67	67
8. Diseases of the Respiratory System	147	116	132	150	118	134	249	200	225
9. Diseases of the Digestive System	132	93	113	121	88	105	101	75	88
10. Non-venereal Diseases of the Genito-Urinary System	135	123	130	97	81	89	60	46	53
11. Puerperal Condition	72	46	59	72	40	61	81	59	70
12. Diseases of Skin and Cellular Tissue	..	27	13	..	25	12	..	19	9
13. Diseases of Organs of Locomotion	6	5	6	6	4	5	3	3	3
14. Congenital Malformations	2	1	1	3	2	2	3	1	2
15. Early Infancy	12	9	10	12	10	11	11	8	10
16. Old Age	87	71	79	73	56	65	44	34	39
17. External Causes	94	80	88	76	68	72	42	42	42
18. Causes of Death not Determined	117	33	77	95	26	61	92	28	61
Total	1,193	942	1,073	1,061	841	953	993	804	900

15. **Ages at Death of Married Males and Females, and Issue.**—*Demography Bulletin*, No. 56, contains a number of tables showing, in combination with the issue, the ages at marriage, ages at death, birthplaces and occupations of married persons who died in Australia in 1938. A summary of those tables is given hereunder. Deaths of married males in 1938 numbered 24,212, and of married females, 21,768. The tabulations which follow deal, however, with only 23,827 males and 21,584 females, the information regarding issue in the remaining 569 cases being incomplete. The total number of children in the families of the 23,827 males was 96,517, and of the 21,584 females, 94,716. The average number of children is shown for various age-groups in the following table:—

AGES AT DEATH OF MARRIED MALES AND FEMALES, AND AVERAGE ISSUE: AUSTRALIA.

Age at Death.	Average Issue.							
	Males.				Females.			
	1911.	1921.	1931.	1938.	1911.	1921.	1931.	1938.
Under 20 years ..	0.33	..	0.75	0.75	0.94	0.77	0.66	0.46
20 to 24 " ..	0.77	0.84	0.81	0.93	1.27	1.22	1.13	1.02
25 " 29 " ..	1.25	1.29	1.33	1.07	1.82	1.86	1.81	1.53
30 " 34 " ..	2.05	2.06	1.79	1.62	2.74	2.45	2.34	2.07
35 " 39 " ..	2.80	2.58	2.13	2.14	3.64	3.29	2.89	2.56
40 " 44 " ..	3.47	3.23	2.77	2.45	4.09	3.66	3.29	3.00
45 " 49 " ..	4.09	3.48	3.10	2.81	4.54	3.76	3.55	3.28
50 " 54 " ..	4.75	3.76	3.46	3.18	5.35	4.23	3.60	3.56
55 " 59 " ..	5.44	4.41	3.69	3.39	5.86	4.69	4.01	3.62
60 " 64 " ..	5.95	4.98	4.02	3.64	5.99	5.39	4.21	3.94
65 " 69 " ..	6.23	5.50	4.41	3.99	6.50	5.86	4.82	4.24
70 " 74 " ..	6.41	6.06	5.06	4.35	6.38	6.30	5.41	4.56
75 " 79 " ..	6.75	6.66	5.65	4.85	6.72	6.56	6.02	5.19
80 " 84 " ..	6.68	6.89	6.17	5.35	6.22	6.76	6.26	5.81
85 " 89 " ..	6.67	7.18	6.59	5.95	5.97	6.93	6.57	5.97
90 " 94 " ..	6.03	7.21	6.94	6.72	5.69	6.53	6.73	6.20
95 " 99 " ..	7.30	6.97	6.69	6.94	5.05	6.05	7.10	6.07
100 years and upwards ..	9.33	9.20	7.00	5.57	5.17	5.11	8.20	7.23
Age not stated ..	4.33	5.36	5.00	..	4.60	5.80	5.00	..
All Ages ..	5.42	4.97	4.44	4.05	5.35	5.05	4.72	4.39

The figures in the preceding table include the issue both living and dead, the proportion between them, taking the issue of deceased males and females together, being about 1,000 to 240. The totals are shown in the following table:—

ISSUE OF DECEASED MARRIED MALES AND FEMALES: AUSTRALIA, 1938.

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Males.	Females.	Total.
Living ..	40,194	39,681	79,875	Living ..	37,084	37,239	74,323
Dead ..	9,501	7,141	16,642	Dead ..	11,670	8,723	20,393
Total ..	49,695	46,822	96,517	Total ..	48,754	45,962	94,716

16. **Ages at Marriage of Deceased Males and Females, and Issue.**—While the table giving the average issue of married males and females naturally shows an increase in the averages with advancing ages at death, the following table, which gives the average

issue of males and females according to the age at marriage of the deceased parents shows a corresponding decrease in the averages as the age at marriage advances:—

AGES AT MARRIAGE OF DECEASED MALES AND FEMALES, AND AVERAGE ISSUE: AUSTRALIA.

Age at Marri. ge.	Average Issue.							
	Males.				Females.			
	1911.	1921.	1931.	1938.	1911.	1921.	1931.	1938.
Under 15 years ..	..	..	..	1.50	9.71	7.60	6.36	6.80
15 to 19 " ..	6.97	6.32	6.15	5.54	7.10	6.97	6.79	6.38
20 " 24 " ..	6.34	6.05	5.56	5.06	5.77	5.50	5.23	4.97
25 " 29 " ..	5.70	5.17	4.70	4.33	4.27	4.09	3.79	3.63
30 " 34 " ..	4.92	4.45	3.96	3.56	3.04	2.66	2.42	2.35
35 " 39 " ..	4.05	3.90	3.14	2.79	1.68	1.61	1.40	1.33
40 " 44 " ..	3.43	2.67	2.36	2.08	0.72	0.62	3.88	0.40
45 " 49 " ..	2.59	2.20	1.96	1.45	0.26	0.03	0.12	0.29
50 " 54 " ..	2.45	1.70	1.60	0.91	..	..	..	..
55 " 59 " ..	1.66	1.30	0.95	0.84	..	..	..	..
60 " 64 " ..	2.00	0.33	0.63	0.60	..	..	..	..
65 years and up-wards ..	1.00	0.25	0.18	0.05	..	..	..	..
Age unspecified ..	5.40	4.93	3.64	3.29	5.23	5.41	3.96	3.29
All Ages ..	5.42	4.97	4.44	4.05	5.35	5.05	4.72	4.39

17. Birthplaces of Deceased Married Males and Females, and Issue.—The following table shows the birthplaces of married males and females who died in 1911 and 1938, together with the average issue. It will be noted that the differences in the average issue of deceased natives of Australia and of the British Isles, which were so marked in 1911, are tending to disappear probably as the result of the approaching similarity of the age constitutions of the two groups.

BIRTHPLACES OF DECEASED MARRIED MALES AND FEMALES, AND AVERAGE ISSUE: AUSTRALIA.

Birthplace.	Married Males.				Married Females.			
	1911.		1938.		1911.		1938.	
	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.
Australasia—								
Australia	4,074	4.71	16,339	4.04	4,566	4.57	15,508	4.35
New Zealand	64	3.89	254	2.96	56	3.84	208	3.50
Europe—								
England and Wales ..	4,079	5.87	4,068	4.01	3,152	5.86	3,338	4.33
Scotland	1,133	5.89	974	4.09	1,002	6.09	815	4.44
Ireland	1,766	6.12	939	4.71	2,118	5.83	1,038	4.90
Other British Possessions	23	6.52	32	3.78	24	5.75	23	5.00
Western	199	4.33	243	4.06	55	5.07	60	4.98
Central	484	5.81	331	5.24	270	6.56	256	5.80
Southern	58	5.09	177	3.16	12	4.92	56	3.93
Eastern	35	4.37	57	3.84	6	4.50	26	4.54
Asia—								
British Possessions	32	3.87	71	3.82	17	6.41	36	4.42
Foreign Countries	74	2.46	110	3.36	5	2.60	18	4.94
Africa—								
British Possessions	16	3.56	24	2.25	15	4.80	21	3.33
Foreign Countries .. ..	..	..	1	9.00	..	..	..	..
America—								
British Possessions	42	5.55	47	3.83	17	6.47	25	4.12
United States	40	3.78	39	3.33	17	4.94	33	3.61
Other Foreign Countries ..	17	4.53	7	2.29	10	4.50	7	3.14
Polynesia	5	4.00	22	3.73	9	3.33	10	5.20
At Sea and Indefinite	72	4.28	92	3.87	72	4.85	106	4.58
Total	12,213	5.42	23,827	4.05	11,423	5.35	21,584	4.39

18. Occupations of Deceased Married Males, and Issue.—The following tabulation shows the average issue in combination with the occupation of deceased males :—

**OCCUPATIONS OF DECEASED MARRIED MALES AND AVERAGE ISSUE :
AUSTRALIA.**

Occupation Group.	Deaths of Married Males.			Average Issue.		
	1921.	1931.	1938.	1921.	1931.	1938.
Professional	926	1,194	1,729	4.04	3.78	3.25
Domestic	552	621	641	3.55	3.64	3.12
Commercial	1,977	2,962	2,744	4.18	3.55	3.34
Transport and Communica- tion	1,254	1,742	2,280	4.63	4.15	3.94
Industrial	5,086	6,883	4,938	4.95	4.49	3.96
Agricultural, Pastoral, Min- ing, etc.	3,983	4,495	5,452	5.83	5.31	4.86
Indefinite	759	936	(a)6,043	5.49	4.68	(a) 4.09
Dependent	15	39	..	4.00	3.85	..
Total	14,552	18,872	23,827	4.97	4.44	4.05

(a) Includes 4,468 clerks, labourers, etc. (average issue 4.03), not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

§ 5. Australian Life Tables.

The Official Year Book, No. 20, pp. 962 and 969 to 973, contained a synopsis of the various Australian Life Tables, and comparisons with other countries of the expectation of life at various ages were also given. Considerations of space, however, do not permit of their repetition herein. In connexion with the Census of 1933 Life Tables have been constructed in respect of each sex for Australia as a whole, and these together with monetary tables on single and joint lives based thereon have been published as separate Census publications. A specially contributed article by F. W. Barford, M.A., A.I.A., on the results of the tables for single lives appeared in Official Year Book, No. 29, p. 928.

§ 6. Registration of Births, Deaths and Marriages in the Australian Capital Territory.

Up to the end of 1929 the provisions of the Registration of Births, Deaths and Marriages Act of 1899 and the Marriage Act of 1899 of New South Wales applied to the Australian Capital Territory. Births, deaths and marriages occurring within the Territory were registered by the District Registrars at Queanbeyan and Nowra, and were incorporated in the New South Wales records.

Towards the end of 1929, however, the Registration of Births, Deaths and Marriages Ordinances were enacted, providing for the assumption by the Commonwealth Government of the function of registration within the Territory as from 1st January, 1930. The Commonwealth Statistician is the Principal Registrar, and all registrations are made at Canberra.

Marriages within the Territory are celebrated according to the conditions prescribed by the Marriage Ordinance 1929-1938. This Ordinance, which closely follows the provisions of the Marriage Act of New South Wales, which it supersedes as regards the Australian Capital Territory, came into operation on 1st January, 1930.

CHAPTER XIV.

POPULATION.

§ 1. Enumerations and Estimates.

The nature of the early "musters" of the population and the subsequent Census enumerations which have been conducted in Australia were reviewed in Official Year Book, Number 15, pp. 1083-5. This review was accompanied by a tabular statement showing the dates on which the various enumerations were made, and the numbers counted on such occasions.

§ 2. Accuracy of Estimates of Population.

The results obtained at the Census attain a very high degree of accuracy and may generally be accepted without reservation.

Since the establishment of the Commonwealth Bureau of Census and Statistics attention has been given to the improvement of intercensal estimates. There was little doubt that the principal source of error was in the records of migration, and efforts were directed particularly to the improvement of these records with very gratifying results. The Census of 1911 disclosed an error in the pre-censal estimates of an amount equal to a percentage on the recorded oversea departures from Australia of 14.5 per cent. for males and 10 per cent. for females. After the Census of 1921 these adjusting factors were reduced to 1 per cent. for males and $4\frac{1}{2}$ per cent. for females, and from the results of the Census of the 30th June, 1933, it would appear that the accuracy of the records of oversea migration is such that in future no adjustment of the recorded figures for Australia as a whole will be necessary.

It is improbable that the same degree of accuracy as has been attained in the record of external migration can be reached in the case of interstate movements. Records are made of interstate movements by sea, by rail, and by air, but to record the movements by road is impracticable.

§ 3. Census Statistics.

1. **Census of 1933.**—The first occasion on which the Census of the several Australian Colonies was taken on the same date was in the year 1881. Under the provisions of the Commonwealth Census and Statistics Act, which provides for the enumeration being dealt with from one centre instead of by each State as formerly, the first Census for the Commonwealth of Australia was taken by the Commonwealth Statistician in 1911, and the second in 1921. In accordance with the provisions of the Census and Statistics Act 1905-1930 the third Commonwealth Census would have been taken in 1931, but owing to the necessity for economy in government expenditure it was decided to defer that Census, and the date was subsequently fixed for the 30th June, 1933, the Census

for the whole of Australia being taken as for the night between the 29th and the 30th June, 1933. The numbers recorded in the several States and Territories on the 4th April, 1921, and the 30th June, 1933, were as follows:—

POPULATION OF STATES IN CENSUS YEARS, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

State or Territory.	4th April, 1921.			30th June, 1933.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
States—						
New South Wales ..	1,071,501	1,028,870	2,100,371	1,318,471	1,282,376	2,600,847
Victoria ..	754,724	776,556	1,531,280	903,244	917,017	1,820,261
Queensland ..	398,969	357,003	755,972	497,217	450,317	947,534
South Australia ..	248,267	246,893	495,160	290,962	289,987	580,949
Western Australia..	177,278	155,454	332,732	233,937	204,915	438,852
Tasmania ..	107,743	106,037	213,780	115,097	112,502	227,599
Territories—						
Northern ..	2,821	1,046	3,867	3,378	1,472	4,850
Australian Capital..	1,567	1,005	2,572	4,805	4,142	8,947
Australia ..	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839

2. Increase since Census of 1881.—(i) *Australia.* The increase of population between the Census of 4th April, 1921, and that of 30th June, 1933, was 1,194,105, of which 604,241 were males and 589,864 were females, as compared with an increase of 980,729, comprising 449,835 males and 530,894 females, for the preceding ten years. The population enumerated at each Census from 1881 to 1933 was as follows:—

POPULATION OF AUSTRALIA AT EACH CENSUS, 1881 to 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Date.	Males.	Females.	Persons.	Masculinity. (a)
3rd April, 1881 ..	1,214,913	1,035,281	2,250,194	117.35
5th April, 1891 ..	1,704,039	1,470,353	3,174,392	115.39
31st March, 1901 ..	1,977,928	1,795,873	3,773,801	110.14
3rd April, 1911 ..	2,313,035	2,141,970	4,455,005	107.99
4th April, 1921 ..	2,762,870	2,672,864	5,435,734	103.36
31st March, 1931 (b)	3,316,423	3,197,704	6,514,127	103.71
30th June, 1933 ..	3,367,111	3,262,728	6,629,839	103.20

(a) Number of males to each 100 females.
Census of 30.6.1933.

(b) These figures have been estimated from the

(ii) *States and Territories.* The postponement till 1933 of the Census which ordinarily would have been taken in 1931 destroyed the continuity of the decennial intercensal period which had obtained in Australia since 1881, and consequently the increase shown in the following table for the period 1921-33 (12½ years) is not directly comparable with

the results shown for the earlier periods. The corresponding increases for the ten-year period (1921-1931) have been estimated from the latest Census data, and have been inserted in the table. The increases in the population of the several States and Territories during the last five intercensal periods have been as follows:—

POPULATION : INTERCENSAL INCREASES.

State or Territory.	1881-1891.	1891-1901.	1901-1911.	1911-1921.	1921-1931 (estimated)	1921-1933 (12½ years)
New South Wales ..	{ Number	374,129	230,892	293,602	453,637	450,930
	{ Per cent.	49.90	20.54	21.67	27.55	21.47	500,476 23.83
Victoria ..	{ Number	278,274	61,230	114,481	215,729	266,178
	{ Per cent.	32.30	5.37	9.53	16.40	17.38	288,981 18.87
Queensland ..	{ Number	180,193	104,411	107,684	150,159	164,388
	{ Per cent.	84.39	26.52	21.62	24.79	21.75	191,562 25.34
South Australia ..	{ Number	39,119	42,813	50,212	86,602	80,024
	{ Per cent.	14.15	13.57	14.01	21.20	16.16	85,789 17.33
Western Australia ..	{ Number	20,074	134,342	97,990	50,618	98,679
	{ Per cent.	67.57	269.86	53.22	17.94	29.66	106,120 31.89
Tasmania ..	{ Number	30,962	25,808	18,736	22,569	10,674
	{ Per cent.	26.76	17.60	10.86	11.80	4.99	13,819 6.46
Northern Territory	{ Number	1,447	(b) - 87	(b) - 1,501	557	1,104
	{ Per cent.	41.93	(b) - 1.78	(b) - 31.20	16.83	28.55	983 25.42
Australian Capital Territory	{ Number	(a)	(a)	(a)	858	6,416
	{ Per cent.	(a)	(a)	(a)	50.06	249.46	6,375 247.86
Australia ..	{ Number	924,198	599,409	681,204	980,729	1,078,393
	{ Per cent.	41.07	18.88	18.05	22.01	19.84	1,194,105 21.97

(a) Included in New South Wales.

(b) Decrease.

For Australia as a whole the numerical increase during the period 1921-1931 was greater by 97,664 than that for the period 1911-1921, but the percentage increase declined from 22.01 for 1911-1921 to 19.84 for 1921-1931. During the earlier period the increase corresponds to 2.01 per cent. per annum, and in the latter to 1.83 per cent. per annum.

§ 4. Distribution and Fluctuation of Population.

1. **Present Numbers.**—The population of Australia on the 31st December, 1938, was estimated at 6,929,691 persons, of whom 3,504,369, or 50.57 per cent., were males and 3,425,322, or 49.43 per cent., were females. The increase during the year 1938 was 63,101, equal to 0.92 per cent., males having increased by 30,550, or 0.88 per cent., and females by 32,551, or 0.96 per cent. This increase was largely due to the excess of births over deaths, viz., 53,964, the net gain by migration being only 9,137 persons.

2. **Growth and Distribution.**—In issues of the Official Year Book up to No. 15, the male and female populations of Australia as a whole were given at quinquennial periods from 1788, but it is considered that the abridged table presented herewith will suffice for general purposes.

DISTRIBUTION AND FLUCTUATION OF POPULATION.

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ESTIMATED POPULATION, 1800 to 1938.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

As at 31st Decem- ber—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
(a) 1800	3,780	..	..	..	..	..	..	..	3,780
1810	7,585	..	..	..	..	..	..	..	7,585
1820	23,784	..	..	..	..	..	..	..	23,784
1830	33,900	..	..	..	877	(b) 18,108	..	..	52,885
1840	85,560	..	..	8,272	1,434	32,040	..	..	127,306
1850	154,976	..	..	35,902	3,576	44,229	..	..	238,683
1860	197,851	(b) 330,302	(b) 16,817	64,340	9,597	49,653	..	..	668,560
1870	272,121	397,230	69,221	94,894	15,511	53,517	..	..	902,494
1880	404,952	450,558	124,013	147,438	16,985	60,568	..	..	1,204,514
1890	602,704	595,519	223,252	166,049	28,854	76,453	..	..	1,692,831
1900	716,047	601,773	274,684	180,349	110,088	89,793	(c) 4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	(b) 1,062	4,751,730
1927	1,241,763	870,718	460,319	289,303	215,851	110,013	3,569	3,322	3,194,858
1928	1,266,254	879,478	468,323	289,639	225,072	110,750	3,231	4,670	3,247,417
1929	1,283,241	886,472	473,948	288,597	231,361	112,244	3,496	4,736	3,284,095
1930	1,294,419	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1931	1,302,893	896,429	487,932	289,397	232,397	115,176	3,462	4,891	3,332,574
1932	1,315,003	900,663	492,516	290,254	233,049	116,067	3,353	4,560	3,355,465
1933	1,324,839	905,050	497,468	291,722	234,442	116,891	3,370	4,997	3,378,779
1934	1,335,123	910,373	502,505	292,519	235,239	116,952	3,440	4,928	3,401,079
1935	1,344,339	911,710	508,381	293,650	237,229	117,978	3,482	5,005	3,421,774
1936	1,355,493	915,304	514,174	294,807	238,704	118,833	3,506	5,287	3,446,198
1937	1,368,505	918,665	519,689	295,611	241,297	120,869	3,641	5,542	3,473,819
1938	1,379,962	925,892	525,271	297,549	243,559	122,098	3,825	6,213	3,504,369

FEMALES.

(a) 1800	1,437	..	..	..	..	..	..	..	1,437
1810	3,981	..	..	..	..	..	..	..	3,981
1820	9,759	..	..	..	..	..	..	..	9,759
1830	10,688	..	..	..	295	(b) 6,171	..	..	17,154
1840	41,908	..	..	6,358	877	13,959	..	..	63,102
1850	111,924	..	..	27,798	2,310	24,641	..	..	166,673
1860	150,695	(b) 207,932	(b) 11,239	61,242	5,749	40,168	..	..	477,025
1870	225,871	326,695	46,051	89,652	9,624	47,369	..	..	745,262
1880	336,190	408,047	87,027	128,955	12,576	54,222	..	..	1,027,017
1890	510,571	538,209	168,864	152,898	19,648	68,334	..	..	1,458,524
1900	644,258	594,440	219,163	176,901	69,879	83,137	(c) 569	..	1,788,347
1910	785,674	654,926	273,500	200,311	118,861	94,937	563	..	2,128,775
1920	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	(b) 910	2,659,567
1927	1,191,892	871,114	416,066	280,327	184,046	109,138	1,027	2,548	3,056,158
1928	1,216,875	882,268	422,554	282,948	189,549	109,569	1,023	3,567	3,108,353
1929	1,236,452	891,797	428,188	284,376	195,276	111,034	1,284	3,711	3,152,118
1930	1,251,934	900,183	435,177	285,849	198,742	111,792	1,365	3,987	3,189,029
1931	1,263,421	907,141	441,794	287,682	201,289	113,288	1,384	4,030	3,220,029
1932	1,276,728	912,724	446,581	289,039	203,271	114,540	1,433	4,004	3,248,320
1933	1,288,680	919,429	451,563	290,955	205,822	115,219	1,448	4,256	3,272,378
1934	1,301,080	927,117	456,992	291,775	207,371	114,495	1,504	4,264	3,304,592
1935	1,313,327	931,313	462,338	292,793	210,516	115,130	1,609	4,314	3,331,340
1936	1,326,243	936,289	467,960	294,505	212,853	116,495	1,709	4,500	3,360,554
1937	1,342,233	940,822	473,772	295,590	215,814	118,121	1,713	4,706	3,392,771
1938	1,355,733	947,868	478,879	297,560	218,902	119,309	1,820	5,251	3,425,322

(a) Details as to sex not available for earlier years. (b) Previously included with New South Wales. (c) Previously included with South Australia.

ESTIMATED POPULATION—*continued.*

As at 31st Decem- ber—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
PERSONS.									
1788	859	..	..	..	..	..	..	..	859
1790	2,056	..	..	..	..	..	..	..	2,056
1800	5,217	..	..	..	..	..	..	..	5,217
1810	11,566	..	..	..	..	..	..	..	11,566
1820	33,543	..	..	..	..	..	..	..	33,543
1830	44,588	..	..	..	1,172	(b)24,279	..	..	70,039
1840	127,468	..	..	14,630	2,311	45,999	..	..	190,408
1850	266,900	..	..	63,700	5,886	68,870	..	..	405,356
1860	348,546	(b)538,234	(b)28,056	125,582	15,346	89,821	..	..	1,145,585
1870	497,992	723,925	115,272	184,546	25,135	100,886	..	..	1,647,756
1880	741,142	858,605	211,040	276,393	29,561	114,790	..	..	2,231,531
1890	1,113,275	1,133,728	392,116	318,947	48,502	144,787	..	..	3,151,355
1900	1,360,305	1,196,213	493,847	357,250	179,967	172,900	(a)4,857	..	3,765,339
1910	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	(b) 1,972	5,411,297
1927	2,433,655	1,741,832	876,385	569,630	399,897	219,151	4,596	5,870	6,251,016
1928	2,483,129	1,761,746	890,877	572,587	414,621	220,319	4,254	8,237	6,355,770
1929	2,519,693	1,778,269	902,136	572,973	426,637	223,278	4,780	8,447	6,436,213
1930	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1931	2,566,314	1,803,570	929,726	577,079	433,686	228,464	4,846	8,921	6,552,606
1932	2,591,731	1,813,387	939,097	579,293	436,320	230,607	4,786	8,564	6,603,785
1933	2,613,519	1,824,479	949,031	582,677	440,264	232,110	4,818	(c) 9,253	6,656,151
1934	2,636,203	1,837,490	959,497	584,294	442,610	231,447	4,944	(c) 9,192	6,705,677
1935	2,657,666	1,843,023	970,719	586,443	447,745	233,108	5,091	(c) 9,319	6,753,114
1936	2,681,736	1,851,593	982,134	589,312	451,557	235,328	5,305	(c) 9,787	6,806,752
1937	2,710,738	1,859,487	993,461	591,201	457,111	238,990	5,354	(c) 10,248	6,866,590
1938	2,735,695	1,873,760	1,004,150	595,109	462,461	241,407	5,645	11,464	6,929,691

(a) Previously included with South Australia.

(b) Previously included with New South Wales.

(c) See letter-press below.

Estimates of population for intercensal years are obtained by applying the vital and migration statistics for those years to the numbers recorded at the Census. Figures for inter-State migration are liable to error owing to the impracticability of tracing movements of motor traffic. The estimates of population of the Australian Capital Territory are particularly affected by this difficulty, and a supplementary Census for the Territory taken on the 30th June, 1938, revealed considerable understatement in the intercensal estimates of population during the preceding five years. The discrepancy is believed to be due to the unrecorded movements by road, and the following are revised estimates of population at the 31st December, based on corrected net migration figures for the years affected—1933, 9,341; 1934, 9,457; 1935, 9,761; 1936, 10,406; 1937, 11,043. As the corresponding State population estimates are affected by relatively small amounts only, it has been considered desirable to postpone the adjustments involved until the completion of the next Commonwealth Census, when they will be incorporated in the general revision of intercensal population estimates and migration records.

The results of the 1938 Census of the Australian Capital Territory will be found in § 14 of this chapter.

A comparison of annual rates of growth of population of Australia and other countries will be found in § 5 par. 4 of this chapter.

The growth of the population of Australia and of each State thereof is illustrated by the graph accompanying this chapter on page 367.

3. Mean Population.—(i) *Calendar Years.* The following table shows the mean population for each State and Territory for the calendar years 1928 to 1938.

MEAN POPULATION : CALENDAR YEARS, 1928 to 1938.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Year ended 31st December.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1928 ..	2,460,410	1,751,974	884,815	570,863	407,576	215,471	4,459	8,198	6,303,766
1929 ..	2,503,026	1,770,133	897,599	572,457	420,756	217,752	4,467	8,541	6,394,701
1930 ..	2,532,289	1,786,217	910,319	573,242	429,079	220,933	4,979	8,961	6,466,019
1931 ..	2,555,871	1,799,241	924,825	575,717	432,347	224,811	4,959	8,801	6,526,572
1932 ..	2,579,741	1,808,618	935,575	578,010	435,041	227,084	4,917	8,925	6,577,911
1933 ..	2,601,782	1,820,568	945,454	581,019	438,688	228,434	4,860	(a)9,056	6,629,861
1934 ..	2,623,560	1,830,898	955,584	583,343	441,611	229,161	4,933	(a)9,259	6,678,349
1935 ..	2,645,575	1,839,361	966,198	585,015	445,384	229,616	5,101	(a)9,382	6,725,632
1936 ..	2,667,839	1,847,665	978,589	587,549	450,036	231,046	5,255	(a)9,765	6,777,744
1937 ..	2,694,679	1,856,033	989,668	589,143	454,295	233,951	5,411	(a)10,195	6,833,375
1938 ..	2,721,196	1,867,818	1,000,749	592,579	459,977	235,678	5,726	11,124	6,894,847

(a) See letter-press following previous table. The following are revised estimates:—1933, 9,078; 1934, 9,435; 1935, 9,735; 1936, 10,295; 1937, 10,902.

(ii) *Financial Years.* The mean population for financial years is now widely used in connexion with rates for those statistics which are tabulated over a financial year period. The following table shows the mean population for each State and Territory for the years ended 30th June, 1929 to 1939.

MEAN POPULATION : FINANCIAL YEARS, 1929 to 1939.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Year ended 30th June.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1929 ..	2,484,071	1,761,212	891,435	572,028	414,489	216,411	4,369	8,419	6,352,434
1930 ..	2,518,553	1,778,761	903,703	573,577	425,785	219,269	4,762	8,836	6,432,246
1931 ..	2,544,691	1,792,802	917,830	574,383	431,022	222,820	5,011	8,877	6,497,436
1932 ..	2,567,639	1,804,014	930,456	576,893	433,596	226,045	4,932	8,961	6,552,536
1933 ..	2,590,840	1,814,797	940,628	579,422	436,798	227,927	4,867	8,740	6,604,019
1934 ..	2,613,063	1,824,943	950,351	582,394	440,363	229,041	4,883	(a)9,294	6,654,332
1935 ..	2,634,353	1,836,438	960,859	584,162	443,160	229,148	5,020	(a)9,276	6,702,416
1936 ..	2,656,512	1,843,079	972,190	586,197	447,855	230,374	5,164	(a)9,525	6,750,896
1937 ..	2,680,730	1,852,071	984,117	588,300	451,890	232,208	5,320	(a)10,000	6,804,636
1938 ..	2,708,833	1,861,074	995,333	590,722	457,210	235,048	5,540	(a)10,458	6,864,218
1939 ..	2,733,936	1,874,967	1,006,831	594,402	462,671	236,926	5,847	11,708	6,927,288

(a) See footnote (c) to table on p. 352. The following are revised estimates:—1933-34, 9,382; 1934-35, 9,540; 1935-36, 9,966; 1936-37, 10,619; 1937-38, 11,180.

4. *Proportion of Area and Population, Masculinity and Density : States, 1938.*—A previous table showed the estimated number of persons on the 31st December, 1938, in each of the States and Territories. In the following table the percentages of the total

area and of the total population represented by each State or Territory are given, together with the masculinity and the density of population :—

AREA, POPULATION, MASCULINITY AND DENSITY, 1938.

State or Territory.	Percentage of Total Area.	Percentage of Estimated Population, 31st December, 1938.			Masculinity.(a)	Density.(b)
		Males.	Females.	Persons.		
	%	%	%	%	%	%
New South Wales ..	10.40	39.38	39.58	39.48	101.79	8.84
Victoria ..	2.96	26.42	27.67	27.04	97.68	21.32
Queensland ..	22.54	14.99	13.98	14.49	109.69	1.50
South Australia ..	12.78	8.49	8.69	8.59	100.00	1.57
Western Australia ..	32.81	6.95	6.39	6.67	111.26	0.47
Tasmania ..	0.88	3.48	3.49	3.48	102.34	9.21
Northern Territory ..	17.60	0.11	0.05	0.08	210.16	0.11
Australian Capital Territory ..	0.03	0.18	0.15	0.17	118.32	12.20
Australia ..	100.00	100.00	100.00	100.00	102.31	2.33

(a) Number of males to each 100 females.

(b) Number of persons per square mile.

Additional information regarding masculinity and density of population appears in later sections of this chapter.

5. **Urban and Rural Distribution.**—At the Census of 30th June, 1933, information was obtained regarding the distribution of the population amongst urban and rural areas. The metropolitan division of each State includes the capital city and the adjoining urban municipal areas; the urban provincial districts in all States excepting Tasmania were taken for Census purposes as being those cities and towns which are not adjacent to the metropolitan areas, and which are incorporated for local government purposes; the rural area comprises the remainder of the State whether incorporated or not incorporated: while those persons classed as migratory were on board ships in Australian ports or were travelling on long-distance trains throughout Census night.

The results obtained at the Census for each State and Territory are shown in the following table :—

URBAN AND RURAL POPULATION: CENSUS, 30th JUNE, 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Division.	Males.	Females.	Persons.	Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
				Census, 1921.	Census, 1933.	
NEW SOUTH WALES.						
Urban—				%	%	%
Metropolitan ..	591,104	644,163	1,235,267	42.80	47.50	37.40
Provincial ..	283,439	282,001	565,440	25.00	21.74	7.70
Rural ..	439,486	355,615	795,101	31.64	30.57	19.64
Migratory ..	4,442	597	5,039	0.56	0.19	-56.99
Total ..	1,318,471	1,282,376	2,600,847	100.00	100.00	23.83

NOTE.—Minus sign (—) denotes decrease.

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	Males.	Females.	Persons.	Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
				Census, 1921.	Census, 1933.	

VICTORIA.

Urban—						
Metropolitan	464,775	527,159	991,934	50.05	54.49	29.42
Provincial ..	94,790	103,401	198,191	12.24	10.89	5.71
Rural ..	342,233	286,325	628,558	37.33	34.53	9.97
Migratory ..	1,446	132	1,578	0.38	0.09	-72.55
Total ..	903,244	917,017	1,820,261	100.00	100.00	18.87

QUEENSLAND.

Urban—						
Metropolitan	143,525	156,223	299,748	27.77	31.63	42.77
Provincial ..	97,853	101,291	199,144	24.30	21.02	8.40
Rural ..	252,357	192,232	444,589	47.49	46.92	23.84
Migratory ..	3,482	571	4,053	0.44	0.43	23.12
Total ..	497,217	450,317	947,534	100.00	100.00	25.34

SOUTH AUSTRALIA.

Urban—						
Metropolitan	147,936	164,683	312,619	51.57	53.81	22.42
Provincial ..	25,290	26,166	51,456	8.41	8.86	23.58
Rural ..	115,909	98,853	214,762	39.39	36.97	10.10
Migratory ..	1,827	285	2,112	0.63	0.36	-31.74
Total ..	290,962	289,987	580,949	100.00	100.00	17.33

WESTERN AUSTRALIA.

Urban—				%	%	%
Metropolitan	99,288	108,152	207,440	46.55	47.27	33.94
Provincial ..	23,060	21,745	44,805	12.79	10.21	5.25
Rural ..	108,732	74,677	183,409	39.10	41.79	40.98
Migratory ..	2,857	341	3,198	1.56	0.73	-38.38
Total ..	233,937	204,915	438,852	100.00	100.00	31.89

. NOTE.—Minus sign (—) denotes decrease.

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	Males.	Females.	Persons.	Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
				Census, 1921.	Census, 1933.	

TASMANIA.

Urban—						
Metropolitan	28,351	32,055	60,406	24.49	26.54	15.36
Provincial ..	26,971	29,806	56,777	26.03	24.95	2.04
Rural ..	59,138	50,629	109,767	49.17	48.23	4.42
Migratory ..	637	12	649	0.31	0.28	-0.46
Total ..	115,097	112,502	227,599	100.00	100.00	6.46

NORTHERN TERRITORY.

Urban—						
Provincial ..	912	654	1,566	36.18	32.29	11.94
Rural ..	2,391	818	3,209	62.14	66.16	33.54
Migratory ..	75	..	75	1.68	1.55	15.38
Total ..	3,378	1,472	4,850	100.00	100.00	25.42

AUSTRALIAN CAPITAL TERRITORY.

Urban—						
Provincial ..	3,839	3,486	7,325	..	81.87	..
Rural ..	966	656	1,622	99.65	18.13	..
Migratory ..	..	..	..	0.35	..	..
Total ..	4,805	4,142	8,947	100.00	100.00	247.86

AUSTRALIA.

Urban—						
Metropolitan	1,474,979	1,632,435	3,107,414	43.01	46.87	32.90
Provincial ..	556,154	568,550	1,124,704	19.09	16.97	8.41
Rural ..	1,321,212	1,059,805	2,381,017	37.35	35.91	17.27
Migratory ..	14,766	1,938	16,704	0.55	0.25	-43.88
Total ..	3,367,111	3,262,728	6,629,839	100.00	100.00	21.97

NOTE.—Minus sign (—) denotes decrease.

At the 30th June, 1933, the metropolitan divisions contained 46.87 per cent. of the total population of Australia as compared with 43.01 per cent. at the Census of 1921. Victoria had the largest percentage of population residing in the metropolitan area (54.49) but was closely followed in this respect by South Australia (53.81). During the intercensal period, however, the highest rates of increase in metropolitan population were experienced in Queensland and New South Wales.

The percentage of population in the rural divisions of Australia declined from 37.35 per cent. in the year 1921 to 35.91 per cent. on the 30th June, 1933. Tasmania, with 48.23 per cent., had the largest proportion of population residing in the rural sections of the State and Queensland was next with 46.92 per cent. Since the Census of 1921, however, the greatest percentage increase in rural population occurred in Western Australia (40.98 per cent.), which was more than double the average rate of increase for rural areas in Australia.

A feature of the metropolitan population is its high femininity. In 1921, 52.3 per cent. of the metropolitan population was composed of females, and in 1933 the proportion had risen slightly to 52.5 per cent., the proportion being highest in Victoria and Tasmania at 53.1 per cent.

6. Metropolitan Population : Australia and Other Countries.—In Australia there is an abnormal concentration of population in the capital cities, which are the only ones of outstanding importance in the various States. A comparison with the capitals of the more important countries is given in the following table :—

METROPOLITAN POPULATION : AUSTRALIA AND OTHER COUNTRIES.

State or Country.	Metropolis.	Year.	Metropolitan Population.
New South Wales ..	Sydney	1938	1,288,720
Victoria	Melbourne	"	1,035,600
Queensland	Brisbane	"	325,890
South Australia	Adelaide	"	321,410
Western Australia	Perth	"	220,330
Tasmania	Hobart	"	63,250
England	London (a)	"	8,700,000
Scotland	Edinburgh	"	469,700
Northern Ireland	Belfast	"	443,500
Eire	Dublin	"	477,000
South Africa	Capetown (b)	1936	173,412
New Zealand	Wellington	1938	154,400
Belgium	Brussels	1937	910,154
Czechoslovakia	Prague	1934	911,290
Denmark	Copenhagen	1935	843,168
France	Paris	1936	2,829,746
Germany	Berlin	1937	4,299,000
Greece	Athens	"	494,080
Hungary	Budapest	1938	1,067,124
Italy	Rome	"	1,279,748
Japan	Tokyo (c)	"	6,457,600
Netherlands	Amsterdam	1937	788,373
Norway	Oslo	"	275,033
Portugal	Lisbon	"	670,004
Russia (Soviet Union)	Moscow	1936	3,641,500
Spain	Madrid	1935	991,436
Sweden	Stockholm	1937	556,934
United States	New York (d)	1938	7,491,781

(a) Greater London.

(b) European population.

(c) Greater Tokyo.

(d) Principal City.

NOTE.—The population of Canberra in 1938 was 9,740.

7. Principal Urban Areas.—The following table gives the population of the principal urban incorporated areas in each State and Territory of Australia at the Census of 30th June, 1933 :—

POPULATION OF PRINCIPAL URBAN INCORPORATED AREAS: AUSTRALIA,
30th JUNE, 1933.

City or Town.	Population.	City or Town.	Population.
New South Wales—		Queensland—continued.	
Sydney and Suburbs	1,235,267	Townsville	25,876
Newcastle and Suburbs	104,485	Ipswich	22,498
Broken Hill	26,925	Cairns	11,993
Goulburn	14,849	Bundaberg	11,466
Cessnock	14,385	Maryborough	11,415
Lithgow	13,444	Mackay	10,665
Lismore	11,762	Gympie	7,749
Wagga Wagga	11,631	Charters Towers	6,978
Wollongong	11,403	Warwick	6,664
Albury	10,543		
Bathurst	10,413		
Tamworth	9,913	South Australia—	
Orange	9,634	Adelaide and Suburbs	312,619
Fairfield	8,709	Port Pirie	11,677
Dubbo	8,344	Mount Gambier	5,542
West Maitland	8,191	Murray Bridge	3,651
Armidale	6,794	Port Augusta	3,270
Katoomba	6,445	Peterborough	3,059
Grafton	6,411	Port Lincoln	3,006
Liverpool	6,315		
Cabramatta and Canley Vale	6,107		
Parkes	5,846	Western Australia—	
Forbes	5,355	Perth and Suburbs	(a)207,440
Glen Innes	5,352	Kalgoorlie and Suburbs	17,326
Inverell	5,305	Bunbury	5,140
Casino	5,287	Geraldton	4,984
Cowra	5,056	Northam	4,817
		Albany	4,076
		Collie	3,784
Victoria—		Tasmania—	
Melbourne and Suburbs	991,934	Hobart and Suburbs	60,406
Geelong and Suburbs	39,223	Launceston and Suburbs	32,833
Ballarat and Suburbs	37,411	Devonport	5,151
Bendigo and Suburbs	29,131	Queenstown	3,809
Warrnambool	8,906	Burnie	3,390
Mildura	6,617	Ulverstone	2,701
Hamilton	5,786		
Shepparton	5,698	Northern Territory—	
Maryborough	5,631	Darwin	1,566
Wonthaggi	5,593		
Horsham	5,273	Australian Capital Territory—	
Castlemaine	5,221	Canberra	7,325
Queensland—			
Brisbane and Suburbs	299,748		
Rockhampton	29,369		
Toowoomba	26,423		

(a) Includes the City of Fremantle, 25,224.

8. **Provincial Urban Areas.**—In paragraph 5 above the percentage of the total population of each State which is located in incorporated urban provincial areas is shown. In the following table, however, the aggregate population of all cities and towns, outside the metropolitan area of each State, with 2,000 and 3,000 or more inhabitants is shown, irrespective of whether such centres are incorporated separately or not. In addition, the percentage of the aggregate population of these cities and towns to the total population of the State at the Census of the 30th June, 1933, is stated :—

**AGGREGATE POPULATION OF CITIES AND TOWNS OF SPECIFIED SIZE :
CENSUS, 1933.**

State or Territory.	Cities and Towns outside Metropolitan Area with Population of—					
	2,000 and over.			3,000 and over.		
	Number	Population.	Percentage of Population.	Number	Population.	Percentage of Population.
			%			%
New South Wales ..	106	567,094	21.80	69	474,150	18.23
Victoria ..	51	266,355	14.63	29	212,686	11.68
Queensland ..	33	233,154	24.61	19	199,496	21.05
South Australia ..	9	37,207	6.40	6	30,205	5.19
Western Australia ..	9	42,572	9.70	7	37,097	8.59
Tasmania ..	6	44,512	19.55	4	39,971	17.56
Australian Capital Territory ..	1	7,325	81.87	1	7,325	81.87
Total ..	215	1,198,219	18.07	135	1,001,530	15.16

9. **Principal Cities in the World.**—The following table shows the population of the world's largest cities at the latest available dates :—

POPULATION OF THE WORLD'S LARGEST CITIES.
(Cities in the British Empire are printed in Italics.)

Country.	City.	Year.	City Population (ooo omitted).	Country.	City.	Year.	City Population (ooo omitted).
England ..	<i>London (a)</i>	1938	8,700	England ..	<i>Birmingham</i>	1938	1,041
U.S.A. ..	New York	1938	7,492	Spain ..	Barcelona	1935	1,037
Japan ..	Tokyo (b)	1938	6,458	Australia ..	<i>Melbourne</i>	1938	1,036
Germany ..	Berlin	1937	4,299	China ..	Nanking	1936	1,019
Russia ..	Moscow	1936	3,642	Canada ..	<i>Montreal</i>	1931	1,000
U.S.A. ..	Chicago	1934	3,491	Spain ..	Madrid	1935	991
China ..	Shanghai	1936	3,490	Japan ..	Kobe	1938	989
Japan ..	Osaka	1938	3,221	U.S.A. ..	Cleveland	1934	923
France ..	Paris	1936	2,830	Italy ..	Naples	1938	920
Russia ..	Leningrad	1936	2,740	France ..	Marseilles	1936	914
Arg. Republic	Buenos Aires	1938	2,318	Czechoslovakia	Prague	1934	911
U.S.A. ..	Philadelphia	1934	2,004	Belgium ..	Brussels	1937	910
Germany ..	Vienna	1936	1,836	China ..	Canton	1931	861
Brazil ..	Rio de Janeiro	1936	1,711	Denmark ..	Copenhagen	1935	843
Germany ..	Hamburg	1937	1,677	U.S.A. ..	St. Louis	1934	842
China ..	Peiping	1936	1,556	U.S.A. ..	Baltimore	1934	834
U.S.A. ..	Detroit	1934	1,487	England ..	<i>Liverpool</i>	1938	827
India ..	<i>Calcutta (c)</i>	1931	1,486	Canada ..	Toronto	1931	809
Egypt ..	Cairo	1937	1,307	U.S.A. ..	Boston	1934	795
China ..	Tientsin	1936	1,292	Netherlands	Amsterdam	1937	788
Australia ..	<i>Sydney</i>	1938	1,289	China ..	Hankow	1931	778
U.S.A. ..	Los Angeles	1934	1,283	Japan ..	Yokohama	1938	777
Italy ..	Rome	1938	1,280	Chile ..	Santiago	1933	771
Japan ..	Nagoya	1938	1,224	Germany ..	Cologne	1937	765
Italy ..	Milan	1937	1,206	Germany ..	Munich	1937	760
Poland ..	Warsaw	1938	1,172	England ..	<i>Manchester</i>	1938	733
India ..	<i>Bombay</i>	1931	1,161	Germany ..	Leipzig	1937	699
Japan ..	Kyoto	1938	1,160	Italy ..	Turin	1938	690
Scotland ..	<i>Glasgow</i>	1938	1,126	U.S.A. ..	Pittsburgh	1934	686
Brazil ..	Sao Paulo	1936	1,120	U.S.A. ..	San Francisco	1934	686
Hungary ..	Budapest	1936	1,067	Uruguay ..	Montevideo	1937	683
Mexico ..	Mexico City	1933	1,065	Egypt ..	Alexandria	1937	682

(a) Greater London.

(b) Greater Tokyo.

(c) Including Howrah.

POPULATION OF THE WORLD'S LARGEST CITIES—*continued.*
(Cities in the British Empire are printed in Italics.)

Country.	City.	Year.	City Population (ooo omitted).	Country.	City.	Year.	City Population (ooo omitted).
Thailand	Bangkok	1937	681	Netherlands	Rotterdam	1937	606
Germany	Essen	1937	671	U.S.A.	Milwaukee	1934	600
Russia	Baku	1936	670	U.S.A.	Buffalo	1938	599
Portugal	Lisbon	1937	670	France	Lyons	1936	571
Hong Kong	<i>Hong Kong</i>	1937	657	Russia	Taschkent	1936	565
Italy	Genoa	1938	654	Cuba	Havana	1937	560
India	<i>Madras</i>	1931	647	Sweden	Stockholm	1937	550
Rumania	Bucharest	1936	643	Germany	Frankforton		
Germany	Dresden	1937	638		Main	1937	551
China	Chungking	1931	635	Germany	Dortmund	1937	546
China	Wenchow	1931	631	Germany	Dusseldorf	1937	523
Russia	Kharkov	1936	625	England	<i>Sheffield</i>	1938	520
Russia	Kiev	1936	625	China	Tsingtao	1931	515
Germany	Breslau	1937	623	Arg. Republic	Rosario		
China	Changsha	1931	607		(Santa Fe)	1937	511
Poland	Lodz	1938	605	China	Hangchow	1931	507

§ 5. Elements of Increase.

1. **Natural Increase.**—(i) *General.* The two factors which contribute to the growth of a population are the “natural increase” by excess of births over deaths, and the “net migration,” i.e., the excess of arrivals over departures. In earlier issues of the Official Year Book particulars of the natural increase from 1861 were given for each sex and State (See No. 22, page 899). In the following table particulars for each sex are given in States for each quinquennium from 1901 to 1935 and for the latest ten years. The natural increase for Australia from 1861 to 1938 inclusive was 4,452,137, consisting of 2,064,168 males and 2,387,969 females, and represented 76.97 per cent. of the total increase in population. During the present century the rate of natural increase grew until it reached the maximum rate of 17.44 per thousand of population in the year 1914, but it steadily declined after that year to 7.07 in 1934. The figure rose to 8.00 per thousand in 1937 as the result of small gains during each of the previous three years but fell slightly in 1938 to 7.83. A graph showing the natural increase to the population of Australia from 1860 onwards appears on page 368 of this chapter.

POPULATION: NATURAL INCREASE (a), 1901 to 1938.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
1901-05..	51,179	34,332	16,628	12,149	8,283	7,955	-223	(b)	130,303
1906-10..	64,127	38,948	21,415	14,500	10,762	8,703	-264	(b)	158,191
1911-15..	77,070	46,160	27,497	18,673	12,730	9,386	-201	78	191,393
1916-20..	72,030	41,388	26,894	16,413	9,787	8,673	-125	75	175,135
1921-25..	80,860	49,254	28,941	16,721	10,284	8,543	-68	37	194,572
1926-30..	72,430	43,756	25,645	14,583	11,245	7,001	-131	175	174,704
1931-35..	51,566	25,286	20,627	8,686	8,576	5,810	-93	270	120,728
1929 ..	13,046	8,263	4,430	2,725	2,076	1,334	-25	56	31,905
1930 ..	14,507	8,548	5,255	2,491	2,479	1,419	-25	51	34,735
1931 ..	12,654	6,442	4,650	1,978	2,052	1,410	-25	64	29,225
1932 ..	11,010	5,078	4,272	1,721	1,817	1,179	-22	60	25,115
1933 ..	10,072	5,183	3,872	2,013	1,608	1,133	-13	42	23,910
1934 ..	8,931	4,245	4,010	1,519	1,427	1,116	-13	42	21,277
1935 ..	8,899	4,338	3,823	1,455	1,672	972	-20	62	21,201
1936 ..	10,051	4,800	4,563	1,548	1,676	1,036	14	55	23,743
1937 ..	9,865	5,319	4,454	1,788	1,918	1,241	-4	78	24,659
1938 ..	9,446	5,610	4,445	1,946	2,029	1,308	2	60	24,846

(a) Excess of births over deaths.

(b) Part of New South Wales prior to 1911.

NOTE.—Minus sign (—) denotes excess of deaths over births.

POPULATION: NATURAL INCREASE (a)—continued.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
FEMALES.									
1901-05..	59,163	39,831	22,910	12,701	11,468	8,027	28	(b)	154,128
1906-10..	71,297	42,629	26,048	14,754	13,354	8,522	33	(b)	176,637
1911-15..	87,074	50,258	33,463	19,318	16,262	9,604	62	78	216,119
1916-20..	81,799	42,886	32,273	16,825	13,185	8,821	135	72	195,996
1921-25..	89,438	49,685	34,289	17,595	13,839	8,837	127	82	213,892
1926-30..	80,733	44,417	31,128	15,407	14,406	6,893	126	203	193,313
1931-35..	60,300	28,216	26,036	9,228	12,352	5,953	156	280	142,521
1929 ..	15,043	8,624	5,747	2,901	3,045	1,287	13	58	36,718
1930 ..	16,386	8,620	6,229	2,642	2,947	1,419	19	71	38,333
1931 ..	13,797	6,857	5,658	2,213	2,816	1,295	27	61	32,724
1932 ..	12,542	5,581	5,282	1,843	2,433	1,290	28	62	29,061
1933 ..	11,801	5,753	4,924	1,983	2,476	1,228	26	51	28,242
1934 ..	10,930	4,935	5,158	1,537	2,298	1,009	41	61	25,969
1935 ..	11,230	5,090	5,014	1,652	2,329	1,131	34	45	26,525
1936 ..	11,766	5,305	5,599	1,899	2,573	1,158	39	59	28,398
1937 ..	12,397	5,799	5,702	1,950	2,626	1,375	40	87	29,976
1938 ..	11,768	5,779	5,346	1,925	2,878	1,311	31	80	29,118
PERSONS.									
1901-05..	110,342	74,163	39,538	24,850	19,751	15,982	-195	(b)	284,431
1906-10..	135,424	81,577	47,463	29,254	24,116	17,225	-231	(b)	334,828
1911-15..	164,144	96,418	60,960	37,991	28,992	18,990	-139	156	407,512
1916-20..	153,829	84,274	59,167	33,238	22,972	17,494	10	147	371,131
1921-25..	170,298	98,939	63,230	34,316	24,123	17,380	59	119	408,464
1926-30..	153,163	88,173	56,773	29,990	25,651	13,894	-	378	368,017
1931-35..	111,866	53,502	46,663	17,914	20,928	11,763	63	550	263,249
1929 ..	28,089	16,887	10,177	5,626	5,121	2,621	-12	114	68,623
1930 ..	30,893	17,168	11,484	5,133	5,426	2,838	-6	132	73,068
1931 ..	26,451	13,299	10,308	4,191	4,868	2,705	2	125	61,949
1932 ..	23,552	10,659	9,554	3,564	4,250	2,469	6	122	54,176
1933 ..	21,873	10,936	8,796	3,996	4,084	2,361	13	93	52,152
1934 ..	19,861	9,180	9,168	3,056	3,725	2,125	28	103	47,246
1935 ..	20,129	9,428	8,837	3,107	4,001	2,103	14	107	47,226
1936 ..	21,817	10,105	10,162	3,447	4,249	2,194	53	114	52,141
1937 ..	22,262	11,118	10,156	3,738	4,544	2,616	36	165	54,635
1938 ..	21,214	11,389	9,791	3,871	4,907	2,619	33	140	53,964

RATE OF NATURAL INCREASE (c)—PERSONS.

1901-05..	15.59	12.31	15.34	13.92	18.07	17.85	-8.8	(b)	14.60
1906-10..	17.25	13.11	16.99	15.44	18.52	18.37	-12.6	(b)	15.93
1911-15..	18.27	13.91	18.61	17.55	18.76	19.63	-7.6	13.71	17.05
1916-20..	15.69	11.65	16.74	14.51	14.56	17.46	0.43	12.23	14.57
1921-25..	15.47	12.32	15.87	13.28	13.69	16.14	3.13	6.84	14.34
1926-30..	12.51	10.10	12.84	10.58	12.63	12.85	-0.22	9.60	11.72
1931-35..	8.60	5.88	9.87	6.17	9.54	10.33	2.54	12.11	7.94
1929 ..	11.22	9.54	11.34	9.83	12.17	12.04	-2.69	13.35	10.73
1930 ..	12.20	9.61	12.62	8.95	12.65	12.85	-1.21	14.73	11.30
1931 ..	10.35	7.39	11.15	7.28	11.26	12.03	0.40	14.20	9.49
1932 ..	9.13	5.89	10.21	6.17	9.77	10.87	1.22	13.67	8.24
1933 ..	8.41	6.01	9.30	6.88	9.31	10.34	2.67	10.27	7.87
1934 ..	7.57	5.01	9.59	5.24	8.44	9.27	5.68	11.12	7.07
1935 ..	7.61	5.13	9.15	5.31	8.98	9.16	2.74	11.40	7.10
1936 ..	8.18	5.47	10.38	5.87	9.44	9.50	10.09	11.67	7.69
1937 ..	8.26	5.99	10.26	6.34	10.00	11.18	6.65	16.18	8.00
1938 ..	7.80	6.10	9.78	6.53	10.67	11.11	5.76	12.58	7.83

(a) Excess of births over deaths. (b) Part of New South Wales prior to 1911. (c) Excess of births over deaths per 1,000 mean annual population. NOTE.—Minus sign (-) denotes excess of deaths over births.

The table above shows the decline which has taken place in the rate of natural increase in all States of the Commonwealth during recent years, the rate for Australia in 1938 being less than half that computed for the peak year 1914, viz., 17.44. During the first five years of the present century the average increment to the population of Australia by this means was about 57,000 persons per annum. The increment rose to a maximum of 82,000 persons per annum in 1921-25, but thereafter fell to 52,650 persons per annum in the quinquennium 1931-35. The average during the last three years was 53,580.

(ii) *Comparison with other Countries.* Notwithstanding its low birth-rate Australia has a higher rate of natural increase than most European Countries, owing to the fact that its death-rate is very low. The following table gives a comparison between the average rates of natural increase in 1937 for the several States of Australia and for the Dominion of New Zealand, with those of some of the principal countries for which such information is available. Corresponding annual rates for the period 1909-1913 have also been appended. Comparisons with the earlier period show, with one or two exceptions, that the fall in the rate of natural increase has been general throughout most countries of the world:—

NATURAL INCREASE PER ANNUM PER 1,000 OF MEAN POPULATION.

(VARIOUS COUNTRIES.)

Country.	1909-13.	1937.	Country.	1909-13.	1937.
Australasia—			Europe— <i>continued.</i>		
Tasmania ..	18.8	11.2	Eire ..	6.3	3.9
Queensland ..	17.9	10.2	Scotland ..	10.7	3.7
Western Australia ..	18.1	10.0	Switzerland ..	9.3	3.7
New South Wales ..	18.0	8.3	England and Wales ..	10.7	2.5
New Zealand ..	17.1	8.2	Sweden ..	10.4	2.3
Australia ..	16.7	8.0	Belgium ..	7.8	2.2
South Australia ..	16.8	6.3	France ..	0.8	0.3
Victoria ..	13.6	6.0	Asia—		
Europe—			Japan ..	13.1	13.6
Russia ..	15.8	(a) 17.4	Africa—		
Netherlands ..	15.1	11.0	Union of South		
Spain ..	9.3	(b) 10.8	Africa (whites only)	(c)	15.1
Italy ..	12.8	8.7	America—		
Denmark ..	13.9	7.2	Canada ..	(c)	9.6
Germany ..	12.8	7.1	United States ..	(c)	5.8
Norway ..	12.4	4.9			
Northern Ireland ..	6.3	4.7			

(a) 1926-30.

(b) 1931-35.

(c) Not available.

2. *Net Migration.**—The other factor of increase in the population, viz., the excess of arrivals over departures, known as "net migration" is, from its nature, much more subject to variations than is the factor of "natural increase". These variations are due to numerous causes, some of which are referred to in Official Year Book No. 22, pp. 906-7.

* The subject of migration is dealt with at some length later in this chapter.

Particulars of the increase by net migration are given below for quinquennial periods from 1901 to 1935 and annually for the last ten years.

POPULATION: INCREASE BY NET MIGRATION, 1901 to 1938.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
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MALES.

1901-05..	15,671	-37,971	495	-11,031	28,127	-1,771	- 697	(a)	-7,177
1906-10..	11,157	9,400	12,291	10,590	711	-5,784	- 366	(a)	37,999
1911-15..	38,483	1,568	13,037	-4,263	189	-9,599	1,050	90	40,375
1916-20..	23,150	18,205	3,614	7,920	-3,782	- 67	- 551	30	48,519
1921-25..	35,660	37,760	18,834	14,244	15,375	-5,630	17	1,199	117,459
1926-30..	37,524	7,849	11,584	-2,230	19,069	-3,668	870	2,259	73,257
1931-35..	- 1,646	-5,951	6,195	-3,654	-4,215	-1,384	- 24	3	-10,676
1929 ..	3,941	-1,269	1,195	-3,767	4,213	160	290	10	4,773
1930 ..	- 3,329	-2,598	2,356	-2,470	- 972	- 158	128	65	-7,168
1931 ..	- 4,180	-2,435	1,723	-1,199	-2,523	261	- 112	95	-8,370
1932 ..	1,100	- 844	312	- 864	-1,165	- 288	- 87	391	-2,227
1933 ..	- 236	- 796	1,080	- 545	- 215	- 309	30	395	- 596
1934 ..	1,353	1,078	1,027	- 722	- 630	-1,055	83	111	1,023
1935 ..	317	-3,001	2,053	- 324	318	54	62	15	- 506
1936 ..	1,103	-1,206	1,230	- 391	- 201	- 181	100	227	681
1937 ..	3,147	-1,958	1,061	- 984	675	795	49	177	2,962
1938 ..	2,011	1,617	1,137	- 8	233	- 79	182	611	5,704

FEMALES.

1901-05..	1,566	-21,984	-2,398	-8,448	22,293	- 726	81	(a)	-9,616
1906-10..	9,390	10	7,780	4,403	1,867	-4,023	- 148	(a)	19,279
1911-15..	48,612	25,051	12,054	5,389	10,650	-5,658	271	118	96,487
1916-20..	21,294	985	2,776	3,863	-4,530	-2,211	47	34	22,190
1921-25..	24,660	19,443	12,154	7,482	6,706	-5,138	- 244	744	65,807
1926-30..	33,326	12,532	3,537	- 341	9,363	-4,293	278	2,048	56,450
1931-35..	1,093	2,943	1,125	-2,284	- 578	-2,644	88	47	- 210
1929 ..	4,534	905	- 113	-1,473	2,682	178	248	86	7,047
1930 ..	- 904	- 234	760	-1,169	519	- 661	62	205	-1,422
1931 ..	- 2,310	101	959	- 380	- 269	201	- 8	18	-1,724
1932 ..	765	2	- 495	- 486	- 451	- 38	21	88	- 770
1933 ..	151	952	58	- 67	75	- 549	- 11	201	810
1934 ..	1,470	2,753	271	- 717	- 749	-1,733	15	53	1,257
1935 ..	1,017	- 894	332	- 634	816	- 496	71	5	217
1936 ..	1,150	- 329	23	- 187	- 236	207	61	127	816
1937 ..	3,593	-1,266	110	- 865	335	251	- 36	119	2,241
1938 ..	1,732	1,267	- 239	45	210	- 123	76	465	3,433

(a) Part of New South Wales prior to 1911.

NOTE.—Minus sign (-) indicates the excess of departures over arrivals.

POPULATION: INCREASE BY NET MIGRATION—*continued.*

Period.	N.S.W.	Victoria	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
PERSONS.									
1901-05..	17,237	-59,955	-1,903	-19,479	50,420	-2,497	- 616	(a)	-16,793
1906-10..	20,547	9,410	20,071	14,993	2,578	-9,807	- 514	(a)	57,278
1911-15..	87,095	26,619	25,091	1,126	10,839	-15,257	1,321	28	136,862
1916-20..	44,444	19,190	6,390	11,783	-8,312	-2,278	- 504	- 4	70,709
1921-25..	60,320	57,203	30,988	21,726	22,081	-10,768	- 227	1,943	183,266
1926-30..	70,850	20,381	15,121	-2,571	28,432	-7,961	1,148	4,307	129,707
1931-35..	- 553	-3,008	7,320	-5,938	-4,793	-4,028	64	(b)50	-10,886
1929 ..	8,475	- 364	1,082	-5,240	6,895	338	538	96	11,820
1930 ..	- 4,233	-2,832	3,116	-3,639	- 453	- 819	190	140	-8,530
1931 ..	- 6,490	-2,334	2,682	-1,579	-2,792	462	- 120	77	-10,094
1932 ..	1,865	- 842	- 183	-1,350	-1,616	- 326	- 66	-479	-2,997
1933 ..	- 85	156	1,138	- 612	- 140	- 858	19	(b)596	214
1934 ..	2,823	3,831	1,298	-1,439	-1,370	-2,788	98	(b)-164	2,280
1935 ..	1,334	-3,895	2,385	- 958	1,134	- 442	133	(b)20	- 289
1936 ..	2,253	-1,535	1,253	- 578	- 437	26	161	(b)354	1,497
1937 ..	6,740	-3,224	1,171	-1,849	1,010	1,046	13	(b)296	5,203
1938 ..	3,743	2,884	898	37	443	- 202	258	1,076	9,137

(a) Part of New South Wales prior to 1911. (b) See footnote (c) to table on p. 352. The following are revised estimates:—1931-35, 492; 1933, 684; 1934, 13; 1935, 197; 1936, 531; 1937, 472.

NOTE.—Minus sign (-) indicates the excess of departures over arrivals.

From 1861 to 1938 the increment to the population arising from net migration amounted to 1,331,969 or 23.03 per cent. of the total increase in population. During the 38 years since 1900 the total increase to the population was made up of 2,598,372 or 82.11 per cent. by natural increase, and 565,980 or 17.89 per cent. by net migration.

There was a loss of population by migration in the first five years of the present century; in the subsequent twenty-five years the increase from migration averaged about 115,000 in each quinquennial period, but during the last eight years the excess of arrivals over departures totalled only 4,951 persons.

Rates of increase by migration from 1901 to 1938 may be found for each State and Territory of Australia in *Demography Bulletin* No. 56.

3. Total Increase.—The total increase of the population is obtained by the combination of the natural increase with the net migration.

The total increase in each decade from 1861 to 1920 was given in Year Book No. 22, p. 902. The total increment to the population from the beginning of the year 1861 to the end of the year 1938 was 5,784,108, while that from 1901 to 1938 was 3,164,352. The annual results for the last ten years are shown below, and quinquennial figures from 1901 to 1935 are also included. A graph showing the increase in the population of Australia from 1860 accompanies this chapter on page 368.

POPULATION: TOTAL INCREASE, 1901 to 1938.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
1901-05..	66,850	-3,639	17,123	1,118	36,410	6,184	- 920	(a)	123,126
1906-10..	75,284	48,348	33,706	25,090	11,473	2,919	- 630	(a)	196,190
1911-15..	115,553	47,728	40,534	14,410	12,919	- 213	849	- 12	231,768
1916-20..	95,180	59,593	30,508	24,333	6,005	3,606	- 676	105	223,654
1921-25..	116,520	87,014	47,775	30,965	25,659	2,913	- 51	1,236	312,031
1926-30..	109,954	51,605	37,229	12,353	30,314	3,333	- 739	2,434	247,961
1931-35..	49,920	19,335	26,822	5,032	4,361	4,426	- 117	273	116,052
1929 ..	16,987	6,994	5,625	-1,042	6,289	1,494	265	66	36,678
1930 ..	11,178	5,950	7,611	21	1,507	1,261	103	- 4	27,627
1931 ..	8,474	4,007	6,373	779	- 471	1,671	- 137	159	20,855
1932 ..	12,110	4,234	4,584	857	652	891	- 109	- 331	22,888
1933 ..	9,836	4,387	4,952	1,468	1,393	824	17	437	23,314
1934 ..	10,284	5,323	5,037	797	797	61	70	- 69	22,300
1935 ..	9,216	1,337	5,876	1,131	1,990	1,026	42	77	20,695
1936 ..	11,154	3,594	5,793	1,157	1,475	855	114	282	24,424
1937 ..	13,012	3,361	5,515	804	2,593	2,036	45	255	27,621
1938 ..	11,457	7,227	5,582	1,938	2,262	1,229	184	671	30,550
FEMALES.									
1901-05..	60,729	17,847	20,512	4,253	33,761	7,301	109	(a)	144,512
1906-10..	80,687	42,639	33,828	19,157	15,221	4,499	- 115	(a)	195,916
1911-15..	135,686	75,309	45,517	24,707	26,912	3,946	333	196	312,606
1916-20..	103,093	43,871	35,049	20,688	8,655	6,610	182	38	218,186
1921-25..	114,098	69,128	46,443	25,077	20,545	3,699	- 117	826	279,699
1926-30..	114,059	56,949	34,665	15,066	23,769	2,600	404	2,251	249,763
1931-35..	61,393	31,159	27,161	6,944	11,774	3,309	244	327	142,311
1929 ..	19,577	9,529	5,634	1,428	5,727	1,465	261	144	43,765
1930 ..	15,482	8,386	6,989	1,473	3,466	758	81	276	36,911
1931 ..	11,487	6,958	6,617	1,833	2,547	1,496	19	43	31,000
1932 ..	13,307	5,583	4,787	1,357	1,982	1,252	49	- 26	28,291
1933 ..	11,952	6,705	4,982	1,916	2,551	679	15	252	29,052
1934 ..	12,400	7,688	5,429	820	1,549	- 724	56	8	27,226
1935 ..	12,247	4,196	5,346	1,018	3,145	635	105	50	26,742
1936 ..	12,916	4,976	5,622	1,712	2,337	1,365	100	186	29,214
1937 ..	15,990	4,533	5,812	1,085	2,961	1,626	4	206	32,217
1938 ..	13,500	7,046	5,107	1,970	3,088	1,188	107	545	32,551
PERSONS.									
1901-05..	127,579	14,208	37,635	5,371	70,171	13,485	- 811	(a)	267,638
1906-10..	155,971	90,987	67,534	44,247	26,694	7,418	- 745	(a)	392,106
1911-15..	251,239	123,037	86,051	39,117	39,831	3,733	1,182	184	544,374
1916-20..	198,273	103,467	65,557	45,021	14,660	15,216	- 494	143	441,840
1921-25..	230,618	157,142	94,218	56,042	46,204	6,612	- 168	2,062	591,730
1926-30..	224,013	108,554	71,804	27,419	54,083	5,933	1,143	4,685	497,724
1931-35..	111,313	50,494	53,983	11,976	10,135	7,735	127	(b)600	252,363
1929 ..	36,564	16,523	11,259	386	12,016	2,959	526	210	80,443
1930 ..	26,660	14,336	14,600	1,494	4,973	2,019	184	272	64,538
1931 ..	19,961	10,965	12,990	2,612	2,076	3,167	- 118	202	51,855
1932 ..	25,417	9,817	9,371	2,214	2,634	2,143	- 60	- 357	51,179
1933 ..	21,788	11,092	9,934	3,384	3,944	1,503	32	(b)689	52,366
1934 ..	22,684	13,011	10,466	1,617	2,346	- 663	126	(b)- 61	49,526
1935 ..	21,463	5,533	11,222	2,149	5,135	1,661	147	(b)127	47,437
1936 ..	24,070	8,570	11,415	2,869	3,812	2,220	214	(b)468	53,638
1937 ..	29,002	7,894	11,327	1,889	5,554	3,662	49	(b)461	59,838
1938 ..	24,957	14,273	10,689	3,908	5,350	2,417	291	1,216	63,101

(a) Part of New South Wales prior to 1911. (b) See footnote (c) to table on p. 352. The following are revised figures:—1931-35, 1,042; 1933, 777; 1934, 116; 1935, 304; 1936, 645; 1937, 637.

NOTE.—Minus sign (-) denotes decrease.

4. Rates of Increase.—(i) *States*. The annual rates of increase of population of the several States of the Commonwealth in each of the years 1934 to 1938 inclusive were as follows :—

POPULATION : RATES OF INCREASE.
(AUSTRALIAN STATES.)

State or Territory.	Annual Rate of Increase of Population.				
	1934.	1935.	1936.	1937.	1938.
	%	%	%	%	%
New South Wales ..	0.87	0.81	0.91	1.08	0.92
Victoria ..	0.71	0.30	0.46	0.43	0.77
Queensland ..	1.10	1.17	1.18	1.15	1.08
South Australia ..	0.28	0.37	0.49	0.32	0.66
Western Australia ..	0.53	1.16	0.85	1.23	1.17
Tasmania ..	-0.29	0.72	0.95	1.56	1.01
Northern Territory ..	2.62	2.97	4.20	0.92	5.44
Australian Capital Territory(a) ..	-0.66	1.38	5.02	4.71	11.87
Australia ..	0.74	0.71	0.79	0.88	0.92

(a) See footnote (b) to preceding table. Corrected rates are as follows: 1933, 9.07; 1934, 1.24; 1935, 3.21; 1936, 6.61; 1937, 6.12.

NOTE.—Minus sign (-) denotes decrease.

(ii) *Various Countries*. The table hereunder gives approximate rates of increase of the population of Australia and its component States, in comparison with those for other countries.

POPULATION : RATES OF INCREASE.
(VARIOUS COUNTRIES.)

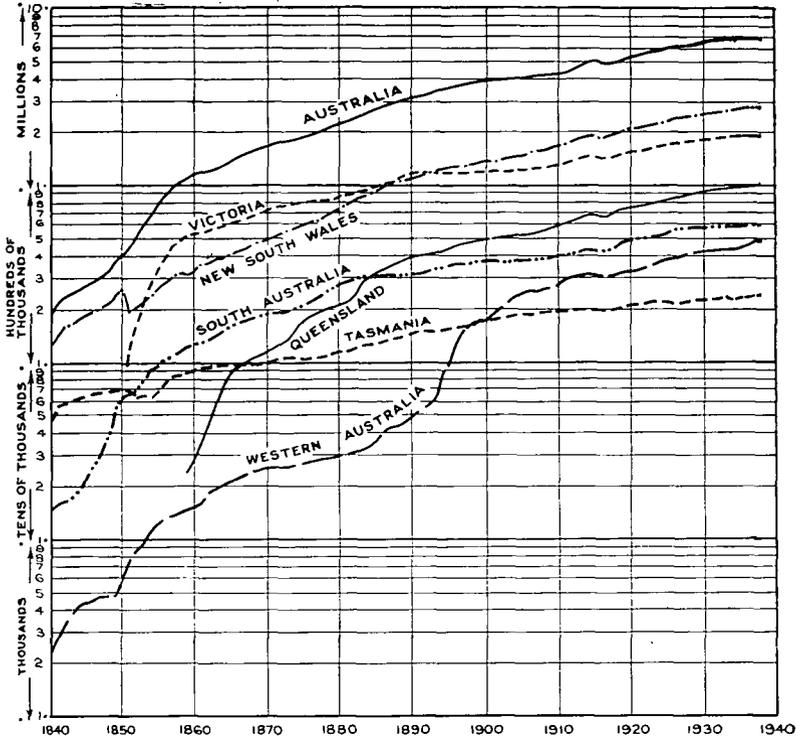
Country.	Annual Rate of Increase of Population during period—						
	1901 to 1906.	1906 to 1911.	1911 to 1916.	1916 to 1921.	1921 to 1926.	1926 to 1931.	1931 to 1936.
	%	%	%	%	%	%	%
AUSTRALASIA—							
Australia ..	1.38	2.04	1.87	2.07	2.11	1.50	0.76
New South Wales (a) ..	1.99	2.05	2.61	2.19	2.20	1.74	0.87
Victoria ..	0.17	1.70	1.38	1.68	2.00	1.18	0.53
Queensland ..	1.35	2.77	2.18	2.17	2.38	1.53	1.14
South Australia (b) ..	0.27	2.48	1.47	2.33	2.17	0.81	0.41
Western Australia ..	6.22	2.42	1.77	1.31	2.66	2.56	0.81
Tasmania ..	1.33	0.63	0.43	1.90	0.04	1.01	0.55
New Zealand ..	2.81	2.43	1.56	2.13	2.06	1.38	0.79
EUROPE—							
England and Wales ..	1.04	1.02	-0.84	1.81	0.64	0.44	0.42
Scotland ..	0.55	0.56	0.31	0.24	0.09	-0.21	0.50
Eire ..	-0.22	-0.06	-0.21	0.58	-0.60	-0.12	0.28
Belgium ..	1.26	0.69	0.53	-0.55	1.03	0.71	0.42
Denmark ..	1.12	1.26	1.20	2.13	1.01	0.67	0.84
France ..	0.15	0.06	-0.72	0.55	0.76	0.53	0.02
Germany ..	1.46	1.33	0.71	-1.60	0.37	0.55	0.58
Italy ..	0.52	0.80	1.16	0.22	0.91	0.31	0.63
Netherlands ..	1.53	1.22	1.72	1.16	1.53	1.06	1.26
Norway ..	0.51	0.73	1.01	1.14	0.65	0.42	0.46
Spain ..	0.52	0.87	0.66	0.82	0.65	0.89	1.46
Sweden ..	0.61	0.84	0.70	0.64	0.40	0.29	0.34
Switzerland ..	1.28	1.17	0.81	0.01	0.38	0.62	0.44
ASIA—							
Ceylon ..	1.62	1.20	1.71	1.28	2.30	1.18	1.34
Japan ..	1.29	1.08	1.42	0.37	1.42	1.48	0.77
AMERICA—							
Canada ..	2.99	2.99	2.20	1.81	1.33	1.97	1.23
United States ..	2.00	1.82	1.67	1.21	1.67	1.27	0.69

(a) Including Australian Capital Territory.

(b) Including Northern Territory.

NOTE.—Minus sign (-) denotes decrease.

POPULATION OF AUSTRALIA, 1840 TO 1938 (RATIO GRAPH).

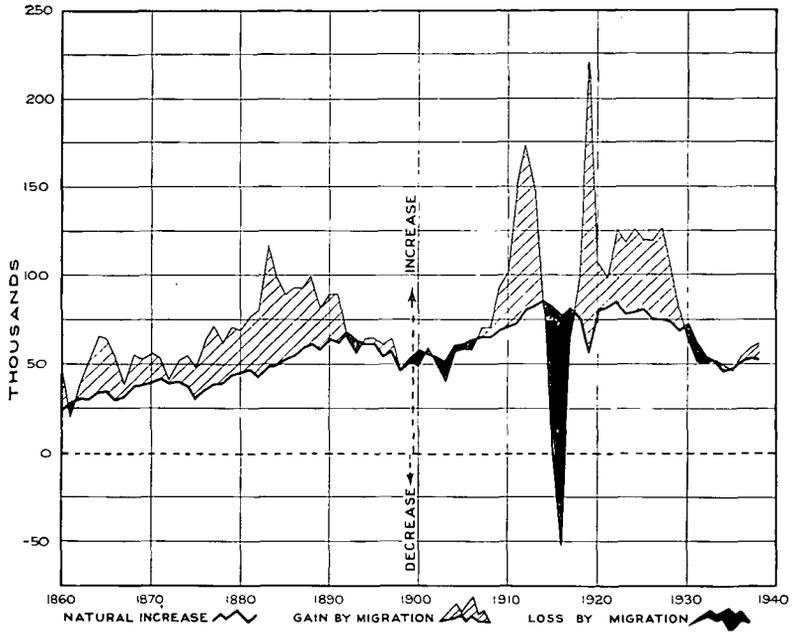


(See page 352.)

EXPLANATION.—This is a ratio graph, the vertical scale being logarithmic, and the curves rise and fall according to the rate of increase or decrease. Actual numbers are indicated by the scale at the side of the graph.

The curves represent the estimated population of each State at 31st December each year.

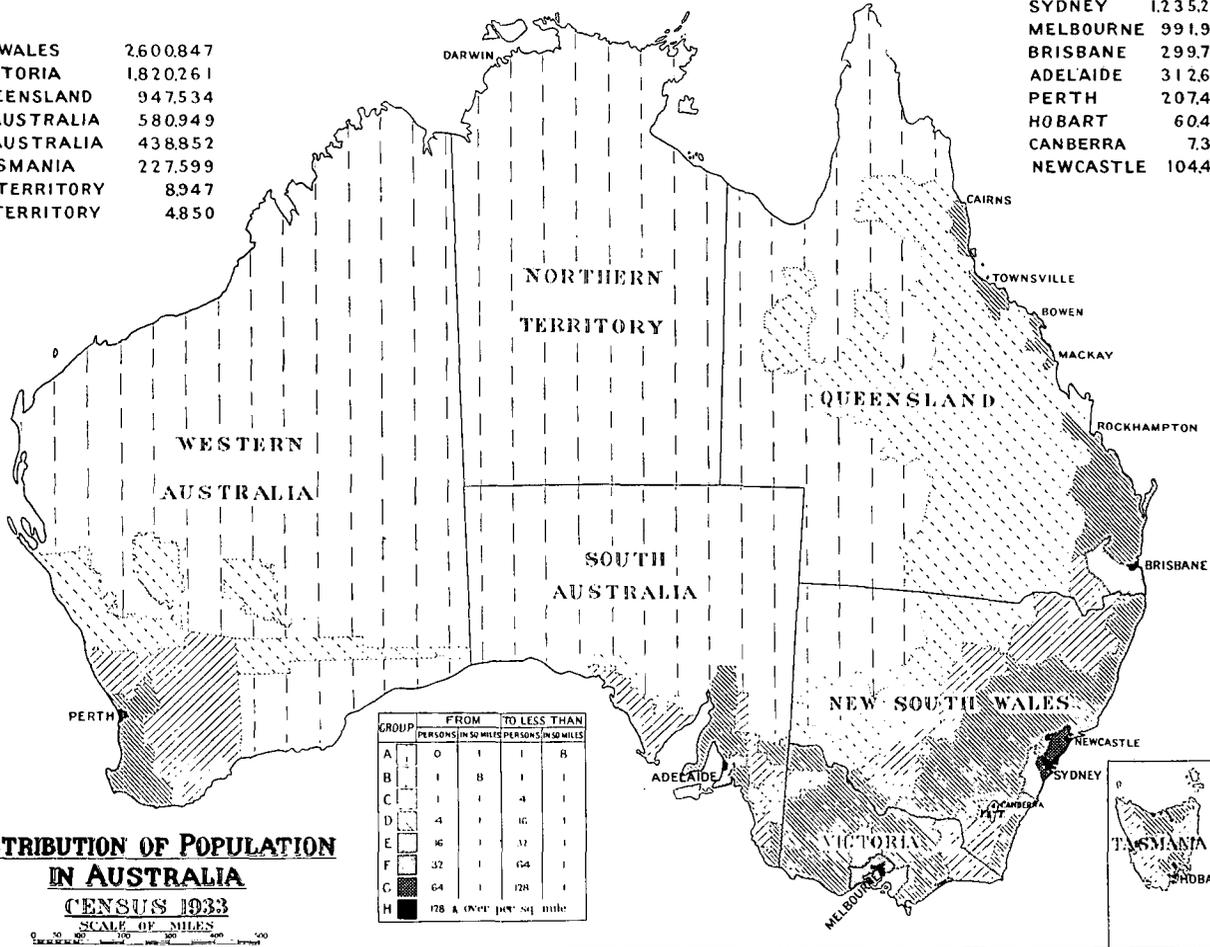
INCREASE OF POPULATION—AUSTRALIA, 1860 TO 1938.



EXPLANATION.—The increase of population each year is represented by the distance between the light curve and the dotted zero line. The distance between the zero line and the heavy curve shows the amount of increase due to natural increase, while the distance between the two curves indicates gain or loss by migration, the shaded areas representing gains by migration and the black areas losses by migration. Where the black area extends below the dotted zero line, as it did during the years of the Great War, a net loss in population is indicated.

N.S.WALES 2600847
 VICTORIA 1,820,261
 QUEENSLAND 947,534
 S. AUSTRALIA 580,949
 W. AUSTRALIA 438,852
 TASMANIA 227,599
 A. C. TERRITORY 8,947
 N. TERRITORY 4,850

SYDNEY 1,235,267
 MELBOURNE 991,934
 BRISBANE 299,748
 ADELAIDE 312,619
 PERTH 207,440
 HOBART 60,406
 CANBERRA 7,325
 NEWCASTLE 104,485

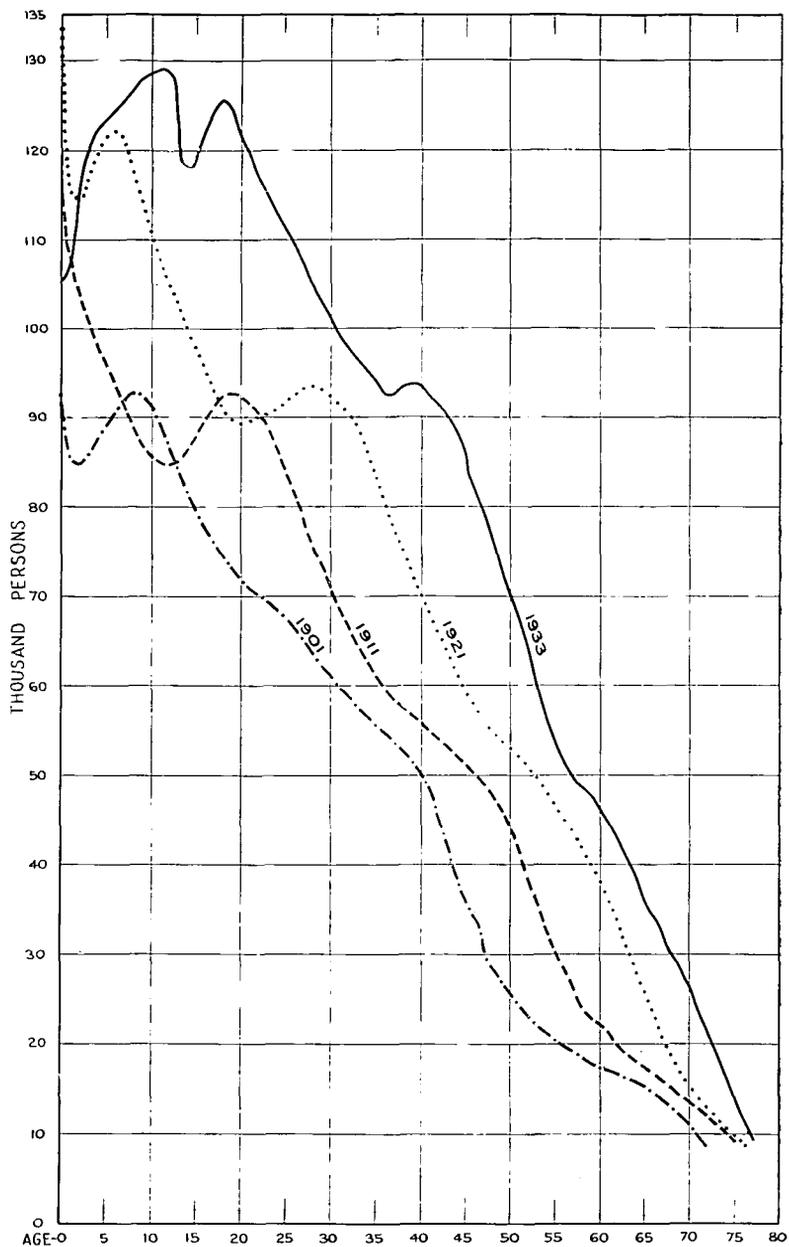


**DISTRIBUTION OF POPULATION
 IN AUSTRALIA
 CENSUS 1933**

SCALE OF MILES
 0 50 100 150 200 250 300 350

GROUP	FROM	TO	LESS THAN
	PERSONS IN 50 MILES PERSONS IN 50 MILES		PERSONS IN 50 MILES
A	0	1	8
B	1	8	1
C	1	4	1
D	4	16	1
E	16	32	1
F	32	64	1
G	64	128	1
H	128 & over per sq. mile		

AUSTRALIA—GRADUATED AGE DISTRIBUTION OF POPULATION, CENSUSES OF 1901,
1911, 1921 AND 1933.



EXPLANATION.—This graph affords a comparison between the age distribution of the population at each of the last four censuses.

(iii) *Variations in the rates.* The annual rate of increase of the population during the present century has averaged 1.63 per cent., but the results from year to year have deviated widely from this figure. In the following table the period from 1900 to 1938 has been arranged into certain defined groups of years according to the occurrence of influences seriously affecting the growth of population :—

POPULATION : RATES OF INCREASE.

(VARIOUS PERIODS.)

Period from 31st December.	Interval.	Increase during Period.	Average Annual Increase.	Average Annual Rate of Increase.		
				Natural Increase.	-Net Migration.	Total.
	Years.	Million.	Thousand.	%	%	%
1900 to 1913 ..	13	1.13	87	1.59	0.53	2.04
1913 to 1923 ..	10	0.86	86	1.50	0.15	1.64
1923 to 1929 ..	6	0.68	113	1.27	0.64	1.88
1929 to 1938 ..	9	0.46	51	0.83	-0.01	0.82

NOTE.—Minus sign (—) denotes decrease.

Up to 1913 the rate of natural increase was rising, and this factor, coupled with the impetus given to immigration in the years immediately before the war, was responsible for the comparatively high annual rate of 2.04 per cent. during the pre-war years. The war was a dominating influence in the decade 1913-1923, and its effects can be seen in the reduction of the rate from 2.04 to 1.64 per cent. In the next span from 1923 to 1929 a more settled and prosperous era was experienced; migration was resumed on a large scale and, despite a further decline in the rate of natural increase owing to the persistent fall in the birth rate since the war, the annual rate of growth rose to 1.88 per cent. After 1929 came the depression; immigration ceased, in fact Australia actually lost 3,579 people through an excess of departures over arrivals from 1929 to 1938, although in the last three years small gains were recorded. With so much unemployment in the early part of this period the rate of natural increase also fell, and the rate of growth of the population receded to 0.82 per cent. per annum.

If the population increased at the average rate of the present century, viz, 1.63 per cent., it would double itself in 42 years. It has been estimated, however, on the assumptions that the present birth and death rates remain unchanged and that no increment to the population results from migration, that the annual rates of natural increase would be for the period 1933-43, 0.64 per cent.; 1933-53, 0.55 per cent.; 1933-63, 0.45 per cent. and 1933-73, 0.33 per cent. In this respect the experience in Australia would be very similar to that of many other countries as the result of the low birth-rate.

Rates of increase from 1901 to 1938 may be found for each State and Territory of Australia in *Demography Bulletin* No. 56.

§ 6. Seasonal Variations of Population.

1. *Variations in Natural Increase.*—The following notes are based on the experience of the ten years 1929-1938. For Australia as a whole the rate of natural increase was greatest in the quarter ended March, and least in the quarter ended September. In New South Wales, Victoria, South Australia and Tasmania the March quarter was the most favourable, and in Queensland and Western Australia the June quarter. The natural increase was lowest in New South Wales, Victoria, Queensland, South Australia and Western Australia in the September quarter, and in Tasmania in the June quarter.

2. **Variations in Net Migration.**—For the decade 1929–1938 for Australia as a whole the quarter ended December showed the greatest rate of increase from migration. The greatest gains in New South Wales have on the average occurred in the September quarter, in Victoria in the March quarter, in Queensland and Western Australia in the June quarter, and in South Australia and Tasmania in the December quarter. The gain to the southern States in the quarter ended December is due to oversea traffic and to tourists and sugar workers returning from Queensland, which State loses heavily during the December quarter, but gains in the June quarter by tourists seeking the warmer climate. The increase to Tasmania during the quarter ended December is due to the influx of tourists from the mainland.

§ 7. Influences affecting Increase and Distribution.

In previous issues of the Official Year Book the influence of the various factors affecting the growth and distribution of population was traced. Detailed information on this subject will be found in Official Year Book No. 22, pp. 906 and 907.

§ 8. Density.

1. **General.**—From certain aspects population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,974,581 square miles, and a population on 31st December, 1938, of 6,981,070, including 51,379 full-blooded aboriginals, has a density of only 2.35 persons to the square mile, and is, therefore, the most sparsely populated of the civilized countries of the world. For the other continents the densities are approximately as follows:—Europe, 120; Asia, 73; Africa, 13; North and Central America, 21; and South America, 13. The population of Australia has thus about one-sixth of the density of South America and of Africa; about one-ninth of that of North and Central America; about one-thirtieth of that of Asia; and about one fiftieth of that of Europe.

On account of the enormous area of Australia the density of population must necessarily increase slowly. In Australia as a whole the figure has increased from 1.29 per square mile in 1901 to 2.35 in 1938. Victoria's density, however, has grown from 13.77 to 21.32, and that of New South Wales from 4.43 to 8.84 in the same period.

A map showing the density of population throughout Australia at the Census of 1933 appears on page 369 of this chapter. When comparing the density of population of the several States consideration should be given to the average annual rainfall distribution in each State as an indication of the climatic influence upon probable population numbers. The area of New South Wales receiving less than 10 inches of rainfall is 16 per cent.; Victoria, nil; Queensland, 12 per cent.; South Australia, 82 per cent.; Western Australia, 50 per cent.; Tasmania, nil; and Australia, 36 per cent.

Particulars concerning the number and density of the population of the most important countries of the world at the 31st December, 1937, are given in the following table. These figures have been taken, with the exception of those for China, Afghanistan, and Australia, from the *Statistical Year Book of the League of Nations*, 1938–39. The figures for China and Afghanistan were taken from the *Statesman's Year Book*, 1939. In some instances, more particularly in the cases of Asia and Africa, the numbers must be considered as rough approximations only.

POPULATION OF THE WORLD : NUMBER AND DENSITY, 1937.

Country.	Population. (ooo omitted)	Density. (a)	Country.	Population. (ooo omitted)	Density (a)
EUROPE.			AFRICA.		
Russia (European) ..	133,400	57.6	Nigeria and Protectorate (c) ..	20,477	60.6
Germany ..	74,826	349.7	Egypt ..	16,030	41.5
Great Britain and North- ern Ireland ..	47,387	498.8	French West Africa ..	14,750	8.1
Italy ..	43,029	331.0	Belgian Congo ..	10,217	11.2
France ..	41,970	197.0	Union of South Africa ..	9,889	21.0
Poland ..	34,515	230.1	Algeria ..	7,400	8.7
Spain (including Canary and Balearic Islands) ..	25,000	128.9	French Morocco ..	6,430	41.8
Rumania ..	19,646	172.3	Anglo-Egyptian Sudan ..	6,187	6.4
Yugoslavia ..	15,400	160.4	Abyssinia ..	5,300	15.3
Czechoslovakia ..	15,270	282.8	Other ..	56,920	10.7
Hungary ..	9,035	225.9	Total Africa ..	153,600	13.3
Netherlands ..	8,640	664.6	NORTH AND CENTRAL AMERICA.		
Belgium ..	8,361	696.8	United States of America ..	129,818	42.9
Portugal ..	7,380	205.0	Mexico ..	19,320	25.4
Greece ..	7,013	140.3	Canada ..	11,165	3.0
Bulgaria ..	6,319	158.0	Cuba ..	4,200	95.5
Sweden ..	6,285	36.3	Other ..	17,117	14.9
Switzerland ..	4,183	261.4	Total North and Central America ..	181,620	21.0
Denmark ..	3,790	222.9	SOUTH AMERICA.		
Finland ..	3,630	24.2	Brazil ..	43,247	13.2
Eire ..	2,941	108.9	Argentine Republic ..	12,762	11.8
Norway ..	2,906	23.2	Colombia ..	8,600	19.2
Other ..	9,404	96.0	Peru ..	7,100	14.7
Total Europe ..	530,330	120.2	Chile ..	4,597	16.0
			Other ..	13,424	7.0
			Total South America ..	89,730	12.7
ASIA.			OCEANIA, ETC.		
China and Dependencies ..	457,835	106.8	Australia (d) ..	6,920	2.3
British India ..	362,000	229.8	New Zealand ..	1,602	15.4
Japan and Dependencies ..	102,670	391.9	Territory of New Guinea ..	670	7.2
Netherlands Indies ..	67,400	117.4	Hawaii ..	402	57.4
Russia in Asia ..	35,600	6.1	Papua ..	280	3.1
French Indo-China ..	23,300	82.0	Biji ..	205	29.3
Burma ..	15,797	67.5	Other ..	541	2.9
Turkey ..	15,480	54.3	Total Oceania, etc. ..	10,620	3.1
Iran ..	15,000	23.6	SUMMARY.		
Thai (Siam) ..	14,650	73.3	Europe ..	530,330	120.2
Philippine Islands ..	13,600	119.3	Asia ..	1,170,535	72.9
Afghanistan ..	10,000	39.8	Africa ..	153,600	13.3
Arabia ..	7,000	7.0	America, North and Central ..	181,620	21.0
Ceylon ..	5,860	234.4	America, South ..	89,730	12.7
Nepal ..	5,600	103.7	Oceania, etc. ..	10,620	3.1
Other ..	18,743	46.5	Total ..	2,136,435	41.7
Total Asia ..	1,170,535	72.9			

(a) Number of persons per square mile. (b) Excludes European Territory—1,320,000.
(c) Including British Cameroons. (d) Including 53,000 full-blood aboriginals.

2. Position of the British Empire.—The approximate relationship of the British Empire to the world as a whole in regard to its area and population is given hereunder :—

BRITISH EMPIRE IN RELATION TO THE WORLD(a).

Particulars.	The World.	British Empire.
Area in square miles (exclusive of Polar Circles) ..	51,179,000	13,353,952
Population ..	2,136,385,000	500,774,000
Population per square mile ..	41.74	37.50

(a) Statistical Year Book of the League of Nations, 1937-38, and The Statesman's Year Book, 1939.

§ 9. General Characteristics.

1. Sex Distribution.—(i) General. Detailed information respecting the distribution of the sexes in the population of Australia will be found in previous issues of the Official Year Book. (See No. 22, page 910.)

(ii) *Masculinity.*—(a) *States.* The number of males to each hundred females has been adopted as the "masculinity" of the population. On pages 163 to 165 in the second issue of this publication a table was included showing the masculinity of the population of each of the States for each year from 1796 to 1907. In the fifth issue, on page 123, the figures in this table for the years 1901 to 1907 were modified in accordance with the results of the Census of 3rd April, 1911.

With the exception of some dislocation arising from the war there has been a continuous diminution of the masculinity of the population. In 1900, the masculinity was 110.55; in 1910, 107.87 and in 1920, 103.47. After 1921, however, the masculinity tended to rise until 1927 (104.54) since when it has gradually fallen to 102.31 in the year 1938.

The following table shows the masculinity of the population at quinquennial periods from 1901 to 1935 and for the years 1936, 1937 and 1938:—

POPULATION: MASCULINITY, 1901 to 1938.

(Males per 100 Females.)

As at 31st December	N.S.W.	Victoria.	Q.land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1901	110.12	101.16	125.78	102.71	155.69	107.90	593.32	..	110.15
1905	111.05	97.60	121.75	101.65	141.35	106.09	496.76	..	108.65
1910	109.23	98.71	119.02	103.12	132.90	104.14	486.32	(a)	107.87
1915	105.66	95.07	114.74	98.26	117.23	99.77	400.33	109.75	103.55
1920	104.31	97.38	112.00	99.83	114.55	101.67	270.04	116.70	103.47
1925	104.09	99.71	110.94	102.02	115.76	100.90	297.61	132.37	104.24
1930	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1935	102.36	97.90	109.96	100.29	112.69	102.46	216.41	116.02	102.71
1936	102.21	97.77	109.88	100.10	112.15	101.95	210.42	117.49	102.55
1937	101.96	97.64	109.69	100.01	111.81	102.33	212.55	117.76	102.39
1938	101.79	97.68	109.69	100.00	111.26	102.34	210.16	118.32	102.31

(a) Part of New South Wales prior to 1911.

(b) *Various Countries.* The difference between young and old countries in the masculinity of their populations is clearly illustrated by the comparisons furnished in the following table, which are based on the latest statistics available:—

POPULATION: MASCULINITY.

(VARIOUS COUNTRIES.)

Country.	Year.	Number of Males to each 100 Females.	Country.	Year.	Number of Males to each 100 Females.
Argentine Republic ..	1928	114.1	Denmark	1937	97.2
Canada	1938	106.5	Hungary	1937	96.2
Eire	1936	105.0	Norway	1936	95.9
Union of South Africa (a) ..	1937	103.2	Spain	1930	95.3
New Zealand	1938	102.8	Poland	1938	95.3
Australia	1938	102.3	Northern Ireland ..	1937	95.0
United States of America ..	1935	101.6	Germany	1937	95.0
Japan	1936	100.4	Italy	1936	94.3
Netherlands	1937	99.7	Russia	1926	93.5
Belgium	1938	98.0	France	1936	93.0
Sweden	1937	98.0	Scotland	1937	92.9
Yugoslavia	1931	97.9	England and Wales ..	1937	92.4

(a) White population only.

2. *Age Distribution.*—The age distribution of the population is obtained only at a Census. The following table shows the variation which has taken place in the age constitution of the population during the 12½ years since the 1921 Census. Reference to the graph on page 370 will show regular wave-like movements in the curves depicting age constitution at various Censuses owing to fluctuations in the birth-rate and in migration. The curve of age constitution for the 1921 Census showed definite troughs in the age group 0 to 4 years owing to the decline in the birth-rate during the war years, and in the age group 20 to 24 years due to the decline in the birth-rate in the late nineties of

last century and to the loss of young adult males during the war of 1914-1919. At the 1933 Census these same troughs are still prominent, but owing to the lapse of time they now show at the later ages of 12 to 16 years and 32 to 36 years. Another depression has appeared in the age group 0 to 4 years, which makes an even greater trough in the age constitution curve than that caused by the war. This was due to the serious decline in the birth-rate, which had been exaggerated by the economic depression. Marriages were postponed and births diminished.

Of the 6,629,839 persons enumerated at the 1933 Census, 8.6 per cent. were under 5 years of age; 9.5 per cent. were 5 years of age and under 10 years; 9.4 per cent. from 10 to 14 years; 9.3 per cent. 15 to 19 years; and 38.6 per cent. were under age 21. At the 1921 Census 11.0 per cent. were under 5 years; 11.0 per cent. 5 to 9 years; 9.7 per cent. 10 to 14 years; 8.6 per cent. 15 to 19 years; and 41.9 per cent. under 21 years of age.

The effect of the falling birth-rate on the number of young lives in the population is indicated by comparing the experience during the intercensal period from 1921 to 1933 with that for the previous intercensal period from 1911 to 1921. Whereas during the earlier period of ten years the population under 10 years of age in Australia increased by 213,822 persons, there was actually a decline of 693 in the numbers of this age-group during the subsequent 12½ years to 1933. Had the average effective birth-rate which prevailed between the Censuses of 1911 and 1921 continued until the 30th June, 1933, there would have been about 350,000 more children under 10 years of age in Australia than were actually enumerated at the Census.

On the other hand, the number of persons aged 65 years and over in Australia at the 30th June, 1933, was 188,630 more than at the previous Census, as compared with an increase of 48,813 during the previous intercensal period from 1911 to 1921.

POPULATION: GRADUATED AGE DISTRIBUTION, AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Age last Birthday. Years.	Census 1921.			Census 1933.			Increase 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
0-4	305,397	294,319	599,716	290,461	278,502	568,963	-30,753
5-9	302,481	294,836	597,317	318,937	308,440	627,377	30,060
10-14	266,289	260,556	526,845	317,524	307,668	625,222	98,377
15-19	236,268	230,424	466,692	311,790	303,619	615,409	148,717
20-24	219,013	231,680	450,693	297,993	286,612	584,605	133,912
25-29	226,692	237,497	464,189	277,461	256,509	533,970	99,781
30-34	227,512	221,988	449,500	251,513	237,663	489,176	39,676
35-39	198,870	190,405	389,275	228,658	237,498	466,156	76,881
40-44	168,889	160,437	329,326	229,828	226,473	456,301	126,975
45-49	116,203	136,520	282,723	209,329	199,389	408,718	125,995
50-54	134,828	118,982	253,810	171,687	162,780	334,467	80,657
55-59	117,275	100,550	217,825	132,320	128,857	261,177	43,352
60-64	89,502	77,501	167,003	114,864	113,744	228,608	61,605
65-69	56,530	49,184	105,714	92,940	90,493	183,433	77,719
70-74	33,325	31,849	65,174	66,015	64,282	130,297	65,123
75-79	19,586	20,373	39,959	35,929	36,259	72,188	32,229
80-84	9,553	10,334	19,887	13,857	15,740	29,597	9,710
85-89	3,658	4,198	7,856	4,643	6,228	10,871	3,015
90-94	818	1,064	1,912	1,147	1,607	2,754	842
95-99	129	157	286	190	302	492	206
100-104	22	10	32	25	33	58	26
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105
Under 21 years	1,154,998	1,125,025	2,280,023	1,300,253	1,258,310	2,558,563	278,540
21 years and over	1,607,872	1,547,839	3,155,711	2,066,858	2,004,418	4,071,276	915,565
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

As the recorded ages at a Census are not free from error the figures are subject to a process of graduation, and the graduated results have been used in the table above.

Owing to the striking changes which are taking place in the age distribution of the population of Australia, consequent upon the lower birth rate and the increasing expectation of life, efforts have been made to estimate these particulars for later years by applying to the age distribution at the Census the subsequent experience of births, deaths and migration. The results of this tabulation are shown in the following summary.

POPULATION: ESTIMATED AGE DISTRIBUTION, AUSTRALIA, 1935 TO 1938.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Age last Birthday.	30th June, 1935.		30th June, 1936.		30th June, 1937.		30th June, 1938.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Years—								
0-4 ..	272,290	261,762	268,604	258,078	271,798	261,786	278,291	267,694
5-9 ..	312,156	300,764	306,323	295,042	296,901	285,370	285,851	274,768
10-14 ..	324,220	315,117	322,813	313,558	320,641	310,971	318,198	307,933
15-19 ..	306,733	296,800	308,752	298,565	312,132	302,185	317,190	306,852
20-24 ..	306,682	298,374	309,556	302,177	310,736	303,273	309,676	301,578
25-29 ..	284,349	267,263	287,584	272,541	291,153	277,921	295,809	283,981
30-34 ..	260,247	240,920	264,036	244,385	269,366	248,587	274,190	253,660
35-39 ..	231,885	235,298	236,249	234,298	241,836	233,827	247,180	234,260
40-44 ..	229,054	231,003	226,846	232,251	224,075	232,716	223,151	232,771
45-49 ..	216,401	209,217	218,942	213,493	220,931	217,303	222,352	220,714
50-54 ..	184,242	174,711	189,819	180,689	194,760	186,610	199,176	192,350
55-59 ..	141,071	137,198	146,805	142,685	153,106	148,578	159,634	154,944
60-64 ..	114,585	115,447	115,018	116,357	116,065	117,697	118,141	119,743
65-69 ..	95,556	95,594	96,133	97,887	96,537	99,852	96,729	101,593
70-74 ..	68,218	68,414	69,322	70,515	70,616	72,752	72,279	75,135
75-79 ..	40,354	41,333	41,998	43,448	43,100	45,401	43,798	46,982
80-84 ..	15,334	17,399	16,574	18,721	18,004	20,230	19,614	22,002
85-89 ..	4,657	6,380	4,687	6,446	4,739	6,524	4,812	6,681
90-94 ..	1,110	1,681	1,121	1,726	1,141	1,760	1,204	1,829
95-99 ..	172	255	163	214	141	197	130	194
100-104 ..	20	29	15	25	10	27	1	13
Total ..	3,409,336	3,314,968	3,432,260	3,343,101	3,457,788	3,373,576	3,487,406	3,405,677
Under 21 years ..	1,278,649	1,236,253	1,269,141	1,226,305	1,263,134	1,219,972	1,259,835	1,215,606
21 years and over ..	2,130,687	2,078,715	2,163,119	2,116,796	2,194,654	2,153,604	2,227,571	2,190,071
Total ..	3,409,336	3,314,968	3,432,260	3,343,101	3,457,788	3,373,576	3,487,406	3,405,677

The estimates in the table above are based on the graduated results of the 1933 Census.

The next table shows the change which has been taking place in the age constitution of the population of Australia since the year 1871. Each successive Census except 1921 has revealed a larger percentage of the population over 15 years of age than was recorded at the previous Census. This movement, as previously mentioned, was greatly accentuated during the period 1921 to 1933 owing to the serious decline in the birth-rate which was partly the outcome of the economic depression. This change has resulted during the intercensal period in an increase in the average age of males in Australia from 28.54 to 30.44 years and of females from 28.29 to 30.62 years. Not only has there been an increase in the average age of both sexes but also a steady approach to similarity in the age composition of males and females in harmony with the equalization of the numbers of each sex in Australia.

POPULATION : AGE DISTRIBUTION, AUSTRALIA, 1871 to 1933.

Census Year.	Males.				Females.				Persons.			
	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.
	%	%	%	%	%	%	%	%	%	%	%	%
1871	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881	36.36	60.81	2.83	100	41.86	56.03	2.11	100	38.89	58.61	2.50	100
1891	34.80	62.01	3.19	100	39.38	58.09	2.53	100	36.92	60.19	2.89	100
1901	33.89	61.80	4.31	100	36.51	59.88	3.61	100	35.14	60.88	3.98	100
1911	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.08	4.27	100
1921	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100
1933	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100

3. **Conjugal Condition.**—Of the total population of Australia at the 1933 Census, 55.5 per cent. had never married; 39.2 per cent. were married; 5.0 per cent. widowed; and 0.3 per cent. divorced. Since the year 1921 the number never married has increased by 15.4 per cent.; those married by 29.8 per cent.; the widowed by 37.9 per cent.; and the divorced by 148 per cent.

The relatively low rate of increase in the number of single persons under age 15 is another symptom of the falling birth-rate. At the 30th June, 1933, the number of males aged 15 years and over who had never married was 193,139 more than the females and the excess of males was 40,721 greater than at the previous Census.

The marriage rate for Australia declined from 9.6 per 1,000 of population in the year 1920 to 7.0 per 1,000 of population in the year 1933. The divorce rate for the period 1911–1920 was 8.1 per 10,000 existing marriages, but increased to nearly double (15.5) during the decennium 1921–1930. During the intercensal period widowed females increased in number by 63,700, and at a higher percentage rate of increase (39.9) than the widowed males (33.3) during the same period. Actually there were more than twice as many widowed females as widowed males in Australia at the 30th June, 1933. The greater number of widowed females than widowed males is the result of two influences. The first is the greater longevity of married females coupled with the usually younger age at marriage; and the second is that a larger proportion of males cancel their widowhood by remarriage.

POPULATION : CONJUGAL CONDITION, AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Conjugal Condition.	Census 1921.			Census 1933.			Increase 1921–1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Never Married—							
Under age 15	875,098	849,906	1,725,004	926,924	894,643	1,821,567	96,563
Age 15 and over	801,797	649,379	1,451,176	1,078,587	825,448	1,844,035	392,859
Total	1,676,895	1,499,285	3,176,180	1,945,511	1,720,091	3,665,602	489,422
Married	999,274	999,388	1,998,662	1,299,693	1,293,922	2,593,615	594,953
Widowed	73,341	164,480	237,821	97,775	230,180	327,955	90,134
Divorced	4,230	4,298	8,528	10,251	10,862	21,113	12,585
Not Stated	9,130	5,413	14,543	13,881	7,673	21,554	7,011
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

4. **Dependent Children under 16 years of Age.**—In reply to this question, 804,695 males and 61,417 females stated they had children under 16 years of age dependent on them at the 30th June, 1933, the total number of dependent children under age 16 claimed being 1,919,859, of whom 1,811,247 or 94.3 per cent. were dependent on males and 108,612 or 5.7 per cent. were dependent on females. This represents an average of 2.3 for each male with dependent children and 1.8 for each female with dependent children. For each adult male in Australia there was an average of 0.88 dependent children, and for each male breadwinner (excluding pensioners) an average of 0.81 dependent children under 16 years of age.

Thirty-eight per cent. of the males with dependent children under 16 years of age had one dependent child; 29 per cent. two children; 16 per cent. three children; 9 per cent. four children; 4 per cent. five children; and 4 per cent. more than five children. Of the females with dependent children under 16 years of age, 57 per cent. had one dependent child; 24 per cent. two children; 11 per cent. three children; 5 per cent. four children; 2 per cent. five children; and 1 per cent. more than five children.

POPULATION : PERSONS WITH DEPENDENT CHILDREN UNDER SIXTEEN YEARS OF AGE, AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Number of Dependent Children.	Number of Persons with Dependent Children.			Total Number of Children Dependent on—		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1	306,695	34,823	341,518	306,695	34,823	341,518
2	233,167	14,631	247,798	466,334	29,262	495,596
3	131,646	6,724	138,370	394,938	20,172	415,110
4	69,485	3,067	72,552	277,940	12,268	290,208
5	34,676	1,337	36,013	173,380	6,685	180,065
6	17,270	557	17,827	103,620	3,342	106,962
7	7,497	185	7,682	52,479	1,295	53,774
8	2,931	75	3,006	23,448	600	24,048
9	964	15	979	8,676	135	8,811
10	281	3	284	2,810	30	2,840
11	69	..	69	759	..	759
12	14	..	14	168	..	168
Total ..	804,695	61,417	866,112	1,811,247	108,612	1,919,859

5. **Orphanhood.**—The number of children under 16 years of age in Australia at the 30th June, 1933, totalled 1,941,050, of whom 51 per cent. were males and 49 per cent. females. Of all children for whom particulars were stated, 94.0 per cent. had both parents living; 3.6 per cent. were without father living; 2.1 per cent. without mother; and 0.3 per cent. were bereft of both parents.

The number of fatherless children is much greater than the number without mothers. For every two children who are motherless there are approximately four who are fatherless. This is due to the higher rate of mortality amongst males of middle age as compared with females. The ratio of children without one or both parents to the total children enumerated is the same for both boys and girls.

**POPULATION : ORPHANHOOD OF CHILDREN UNDER SIXTEEN YEARS OF AGE,
AUSTRALIA, 1921 AND 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Particulars.	Males.	Females.	Persons.
Both Parents Living	915,707	884,174	1,799,881
Father Dead	34,642	33,998	68,640
Mother Dead	20,204	19,642	39,846
Both Parents Dead	3,144	2,713	5,857
Not Stated	13,813	13,013	26,826
Total	987,510	953,540	1,941,050

6. **Schooling.**—The total number of children at the ages 6 to 14 years inclusive in Australia at the 30th June, 1933, was 1,127,691. The number receiving instruction at Government schools at the date of the Census totalled 904,383, or 77 per cent.; those attending private schools numbered 224,994, or 19 per cent.; and 33,126 children or 3.0 per cent., were stated to be receiving instruction at home. Since the 1921 Census the number attending Government schools has increased by 14 per cent., while those attending private schools increased by 16 per cent.

**POPULATION : SCHOOLING—PERSONS RECEIVING INSTRUCTION AT DATE OF
THE CENSUS, AUSTRALIA, 1921 AND 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Receiving Instruction at—	Census 1921.			Census 1933.			Increase 1921— 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Government School	413,035	378,689	791,724	474,087	430,296	904,383	112,659
Private School ..	88,800	104,974	193,774	107,091	117,903	224,994	31,220
University ..	5,129	2,123	7,252	6,252	2,273	8,525	1,273
Home ..	14,141	16,571	30,712	16,623	16,503	33,126	2,414
Total ..	521,105	502,357	1,023,462	604,053	566,975	1,171,028	147,566

7. **War Service.**—This inquiry was restricted to those who served with the Australian Forces during the Great War of 1914–19. The numbers recorded at the Census of the 30th June, 1933, as having served abroad were 226,438 males and 1,844 females, 11 per cent. of the adult male population of Australia being ex-members of the Australian Forces with oversea service.

Of this number 4,339 served with the naval forces, so that the number of ex-members of the A.I.F. in Australia at the 30th June, 1933, was 222,099. According to official records, 265,000 members of the A.I.F. were discharged in Australia upon return from service overseas, but, as this figure included duplications for those persons who enlisted on more than one occasion and consequently were discharged on more than one occasion,

a special detailed examination of A.I.F. records at the Defence Department, Melbourne, was made in order to ascertain the number of individuals who were discharged upon return to Australia. This inquiry disclosed that 257,519 soldiers and 1,665 nurses returned to Australia and that 7,030 soldiers and nurses were discharged overseas. At the 1933 Census the number recorded in Australia totalled 222,099, which shows a reduction of 35,420, or 13.75 per cent., in the number of returned soldiers since their return to Australia.

The particulars ascertained from the 1933 Census and the results of the special statistical inquiry instituted at Base Records, Department of Defence, were referred to Mr. F. W. Barford, A.I.A., Actuary of the Commonwealth Superannuation Board. Although it was not possible from these data to construct a Life Table comparable to the Australian Life Tables of 1933 it was possible to make some comparison between the two experiences—national and returned soldiers. As the result of these calculations it was ascertained that the mortality amongst returned soldiers since discharge exceeds that of a body of males of the same age constitution drawn from the general population by about 13 per cent.

POPULATION: WAR SERVICE—PERSONS WHO SERVED ABROAD WITH THE AUSTRALIAN FORCES IN THE WAR OF 1914-1919, CENSUS 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

State or Territory.	Metro- politan.	Provincial.	Rural.	Migratory.	Total.
New South Wales ..	44,681	14,676	23,681	237	83,275
Victoria	38,116	6,098	23,273	102	67,589
Queensland	11,215	5,411	13,397	186	30,209
South Australia	11,953	1,484	6,658	73	20,168
Western Australia	8,995	1,662	8,482	87	19,226
Tasmania	2,286	1,619	2,959	43	6,907
Australian Capital Territory ..	..	541	64	..	605
Northern Territory .. ..	..	66	237	..	303
Total	117,246	31,557	78,751	728	228,282

8. Religion.—At the 1921 Census 92,258 persons in Australia, or 1.7 per cent., gave no reply to this question, but at the 1933 Census, when the public was informed there was no legal obligation to answer this question, 848,948 persons, or 12.8 per cent., gave no reply. Thus 14.0 per cent. of the male and 11.5 per cent. of the female population of Australia did not state their religion.

The greatest numerical increase during the intercensal period was recorded by the Church of England, followed by the Roman Catholic and Catholic undefined, which may be grouped without serious error as the latter term usually signified Roman Catholic. Then followed Presbyterian and Methodist. The greatest proportional increases, however, were recorded by the Christian Scientist, Greek Catholic and Seventh Day Adventist denominations, whilst the greatest proportional decreases were experienced by the Australian Church, Catholic Apostolic, Latter Day Saints and Congregational denominations.

Ninety-nine per cent. of those who stated their religion professed the Christian Faith as compared with 98 per cent. in the year 1921. For every 100 females

who declared they were adherents to some Christian denomination, there were 99 male adherents, as compared with 101 males at the previous Census. Since the previous Census the number who stated they were of non-Christian religion decreased by 20 per cent., and those specifically stating they had no religion decreased by 43 per cent. These comparisons with the 1921 figures, however, need to be interpreted with some care, in view of the fact that so large a proportion of the population gave no reply to this question at the 1933 Census.

POPULATION: RELIGION, AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Religion.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Christian—							
Baptist	49,194	56,509	105,703	49,654	56,220	105,874	171
Brethren	5,493	6,532	12,025	4,501	5,542	10,043	- 1,982
Catholic, Greek	3,938	1,434	5,372	8,435	3,476	11,911	6,539
Catholic, Roman	565,029	568,973	1,134,002	577,997	583,458	1,161,455	27,453
Catholic, undefined	20,082	18,577	38,659	63,861	63,681	127,542	88,883
Church of Christ	24,680	29,894	54,574	28,820	33,934	62,754	8,180
Church of England	1,212,772	1,100,223	2,372,995	1,297,589	1,267,529	2,565,118	192,123
Congregational	34,931	39,582	74,513	30,411	34,791	65,202	- 9,311
Lutheran	31,677	25,892	57,519	32,569	28,234	60,803	3,284
Methodist	306,785	325,844	632,629	331,602	352,420	684,022	51,393
Presbyterian	322,072	314,902	636,974	356,743	356,486	713,229	76,255
Protestant, undefined	37,309	29,803	67,112	37,750	35,014	72,764	5,652
Salvation Army	14,584	17,005	31,589	14,297	16,913	31,210	- 3,679
Seventh Day Adventist	4,640	6,665	11,305	5,992	7,973	13,965	2,660
Other	16,508	16,162	32,670	19,605	22,241	41,846	9,176
Total Christian	2,649,644	2,617,997	5,267,641	2,859,826	2,867,912	5,727,738	460,097
Non-Christian—							
Buddhist	1,945	120	2,065	640	95	735	- 1,330
Chinese	3,512	79	3,591	298	7	305	- 3,286
Confucian	2,536	156	2,692	772	15	787	- 1,905
Hebrew	11,392	10,223	21,615	12,183	11,370	23,553	1,938
Mohammedan	2,647	221	2,868	1,668	209	1,877	- 991
Other	1,896	678	2,574	865	348	1,213	- 1,361
Total Non-Christian	23,928	11,477	35,405	16,426	12,044	28,470	- 6,935
Indefinite	13,096	6,790	19,886	8,133	4,896	13,029	- 6,857
No Religion	16,022	4,522	20,544	8,969	2,685	11,654	- 8,890
No Reply	60,180	32,078	92,258	473,757	375,191	848,948	756,690
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (-) denotes decrease.

9. Birthplace.—At the 1933 Census the native-born element of the population represented 86.3 per cent. as compared with 84.5 per cent. at the 1921 Census, the number of native-born having increased by 25 per cent., while the immigrant population increased by 7 per cent. only.

Although the number born in the British Isles increased by 39.055 or 5.8 per cent., they were equivalent to only 10.7 per cent. of the total population as compared with 12.4 per cent. at the previous Census. Those born in other European countries increased by 24.155, or 34.0 per cent., and represented 1.4 per cent. of the total population of Australia as compared with 1.3 per cent. in the year 1921. The number of Asiatic

birthplace decreased by 5,733, or 18.9 per cent., during the intercensal period, and was equivalent to only 0.4 per cent. of the total population as compared with 0.6 per cent. at the previous Census.

Of those not born in Australia, 57 per cent. were males and 43 per cent. females. Fifty-five per cent. of those born in the British Isles and 72 per cent. of those born in other European countries were males.

POPULATION: BIRTHPLACES, AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Birthplace.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Australia	2,273,999	2,307,664	4,581,663	2,848,282	2,878,284	5,726,566	1,144,903
New Zealand	20,002	18,609	38,611	23,837	22,126	45,963	7,352
Other Australasian	315	209	524	468	306	774	250
Total Australasia	2,294,316	2,326,482	4,620,798	2,872,587	2,900,716	5,773,303	1,152,505
England	246,134	199,990	446,124	268,849	217,982	486,831	40,707
Wales	7,845	5,645	13,490	8,492	5,994	14,486	996
Scotland	60,419	48,337	108,756	73,488	59,001	132,489	23,733
Ireland	53,221	51,812	105,033	41,576	37,076	78,652	26,381
Germany	14,117	8,279	22,396	10,826	6,016	16,842	5,554
Greece	3,147	507	3,654	6,548	1,789	8,337	4,683
Italy	6,306	1,829	8,135	20,064	6,692	26,756	18,621
Other European	27,576	9,265	36,841	31,456	11,790	43,246	6,405
Total Europe	418,765	325,664	744,429	461,299	346,340	807,630	63,210
British India	4,976	1,942	6,918	4,544	2,230	6,774	— 144
China	14,859	365	15,224	8,072	507	8,579	— 6,645
Other Asiatic	6,541	1,609	8,150	6,690	2,516	9,206	1,056
Total Asia	26,376	3,916	30,292	19,306	5,253	24,559	— 5,733
South African Union	2,784	2,624	5,408	3,271	2,908	6,179	771
Other African	806	561	1,367	926	716	1,642	275
Total Africa	3,590	3,185	6,775	4,197	3,624	7,821	1,046
Canada	2,378	1,172	3,550	2,621	1,209	3,820	370
United States of America	4,134	2,470	6,604	3,569	2,497	6,066	— 538
Other American	1,195	723	1,918	965	628	1,593	— 325
Total America	7,707	4,365	12,072	7,155	4,424	11,579	— 493
Polynesia	1,991	1,177	3,168	1,582	1,305	2,887	— 281
At Sea	1,872	1,836	3,708	985	1,066	2,051	— 1,657
Not Stated	8,253	6,239	14,492	(a)	(a)	(a)	..
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

(a) 11,165 persons (5,769 males, 5,396 females), whose birthplace was not stated, were distributed after further analysis of other particulars on the Householders' Schedule.

10. Period of Residence in Australia.—The decline in immigration into Australia during recent years is reflected in the figures in this table. They show that, of residents not born in Australia who stated their period of residence, 6 per cent. had resided in Australia for a period of less than five years, and 25 per cent. for less than ten years, as compared with 11 per cent. and 35 per cent. respectively at the previous Census.

Fluctuations in immigration into Australia over a long period are also partially revealed by this table, which classifies the immigrant population of Australia according to the period of their residence in Australia. Those in the group 80—84 years represent the survivors in Australia of the arrivals during the gold rush of the fifties, while the heavy numbers in the 45-49 group are the survivors of those arriving during the boom period of the eighties. The particularly heavy immigration of the pre-war years, 1911-1913, is reflected in the outstanding number in the 20-24 years group, followed by the slump during the war period in the numbers in the 15-19 years group, and the increasing immigration after the war in the 10-14 and 5-9 years groups. The great reduction in immigration brought about by the economic depression is the cause of the relatively small numbers in the 0-4 years group. The 10,190 persons shown as having a period of residence of under 1 year are mostly the passengers and crews of oversea vessels which were in Australian waters on the night of the Census.

POPULATION: IMMIGRANT—Period of Residence in Australia of Persons who were not born in Australia, AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Number of Completed Years of Residence.	Census 1921.			Census 1933.			Increase, 1921-1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Years.							
0	28,386	19,827	48,213	7,407	2,783	10,190	- 38,023
1	8,375	16,998	25,373	2,133	1,856	3,989	- 21,384
2	2,026	2,490	4,516	2,243	2,277	4,520	4
3	1,715	1,404	3,119	5,683	5,411	11,094	7,975
4	2,779	2,623	5,402	10,761	9,121	19,882	14,480
0-4.. .. .	43,281	43,342	86,623	28,227	21,448	49,675	- 36,948
5-9.. .. .	111,895	87,723	199,618	104,664	68,661	173,325	- 26,293
10-14.. ..	58,919	31,883	90,802	66,084	56,685	122,769	31,967
15-19.. ..	15,077	7,818	22,895	26,987	26,098	53,085	30,190
20-24.. ..	18,875	8,990	27,865	113,060	77,714	190,774	162,909
25-29.. ..	16,873	10,721	27,594	23,203	10,938	34,141	6,547
30-34.. ..	47,206	32,273	79,479	16,473	8,331	24,804	- 54,675
35-39.. ..	56,144	38,272	94,416	11,187	6,394	17,491	- 76,925
40-44.. ..	31,843	20,851	52,694	22,110	17,196	39,306	- 13,388
45-49.. ..	16,616	11,716	28,332	36,670	28,297	64,967	36,575
50-54.. ..	10,954	9,649	20,603	27,147	20,486	47,633	27,030
55-59.. ..	13,077	12,012	25,089	11,412	9,432	20,844	- 5,145
60-64.. ..	10,372	11,671	22,043	5,739	5,427	11,166	- 10,877
65-69.. ..	11,378	13,594	24,972	3,751	4,424	8,175	- 16,797
70-74.. ..	2,875	3,660	6,544	2,937	3,673	6,610	66
75-79.. ..	716	935	1,651	2,672	4,050	6,722	5,071
80-84.. ..	519	693	1,212	1,246	1,926	3,172	1,960
85-89.. ..	78	124	202	113	167	280	78
90-94.. ..	16	15	31	26	44	70	39
95-99.. ..	1	..	1	3	5	8	7
100 and over	..	..	..	..	1	1	1
Not Stated ..	13,903	12,050	25,953	15,118	13,137	28,255	2,302
Total not born in Australia	480,618	358,961	839,579	518,829	384,444	903,273	63,694
Born in Australia ..	2,282,252	2,313,903	4,596,155	2,848,282	2,878,284	5,726,566	1,130,411
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

11. Nationality.—The number of foreign nationals in Australia has increased since the 1921 Census by 32 per cent.—males by 25 per cent. and females by 71 per cent.—as compared with an increase of 22 per cent. in the number of British nationality. There has been little change, however, in the proportion of foreign nationals relative to the total population, 99.1 per cent. of the population being British subjects, as compared

with 99.2 per cent. at the previous Census. The greatest increases numerically among the foreign nationals were—Italian, 12,755; Greek, 2,835; Yugoslav, 2,217; and Polish, 1,257; whilst those of Chinese nationality decreased by 6,007; Dutch by 702; and Japanese by 555.

The number of persons in Australia who were born in countries outside the British Empire totalled 113,557, and of this number 60,259, or 54 per cent., were of foreign nationality at the 30th June, 1933, the remainder being British subjects by naturalization, etc.

The percentages of foreign nationals to the numbers born in the corresponding foreign birthplaces were as follows:—Japanese nationals, 92 per cent. of the Japanese born; Chinese, 91 per cent.; Yugoslav, 71 per cent.; Greek, 68 per cent.; Italian, 66 per cent.; Russian, 42 per cent.; United States of America, 42 per cent.; and German, 22 per cent.

POPULATION: NATIONALITY (i.e., ALLEGIANCE), AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Nationality.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
British	2,722,152	2,665,053	5,387,205	3,318,228	3,251,290	6,569,518	1,182,313
Foreign—							
Chinese	13,614	185	13,799	7,615	177	7,792	- 6,007
Danish	956	260	1,216	1,046	233	1,279	63
Dutch	1,430	187	1,617	786	129	915	- 702
Estonian	(a)	(a)	(a)	515	323	838	(a) 838
Finnish	517	37	554	962	100	1,062	508
French	1,221	867	2,088	924	723	1,647	- 441
German	2,538	1,017	3,555	2,738	934	3,672	117
Greek	2,430	387	2,817	4,639	1,013	5,652	2,835
Italian	3,984	919	4,903	14,068	147	17,658	12,755
Japanese	2,489	150	2,639	1,937	3,590	2,084	- 555
Norwegian	960	65	1,025	1,750	88	1,238	213
Polish	351	149	500	1,008	749	1,757	1,257
Russian	1,655	662	2,317	1,283	772	2,055	- 262
Spanish	405	140	545	463	133	595	51
Swedish	1,399	80	1,479	1,275	96	1,370	- 109
Swiss	413	151	564	680	272	952	388
United States of America	2,520	737	3,257	1,904	653	2,557	- 700
Yugoslav	502	107	609	2,503	323	2,826	2,217
Other	1,683	587	2,270	3,347	962	4,309	2,039
Total Foreign	39,067	6,687	45,754	48,842	11,417	60,259	14,505
Not Stated	1,651	1,124	2,775	41	21	62	- 2,713
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Included with "Other" in 1921.

NOTE.—Minus sign (—) denotes decrease.

12. **Race.**—The people of Australia may be classified into two groups with respect to racial characteristics, viz., non-indigenous and indigenous. The former group comprises the European and other races who have migrated to Australia and their descendants born in Australia, while the latter group consists of the full-blood aboriginal natives of Australia whose estimated numbers at the 30th June, 1938, were 51,379 but who are not included in the general population figures of the Commonwealth. The non-indigenous population of Australia is fundamentally British in race and nationality. The Australian people have the essential characteristics of their British ancestors, with perhaps some accentuation of the desire for freedom from restraint. The complete change of climatic and social environment, the greater opportunity for an open-air life and the absence of the restricting conventions of older countries are exerting a noticeable influence upon the physical characteristics and social instincts of the people.

At the 30th June, 1933, 99.2 per cent. of the population of Australia was of European race and 0.8 per cent. of non-European as compared with 99.1 per cent. and 0.9 per cent. respectively at the 1921 Census. The non-European group is divided into two sections, viz., full-bloods who represented 46 per cent. of the total non-Europeans at the 1933 Census and 64 per cent. at the previous Census, and half-castes who accounted for 54 per cent. and 36 per cent. respectively.

During the intercensal period the number of full-blood non-Europeans decreased by 8,195 persons, or 26 per cent., and the number of half-castes increased by 9,450 persons, or 54 per cent. Of the latter the greatest proportion was half-caste Australian aboriginals, who increased in number by 9,084 persons, or 79 per cent. The half-caste population, i.e., persons having a mixture of European and non-European blood, was equivalent to 0.41 per cent. of the total population of Australia as compared with 0.32 per cent. in the year 1921.

POPULATION: RACE, AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Race.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Full-blood— European	2,726,515	2,660,628	5,387,143	3,334,775	3,245,218	6,579,993	1,192,850
Non-European --							
Chinese	16,011	1,146	17,157	9,311	1,535	10,846	- 6,311
Cingalese	231	38	269	196	78	274	5
Filipino	319	103	422	214	78	292	- 130
Indian (a)	2,743	138	2,881	2,210	183	2,404	- 477
Japanese	2,546	194	2,740	2,007	234	2,241	- 499
Malay	986	101	1,087	813	156	969	- 118
Papuan	142	21	163	221	18	239	76
Polynesian (Other)	1,562	551	2,113	883	505	1,388	- 725
Syrian	1,584	1,308	2,892	1,553	1,327	2,880	- 12
Other	1,077	174	1,251	895	352	1,247	- 4
Total Non-European Full-blood	27,201	3,774	30,975	18,309	4,471	22,780	- 8,195
Half-caste—							
Australian Aboriginal ..	5,680	5,556	11,536	10,631	9,989	20,620	9,084
Chinese	1,891	1,778	3,669	1,901	1,602	3,503	- 166
Indian (a)	366	329	695	360	334	694	- 1
Japanese	97	91	188	116	109	225	37
Negro	108	72	180	119	89	208	28
Polynesian	184	165	349	218	216	434	85
Syrian	173	175	348	149	153	302	- 46
Other	355	296	651	533	547	1,080	429
Total Half-caste	9,154	8,462	17,616	14,027	13,039	27,066	9,450
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Native of India. NOTE.—Minus sign (-) denotes decrease.

13. Foreign Language.—On the occasion of the 1933 Census, persons who could not read and write English but could read and write some foreign language were asked to state that language. This question had never appeared on the Census Schedule before and there is some doubt whether the question was correctly understood, as it appears that some persons who were able to read and write English and a foreign language also may have replied to this question incorrectly.

The recorded figures indicate that at the 1933 Census, 29,738 persons, comprising 23,638 males and 6,100 females, stated they were not able to read and write English, but were able to read and write a foreign language. 39 per cent. of this number were able to read and write Italian; 17 per cent. Chinese; 10 per cent. Greek; 5 per cent.

Yugoslav; 4 per cent. Japanese; and 4 per cent. German. Included in the total are 1,014 persons who were passengers, or members of the crews, of oversea vessels in Australian waters on Census night.

Forty-three per cent. of the Italian-born population of Australia stated that they were unable to read and write English but were able to read and write Italian. Similarly, 59 per cent. of those born in China, 54 per cent. of the Japanese, 36 per cent. of the Yugoslav, 37 per cent. of the Greeks, and 20 per cent. of those born in Malta stated that they were unable to read and write English but could read and write a foreign language.

Particulars were not obtained concerning the number, if any, of foreign-born persons who could not read and write any language.

POPULATION : IMMIGRANT—FOREIGN LANGUAGE, AUSTRALIA,
1921 AND 1933.

PERSONS NOT ABLE TO READ AND WRITE ENGLISH, BUT ABLE TO READ AND WRITE A
FOREIGN LANGUAGE.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Foreign Language.	Males.	Females.	Persons.
Albanian	428	1	429
Arabic	178	99	277
Bulgarian	144	21	165
Chinese	5,008	64	5,072
Croatian	128	19	147
Czechoslovakian	76	12	88
Danish	59	27	86
Estonian	35	29	64
Filipino	65	1	66
Finnish	233	49	282
French	105	130	235
German	598	466	1,064
Greek	2,185	906	3,091
Hebrew	134	203	337
Hindu	614	4	618
Italian	8,630	2,901	11,531
Japanese	1,142	76	1,218
Malayan	389	1	390
Maltese	445	119	564
Norwegian	124	5	129
Polish	102	124	226
Russian	278	302	580
Serbian	74	6	80
Spanish	277	93	370
Swedish	143	20	163
Syrian	93	67	160
Yugoslav	1,158	263	1,421
Other	793	92	885
Total	23,638	6,100	29,738

14. Industry.—The following table shows the population of Australia classified according to the industry group in which they are usually engaged. The number of breadwinners in Australia at the 30th June, 1933, was 3,155,621, of whom 2,367,780 were males and 787,841 females. The term "breadwinner" generally includes persons

of all ages who are employers, working on own account, wage and salary earners, unemployed persons, pensioners, and those of independent means. Pensioners included in this number totalled 286,091. Excluding pensioners, the breadwinners numbered 2,869,530, comprising 2,239,677 males and 629,853 females. Owing to the change to an improved classification since the 1921 Census, in accordance with the recommendations of the Conference of Empire Statisticians, there has been some difficulty in making a strictly accurate comparison between the numbers engaged in each group at the Censuses of 1921 and 1933. The main divergence is that relating to the proportion of breadwinners to total population. This is the result of the exclusion of pensioners from the industry groups under the new classification.

At the 1921 Census pensioners were classified to their previous industry, or to the dependent or independent groups, whichever was stated. On this occasion, however, they were specifically directed to state if they were pensioners and they have been classed accordingly. These facts need to be borne in mind in considering the recorded changes to which attention is called below.

The proportion of breadwinners (including all pensioners shown) in the male population increased from 68.1 per cent. at the 1921 Census to 70.3 per cent. at the 1933 Census, and female breadwinners from 17.5 per cent. to 24.1 per cent. If pensioners are excluded, the proportion of breadwinners at the 1933 Census was as follows:—Males, 66.5 per cent. and females 19.3 per cent. Comparable figures for the year 1921 are not available.

Since the 1921 Census the total of male breadwinners, including pensioners, has increased by 25.8 per cent., and female breadwinners by 68.7 per cent. This increase in the number of female breadwinners is due in large measure to the increase in the stated number of old-age and invalid pensioners in 1933 as compared with the stated number in 1921. Excluding those who were not definitely stated to be associated with some occupation or industry, the number of breadwinners has increased by 17.9 per cent.—males by 15.4 per cent. and females by 27.9 per cent.

At the 1933 Census, as also at the previous Census, the Industrial group (factories, construction works, etc.) was the predominant group of industries and included 32.1 per cent. of the breadwinners in Australia (excluding those not definitely associated with industry) in 1933 as compared with 31.4 per cent. at the 1921 Census. The number of persons engaged in industrial occupations throughout Australia exceeded those in all primary industries by 209,120, or 32 per cent., as compared with 22 per cent. at the previous Census. The proportion of breadwinners engaged in the Agricultural, Pastoral and Dairying industries decreased from 21.0 per cent. at the 1921 Census to 20.3 per cent. in the year 1933.

During the intercensal period the aggregate increase in the number of males employed in each industry group was greater than that for females, with the exception of Personal and Domestic Service, and the Public Administration and Professional groups. The proportion of females to the total number of persons engaged in the various occupational groups has increased in the majority of groups, as follows:—Personal and Domestic Service from 76.2 per cent. in the year 1921 to 78.4 per cent. in the year 1933; Public Administration and Professional from 39.0 per cent. to 46.1 per cent.; Commerce and Finance to 24.9 per cent. (21.8); Entertainment, Sport and Recreation to 16.4 per cent. (13.0); Transport and Communication to 5.2 per cent. (3.5); and Agricultural, Pastoral, etc., to 3.6 per cent. (2.1). In the Industrial group (factories, construction works, etc.), the numbers of persons engaged in the Building and Construction sections—where the proportion of females is low—have increased more than in the Factory group with the result that the proportion of females in the group has fallen from 16.7 per cent. to 15.9 per cent. Considered separately, it will be seen that the proportion of females in the several sections has scarcely altered since 1921 so that the smaller proportion of females in the group as a whole is due to the altered values of the component

parts of the group. In all industry groups taken together the proportion of females to the total number of persons engaged has increased from 19.9 to 21.6 per cent.

POPULATION : NUMBERS ENGAGED IN INDUSTRY, AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Industry Group.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Fishing and Trapping ..	10,671	81	10,752	14,570	41	14,611	3,859
Agricultural, Pastoral and Dairying ..	471,460	9,895	481,355	528,154	19,633	547,787	66,432
Forestry ..	39,191	89	39,280	26,019	114	26,133	4,147
Mining and Quarrying ..	66,524	242	66,766	68,327	193	68,520	1,754
Industrial-							
Manufacturing ..	326,847	118,727	445,574	375,434	136,077	511,511	65,937
Building ..	94,878	396	95,274	107,039	407	107,446	12,172
Roads, Earthworks, etc.	137,057	49	137,106	217,335	321	217,656	80,550
Other ..	39,126	726	39,852	28,584	974	29,558	10,294
Total Industrial ..	597,908	119,898	717,806	728,392	137,779	866,171	148,365
Transport and Communica- tion ..	200,523	7,214	207,737	212,161	11,732	223,893	16,156
Commerce and Finance ..	258,595	72,083	330,678	338,837	112,335	451,172	120,494
Public Administration and Professional ..	131,234	83,995	215,229	125,092	107,120	232,212	16,983
Entertainment, Sport and Recreation ..	15,517	2,313	17,830	20,278	3,972	24,250	6,420
Personal and Domestic Service ..	49,934	159,880	209,814	52,354	100,024	242,378	32,564
No Industry or Industry not stated ..	50,115	11,299	61,414	125,493	46,910	172,403	110,989
Pensioners ..	(b)	(b)	(b)	128,103	157,988	286,091	(b)
Total Breadwinners	1,882,672	466,989	2,349,661	2,367,780	787,841	3,155,621	805,960
Dependants ..	880,198	2,205,875	3,086,073	999,331	2,474,887	3,474,218	388,145
Total ..	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Includes unemployed persons for whom industry was not stated. (b) Comparable figure not available. NOTE.—Minus sign (-) denotes decrease.

15. **Grade of Employment.**—This table shows the population of Australia classified according to the capacity in which they are engaged in the various branches of industry. The number of employers at the 30th June, 1933, was 207,680, an increase of 48.7 per cent. over the number stated at the 1921 Census, but actually 2 per cent. less than the number of employers at the earlier 1911 Census. Those persons who were stated to be working on own account showed an increase of 7.9 per cent. since the 1921 Census.

Of the population of Australia at the 30th June, 1933, 2,099,548 persons or 31.7 per cent. were in the wage-earning group. This was slightly more than the percentage of 30.8 recorded at the previous Census. Since the 1921 Census the number of persons in the wage-earning group has increased by 26.3 per cent.—males increasing by 23.7 per cent., and females by 35.7 per cent.

The proportion of females to the total number of persons in the wage-earning group has increased from 22.6 per cent. in the year 1921 to 24.3 per cent. at the time of the 1933 Census.

Of the wage-earning group, 1,447,507 or 69.0 per cent. were in full-time employment at the date of the Census; 170,997 persons, or 8.1 per cent., were employed part-time (this number includes those who stated themselves to be on sustenance work or relief work); and 481,044, or 22.9 per cent., stated themselves to be unemployed.

POPULATION : GRADE OF EMPLOYMENT, AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Grade.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Employer	129,142	10,481	139,623	186,849	20,831	207,680	68,057
Working on Own Account	296,291	46,030	342,321	318,951	50,424	369,375	27,054
Wage or Salary Earner				1,019,158	401,982	1,421,140	
Apprenticed Wage Earner	1,148,132	354,761	1,502,893	20,674	5,693	26,367	115,611
Wage Earner Employed Part Time				144,170	26,827	170,997	
Unemployed	137,675	21,405	159,080	405,269	75,775	481,044	321,964
Helper not receiving Salary or Wages	31,620	3,172	34,792	40,754	5,262	46,016	11,224
Grade not applicable (a)	994,590	2,229,653	3,224,243	1,226,806	2,674,756	3,901,562	677,319
Not Stated	25,420	7,362	32,782	4,480	1,178	5,658	-27,124
Total	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Includes pensioners, persons of private means not in business, females engaged in home duties, scholars and other dependants. NOTE.—Minus sign (-) denotes decrease.

16. **Unemployment.**—The number of persons who stated they were wholly unemployed at the 30th June, 1933, totalled 481,044, or 22.9 per cent. of the number of persons in the wage-earning group. Of those unemployed, 405,269 were males and 75,775 females, representing a percentage of unemployment of 25.5 for males and 14.8 for females respectively.

Corresponding percentages of unemployment from the 1921 Census results were males 10.7 per cent. and females 5.7 per cent. At the 1933 Census 15,061 males and 7,710 females who were unemployed and under 21 years of age stated they had never been in employment.

The percentage of males unemployed in Australia according to the Census returns (25.5 per cent.) was practically the same as the percentage of members of reporting Trade Unions in Australia who were unemployed (25.4), as shown by the returns supplied by the Unions to the Commonwealth Statistician for the second and third quarters of 1933.

Of the 481,044 persons unemployed, 453,487 stated the cause of their unemployment : 90.9 per cent was due to scarcity of employment ; 5.6 per cent. to illness ; 1.1 per cent. to accident ; and 2.4 per cent. to all other causes. The proportion of wage-earners who were unemployed as the result of illness and accident had decreased since the 1921 Census from 2.7 per cent. to 1.4 per cent. for males, and from 2.6 per cent. to 1.7 per cent. for females.

POPULATION : CAUSE OF UNEMPLOYMENT, AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Cause.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Scarcity of Employment ..	68,751	6,092	74,843	355,935	56,296	412,231	337,388
Illness	29,799	9,551	39,350	17,223	8,268	25,491	-13,859
Industrial Dispute	4,249	290	4,539	1,526	85	1,611	-2,928
Accident	4,556	246	4,802	4,484	391	4,875	73
Other Causes	24,069	4,061	(a) 28,130	1,590	308	1,898	-26,232
Voluntarily (so described)	(c)	(c)	(c)	4,579	2,802	7,381	(e) 7,381
Not Stated	6,251	1,165	7,416	19,932	7,625	27,557	20,141
Total	137,675	21,405	159,080	405,269	75,775	481,044	321,964

(a) Many classified as " Other Causes " were due to " Scarcity of Employment ". (b) Excluding wage-earners stated to be employed part-time or on Sustenance or Relief Work. (c) Not shown separately in 1921. NOTE.—Minus sign (-) denotes decrease.

Of those who stated the duration of their unemployment, 24.9 per cent. had been unemployed for less than 24 weeks; 14.1 per cent. between 24 weeks and 1 year; 13.9 per cent. between 1 and 2 years; 18.2 per cent. between 2 and 3 years; 18.9 per cent. between 3 and 4 years; and 10.0 per cent. for 4 years or longer. Sixty-four per cent. of the males unemployed and 43 per cent. of the females unemployed stated that a period of over one year had elapsed since they were last regularly employed.

POPULATION: DURATION OF UNEMPLOYMENT, AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Duration of Unemployment.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Under 1 week	12,107	1,751	13,858	1,970	682	2,652	-11,206
1 week	14,250	2,318	16,568	4,612	1,980	6,592	-9,976
2 weeks	11,537	1,795	13,332	5,698	2,218	7,916	-5,416
3	9,477	1,424	10,901	5,035	1,917	6,952	-3,949
4 weeks and under 8 weeks	20,967	3,289	24,256	16,637	5,382	22,019	-2,237
8	12,202	1,958	14,160	13,711	3,771	17,482	3,322
12	10,662	1,698	12,360	17,815	4,542	22,357	9,997
16				10,352	2,441	12,793	
20				7,007	1,512	8,519	
24				24,607	6,306	30,913	
28				6,289	1,171	7,460	
32				6,046	1,103	7,149	
36				7,240	1,213	8,453	
40				3,882	691	4,573	
44				113	10	123	
48				2,170	358	2,528	
	25,802	3,695	29,497				316,360
Total under 1 year and under 2 years				133,184	35,297	168,481	
2 years				50,344	9,700	60,044	
3				69,848	8,667	78,515	
4				75,895	5,660	81,554	
4 .. and over				40,607	2,616	43,223	
Not Stated	20,671	3,477	24,148	35,391	13,826	49,217	25,069
Total	137,675	21,405	159,080	405,269	75,775	481,044	321,964

(a) Excluding wage-earners stated to be employed part-time or on Sustenance or Relief Work.

NOTE.—Minus sign (-) denotes decrease.

17. **Income.**—The 1933 Census was the first occasion on which any question regarding income was placed on the Census Schedule in Australia. Its successful introduction in the New Zealand Census in the year 1926 inspired the hope that a similar inquiry could be successfully undertaken in Australia. Of the 3,155,621 breadwinners in Australia, 3,052,582 gave the required particulars concerning their income; only 1.6 per cent. of the male and 2.7 per cent. of the female breadwinners failed to furnish this information. The breadwinner group comprised 207,680 employers, 369,375 persons working on own account, 1,447,507 wage and salary earners, 170,997 persons employed only part-time, 481,044 unemployed, 46,016 helpers not receiving wages, and 433,002 persons who did not state their grade of employment or to whom this classification was not applicable. This latter section includes pensioners, independent and retired persons and males over age 16 for whom particulars as to occupation were not stated. In addition to breadwinners, 218,616 persons, comprising dependants and others who stated that the questions concerning occupation were not applicable to their circumstances, were in receipt of some income during the year ended 30th June, 1933. The Census figures have now been analysed separately for employers, those working on own account, wage and salary earners, those in part-time employment, unemployed persons and pensioners.

The following table shows the information concerning income supplied by persons in the breadwinner group, classified in conjunction with grade of occupation.

POPULATION : INCOME, AUSTRALIA, CENSUS 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Income.	Em- ployer.	Working on own Account.	Wage or Salary Earner.	Wage Earner employed Part- Time.	Unem- ployed.	Helper not receiving Wages.	Grade not applica- able and not stated.a	Total Bread- winners.
MALES.								
No Income (b) ..	5,942	16,894	..	..	175,662	40,754	50,043	289,295
Under £52 per annum ..	12,642	74,424	187,238	59,271	147,109	..	86,130	566,814
£52 to £103 per annum ..	22,498	80,372	168,491	44,746	47,228	..	21,720	385,055
£104 ,, £155 ,, ,, ..	26,475	56,477	134,733	23,937	17,141	..	14,270	273,033
£156 ,, £207 ,, ,, ..	23,878	33,058	184,764	9,572	6,388	..	7,989	265,649
£208 ,, £259 ,, ,, ..	21,362	19,716	170,670	2,473	2,419	..	6,132	222,772
£260 or over ,, ,, ..	72,252	35,087	183,915	655	1,245	..	14,650	307,804
Not Stated ..	1,800	2,923	10,021	3,516	8,077	..	31,021	57,358
Total ..	186,849	318,951	1,039,832	144,170	405,269	40,754	231,955	2,367,780
FEMALES.								
No Income (b) ..	766	4,631	..	..	17,273	5,262	11,339	59,271
Under £52 per annum ..	2,579	17,039	145,483	17,247	27,958	..	98,383	308,689
£52 to £103 per annum ..	4,268	14,149	133,434	7,926	6,500	..	22,279	188,556
£104 ,, £155 ,, ,, ..	3,531	6,638	77,756	998	1,278	..	12,542	102,653
£156 ,, £207 ,, ,, ..	2,367	2,848	30,052	123	236	..	5,924	41,550
£208 ,, £259 ,, ,, ..	1,778	1,529	10,201	32	40	..	3,928	17,508
£260 or over ,, ,, ..	5,139	2,044	5,613	24	32	..	11,081	23,933
Not Stated ..	403	1,546	5,136	477	2,458	..	35,611	45,681
Total ..	20,831	50,424	407,675	26,827	75,775	5,262	201,047	787,841
Total Breadwinners ..	207,680	369,375	1,447,507	170,997	481,044	46,016	433,002	3,155,621

(a) Includes pensioners, persons of private means not in business, females engaged in home duties scholars and other dependants. (b) Includes deficit.

§ 10. Dwellings.

1. Number of Dwellings.—The great majority of the questions on the Census Schedule related to the individual members of the household, but other important questions referred to the dwellings in which the people were living at the date of the Census. From the replies to these questions much valuable information has been tabulated concerning housing conditions. For Census purposes a dwelling is the habitation of a family group, whether this comprises the whole of any building or only part thereof. Where two or more separate buildings in one place are used by a single family for dwelling purposes, the whole is regarded as one dwelling. On the other hand, where a building is subdivided into tenements or flats which are occupied as separate units, each unit is counted as a dwelling. A flat has been defined as a room or suite of rooms which was designed, or has been adapted, to be occupied as a separate domicile.

The Census definition of a dwelling includes private houses, tenements, flats, hotels, boarding houses, hospitals, other institutions and any other structure used for the purpose of human habitation. Since the 1921 Census, the number of dwellings in Australia

including those being built has been increased by 407,714, or 33.7 per cent., which is a much higher rate of increase than that of 22.0 per cent. for the population during the same period. At the previous Census there was one private dwelling for every 4.9 persons in Australia but at the 30th June, 1933, this ratio had increased to one dwelling for every 4.4 persons.

The following table represents a summary of the information relating to the number of dwellings in Australia at 30th June, 1933 :—

DWELLINGS : AUSTRALIA, CENSUS, 30th JUNE, 1933.

(Exclusive of Dwellings occupied solely by full-blood Aborigines.)

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage of Total Dwellings.
Urban—					%
Metropolitan	732,247	24,123	976	757,346	46.79
Provincial	257,259	10,105	474	267,838	16.55
Rural	557,870	34,544	902	593,316	36.66
Total	1,547,376	68,772	2,352	1,618,500	100.00

Details for each State and Territory are as follows :—

DWELLINGS : STATES, CENSUS, 30th JUNE, 1933.

State.	Occupied.	Unoccupied.	Being Built.	Total.
New South Wales	599,750	28,737	746	629,233
Victoria	432,872	18,763	750	452,385
Queensland	216,122	9,311	301	225,734
South Australia	139,274	5,353	160	144,787
Western Australia	103,578	4,029	260	107,867
Tasmania	52,484	2,421	129	55,034
Northern Territory	1,301	55	1	1,357
Australian Capital Territory	1,995	103	5	2,103
Total	1,547,376	68,772	2,352	1,618,500

2. *Class of Dwelling.*—As previously indicated, the dwellings in which the people are housed comprise private houses, tenements, flats, hotels, boarding houses, charitable institutions, etc. It is desirable when considering the question of housing to exclude those forms of accommodation which do not represent the normal housing conditions associated with family life, and the statistics which follow relate mainly to private dwellings only, i.e., private houses, tenements and flats.

At the 1933 Census 1,509,671, or 97.6 per cent. of the total occupied dwellings in Australia, were private dwellings, as compared with 1,107,010, or 96.0 per cent., at the previous Census. During the intercensal period the number of private dwellings in the Commonwealth increased by 402,661, or 36.4 per cent.; those in the metropolitan areas increased by 244,993, or 52.4 per cent.; the urban provincial by 41,804, or 20.1 per cent.; and in the rural areas by 115,864, or 26.9 per cent.

DWELLINGS : CLASS OF OCCUPIED DWELLING, AUSTRALIA, 1921 AND 1933.
(Exclusive of Dwellings occupied solely by full-blood Aborigines.)

Class of Occupied Dwelling.	Number of Occupied Dwellings.								Increase, 1921-1933.
	Census, 4th April, 1921.				Census, 30th June, 1933.				
	Urban.		Rural.	Total Australia.	Urban.		Rural.	Total Australia.	
Metro-politan.	Pro-vincial.	Metro-politan.			Pro-vincial.				
Private House ..	440,092	202,270	426,245	1,068,607	651,138	240,199	543,182	1,434,519	365,912
Tenement or Flat ..	27,821	5,537	5,045	38,403	61,768	9,412	3,972	75,152	36,749
Total Occupied Private Dwellings ..	467,913	207,807	431,290	1,107,010	712,906	249,611	547,154	1,509,671	402,661
Caretaker's Quarters in Store, Office, etc. ..	864	208	462	1,624	1,326	483	651	2,460	836
Hotel ..	1,925	2,330	3,711	7,966	1,683	1,853	3,062	6,598	- 1,368
Boarding House, Lodging House, Coffee Palace ..	18,354	4,837	4,474	27,665	14,092	3,606	3,234	20,932	- 6,733
Educational Institution ..	400	325	309	1,034	479	303	359	1,141	107
Religious Institution (non-educational) ..	97	59	66	222	52	13	30	95	- 127(a)
Hospital ..	721	766	717	2,204	747	619	773	2,139	- 65(a)
Charitable Institution (other than Hospital) ..	240	109	260	609	253	60	109	428	- 181(a)
Penal Establishment ..	63	51	19	133	0	24	16	49	- 84(a)
Military or Naval Establishment ..	48	63	220	331	19	16	10	45	- 286(a)
Police Station or Barracks ..	207	386	882	1,475	209	300	1,011	1,520	45
Fire Station ..	158	82	25	265	117	102	42	261	4
Other (includes Club) ..	194	165	2,388	2,747	310	231	1,308	1,849	710
Not Stated ..					45	32	111	188	
Total Other Occupied Dwellings ..	23,271	9,471	13,533	46,275	19,341	7,648	10,716	37,705	- 8,570
Total Occupied Dwellings ..	491,184	217,278	444,823	1,153,285	732,247	257,259	557,870	1,547,376	394,091
Total Occupied Dwellings per square mile ..	492.26	59.68	0.15	0.39	579.99	82.99	0.19	0.52	0.13
Wagon, Van, etc. (includes campers-out)	63	570	4,588	5,221	268	1,669	7,444	9,381	4,160

(a) At the 1921 Census, detached buildings in some cases may have been counted separately, whereas in 1933 they have been counted together as one institution. NOTE.—Minus sign (-) denotes decrease.

3. **Number of Rooms.**—For Census purposes, the kitchen and any enclosed sleep-out or portion of a verandah that was permanently enclosed were included in the number of rooms in the dwelling, but the bathroom, pantry and store were not included unless generally used for sleeping. The average number of rooms per private house in Australia at the 30th June, 1933, was 5.03, and was slightly higher than that of 4.99 rooms at the previous Census. The average per private house in the metropolitan areas increased from 5.24 to 5.36 rooms; in the provincial sections the average scarcely altered, being 5.09 as compared with 5.11; and in the rural areas the average of 4.60 rooms per house was slightly lower than at the 1921 Census when the average was 4.67.

The average number of rooms for all tenements and flats was considerably less than that for private houses, and showed a substantial decline from 3.77 to 3.08 rooms, indicating a tendency towards even smaller flats. The reduction in the size of tenements and flats occurred throughout all divisions; the average for the metropolitan areas fell from 3.74 to 3.22 rooms and for the provincial sections from 3.87 to 2.52 rooms, with the heaviest decline of all in the rural areas from 3.85 to 2.24 rooms.

**DWELLINGS: OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO
NUMBER OF ROOMS, AUSTRALIA, 1921 AND 1933.**

(Exclusive of Dwellings occupied solely by full-blood Aborigines.) (Revised figures.)

Number of Rooms per Dwelling.(a)	Number of Occupied Private Dwellings.								Increase, 1921-1933.
	Census, 4th April, 1921.				Census, 30th June, 1933.				
	Urban.		Rural.	Total Australia.	Urban.		Rural.	Total Australia.	
	Metro-politan.	Pro-vincial.			Metro-politan.	Pro-vincial.			
1	5,845	4,036	35,956	45,837	7,676	7,556	49,063	64,295	18,458
2	8,897	5,489	26,772	41,158	16,005	8,142	33,440	57,587	16,429
3	34,784	11,289	34,378	80,451	39,684	11,622	40,271	91,577	11,126
4	112,254	49,565	102,397	264,216	148,457	52,362	122,579	323,398	59,182
5	143,637	69,411	101,774	314,822	220,327	81,170	130,650	432,147	117,325
6	89,968	39,172	65,293	194,433	165,017	52,846	89,408	307,271	112,838
7	37,049	15,187	29,985	82,221	63,560	19,816	39,830	123,206	40,985
8	17,311	6,607	14,600	38,518	24,776	7,416	17,356	49,548	11,030
9	7,190	2,789	6,052	16,031	10,153	2,876	6,982	20,011	3,980
10	3,932	1,530	3,517	8,979	4,706	1,463	3,859	10,028	1,049
11	1,675	592	1,298	3,565	1,968	546	1,520	4,034	469
12	1,268	391	1,248	2,847	1,463	382	1,419	3,264	417
13	483	172	429	1,084	566	124	452	1,136	52
14	469	136	532	1,137	499	140	588	1,227	90
15	230	64	261	555	244	64	346	654	99
16	151	37	223	411	144	45	236	425	14
17	95	35	112	242	89	19	168	276	34
18	62	16	91	169	51	24	122	197	28
19	39	4	56	99	29	7	49	85	14
20 and over	199	54	308	561	131	32	352	515	46
Not Stated	2,435	1,231	6,008	9,674	7,367	2,959	8,404	18,790	9,116
Total Private Dwellings	467,913	207,807	431,290	1,107,010	712,906	249,611	547,154	1,509,671	402,661
Average Number of Rooms per Private Dwelling(a)	5.15	5.07	4.66	4.94	5.23	5.06	4.65	4.99	0.05

(a) Includes kitchen and enclosed sleep-out or portion of a verandah that has been permanently enclosed, but does not include bathroom, pantry, store or outhouse, unless generally used for sleeping.

NOTE.—Minus sign (-) denotes decrease.

4. **Nature of Occupancy.**—At the 1921 Census the nature of occupancy of private houses was not tabulated separately from tenements and flats. At the 1933 Census, however, it was ascertained that 42.8 per cent. of the private houses in Australia for which particulars were supplied were occupied by owners; 13.5 per cent. by purchasers by instalments; 39.1 per cent. by tenants; and 4.6 per cent. by others.

In the metropolitan areas 51.4 per cent. of the occupants of private houses were owners or purchasers by instalments, as compared with 54.4 per cent. in the provincial areas, and 63.2 per cent. in the rural areas. In the latter areas, however, the ownership of the house is associated with the ownership of the land acquired as a means of livelihood.

More than 91 per cent. of the tenements and flats in the Commonwealth were occupied by tenants. The figures for all private dwellings, including tenements and flats, show that at the 1933 Census 53.8 per cent. of the dwellings were occupied by owners or were in process of purchase by instalments and 41.7 per cent. were occupied by tenants, as compared with 53.7 per cent. and 41.7 per cent. respectively at the 1921 Census, showing practically no alteration during the intercensal period.

DWELLINGS : OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO THE NATURE OF OCCUPANCY, AUSTRALIA, 1921 AND 1933.

(Exclusive of Dwellings occupied solely by full-blood Aboriginals.)

Nature of Occupancy.	Number of Occupied Private Dwellings.							Increase, 1921- 1933.	
	Census, 4th April, 1921.				Census, 30th June, 1933.				
	Urban.		Rural.	Total Aus- tralia.	Urban.		Rural.		Total Aus- tralia.
	Metro- politan.	Pro- vincial.			Metro- politan.	Pro- vincial.			
Owner	133,729	81,008	227,026	441,763	218,539	100,421	285,453	604,413	162,650
Purchaser by Instalments ..	79,055	25,607	33,321	137,983	117,305	28,720	43,602	189,627	51,644
Tenant	241,567	91,031	117,082	449,680	360,393	108,359	146,660	615,412	165,732
Caretaker					6,410	5,022	29,331	40,763	
Other Methods of Occupancy ..	6,036	6,025	37,514	49,575	3,146	2,810	19,166	25,122	16,310
Not Stated	7,526	4,136	16,347	28,009	7,113	4,279	22,942	34,334	6,325
Total	467,913	207,807	431,290	1,107,010	712,906	249,611	547,154	1,509,671	402,661

5. **Rent per Week.**—The information which has been tabulated concerning rents is restricted to the actual rent paid per week for unfurnished private dwellings occupied by tenants. For 15.5 per cent. of the private houses the rent was less than 10s. per week ; for 49.8 per cent., between 10s. and £1 per week ; for 27.4 per cent., between £1 and £1 10s. per week ; and for 7.3 per cent., over £1 10s. per week. Three-fourths of the houses with rents of less than 10s. per week were located outside the metropolitan areas.

The average rent was 17s. per week for unfurnished private houses throughout the Commonwealth ; 19s. 7d. per week in the metropolitan areas, 15s. 9d. in the provincial sections, and 11s. 2d. in the rural areas.

The average rent for unfurnished tenements and flats in the metropolitan areas was 23s. 6d. per week, or approximately 20 per cent. more than that paid for private houses in the same areas, notwithstanding that private houses in the metropolitan areas contain 50 per cent. more rooms than flats. In the provincial and rural areas, however, the rent of tenements and flats was approximately 15 per cent. and 11 per cent. respectively less than for private houses. For 16.9 per cent. of the tenements and flats a rent of less than 10s. per week was paid, and this percentage was slightly greater than for private houses ; the 33.8 per cent. between 10s. and £1 per week was only two-thirds the proportion of private houses in this group ; the percentage of 26.5 between £1 and £1 10s. per week was practically similar for private houses and flats ; but the 22.8 per cent. of tenements and flats with rent exceeding £1 10s. per week was three times the percentage of private houses in this rental group.

A comparison of the average rents at the 1933 Census with those at the previous Census is possible for all private dwellings only and not for private houses separately from tenements and flats, which were not tabulated separately at the 1921 Census. The average rent of 17s. 6d. per week for all private dwellings comprising private houses, tenements and flats in the Commonwealth was 6 per cent. higher than that at the 1921 Census.

During the intercensal period particulars are collected regularly by the Commonwealth Statistician from house agents in certain cities and towns throughout the Commonwealth showing the rents as at the middle of each quarter. A comparison of these figures for the first quarter of the year 1921 with the second quarter of 1933 shows approximately the same change in average rents as was obtained from the Census figures. They also show that the peak period of high rents during the intercensal period occurred in the first quarter of the year 1928 when the average for the metropolitan areas of Australia was 21 per cent. higher than for the year 1921; but since that peak year the average has fallen by 20 per cent. to the 1933 figure.

In the metropolitan areas 15 per cent. of the total private dwellings were tenements and flats, and the percentages of the total numbers of private dwellings in the several rental groups which consisted of tenements and flats were as follows:—Under 10s. per week, 29 per cent.; between 10s. and £1, 10 per cent.; between £1 and £1 10s., 13 per cent.; between £1 10s. and £2, 26 per cent.; between £2 and £2 10s., 36 per cent.; and in the over £2 10s. per week rental group 47 per cent. were tenements and flats.

**DWELLINGS: PRIVATE DWELLINGS OCCUPIED BY TENANTS CLASSIFIED
ACCORDING TO THE RENT PER WEEK, AUSTRALIA, 1921 AND 1933.**

(Exclusive of Dwellings occupied solely by full-blood Aboriginals.)

Rent per week Unfurnished.	Number of Occupied Private Dwellings.								Increase, 1921- 1933.
	Census, 4th April, 1921.				Census, 30th June, 1933.				
	Urban.		Rural.	Total Aus- tralia.	Urban.		Rural.	Total Aus- tralia.	
Metro- politan.	Pro- vincial.	Metro- politan.			Pro- vincial.				
Under 5s.	1,067	3,317	13,304	22,688	1,663	2,837	14,869	19,369	- 3,319
5s. and under 10s.	12,786	19,885	37,957	70,628	20,333	13,865	32,083	66,281	- 4,347
10s. " " 15s.	56,331	31,158	29,830	117,319	71,755	30,618	33,435	135,808	18,489
15s. " " 20s.	56,581	16,535	10,189	83,305	86,365	25,186	16,036	127,587	44,282
20s. " " 25s.	40,486	9,104	5,683	55,273	74,460	16,806	9,173	100,439	45,166
25s. " " 30s.	25,373	3,709	1,546	30,628	39,777	6,310	2,860	48,947	18,319
30s. " " 35s.	14,305	1,884	1,061	17,250	21,403	2,827	1,051	25,281	8,031
35s. " " 40s.	5,900	441	207	6,548	8,274	712	180	9,166	2,618
40s. " " 50s.	6,589	570	409	7,628	7,992	505	170	8,667	1,039
50s. " " 60s.	2,726	179	126	3,031	2,642	95	55	2,792	- 239
60s. " " 70s.	1,556	123	85	1,764	1,488	57	21	1,566	- 198
70s. " " 80s.	579	24	26	629	593	10	5	608	- 21
80s. " " 90s.	503	35	34	572	445	5	2	452	- 120
90s. " " 100s.	210	11	3	224	189	0	0	195	- 29
100s. and over	580	14	29	623	482	7	4	493	- 130
Not Stated	15,995	4,042	11,533	31,570	22,532	8,513	36,716	67,761	36,191
Total Private Dwellings	241,567	91,031	117,082	449,680	360,393	108,359	146,660	615,412	165,732
Average Weekly Rent per Private Dwelling	20s. 8d.	14s. 0d.	9s. 11d.	16s. 6d.	20s. 2d.	15s. 7d.	11s. 2d.	17s. 6d.	19. 0d.

NOTE.—Minus sign (-) denotes decrease.

6. **Private Houses of Three to Six Rooms.**—A special inquiry was undertaken concerning private houses of three to six rooms with walls of wood, or of brick or stone, as a more satisfactory average of predominant rents paid by wage-earners can be obtained by restricting the analysis to this group, which as previously indicated comprises 78.1 per cent. of the private houses in Australia.

Since the 1921 Census the number of houses of three to six rooms in Australia has increased by 34 per cent. to a total of 1,108,594. Particulars as to rent are summarized for 440,560 houses of this number with walls of wood, brick or stone which were occupied by tenants; 46 per cent. had walls of brick or stone and 54 per cent. of wood. The distribution is the same as that of the previous Census and there was no proportional increase in the number of brick houses of three to six rooms in the rented group during the intercensal period.

At the 1933 Census there was a smaller proportion of rented houses of three and four rooms and an increased proportion of those of five and six rooms, for both wooden houses and brick houses. The relative increases for rented houses of three, four, five and six rooms during the intercensal period were 2, 28, 43 and 60 per cent. respectively. The proportional increase of houses of five and six rooms was even higher in the metropolitan areas. The average rent of 18s. 5d. per week for all private houses, three to six rooms, of wood, brick or stone in the metropolitan areas at the 1933 Census was practically the same as at the previous Census.

In the provincial sections the average rent of 15s. 7d. per week was much higher than at the previous Census and the increase is found for all houses of three, four, five or six rooms, whether of wood, brick or stone. In the rural areas also the average rent of 11s. 6d. was much higher than that at the 1921 Census, and an increase is found in all types of houses included in this group.

An interesting comparison with respect to the rent of private houses is that based on the average weekly rent per room. At the 1933 Census the average rent per room for wooden houses in the metropolitan areas of Australia was 3s. 5d. per week, and showed little alteration from the average of 3s. 6d. per week at the 1921 Census. Similarly, the average of 4s. 1d. per room for brick houses in the metropolitan areas was practically the same as at the previous Census.

In the urban provincial sections, however, the average rent of 3s. 1d. per room for wooden houses was higher than the 1921 Census figure of 2s. 8d. per week, and the rent of 3s. 6d. per week for brick houses was also higher in comparison with the previous figure of 3s. 1d. per week. The average rent per room in the rural areas also showed increases from 2s. 1d. to 2s. 6d. per week for wooden houses, and from 2s. 3d. to 2s. 7d. per week for those of brick. With the exception of brick houses in the metropolitan areas, the average rent per room for houses of three rooms was generally higher than for houses of four, five or six rooms. The increase since the 1921 Census in the rent per room was somewhat similar for all houses of three to six rooms in the provincial and rural sections of the Commonwealth.

DWELLINGS : AVERAGE WEEKLY RENT PER ROOM OF PRIVATE HOUSES, THREE TO SIX ROOMS, WITH WALLS OF WOOD, BRICK OR STONE, OCCUPIED BY TENANTS, AUSTRALIA, 1921 AND 1933.

(Exclusive of Tenements, Flats, Boarding-houses, Hotels, etc., and of Dwellings occupied solely by full-blood Aborigines.)

Particulars.	Average Weekly Rent per Room.								Increase, 1921- 1933.
	Census, 4th April, 1921.				Census, 30th June, 1933.				
	Urban.		Rural.	Total. Aus- tralia.	Urban.		Rural.	Total. Aus- tralia.	
	Metro- politan.	Pro- vincial.			Metro- politan.	Pro- vincial.			
s. d.		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
Private Houses with Walls of—									
Wood—									
3 rooms	3 9	3 3	2 6	3 2	3 8	3 6	2 8	3 3	0 1
4 "	3 7	2 9	2 2	2 10	3 7	3 4	2 7	3 2	0 4
5 "	3 5	2 7	2 1	2 9	3 5	3 1	2 6	3 1	0 4
6 "	3 5	2 6	2 0	2 7	3 4	2 11	2 3	2 11	0 4
3 to 6 rooms	3 6	2 8	2 1	2 9	3 5	3 1	2 6	3 1	0 4
Brick or Stone—									
3 rooms	4 0	3 5	2 4	3 10	4 0	3 9	2 6	3 11	0 1
4 "	4 2	3 3	2 2	3 11	4 2	3 7	2 7	4 0	0 1
5 "	4 2	3 1	2 3	3 10	4 1	3 6	2 8	3 11	0 1
6 "	4 1	3 0	2 3	3 10	4 1	3 5	2 7	3 11	0 1
3 to 6 rooms	4 2	3 1	2 3	3 10	4 1	3 6	2 7	3 11	0 1
Wood, Brick or Stone—									
3 rooms	3 11	3 4	2 5	3 6	3 11	3 7	2 8	3 7	0 1
4 "	3 11	2 11	2 2	3 3	3 11	3 4	2 7	3 6	0 3
5 "	3 11	2 9	2 1	3 3	3 10	3 3	2 6	3 6	0 3
6 "	3 11	2 8	2 0	3 3	3 10	3 1	2 4	3 5	0 2
3 to 6 rooms	3 11	2 9	2 2	3 3	3 10	3 3	2 6	3 6	0 3

§ 11. Oversea Migration.

1. Oversea Migration during Present Century.—Earlier issues of the Official Year Book contain in summary form tables showing the increase of population by net migration from 1861 to the latest date, while the *Demography Bulletins* issued by this Bureau give this information in respect of the individual years. On page 363 of this chapter a summary will be found of the increase by net migration to the population of the States—from 1901 to 1935 in quinquennial groups and from 1929 to 1938 in single years. The following table shows for Australia as a whole the arrivals and departures as well as the net migration since 1901 :—

OVERSEA MIGRATION : AUSTRALIA.

Period.	Arrivals.			Departures.			Net Migration.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
1901-05..	196,993	84,167	281,160	204,170	93,783	297,953	- 7,177	- 9,616	- 16,793
1906-10..	251,482	119,552	371,034	213,483	100,273	313,756	37,999	10,279	57,278
1911-15..	422,927	209,893	632,820	382,552	113,406	495,958	40,375	96,487	136,862
1916-20..	438,721	200,764	639,485	390,202	78,574	468,776	48,519	22,190	70,709
1921-25..	289,695	188,357	478,052	172,236	122,550	294,786	117,459	65,807	183,266
1926-30..	266,593	203,887	470,480	193,336	147,437	340,773	73,227	56,450	129,707
1931-35..	124,207	115,116	239,323	134,883	115,326	250,209	-10,676	210	-10,886
1929 ..	44,508	37,740	82,248	39,735	30,693	70,428	4,773	7,047	11,820
1930 ..	33,881	29,212	63,093	40,989	30,634	71,623	- 7,108	1,422	- 8,530
1931 ..	21,986	18,428	40,414	30,356	20,152	50,508	- 8,370	- 1,724	- 10,094
1932 ..	22,637	19,360	41,997	24,864	20,130	44,994	- 2,227	770	2,997
1933 ..	24,457	23,335	47,792	25,053	22,525	47,578	- 596	810	214
1934 ..	27,451	26,253	53,704	26,428	24,996	51,424	1,023	1,257	2,280
1935 ..	27,676	27,740	55,416	28,182	27,523	55,705	- 506	217	- 289
1936 ..	29,726	30,168	59,894	29,045	29,352	58,397	681	816	1,497
1937 ..	35,123	34,670	69,802	32,161	32,438	64,599	2,962	2,241	5,203
1938 ..	39,910	38,018	77,928	34,206	34,585	68,791	5,704	3,433	9,137

NOTE.—Minus sign (-) indicates an excess of departures over arrivals.

The net migration has varied greatly during the above periods, reaching a maximum in the five years 1921-25. The Great War, during which 331,781 members of the Australian Imperial Forces embarked for service overseas, was responsible for a very large increase in the departures during the years 1914 to 1918. Immigration increased rapidly from 1910 to 1912, the gain during the latter year being the greatest in any one year in the present century (with the exception of 1919 when the troops were returning to Australia).

Although the quinquennium 1926-30 as a whole resulted in the considerable gain of 129,707 persons, the figures for the individual years reveal the decline in immigration which set in after 1927 and which resulted in an actual loss of population in 1930, 1931, 1932 and 1935.

The influence of the Commonwealth immigration policy is clearly reflected in the figures above. The average annual number of nominated and selected immigrants arriving in Australia during the periods specified was as follows:—

IMMIGRATION: NUMBER OF NOMINATED AND SELECTED PERSONS.

Period.	Average Annual Number.	Year.	Recorded Number.
1901-05	Not available	1932	175
1906-10	7,945	1933	72
1911-15	30,111	1934	159
1916-20	2,326	1935	100
1921-25	23,090	1936	9
1926-30	19,881	1937	141
1931-35	156	1938	852

The number of nominated and selected immigrants reached its peak in 1926, when 31,260 arrivals were recorded.

2. **Country of Embarkation and Destination.**—The countries from which the migrants arrived or to which they departed are shown for the year 1938 in *Demography Bulletin* No. 56. Annual averages for the period 1925-29 will be found in *Official Year Book* No. 25.

3. **Nationality or Race.**—The preponderance of migrants to and from Australia is of British nationality, while only a small proportion is of non-European race.

The number of arrivals and departures of migrants since 1926 classified according to nationality or race is shown in the next table.

NATIONALITY OR RACE OF ARRIVALS AND DEPARTURES: AUSTRALIA.

Nationality or Race.	Arrivals.			Departures.		
	1926-30.	1931-35.	1938.	1926-30.	1931-35.	1938.
British	386,669	200,159	60,858	281,449	210,549	60,119
French	3,394	3,090	576	3,292	3,003	549
German	3,172	1,446	2,295	1,961	1,294	552
Greek	3,842	1,435	1,103	2,040	1,629	261
Italian	19,170	7,234	3,291	8,617	5,711	765
Yugoslav	4,426	1,203	859	2,280	1,242	324
United States	8,916	5,065	2,913	8,101	5,119	2,645
Other European	15,355	4,432	3,026	7,001	4,863	1,114
Total European	444,944	224,064	74,921	314,741	233,410	66,329
Chinese	15,649	8,709	1,778	17,513	9,972	1,475
Japanese	1,762	1,625	273	2,004	2,050	262
Indian and Cingalese	2,790	2,007	598	2,095	1,775	517
Other Non-European	5,335	2,918	358	4,420	3,002	208
Total Non-European	25,536	15,259	3,007	26,032	16,799	2,462
Total	470,480	239,323	77,928	340,773	250,209	68,791

During the period 1926-30 there was a considerable influx of Italian, Greek and Yugoslavian settlers, so that although there was also much concurrent emigration of these nationals they provided a large permanent addition to the population of Australia. In the following quinquennium 1931-1935, however, there was a considerably reduced increment to the Italian population by migration, whilst there was actually an excess of departures of most other nationals. In the year 1938 the increase in the number of Southern Europeans was greater than in any other year during the past quinquennium, the net addition of these peoples to the population being 4,309 persons, compared with 1,740 in 1936 and 3,782 in 1937. During recent years there has generally been an excess of departures of non-European people as a whole though it is not true of all non-European nationals, but in 1937 and 1938 the movements of non-Europeans resulted in an excess of arrivals. The net gain or loss according to nationality or race for the same periods and the percentage of each nationality on the total gain or loss for the year are given in the following table:—

NET GAIN OR LOSS : NATIONALITY OR RACE, AUSTRALIA.

Nationality or Race.	Net Gain or Loss.			Proportion.		
	1926-30.	1931-35.	1938.	1926-30.	1931-35.	1938.
				Per cent.	Per cent.	Per cent.
British	105,220	— 10,390	739	81.12	— 95.44	8.09
French	102	87	27	0.08	0.80	0.30
German	1,211	152	1,743	0.93	1.40	19.08
Greek	1,802	— 194	842	1.39	— 1.78	9.22
Italian	10,553	1,523	2,526	8.14	13.99	27.65
Yugoslav	2,146	— 39	535	1.65	— 0.36	5.85
United States	815	— 54	268	0.63	— 0.50	2.93
Other European	8,354	— 431	1,912	6.44	— 3.96	20.92
Total European	130,203	— 9,346	8,592	100.38	— 85.85	94.04
Chinese	— 1,864	— 1,263	303	— 1.44	— 11.61	3.32
Japanese	— 242	— 425	11	— 0.19	— 3.90	0.12
Indian and Cingalese	695	232	81	0.54	2.13	0.88
Other Non-European	915	— 84	150	0.71	— 0.77	1.64
Total Non-European	— 496	— 1,540	545	— 0.38	— 14.15	5.96
Total	129,707	— 10,886	9,137	100.00	— 100.00	100.00

Owing to the depressed conditions in Australia the gain by migration decreased rapidly during the years 1928 and 1929 and there were actual losses of population during the next three years. There was little variation in the figures for arrivals and departures from 1933 to 1936, but in 1937 the arrivals exceeded the departures by 5,203 and in 1938 the excess was 9,137, the greatest gain to the population by migration since 1928. Migrants of Italian nationality showed the greatest net gain in numbers in the year 1938, followed by Germans and Greeks in that order. Over 81 per cent. of the net migration in 1926-30 consisted of persons of British nationality and the remaining 19 per cent. were other Europeans. In the following quinquennium, 1931-35, there was a loss by migration of persons of British nationality and a gain of those of Italian nationality. Non-Europeans, with the exception of Indians and Cingalese, also showed an excess of departures.

4. *Classes of Arrivals and Departures.*—Since 1st July, 1924, the arrivals and departures have been classified according to the declared intention of the migrant in

regard to intended residence. The figures for the quinquennial periods 1926-30 and 1931-35 and for the years 1936 to 1938 are as follows:—

MIGRANTS CLASSIFIED ACCORDING TO INTENDED RESIDENCE: AUSTRALIA.

Classification.	1926-30.	1931-35.	1936.	1937.	1938.
Permanent new arrivals ..	224,010	54,444	12,653	16,291	19,548
Australian residents returning from abroad ..	121,395	84,554	21,749	25,198	24,900
Temporary visitors ..	125,029	100,325	25,492	28,313	33,480
Not Stated ..	46	..	..	..	..
Total Arrivals ..	470,480	239,323	59,894	69,802	77,928
Australian residents departing permanently ..	103,209	71,670	11,370	11,216	11,403
Departing temporarily ..	111,714	79,426	22,050	24,350	24,163
Temporary visitors ..	125,772	99,108	24,977	29,033	33,225
Not Stated ..	78	5	..	..	..
Total Departures ..	340,773	250,209	58,397	64,599	68,791

Although permanent new arrivals increased during each of the last seven years the number in 1938 was considerably below the annual average for the quinquennium 1926-1930. Permanent departures were far more numerous in the years 1928 to 1931 than in the earlier years of the period but they declined during each of the six years ended 1937, the number in the latter year being the lowest yet recorded. Up to and including 1929 there was a considerable gain of permanent residents, but during 1930 and 1931 there was a heavy loss. The loss was very much reduced in 1932, 1933 and 1934, whilst during the past four years there was a small gain in permanent residents.

The figures in the table above are based on the information supplied by travellers at the time of arrival or departure. For various reasons the intentions of travellers are subject to subsequent modification, and the figures quoted in the table must therefore be accepted as a record of intention only.

§ 12. Immigration.

(A) Assisted Migration into Australia.

1. **Joint Commonwealth and States' Scheme.**—In 1920 an arrangement was arrived at between the Commonwealth and State Governments whereby the Commonwealth became responsible for the recruiting and medical inspection of migrants, and for their transport to Australia. The State Governments advised the Commonwealth from time to time as to the numbers and classes of migrants they were prepared to receive, and became responsible for their subsequent settlement. In addition, personal and group nominations were accepted by the States, the dominators undertaking responsibility for their settlement and after care.

In 1930 on account of the financial and industrial depression it was decided to confine the grant of assisted passages to the wives and dependent children of men who arrived in the Commonwealth prior to the 1st January, 1930.

On the 4th March, 1938, the Commonwealth decided, in co-operation with the United Kingdom Government, to resume assisted migration, and provision was made for the grant of assisted passages from the United Kingdom in favour of—

- (a) persons (relatives and friends) resident in the British Isles nominated by individuals or approved organizations;
- (b) migrants specially requisitioned for by any State; and
- (c) persons of British stock resident in the United Kingdom, who would be in possession of—

- (1) in the case of a married man, not less than £300 capital on arrival in Australia, or alternatively, a pension or other income of not less than £100 per annum;

- (2) in the case of a single man not less than £50 capital on arrival.

It was also decided that the Commonwealth Government would co-operate with any State to the extent that the migration policy of that State coincided with the policy of the Commonwealth, provided that the Commonwealth would itself deal with nominations which did not fall within the ambit of the policy of any particular State, but which were acceptable under the Commonwealth policy.

2. Assisted Passage Rates.—The British and Commonwealth Governments jointly contribute towards the fares of approved migrants, the rates in operation being tabled as under :—

IMMIGRATION: ASSISTED PASSAGE RATES.

Migrant.	Fare Charged to Migrant.	Amount of Assistance jointly contributed by British and Commonwealth Governments.
	(a)	
	£ s. d.	£ s. d.
	Sterling.	Sterling.
Married persons and widows or widowers accompanied by at least one child under 19 years (children at rate according to age) .. each	11 0 0	26 0 0
Married persons and widows or widowers without at least one child under 19 years .. each	16 10 0	20 10 0
Other adults, 19 years and over ..	16 10 0	20 10 0
Juveniles, 17 and under 19 years ..	11 0 0	26 0 0
Juveniles, 12 and under 17 years ..	5 10 0	31 10 0
Children under 12 years ..	Free	18 10 0

(a) As a result of the recent increase in passage money rates during the War, the fares charged to Migrants in this column have been increased by £13 sterling, and in the case of children under twelve years of age by £6 10s. sterling.

The Commonwealth Government also decided to make a grant of a passage money contribution equivalent to one-half of the tourist steamer fare from India to Australia in respect of retired British Army Officers and Civil Servants resident in India and Burma. This concession covers their wives and families.

Further information may be obtained from the Secretary, Department of the Interior, Canberra, Australian Capital Territory, or from the Official Secretary, High Commissioner's Office, Australia House, Strand, London, W.C.2.

3. Number of Persons Assisted.—The number of assisted migrants for the years 1929–1938 inclusive, and the total from the earliest years up to the end of 1938, are given in the following table :—

IMMIGRATION: NUMBER OF PERSONS ASSISTED.

Persons Assisted during the year—	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	A.C.T.	Total.
1929	5,431	2,604	1,292	526	2,976	101	13	12,943
1930	1,174	468	484	61	471	20	5	2,683
1931	76	45	43	6	99	5	1	275
1932	21	3	23	..	123	5	..	175
1933	11	3	1	1	56	..	..	72
1934	11	4	1	..	143	..	..	159
1935	1	..	1	..	98	..	..	100
1936	4	2	1	..	2	..	..	9
1937	60	33	6	3	39	..	..	141
1938	410	179	19	43	161	38	2	852
Total from earliest years to end of 1938	346,304	255,526	236,021	115,864	86,706	24,995	69	1,065,485

4. Suspension of Assisted Passage Scheme during War.—Consequent upon the outbreak of hostilities the United Kingdom and Commonwealth Governments decided to discontinue the grant of assisted passages during the War, excepting in cases of close family re-union involving wives and dependent children, and other special cases having exceptional features, for which special approval is required.

(B) The Regulation of Immigration into Australia.

1. Powers and Legislation of the Commonwealth.—(i) *Constitutional*. Under Part V., Sec. 51, xxvii, and xxviii. of the Commonwealth Constitution Act, the Parliament of the Commonwealth is empowered to make laws with respect to immigration and emigration and the influx of criminals.

(ii) *Legislation*. A summary of the provisions of the Immigration Act 1901–1925 and the Contract Immigrants Act 1905 (excepting the provisions of the Amending Immigration Acts of 1920, 1924 and 1925, which will be found in Official Year Book No. 21, p. 927), containing particulars regarding the admission of immigrants, prohibited immigrants, the liabilities of shipmasters and others, and kindred matters will be found in preceding Year Books (see Official Year Book No. 12, pp. 1166 to 1168).

The Immigration Act 1930.—Under this Act it is provided that Section 5, sub-section (1) of the Immigration Act 1901–1925 applies to any person who, since the commencement of the Immigration Restriction Act 1901, evaded an officer when entering Australia, or gained admission or re-admission by fraudulent means. Steps can be taken to deal with such persons as prohibited immigrants at any time after they have landed in Australia.

The Immigration Act 1932.—This Act provides (a) that any alien who fails to satisfy an officer that he holds a landing permit, or that his admission has been authorized, may be prohibited from landing; (b) for the increase of the period during which a person may be declared a prohibited immigrant from three to five years; (c) that a person not a British subject and who has been convicted of a crime of violence against the person may be deported pursuant to an order of the Minister without his being subjected to a dictation test; (d) for the deportation of a person who has been convicted of a criminal offence or who has become an inmate of an insane asylum or public charitable institution within five years from the date of arrival instead of three years as hitherto; and (e) that where the wife of a person whom it is proposed to deport so desires, her name and the names of her dependent children may be included in her husband's deportation order. This would of course apply only to wives and children who were themselves immigrants.

The Immigration Act 1933.—This Act provides that Section 8A, as amended by the Immigration Act 1932—see (d) above—shall apply to persons who arrived in Australia since the commencement of the Section, i.e., since 2nd December, 1920. It also makes statutory provision for the taking of securities for compliance with the provisions of the Act.

The Immigration Act 1935.—The main purpose of this Act was to add a penalty clause to Section 5 of the principal Act, to overcome a legal difficulty which had arisen in regard to relying on Section 7 for the imposition of penalties on persons convicted under Section 5 on charges of being prohibited immigrants offending against the Act.

2. Conditions of Immigration into Australia.—(i) *Immigration of Non-European or Coloured Persons*. In pursuance of the "White Australia" policy, the general practice is not to permit Asiatics or other coloured immigrants to enter Australia for the purposes of settling permanently.

There are special arrangements with India, Japan and China under which facilities are afforded for subjects of those countries who are bona fide merchants, students, or tourists to enter and remain in Australia under exemption whilst they retain their status.

(ii) *Immigration of White Aliens*. Aliens seeking to enter Australia for permanent residence are required to obtain landing permits or special authority for admission from the Department of the Interior. Applications for such permits are considered on their merits in respect of the following classes:—

- (a) Dependent relatives of persons already settled in Australia, subject to satisfactory guarantees for maintenance. (*Note*.—The term "dependent relatives" includes wives, children under 21 years of age, adult single daughters and sisters, parents and fiancées.)

- (b) Aliens outside the category of dependent relatives who (i) are nominated by persons in Australia guaranteeing to the satisfaction of the Minister that the nominees will not be allowed to become a charge upon the State; (ii) will engage in trades and occupations in which there is opportunity for their absorption without detriment to Australian workers; and (iii) are in possession of £50 (Australian) landing money.
- (c) Aliens without guarantors in Australia who will engage in trades and occupations in which there is opportunity for their absorption without detriment to Australian workers, provided also that they are in possession of £200 (Australian) landing money. Every alien applying for admission is required to furnish satisfactory certificates of health and character and, except in the case of dependent relatives, to submit evidence of his qualifications to follow his proposed occupation in Australia.

Aliens seeking to enter Australia are also required to hold valid national passports visaed by a British Consul for travel to Australia except in cases where visa requirements have been abolished by reciprocal arrangements to which the Commonwealth Government is a party. At the outbreak of War the exemptions applied to nationals of the following countries, viz.:—Belgium, Denmark, France, Italy, Liechtenstein, Netherlands, Norway, Portugal, Spain, Sweden and Switzerland, but under the National Security (Passport) Regulations, Statutory Rules 1939, No. 89, all aliens will require to obtain British visas before entering Australia during the period those Regulations remain in force.

(iii) *General Information.* General information as to conditions of entry into Australia may be obtained from the following offices:—

- (a) In Australia: The Secretary, Department of the Interior, Canberra, A.C.T., Australia; (b) In Great Britain: The Official Secretary, High Commissioner's Office, Australia House, Strand, London, England; (c) In the United States of America: The Australian Government Trade Commissioner in the United States of America, 630 Fifth Avenue, New York, U.S.A.

3. *Persons Admitted Without Dictation Test.*—The following table shows the number and nationality of persons admitted during the year 1938 without passing the dictation test. Persons who are permitted to land pending transhipment to another country are not included:—

PERSONS ADMITTED WITHOUT DICTATION TEST: NATIONALITIES,
AUSTRALIA, 1938.

Nationality or Race.	1938.	Nationality or Race.	1938.
Albanian	324	American, U.S.	2,913
Belgian	103	Other Whites	128
British	60,654	American Negro	24
Bulgarian	55	ASIATICS—	
Czechoslovakian	78	Afghan	1
Danish	93	Chinese	929
Dutch	388	Filipino	74
Estonian	72	Japanese	301
Finnish	57	Javanese	5
French	576	Koopangers	144
German	2,295	Malays	41
Greek	1,103	Natives of India and Ceylon	193
Hungarian	120	Palestinian	87
Italian	3,291	Syrian,	102
Maltese (British)	172	OTHER RACES—	
Norwegian and Swedish	140	Maoris	1
Polish	930	Pacific Islanders	52
Russian	389	Papuan	206
Spanish	45	Other and Unspecified	39
Swiss	136	Total	77,120
Yugoslavian	859		

4. **Departures of Persons of Non-European Races.**—The following figures in common with the other statistics in this sub-section have been compiled by the Department of the Interior and are exclusive of transshipments. They are not therefore in agreement with departures, compiled in this Bureau and published elsewhere, which include transshipments. The number of persons of non-European races who left Australia during the year 1938 was 1,874, distributed among the various nationalities as follows:—American Negroes, 12; Arabs, 16; Chinese, 697; Filipinos, 57; Natives of India and Ceylon, 230; Japanese, 277; Javanese, 4; Koepangers, 110; Malays, 158; Pacific Islanders, 13; Papuans, 270; Timorese, 4; West Indians, 5; other coloured, 21.

(C) Passports.

Provision is made in the Immigration Act 1901–1935 for the production of passports by all persons over 16 years of age who desire to enter Australia. Under the Passports Act 1920, it was compulsory also for all persons over 16 years of age to be in possession of a passport or other document authorizing his departure. This Act has now been superseded by the Passports Act 1938, which has dropped the compulsory provisions and is now simply a machinery measure governing the issue of passports and the grant of other passport facilities. The Act extends to the Territories of the Commonwealth, including Papua, Norfolk Island and the Mandated Territory of New Guinea.

Although it is no longer compulsory to be in possession of a passport when leaving Australia, it is very desirable in their own interests that Australians proceeding abroad should provide themselves with a passport as a means of establishing their identity and nationality. The possession of a passport is necessary for admission into most countries overseas, and the holder of an Australian passport also has no difficulty in landing on return to the Commonwealth. The charge for an Australian passport is £1; for an ordinary visa 8s. and for a transit visa, 2s.

§ 13. Naturalization.

1. **Commonwealth Legislation.**—Naturalization in Australia is governed by the Nationality Act 1920–1936. The qualifications necessary for naturalization are:—(a) Residence in Australia continuously for not less than one year immediately preceding application for naturalization and previous residence either in Australia or in some other part of His Majesty's dominions for a period of four years within the last eight years before the application; (b) good character and an adequate knowledge of the English language; and (c) intention to settle in the British Empire.

The amending Act of 1930 provided for the charge of a prescribed fee for a Certificate of Naturalization. The fee is £5, except in the case of a certificate granted to a woman who was a British subject prior to her marriage to an alien, in which case the amount is 5s. An applicant who served with a good record in the Commonwealth Naval or Military Forces during the Great War 1914–1918 is exempt from payment of any fee.

The amending Act of 1936 provided for certain alterations in the law dealing with the national status of married women, and vested in the Minister for the Interior certain powers and functions hitherto exercised by the Governor-General.

The amending Act, which came into operation on 1st April, 1937, provided for the following exceptions of the general principle that the wife of a British subject shall be deemed to be a British subject, and the wife of an alien deemed to be an alien:—

- (a) a woman who was a British subject prior to her marriage to an alien does not cease to be a British subject unless by reason of her marriage she acquires her husband's nationality;

- (b) if a man, during the continuance of his marriage, ceased to be a British subject his wife does not lose her British nationality unless she acquires her husband's new nationality ;
- (c) if a man, during the continuance of his marriage ceased to be a British subject and his wife acquires his new nationality she may within one year from the date of which she acquired her husband's new nationality, or within such further time as the Minister in special circumstances allows, make a declaration that she desires to retain her British nationality ;
- (d) if after 31st March, 1937, a certificate of naturalization is granted to an alien his wife, if she is not already a British subject, shall not be deemed to be a British subject, unless within one year from the date of such certificate, or within such further time as the Minister in special circumstances allows, she makes a declaration that she desires to acquire British nationality.
- (e) where an alien is a subject of a State at war with His Majesty, his wife, if she was a natural born British subject, may upon making a declaration that she desires to resume British nationality be granted a certificate of naturalization.

Provision was also made in the amending Act whereby a woman who was a British subject prior to her marriage and who acquired her husband's nationality may make a declaration that she desires to retain while in Australia or in a Territory to which the Act applies the rights, powers and privileges of a British subject.

A summary of the main provisions of the Principal Act will be found in Official Year Book No. 22, pp. 934-935.

2. **Certificates Granted.**—(i) *Australia.* Particulars regarding the previous nationalities of the recipients of certificates of naturalization issued under the Act during the year 1938, and the countries from which such recipients had come, are given in the following table :—

NATURALIZATION : CERTIFICATES GRANTED, 1938.

Previous Nationalities of Recipients.			Countries from which Recipients of Commonwealth Certificates had come.				
Nationality.	Certificates Granted.	Nationality.	Certificates Granted.	Country.	Certificates Granted.	Country.	Certificates Granted.
Albanian ..	26	Palestinian ..	13	Albania ..	24	Norway ..	14
American, U.S. ..	21	Polish ..	64	United States ..	22	Palestine ..	29
Belgian ..	1	Roumanian ..	1	Austria ..	3	Poland ..	5
Bulgarian ..	5	Russian ..	48	Belgium ..	9	Russia ..	8
Czechoslovakian ..	18	Spanish ..	19	Bulgaria ..	5	Spain ..	11
Danish ..	20	Swedish ..	30	Czechoslovakia ..	10	Sweden ..	14
Dutch ..	11	Swiss ..	21	Denmark ..	10	Switzerland ..	15
Estonian ..	21	Syrian ..	12	Holland ..	8	Syria ..	10
Finnish ..	21	Turkish ..	6	Estonia ..	15	New Caledonia and New Hebrides	7
French ..	17	Argentinian ..	1	Finland ..	20	Great Britain ..	68
German(a) ..	148	Egyptian ..	1	France ..	31	Egypt ..	26
Greek ..	146	Lebanese ..	3	Germany ..	94	Lebanon ..	2
Italian ..	535	British by local naturalization ..	5	Greece ..	119	Other Countries	144
Yugoslav ..	8	No State ..	3	Italy ..	540		
Lithuanian ..	6			Yugoslavia ..	46		
Norwegian ..	25	Total ..	1,314	Latvia ..	3		
				Lithuania ..	5		

(a) Including Austrian.

(ii) *States.* The certificates of naturalization granted in 1938 were issued in the various States as follows:—New South Wales, 420; Victoria, 293; Queensland, 333; South Australia, 90; Western Australia, 168; Tasmania, 6; Northern Territory, 3; and the Australian Capital Territory, 1; Total, 1,314.

§ 14. Population of Territories.

At the Census of the 30th June, 1933, special arrangements were made to obtain complete and uniform information concerning each of the six Territories of Australia including the Mandated Territories of New Guinea and Nauru, viz.:—(1) Northern Territory; (2) Australian Capital Territory; (3) Norfolk Island; (4) Papua; (5) Mandated Territory of New Guinea; and (6) Mandated Territory of Nauru.

A summary of the figures as to the population and number of dwellings in each Territory at the Census of 1933 is given in the following table:—

POPULATION AND DWELLINGS: TERRITORIES, 30th June, 1933.

(EXCLUSIVE OF INDIGENOUS POPULATION.)

Territory.	Population.			Dwellings.			
	Males.	Females.	Persons.	Occu- pied.	Unoccu- pied.	Being Built.	Total.
Northern Territory ..	3,378	1,472	4,850	1,301	55	1	1,357
Australian Capital Territory	4,805	4,142	8,947	1,995	103	5	2,103
Norfolk Island	662	569	1,231	383	34	6	423
Papua	1,232	941	2,173	683	35	1	719
Territory of New Guinea (Mandate)	3,709	1,507	5,216	1,776	26	7	1,809
Nauru (Mandate)	1,037	64	1,101	81	13	..	94

Particulars concerning the indigenous populations of the Territories of the Commonwealth are included in Chapter XII. of this issue.

A Census was taken in the Australian Capital Territory on 30th June, 1938, and the results were as follows:—

Population: Males, 6,286; Females, 5,276; Total, 11,562.

Occupied Dwellings: 2,477.

Since the 1933 Census the population had increased by 29 per cent. and the number of occupied dwellings by 24 per cent.

§ 15. The Aboriginal Population of Australia.

In Official Year Book No. 17, pp. 951 to 961, a brief account was given of the Australian aboriginal population, its origin, its numbers as estimated from time to time, and the steps taken for its protection. On pages 914 to 916 of Official Year Book No. 22 particulars are shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appeared on pages 687–696 of Official Year Book No. 23.

The aborigines are scattered over the whole of the mainland, but the majority are concentrated in Western Australia, Queensland and the Northern Territory. At a Census of aborigines taken on the 30th June, 1938, the following particulars were disclosed :—

ABORIGINAL CENSUS, 30th June, 1938.

State or Territory.	Full-blood.					Half-caste.					Total Full-blood and Half-caste.
	Noma-dic.	In Em-ploy-ment.	In Super-vised Camps. (a)	Other.	Total.	Noma-dic.	In Em-ploy-ment.	In Super-vised Camps. (a)	Other.	Total.	
New South Wales	44	222	390	153	809	485	2,467	3,126	3,533	9,611	10,420
Victoria ..	1	31	28	32	92	7	144	192	304	647	739
Queensland ..	1,650	3,693	5,760	1,057	12,160	28	2,199	2,028	2,206	6,461	18,621
South Australia ..	1,305	393	78	305	2,081	727	426	689	306	2,148	4,229
Western Australia	15,168	4,577	1,457	680	21,882	908	1,301	1,476	917	4,602	26,484
Tasmania ..	..	..	..	1	1	..	15	..	241	256	257
Northern Territory	7,405	2,958	3,695	296	14,354	20	437	320	130	907	15,261
Australian Capital Territory ..	..	..	..	..	..	..	63	23	..	86	86
Australia ..	25,573	11,874	11,408	2,524	51,379	2,175	7,052	7,854	7,637	24,718	76,097

(a) This figure does not include those living in supervised camps who were in regular employment.

§ 16. The Chinese in Australia.

In Official Year Book No. 18, pp. 951 to 956, a brief historical sketch was given regarding "The Chinese in Australia."

§ 17. The Pacific Islanders in Australia.

In Official Year Book No. 19, pp. 902-3, a brief account was given of the introduction of Kanakas into Australia.

CHAPTER XV.—LABOUR, WAGES AND PRICES.

A.—RETAIL PRICES AND PRICE INDEXES.

§ 1. Collection of Returns of Retail Prices and Rents.

The retail prices of an extensive range of articles and services in common demand are collected by the Bureau at frequent intervals from representative retail establishments in the more important towns throughout the Commonwealth. The prices of a less extensive range of commodities are also collected at annual intervals from most towns of any significant size, the total number of towns so covered reaching approximately 200.

Definite standards of quality have been established for each article in order to ensure that, as far as care and effort can make it possible, prices for articles of identical grade or quality will be recorded at all times and for all places. These standards, which are incorporated in printed "specifications", are closely watched and revised from time to time to keep them in harmony with changing trade practices and conditions.

The actual collection of the data is carried out, under the direct supervision of the State Statisticians, by specially qualified officers of the Bureau, while a supervising field officer is provided to assist in the co-ordination of activities in the several States. The prices of food are obtained, where practicable, from about ten retailers in each of the capital cities, and from about five retailers in the provincial towns. Tradespeople and agents are carefully selected in order to ensure the supply of representative figures for the whole of each town, and returns are carefully verified if there should be any doubt as to the accuracy of the information supplied. The movement in wholesale prices of commodities is used as a check when the indicated movement of retail prices appears to be abnormal.

Returns of rents are made in the middle of each quarter by a representative number of house-agents in each town, for brick and wooden houses respectively, classified according to the number of rooms. The returns from the larger cities and towns show the rents of individual houses, all of which are inspected by the Bureau's field officers. The returns from the smaller provincial towns are in the form of averages supplied by house-agents. As opportunity permits the system of listing and inspecting individual houses in provincial towns is being extended.

§ 2. Compilation of Indexes of Retail Prices and Rents.

1. **General.**—The methods adopted for the compilation of indexes of retail prices and rents are very briefly described below. For a more detailed explanation, and an analysis of the problems involved, the reader should refer to Labour Report No. 29 and the Appendix to Labour Report No. 9.

2. **The Regimen.**—The "regimen" from which the retail price indexes are compiled consists of a list of those commodities and services which most commonly enter into the consumption of the average household. The regimen is divided into the following distinct groups and sections:—

Group.	RETAIL PRICES.	
	Sections.	
I. Food and Groceries	{	A.—Groceries.
		B.—Dairy Produce.
		C.—Meat.
II. Housing	{	D.—House Rent.
		E.—Clothing—Man.
III. Clothing	{	F.—Clothing—Woman.
		G.—Clothing—Boy (10½ years).
		H.—Clothing—Girl (7 years).
		J.—Clothing—Boy (3½ years).
IV. Miscellaneous	{	K.—Household Drapery.
		L.—Household Utensils.
		M.—Fuel and Light.
		N.—Other Miscellaneous.

An index (the "All Items" or "C" series) is compiled for the whole of the above groups, but for many purposes indexes are required for each group or section separately.

A list of the articles and services included in the various sections is published in the *Labour Report*

3. **The Mass Units.**—The “mass units” or “multipliers” represent the estimated annual consumption per head or per household as the case may be in Australia of the units of quantity adopted for the various items in each of the sections. In the case of food and groceries the mass units are approximately the annual average consumption per head for household purposes of the various articles during the years 1927 to 1929. In the case of housing the mass unit is the multiplier applied to the weekly rental to raise it to an annual basis. In the case of Sections E to J the mass units represent the estimated annual consumption per head of the articles included in these sections. In the case of Sections K to M the mass units represent the estimated consumption per household, while in Section N are shown the actual amounts necessary to cover the estimated cost of the services included for an average household.

It will be noted that the mass units are all shown on the basis of consumption per head or per household. In the tabulation for index-number purposes, the figures are raised to a “total population” basis, by multiplying the aggregate cost of each group or section by the numbers of the population properly applicable to it. Thus food and groceries is multiplied by the whole population; housing by the total number of households; the clothing sections by the proportions of the population applicable to each; and the Sections K to N (miscellaneous) by the total number of households. The resultant index-numbers measure changes, therefore, in the cost to the whole population of the commodities and services included.

4. **Relative Importance of the Groups and Sections.**—The relative importance of the groups and sections in the “All Items” (“C” series) index for Melbourne for the December quarter of 1938 was as follows:—

Group.	Section.	Percentage of Total Aggregate Cost.
I. Food and Groceries	A.—Groceries	13.7
	B.—Dairy Produce	10.5
	C.—Meat	11.8
II. Housing	D.—House Rent (4 and 5 rooms)	24.0
	E.—Man	8.0
	F.—Woman	8.7
III. Clothing	G.—Boy, 10½ years	1.5
	H.—Girl, 7 years	1.1
	J.—Boy, 3½ years	0.6
	K.—Household Drapery	1.2
	L.—Household Utensils	0.5
	M.—Fuel and Light	5.3
IV. Miscellaneous	N.—Other Miscellaneous	13.1
		100.0

5. **Base Periods of the Indexes.**—The base period originally adopted by the Bureau for its retail price indexes was the year 1911. When the collection of the prices of clothing and miscellaneous items was undertaken for the purposes of the “All Items” (“C” series) index, the month of November, 1914, was adopted as the base period for this series. The desirability of computing retail price indexes to a post-war base was considered by a Conference of Statisticians in 1929, and it was resolved that from 1st January, 1930, the five years 1923–27 should be adopted as the base period. Commencing with the year 1930, therefore, the retail price indexes have been published on this base. The aggregate to which all index-numbers are related is the weighted aggregate cost of the regimen in the six capital cities during the period taken as base.

6. **The Methods of Tabulation.**—The prices (converted to pence) received from each retailer for each item of the regimen are added together and divided by the number of individual prices. These averages are then multiplied by their respective mass units. The sum of these products for each section or group of the regimen is then multiplied by the population factor applicable to such section or group. The aggregate so produced for any section, group or combination thereof for the period taken as the base of the indexes is regarded as equal to 1,000. The index-number for any other period is then calculated by applying to 1,000 the ratio which the aggregate for such period bears to the base aggregate.

§ 3. The Food, Groceries and Rent (" B " Series) Index of Retail Prices.

1. **General.**—This index measures the prices of food and groceries and the rent of 4 and 5-roomed houses. It was first compiled in respect of the year 1925, and index-numbers were retrospectively computed for the several earlier years shown below. It was designed to replace the " A " series index (food, groceries and rent of all houses), which was the original index first compiled by the Bureau in 1912. Owing, however, to the continued use of the latter index by Industrial Tribunals for the purpose of adjusting wages to variations in retail prices, the " B " series index never replaced the " A " series in this connexion.

2. **Retail Price Index-Numbers : Capital Cities, 1907 to 1938.**—Index-numbers computed separately for each group of the regimen, and the weighted average for both groups together, for the capital city of each State are shown in the next table.

RETAIL PRICE INDEX-NUMBERS : CAPITAL CITIES. (" B " SERIES).
(Base of each Section : Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

City.	1907.	1911.	1914.	1921.	1934.	1935.	1936.	1937.	1938.
FOOD AND GROCERIES.									
Sydney	523	553	646	1,062	825	840	848	858	904
Melbourne .. .	517	523	610	1,063	748	784	809	836	884
Brisbane	530	569	603	1,014	727	763	791	828	838
Adelaide	532	570	679	1,066	767	780	798	826	861
Perth	670	753	728	1,116	807	821	853	881	899
Hobart	565	592	678	1,133	786	792	827	870	880
Weighted Average (a) ..	533	559	640	1,064	783	806	825	851	886
HOUSING (4 AND 5 ROOMS).									
Sydney	593	701	760	989	869	891	930	965	1,004
Melbourne .. .	455	569	628	820	808	850	882	909	935
Brisbane	283	373	466	630	691	720	766	822	841
Adelaide	510	706	655	809	700	736	795	832	868
Perth	458	524	589	739	794	792	844	861	872
Hobart	405	452	518	881	865	890	908	899	913
Weighted Average (a) ..	497	612	662	862	810	839	879	912	942
FOOD, GROCERIES, AND HOUSING.									
Sydney	548	606	687	1,036	840	858	878	904	941
Melbourne .. .	495	539	616	977	769	808	835	862	902
Brisbane	442	500	554	877	713	747	781	824	838
Adelaide	524	618	671	975	742	764	796	826	862
Perth	594	672	679	982	802	810	849	871	887
Hobart	508	542	621	1,044	814	827	856	879	891
Weighted Average (a) ..	520	578	648	992	792	818	844	872	906

(a) For Six Capital Cities.

§ 4. The All Items (" C " Series) Index of Retail Prices.

1. **General.**—This index measures the prices of food and groceries, rent of 4 and 5-roomed houses, clothing and miscellaneous household requirements, and for convenience of reference has been designated the " All Items " (" C " series) index. It has become more important in recent years because of its adoption by the Commonwealth Arbitration Court from 1st May, 1934, for the adjustment of wages controlled by that Court. It is used at present as the basis of the " Court " series of index-numbers adopted from July, 1937, by the same Court.

The compilation of this series was undertaken by the Bureau following a recommendation of the Royal Commission on the Basic Wage, which reported in 1920 and 1921. The Commission itself had collected data on prices in the capital cities for the month of November, 1914 to 1920 inclusive. In consequence, the Bureau commenced its own more comprehensive inquiries in the five principal towns of each State, as from November, 1921, and continued them at quarterly intervals thereafter.

2. Retail Price Index-Numbers : Thirty Towns, November 1921 to June Quarter 1939.—The following table gives index-numbers representing the variations in the prices, in 30 of the more important towns, of food and groceries, housing, clothing, and miscellaneous household requirements combined.

RETAIL PRICE INDEX-NUMBERS : THIRTY TOWNS (" C " SERIES). ALL ITEMS OF HOUSEHOLD CONSUMPTION.

(Base : Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

State and Town.	Nov- em- ber, 1921.	Year 1929.	Year 1932.	Year 1933.	Year 1934.	Year 1935.	Year 1936.	Year 1937.	Year 1938.	1939.	
										Mar. Qtr.	June Qtr.
NEW SOUTH WALES—											
Sydney ..	1,046	1,073	867	832	842	852	866	889	913	934	932
Newcastle ..	1,041	1,028	840	819	834	856	853	849	877	898	898
Broken Hill ..	975	1,018	834	806	819	819	848	893	940	970	959
Goulburn ..	1,033	1,108	877	843	852	860	864	867	893	916	915
Bathurst ..	947	979	820	801	807	814	833	842	860	880	880
Weighted Average, 5 Towns ..	1,042	1,067	863	830	841	852	865	886	911	932	929
VICTORIA—											
Melbourne ..	1,003	1,017	813	789	801	824	844	868	896	923	921
Ballarat ..	992	957	776	760	781	803	826	839	850	869	872
Hendigo ..	1,002	669	808	789	811	820	821	840	854	873	870
Geelong ..	1,019	950	794	772	782	824	848	855	884	907	909
Warrnambool ..	1,034	960	838	812	826	850	851	850	892	912	914
Weighted Average, 5 Towns ..	1,003	1,011	811	787	801	824	843	866	893	919	917
QUEENSLAND—											
Brisbane ..	923	923	764	751	762	780	804	837	852	874	866
Toowoomba ..	949	916	788	778	785	785	802	840	843	863	855
Rockhampton ..	972	904	779	752	750	776	802	840	853	871	864
Townsville ..	1,025 ^a	939 ^a	794 ^a	762 ^a	789 ^a	789 ^a	810 ^a	883	902	923	915
Bundaberg ..	994 ^b	931 ^b	777 ^b	757 ^b	761 ^b	760 ^b	779 ^b	809	831	849	845
Weighted Average 5 Towns ..	941	922	768	753	764	780	803	840	854	875	867
SOUTH AUSTRALIA—											
Adelaide ..	989	1,037	802	789	806	820	839	859	885	908	908
Kadina, etc. ..	998	943	772	747	758	763	765	760	786	806	808
Port Pirie ..	1,025	980	791	762	778	789	813	844	868	895	894
Mount Gambier ..	1,029	963	816	800	800	809	818	830	840	867	875
Peterborough ..	948	1,043	848	832	832	833	843	851	868	896	895
Weighted Average, 5 Towns ..	992	1,030	801	787	804	817	835	855	883	904	904
WESTERN AUSTRALIA—											
Perth, etc. ..	1,008	1,026	840	811	830	834	856	869	882	896	904
Kalgoorlie, etc. ..	1,048	1,032	940	937	975	1,011	1,027	1,030	1,048	1,064	1,067
Northam ..	1,030	1,022	844	814	825	829	866	890	900	911	918
Bunbury ..	1,045	978	842	824	843	865	880	897	914	928	937
Geraldton ..	1,056	1,031	904	851	866	886	933	970	957	967	966
Weighted Average, 5 Towns ..	1,020	1,026	852	825	842	848	870	884	897	911	918
TASMANIA—											
Hobart ..	1,070	1,000	844	825	857	849	860	875	887	901	907
Launceston ..	1,067	957	832	817	828	834	840	856	872	883	888
Burnie ..	1,003	966	811	775	780	792	814	844	865	872	877
Devonport ..	904	948	800	773	787	801	809	833	848	855	861
Queenstown ..	1,031	972	875	867	876	873	850	857	875	898	905
Weighted Average, 5 Towns ..	1,057	986	838	820	831	841	850	866	879	892	897
Weighted Average, 30 Towns ..	1,013	1,026	829	803	816	831	848	871	894	916	915
Weighted Average, 6 Capital Cities ..	1,013	1,033	830	804	817	832	850	873	897	919	917

(a) Charters Towers.

(b) Warwick.

3. Retail Price Index-Numbers : Capital Cities, 1914 to 1920.—The next table gives index-numbers representing the variations in the prices, in each capital city, of all items of household consumption combined. The index-numbers for the clothing and miscellaneous groups were compiled from data collected by the Royal Commission on the Basic Wage.

RETAIL PRICE INDEX—NUMBERS : CAPITAL CITIES ("C" SERIES). ALL ITEMS OF HOUSEHOLD CONSUMPTION.

(Base of each Group : Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals.
FOOD AND GROCERIES.							
Nov. 1914 ..	638	616	614	683	746	687	641
" 1915 ..	844	835	860	858	819	858	842
" 1916 ..	833	791	748	835	854	807	812
" 1917 ..	877	798	825	805	828	949	836
" 1918 ..	877	843	882	862	816	918	861
" 1919 ..	1,073	975	1,069	1,012	987	1,041	1,026
" 1920 ..	1,225	1,220	1,117	1,225	1,113	1,293	1,209
HOUSING (4 AND 5 ROOMS).							
Nov. 1914 ..	758	608	463	611	586	525	649
" 1915 ..	780	611	472	574	581	571	659
" 1916 ..	791	625	467	573	592	574	665
" 1917 ..	797	657	492	606	602	586	685
" 1918 ..	832	699	526	656	619	614	722
" 1919 ..	866	744	604	707	650	746	768
" 1920 ..	980	807	634	783	718	904	851
FOOD, GROCERIES AND HOUSING.							
Nov. 1914 ..	680	613	560	658	689	630	644
" 1915 ..	825	756	722	758	734	756	777
" 1916 ..	818	732	648	742	761	724	760
" 1917 ..	848	748	707	734	748	820	782
" 1918 ..	861	792	756	789	746	810	812
" 1919 ..	1,000	893	904	904	867	936	934
" 1920 ..	1,138	1,074	945	1,068	973	1,155	1,082
CLOTHING.							
Nov. 1914 ..	755	780	657	756	698	825	754
" 1915 ..	805	797	690	821	760	833	792
" 1916 ..	903	870	779	919	849	940	881
" 1917 ..	1,009	976	899	1,049	980	1,041	992
" 1918 ..	1,102	1,103	1,025	1,066	1,135	1,200	1,097
" 1919 ..	1,237	1,213	1,192	1,303	1,277	1,344	1,238
" 1920 ..	1,323	1,422	1,274	1,384	1,359	1,430	1,365
MISCELLANEOUS.							
Nov. 1914 ..	766	728	728	770	780	699	749
" 1915 ..	798	770	756	803	822	770	786
" 1916 ..	808	784	766	832	869	780	802
" 1917 ..	889	879	836	883	926	865	882
" 1918 ..	988	950	931	988	1,035	945	972
" 1919 ..	1,059	1,016	968	1,035	1,120	1,006	1,036
" 1920 ..	1,209	1,181	1,139	1,200	1,262	1,124	1,194
TOTAL HOUSEHOLD EXPENDITURE.							
Nov. 1914 ..	712	671	611	699	707	687	687
" 1915 ..	816	768	721	780	755	776	782
" 1916 ..	836	773	698	798	800	783	795
" 1917 ..	892	823	773	832	832	879	847
" 1918 ..	938	890	848	887	885	923	905
" 1919 ..	1,065	988	981	1,018	1,005	1,042	1,022
" 1920 ..	1,193	1,172	1,054	1,164	1,111	1,213	1,166

4. **Relative Cost of Each Group of Items.**—The following table shows for the towns covered by this Series of index-numbers the relative cost of each of the groups of household consumption :—

RETAIL PRICE INDEX-NUMBERS: ("C" SERIES). ALL ITEMS OF HOUSEHOLD CONSUMPTION. RELATIVE COST OF EACH GROUP OF ITEMS.

(Base: Weighted Average Cost of All Groups in each Town = 1,000.)

State and Town.	1937.					1938.				
	Food and Groceries.	Housing (4 & 5 Rooms).	Clothing.	Miscellaneous.	Total Household Expenditure.	Food and Groceries.	Housing (4 & 5 Rooms).	Clothing.	Miscellaneous.	Total Household Expenditure.
NEW SOUTH WALES—										
Sydney	352	251	202	195	1,000	356	254	201	189	1,000
Newcastle	374	226	206	104	1,000	380	227	203	190	1,000
Broken Hill	493	174	203	220	1,000	418	180	195	207	1,000
Goulburn	363	233	211	193	1,000	377	226	209	188	1,000
Bathurst	366	223	213	198	1,000	370	221	211	192	1,000
Weighted Average 5 Towns	355	247	202	196	1,000	359	251	200	190	1,000
VICTORIA—										
Melbourne	347	242	203	208	1,000	355	241	201	203	1,000
Ballarat	368	192	217	223	1,000	374	189	218	219	1,000
Bendigo	365	198	214	223	1,000	375	192	214	219	1,000
Geelong	351	226	208	215	1,000	362	223	207	208	1,000
Warrnambool	350	233	211	206	1,000	360	230	205	199	1,000
Weighted Average 5 Towns	348	239	204	209	1,000	357	237	202	204	1,000
QUEENSLAND—										
Brisbane	356	227	209	208	1,000	354	228	212	206	1,000
Toowoomba	340	231	211	218	1,000	344	227	216	217	1,000
Rockhampton	370	200	217	213	1,000	371	201	217	211	1,000
Townsville	367	221	203	209	1,000	372	220	203	205	1,000
Bundaberg	387	164	219	230	1,000	383	174	220	223	1,000
Weighted Average 5 Towns	358	222	210	210	1,000	357	224	212	207	1,000
SOUTH AUSTRALIA—										
Adelaide	347	223	210	220	1,000	349	226	212	213	1,000
Kadina, etc.	421	112	230	237	1,000	417	113	237	233	1,000
Port Pirie	390	181	211	218	1,000	389	183	215	213	1,000
Mount Gambier	366	191	217	226	1,000	372	187	219	222	1,000
Peterborough	368	201	210	221	1,000	373	197	215	215	1,000
Weighted Average 5 Towns	351	217	211	221	1,000	353	220	213	214	1,000
WESTERN AUSTRALIA—										
Perth, etc.	365	229	205	201	1,000	367	229	205	199	1,000
Kalgoorlie, etc.	353	294	178	175	1,000	361	291	177	171	1,000
Northam	375	224	202	199	1,000	374	226	204	196	1,000
Bunbury	358	253	203	186	1,000	362	251	203	184	1,000
Geraldton	357	253	188	202	1,000	348	255	193	204	1,000
Weighted Average 5 Towns	363	235	202	200	1,000	366	235	203	196	1,000
TASMANIA—										
Hobart	358	237	206	199	1,000	357	238	210	195	1,000
Launceston	361	223	211	205	1,000	367	222	211	200	1,000
Burnie	381	220	211	188	1,000	382	222	212	184	1,000
Devonport	385	201	220	194	1,000	385	206	219	190	1,000
Queenstown	390	214	210	186	1,000	402	208	212	178	1,000
Weighted Average 5 Towns	361	230	209	200	1,000	364	230	210	196	1,000
Weighted Average for 30 Towns	351	238	204	204	1,000	358	239	204	199	1,000
Weighted Average for 6 Capital Cities	351	241	204	204	1,000	356	243	203	198	1,000
Charters Towers (Q.)	391	135	221	253	1,000	395	136	222	247	1,000
Warwick (Q.)	368	170	225	237	1,000	367	176	226	231	1,000
Port Augusta (S.A.)	491	168	214	217	1,000	397	173	217	213	1,000

5. Retail Price Index-Numbers in Terms of Currency : Capital Cities, 1914 to 1939.— In each part of the following table the average cost of the particular regimen in the six capital cities during the five-yearly period 1923-27 has been equated to a base of 20s. od. The figures measure the variations in the prices of (i) food and groceries, (ii) housing (4 and 5 rooms), (iii) food, groceries and housing, combined, (iv) clothing, (v) miscellaneous household requirements and (vi) all items of household consumption combined.

RETAIL PRICE INDEX-NUMBERS IN TERMS OF CURRENCY : CAPITAL CITIES ("C" SERIES).

(Base of each Group : Weighted Average of Six Capital Cities, 1923-27 = 20s. od.)

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Cities.	
FOOD AND GROCERIES.								
	<i>s. d.</i>							
1914	12 11	12 2	12 1	13 7	14 7	13 7	12 10	
1921	21 3	21 3	20 3	21 4	22 4	22 8	21 3	
1934	16 6	15 0	14 7	15 4	16 2	15 9	15 8	
1935	16 10	15 8	15 3	15 7	16 5	15 10	16 1	
1936	17 0	16 2	15 10	16 0	17 1	16 6	16 6	
1937	17 4	16 9	16 7	16 6	17 7	17 5	17 0	
1938	18 1	17 8	16 9	17 3	18 0	17 7	17 9	
1938 {	March Qtr.	17 7	17 0	16 8	16 10	17 8	17 6	17 3
	June "	17 10	17 6	16 9	17 4	18 2	17 7	17 7
	Sept. "	18 6	18 1	17 0	17 5	18 2	17 6	18 1
	Dec. "	18 4	18 2	16 8	17 4	18 0	17 11	18 0
1939 {	March "	18 11	19 0	17 8	18 2	18 7	18 3	18 8
	June "	18 7	18 10	17 2	18 1	19 0	18 5	18 6

HOUSING (4 AND 5 ROOMS).

1914	15 2	12 7	9 4	13 1	11 9	10 4	13 3	
1921	19 9	16 5	12 7	16 2	14 9	17 7	17 3	
1934	17 5	16 2	13 10	14 0	15 11	17 4	16 2	
1935	17 10	17 0	14 5	14 9	15 10	17 10	16 9	
1936	18 7	17 8	15 4	15 11	16 11	18 2	17 7	
1937	19 4	18 2	16 5	16 8	17 3	18 0	18 3	
1938	20 1	18 8	16 10	17 4	17 5	18 3	18 10	
1938 {	March Qtr.	19 9	18 6	16 7	17 2	17 4	18 2	18 7
	June "	20 0	18 8	16 9	17 4	17 5	18 3	18 9
	Sept. "	20 2	18 9	16 11	17 6	17 6	18 3	18 11
	Dec. "	20 5	18 10	17 0	17 7	17 7	18 4	19 1
1939 {	March "	20 7	19 0	17 1	17 8	17 7	18 5	19 2
	June "	20 8	19 1	17 1	17 9	17 7	18 7	19 3

FOOD, GROCERIES AND HOUSING (4 AND 5 ROOMS).

1914	13 9	12 4	11 2	13 5	13 7	12 5	13 0	
1921	20 9	19 6	17 6	19 6	19 8	20 11	19 10	
1934	16 10	15 5	14 3	14 10	16 1	16 3	15 10	
1935	17 2	16 2	14 11	15 3	15 2	16 7	16 4	
1936	17 7	16 8	15 7	15 11	17 0	17 1	16 11	
1937	18 1	17 3	15 6	16 6	17 5	17 7	17 5	
1938	18 10	18 1	16 9	17 3	17 9	17 10	18 1	
1938 {	March Qtr.	18 5	17 7	16 8	16 11	17 6	17 9	17 9
	June "	18 8	17 11	16 8	17 3	17 10	17 9	18 0
	Sept. "	19 1	18 4	16 11	17 5	17 10	17 9	18 4
	Dec. "	19 1	18 5	16 9	17 5	17 9	18 0	18 4
1939 {	March "	19 6	19 0	17 5	17 11	18 2	18 3	18 10
	June "	19 4	18 11	17 1	17 11	18 5	18 5	18 9

RETAIL PRICE INDEX—NUMBERS IN TERMS OF CURRENCY: CAPITAL CITIES ("C" SERIES)—*continued.*

(Base of each Group: Weighted Average of Six Capital Cities, 1923-27 = 208. od.)

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Cities.
CLOTHING.							
1914	s. d. 15 1	s. d. 15 7	s. d. 13 2	s. d. 15 1	s. d. 14 0	s. d. 16 6	s. d. 15 1
1921	25 1	25 5	22 6	23 11	24 8	28 7	24 11
1934	14 11	16 1	15 9	16 11	16 4	17 8	15 8
1935	14 11	15 11	15 5	17 1	16 6	18 1	15 9
1936	15 7	15 10	15 7	16 8	16 4	17 2	15 10
1937	16 4	16 1	15 11	16 5	16 1	16 5	16 3
1938	16 8	16 5	16 6	17 2	16 6	17 0	16 7
1938 { March Qtr.	16 7	16 5	16 3	17 0	16 4	16 11	16 6
June	16 8	16 5	16 6	17 2	16 6	16 11	16 7
Sept.	16 8	16 5	16 6	17 2	16 6	16 11	16 7
Dec.	16 8	16 5	16 7	17 3	16 6	17 1	16 7
1939 { March	16 8	16 5	16 7	17 2	16 6	17 1	16 8
June	16 10	16 5	16 8	17 3	16 6	17 1	16 9

MISCELLANEOUS.

1914	15 4	14 7	14 7	15 5	15 7	14 0	15 6
1921	20 2	20 5	18 11	20 8	20 7	13 8	20 2
1934	19 6	18 3	18 0	19 6	18 10	17 1	18 11
1935	19 6	18 5	18 1	19 6	18 7	17 1	18 11
1936	18 0	18 11	18 4	19 10	18 8	17 8	18 11
1937	18 0	19 7	18 10	20 5	18 11	18 9	19 2
1938	18 9	19 8	18 11	20 6	19 0	18 8	19 3
1938 { March Qtr.	18 10	19 7	18 10	20 6	18 11	18 10	19 3
June	18 8	19 8	18 11	20 5	19 0	18 7	19 2
Sept.	18 8	19 8	19 0	20 5	18 11	18 7	19 3
Dec.	18 8	19 7	19 0	20 5	19 1	18 7	19 3
1939 { March	18 9	19 7	19 0	20 5	19 1	18 7	19 2
June	18 9	19 6	19 1	20 5	19 1	18 9	19 3

ALL ITEMS OF HOUSEHOLD CONSUMPTION.

1914	14 3	13 5	12 3	14 0	14 2	13 9	13 9
1921	20 11	20 1	18 6	19 9	20 2	21 5	20 3
1934	16 10	16 0	15 3	16 1	16 7	16 9	16 4
1935	17 1	16 6	15 7	16 5	16 8	17 0	16 8
1936	17 4	16 11	16 1	16 9	17 1	17 2	17 0
1937	17 9	17 4	16 9	17 2	17 5	17 6	17 6
1938	18 3	17 11	17 1	17 9	17 8	17 9	17 11
1938 { March Qtr.	18 0	17 7	16 11	17 7	17 6	17 8	17 8
June	18 2	17 10	17 0	17 9	17 9	17 8	17 10
Sept.	18 6	18 1	17 2	17 10	17 9	17 8	18 1
Dec.	18 5	18 1	17 1	17 10	17 8	17 10	18 1
1939 { March	18 8	18 6	17 6	18 2	17 11	18 0	18 5
June	18 8	18 5	17 4	18 2	18 1	18 2	18 4

§ 5. Retail Price Index-Numbers, 200 Towns.

1. *General.*—To supplement the information collected monthly for the 30 towns specified in the preceding sections a special investigation into prices in 70 additional towns was undertaken in November, 1913. This investigation was repeated in November, 1914, and again in November, 1915, when the number of additional towns was increased to 120. In November, 1923, the number was further increased to 170. Information in regard to prices obtained in November each year relates at present, therefore, to 200 towns. The results of the first investigation were published in *Labour Bulletin* No. 5 (pp. 26 to 33), and details respecting succeeding investigations are incorporated in the *Labour Bulletins* and *Reports* issued subsequently by this Bureau.

In issues of the *Official Year Book* prior to No. 31, 1938 information was given regarding movements in the rents of 4-roomed and 5-roomed houses. While the index-numbers were useful in a general way as a measure of changes in rents in any one town from time to time, there has been an increasing tendency to regard them as an adequate measure of the relative absolute levels of rents in different towns at any given date. In order to prevent such a misuse of the figures, and because of increasing doubts as to the ability of the Bureau, except at prohibitive cost, to ensure that returns of rents from all these towns shall be based on continuously representative samples, it has reluctantly been decided to limit the information collected to the prices of food and groceries. Should any industrial tribunal desire further information on house rentals in any of these towns, the Bureau will be prepared to consider requests for special investigations by its staff of field officers.

2. *Retail Price Index-Numbers : 200 Towns, 1934 to 1938.* In the following table the base of the index-numbers has been changed from that used in issues of the *Official Year Book* prior to No. 31 of 1938. The new base is the weighted average cost of food and groceries in the six capital cities in the period 1923-27.

RETAIL PRICE INDEX-NUMBERS—(200 TOWNS SERIES) : FOOD AND GROCERIES.

(Base : *Weighted Average in Six Capital Cities, 1923-27 = 1,000.*)

State and Town.	1934. November.	1935. November.	1936. November.	1937. November.	1938. November.
NEW SOUTH WALES—					
Albury	794	803	857	864	930
Armidale	776	821	811	853	890
Ballina	803	812	853	852	930
Bathurst*	809	842	838	861	914
Bega	823	851	863	875	937
Berry	861	874	873	880	956
Blackheath	851	882	920	927	977
Bourke	847	873	901	913	1,002
Bowral	832	848	861	887	954
Broken Hill*	924	929	977	1,036	1,128
Casino	790	855	900	900	979
Cessnock	792	846	849	858	924
Cobar	976	1,012	1,031	1,038	1,109
Coonua	837	895	879	883	990
Coonamble	880	918	961	921	990

* Information also available monthly for these towns.

INDEX-NUMBERS—200 TOWNS SERIES: FOOD AND GROCERIES—*continued.*

State and Town.	1934. November.	1935. November.	1936. November.	1937. November.	1938. November.
NEW SOUTH WALES—<i>con- tinued.</i>					
Cootamundra	789	824	849	829	944
Corrimal	817	834	876	884	920
Cowra	808	844	860	873	953
Cronulla	833	859	876	886	901½
Deniliquin	864	883	907	967	995
Dubbo	771	842	848	863	892
Forbes	823	883	862	863	918
Gilgandra	846	873	864	881	938
Glen Innes	767	807	814	819	873
Goulburn*	824	846	855	888	952
Grafton	781	824	854	888	913
Grenfell	806	830	837	841	923
Griffith	908	913	940	936	983
Gulgong	782	821	855	839	883
Gunnedah	775	829	842	833	870
Hay	897	903	931	906	1,010
Inverell	809	848	802	831	878
Junee	817	828	876	914	922
Katoomba	833	867	885	915	970
Kempsey	810	803	811	836	889
Kiama	887	887	904	911	965
Kurri Kurri	818	808	839	838	919
Leeton	848	886	894	926	978
Lismore	782	834	886	918	904
Lithgow*	854	859	809	873	961
Maitland	788	833	832	835	906
Moree	878	886	904	894	956
Moss Vale	813	844	849	895	922
Mudgee	773	819	840	860	922
Narrabri	841	877	894	901	954
Narrandera	848	864	898	896	977
Newcastle*	849	880	869	882	940
Nowra	840	901	899	887	983
Orange	773	817	812	815	918
Parkes	805	843	859	903	964
Penrith	788	806	818	825	868
Port Kembla	855	866	908	905	963
Portland	841	862	857	877	903
Queanbeyan	850	884	905	953	1,000
Quirindi	855	864	866	890	909
Richmond	839	826	816	827	826
Scone	809	836	861	871	893
Singleton	779	826	813	830	900
Sydney*	836	851	863	877	909
Tamworth	785	806	806	829	895

* Information also available monthly for these towns.

INDEX-NUMBERS—200 TOWNS SERIES: FOOD AND GROCERIES—*continued.*

State and Town.	1934. November.	1935. November.	1936. November.	1937. November.	1938. November.
NEW SOUTH WALES—con- tinued.					
Taree	785	848	864	889	922
Temora	803	804	823	862	961
Tenterfield	772	831	865	864	936
Tumut	810	832	837	842	947
Ullmarra	828	852	892	885	969
Wagga Wagga	797	835	850	884	935
Walcha	836	927	845	866.	910
Wellington	831	818	828	829	851
Weston	792	818	835	841	913
Windsor	788	850	851	864	892
Wollongong	867	829	853	878	955
Wyalong	815	862	870	895	966
Yass	813	850	837	887	978
Young	853	855	843	867	948
Weighted Average for State (74 Towns)	834	852	863	878	919
VICTORIA—					
Ararat	828	855	918	910	942
Bacchus Marsh	788	820	860	887	920
Bairnsdale	846	862	880	879	912
Ballarat*	777	818	872	860	886
Beechworth	813	828	885	890	969
Benalla	830	850	880	905	945
Bendigo*	794	812	856	853	904
Camperdown	814	849	863	868	932
Casterton	835	845	888	873	957
Castlemaine	775	828	845	848	884
Colac	813	817	842	850	907
Creswick	789	838	859	863	882
Daylesford	789	813	843	865	922
Dunolly	794	835	889	872	909
Echuca	784	824	846	857	921
Euroa	803	845	875	878	975
Geelong*	757	796	833	857	914
Hamilton	805	855	911	885	958
Healesville	818	831	892	917	947
Horsham	801	873	926	916	928
Kerang	819	869	895	927	941
Koroit	795	828	836	840	896
Korumburra	781	783	835	859	895
Kyneton	757	785	851	870	921
Lilydale	815	845	884	881	915

* Information also available monthly for these towns.

INDEX-NUMBERS—200 TOWNS SERIES: FOOD AND GROCERIES—*continued.*

State and Town.	1934. November.	1935. November.	1936. November.	1937. November.	1938. November.
<i>VICTORIA—continued.</i>					
Maffra	785	825	901	865	925
Maldon	827	848	876	888	953
Maryborough	785	811	888	891	978
Melbourne*	758	797	833	848	896
Mildura	870	903	938	977	992
Morwell	822	842	858	887	922
Nhill	853	913	956	933	967
Orbost	814	870	912	919	968
Portland	804	863	863	862	903
Port Fairy	783	820	862	840	911
St. Arnaud	851	875	930	930	997
Sale	785	827	895	890	958
Seymour	848	880	901	937	991
Shepparton	804	819	864	880	954
Stawell	861	911	949	934	1,007
Swan Hill	833	874	918	924	969
Terang	819	875	863	885	924
Traralgon	787	816	839	834	878
Wangaratta	787	827	880	879	955
Warracknabeal	788	828	858	881	936
Warragul	789	820	827	845	905
Warrnambool*	759	785	844	834	910
Wonthaggi	794	804	895	913	946
Weighted Average for State (48 Towns)	765	803	841	854	902
<i>QUEENSLAND—</i>					
Ayr	819	825	841	867	913
Barcaldine	881	938	959	959	993
Bowen	888	885	902	902	961
Brisbane*	726	780	820	835	824
Bundaberg*	753	803	874	873	875
Cairns	837	887	915	914	949
Charleville	881	949	989	969	970
Charters Towers*	802	876	889	887	933
Chillagoe	913	900	915	946	944
Cloncurry	930	1,030	1,026	1,031	1,050
Cooktown	920	963	986	989	1,003
Cunnamulla	894	927	938	921	951
Dalby	760	807	870	836	835
Gayndah	792	851	907	867	895
Gladstone	771	827	871	870	903
Goondiwindi	820	889	914	868	893
Gympie	773	857	849	840	859
Hughenden	891	919	931	925	989
Innisfail	907	943	974	995	978
Ipswich	745	785	820	825	824

* Information also available monthly for these towns.

INDEX-NUMBERS—200 TOWNS SERIES: FOOD AND GROCERIES—*continued.*

State and Town.	1934. November.	1935. November.	1936. November.	1937. November.	1938. November.
QUEENSLAND—<i>continued.</i>					
Longreach	921	978	990	993	1,009
Mackay	807	872	898	895	916
Maryborough	723	794	828	835	849
Mount Morgan	831	855	891	880	902
Nambour	767	834	844	863	883
Rockhampton*	764	839	864	877	863
Roma	823	877	885	870	921
Stanthorpe	775	803	817	830	898
Toowoomba*	695	751	800	789	781
Townsville*	817	887	904	921	933
Warwick*	721	792	820	795	822
Winton	919	931	951	963	1,021
Weighted Average for State (32 Towns)	747	806	841	850	849
SOUTH AUSTRALIA—					
Adelaide*	774	784	804	833	860
Freeling	768	804	823	845	856
Gawler	777	772	814	827	840
Kadina, Moonta, Wallaroo*	849	868	890	897	915
Kapunda	762	793	812	836	848
Koorunga	790	868	879	899	1,037
Millicent	806	805	820	918	875
Mount Gambier*	751	802	815	847	907
Murray Bridge	732	763	776	810	839
Peterborough*	806	816	851	884	910
Port Augusta*	864	892	926	945	949
Port Pirie*	813	811	896	915	950
Quorn	801	848	841	853	881
Renmark	791	920	919	906	931
Victor Harbour	908	815	839	852	857
Weighted Average for State (15 Towns)	779	791	813	841	868
WESTERN AUSTRALIA—					
Albany	871	884	896	892	911
Beverley	873	890	918	963	956
Bridgetown	918	930	955	973	971
Broome	1,155	1,142	1,180	1,181	1,184
Bunbury*	844	845	873	896	931
Carnarvon	1,008	1,032	1,082	1,127	1,128
Collie	862	855	901	874	894
Geraldton*	835	840	960	924	901
Greenbushes	924	946	960	937	965
Kalgoorlie and Boulder* ..	994	981	1,006	1,002	1,056

* Information also available monthly for these towns.

INDEX-NUMBERS—200 TOWN SERIES: FOOD AND GROCERIES—*continued.*

State and Town.	1934. November.	1935. November.	1936. November.	1937. November.	1938. November.
WESTERN AUSTRALIA—con- tinued.					
Katanning	844	829	884	872	904
Leonora and Gwalia	1,084	1,094	1,140	1,168	1,172
Meekatharra	1,047	1,088	1,143	1,164	1,124
Narrogin	873	863	910	884	918
Northam*	845	850	910	905	931
Perth and Fremantle*	813	813	863	866	888
Wagin	817	856	924	870	908
York	802	859	848	867	922
Weighted Average for State (18 Towns)	833	835	882	884	907
TASMANIA—					
Beaconsfield	801	818	841	830	912
Burnie*	821	837	883	906	923
Campbelltown	814	860	878	872	904
Deloraine	788	787	795	824	854
Devonport*	835	824	873	895	936
Franklin	889	896	868	905	911
Hobart*	813	797	874	889	891
Launceston*	786	793	844	870	908
New Norfolk	822	830	909	891	892
Queenstown*	913	900	920	922	1,000
Scottsdale	770	780	814	829	853
Ulverstone	815	812	888	867	889
Zeehan*	966	943	981	983	1,001
Weighted Average for State (13 Towns)	812	805	867	884	903
Australian Capital Territory Canberra* (a)	916	931	949	965	1,026
Weighted Averages—					
Australia (200 Towns)	797	825	851	865	906
Thirty Towns	795	820	847	862	895
Six Capitals	792	817	843	859	890

* Information also available monthly for these towns.

(a) Not in Weighted Averages.

§ 6. Changes in the Regimen.

Since the original compilation of retail price indexes by the Bureau, the regimens of the several groups and sections have undergone some modifications. These are briefly referred to in the following paragraphs.

(i) *Food and Groceries.*—The regimen for food and groceries was originally introduced in 1912, and the first revision was made in the September quarter of 1932. A second revision took place in the September quarter of 1936, as part of the general revision of the regimen by the Conference of Statisticians of April, 1936. The main features of this revision are referred to in (iv) below.

(ii) *Housing.* The housing constituent of the regimen has also been revised. Originally the rentals of all houses from "3 rooms and under" to "8 rooms and over" were tabulated, and they were continuously used in the "A" series index from 1912 to 30th June, 1938, when this series was discontinued. They were also used in the "All Items" index up to and including the year 1924. From the following year rentals of 4 and 5-roomed houses only were used in the "C" series index, and in the same year they were combined with food and groceries to form the "B" series index.

Since the December quarter of 1936, following on the resolutions of the 1936 Conference of Statisticians, the rentals of 4 and 5-roomed houses in certain towns have been collected and tabulated on a somewhat different basis from that previously used. The returns in the twelve more important cities and towns show the rents of individual houses, on the basis of which variations from a pre-determined standard are measured. This standard, the change in which has affected the index-numbers only in respect of the relative levels of rents in the different towns, and in respect of their absolute height, was determined by means of a special investigation of the 1933 Census data relating to rentals of 4 and 5-roomed wood and brick houses occupied by fully-employed wage and salary-earners. This method not being generally applicable to the circumstances of small country towns, on account of greater diversity of average "quality" of houses, returns from these centres show the average rent of occupied houses of a defined standard.

(iii) *Clothing and Miscellaneous.* The regimen for clothing and miscellaneous household requirements was originally introduced in 1921, and the first revision was made in the March quarter of 1935. A second revision took place in the September quarter of 1936, as part of the general revision of the regimen by the Conference of Statisticians of April, 1936.

(iv) *Revision of the Regimen by the Conference of Statisticians of April, 1936.* This revision was of a comprehensive nature. Conference not only recommended extensive revisions of the regimen from which the indexes are compiled, but also considered methods of collection and compilation. As a result of its deliberations, and subsequent discussions by correspondence, many improvements and refinements were introduced.

The changes in the regimen were made with a view to improving the index-numbers as measures of price variations. They comprised chiefly the elimination or replacement of articles no longer in demand, or which experience had shown to be unsuitable media for the measurement of price variations; the alteration of units of quantity in certain cases to conform with those in most general use; the adjustment of the mass unit allotted to certain articles to bring them into accord with present-day consumption habits; and the re-adjustment of the population weights applicable to the several groups and sections of the regimen in accordance with the results of the 1933 Census. Definite grades or qualities were also established for each article in the regimen, to ensure that quotations should be given, as far as possible, for the same article at all times and in all places. Improved methods of collecting and weighting average house rentals were also adopted (see par. (ii) above). The resolutions of the Conference were reprinted in Appendix XI. of *Labour Report No. 27.*

B.—WHOLESALE PRICES AND PRICE INDEXES.

§ 1. General.

The data on which this section is based relate almost entirely to wholesale prices in Melbourne. An index of Sydney wholesale prices is compiled by the Government Statistician of New South Wales, and published in the *Year Book* and the *Monthly Summary of Business Statistics* of that State.

The index of Melbourne wholesale prices was first computed in 1912, and has been continued on the same lines since that year. It was resolved, however, at the Conference of Statisticians at Brisbane in 1930 that the time had come to revise and extend the items included in order to bring the index into line with changed conditions. An investigation to that end was commenced, and in the course of the past few

years, many new price-series have been collected on a monthly basis back to January, 1928. Some of these have been incorporated in a new index of the prices of basic materials and foodstuffs, preliminary index-numbers of which are currently published in the *Monthly Review of Business Statistics*. Others are being incorporated in a number of "special-purpose" indexes, which it is hoped to publish shortly. Their construction has been delayed in order to make use, for weighting purposes, of the larger amount of information which is now becoming available as the result of the collection of more extensive statistics of factory production. In the meantime, the original index has been continued on existing lines.

The items included in the (old) Melbourne wholesale price index comprise chiefly basic materials which in the form of raw material, food, or as a source of power, enter into production for home consumption. The purpose of the index, therefore, is to measure the changes in the prices of these particular materials rather than the changes in prices generally. As Australia does not, to any extent, manufacture from imported raw materials commodities for export, the local consumption appears to give the most appropriate weighting. Any lack of uniformity in the variations of the index-numbers for these wholesale prices and for retail prices would indicate broadly changes in the relation of manufacturing and distributing charges to the cost of basic materials.

§ 2. Index-Numbers.

Index-numbers for each group of commodities and for all groups together are shown in the following table:—

INDEX-NUMBERS : MELBOURNE WHOLESALE PRICES, 1861 TO 1938.

(Base of each Group : Year 1911 = 1,000.)

Year.	I. Metals and Coal.	II. Wool, Cott. n. Leather, etc.	III. Agri- cultural Produce, etc.	IV. Dalry Produce.	V. Gro- ceries.	VI. Meat.	VII. Building Materials.	VIII. Chem- icals.	All Groups.
1861	1,438	1,381	1,583	1,008	1,903	..	1,070	2,030	1,538
1871	1,096	1,257	1,236	864	1,586	..	1,044	1,409	1,229
1881	1,178	1,115	1,012	935	1,421	..	1,091	1,587	1,121
1891	895	847	1,024	995	1,032	888	780	1,194	945
1901	1,061	774	928	1,029	1,048	1,345	841	917	974
1911	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1914	1,099	1,032	1,207	1,137	1,021	1,507	1,081	1,253	1,149
1915	1,284	1,017	2,162	1,539	1,133	2,435	1,275	1,528	1,604
1916	1,695	1,423	1,208	1,485	1,322	2,515	1,491	1,760	1,504
1917	2,129	2,008	1,157	1,423	1,343	2,403	1,884	2,171	1,662
1918	2,416	2,360	1,444	1,454	1,422	2,385	2,686	3,225	1,934
1919	2,125	2,363	1,985	1,651	1,516	2,348	2,854	2,898	2,055
1920	2,298	2,624	2,439	2,209	1,918	3,279	3,226	2,825	2,480
1921	2,173	1,302	1,767	2,000	1,976	2,158	2,733	2,303	1,993
1922	1,942	1,681	1,628	1,648	1,869	1,787	2,005	1,995	1,758
1923	1,826	2,148	1,778	1,837	1,746	2,579	2,025	1,933	1,944
1924	1,835	2,418	1,647	1,655	1,721	2,223	1,815	1,806	1,885
1925	1,852	1,967	1,797	1,636	1,723	2,212	1,711	1,799	1,844
1926	1,938	1,582	2,001	1,784	1,731	1,931	1,665	1,816	1,832
1927	1,962	1,650	1,826	1,823	1,724	2,111	1,624	1,866	1,817
1928	1,912	1,781	1,726	1,751	1,707	2,015	1,744	1,923	1,792
1929	1,912	1,556	1,792	1,853	1,690	2,246	1,754	1,942	1,803
1930	1,866	1,127	1,484	1,627	1,666	2,025	1,875	1,982	1,596
1931	1,826	1,039	1,121	1,399	1,794	1,508	2,025	2,166	1,428
1932	1,736	1,000	1,230	1,303	1,767	1,348	2,043	2,127	1,411
1933	1,713	1,118	1,175	1,195	1,744	1,487	2,061	2,106	1,409
1934	1,660	1,261	1,288	1,274	1,735	1,540	2,015	2,018	1,471
1935	1,602	1,217	1,314	1,325	1,729	1,508	1,964	1,996	1,469
1936	1,566	1,331	1,480	1,351	1,731	1,684	1,969	1,997	1,543
1937	1,772	1,406	1,604	1,451	1,750	1,678	2,430	2,006	1,656
1938	1,746	1,051	1,789	1,549	1,871	1,871	2,238	2,059	1,662

NOTE.—The figures given in this table are comparable in the vertical columns but are not directly comparable horizontally.

C.—WAGES.

§ 1. Operations under Wages Board and Industrial Arbitration Acts.

1. General.—Particulars regarding operations under the Commonwealth and State Acts for the regulation of wages, hours and conditions of labour were first compiled for the year 1913, and reviews to the end of each annual period appear in the Labour Reports and in the Quarterly Summaries of Australian Statistics.

2. Awards, Determinations, Industrial Agreements.—The following table gives a summary for each of the years 1934 to 1938 :—

AWARDS AND DETERMINATIONS MADE AND INDUSTRIAL AGREEMENTS FILED.

State.	1934.		1935.		1936.		1937.		1938.	
	Awards or Determinations made.	Agreements Filed.								
New South Wales	55	22	44	31	52	39	63	42	64	38
Victoria	90	..	101	..	141	..	121	..	99	..
Queensland	32	25	46	22	61	37	46	42	38	38
South Australia	19	3	69	9	22	17	42	16	6	4
Western Australia	12	11	17	24	24	26	35	32	28	31
Tasmania	7	1	18	..	22	..	43	..	26	..
Commonwealth Court	24	4	69	13	32	13	38	11	31	13
Commonwealth Public Service Arbitrator	4	..	2	..	3	..	3	..
Total	239	66	368	99	356	132	391	143	295	124

3. Boards Authorized, Awards, etc., in Force.—(i) *Totals for Australia.* The following table gives particulars at the dates specified for all States of Boards authorized, and including operations under the Commonwealth and State Arbitration Acts, of the number of awards, determinations and industrial agreements in force :—

BOARDS AUTHORIZED, AWARDS, ETC. : AUSTRALIA.

Dates.	Boards Authorized.	Boards which have made Awards or Determinations.	Awards or Determinations in Force.(a)	Industrial Agreements in Force.
31st December, 1913	505	386(b)	575(c)	404
" " 1920	475	440	1,041	972
" " 1925	572	524	1,181	607
" " 1930	642	580	1,285	601
" " 1935	660	583	1,457	620
" " 1936	660	583	1,443	611
" " 1937	660	583	1,568	655
" " 1938	678	610	1,637	666

(a) Including awards made by Arbitration Courts and the Commonwealth Public Service Arbitrator.
 (b) Owing to the fact that a number of awards under the New South Wales Industrial Disputes Act (1908) were still in force, the Boards constituted for such industries under the Industrial Arbitration Act (1912) had not made any awards.
 (c) Excluding awards or determinations which expired in New South Wales (under the Act of 1908) on 31st December, 1913.

Considerable expansion of the principle of the fixation of a legal minimum rate of wage and of working conditions took place during the period under review. At the end of 1938, the number of awards or determinations and industrial agreements* in force had increased by 1,062 and 295 respectively over the number in force at the 31st December, 1913.

* The registration of industrial agreements is not provided for under the Victorian Act, but such agreements may be registered and filed under the provisions of the Commonwealth Conciliation and Arbitration Act, and are operative within the State.

(ii) *Summary for States.* The following table gives particulars for each State and the Commonwealth of the number of Boards authorized, etc., for the years specified :—

BOARDS AUTHORIZED, AWARDS, ETC. : 1913 AND 1938.

Particulars.	At 31st Dec.	Commonwealth.								
		Court.	Pub. Ser. Arb.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
<i>Industrial and Wages—</i>										
Boards authorized	{ 1913 .. 1938 ..	..	..	216 (a) 323	135 193	75 ..	56 76	.. 29	23 57	505 678
Boards which have made Determinations	{ 1913 .. 1938 ..	..	..	123 (b) 280	123 186	74 ..	47 65	.. 24	19 55	386 610
<i>Awards and Determinations—</i>										
In force	{ 1913 .. 1938 ..	17 235	.. 51	265 553	127 191	73 261	54 120	18 166	21 60	575 1,637
<i>Industrial Agreements—</i>										
In force	{ 1913 .. 1938 ..	228 180	..	75 151	..	5 124	11 44	82 187	.. 10	401 696
<i>Commonwealth Awards—</i>										
Number in force in each State	{ 1913 .. 1938 ..	..	..	13 157	17 180	15 59	16 133	9 50	13 100	....
<i>Commonwealth Agreements—</i>										
Number in force in each State	{ 1913 .. 1938 ..	..	..	132 49	129 80	68 31	62 98	57 42	61 80	....
<i>Commonwealth Public Service Arbitrator—</i>										
Number of Determinations in force in each State	1938	..	..	45	41	35	38	35	34	..

(a) Under Industrial Arbitration Act (1926), Conciliation Committees have been appointed, and, at the end of 1938, 307 Committees were in operation.

(b) Includes fourteen Demarcation Boards.

(iii) *Australian Capital Territory.* A reference to the operations of the Industrial Board in the Australian Capital Territory, which was created and issued its first award in 1922, will be found in *Labour Report* No. 29, Chapter II., § 1.

§ 2. Rates of Wage and Hours of Labour.

1. *General.*—The collection of information respecting the current rates of wage payable in different callings and in occupations in various industries was first undertaken by the Bureau in the early part of the year 1913. The particulars are obtained primarily from awards, determinations and agreements under Commonwealth and State Industrial Acts, and therefore are the minimum rates prescribed. They refer generally to the capital city in each State, but in industries which are not carried on in the capital cities, e.g., mining, agriculture, etc., the rates in the more important centres are taken. In cases where no award, determination, or agreement is in force, particulars are taken of the ruling union or predominant rate. During recent years the number of predominant rates of wage included in the tabulations has been reduced considerably, since most of the industries and occupations are now covered by awards, determinations, or industrial agreements.

The index-numbers for male adult workers are computed with the weighted average wage in 1911 as base (= 1,000). In the case of females, however, it has not been possible to secure information for the years prior to 1914, and the index-numbers are therefore computed with the weighted average rate of wage payable to adult female workers in Australia at 30th April, 1914, as base (= 1,000).

An extensive tabular presentation of the minimum rates of wage for adult male and female workers in the main occupations in the capital city of each State is given each year in the Appendix to the Labour Report.

2. Weekly Rates of Wage, 1934 to 1938.—(i) *General.* The arithmetical average of the rates of wage given in the Appendix referred to is taken for each industrial group. These averages are weighted in accordance with census results to give the average of all occupations for the States and for Australia.

(ii) *Adult Males—States.* The following table gives the weighted average nominal weekly rates of wage payable to adult male workers at the dates specified :—

WAGE RATES OF ADULT MALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
No. of Occupations included ..	874	909	627	567	489	482	3,948

RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1934 ..	83 2	78 8	88 9	75 6	84 1	79 7	82 0
" " 1935 ..	84 2	79 9	88 5	77 11	84 2	81 0	82 10
" " 1936 ..	85 6	83 1	88 7	79 6	88 6	83 3	84 10
" " 1937 ..	92 1	88 1	92 8	85 10	90 10	87 0	90 2
31st March, 1938 ..	93 0	89 3	92 9	86 1	91 0	87 10	91 0
30th June, 1938 ..	93 1	89 3	95 9	86 2	91 0	87 10	91 5
30th September, 1938 ..	93 10	90 0	95 9	86 7	96 9	88 0	92 5
31st December, 1938 ..	95 0	91 2	95 10	87 1	96 10	88 5	93 3

INDEX-NUMBERS.

(Base : Weighted Average Wage for Australia (51s. 3d.), 1911 = 1,000.)

31st December, 1934 ..	1,623	1,534	1,732	1,473	1,640	1,552	1,599
" " 1935 ..	1,642	1,555	1,725	1,520	1,642	1,581	1,617
" " 1936 ..	1,668	1,621	1,729	1,552	1,726	1,625	1,656
" " 1937 ..	1,797	1,719	1,808	1,674	1,772	1,697	1,760
31st March, 1938 ..	1,815	1,741	1,809	1,680	1,776	1,714	1,775
30th June, 1938 ..	1,816	1,742	1,868	1,681	1,776	1,714	1,784
30th September, 1938 ..	1,830	1,756	1,868	1,689	1,888	1,717	1,803
31st December, 1938 ..	1,854	1,780	1,870	1,700	1,890	1,725	1,820

Wages declined in all States during the three years 1931 to 1933, the average rates at the 31st December of the latter year being approximately 17 per cent. less than those ruling at the end of 1930. Increases were granted in each of the States during the next five years and the weighted average nominal rate for Australia at the 31st December, 1938, was 12s. 9d. per week more than in 1933 and only approximately 4 per cent. below the average at the 31st December, 1930. At the close of 1938, rates were highest in Western Australia, followed in the order named by Queensland, New South Wales, Victoria, Tasmania and South Australia. The highest weighted average rate for Australia was recorded at the 30th September, 1929, viz., 10s. 5d. per week.

(iii) *Adult Males—Industrial Groups.* The following table shows for Australia the average weekly rates of wage and index-numbers in each industrial group, and for all groups at the dates specified.

WAGE RATES OF ADULT MALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES IN EACH INDUSTRIAL GROUP.

NOTE.—Index-numbers for each industrial group and for all industrial groups are based on the average wage for all groups in 1911 (51s. 3d.) = 1,000. The index-numbers in this table are comparable throughout :—

Industrial Group.		Weighted Average Nominal Weekly Rate of Wage and Index-Number at—							
		31st Dec., 1934.	31st Dec., 1935.	31st Dec., 1936.	31st Dec., 1937.	31st March, 1938.	30th June, 1938.	30th Sept., 1938.	31st Dec., 1938.
		<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
I. Wood, Furniture, etc.	Wage ..	85/4	86/8	88/3	95/1	95/7	96/1	97/7	98/2
	Index-No.	1,664	1,691	1,722	1,855	1,866	1,875	1,905	1,916
II. Engineering, etc.	Wage ..	83/2	85/3	86/10	94/11	95/6	95/9	97/1	97/8
	Index-No.	1,623	1,663	1,694	1,852	1,863	1,868	1,894	1,906
III. Food, Drink, etc.	Wage ..	83/8	85/3	87/3	92/6	96/2	93/9	94/8	95/2
	Index-No.	1,633	1,664	1,702	1,805	1,818	1,829	1,848	1,857
IV. Clothing, Boots, etc.	Wage ..	79/11	80/9	81/4	89/0	89/11	90/1	90/11	91/9
	Index-No.	1,559	1,576	1,587	1,737	1,754	1,758	1,774	1,790
V. Books, Printing, etc.	Wage ..	99/6	100/11	104/4	108/7	110/2	110/7	111/1	112/0
	Index-No.	1,942	1,969	2,035	2,119	2,150	2,158	2,168	2,185
VI. Other Manu- facturing	Wage ..	81/4	83/0	85/2	91/3	92/2	92/6	93/5	94/4
	Index-No.	1,587	1,619	1,661	1,780	1,799	1,804	1,822	1,840
VII. Building	Wage ..	93/8	94/1	95/7	101/7	102/1	102/7	103/9	104/6
	Index-No.	1,828	1,836	1,866	1,982	1,991	2,001	2,024	2,039
VIII. Mining, etc.	Wage ..	97/7	97/10	99/2	103/0	104/3	104/9	106/3	106/6
	Index-No.	1,904	1,908	1,935	2,010	2,034	2,044	2,073	2,077
IX. Railways, etc.	Wage ..	82/8	84/9	86/0	92/4	92/8	93/4	94/5	95/5
	Index-No.	1,613	1,653	1,677	1,802	1,808	1,821	1,842	1,862
X. Other Land Transport	Wage ..	78/9	80/1	81/8	88/3	89/5	89/10	90/11	91/7
	Index-No.	1,537	1,562	1,593	1,722	1,744	1,753	1,774	1,787
XI. Shipping, etc.(a)	Wage ..	84/8	85/2	86/8	95/6	96/4	96/4	96/4	97/6
	Index-No.	1,652	1,661	1,690	1,863	1,879	1,880	1,880	1,902
XII. Agricultural, etc.(b)	Wage ..	73/4	73/4	75/9	78/9	79/8	80/5	80/9	82/3
	Index-No.	1,431	1,431	1,478	1,537	1,555	1,568	1,575	1,604
XIII. Domestic, etc.(b)	Wage ..	75/9	76/8	79/1	85/3	86/4	86/9	87/10	88/3
	Index-No.	1,478	1,496	1,543	1,663	1,685	1,692	1,714	1,722
XIV. Miscellaneous	Wage ..	78/7	79/6	82/2	87/6	88/1	88/6	89/6	90/5
	Index-No.	1,532	1,552	1,603	1,707	1,718	1,726	1,747	1,764
All Industrial Groups	Wage ..	82/0	82/10	84/10	90/2	91/0	91/5	92/5	93/3
	Index-No.	1,599	1,617	1,656	1,760	1,775	1,784	1,803	1,820

(a) Including the value of victualling and accommodation where supplied. (b) Including the value of board and lodging where supplied.

The foregoing table shows that the highest average weekly wage at 31st December, 1938, was recorded in Group V. (Books, Printing, etc.), 112s. per week, followed by Groups VIII. (Mining, etc.), 106s. 6d., VII. (Building), 104s. 6d., I. (Wood, Furniture, etc.), 98s. 2d., II. (Engineering, etc.), 97s. 8d., XI. (Shipping, etc.), 97s. 6d., IX. (Railways, etc.), 95s. 5d., III. (Food, Drink, etc.), 95s. 2d. The lowest average rate was recorded in Group XII. (Agricultural, etc.), 82s. 3d. During the year rates of wage increased in all groups, the greatest increases occurring in the following :—Agricultural, etc., 3s. 6d. per week ; Mining, etc., 3s. 6d. ; Books, Printing, etc., 3s. 5d. ; Other Land Transport, 3s. 4d. ; Railways, etc., Wood, Furniture, etc., and Other Manufacturing each 3s. 1d. ; and Domestic, etc., 3s. per week. The increase during the year in the weighted average rate for all groups was 3s. 1d. per week. Compared with the average rates at 31st December, 1929 (101s. 2d.), the highest point recorded for that date in any year, wages at the end of the year 1938 showed a decrease of 7s. 11d. per week.

(iv) *Adult Females—States.* The following table shows the weighted average nominal weekly rates of wage payable to adult female workers for a full week's work in each State and Australia at the dates specified.

WAGE RATES OF ADULT FEMALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
No. of Occupations Included ..	85	87	37	47	24	28	308

RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1934 ..	44 3	43 9	47 8	41 11	49 1	44 1	44 5
„ „ 1935 ..	44 11	44 2	48 0	42 5	49 1	44 10	45 0
„ „ 1936 ..	45 7	46 10	48 4	43 4	50 11	45 1	46 5
„ „ 1937 ..	50 2	49 2	51 4	46 10	51 6	48 6	49 8
31st March, 1938 ..	50 8	49 7	51 7	47 1	51 6	48 11	50 1
30th June, 1938 ..	50 8	49 9	52 7	47 1	51 6	48 11	50 3
30th September, 1938 ..	51 1	50 0	52 9	47 2	54 10	49 0	50 7
31st December, 1938 ..	51 10	50 7	53 6	47 9	55 4	49 8	51 4

INDEX-NUMBERS.

(Base : Weighted Average for Australia (27s. 2d.), 30th April, 1914 = 1,000.)

31st December, 1934 ..	1,628	1,609	1,755	1,541	1,808	1,623	1,636
„ „ 1935 ..	1,654	1,626	1,767	1,561	1,808	1,651	1,655
„ „ 1936 ..	1,677	1,722	1,780	1,594	1,873	1,661	1,708
„ „ 1937 ..	1,848	1,810	1,889	1,724	1,894	1,785	1,828
31st March, 1938 ..	1,866	1,826	1,897	1,733	1,894	1,800	1,843
30th June, 1938 ..	1,866	1,832	1,936	1,733	1,894	1,800	1,850
30th September, 1938 ..	1,879	1,841	1,940	1,735	2,017	1,805	1,863
31st December, 1938 ..	1,907	1,862	1,969	1,758	2,037	1,828	1,888

Female rates followed the same downward course as male rates from 1931 to 1933. The weekly average nominal wage for Australia fell from 53s. 7d. at the 31st December, 1930, to 43s. 5d. at the same date in 1933, a decline of 10s. 2d., or 17 per cent. As with the rates for males increases were recorded in all States during the next five years, and the weighted average rate for Australia at 31st December, 1938, had advanced by 7s. 11d. per week over that ruling on 31st December, 1933, and was only approximately 4 per cent. below the average at 31st December, 1930. The highest weighted average rate for Australia was recorded during the quarter ended 30th September, 1929, viz., 54s. 2d. per week.

(v) *Adult Females—Industrial Groups.* The following table shows the weighted average weekly rates of wage payable in Australia to adult female workers in the industrial groups in which they are mainly employed, and in all groups combined.

WAGE RATES OF ADULT FEMALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES IN EACH INDUSTRIAL GROUP.

Date.	Industrial Group.					
	III. Food, Drink, etc.	IV. Clothing, Boots, etc.	I, II, V, and VI. All Other Manufacturing.	XIII. Domestic, etc.(a)	XIV. Miscel- laneous.	All Groups.
RATES OF WAGE.						
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
31st December, 1934..	40 8	43 6	44 2	45 11	47 2	44 5
„ „ 1935..	42 1	44 2	44 8	46 3	46 5	45 0
„ „ 1936..	43 1	44 9	45 8	47 1	50 9	46 5
„ „ 1937..	45 7	48 1	49 4	51 2	53 0	49 8
31st March, 1938 ..	46 3	48 6	49 6	51 8	53 3	50 1
30th June, 1938 ..	46 5	48 7	49 7	52 2	53 8	50 3
30th September, 1938	46 10	48 10	50 0	52 9	53 11	50 7
31st December, 1938..	47 1	49 9	50 6	53 1	54 6	51 4

INDEX-NUMBERS.

(Base : Weighted Average for Australia (27s. 2d.), 30th April, 1914 = 1,000.)

31st December, 1934..	1,497	1,601	1,626	1,689	1,737	1,636
„ „ 1935..	1,549	1,625	1,645	1,701	1,708	1,655
„ „ 1936..	1,585	1,646	1,680	1,734	1,867	1,708
„ „ 1937..	1,677	1,770	1,815	1,883	1,952	1,828
31st March, 1938 ..	1,702	1,786	1,823	1,902	1,959	1,843
30th June, 1938 ..	1,708	1,787	1,824	1,919	1,974	1,850
30th September, 1938	1,724	1,797	1,841	1,941	1,985	1,863
31st December, 1938..	1,732	1,831	1,859	1,954	2,004	1,888

(a) Including the value of board and lodging, where supplied.

During the year 1938 rates of wage for female employees in each industrial group showed an increase as compared with that for the previous year, the greatest increases occurring in Group XIII. (Domestic, etc.), 1s. 11d. per week; IV. (Clothing, Boots, etc.), 1s. 8d. per week; and Groups XIV. (Miscellaneous) and III. (Food, Drink, etc.), 1s. 6d. per week. The weighted average for all groups increased by 1s. 8d. per week.

3. **Relative Hours of Labour and Hourly Rates of Wage, 1934 to 1938.**—(i) *General.* The rates of wage referred to in preceding paragraphs are the minima payable for a full week's work. The number of hours constituting a full week's work differs, however, in many instances between various trades and occupations in each State, and between the same trades and occupations in the several States. To secure what may be for some other purposes a better comparison, the results in the preceding paragraphs are reduced to a common basis, viz., the rate of wage per hour. Particulars are given in the following table classified according to States, for male and female occupations separately, at the end of the years 1934 to 1938. These particulars relate to (a) the weighted average nominal weekly wage; (b) the weighted average number of working hours constituting a full week's work; and (c) the weighted average hourly wage. The weighted average weekly wage relates to all industrial groups combined, and includes

the value of board and lodging where supplied in land occupations, and the value of victualling and accommodation where supplied in marine occupations, whereas the number of working hours and the hourly wage relate to all industrial groups other than Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.). Many of the occupations included in these two groups are of a casual or seasonal nature, and the hours of labour in the agricultural and dairying industry are not generally regulated either by awards or determinations of industrial tribunals or otherwise, hence the necessary data for the computation of the average number of working hours are not available.

The general effect of reducing the rates of wage to a common basis (i.e., per hour) is to eliminate on comparison any apparent difference between the several States which may be due to unequal working time.

(ii) *Adult Males and Females.* Particulars of the weekly and hourly wages and hours of labour for adult males and females at the close of the last five years are given in the table hereunder:—

WEEKLY AND HOURLY WAGES AND HOURS OF LABOUR OF ADULT WORKERS.

31st December—	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
MALE WORKERS.								
1934	Weekly Wage (a) ..	83/2	78/3	88/9	75/6	84/1	79/7	82/0
	Working Hours (b) ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
	Hourly Wage (b) ..	1/11½	1/8½	2/0½	1/7½	1/10½	1/8½	1/10½
1935	Weekly Wage (a) ..	84/2	79/9	88/5	77/11	84/2	81/0	82/10
	Working Hours (b) ..	44.18	46.69	43.69	46.63	45.48	46.75	45.26
	Hourly Wage (b) ..	1/11½	1/9	2/1	1/8½	1/10½	1/9½	1/10½
1936	Weekly Wage (a) ..	85/6	83/1	88/7	79/6	88/6	83/3	84/10
	Working Hours (b) ..	44.08	46.41	43.69	46.55	45.30	46.33	45.09
	Hourly Wage (b) ..	2/0½	1/10	2/1	1/9	2/0	1/9½	1/11½
1937	Weekly Wage (a) ..	92/1	88/1	92/8	85/10	90/10	87/0	90/2
	Working Hours (b) ..	44.07	46.22	43.68	46.57	45.25	46.24	45.03
	Hourly Wage (b) ..	2/2½	1/11½	2/2½	1/10½	2/0½	1/11	2/0½
1938	Weekly Wage (a) ..	99/1	92/3	98/3	88/3	98/9	80/5	95/11
	Working Hours (b) ..	44.01	45.85	43.67	46.31	45.11	46.00	44.85
	Hourly Wage (b) ..	2/3	2/0½	2/3	1/10½	2/2½	1/11½	2/1½
FEMALE WORKERS.								
1934	Weekly Wage ..	44/3	43/9	47/8	41/11	49/1	44/1	44/5
	Working Hours ..	43.93	45.44	44.03	46.03	45.57	46.07	44.81
	Hourly Wage ..	1/0	0/11½	1/1	0/11½	1/1	0/11	1/0
1935	Weekly Wage ..	44/11	44/2	48/0	42/5	49/1	44/10	45/0
	Working Hours ..	43.93	45.44	44.03	46.03	45.57	46.07	44.81
	Hourly Wage ..	1/0½	0/11½	1/1	0/11½	1/1	0/11½	1/0
1936	Weekly Wage ..	45/7	46/10	48/4	43/4	50/11	45/1	46/5
	Working Hours ..	43.93	44.94	44.03	46.03	45.57	45.24	44.60
	Hourly Wage ..	1/0½	1/0½	1/1½	0/11½	1/1½	1/0	1/0½
1937	Weekly Wage ..	50/2	49/2	51/4	46/10	51/6	48/6	49/8
	Working Hours ..	43.92	44.76	44.03	46.02	45.57	45.24	44.52
	Hourly Wage ..	1/1½	1/1½	1/2	1/0½	1/1½	1/0½	1/1½
1938	Weekly Wage ..	51/10	50/7	53/6	47/9	55/4	49/8	51/4
	Working Hours ..	43.88	44.63	44.03	45.96	45.38	45.10	44.44
	Hourly Wage ..	1/2½	1/1½	1/2½	1/0½	1/2½	1/1½	1/1½

(a) Weighted average weekly rate in all industrial groups combined. (b) Weighted average working hours per week, and computed hourly rates of wage for all industrial groups excepting Groups XI. (Shipping, etc.), and XII. (Agricultural, Pastoral, etc.). Working hours have not been generally regulated by industrial tribunals for occupations classified in industrial groups XI. and XII.

(iii) *Index-Numbers.* The tendency in a majority of the States during the years 1924 to 1928 was towards a slight reduction in hours of labour, particularly in Queensland and New South Wales, where a 44-hour week became operative on 1st July, 1925, and on 4th January, 1926, respectively. Further decreases were recorded in the hours of work per week for male employees during 1927 in all States excepting Queensland, where hours remained stationary. The decline in the other States was due mainly to the reduction of the standard hours of labour in Group II. (Engineering, etc.) from 48 to 44 hours per week, as awarded by the Commonwealth Court of Conciliation and Arbitration. The decline in the weekly hours in New South Wales, Victoria, South Australia and Tasmania in 1928 was due mainly to the reduction of the standard hours of labour in Group V. (Books, Printing, etc.). During 1929 the hours of work per week for timber workers in certain States were increased by the Commonwealth Court, with the result that the weighted average hours for Australia were slightly increased. The repeal of the Acts in New South Wales and Queensland providing for a 44-hour week tended to increase the average number of hours of labour per week in those States during the year 1930, while the restoration of this measure in New South Wales during 1931 and in Queensland during 1933 was mainly responsible for the reduction in hours since 1930. A further slight reduction in Queensland was brought about by the introduction in April, 1935, of a 40-hour week for employees on Building Construction. The effect of these changes on the hourly rate of wage as compared with the general increase in the weekly wage is readily seen from the comparative index-numbers given in the following table:—

WEEKLY AND HOURLY INDEX-NUMBERS OF WAGE RATES: ADULT WORKERS.

(Base: *Weighted Average for Australia, 30th April, 1914** = 1,000.)

31st December—	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
MALE WORKERS.								
1934	{ Weekly Wage ..	1,509	1,427	1,610	1,369	1,525	1,443	1,487
	{ Hourly Wage (a) ..	1,676	1,484	1,782	1,410	1,624	1,494	1,594
1935	{ Weekly Wage ..	1,528	1,448	1,605	1,415	1,528	1,470	1,504
	{ Hourly Wage (a) ..	1,703	1,496	1,782	1,476	1,626	1,519	1,617
1936	{ Weekly Wage ..	1,552	1,508	1,609	1,444	1,606	1,512	1,541
	{ Hourly Wage (a) ..	1,731	1,567	1,787	1,500	1,724	1,552	1,662
1937	{ Weekly Wage ..	1,672	1,599	1,682	1,558	1,649	1,580	1,637
	{ Hourly Wage (a) ..	1,878	1,676	1,875	1,602	1,751	1,643	1,774
1938	{ Weekly Wage ..	1,797	1,682	1,782	1,601	1,791	1,622	1,741
	{ Hourly Wage (a) ..	1,935	1,738	1,934	1,638	1,881	1,671	1,832
FEMALE WORKERS.								
1934	{ Weekly Wage ..	1,628	1,609	1,755	1,541	1,809	1,623	1,536
	{ Hourly Wage ..	1,819	1,738	1,956	1,699	1,947	1,730	1,797
1935	{ Weekly Wage ..	1,654	1,626	1,767	1,561	1,808	1,651	1,655
	{ Hourly Wage ..	1,848	1,758	1,971	1,721	1,947	1,759	1,818
1936	{ Weekly Wage ..	1,677	1,722	1,780	1,594	1,873	1,661	1,708
	{ Hourly Wage ..	1,875	1,883	1,985	1,700	2,018	1,803	1,881
1937	{ Weekly Wage ..	1,848	1,810	1,889	1,724	1,894	1,785	1,828
	{ Hourly Wage ..	2,066	1,985	2,107	1,839	2,041	1,938	2,017
1938	{ Weekly Wage ..	1,907	1,862	1,969	1,758	2,037	1,828	1,888
	{ Hourly Wage ..	2,134	2,050	2,196	1,878	2,205	1,991	2,086

(a) See footnote to following table.

* Approximate Weekly Rates—M = 55/1; F = 27/2. Hourly Rates—M = 1/2; F = 0/6½.

4. **Weighted Average Nominal Weekly Hours of Labour, Adult Males.**—The following table shows the weighted average nominal hours of labour (exclusive of overtime) in a full working week for adult male workers in each State and Australia at the 31st December, 1934 to 1938.

HOURS OF LABOUR.

INDEX-NUMBERS OF WEEKLY HOURS OF LABOUR OF ADULT MALES.

NOTE.—Index-numbers are based on the average hours of labour for Australia at the 30th April, 1914 (48.93) = 1,000. Overtime is excluded.

31st December—	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
1934	Weighted average weekly hours of labour (a) ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
	Index-numbers	904	957	899	957	930	956	927
1935	Weighted average weekly hours of labour (a) ..	44.18	46.69	43.69	46.63	45.48	46.75	45.26
	Index-numbers	903	954	893	953	929	955	925
1936	Weighted average weekly hours of labour (a) ..	44.08	46.41	43.69	46.55	45.30	46.33	45.00
	Index-numbers	901	948	893	951	926	947	922
1937	Weighted average weekly hours of labour (a) ..	44.07	46.22	43.68	46.57	45.25	46.24	45.03
	Index-numbers	901	945	893	952	925	945	920
1938	Weighted average weekly hours of labour (a) ..	44.01	45.85	43.67	46.31	45.11	46.00	44.85
	Index-numbers	899	937	893	946	922	940	917

(a) Weighted average working hours per week for all industrial groups excepting Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.). Working hours have not been generally regulated by industrial tribunals for occupations classified in Industrial Groups XI. and XII.

5. **Nominal and Effective Wages.**—(i) *General.* Wages are said to be *nominal* when they represent the actual amounts of money received in return for labour, and are described as *effective* or *real* when expressed in terms of their equivalent purchasing power, that is, their purchasing power over some definite composite unit or regimen the cost of which can be ascertained at different times. The relation between nominal and *effective* or *real* wages was discussed at some length in *Labour Report* No. 6, and was also referred to in *Labour Report* No. 11.

Since it is possible to measure purchasing power over more than one composite unit or regimen it is equally possible to convert any given nominal wage series into more than one series of effective or real wages. Prior to 1936 it was the practice of the Bureau to compute effective wage index-numbers by dividing the nominal wage index-numbers by the corresponding retail price index-numbers for food, groceries and rent of all houses ("A" series). While wage rates were generally varied on the basis of the "A" series index-numbers there was a good deal to be said for this procedure. When the Commonwealth Court abandoned the "A" series, the merits of the "C" series for deflating nominal wage rates were strengthened. The "C" series covers food, groceries, rent for four and five-roomed houses, clothing and miscellaneous household requirements. As the compilation of the "A" series was discontinued after the June quarter of 1938, real wages to the end of 1937 are measured in terms of their purchasing power over both the "A" series regimen and the "C" series regimen in the following tables, and over the "C" series only for the year 1938.

(ii) *Nominal Weekly Wage Index-numbers 1901 to 1938—States.* The following table shows for the period 1901 to 1938 the weighted average nominal weekly rates of wage for adult males in each State, the weighted average rate for Australia in 1911 being taken as the base (=1,000). These results are based generally upon rates of wage prevailing in the capital city of each State, but in certain industries, such as mining,

rates are necessarily taken for places other than the capital cities. The index-numbers for 1901 and 1911 are based on rates current at the end of December, annual averages not being available. For 1914 and subsequent years, however, the index-numbers are based on the average rates current at the end of the four quarters of each year:—

NOMINAL WAGE INDEX-NUMBERS : ADULT MALES.
(Base : *Weighted Average Wage for Australia, 1911 = 1,000.*)

State.	1901.	1911.	1914.	1921.	1929.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
New South Wales	858	1,003	1,093	1,862	2,012	1,734	1,638	1,617	1,631	1,654	1,723	1,829
Victoria	796	985	1,062	1,803	1,964	1,552	1,502	1,523	1,550	1,583	1,665	1,755
Queensland	901	997	1,035	1,879	1,976	1,731	1,720	1,727	1,731	1,728	1,774	1,854
South Australia	819	1,013	1,061	1,697	1,891	1,434	1,423	1,458	1,493	1,533	1,608	1,688
Western Australia	1,052	1,152	1,223	1,832	1,960	1,611	1,584	1,619	1,611	1,688	1,748	1,833
Tasmania	719	799	1,027	1,745	1,840	1,533	1,519	1,540	1,571	1,610	1,656	1,718
Australia	848	1,000	1,081	1,826	1,972	1,639	1,584	1,590	1,609	1,635	1,704	1,796

(iii) *Effective or Real Wage Index-numbers in each State, 1901-1938.* In obtaining the effective wage index-numbers in the following tables the nominal wage index-numbers shown above have been divided by the corresponding retail price index-numbers for the capital city and multiplied by 1,000.

The index-numbers for 1901 and 1911 which are based on nominal rates of wage current at the end of December may be taken as substantially accurate, since the movement in wages during the course of any one year prior to 1914 was comparatively slight.

EFFECTIVE OR REAL WAGE INDEX-NUMBERS FOR ADULT MALES (FULL WORK).

Measured in terms of purchasing power over the "A" series regimen.

(Base : *Weighted Average Real Wage in Australia in 1911 = 1,000.*)

State.	1901.	1911.	1914.	1921.	1929.	1931.	1932.	1933.	1934.	1935.	1936.	1937.		
New South Wales	..	961	973	906	1,070	1,050	1,160	1,150	1,138	1,101	1,095	1,090	1,107	
Victoria	..	915	1,037	961	1,038	1,084	1,162	1,126	1,139	1,114	1,092	1,075	1,099	
Queensland	1,172	1,090	1,038	1,220	1,345	1,376	1,417	1,377	1,323	1,261	1,237	
South Australia	948	957	929	1,067	1,178	1,133	1,152	1,144	1,149	1,143	1,151	
Western Australia	1,024	1,023	1,070	1,139	1,143	1,232	1,212	1,246	1,221	1,224	1,224	
Tasmania	827	838	942	977	1,064	1,104	1,067	1,094	1,086	1,099	1,094	1,088
Australia	964	1,000	948	1,076	1,082	1,185	1,168	1,178	1,148	1,133	1,119	1,131

Since the "C" series index-numbers were not compiled for periods prior to November, 1914, it has been assumed for the purpose of the following table that fluctuations between 1911, the base of the table, and 1914 in the "C" series would have been similar to the fluctuations observed in the "A" series.

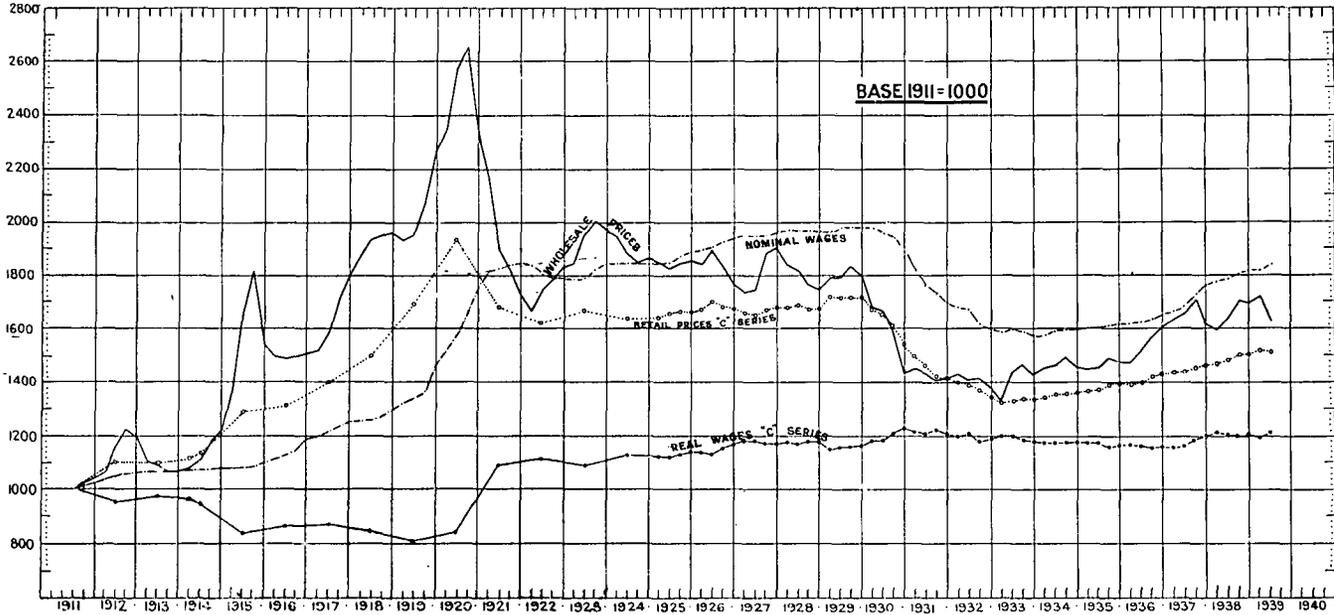
EFFECTIVE OR REAL WAGE INDEX-NUMBERS FOR ADULT MALES (FULL WORK).

Measured in terms of purchasing power over the "C" series regimen.

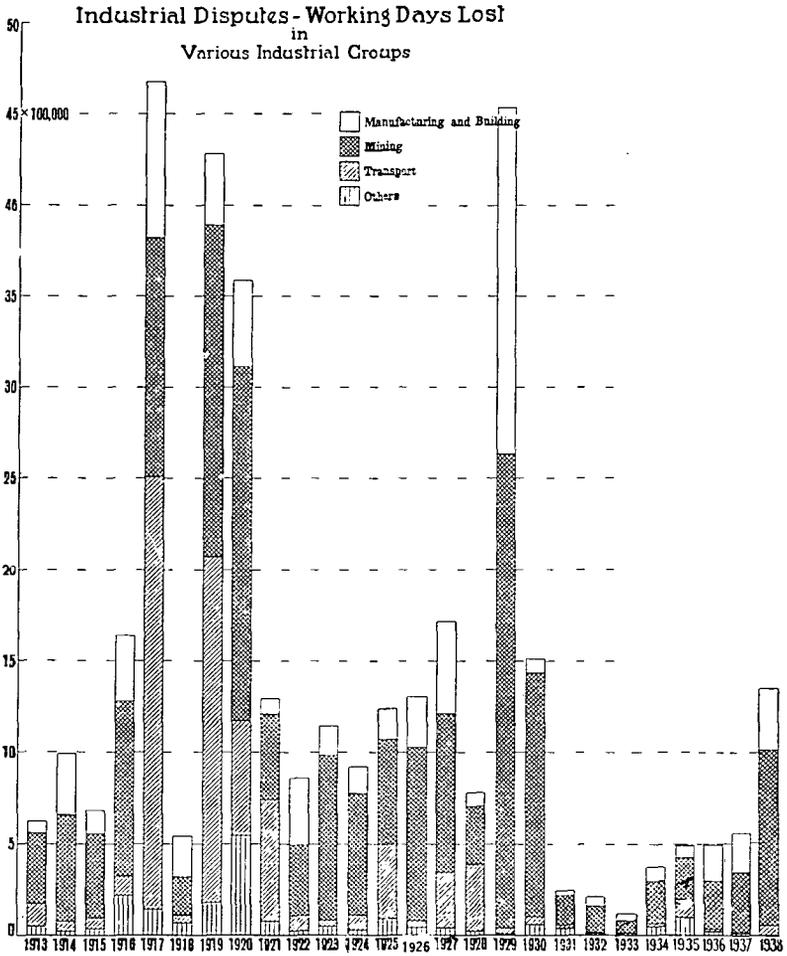
(Base : *Weighted Average Real Wage in Australia in 1911 = 1,000.*)

State.	1911.	1914.	1921.	1929.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.		
New South Wales	925	1,073	1,130	1,210	1,206	1,186	1,157	1,153	1,150	1,168	1,207	
Victoria	954	1,084	1,164	1,200	1,150	1,147	1,146	1,134	1,131	1,155	1,180	
Queensland	1,022	1,227	1,290	1,336	1,366	1,382	1,366	1,338	1,296	1,277	1,311	
South Australia	914	1,034	1,099	1,137	1,079	1,086	1,091	1,097	1,101	1,128	1,146	
Western Australia	1,043	1,096	1,152	1,189	1,158	1,177	1,177	1,187	1,190	1,214	1,252	
Tasmania	902	984	1,108	1,120	1,094	1,110	1,169	1,115	1,128	1,141	1,167	
Australia	1,000	948	1,087	1,151	1,210	1,190	1,187	1,173	1,166	1,166	1,177	1,207

WHOLESALE AND RETAIL PRICES, NOMINAL AND EFFECTIVE OR REAL WAGE INDEX-NUMBERS.—AUSTRALIA, 1911 TO 1939.



EXPLANATION.—The index-numbers in the above graph are for the Six Capital Cities as a whole, with the exception of those for Wholesale Prices which are for Melbourne. They are all calculated to the common base 1911 = 1,000, the scale for which appears on the left of the graph. They are shown *quarterly* from the year 1912 in the case of the Wholesale Prices (Melbourne). The "C" Series Retail Prices (food, groceries, rent of 4 and 5 rooms, clothing and miscellaneous household expenditure) are shown *quarterly* from the year 1925. Nominal Wages are shown *quarterly* from 1914, and Real Wages *quarterly* from 1925 for the "C" Series.



EXPLANATION.—The scale refers to working days lost in hundred thousands. Thus, taking the year 1917, and comparing the shaded and blank sections with the scale, it will be observed that about 870,000 working days were lost in Manufacturing and Building, over 1,300,000 in Mining, over 7,300,000 in Transport, and about 150,000 in other industries.

In the table above, the effective wage index-numbers are computed to the one base, that of Australia for 1911. As the index-numbers are comparable in all respects, comparisons may be made as to the increase or decrease in the effective wage index-number for any State over any period of years.

(iv) *Effective or Real Wage Index-numbers in the Commonwealth, 1901-38.* In the following table similar index-numbers are given for Australia as a whole. These are obtained by dividing the nominal wage index-numbers for Australia by the corresponding retail price index-numbers for the Six Capital Cities and multiplying by 1,000.

NOMINAL AND EFFECTIVE OR REAL WAGE INDEX-NUMBERS (FULL WORK).

(Base : Weighted Average Real Wage in Australia in 1911 = 1,000.)

Year.	Nominal Weekly Wage Index-Numbers.	Retail Price Index-numbers.		Effective or Real Wage Index-numbers, i.e., Relative Purchasing Power over Regimen of—	
		"A" Series (Food, Groceries and Rent of All Houses).	"C" Series (All Items).	"A" Series.	"C" Series.
1901	848	880	..	964	..
1910	955	970	..	985	..
1911	1,000	1,000	(1,000)	1,000	(1,000)
1912	1,051	1,101	..	955	..
1913	1,076	1,104	..	975	..
1914	1,081	1,140	1,140	948	948
1915	1,092	1,278	1,297	854	842
1916	1,144	1,324	1,319	864	867
1917	1,226	1,318	1,406	930	872
1918	1,270	1,362	1,501	932	846
1919	1,370	1,510	1,695	907	808
1920	1,627	1,785	1,935	911	841
1921	1,826	1,697	1,680	1,076	1,087
1922	1,801	1,600	1,619	1,126	1,112
1923	1,805	1,700	1,664	1,062	1,085
1924	1,840	1,681	1,637	1,095	1,124
1925	1,861	1,722	1,654	1,081	1,125
1926	1,914	1,786	1,677	1,072	1,141
1927	1,946	1,766	1,662	1,102	1,171
1928	1,963	1,760	1,675	1,115	1,172
1929	1,972	1,822	1,713	1,082	1,151
1930	1,939	1,683	1,618	1,152	1,198
1931	1,752	1,479	1,448	1,185	1,210
1932	1,639	1,403	1,377	1,168	1,190
1933	1,584	1,345	1,335	1,178	1,187
1934	1,590	1,385	1,355	1,148	1,173
1935	1,609	1,420	1,380	1,133	1,166
1936	1,635	1,461	1,409	1,119	1,160
1937	1,704	1,507	1,448	1,131	1,177
1938	1,796	(a)	1,488	(a)	1,207

(a) Not available.

NOTE.—For years prior to 1914, the nominal wage index-numbers relate to the end of the year only, but from 1914 onward these figures, in addition to those for retail prices, are averages for the whole year.

§ 3. The Basic Wage in Australia.

1. **General.**—The “basic wage” in Australia is understood to mean the lowest wage which can be paid to an unskilled labourer on the basis of “the normal needs of an average employee regarded as a human being living in a civilized community.”* This wage is fixed by various industrial tribunals in Australia operating under Commonwealth and State Arbitration Acts, and is varied from time to time according to changes in cost of living, constitution of the family unit, etc. In addition to the “basic” wage, these tribunals also determine what is known as the “secondary” wage—“the extra payment to be made for trained skill or other exceptional qualities necessary for an employee exercising the functions required.”† The term “minimum” wage, on the other hand, is used to express the lowest rate payable in a particular industry, and is either equal to, or greater than the “basic” wage.

2. **The Commonwealth Basic Wage.**—(i) *General.* The doctrine of a basic wage was propounded as far back as 1890 by Sir Samuel Griffith, Premier of Queensland, and the same principle was enunciated in the New South Wales Arbitration Court in somewhat similar terms by Mr. Justice Heydon in 1905. In spite, however, of these pronouncements and the fact that wage-fixing tribunals had been in operation as early as 1896 (in the State of Victoria), it was not until the year 1907 that the first basic wage, as such, was declared by a Court in Australia. This declaration was made by Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, and is popularly known as the “Harvester Judgment” on account of its having been determined in connexion with H. V. McKay’s Sunshine Harvester Works. The rate of wage declared in this case was 7s. per day or £2 2s. per week for Melbourne, the amount considered reasonable for “a family of about five,” and was generally referred to as the “Harvester” wage. The constituent parts of this amount were £1 5s. 5d. for food, 7s. for rent, and 9s. 7d. for all other expenditure.

The “Harvester” basic rates for all other towns throughout Australia were fixed at practically the same rates until the year 1913, when the Court took cognizance of the Retail Price index-numbers, covering food and groceries and rent of all houses (“A” Series), for the 30 more important towns of Australia, which had been published by the Commonwealth Statistician for the first time in the preceding year. These index-numbers had been taken back to 1901, with the year 1911 as base, and disclosed not only considerable percentage increases since 1907, but also large disparities in the relative purchasing power of money in the various towns. The basic rates for towns were thereafter fixed on their respective index-numbers, taking the index-number 875 for Melbourne for the year 1907 as being equivalent to 42s. per week, or the base of the table 1,000 as being equivalent to 48s. per week. Exceptions were made in the case of many country towns, where certain “loadings” were applied to counterbalance their lower index-numbers due to cheaper rentals.‡

In 1922 an amount known as the “Powers’ 3s.”§ was added as a general “loading” to the weekly wage for the purpose of securing to the worker during a period of rising prices the full equivalent of the “Harvester” standard. In the same year the system was instituted of making regular quarterly adjustments of the basic wage to accord with variations in purchasing power as disclosed by the “A” Series retail price index-numbers.

The Commonwealth Conciliation and Arbitration Act provides that the “basic” wage, or any alteration thereof including the principles on which it is computed, together with any variation or interpretation of any award involving any such alteration, shall be considered by a Court constituted by the Chief Judge and not less than two other Judges, and must be approved by a majority of the members of that Court. By a

* Mr. Justice Higgins—*A New Province of Law and Order.*

† *Ibid.*

‡ As these indexes covered only about 60 per cent. of household expenditure, a low index due to low rentals would wrongly presume low costs in the remaining uninvestigated 40 per cent. of household expenditure and *vice versa.*

§ Awarded by Mr. Justice Powers in the Gas Workers’ case.

judgment of the High Court on the 21st April, 1933, the "basic" wage is taken to mean for the foregoing purpose, not only the "Harvester" wage but any "loadings" forming part of the primary wage of an unskilled labourer. A "loading" is defined as an addition to the "basic" wage as compensation for some peculiar condition of labour or environment, and not by way of "margin for skill." The wage payable for skilled labour is assessed on the basis of the "basic" wage, including "loadings."

The adequacy or otherwise of the "Harvester" standard has been the subject of much discussion, the author of the judgment himself urging on several occasions the need for its review. The abnormal conditions during and for some time after the war hindered such a review which was regarded as less urgent by reason of the fact that wages throughout Australia were being automatically adjusted to changes in retail prices. A Royal Commission (referred to later) was appointed in 1920 to assess a basic wage, but its recommendations were not carried out.

No change was made in the method of fixation and adjustment of the basic wage until the onset of the depression, which began to be felt severely during 1930. Applications were then made to the Court by employers for some greater measure of reduction of wages than that afforded by the automatic adjustments to falling retail prices. An account of the proceedings which resulted in the Court reducing all wages under its jurisdiction by 10 per cent. from the 1st February, 1931, is given in *Labour Report* No. 23, page 74. Reference is also made to the Court's refusal in June, 1932, and May, 1933, to remove this special reduction.

(ii) *Basic Wage Inquiry, 1934.* The "Harvester" standard, adjusted to retail price variations, continued as the theoretical basis of the wage of the Commonwealth Court until 31st May, 1934, when it was superseded by a judgment delivered on 17th April, 1934, full particulars of which appear in Year Book No. 29, 1936, page 545. The basic wage declared on this occasion (known as the "Restoration Basic Wage, 1934") was as follows for the six capital cities:—

		<i>s.</i>	<i>d.</i>			<i>s.</i>	<i>d.</i>
Sydney	67 0	Adelaide	..	..	64 0
Melbourne	64 0	Perth	..	..	66 0
Brisbane	61 0	Hobart	..	..	67 0

Six Capital Cities, 65s. od.

The 10 per cent. special reduction in wages referred to above ceased to operate upon the introduction of the new rates, and the basis of the periodical adjustments to retail price variations was transferred from the "A" Series to the "C" Series of Index-Numbers. The latter Series covers Food and Groceries; Rent of 4-roomed and 5-roomed Houses; Clothing; Fuel; Light; Household Utensils; Household Drapery; Fares; and other Miscellaneous household requirements. The base of the table (1,000) was taken by the Court as equal to 81s. per week. This gave the above rates for the capital cities, which are proportionate to their respective index-numbers. In effect, the new rate for the Six Capital Cities was the same as that previously paid under the "A" Series, without the "Powers" 3s., and without the 10 per cent. reduction. Certain towns gained and others lost in comparison with rates under the "A" Series, owing to the different relationship of towns under the "A" and the "C" Series.

(iii) *Basic Wage Inquiry, 1937.* In May, 1937, the Commonwealth Court heard an application by the combined Unions for an increase in the basic wage. The Unions asked that the equivalent of the base (1,000) of the "C" Series Index be increased from 81s. to 93s. which on current index-numbers would have represented an average increase of about 10s. per week. The hearing extended from 10th May, to 4th June, 1937, and the Court delivered judgment on 23rd June. The chief features of the judgment were—

(a) Various amounts were added to the basic wage not as an integral, and therefore adjustable, part of that wage, but as "loadings" on the rates that would have been payable under the "shilling table" as determined by the 1934 judgment. The latter was referred to in the judgment as the "needs" portion of the total resultant basic wage. The "loadings" and resultant "total basic wages" for the six capital cities were as follows:—

City..	"Needs" Basic Wage.	"Loading."	Total Basic Wage.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Sydney	72 0	6 0	78 0
Melbourne	69 0	6 0	75 0
Brisbane	68 0	6 0	74 0
Adelaide	68 0 (a)	4 0	72 0
Perth	70 0 (a)	4 0	74 0
Hobart	70 0 (b)	4 0	74 0
Six Capitals	70 0	5 0	75 0

(a) An additional 1s. was actually being paid under the "2s. minimum adjustment" provision.
 (b) One shilling less was being paid under the "2s. minimum adjustment" provision.

The above were not to apply to railway employees, to whom the Court granted "loadings" of 5s. in New South Wales and Victoria, and 3s. in South Australia and Tasmania. Workers in the provincial towns were to receive "loadings"—6s. in New South Wales, Victoria and Queensland; and 4s. in South Australia, Western Australia and Tasmania. Wages based on "combination" index-numbers covering 4, 5 or 6 capital cities, or the 30 towns, would receive a "loading" of 5s. per week. The Maritime workers were granted a "loading" of 21s. 6d. per month, and the Pastoral workers received increases proportionate to the increase of the flat basic rate, from 68s. to 77s. in respect of the basis of piece work rates. Station hands received an increase of 3s. per week.

The "loadings" were to come into operation by instalments as follows:—

"Loading."	Instalments.	Date of Operation. (First pay period to begin in—)
<i>s. d.</i>	<i>s. d.</i>	
6 0	3 0	July, 1937
	3 0	October, "
5 0	3 0	July, "
	2 0	October, "
4 0	2 0	July, "
	2 0	October, "
3 0	2 0	July, "
	1 0	October, "

The Maritime, Pastoral and Gas Workers' increases were to become fully operative in the first pay period in July.

(b) The former proviso that no adjustment of wages should take place unless the amount of variation reached at least 2s. was rescinded in favour of minimum variations of 1s. per week.

(c) The general policy laid down in the previous judgment in regard to rates for country towns was retained, with the exception that the rates for Geelong and Warrnambool were made the same as those for Melbourne.

(d) The basis of the adjustment of wages in accordance with the variations shown by retail price index-numbers was transferred from the "C" Series to a special "Court" Series based upon the "C" Series.

(e) Female and Junior rates were left for adjustment by individual Judges when dealing with specific awards.

The main parts of the Judgment were reprinted in Official Year Book No. 30.

(iv) *Current Federal Basic Wage Rates.* The basic wage rates of the Federal Court, including the "loadings" referred to above, operative from 1st December, 1939, are as follows:—

	s.	d.		s.	d.
New South Wales—			South Australia—		
Sydney	82	0	Adelaide	77	0
Newcastle	82	0	Five Towns	77	0
Broken Hill	82	0	Western Australia—		
Five Towns	81	0	Perth	77	0
Victoria—			Kalgoorlie	91	0
Melbourne	80	0	Geraldton	82	0
Geelong			Five Towns	78	0
Warrnambool			Tasmania—		
Mildura			Hobart	77	0
Yallourn	86	6	Launceston	76	0
Five Towns	80	0	Queenstown (a)	66	6
Queensland—			Five Towns	77	0
Brisbane	76	0	Thirty Towns	79	0
Five Towns	76	0	Six Capital Cities	79	0

(a) Fixed wage.

With the exception of those mentioned above, the rate for provincial towns is 3s. less than that of their respective capital cities.

3. *State Basic Wages.*—(i) *New South Wales.* The first determination under the New South Wales Industrial Arbitration Act of a standard living wage for adult male employees was made on the 16th February, 1914, by the Court of Industrial Arbitration. The Board of Trade was established in 1918 with power to determine the living wage for adult male and female employees in the State; the Board made numerous declarations from 1918 to 1925, but ceased to function after the Industrial Arbitration (Amendment) Act 1926 established the Industrial Commission of New South Wales, which exercised the powers of the Board of Trade from the 15th April, 1926.

The adult male rate was determined on the family unit of a man, wife and two children from 1914 to 1925; a man and wife only in 1927, with family allowances for dependent children; and a man, wife and one child in 1929, with family allowances for other dependent children.

Employees in rural industries are not covered by the rates shown in the following table; a living wage for rural workers of £3 6s. per week was in force for twelve months from October, 1921, and a rate of £4 4s. operated from June, 1927, to December, 1929, when the power of industrial tribunals to fix a living wage for rural workers was withdrawn.

The variations in the living wages determined by the industrial tribunals of New South Wales up to 27th April, 1937, are shown in the following table. Thereafter changes are made automatically in accordance with the procedure outlined in the next paragraph, and the latest current rate payable will be found in the table in par. vi of this section.

BASIC WAGE VARIATIONS IN NEW SOUTH WALES.

Male.		Female.	
Date of Declaration.	Basic Wage per Week.	Date of Declaration.	Basic Wage per Week.
	£ s. d.		£ s. d.
16th February, 1914 ..	2 8 0	..	..
17th December, 1915 ..	2 12 6	..	..
18th August, 1916 ..	2 15 6	..	..
5th September, 1918 ..	3 0 0	17th December, 1918 ..	1 10 0
8th October, 1919 ..	3 17 0	23rd December, 1919 ..	1 19 0
8th October, 1920 ..	4 5 0	23rd December, 1920 ..	2 3 0
8th October, 1921 ..	4 2 0	22nd December, 1921 ..	2 1 0
12th May, 1922 ..	3 18 0	9th October, 1922 ..	1 19 6
10th April, 1923 ..	3 19 0	(a) ..	2 0 0
7th September, 1923 ..	4 2 0	..	2 1 6
24th August, 1925 ..	4 4 0	..	2 2 6
27th June, 1927 ..	4 5 0	..	2 6 0
20th December, 1929 ..	4 2 6	..	2 4 6
26th August, 1932 ..	3 10 0	..	1 18 0
11th April, 1933 ..	3 8 6	..	1 17 0
20th October, 1933 ..	3 6 6	..	1 16 0
26th April, 1934 ..	3 7 6	..	1 16 6
18th April, 1935 ..	3 8 6	..	1 17 0
24th April, 1936 ..	3 9 0	..	(b) 1 17 6
27th October, 1936 ..	3 10 0	..	1 18 0
24th April, 1937 ..	3 11 6(c)	..	1 18 6

(a) Dates of Declarations from 1923 on were the same as those for male rate.

(b) Rate declared, £1 15s. 6d., but law amended to provide a rate for females at 54 per cent. of that for males.

(c) See below.

Following on the judgment of the Commonwealth Arbitration Court referred to on page 439, the Government of New South Wales decided to bring the State Basic Wage into line with the Federal rates ruling in the State, and secured an amendment of the Industrial Arbitration Act to give effect thereto. The Act (No. 9 of 1937) was passed on 7th October, 1937, and was expressed to come into operation from the commencement of the first pay period in October, practically from 1st October, 1937. The general principles laid down by the Commonwealth Court were followed as closely as practicable, and provision was made for the automatic adjustment of wages in conformity with variations of retail prices as shown by the Commonwealth Court's "All Items" Retail Price Index-Numbers, shortly known as the "Court" Series of Index-Numbers. The Commonwealth Court's principle of treating the "prosperity loadings" as a separate and non-adjustable part of the total basic wage was adopted. The provisions of the main Acts for the periodic declaration of the living wage by the Industrial Commission were repealed, but the amending Act placed on the Commission the responsibility of altering all awards and agreements in conformity with the intentions of the new Act; to define boundaries within which the various rates are to operate; and to specify the appropriate "Court" Series retail price index-numbers to which they are to be related.

Compared with State adult basic wages of £3 11s. 6d. per week for males, and £1 18s. 6d. for females operative at the time, the alteration represented for males increases of 6s. 6d. in Sydney; 3s. 6d. in Country districts (with certain exceptions); and 4s. 6d. for railway and other Crown employees as defined by the Act. For females the increases were 54 per cent. of the foregoing, and amounted to 3s. 6d., 2s., and 2s. 6d., respectively.

The rates applicable in the metropolitan area from 1st December, 1939, are £4 2s. for males and £2 4s. for females.

The principle of supplementing wages by a payment in respect of dependent children under fourteen years of age is operative in New South Wales, and a brief account of the main features of the system appears in § 4, par. 2 hereafter.

(ii) *Victoria and Tasmania.* A State basic rate of wage is not declared in Victoria and Tasmania. In these States the Wages Board system of wage fixation is in operation, and each Board determines the minimum rate of wage to be paid in the industry or calling under review. In the majority of cases the practice of the Commonwealth Arbitration Court of adjusting wages in accordance with variations in retail prices has been followed in the past by these bodies. In the case of Victoria, by amendments of the Factories and Shops Act No. 4275 of 1934 and No. 4461 of 1936, it is now obligatory on all Wages Boards to adopt such provisions of Commonwealth Awards which such Boards are under the Factory and Shops Acts empowered to include in their determinations. The Secretary of Labour is also empowered under this Act to make adjustments of wages according to variations in retail price index-numbers without calling the Board together. The latest Commonwealth adult rates for Melbourne and Hobart are respectively 80s. and 77s. per week, operative from 1st December, 1939, and female rates are roughly 54 per cent. of those rates.

(iii) *Queensland.* The first formal declaration by the Industrial Arbitration Court in this State of a basic wage was gazetted on 24th February, 1921. Prior to this declaration the rate of £3 17s. per week for adult males had been generally recognized by the Court in its Awards as the basic or living wage. The basic wage is nominally intended to provide for the needs of a man, his wife and three children. The variations in the adult basic wages determined by the Industrial Arbitration Court are shown below:—

BASIC WAGE VARIATIONS IN QUEENSLAND.

Date of Operation.	Adult Basic Wage.	
	Male.	Female.
	£ s. d.	£ s. d.
1st March, 1921	4 5 0	2 3 0
1st March, 1922	4 0 0	2 1 0
28th September, 1925 (a)	4 5 0	2 3 0
1st August, 1930	4 0 0	2 1 0
1st December, 1930	3 17 0	1 19 6
1st July, 1931	3 14 0	1 19 0
1st April, 1937	3 18 0	2 1 0
1st April, 1938	4 1 0	2 3 0
7th August, 1939	4 4 0	2 5 0

(a) Fixed by Basic Wage Act.

The rates shown above are applicable throughout the South-Eastern Division of the State; allowances are added for the following divisions—Northern, 10s.; North-Western, 17s. 4d.; Mackay, 5s. 6d.; and South-Western, 7s. 4d. Half of these allowances are granted to females.

(iv) *South Australia.* The Industrial Code 1920-1937 provides that the Board of Industry shall after public inquiry declare the living wages to be paid to adult male and female employees. Prior to the passing of this Act the living wage was declared by the Industrial Court, the first award, 7s. per day, being made by Mr. Justice Gordon in the Brushmakers' Case in December, 1908.

The first declaration by the Board of Industry was made on 15th July, 1921, when the living wage for adult male employees in the metropolitan area was determined at £3 19s. 6d. per week.

The family unit is not specifically defined in the Code, but it is stated that the South Australian Industrial Court in 1920 definitely decided that the average employee in respect of whom the living wage is to be declared is a man with a wife and three children.

The variations in the living wages determined by the Board of Industry are shown below :—

BASIC WAGE VARIATIONS IN SOUTH AUSTRALIA.

Male.		Female.	
Date of Operation.	Basic Wage per Week.	Date of Operation.	Basic Wage per Week.
	£ s. d.		£ s. d.
4th August, 1921 ..	3 19 6	1st September, 1921 ..	1 15 0
27th April, 1922 ..	3 17 6	..	..
8th November, 1923 ..	3 18 6	..	..
15th May, 1924 ..	4 2 0	13th November, 1924 ..	1 18 0
13th August, 1925 ..	4 5 6	3rd September, 1925 ..	1 19 6
30th October, 1930 ..	3 15 0	15th January, 1931 ..	1 15 0
10th September, 1931 ..	3 3 0	24th December, 1931 ..	1 11 6
7th November, 1935 ..	3 6 0	16th January, 1936 ..	1 13 0
7th January, 1937 ..	3 9 6	29th April, 1937 ..	1 14 9
25th November, 1937 ..	3 14 0	25th November, 1937 ..	1 16 6
5th January, 1939 ..	3 18 0	5th January, 1939 ..	1 18 0

(v) *Western Australia.* The Industrial Arbitration Act 1912-1937 provides that the Court of Arbitration shall determine and declare a basic wage to operate from 1st July of each year and, wherever and whenever necessary, differential basic rates in special or defined areas of the State. In an amending Act of 1930 provision is made for quarterly adjustments when the Government Statistician reports a variation in the cost of living of 1s. or more per week compared with the previous quarter.

The first declaration of the basic wage by the Court of Arbitration since the authority to fix one was vested in the Court in 1925 was made on 11th June, 1926. The family unit is not specifically defined in the Act, but it has been the practice of the Court to take as a basis for its calculations a man, his wife and two dependent children. The variations in the annual declarations of the Court of Arbitration are shown in the following table :—

BASIC WAGE VARIATIONS IN WESTERN AUSTRALIA.

Date of Operation.	Metropolitan Area.		South-West Land Division (excluding Metropolitan Area.)		Other Parts of State.	
	Male.	Female.	Male.	Female.	Male.	Female.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1st July, 1926 ..	4 5 0	2 5 11	4 5 0	2 5 11	4 5 0	2 5 11
1st July, 1929 ..	4 7 0	2 7 0	4 7 0	2 7 0	a4 7 0	a2 7 0
1st July, 1930 ..	4 6 0	2 6 5	4 5 0	2 5 11	4 5 0	2 5 11
1st July, 1931 ..	3 18 0	2 2 2	3 17 0	2 1 8	3 17 0	2 1 8
1st July, 1932 ..	3 12 0	1 18 11	3 13 6	1 19 8	3 18 0	2 2 2
1st July, 1933 ..	3 8 0	1 16 9	3 9 6	1 17 6	3 17 6	2 1 10
1st July, 1934 ..	3 9 6	1 17 6	3 10 0	1 17 10	3 19 6	2 2 11
1st July, 1935 ..	3 10 6	1 18 1	3 11 2	1 18 5	4 4 4	2 5 6
1st July, 1936 ..	3 10 6	1 18 1	3 11 9	1 18 9	4 6 0	2 6 5
1st July, 1937 ..	3 13 9	1 19 10	3 14 8	2 0 4	4 7 0	2 7 0
1st July, 1938 ..	4 0 0	2 3 2	4 1 0	2 3 9	4 13 3	2 10 4
1st July, 1939 ..	b4 2 2	b2 4 4	4 3 1	2 4 10	b4 16 4	b2 12 0

(a) Excluding Gold-fields areas, where rates were the same as those operating from 1st July, 1926.
 (b) Applicable from 24th April, 1939.

The latest rates payable in accordance with the quarterly adjustments declared by the Court are the same as those shown above.

(vi) *Current State Basic Wage Rates.* In the following table are given the current basic wage rates declared by the various State tribunals :—

BASIC WEEKLY WAGE RATES FIXED BY STATE INDUSTRIAL TRIBUNALS.

State.	Basic Wage.		Date of Operation.	Family Unit (for Male Rate).
	Males.	Females.		
	£ s. d.	£ s. d.		
New South Wales ..	(a) 4 2 0	(a) 2 4 0	1.12.39	Man, wife and child
Victoria ..	(b)	(b)	(b)	(b)
Queensland ..	(c) 4 4 0	(c) 2 5 0	7.8.39	Man, wife and three children
South Australia ..	3 18 0	1 18 0	5.1.39	Man, " " "
Western Australia..	(d) 4 2 2	(d) 2 4 4	24.4.39	Man, wife and two children
Tasmania ..	(b)	(b)	(b)	(b)

(a) Sydney, Newcastle, Port Kembla-Wollongong and Broken Hill. Elsewhere, males £3 19s., females £2 2s. 6d. Male wage plus child allowances. (b) None declared, but follow Federal rates to a large extent. (c) South-Eastern Division. Allowances are added for the following Divisions—Northern, 10s.; North-Western, 17s. 4d.; Mackay, 5s. 6d.; and South-Western, 7s. 4d. Half of these allowances are granted to females. (d) Metropolitan Area. Basic wage for Gold-fields Areas and portions of State exclusive of the South-West Land Division—males £4 16s. 4d.; females £2 12s.; South-West Land Division (excluding Metropolitan Area)—males £4 3s. 1d.; females £2 4s. 10d.

4. **Royal Commission on the Basic Wage, 1920.**—The Federal basic wage referred to in par. 2 (i) *ante* was made operative in other parts of Australia on the basis of the relative retail price index-numbers applicable to the locality, but only one comprehensive attempt has been made by the Federal authorities to ascertain specifically what the actual requirements were in the various States according to reasonable standards of comfort, including all matters comprised in the ordinary expenditure of a household in respect of a family consisting of a man, wife and three children under fourteen years of age.

The attempt referred to was made by a Royal Commission, and its report, issued in 1920, recommended the following amounts for the various capital cities :—

	£	s.	d.
Sydney	5	17	1
Melbourne	5	16	6
Brisbane	5	6	2
Adelaide	5	16	1
Perth	5	13	11
Hobart	5	16	11
Six Capitals (Weighted Average)	5	15	8

The recommendations of this Commission were not carried out owing largely to the marked advance of the amounts suggested over ruling rates* and the grave doubts expressed as to the ability of industry to pay such rates.

§ 4. Child Endowment in Australia.

1. **General.**—The principle of supplementing wages by a payment in respect of dependent children under fourteen years of age has become very prominent in Australia in recent years, and is actually in operation in certain instances. The system has been in force in various forms in England and on the Continent as far back as 1795, the first instance occurring in England in that year.†

2. **New South Wales.**—The first attempt in Australia to institute the system was made in New South Wales in 1919, when a Bill was introduced into the State Parliament to provide a flat basic wage for a man and wife, and an allowance of 5s. per week for each child, the latter rate to be reduced on a sliding scale and to cease automatically when the income reached an amount of £3 per week above the basic wage. The Bill

* The "Harvester" equivalent for Melbourne at the time (September quarter, 1920) was £4 13s. per week, but only £3 18s. to £4 2s. was being paid on the basis of an annual index-number.

† A complete survey of the systems in force in various countries is contained in Eleanor Rathbone's *Disinherited Family: A Plea for the Endowment of the Family*.

was rejected, but the subject again came up in the Session of 1926-27, when Acts,* which have been amended during subsequent years, provided for the payment of child allowances. These measures provided for (a) the declaration of a basic wage for a man and wife,† and (b) the payment of an allowance of 5s. per week in respect of each dependent child, subject to the provision that child allowances would be paid only to the extent to which the total earnings of the worker and his family fall short of the sum represented by the *basic wage* plus child allowance at the rate of 5s. per week for each child under the age of fourteen years. Thus, a worker with three dependent children receiving £5 by way of wages would not be entitled to the allowance, but would receive it in respect of a fourth child. These payments in New South Wales commenced to operate from 23rd July, 1927. The basic wage was determined for a family unit of a man, wife and one child on 20th December, 1929, and an amending Act, assented to on the 23rd December, 1929, excluded one child in each family from endowment. The fund from which child endowment payments were originally made was created by a levy on the wages bill of employers. The rate of tax from employers during the year 1930 was fixed at 1 per cent. From 1st July, 1931, the rate was fixed at 2 per cent., and from 1st January, 1932, at the rate of 5d. in the £1 on all wages above £3 per week. The levy was discontinued as from 1st January, 1934, the cost of endowment being met from the Special Income and Wages Tax, which is also used for other social services.

3. **Commonwealth Public Service.**—The first system of child endowment in Australia was instituted within the Commonwealth Public Service. It came into operation on 1st November, 1920, when, following on the recommendations of the Royal Commission on the Basic Wage,‡ child endowment at the rate of 5s. per week for each dependent child under fourteen years of age was paid to officers, with a limitation of salary plus allowance of £400 per annum. As the result of proceedings before the Public Service Arbitrator in 1923, these allowances were confirmed as a permanent part of the salary scheme, and the necessary fund to meet them was created by deducting the average value of the payment from the basic wage of all adult officers. In effect, therefore, the officers are themselves providing the fund from which the allowance is paid. The deduction was originally £11 per annum, but is now £12. The payment is now limited to officers receiving up to £500 per annum inclusive of the allowance. Details regarding the introduction and method of calculating the payments under this scheme have been published in previous issues of the Official Year Book and will be found also in the Labour Reports issued by this Bureau.

4. **National Scheme.**—The Commonwealth Government, in June, 1927, called a conference at Melbourne of the Premiers of the several States to consider the question from a national standpoint. The Prime Minister submitted various estimates of cost of endowing dependent children under fourteen years of age in Australia at 5s. per week. After discussion, it was decided to refer the matter to a Royal Commission, to be appointed by the Commonwealth Government.

The Commission was not unanimous in its findings, and the opinions and recommendations of the members were embodied in two separate reports, which dealt exhaustively with the constitutional aspects, existing systems, industrial legislation, the basic wage, standard of living, regulation of wages, working conditions and cognate matters.

At the conference of Commonwealth and State Ministers held at Canberra during May, 1929, the Prime Minister stated that the Commonwealth Government was not prepared to adopt a scheme financed entirely from the proceeds of taxation, as had been recommended in the minority report. The Commonwealth Government agreed with the majority of the Commission that child endowment could not be separated from the control of the basic wage—a power which the Commonwealth did not possess and which

* Family Endowment Act 1927; Finance (Family Endowment Tax) Act 1927; Industrial Arbitration (Living Wage Declaration) Act 1927 and subsequent amendments.

† This was subsequently declared at £4 5s. per week for adult males and £2 6s. per week for adult females. A separate rate for rural employees was declared later at £4 4s. per week.

‡ The Chairman of the Commission (Mr. A. B. Piddington, K.C.), in a supplementary report had suggested that the wage recommended (£5 16s.) be split up into a flat basic wage of £4 and a Child Endowment of 12s. per week for each dependent child, the fund for the payment of this allowance to be created by a tax on employers of 10s. 9d. per employee per week.

the States were not prepared to relinquish. The Government, therefore, did not propose to establish any system of child endowment. It was generally agreed that any scheme which would increase the charges upon industry would be unwise at that particular time. The matter of child endowment was accordingly left to be dealt with as the State Governments should think proper.

The findings and recommendations in the *majority* and *minority* reports are given in *Labour Report*, No. 19.

§ 5. Changes in Rates of Wage.

The collection of detailed information relating to changes in rates of wage was discontinued at the end of the year 1929, owing to the difficulty of securing reliable data. Officials of employers' organizations and trade unions reported that they were unable to supply definite particulars as to the number of workpeople affected by Commonwealth and State awards and determinations. In order to secure comprehensive and reliable data it would have been necessary to extend considerably the field of collection, and after serious consideration, and in view of the fact that the demand for the figures had been limited, it was decided that the additional expense and work involved were too heavy to justify the continuance of the tabulation.

D.—EMPLOYMENT.

§ 1. Industrial Disputes.

1. *General*.—Information with regard to the collection of particulars and the methods of tabulation of industrial disputes involving stoppage of work has appeared in previous issues of the Official Year Book, and is also given in the annual Labour Reports of this Bureau.

In *annual* tabulations particulars are included of all disputes which either *commenced* or were *current* during the year under review. As regards "number of disputes", "establishments involved", and "workpeople involved", therefore, duplication will take place in respect of those disputes which started in and were unsettled at the end of a preceding year; the number involved will, however, be indicated in a footnote, to permit of due allowance being made in any calculations made from the tables.

2. *Industrial Disputes Involving Stoppage of Work, Classified in Industrial Groups, 1938*.—The following tables give particulars of industrial disputes which either commenced or were current during the year 1938, classified according to industrial groups.

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1938.

Class.	Industrial Group.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.		
				Directly.	Indirectly.	Total.				
NEW SOUTH WALES.										
II.	Engineering, metal works, etc...	13	18	1,171	2,591	3,762	217,686	£ 180,743		
III.	Food, drink, etc.	8	10	3,260	145	3,405	6,495	5,969		
IV.	Clothing, textiles, etc.	1	1	217	..	217	8,246	6,185		
VI.	Other manufacturing	5	5	390	130	520	11,723	9,043		
VIII.	(a) Coal-mining	302	438	109,219	3,798	113,017	719,310	768,799		
	(b) Other mining, quarries, etc.	5	5	1,570	..	1,570	6,474	6,903		
XI.	Shipping, wharf labour, etc.	2	2	273	1,490	1,763	58,805	34,811		
XIV.	Miscellaneous	4	4	278	6	284	688	462		
Total		340	483	116,378	8,160	124,538	1,029,427	1,012,915

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1938—continued.

Class.	Industrial Group.	Number.	Estab-lishments In-volved.	Workpeople Involved.			Working Days Lost.	Esti-mated Loss in Wages.
				Directly.	In-directly.	Total.		
VICTORIA.								
I.	Wood, saw-mills, etc. ..	2	2	72	11	83	5,412	£ 4,670
II.	Engineering, metal works, etc. ..	3	3	414	15	429	14,027	13,300
III.	Food, drink, etc. ..	1	1	19	..	19	57	46
IV.	Clothing, textiles, etc. ..	6	13	2,003	1,736	3,739	25,520	15,348
VII.	Building ..	2	12	920	850	1,770	9,520	8,847
VIII.	(a) Coal-mining ..	5	7	4,250	..	4,250	49,800	45,384
	Total	19	38	7,678	2,612	10,290	104,336	87,595
QUEENSLAND.								
VIII.	(a) Coal-mining ..	3	7	2,635	..	2,635	87,298	87,166
XI.	Shipping, wharf labour, etc. ..	1	1	13	..	13	169	148
XIV.	Miscellaneous ..	1	1	9	..	9	72	65
	Total	5	9	2,657	..	2,657	87,539	87,379
SOUTH AUSTRALIA.								
II.	Engineering, metal works, etc. ..	1	1	31	..	31	155	120
XI.	Shipping, wharf labour, etc. ..	1	1	42	52	94	94	103
	Total	2	2	73	52	125	249	223
WESTERN AUSTRALIA.								
I.	Wood, saw-mills, etc. ..	1	1	400	..	400	4,000	3,200
II.	Engineering, metal works, etc. ..	2	2	97	120	217	741	598
VII.	Building ..	1	15	2,000	500	2,500	25,000	23,000
VIII.	(a) Coal-mining ..	2	2	277	..	277	2,777	280
	(b) Other mining, quarries, etc.	1	1	220	30	250	13,750	16,200
	Total	7	21	2,994	650	3,644	43,768	43,278
TASMANIA.								
VIII.	(a) Coal-mining ..	2	4	2,200	..	2,200	72,175	72,030
NORTHERN TERRITORY.								
XIV.	Miscellaneous ..	1	1	500	..	500	500	400
AUSTRALIA.								
I.	Wood, saw-mills, etc. ..	3	3	472	11	483	9,412	7,870
II.	Engineering, metal works, etc. ..	19	24	1,713	2,726	4,439	232,609	194,761
III.	Food, drink, etc. ..	9	11	3,279	145	3,424	6,552	6,015
IV.	Clothing, textiles, etc. ..	7	14	2,220	1,736	3,956	33,766	21,533
VI.	Other manufacturing ..	5	5	390	130	520	11,723	9,043
VII.	Building ..	3	27	2,920	1,350	4,270	34,520	31,847
	(a) Coal-mining ..	314	458	118,581	3,798	122,379	928,860	973,659
VIII.	(b) Other mining, quarries, etc.	6	6	1,790	30	1,820	20,224	23,103
XI.	Shipping, wharf labour, etc. ..	4	4	328	1,542	1,870	59,068	35,062
XIV.	Miscellaneous ..	6	6	787	6	793	1,260	927
	Total	376	558	132,480	11,474	143,954	1,337,994	1,303,820

3. Industrial Disputes, Australia, 1934 to 1938.—The following table gives particulars of the number of industrial disputes, the number of workpeople involved, and the losses in working days and wages caused by disputes which either commenced or were current during each of the years 1934 to 1938, classified according to industrial groups.

Satisfactory comparisons of the frequency of industrial disputes in classified industries can be made only after omitting those which are recorded for coal-mining (Group VIII(a)). For the year 1913 the proportion of disputes in the mining industry represented practically 50 per cent. of the total number recorded. In subsequent years the proportion remained high, ranging from 45 per cent. in 1917 and 1918 to as much as 85 in 1938. In the past five years working days lost through dislocations involving work people engaged in coal-mining amounted to 1,813,668, representing 56 per cent. of the total loss of working days during the period:—

INDUSTRIAL DISPUTES : AUSTRALIA.

Year.	Manu- facturing. (Groups I. to VI.)	Building. (Group VII.)	Mining (Group VIII.)		Transport, Land and Sea. (Groups IX. to XI.)	Miscel- laneous. (Groups XII. to XIV.)	ALL GROUPS.
			Coal Mining.	Other Mining, etc.			
NUMBER.							
1934 ..	13	1	91	9	6	35	155
1935 ..	21	4	108	9	21	20	183
1936 ..	30	3	171	13	3	15	235
1937 ..	59	2	249	12	6	14	342
1938 ..	43	3	314	6	4	6	376
1934-38 ..	166	13	933	49	40	90	1,291
WORKPEOPLE INVOLVED.							
1934 ..	7,284	54	23,622	7,862	3,169	8,867	50,858
1935 ..	4,086	49	31,519	2,795	6,142	2,731	47,322
1936 ..	5,480	581	45,600	7,022	375	1,529	60,587
1937 ..	17,353	30	72,492	3,543	574	2,181	96,173
1938 ..	12,822	4,270	122,379	1,820	1,870	793	143,954
1934-38 ..	47,025	4,984	295,612	23,042	12,130	16,101	398,894
WORKING DAYS LOST.							
1934 ..	73,878	108	190,363	41,800	14,002	50,235	370,386
1935 ..	62,423	1,294	162,633	64,824	100,774	103,176	495,124
1936 ..	199,641	2,337	224,113	37,582	8,087	25,488	497,248
1937 ..	214,869	180	307,609	20,736	2,959	10,668	557,111
1938 ..	294,062	34,520	928,860	20,224	59,068	12,60	1,337,994
1934-38 ..	844,873	38,439	1,813,668	185,166	184,890	190,827	3,257,863
ESTIMATED LOSS IN WAGES.							
1934 ..	£ 49,364	£ 80	£ 186,027	£ 37,806	£ 10,164	£ 34,328	£ 317,859
1935 ..	£ 47,079	£ 1,143	£ 164,648	£ 57,791	£ 61,249	£ 58,686	£ 390,596
1936 ..	£ 160,259	£ 1,846	£ 249,767	£ 36,408	£ 5,480	£ 15,065	£ 468,825
1937 ..	£ 165,618	£ 211	£ 313,052	£ 20,133	£ 2,572	£ 5,159	£ 506,745
1938 ..	£ 239,222	£ 31,847	£ 973,659	£ 23,103	£ 35,062	£ 927	£ 1,303,820
1934-38 ..	£ 661,542	£ 35,127	£ 1,887,153	£ 175,331	£ 114,527	£ 114,165	£ 2,987,845

4. Summary of Disputes (involving Stoppage of Work), 1934 to 1938.—The following table gives particulars of the number of industrial disputes in each State in the years 1934 to 1938 together with the workpeople involved, the working days lost, and the estimated loss in wages:—

INDUSTRIAL DISPUTES: SUMMARY.

State or Territory.	Year.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly.	In-directly.	Total.		
New South Wales	1934	117	129	33,065	2,943	36,008	213,753	£ 196,265
	1935	134	162	31,350	2,055	33,405	301,345	237,707
	1936	188	231	50,557	1,728	52,285	432,513	414,375
	1937	296	391	84,323	3,515	87,838	434,617	403,158
	1938	340	483	116,378	8,160	124,538	1,029,427	1,012,915
Victoria	1934	19	84	8,074	354	8,428	108,872	82,438
	1935	20	30	7,658	243	7,901	45,713	31,280
	1936	10	22	1,599	224	1,823	12,251	9,890
	1937	11	11	3,770	44	3,814	70,753	57,182
	1938	19	38	7,678	2,612	10,290	104,336	87,595
Queensland	1934	7	830	2,453	420	2,873	29,718	24,200
	1935	13	29	1,794	201	1,995	73,351	57,961
	1936	12	12	1,052	194	1,246	14,653	12,325
	1937	10	11	702	203	905	15,681	15,699
	1938	5	9	2,657	..	2,657	87,539	87,379
South Australia	1934	1	1	44	..	44	11	17
	1935	3	5	340	..	340	2,463	1,557
	1936	1	1	101	..	101	505	400
	1937	6	15	1,257	52	1,309	3,931	2,464
	1938	2	2	73	52	125	249	223
Western Australia	1934	10	16	3,309	176	3,485	17,792	14,699
	1935	11	29	3,597	6	3,603	71,976	61,901
	1936	19	49	3,408	1,309	4,717	32,408	27,714
	1937	12	45	1,445	220	1,665	14,397	12,570
	1938	7	21	2,994	650	3,644	43,768	43,278
Tasmania	1934	1	1	70	4	74	148	91
	1935	4	4	369	6	375	3,718	3,212
	1936	4	7	374	5	379	17,016	14,964
	1937	2	4	2,200	..	2,200	72,175	72,030
	1938	1	1	18	2	20	240	240
Northern Territory	1934	1	1	4	..	4	128	100
	1935	1	1	32	8	40	1,200	900
	1936	3	3	160	13	173	666	708
	1937	1	1	500	..	500	500	400
	1938	..	..	..	..	..	..	..
Aust. Cap. Territory	1934	..	..	..	..	..	..	..
	1935	..	..	..	..	..	..	..
	1936	..	..	..	..	..	..	..
	1937	..	..	..	..	..	..	..
	1938	..	..	..	..	..	..	..
Australia	1934	155	1,061	46,963	3,895	50,858	370,386	317,859
	1935	183	257	44,813	2,509	47,322	495,124	390,596
	1936	235	320	57,118	3,469	60,587	497,248	468,825
	1937	342	483	92,121	4,052	96,173	557,111	506,745
	1938	376	558	132,480	11,474	143,954	1,337,994	1,303,820

Detailed information in regard to the disputes during the years 1934 to 1938 and previous years is given in the Labour Reports issued by this Bureau.

5. Particulars of Principal Disputes in 1938.—(i) *General.* The preceding tables show the number and effect of all disputes for the year 1938 classified according to Industrial Groups. Increases occurred in several of the principal groups during 1938 in respect of workpeople involved, and the number of working days and amount of wages lost. Of the total number of disputes no less than 84 per cent. were in connexion with the coal-mining industry, mostly in New South Wales. Wages lost in this industry in New South Wales were estimated at £768,799, or 59 per cent. of the total estimated loss of wages in Australia, viz., £1,303,820. Brief particulars are given in the following paragraphs of the disputes mainly responsible for losses in working days and wages in 1938.

(ii) *Interstate*.—Disputes which extend beyond the limits of a single State, while in some cases extensive, are comparatively few in number. These disputes rarely start on an interstate basis, but develop into such through the interdependence of trade union organizations.

During the year 1938 one dispute of an interstate character occurred. This dispute, which commenced in September, affected the coal-mining industry in New South Wales, Victoria, Queensland and Tasmania, the refusal of the colliery proprietors to accept a log of claims served on behalf of their employees being given as the cause.

The following concessions were demanded :—

- (1) A five-day week of six hours a day without a reduction in pay.
- (2) All workers employed on piecework or contract to be guaranteed a minimum wage.
- (3) The various Governments to introduce a special Compensation Act to cover the coal-mining industry.
- (4) Mine-workers, on reaching the age of 60 years, to receive a pension of £2 per week.
- (5) Employees to be paid for fourteen days' holiday annually.
- (6) Wages to be paid weekly.

A compulsory conference ordered by the Commonwealth Court of Conciliation and Arbitration on 23rd September proved abortive and the dispute was referred into Court. On 4th October the New South Wales Minister for Labour and Industry called a conference in the hope that a basis of settlement could be arrived at, and on the 10th a compulsory conference was summoned by the Queensland State Industrial Court at Brisbane. The last-mentioned conference was adjourned indefinitely, but as a result of the conference called by the New South Wales Minister for Labour and Industry a basis of settlement was unanimously agreed to by representatives of all the unions involved.

The terms of settlement, which were ratified at mass meetings of the employees, were :—

- (1) That the hearing of the commission of inquiry into health and safety in mines shall be concluded as quickly as possible.
- (2) Purely industrial matters to be referred for determination by arbitration.
- (3) That consideration of the most suitable form of pensions commission shall be immediately taken up with the combined unions' representatives in the four States involved.

Work was resumed after a stoppage lasting five weeks and directly affecting approximately 21,000 workpeople.

(iii) *New South Wales*.—Dissatisfaction with the terms of an award made by the State Arbitration Court was the cause of a dispute involving 1,500 members of the Federated Ironworkers Union at Lysaght's Works, Newcastle, in January, 1938. After negotiations to arrange a conference between the parties had failed, a conference presided over by Mr. Justice Cantor was held, but no finality was reached. A suggestion by the Judge that more progress might be made if he discussed the matter separately with each party was agreed to, and after several interviews had been held a satisfactory basis of settlement was reached. After a stoppage of fourteen weeks, work was resumed under award conditions pending an application to the Industrial Court.

In February, 1938, a demand for a 5 per cent. increase on award rates for all shift-workers involved in a dispute moulders employed by the Commonwealth Steel Company at Waratah. At a compulsory conference convened by the Commonwealth Industrial Registrar a proposal that they resume on a daywork basis pending an application to the Court was accepted by the employees and work was resumed after a stoppage of more than thirteen weeks.

A dispute lasting nearly five months and involving sixty-five engineers employed by the Australian Gas Light Company, at Mortlake, occurred in May, 1938. Work ceased after a claim for an increase of five shillings per week on the rates being paid under an industrial agreement had been rejected by the Company. At a compulsory conference convened by the State Arbitration Court, it was suggested that the men should return to work and submit their claims to the Industrial Commission, but the proposal was rejected. Direct negotiations proving abortive a settlement was arrived at through the intervention of a member of the State Government. The industry was not seriously affected by the dispute.

Refusal to load a cargo of pig iron for Japan alleged to be intended for the manufacture of arms for use in war, was given as the cause of a dispute in November, 1938, which lasted for approximately eight weeks and involved members of the Waterside Workers' Union at Port Kembla. After several unsuccessful attempts at settlement by direct negotiation the Commonwealth Government applied the licensing provisions of the Transport Workers' Act to Port Kembla.

This action did not have the desired effect as no applications for licences were received. A conference arranged subsequently between Commonwealth Government officials and Union representatives agreed to the following proposals:—

- (1) Waterside Workers to load the disputed cargo.
- (2) Conditionally upon the unionists accepting the first proposal the licensing provision of the Transport Workers' Act to be withdrawn.
- (3) Arrangements to be made for Trade Unions to submit to the Prime Minister and Attorney-General questions of policy relative to the export of iron from Australia.

The proposals on being submitted to a meeting of unionists were at first rejected, but ultimately work was resumed under conditions agreed to by conference.

(iv) *Victoria*.—The alleged victimization of employees and a demand for a five-day week involved timber workers in a dispute at Hayden Bros.' Saw Mill, Barwon Downs, in April, 1938. An application to the Commonwealth Arbitration Court for the suspension of the Timber Workers' Award was made by the employers but after hearing had commenced the Chief Judge suggested a conference between the parties. This was agreed to and terms of settlement arrived at, work being resumed after a stoppage of about thirteen weeks.

The refusal of a claim for an increase of six shillings per week on all marginal rates, which was included in a log of claims served on the State Electricity Commission by the Amalgamated Engineering Union, was given as the cause of a dispute at Yallourn in June, 1938. A conference was held at which the Commission presented their terms of settlement which included a service grant to employees with four or more years of service; cumulative sick leave up to a maximum of sixteen days; an extra three shillings per week for motor mechanics and double time for work on Sundays and statutory holidays. The proposals were at first rejected by the employees, but later negotiations between the Trades Hall Disputes Committee and the Commission resulted in an agreement being reached after a stoppage of approximately thirteen weeks.

(v) *Western Australia*.—Refusal to reinstate an employee who was dismissed for allegedly doing insufficient work caused a stoppage of work at the Lancefield Gold Mine in March, 1938. A conference was held but no satisfactory result was attained. The dispute was eventually settled through the mediation of a member of the Legislative Council who suggested that the Assistant President of the State Arbitration Court should adjudicate on the question of victimization. This proposal was agreed to by the employees and work was resumed after a stoppage of about eight weeks.

6. Duration of Industrial Disputes, 1938.—The following table gives particulars of industrial disputes during 1938 according to certain adopted limits of duration :—

INDUSTRIAL DISPUTES : DURATION, AUSTRALIA, 1938.

Limits of Duration.	Number.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
		Directly.	Indirectly.	Total.		
1 day and less ..	196	68,015	813	68,828	68,828	77,346
2 days and more than 1 day	56	15,928	462	16,390	32,780	33,069
3 days and more than 2 days	38	8,869	793	9,662	28,986	31,233
Over 3 days and less than 1 week (6 days) ..	27	6,469	675	7,144	31,558	33,159
1 week and less than 2 weeks	30	7,826	5,971	13,797	115,605	98,218
2 weeks and less than 4 weeks	11	1,461	101	1,562	23,534	21,256
4 weeks and less than 8 weeks	13	23,376	1,327	24,703	887,172	883,426
8 weeks and over	5	536	1,332	1,868	149,531	126,113
Total	376	132,480	11,474	143,954	1,337,994	1,303,820

7. Causes of Industrial Disputes, 1913 to 1938.—The following table shows the principal causes of the industrial disputes which occurred in 1913 and from 1933 to 1938:—

INDUSTRIAL DISPUTES : CAUSES, AUSTRALIA.

Causes of Dispute.	1913.	1933.	1934.	1935.	1936.	1937.	1938.
	NUMBER.						
1. Wages—							
(a) For increase ..	42	1	10	9	16	28	10
(b) Against decrease ..	4	4	3	5	1	1	2
(c) Other wage questions ..	31	14	31	44	48	77	67
2. Hours of Labour—							
(a) For reduction ..	3				1	2	2
(b) Other disputes re hours ..	7	7	6	2	4	4	1
3. Trades Unionism—							
(a) Against employment of non-unionists ..	8	1	4	4	4	5	5
(b) Other union questions ..	5	3	8	12	16	24	43
4. Employment of particular Classes or Persons ..	44	35	52	53	81	80	106
5. Working Conditions ..	51	9	25	40	43	72	73
6. Sympathetic ..	5		3	1	5	11	4
7. Other Causes ..	8	16	13	13	16	38	63
Total	208	90	155	183	235	342	376

WORKPEOPLE INVOLVED.

1. Wages—							
(a) For increase ..	8,633	29	7,210	2,161	2,014	7,678	967
(b) Against decrease ..	563	2,178	2,817	339	40	15	914
(c) Other wage questions ..	7,160	4,336	8,335	11,804	12,930	21,588	21,399
2. Hours of Labour—							
(a) For reduction ..	460				20	429	4,050
(b) Other disputes re hours ..	1,819	2,620	309	1,601	488	1,474	36
3. Trades Unionism—							
(a) Against employment of non-unionists ..	5,370	89	383	581	1,612	3,542	1,659
(b) Other union questions ..	1,418	705	2,184	2,532	4,011	5,889	13,241
4. Employment of particular Classes or Persons ..	11,370	11,803	15,638	11,497	22,978	20,401	30,020
5. Working Conditions ..	10,785	4,503	6,062	11,298	10,985	17,854	40,206
6. Sympathetic ..	947		1,045	22	1,062	3,235	1,260
7. Other Causes ..	1,758	3,850	6,875	5,487	4,447	14,068	30,202
Total	50,283	30,113	50,858	47,322	60,587	96,173	143,954

INDUSTRIAL DISPUTES: CAUSES, AUSTRALIA—*continued.*

Causes of Dispute.	1913.	1933.	1934.	1935.	1936.	1937.	1938.
WORKING DAYS LOST.							
1. Wages—							
(a) For increase	100,069	87	108,277	72,567	33,439	144,372	32,390
(b) Against decrease	9,438	17,431	35,459	1,621	120	30	7,340
(c) Other wage questions	78,183	18,736	40,219	73,020	32,068	107,904	116,468
2. Hours of Labour—							
(a) For reduction	2,774				340	1,897	34,300
(b) Other disputes re hours	15,111	8,895	1,748	48,878	9,577	4,444	900
3. Trades Unionism—							
(a) Against employment of non-unionists	91,002	89	3,263	2,615	7,509	20,750	2,906
(b) Other union questions	32,388	1,421	10,774	11,696	9,616	9,569	80,280
4. Employment of particular Classes or Persons	191,723	31,799	110,166	144,453	266,310	138,428	104,454
5. Working Conditions	73,562	22,865	26,223	64,612	119,475	85,746	744,147
6. Sympathetic	24,066		11,174	44	10,209	11,230	4,440
7. Other Causes	5,212	10,633	23,083	75,618	8,583	32,743	210,369
Total	623,528	111,956	370,386	495,124	497,248	557,111	1,337,994

The main causes of industrial disputes are "Wage" questions, "Working Conditions," and "Employment of Particular Classes or Persons." In each of the years 1913 to 1925 with the exception of 1922, the number of dislocations concerning wages exceeded those caused by any other question, and varied between a minimum proportion of 26 per cent. in 1922 and a maximum of 45 per cent. in 1916. Since 1929 the number of disputes concerning "Wages" has averaged 28 per cent. of the total number for each year. The majority of the dislocations of work classified under the heading, "Employment of Particular Classes or Persons," are stoppages for the purpose of protesting against the dismissal of certain employees, who, in the opinion of their fellow-workers, have been unfairly treated or victimized. This class of dispute occurs very frequently in the coal-mining industry, and has been the principal cause of industrial disturbance in recent years. The number of disputes over "Trade Union" questions has represented a fairly uniform proportion of the total number of disputes during the years under review, while stoppages of work concerning "Hours of Labour" increased during 1926 and 1927, but have been relatively unimportant during recent years.

8. Results of Industrial Disputes.—The results of industrial disputes during each of the past six years are given in the following table:—

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO RESULTS: AUSTRALIA.

Year.	Number.				Workpeople Involved.				Working Days Lost.			
	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.
1933..	17	58	13	1	4,778	20,697	4,361	213	12,301	84,697	14,468	426
1934..	29	102	14	9	7,025	31,220	9,620	2,729	40,048	179,126	126,081	19,059
1935..	44	105	17	15	9,312	30,338	4,359	3,179	67,933	346,666	62,007	10,194
1936..	44	165	7	19	13,997	40,279	908	5,403	248,363	179,748	7,027	62,110
1937..	86	206	7	41	23,939	58,665	713	12,273	192,181	285,755	3,744	37,395
1938 ^a	94	229	18	34	24,953	75,100	6,037	36,201	90,375	149,050	45,205	1,022,521

(a) See next paragraph.

The following particulars of a dispute, which was incomplete at 31st December, 1938, should be added to the above figures to effect a balance with those published in the preceding tables:—

State.	Number.	Establishments Involved.	Workpeople.	Working Days Lost.
New South Wales	1	1	1,663	29,934

9. Methods of Settlement.—The following table gives a classification of the methods of settlement according to the adopted schedule :—

INDUSTRIAL DISPUTES : METHODS OF SETTLEMENT, AUSTRALIA.

Methods of Settlement.	1913.	1933.	1934.	1935.	1936.	1937.	1938.(a)
NUMBER.							
Negotiation—							
Direct between employers and employees or their representatives	119	64	84	130	174	265	245
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	17	1	2	3	16	9	17
Under State Industrial Act—							
By intervention, assistance, or compulsory conference	19	3	10	7	3	6	3
By reference to Board or Court	22	3	9	6	6	4	9
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	4	2	5	5	2	2	9
By filling places of workpeople on strike or locked out	13	2	2	8	4	5	..
By closing-down establishment permanently	1	3	2	4	..	1	..
By other methods	13	11	40	18	30	48	92
Total	208	89	154	181	235	340	(a) 375
WORKPEOPLE INVOLVED.							
Negotiation—							
Direct between employers and employees or their representatives	23,357	19,703	25,469	30,360	44,251	72,430	70,481
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	3,172	1,100	891	285	5,061	2,764	4,845
Under State Industrial Act—							
By intervention, assistance, or compulsory conference	6,505	1,290	4,559	3,867	291	1,804	1,844
By reference to Board or Court	12,774	1,390	1,666	1,145	1,746	428	5,519
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	659	1,096	4,335	2,017	339	480	21,289
By filling places of workpeople on strike or locked out	658	986	138	3,670	141	825	..
By closing-down establishment permanently	170	1,271	444	108	..	86	..
By other methods	2,988	3,213	13,092	5,436	8,758	16,773	38,313
Total	50,283	30,049	50,594	47,188	60,587	95,590	(a) 142,291
WORKING DAYS LOST.							
Negotiation—							
Direct between employers and employees or their representatives	94,400	54,774	182,260	192,903	234,373	396,410	203,175
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	26,335	6,600	20,019	3,211	202,949	18,517	64,220
Under State Industrial Act—							
By intervention, assistance, or compulsory conference	187,871	3,510	58,801	117,762	3,047	48,769	11,796
By reference to Board or Court	221,769	6,330	10,474	16,961	24,503	7,354	326,881
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	2,105	15,437	46,814	24,601	7,152	4,120	629,075
By filling places of workpeople on strike or locked out	14,139	10,543	138	74,873	2,581	12,571	..
By closing-down establishment permanently	20,400	8,627	4,486	7,546	..	172	..
By other methods	56,509	6,071	41,322	48,943	22,643	31,162	72,913
Total	623,528	111,892	364,314	486,800	497,248	519,075	(a) 1,308,060

(a) See previous paragraph.

The majority of disputes are settled by direct negotiations between employers and employees, the proportion so settled since 1913 ranging between 43 per cent. in 1925 and 75 per cent. in 1930. Of the 375 disputes settled during 1938, 245 or 65 per cent. were settled by this method. The proportion of dislocations settled by compulsory conferences or the intervention and assistance of officials under State or Commonwealth Arbitration Acts has varied considerably during the period under review, ranging from 3 per cent. in 1915 to 22 per cent. in 1913. The proportion in 1938 was 6 per cent. In connexion with the comparatively large number of disputes which are classified as having been settled "By other methods," many stoppages of work occur each year, principally at collieries, but the cause of such stoppages is not officially known to the employers or their representatives. Such stoppages usually last for one day, and work is resumed without negotiations for a settlement of the trouble.

§ 2. Fluctuations in Employment.

1. **General.**—The particulars given in the following tables are based upon information furnished by the secretaries of trade unions. The membership of the unions regularly reporting exceeds 460,000. Unemployment returns are not collected from unions the members of which are in permanent employment, such as railway and tramway employees, and public servants, or from unions whose members are casually employed (wharf labourers, etc.). Very few of the unions pay unemployment benefit, but the majority of the larger organizations have permanent secretaries and organizers who are closely in touch with the members and with the state of trade within their particular industries. In many cases unemployment registers are kept, and provision is made in the rules for payment of reduced subscriptions by members out of work. In view of these facts, and of the large membership of the unions from which quarterly returns are received, the percentages of unemployment derived from Trade Union returns may be regarded as of value by virtue of the indication they give of the relative intensity of unemployment from time to time. Seasonal fluctuations in unemployment have been provided for by collecting returns quarterly since the 1st January, 1913, the yearly figures quoted representing the average of the four quarters.

2. **Unemployment.**—(i) *States.* In addition to the qualifications referred to above, allowance must be made for the circumstance that the industries included in the returns from trade unions are not quite identical in the various States.

UNEMPLOYMENT, 1938.

State.	Unions Reporting.		Unemployed.	
	Number.	Members.	Number.	Percentage.
New South Wales	112	197,192	19,477	9.9
Victoria	79	124,184	10,718	8.6
Queensland	45	64,793	4,181	6.4
South Australia	56	37,588	3,126	8.3
Western Australia	64	32,678	1,851	5.7
Tasmania	34	9,890	785	7.9
Australia	390	466,325	40,138	8.7

(ii) *Summary for Australia.* The following table gives a summary for Australia for the last five years and quarterly for the years, 1935 to 1938. Particulars of unemployment percentages in 1939 will be found in the Appendix :—

UNEMPLOYMENT : AUSTRALIA.

Period.	Unions.	Membership.	Unemployed.	
			Number.	Percentage.
1934 Year	394	424,935	86,865	20.5
1935 "	396	435,938	71,823	16.5
1936 "	392	441,311	53,992	12.2
1937 "	387	449,588	41,823	9.3
1938 "	390	466,325	40,138	8.7
1935 March Quarter	396	433,116	80,548	18.6
June "	397	433,254	77,177	17.8
September "	395	438,216	69,575	15.9
December "	395	439,165	59,992	13.7
1936 March "	395	445,294	59,621	13.4
June "	394	446,564	57,001	12.8
September "	390	436,139	52,482	12.0
December "	390	437,246	46,863	10.7
1937 March "	388	443,446	44,004	9.9
June "	387	447,714	43,584	9.7
September "	387	451,584	42,145	9.3
December "	387	455,608	37,558	8.2
1938 March "	386	462,258	36,751	8.0
June "	386	463,748	39,464	8.6
September "	394	468,174	42,672	9.2
December "	395	471,121	41,667	8.9

Note.—Similar figures for each of the four quarters of the years since 1912 will be found in the Labour Reports. The quarterly figures show the number of persons who were out of work for three days or more during a specified week in each quarter, and the annual figures, the average of the four quarters; the returns do not include persons out of work through strikes or lock-outs.

The highest percentage of unemployed yet recorded (30.0) was reached in the quarter ended June, 1932.

(iii) Percentages in States. The following table gives the percentages in each State from 1934 to 1938 :—

UNEMPLOYMENT : PERCENTAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Australia.
	%	%	%	%	%	%	%
1934 Year	24.7	17.4	11.7	25.6	17.8	17.4	20.5
1935 "	20.6	14.0	8.7	17.6	13.4	13.2	16.5
1936 "	15.4	10.7	7.8	10.8	8.1	9.8	12.2
1937 "	10.9	9.0	7.3	8.2	5.6	7.0	9.3
1938 "	9.9	8.6	6.4	8.3	5.7	7.9	8.7
1936 March Quarter	17.2	10.8	8.5	12.2	10.3	10.8	13.4
June "	16.2	10.6	8.5	11.0	9.2	9.4	12.8
Sept. "	14.8	11.7	7.2	10.0	7.4	9.8	12.0
Dec. "	13.3	9.7	7.2	9.9	5.6	9.1	10.7
1937 March "	11.8	9.5	7.7	9.5	5.4	7.8	9.9
June "	11.4	9.6	7.6	8.3	5.6	6.9	9.7
Sept. "	10.5	9.5	7.2	8.4	6.6	7.2	9.3
Dec. "	10.1	7.3	6.6	6.5	5.0	7.1	8.2
1938 March "	9.6	7.3	6.6	6.9	4.8	5.7	8.0
June "	9.8	8.5	7.2	7.5	5.3	7.2	8.5
Sept. "	10.0	9.7	6.3	10.0	6.1	8.5	9.1
Dec. "	10.1	9.0	5.7	8.8	6.5	10.2	8.8

(a) Revised Series. These percentages, which for years prior to 1938 replace those published in Year Book No. 31, are based on the returns of reporting unions after excluding certain females from Class III. (food, drink, &c.). The females excluded, although substantially all employed from January to March are for the rest of the year not "unemployed" in the sense that they are seeking jobs unsuccessfully in their own industry. They are either employed in other occupations (e.g., paid domestic service) or are engaged in home duties.

(iv) *Industrial Groups. Australia.* The next table shows the percentages unemployed in industrial groups. Industries or occupations in which employment is stable, such as railways, and those which are subject to exceptional fluctuations, such as wharf labour, agricultural, pastoral, etc., are not included. Other occupations—domestic, hotel employees, etc.—are included in the "Other and Miscellaneous" group, as their returns are not sufficiently representative:—

UNEMPLOYMENT IN INDUSTRIAL GROUPS: AUSTRALIA, 1938.

Industrial Group.	Number Reporting.		Unemployed.	
	Unions.	Members.	Number.	Percentage.
Manufacturing—				
I. Wood, Furniture, etc. . .	16	18,452	1,808	9.9
II. Engineering, Metal Works, etc. . .	62	84,097	3,873	4.6
III. Food, Drink, Tobacco, etc. . .	54	39,784	6,738	17.0
IV. Clothing, Hats, Boots, etc. . .	21	42,221	5,145	12.4
V. Books, Printing, etc. . .	12	21,241	792	3.7
VI. Other Manufacturing . . .	63	48,944	4,939	10.1
VII. Building . . .	47	52,413	4,077	7.9
VIII. Mining, Quarrying, etc. . .	20	26,312	3,292	12.5
X. Land Transport other than Rail- way and Tramway Services . .	12	18,743	1,751	9.2
IX., XI., XII., XIII., and XIV. Other and Miscellaneous . .	83	114,118	7,723	6.7
All Groups	390	466,325	40,138	8.7

3. *Seasonal Employment in Australia.*—An investigation concerning the extent of seasonal employment in Australia was made during 1929. The State Statisticians were requested to furnish brief reports regarding the industries and callings in their respective States subject to seasonal fluctuations. From the reports received from these officials, supplemented by information from other sources, particulars were compiled and published in Official Year Book, No. 22, and in *Labour Report*, No. 19.

4. *Direct Measures of Employment.*—(i) *General.* In order to supplement the trade union unemployment percentages, the Commonwealth and the State Statisticians have been making for the last five years direct monthly collections of employment in factories and retail stores. In the case of factories, these figures give fairly reliable indexes of the course of employment fully a year before the results of the annual collections become available. In the case of retail stores, the figures yield an index of employment where none existed before. These indexes are also published in the *Monthly Review of Business Statistics* and quarterly in mimeographed statements.

(ii) *Index of Employment in Factories.* This index is available monthly from July, 1933. "Factories" include all industrial establishments in which four or more hands are employed, or in which power other than hand is used. The index relates to employees on the pay roll on the pay day nearest to the 15th of the month, and includes managers, overseers, clerks and all workers except working proprietors and those engaged solely in the delivery and sale of goods.

Up to June, 1938, the index is based on the results of annual factory censuses, and actual mid-monthly factory employment of all persons is published in the *Production Bulletin* issued by the Bureau. For the year 1938-39 the index is based on returns from selected representative factories, and is issued subject to subsequent revision. Index-numbers for later months, estimated in the same way, may be obtained from the *Monthly*

Review of Business Statistics and quarterly press notices on employment issued by the Bureau. The number of these "sample" factories and their employees as a percentage of all factory employees in the year 1937-38 are shown at the foot of the table.

For the last three columns of the table the Australian index of employment has been divided by an index of employee population in order to compare the change in employment in factories with the change in the number of persons seeking employment generally. The indexes of employee population are based on the numbers of males and females aged 16 to 64 inclusive. These are found by applying vital and migration statistics to the numbers of males and females at varying ages at the Census date. The total index is obtained by taking a mean of the individual indexes weighted by the numbers of males and females in the employee group (wage and salary earners, unemployed, apprentices, and helpers) at the census of June, 1933. This gives males about three times the weight of females. Between 1928-29 and 1937-38 employee population as estimated in this way increased: males, 11.0 per cent.; females, 13.2 per cent.; total, 11.6 per cent. The increase of population of all ages over the same period was: males, 7.0 per cent.; females, 9.2 per cent.; total, 8.1 per cent. The difference is due to the fact that the average age of the Australian population is increasing.

The index of total factory employment, divided by the index of employee population fluctuated between 100 and 105 from 1926-27 to 1928-29 (the base year). It fell to 71 in 1931-32, the peak year of the depression, and then rose steadily each year thereafter to 111 in 1937-38. It receded to 109 in 1938-39. The relative employment in factories was considerably higher in 1938-39 than it was in pre-depression years.

There have been changes in the distribution of factory employment. Thus female factory employment began to increase in 1931-32, a year sooner than male employment, and between 1928-29 and 1936-37 it had increased by 4 per cent. more than male employment, after allowing for the growth of employee population. The figures for 1937-38 show that this difference was reduced to 2 per cent. during that period and the returns from the "sample" factories indicate that this margin was maintained in 1938-39. During 1938-39 total employment in Western Australia, South Australia and Queensland in that order fell below the average Australian level, while in Tasmania it rose considerably above the average.

(iii) *Index of Employment in Retail Stores.* This index is not available even annually before July, 1933. It is based on employment in the number of establishments shown at the foot of the table. As there is no annual census of employment in retail stores, there is no means of knowing how accurately the movement of employment in these stores represents the whole field. Consequently this index is much less reliable than the index of employment in factories. The Australian index is an average of the State indexes weighted by the number of persons returned as engaged in "Commerce" in the June, 1933 census. This census industry class "Commerce" comprises both wholesale and retail dealing, and it is not possible to obtain separate figures for the latter. The numbers returned in the census as in the employee group in this class were, for Australia: males, 212,000; females, 87,000; total, 299,000. The respective percentages returned as totally unemployed in this group were: males, 18.1 per cent.; females, 10.6 per cent.; total, 15.9 per cent. In addition there was a good deal of part-time work.

The 21 per cent. increase in retail employment between July, 1933, and June, 1939, after correcting for growth of employee population, may be compared with the increase of 37 per cent. in the corresponding index of factory employment over the same period. However, unemployment in the census class "Manufacturing" was 22.1 per cent. compared with 15.9 per cent., quoted above, for "Commerce". In either case the increase in employment has been more than sufficient to absorb those returned as unemployed and working part-time at the census as well as the proportion of the normal growth of employee population ordinarily seeking employment in these classes.

(iv) *General Employment Measures of New South Wales, Queensland, and Tasmania.* The New South Wales Index is published by the Government Statistician of New South Wales, and fuller details may be found in the *New South Wales Year Book*. It refers to all wage and salary earners, and is based on the census record of employment at June, 1933, and receipts of wages tax and records of Government employment since that date.

The Queensland Index is published by the Queensland Bureau of Industry and fuller details may be found in the *Queensland Year Book*. It refers to adult male wage and salary earners and is based on the receipts of the unemployment insurance fund. Normal seasonal variation does not appear in the Index.

The Tasmanian measure of employment is published by this Bureau and is compiled from the wages tax returns of private employers in respect of their employees, whether subject to or not subject to tax, and from returns of Commonwealth, State and Local Government employment. It gives the best measure available of the course of total employment in Tasmania.

The New South Wales and Tasmanian measures give an almost complete record of employment, and are the most accurate available in Australia. In the New South Wales and Queensland indexes, however, allowance for relief workers presents a difficult problem. It is impossible to separate entirely "normal" loan works and relief works. Thus for the purposes of these indexes "relief workers" mean "part-time relief workers" in the case of New South Wales, and "intermittent relief workers" in the case of Queensland.

INDEX OF EMPLOYMENT IN FACTORIES.

(Base: Average for Year 1928-29 = 100.)

Period.	New South Wales.			Victoria.			Queensland.			South Australia.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Number of Em- ployees (a) ..	129.5	44.6	174.1	98.1	51.2	149.3	35.6	7.8	43.4	29.0	6.4	35.4
1928-29 ..	100	100	100	100	100	100	100	100	100	100	100	100
1929-30 ..	90	91	90	96	98	96	95	94	94	87	89	87
1930-31 ..	68	75	70	78	83	80	83	85	84	63	71	64
1931-32 ..	66	79	69	77	90	81	78	84	79	61	76	64
1932-33 ..	73	86	76	87	101	92	80	92	82	68	84	71
1933-34 ..	82	94	85	96	107	100	86	99	88	77	89	80
1934-35 ..	93	107	97	106	113	108	92	105	94	89	97	91
1935-36 ..	104	116	107	117	119	117	97	110	99	104	110	105
1936-37 ..	112	125	115	123	121	123	103	116	106	110	113	111
1937-38 ..	121	134	124	131	126	130	112	123	114	120	121	121
1938-39(b) ..	(c)	(c)	125	127	121	125	115	125	117	115	120	116
1938—												
January ..	121	128	123	130	119	126	100	115	103	122	120	121
February ..	122	135	125	134	130	133	107	124	110	124	126	124
March ..	123	138	127	136	133	135	111	125	113	124	130	125
April ..	122	137	126	135	130	134	111	122	113	125	129	125
May ..	125	137	127	134	127	132	113	123	115	121	124	122
June ..	124	136	127	132	125	130	115	124	117	117	119	117
July (b) ..			126	128	121	125	115	118	115	112	109	111
August ..			126	126	125	126	120	121	120	109	116	110
September ..			126	127	125	126	122	124	122	113	120	114
October ..			126	128	123	126	119	130	121	114	122	115
November ..			126	129	122	127	118	128	120	116	122	117
December ..			126	128	117	124	119	127	121	115	120	116
1939—		(c)										
January ..			121	125	106	119	107	122	109	119	123	120
February ..			123	126	119	124	109	127	112	121	123	121
March ..			125	127	124	126	111	130	114	121	128	122
April ..			124	127	128	127	111	125	114	118	120	118
May ..			123	129	120	126	116	127	118	115	118	116
June ..			123	125	119	123	115	125	117	111	122	113
Number of Factories in Sample ..		1,901			100			150			147	
Percentage of Employees (d) in Sample in 1937-38 ..		86			21			46			62	

For footnotes see next page.

INDEX OF EMPLOYMENT IN FACTORIES—continued.

(Base: Average for Year 1928-29 = 100.)

Period.	Western Australia.			Tasmania.			Australia.			Australia divided by Index of Employee Population.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Number of Employees ('000)(a)	16.0	3.8	19.8	7.7	2.3	10.0	315.9	116.1	432.0	..	..	..
1928-29 ..	100	100	100	100	100	100	100	100	100	100	100	100
1929-30 ..	94	98	94	105	99	104	92	95	93	91	93	92
1930-31 ..	68	76	69	85	83	84	73	79	75	71	76	72
1931-32 ..	61	75	63	84	87	85	70	84	74	68	80	71
1932-33 ..	68	81	70	86	90	87	78	93	82	74	87	77
1933-34 ..	75	85	77	93	89	92	86	99	90	81	92	84
1934-35 ..	83	92	85	101	97	100	96	108	100	89	99	92
1935-36 ..	99	106	100	112	103	110	107	116	109	98	105	100
1936-37 ..	107	113	108	122	103	118	114	121	116	104	108	105
1937-38 ..	110	116	111	130	108	125	123	128	124	111	113	111
1938-39(b)	108	117	110	132	113	128	122	121	123	108	110	109
1938—												
January ..	110	115	111	135	114	130	122	122	122	109	108	109
February ..	111	118	112	137	116	132	124	131	126	111	115	112
March ..	113	117	114	137	120	133	126	133	128	113	117	114
April ..	112	118	113	134	111	129	125	132	127	112	116	113
May ..	111	117	112	133	112	128	125	130	126	112	114	113
June ..	110	116	111	130	111	125	124	128	125	111	113	112
July (b) ..	107	111	107	128	112	124	122	124	122	109	109	109
August ..	106	114	108	129	113	121	121	128	123	109	112	110
September ..	106	114	107	127	107	122	122	128	124	109	112	110
October ..	108	118	110	130	105	124	123	128	124	110	112	110
November ..	110	119	112	131	101	124	123	127	124	110	111	110
December ..	112	120	113	131	104	125	124	124	124	110	108	110
1939—												
January ..	106	112	107	137	118	133	120	115	118	107	100	105
February ..	107	118	109	140	131	138	121	125	122	108	109	108
March ..	110	119	112	138	120	134	121	129	123	108	112	109
April ..	108	118	110	137	126	134	120	131	123	107	114	109
May ..	108	120	110	131	114	129	122	125	123	108	100	108
June ..	107	119	109	129	108	124	120	125	121	106	108	107
Number of Factories in Sample ..		92			49		2,439			2,439		
Percentage of Employees (d) in Sample in 1937-38 ..		32			56		54			54		

(a) Number of employees in the base year, 1928-29, exclusive of working proprietors and those engaged solely on the delivery and sale of goods. (b) For 1938-39 indexes are based on sample returns, and will be revised. The indexes of total employment are based on total employment in sample factories. The male and female indexes are based on separate returns for males and females in 5 States (excluding New South Wales) adjusted so that the total of males and females agrees with the estimate of total employment. (c) Not available. (d) The samples vary in quality, so these percentages are intended to give only a very rough idea of the relative accuracy of the estimates. Tasmania and South Australia have proved less, and Victoria more, accurate than the relative size of the samples would suggest.

INDEX OF EMPLOYMENT IN RETAIL STORES.

(Base: July, 1933 = 100.)

Month.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.	Australian Index divided by Index of Employee Population.
1933—July ..	100	100	100	100	100	100	100	100
1933—34 ..	103	107	101	102	99	106	104	103
1934—35 ..	111	118	106	108	105	108	112	110
1935—36 ..	118	130	109	114	110	112	119	116
1936—37 ..	124	137	111	115	115	119	125	120
1937—38 ..	130	141	112	115	116	118	128	122
1938—39 ..	132	142	114	114	116	133	130	123
1937—								
July ..	129	137	110	115	115	124	127	121
August ..	126	133	110	112	113	121	124	118
September ..	126	135	110	117	113	123	125	119
October ..	127	140	110	113	114	123	127	121
November ..	129	143	110	115	116	125	129	123
December ..	144	161	123	129	126	138	144	137
1938—								
January ..	128	144	111	115	122	126	129	123
February ..	131	139	111	112	116	124	128	122
March ..	128	140	110	112	115	123	127	121
April ..	129	140	112	113	117	125	128	121
May ..	129	141	112	114	115	126	128	122
June ..	131	142	113	114	114	126	129	122
Average 1937—38	130	141	112	115	116	118	128	122
1938—								
July ..	134	139	111	114	120	130	129	123
August ..	129	135	111	112	113	127	126	119
September ..	128	137	111	118	114	127	127	120
October ..	129	142	110	113	115	128	128	121
November ..	132	146	115	116	116	130	131	124
December ..	148	165	127	124	131	146	147	139
1939—								
January ..	129	142	113	111	120	137	129	121
February ..	134	141	113	112	113	131	130	122
March ..	129	139	113	111	113	132	127	120
April ..	129	139	112	111	113	133	127	120
May ..	131	141	114	111	113	134	129	121
June (a) ..	130	142	118	113	113	138	130	121
Average 1938—39	132	142	114	114	116	133	130	123
Number of Establishments now furnishing Returns ..	599	102	120	35	69	14	939	..

(a) Indexes for later months may be obtained from the *Monthly Review of Business Statistics* and quarterly press notices on employment, issued by the Bureau.

EMPLOYMENT AND UNEMPLOYMENT OF ALL AVAILABLE WAGE AND SALARY EARNERS: NEW SOUTH WALES

Period.	Percentage of all who are dependent on and available for employment.			
	Including as employed the full-time equivalent of part-time relief workers.		Including all part-time relief workers as unemployed.	
	Employed.	Unemployed.	Employed.	Unemployed.
	%	%	%	%
1933-June (Census) ..	74.4	25.6	73.5	26.5
1933-34	77.9	22.1	75.9	24.1
1934-35	83.8	16.2	81.2	18.8
1935-36	88.6	11.4	86.1	13.9
1936-37	91.5	8.5	90.0	10.0
1937-38	95.7	4.3	94.5	5.5
1938-39	94.9	5.1	93.8	6.2
1938-June	96.1	3.9	95.1	4.9
1939—				
January	93.0	7.0	91.9	8.1
February	94.4	5.6	93.3	6.7
March	94.2	5.8	93.2	6.8
April	94.6	5.4	93.5	6.5
May	94.3	5.7	93.3	6.7
June	93.7	6.3	92.6	7.4

The indexes were revised in November, 1937. In estimating the increase in the number of persons dependent on employment allowance is now made for (a) increase in the proportion of females who are wage-earners, and (b) youths who were without occupation but were not recorded in the wage-earning group at the Census of 1933. Adjustment for seasonal variations in employment is not made.

At the Census of 30th June, 1933, 15,142 persons dependent on employment returned themselves as unemployed by reason of illness, accident, etc., or "voluntarily". This number, representing 1.8 per cent. of all persons dependent on employment, is excluded from the above indexes, which relate to percentages of available wage-earners employed and unemployed. The approximate number of persons in private employment was 478,000 in June, 1933; 519,000 in June, 1934; 567,000 in June, 1935; 614,000 in June, 1936; 653,000 in June, 1937; 689,000 in June, 1938; and 679,000 in June, 1939.

**EMPLOYMENT AND UNEMPLOYMENT AMONG MEN WAGE AND SALARY
EARNERS : QUEENSLAND**

Period.	Including as employed the full-time equivalent of "intermittent relief workers."		Including "intermittent relief workers" as unemployed.	
	Employed.	Unemployed.	Employed.	Unemployed.
	%	%	%	%
1929	89.9	10.1	89.9	10.1
1930	86.4	13.6	85.6	14.4
1931	77.2	22.8	74.3	25.7
1932	77.8	22.2	72.9	27.1
1933	79.8	20.2	73.9	26.1
1934	84.9	15.1	80.1	19.9
1935	89.0	11.0	84.4	15.6
1936	92.3	7.7	87.4	12.6
1937	94.0	6.0	90.3	9.7
1938	95.4	4.6	92.4	7.6
3 months ended—				
1938—				
March	95.4	4.6	91.7	8.3
June	95.4	4.6	91.8	8.2
September	96.0	4.0	92.8	7.2
December	94.8	5.2	94.0	6.0
1939—				
January	95.2	4.8	94.6	5.4
February	95.3	4.7	94.7	5.3
March	95.5	4.5	95.1	4.9
April	95.7	4.3	95.4	4.6
May	95.8	4.2	95.5	4.5
June	96.0	4.0	95.7	4.3

The table above is in terms of full-time employment and unemployment. Normal seasonal variation is excluded. Allowance has been made for an estimated annual increase of 1.5 per cent. in the number of men dependent on employment. In terms of full-time employment the approximate number of men in employment in 1938, excluding relief workers, was 174,226.

EMPLOYMENT : TASMANIA.

Period.	Private Industry.			Public Authorities.			Total Employment— Public and Private.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1936-37 ..	30,858	9,522	40,380	10,798	1,763	12,561	41,656	11,285	52,941
1937-38 ..	34,001	10,685	44,686	10,581	1,825	12,406	44,582	12,510	57,092
1938-39 ..	36,105	11,250	47,355	10,486	1,877	12,363	46,591	13,127	59,718
1937-38—									
September ..	32,908	9,900	42,808	10,548	1,835	12,383	43,456	11,735	55,191
October ..	33,182	9,873	43,055	10,337	1,846	12,183	43,519	11,719	55,238
November ..	34,291	10,457	44,748	10,328	1,845	12,173	44,619	12,302	56,921
December ..	35,029	11,068	46,097	10,775	1,831	12,606	45,804	12,899	58,702
January ..	34,386	11,238	45,624	10,592	1,722	12,314	44,978	12,960	57,938
February ..	34,238	10,971	45,209	10,538	1,773	12,313	44,776	12,746	57,522
March ..	36,017	11,940	47,957	10,702	1,831	12,533	46,719	13,771	60,490
April ..	35,619	11,255	46,874	10,546	1,841	12,387	46,105	13,096	59,261
May ..	34,045	10,919	45,564	10,807	1,863	12,670	45,452	12,782	58,234
June ..	32,967	10,675	43,642	10,651	1,866	12,517	43,618	12,541	56,159
1938-39—									
July ..	33,553	10,618	44,171	10,591	1,873	12,464	44,144	12,491	56,635
August ..	33,753	10,700	44,453	10,667	1,863	12,530	44,420	12,563	56,983
September ..	33,751	10,793	44,544	10,593	1,875	12,468	44,344	12,668	57,012
October ..	34,749	10,334	45,083	10,701	1,879	12,580	45,450	12,213	57,663
November ..	36,454	10,943	47,397	10,561	1,879	12,440	47,015	12,822	59,837
December ..	37,347	11,607	48,954	10,728	1,843	12,571	48,075	13,540	61,525
January ..	36,543	11,953	48,496	10,249	1,787	12,036	46,792	13,740	60,532
February ..	37,324	12,069	49,393	10,624	1,893	12,517	47,948	13,962	61,910
March ..	40,016	12,180	52,196	10,637	1,903	12,540	50,653	14,083	64,736
April ..	37,299	11,538	48,837	10,167	1,895	12,062	47,466	13,433	60,899
May ..	37,329	11,214	48,543	10,111	1,911	12,022	47,440	13,125	60,565
June ..	35,139	11,046	46,185	10,208	1,925	12,133	45,347	12,971	58,318

The table above is compiled from the wages tax returns of private employers in respect of their employees, whether subject to or not subject to tax, and from returns of Commonwealth, State and Local Government employment.

For each month of 1937-38 the figures in the table may be regarded as providing a virtually complete record of total employment based on final collected figures. They are a combination of monthly figures received currently and annually, covering both private and public employment. They are deficient only to the inappreciable extent that some relief and other intermittent workers and domestic workers in private homes are not covered by the monthly returns. On the other hand, to the extent that they embrace the majority of workers subject to intermittent employment over the whole year, they reflect fully the seasonal and all other influences upon employment in Tasmania.

For the months since June, 1938, the figures are estimates based upon the current monthly movements of all public authority employment and of about 44 per cent. of total private employment. For a given month the figure of total private employment of the corresponding month of the previous year is changed in the ratio of the change of the current figure of private employment. The indication of the position for all employment in Tasmania given by this technical procedure must be read in the light of other indications of current change.

5. Special Legislation for the Relief of Unemployment.—The position in regard to unemployment in Australia became so serious during 1930 that the usual methods of providing funds for relief works and sustenance were found to be inadequate. The cessation of loans, and the general depression in industry and business, due mainly to the decline in the prices of primary products, brought about an economic crisis in all States. The number of persons thrown out of work increased rapidly with little prospect of conditions improving during the immediate future. The Commonwealth and State Governments realized that special action was necessary to provide additional funds to relieve the distress caused by continued unemployment, as the money ordinarily available was not sufficient to meet the abnormal conditions.

Special grants to the States were made by the Commonwealth Government, while special legislation relating to the relief of unemployment was enacted in practically all the States. In New South Wales, Victoria and Queensland, the Acts provided for special

taxation for the purpose of creating funds for relief works and sustenance for the unemployed. The funds necessary for the relief of unemployment in South Australia, Western Australia and Tasmania were provided from Revenue.

Further references to the special legislation relating to unemployment, rates of tax and sustenance payments will be found in *Labour Reports*, Nos. 22 to 29.

§ 3. Apprenticeship.

In Year Book No. 16, pp. 602-3, was given particulars of legislation relating to the question of apprenticeship. Tables were included showing the periods of apprenticeship fixed in the awards of the various industrial tribunals of the States and Commonwealth, also the proportion of apprentices to journeymen and journeywomen. This information has been omitted from the present issue. Reference to legislation covering apprenticeship will be found in the Appendix to Official Year Book, No. 23.

E.—ASSOCIATIONS.

§ 1. Labour Organizations.

1. **Registration.**—(i) *Under Trade Union Acts.* The benefits obtained by registering trade unions under the Trade Union Acts in force in the various States are not considered of much value; consequently the statistics of registered trade unions of employees do not accurately represent the position of unionism. Further, the returns for past years are so defective as to be practically valueless, inasmuch as no reliable indication is afforded of the numerical and financial position of the unions. Some of the registered unions fail to supply returns; this non-supply may lead to cancellation of the registration. Others have obtained the cancellation of their certificates of registration, the apparent reason being that they proposed to register under the Commonwealth Conciliation and Arbitration Act or a State Arbitration Act. In Queensland, some of the largest labour unions withdrew from registration during 1911, mainly on account of the necessity for closer restriction of their objects as set forth in their rules, consequent on legal decisions affecting trade unions. In Victoria and in South Australia very few of the existing unions are registered under the Trade Union Acts. It will be seen, therefore, that the available information under this heading is too meagre for statistical purposes.

(ii) *Under Industrial Arbitration Acts.* Information with regard to registrations of employers' associations and trade unions under the various State Industrial Arbitration Acts will be found in previous issues of the Year Book. The latest information available as to registrations is as follows:—New South Wales, 181 industrial unions of employers and 159 industrial unions of employees, the membership not being available in either case; Queensland, 15 industrial unions of employers with approximately 15,000 members, and 79 industrial unions of employees with approximately 175,000 members; South Australia, 32 organizations of employees with 26,342 members; Western Australia, 31 organizations of employers with 1,180 members, and 134 organizations of employees with 54,782 members. There is no provision in the South Australian Industrial Acts for the registration of organizations of employers, and in Victoria and Tasmania, where Wages Board systems of wage fixation are in operation, organizations of employers and employees are not required to register. Registration under Commonwealth legislation began in 1906. In that and the four years following, there was but one union of employers; another was registered in 1911. The unions of employees registered were 20 in 1906, with 41,413 members. On 31st December, 1938, there were 30 registered organizations of employers and 143 registered organizations of employees, with a total estimated membership for the latter of 708,000.

2. **Particulars regarding Trade Unions.**—(i) *Types.* The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organization, which, in its turn, may be merely a branch of a British or International union. Broadly speaking, there are four distinct classes of labour organizations:—(i) the local independent; (ii) the State; (iii) the interstate; and

(iv) the Australasian or International; but a number of variations occur from each of these classes. The leading characteristics of each of these types were briefly outlined in *Labour Report No. 2* (pp. 7 to 9) issued by this Bureau.

(ii) *Number and Membership.* As already stated, the figures for trade unions registered under the Acts do not represent the position of unionism in Australia. In 1912 the Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics was established and with the cordial co-operation of the officials of the labour organizations comprehensive figures relating to the development of organized labour are now available. The following table shows the position at the end of 1938:—

TRADE UNIONS : BRANCHES AND MEMBERS, 1938.

State or Territory.	Number of Separate Unions.	Number of Branches.	Number of Members.
New South Wales	194	573	346,837
Victoria	147	400	215,021
Queensland	111	314	169,569
South Australia	114	179	62,404
Western Australia	136	183	67,932
Tasmania	78	58	21,051
Northern Territory	6	..	806
Australian Capital Territory	15	1	1,538
Total	801	1,708	885,158
Australia (a)	366(a)	2,143(b)	885,158

(a) Allowing for interstate duplication. The figures represent the number of distinct organizations and interstate groups of organizations in Australia—not the total number of organizations which are practically independent and self-governing.

(b) See remarks below.

In the preceding table the number of separate unions in each State refers to the number of unions which are represented in each State, exclusive of branches therein, and each union is counted once only. Except in the last line, the number of branches indicates the number of branches of State head offices, which may, of course, themselves be branches of an interstate or larger organization. In taking the total number of separate unions in Australia (see last line but one), it is obvious that, in the case of interstate and similar unions, there will be duplication, since each such union is counted once in each State in which it has any branches. In the figures given in the last line, allowance has been made for this duplication. State branches of interstate or federated unions, as well as sub-branches within a State, are included under the heading "Branches" in the third column—last line. The scheme of organization of these interstate or federated unions varies greatly in character, and the number of separate Commonwealth unions does not, therefore, fairly represent the number of practically independent organizations in Australia. In some of these unions the State organizations are bound together under a system of unification and centralized control while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. There are, therefore, 366 distinct organizations and interstate groups of organizations in Australia, having 2,143 State branches and sub-branches, and a total of 885,158 members.

(iii) *Classification in Industrial Groups.* The following table shows the number of unions and members thereof in Australia at the end of each of the last five years. The number of unions specified refers to the number of different unions represented in each

State and, while interstate or federated unions are counted once in each State in which they are represented, sub-branches within a State are not counted :—

TRADE UNIONS : INDUSTRIAL GROUPS, AUSTRALIA.

Industrial Groups.	1934.	1935.	1936.	1937.	1938.
NUMBER OF UNIONS.					
Manufacturing—	(a)	(a)	(a)	(a)	(a)
I. Wood, Furniture, etc.	17 (4)	17 (4)	17 (4)	17 (4)	17 (4)
II. Engineering, Metal Works, etc.	63 (22)	61 (21)	63 (21)	63 (22)	63 (22)
III. Food, Drink, Tobacco, etc.	62 (32)	63 (32)	69 (33)	70 (35)	70 (34)
IV. Clothing, Hats, Boots, etc.	24 (11)	24 (11)	24 (11)	24 (11)	26 (12)
V. Books, Printing, etc.	15 (9)	15 (9)	14 (8)	14 (7)	14 (8)
VI. Other Manufacturing	76 (36)	73 (34)	73 (35)	73 (36)	73 (36)
VII. Building	51 (28)	49 (26)	49 (27)	49 (27)	49 (28)
VIII. Mining, Quarrying, etc.	17 (14)	16 (13)	16 (13)	15 (12)	15 (12)
IX. Railway and Tramway Services	51 (29)	52 (30)	50 (29)	50 (28)	50 (27)
X. Other Land Transport	10 (4)	10 (4)	11 (4)	12 (5)	13 (6)
XI. Shipping, etc.	55 (22)	55 (22)	55 (21)	55 (21)	55 (20)
XII. Pastoral, Agricultural, etc.	10 (6)	10 (7)	11 (7)	9 (8)	9 (6)
XIII. Domestic, Hotels, etc.	20 (15)	19 (14)	20 (15)	20 (15)	20 (16)
XIV. Miscellaneous—					
(i) Banking, Insurance and Clerical	30 (19)	32 (19)	32 (16)	32 (16)	32 (16)
(ii) Public Service	145 (45)	148 (47)	148 (48)	148 (47)	148 (50)
(iii) Retail and Wholesale	8 (7)	8 (8)	8 (8)	8 (8)	8 (8)
(iv) Municipal, Sewerage and Labouring	13 (11)	16 (11)	16 (11)	16 (11)	16 (12)
(v) Other Miscellaneous	108 (41)	108 (42)	108 (45)	108 (45)	123 (49)
Total	775 (355) ^a	776 (354) ^a	784 (356) ^a	783 (358) ^a	801 (366) ^a

NUMBER OF MEMBERS.

Manufacturing—					
I. Wood, Furniture, etc.	25,886	27,079	25,365	27,465	27,831
II. Engineering, Metal Works, etc.	73,363	76,070	79,047	83,993	94,228
III. Food, Drink, Tobacco, etc.	65,663	68,292	72,120	76,702	75,753
IV. Clothing, Hats, Boots, etc.	56,484	59,484	62,269	66,323	66,427
V. Books, Printing, etc.	18,285	18,808	19,425	20,461	21,661
VI. Other Manufacturing	43,720	44,388	46,832	49,323	48,410
VII. Building	53,140	51,034	56,727	59,484	47,953
VIII. Mining, Quarrying, etc.	36,560	36,636	40,184	44,912	43,429
IX. Railway and Tramway Services	91,035	97,443	94,944	97,435	104,523
X. Other Land Transport	13,566	10,539	10,287	15,829	18,969
XI. Shipping, etc.	29,363	26,388	27,346	27,611	28,780
XII. Pastoral, Agricultural, etc.	22,599	28,782	31,869	34,624	38,424
XIII. Domestic, Hotels, etc.	19,585	19,043	16,091	15,933	12,835
XIV. Miscellaneous :—					
(i) Banking, Insurance and Clerical	33,947	34,405	35,315	36,044	37,639
(ii) Public Service	77,365	82,776	83,484	84,716	86,797
(iii) Retail and Wholesale	29,009	32,619	32,178	33,055	34,140
(iv) Municipal, Sewerage and Labouring	32,482	38,926	39,603	40,948	45,126
(v) Other Miscellaneous	40,515	38,118	41,723	41,425	52,233
Total	762,567	790,830	814,809	856,283	885,158

(a) Allowing for interstate duplication.

(iv) *Trade Unions: Numbers of Male and Female Members and Percentages to total Employees, Australia.* The estimated numbers of male and female wage and salary earners (including unemployed) aged 20 years and over have been obtained by increasing the numbers of such persons enumerated at the 1933 Census in ratio to the annual increases

in males and females aged 20 to 64 years. Similarly, for wage and salary earners (including unemployed) under 20 years the numbers of such persons at the 1933 Census have been increased in ratio to the annual increases in males and females 15 to 19 years. Further, allowance has been made for (a) increase in the proportion of females who are wage and salary earners and (b) youths who were without occupation but were not recorded in the wage-earning group at the 1933 Census.

The following table shows separately for males and females (a) the number of members of trade unions; (b) the estimated number of wage and salary earners of each sex 20 years of age and over in all professions, trades and occupations; and (c) the percentage of the former (a) on the latter (b) at the end of each year, 1934 to 1938. The estimated number of wage and salary earners includes all persons 20 years of age and over in receipt of wages or salary, as well as those unemployed, and therefore embraces a large number of adults who are not eligible for membership of any trade union, such as certain persons employed in professional occupations, as well as others who, while eligible for membership so far as the nature of their trade or occupation is concerned, do not reside in a locality which is covered by any union devoted to their particular trade or occupation. Moreover the age at which persons are eligible for membership varies in different unions. The census results are classified in quinquennial age groups, and age 20 years is taken as approximating to the age of admission to membership. A line has also been added showing the estimated numbers of "junior" workers under 20 years of age. The figures for years prior to 1938 previously published in the Year Book have been revised:—

TRADE UNIONS : NUMBER OF MALE AND FEMALE MEMBERS AND PERCENTAGE TO TOTAL EMPLOYEES, AUSTRALIA.

Particulars.	1934.	1935.	1936.	1937.	1938.
MALES.					
Estimated No. of Adult Wage and Salary Earners (20 years of age and over) ..	1,413,002	1,432,905	1,453,456	1,473,323	1,493,647
No. of Members of Unions ..	641,370	662,447	685,795	720,587	748,749
Percentage of Members on Estimated Number of Adult Wage and Salary Earners ..	45.4	46.2	47.2	48.9	50.1
Junior Wage and Salary Earners (under 20)	224,615	223,613	225,197	227,776	231,536
FEMALES.					
Estimated No. of Adult Wage and Salary Earners (20 years of age and over) ..	378,149	386,897	395,083	404,340	415,789
No. of Members of Unions ..	121,197	128,383	129,014	135,696	136,409
Percentage of Members on Estimated Number of Wage and Salary Earners ..	32.1	33.2	32.7	33.6	32.8
Junior Wage and Salary Earners (under 20)	142,673	141,488	142,341	144,107	145,674
TOTAL.					
Estimated No. of Adult Wage and Salary Earners (20 years of age and over) ..	1,791,151	1,819,802	1,848,539	1,877,663	1,909,436
No. of Members of Unions ..	762,567	790,830	814,809	856,283	885,158
Percentage of Members on Estimated Number of Adult Wage and Salary Earners ..	42.6	43.5	44.1	45.6	46.4
Junior Wage and Salary Earners (under 20)	367,288	365,101	367,538	371,883	377,210

(v) *Interstate or Federated Unions.* The following table gives particulars as to the number and membership of interstate or federated unions in 1938 :—

INTERSTATE OR FEDERATED UNIONS : AUSTRALIA, 1938.

Particulars.	Unions Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States. (a)	
Number of Unions ..	16	12	19	23	43	113
Number of Members ..	27,713	20,279	140,214	190,700	352,405	731,311

(a) Certain unions in this group have, in addition to branches in each of the six States, branches in the Northern Territory and the Australian Capital Territory.

It appears, therefore, that 113 out of the 366 separate associations and groups of associations in Australia are organized on an interstate basis. The membership of these 113 unions was 731,311 or 83 per cent. of the membership of all unions.

3. **Central Labour Organizations.**—In each of the capital cities and in a number of industrial centres elsewhere, delegate organizations consisting of representatives from a group of trade unions have been established. Their revenue is raised by means of a per capita tax on the members of each affiliated union. In most of the towns where such central organizations exist, the majority of the local unions are affiliated with the central organization, which is usually known as the Labour or the Trades Hall Council, or the Labour Federation. In Western Australia a unified system of organization extends over the industrial centres throughout the State. In this State there is a provincial branch of the Australian Labour Party, having a central council and executive, and metropolitan and branch district councils, to which the local bodies are affiliated. The central council, on which all district councils are represented, meets periodically. In the other five States, however, the organization is not so close, and, while provision usually exists in the rules of the central council at the capital city of each State for the organization of district councils or for the representation of the central council on the local councils in the smaller industrial centres of the State, the councils in each State are, as a matter of fact, independent bodies.

A new Central Labour Organization, called the Australasian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the Trade Unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May, 1927. The Australasian Council is based on the Metropolitan Trades and Labour Councils in each State, such bodies having the right to appoint two representatives to act on the Executive of the Council. The Metropolitan Trades and Labour Councils are the branches of the Australasian Council. In addition to the representatives from the Metropolitan Councils, the Executive consists of four officers—the President, two Vice-Presidents, and a Secretary, who are elected by and from the All-Australian Trade Union Congress.

The objective of the Council is the socialization of industry, i.e., production and exchange. The methods to be adopted are :—(a) The closer organization of the workers by the transformation of the Australasian Trade Union Movement from the Craft to an Industrial basis by the establishment of one Union in each industry ; (b) the consolidation of the Australasian Labour Movement with the object of unified control, administration and action ; (c) the centralized control of industrial disputes ; and (d) educational propaganda among unions. The Australasian Council of Trade Unions

is the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the Trade Union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the Annual International Labour Conference at Geneva.

The table below shows the number of metropolitan and district or local labour councils, together with the number of unions and branches of unions affiliated thereto, in each State at the end of the year 1938 :—

CENTRAL LABOUR ORGANIZATIONS : NUMBER, AND UNIONS AFFILIATED, 1938.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Number of Councils	3	5	6	2	8	2	1	27
Number of Unions and Branch Unions affiliated ..	100	176	78	47	210	59	9	679

The figures given in the preceding table concerning the number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated to the local trades councils in the several towns in which they are represented.

Between the trade union and the central organization of unions may be classed certain State or district councils organized on trade lines, and composed of delegates from separate unions the interests of the members of which are closely connected by reason of the occupation of their members. Delegate councils of bakers, bread carters and mill employees, or of unions connected directly or indirectly with the iron, steel, or brass trades, or with the building trades, may be so classed.

4. **Laws relating to Conditions of Labour.**—In Official Year Book No. 16, pp. 538 to 566, a conspectus was given of Labour Laws in force in Australia at the end of the year 1922, and of Acts and Regulations relating to Factories and Shops.

Information was contained in the same issue regarding employment under Mining Acts, followed by a brief reference to Employers' Liability and Workmen's Compensation Acts and miscellaneous legislation relating to conditions of labour enacted by the States. A conspectus of the Tribunals for the Regulation of Wages and Conditions of Labour was also included.

§ 2. Employers' Associations.

1. **General.**—Recent investigations show that the spirit of association is no less manifest in the case of employers than in the case of workers. Associations for trade purposes merely are not included in the present chapter, which deals with those associations only whose members are united for their own protection, and for representation in cases before Arbitration Courts, Wages Boards and other wage-fixing tribunals. Associations of employers and employees are recognized under the Commonwealth Conciliation and Arbitration Act as well as under several State Acts, and organizations of these bodies may be registered.

The year 1922 was the first for which information was collected, and detailed particulars for that and subsequent years will be found in previous issues of the Official Year Book and in the Labour Reports.

2. Employers' Associations in each State.—The following table gives particulars of the number of employers' associations in each State at the end of the years 1934 to 1938:—

EMPLOYERS' ASSOCIATIONS.

Year.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	Total.
NUMBER OF ASSOCIATIONS.							
1934	(a) 134	157	74	60	54	26	(a) 505
1935	(a) 131	156	72	60	56	25	(a) 500
1936	(a) 134	150	73	61	58	30	(a) 506
1937	(a) 134	149	78	61	59	30	(a) 511
1938	(b) 134	147	76	62	58	29	(b) 506

NUMBER OF BRANCHES.

1934	810	520	135	15	301	8	1,789
1935	786	559	135	13	302	8	1,803
1936	806	608	393	32	296	6	2,141
1937	681	548	394	33	184	10	1,850
1938	658	561	391	32	85	6	1,733

MEMBERSHIP.

1934	a 58,387	38,276	18,943	6,765	10,464	2,095	a 134,930
1935	a 59,444	37,765	18,556	7,536	10,791	2,087	a 136,179
1936	a 60,135	50,262	35,764	8,813	11,193	2,257	a 168,424
1937	a 63,747	50,566	33,150	9,081	10,978	2,152	a 169,674
1938	b 66,573	53,745	32,407	9,671	11,312	1,982	b 175,690

(a) Includes one association in the Australian Capital Territory.

(b) Includes two associations in the Australian Capital Territory.

There has been a large increase in the number of branches since the year 1926, due to the inclusion of associations representing agricultural interests, while the increase in total membership is partly attributable to a more complete collection of statistics relating to these organizations.

3. Employers' Associations in Industrial Groups.—The figures in the following table refer to Australia at the end of the years 1937 and 1938:—

EMPLOYERS' ASSOCIATIONS: INDUSTRIAL GROUPS, AUSTRALIA.

Class.	Number of Associations.		Number of Branches.		Membership.	
	1937.	1938.	1937.	1938.	1937.	1938.
Manufacturing:—						
I. Wood, Furniture, etc. ..	20	20	16	16	1,222	1,239
II. Engineering, etc. ..	17	18	12	1	2,500	2,632
III. Food, Drink, etc. ..	103	106	92	140	20,504	24,169
IV. Clothing, Hats, etc. ..	16	15	11	9	1,932	1,541
V. Books, Printing, etc. ..	41	39	..	..	3,210	2,625
VI. Other Manufacturing ..	42	39	2	2	3,567	3,624
VII. Building	24	26	9	10	2,010	2,176
VIII. Mining, Quarrying, etc. ..	11	11	1	..	282	288
X. Other Land Transport ..	19	18	9	10	3,387	3,271
XI. Shipping, etc. ..	18	18	3	3	263	265
XII. Pastoral, Agricultural, etc.	52	51	1,648	1,512	109,363	110,435
XIII. Domestic, Hotels, etc. ..	18	20	..	..	1,765	2,192
XIV. Miscellaneous	130	125	47	30	19,669	21,233
Total	511	506	1,850	1,733	169,674	175,690

The female membership of these associations was 7,000 for 1937, and 6,200 for 1938.

The organization of employers is relatively strongest in the pastoral and agricultural industries and in the manufacture and distribution of articles of food and drink. In the former case there has been considerable growth in organization among small farmers, and in the latter, the number of small shops purveying foodstuffs of which the proprietors are members of grocers', butchers' and other similar associations accounts for the large membership.

4. **Federations of Employers' Associations.**—In addition to the associations in various industries, there are central associations in each State to which many of these separate organizations are affiliated. Examples of this kind of association are provided in the Chamber of Manufactures, Chamber of Commerce and Employers' Federation in each State. Further, these State associations are, in some cases, organized on a federal basis, e.g., there is an Associated Chamber of Manufactures, and Associated Chamber of Commerce, or a Central Council of Employers, to which State branches are affiliated.

The affiliation of these associations is, however, of a very loose nature when compared with that of the Federated Trade Unions. Whereas in the latter case the central body has complete control of its State branches, in the case of the Employers' Associations each State body enjoys complete independence, the central body acting in a more or less advisory capacity only.

The following table gives particulars so far as can be ascertained, of interstate or federated associations having branches in two or more States from 1934 to 1938 :—

INTERSTATE OR FEDERATED EMPLOYERS' ASSOCIATIONS.

Year.	Associations Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States.	
NUMBER OF ASSOCIATIONS.						
1934	4	2	12	8	17	43
1935	4	2	10	6	20	42
1936	5	2	8	6	17	38
1937	3	3	10	10	17	43
1938	5	1	7	14	17	44
NUMBER OF MEMBERS.						
1934	2,438	56	44,745	22,947	34,026	104,212
1935	10,529	57	3,311	63,155	37,723	114,775
1936	11,315	904	1,013	22,324	104,896	140,452
1937	9,351	2,019	1,118	92,049	38,908	143,445
1938	9,368	144	3,800	93,454	41,198	147,964

The above table shows that associations having 84 per cent. of the total membership of employers' organizations are grouped together on an interstate basis.

F.—COMPARATIVE INDEX-NUMBERS.

In order to show the relative movements of certain price and related data the following table of annual and quarterly index-numbers for the six capital cities combined has been compiled with a common base 1911 = 1,000.

COMPARATIVE INDEX-NUMBERS FOR THE SIX CAPITAL CITIES COMBINED.

(Base (a) of each Section : Weighted Average of Six Capitals 1911 = 1,000.)

Period.	Food and Groceries.	Housing (4 and 5 Rooms.)	Food and Housing (4 and 5 Rooms.)	All Items of Household Expenditure.	Wholesale Prices Melbourne.	Nominal Wages, Adult Males.	Real Wages. (b)	Percentage of Unemployment among Trade Unionists.
Year—								%
1911	1,000	1,000	1,000	(c) 1,000	1,000	1,000	(c) 1,000	4.7
1914	1,144	1,082	1,121	1,140	1,149	1,081	948	8.3
1921	1,902	1,410	1,717	1,680	1,903	1,826	1,087	11.2
1928	1,761	1,743	1,755	1,675	1,792	1,963	1,172	10.8
1929	1,866	1,754	1,824	1,713	1,803	1,972	1,151	11.1
1930	1,682	1,711	1,693	1,618	1,596	1,939	1,198	19.3
1931	1,477	1,473	1,475	1,448	1,428	1,752	1,210	27.4
1932	1,425	1,336	1,391	1,377	1,411	1,639	1,190	29.0
1933	1,342	1,314	1,332	1,335	1,409	1,584	1,187	25.1
1934	1,400	1,324	1,371	1,355	1,468	1,590	1,173	20.5
1935	1,442	1,372	1,416	1,380	1,469	1,609	1,166	16.5
1936	1,475	1,437	1,461	1,409	1,543	1,635	1,160	12.2
1937	1,521	1,488	1,510	1,448	1,656	1,704	1,177	9.3
1938	1,584	1,540	1,568	1,488	1,662	1,796	1,207	8.7
Quarter—								
1929.								
March	1,859	1,758	1,821	1,713	1,788	1,958	1,143	9.3
June	1,865	1,753	1,823	1,713	1,794	1,977	1,154	10.0
September ..	1,867	1,754	1,824	1,713	1,834	1,979	1,155	12.1
December ..	1,873	1,751	1,827	1,712	1,799	1,974	1,153	13.1
1930.								
March	1,751	1,782	1,763	1,670	1,680	1,973	1,181	14.6
June	1,734	1,744	1,738	1,653	1,667	1,956	1,183	18.5
September ..	1,673	1,692	1,680	1,607	1,599	1,939	1,207	20.5
December ..	1,568	1,625	1,590	1,542	1,438	1,887	1,224	23.4
1931.								
March	1,538	1,560	1,546	1,500	1,453	1,814	1,209	25.8
June	1,496	1,501	1,498	1,464	1,437	1,764	1,205	27.6
September ..	1,435	1,447	1,439	1,423	1,406	1,735	1,219	28.3
December ..	1,439	1,382	1,418	1,406	1,418	1,694	1,205	28.0
1932.								
March	1,465	1,358	1,425	1,403	1,434	1,680	1,197	28.3
June	1,448	1,345	1,409	1,389	1,410	1,672	1,204	30.0
September ..	1,416	1,327	1,382	1,370	1,418	1,608	1,174	29.6
December ..	1,369	1,314	1,348	1,346	1,384	1,597	1,186	28.1
1933.								
March	1,317	1,318	1,318	1,327	1,336	1,585	1,194	26.5
June	1,337	1,314	1,329	1,334	1,401	1,595	1,196	25.7
September ..	1,359	1,311	1,341	1,340	1,467	1,587	1,184	25.1
December ..	1,355	1,311	1,339	1,337	1,432	1,570	1,174	23.0
1934.								
March	1,371	1,315	1,350	1,344	1,456	1,572	1,170	21.9
June	1,404	1,319	1,372	1,358	1,463	1,592	1,172	20.9
September ..	1,401	1,331	1,375	1,357	1,492	1,596	1,176	20.4
December ..	1,422	1,332	1,388	1,361	1,474	1,599	1,175	18.8
1935.								
March	1,420	1,356	1,396	1,368	1,451	1,604	1,173	18.6
June	1,425	1,363	1,402	1,371	1,456	1,605	1,171	17.8
September ..	1,461	1,379	1,430	1,389	1,491	1,609	1,158	15.9
December ..	1,460	1,390	1,434	1,391	1,479	1,617	1,162	13.7
1936.								
March	1,445	1,413	1,433	1,391	1,475	1,620	1,165	13.4
June	1,455	1,425	1,444	1,397	1,520	1,625	1,163	12.8
September ..	1,489	1,449	1,474	1,420	1,570	1,637	1,153	12.0
December ..	1,510	1,461	1,491	1,430	1,607	1,656	1,158	10.7
1937.								
March	1,510	1,470	1,495	1,433	1,638	1,659	1,158	9.9
June	1,507	1,483	1,496	1,441	1,660	1,677	1,164	9.7
September ..	1,526	1,499	1,516	1,454	1,710	1,718	1,182	9.3
December ..	1,540	1,510	1,529	1,465	1,617	1,760	1,201	8.2
1938.								
March	1,540	1,521	1,534	1,467	1,600	1,775	1,210	8.0
June	1,572	1,534	1,558	1,482	1,642	1,784	1,204	8.6
September ..	1,616	1,547	1,589	1,500	1,706	1,803	1,202	9.2
December ..	1,608	1,559	1,589	1,501	1,701	1,820	1,213	8.9

(a) The index-numbers given in the separate columns of the table cannot be compared with each other in order to show the relative cost of housing, and food and groceries, since the cost in 1911 in each group or combination is made equal to 1,000. (b) Allowing for variations in retail prices since 1911, calculated by "All Items" ("C" Series) Index. (c) Taken back from true base (November, 1914) by means of the Food and Rent of All Houses ("A" Series) Index.

CHAPTER XVI.

TRADE.

§ 1. Introductory.

Constitutional Powers of the Commonwealth in regard to Commerce.—The powers vested in the Commonwealth Parliament by the Commonwealth Constitution Act with respect to oversea trade and commerce will be found in Sub-section 51 (i) and sections 86 to 95 of the Act (see pp. 14 and 20 *ante*).

§ 2. Commonwealth Legislation affecting Oversea Trade.

1. **General.**—In previous issues of the Year Book brief particulars of the various Commonwealth Acts and amendments thereof affecting oversea trade have been given in chronological order. The Customs Acts represent the administrative or machinery Acts under which the Customs Department operates, while the Customs Tariff provides the statutory authority for imposing the actual rates of duties operative from time to time.

The Acts at present in force are: The Customs Act 1901–1936; Customs Tariff, 1933–1939; Customs Tariff (Canadian Preference) 1931–1938; Customs Tariff (Exchange Adjustment) Act, 1933–1939; Customs Tariff (Industries Preservation) Act, 1921–1936; Customs Tariff (New Zealand Preference) Adjustment Act, 1933; Customs Tariff (New Zealand Preference) 1933–1934; Customs Tariff (Papua and New Guinea Preference) 1936; Customs Tariff (Primage Duties), 1934. A complete statement of the Acts passed in 1938 appears in par. 14.

2. **Customs Tariffs.**—The Customs Tariff 1921–1930 provided a British Preferential Tariff, an Intermediate Tariff and a General Tariff. The Customs Tariff 1933 made no provision for an Intermediate Tariff but this feature was restored by the Customs Tariff 1936.

“British Preferential Tariff” rates of duty apply to goods the produce or manufacture of the United Kingdom provided such goods comply with the laws and statutory regulations for the time being in force affecting the grant of British preference, and that the goods have been shipped in the United Kingdom to Australia and have not been transhipped, or, if transhipped, it is proved to the satisfaction of the Collector of Customs that the intended destination of the goods, when originally shipped from the United Kingdom, was Australia. The benefits of the British Preferential Tariff may be extended wholly or in part to any British non-self-governing colony, British protectorate or to certain territories governed under British mandate. The benefits of the British Preferential Tariff have been extended by separate Trade Agreements to certain goods the produce of the Dominions of Canada and New Zealand and to certain goods the produce of British non-self-governing colonies.

In submitting tariff schedules to Parliament on 20th March, 1936, the Minister for Trade and Customs said: “Another new feature of the schedules is the Intermediate Tariff. It has been re-introduced to provide a convenient avenue for expressing the level of duties which the Government propose should form the basis for trade treaties. The rates proposed under the protective items of the Intermediate Tariff express, in every case, a protective level for Australian industry as well as preserving the margins required under the Ottawa Agreement.” The Customs Tariff 1933–1938 provides that the Governor-General may from time to time by proclamation declare that the Intermediate Tariff shall apply from a date and time specified to goods specified in the proclamation

which are the produce or manufacture of the British or foreign country specified in the proclamation. The Intermediate Tariff was brought into operation on 1st January, 1937, by Customs Proclamations Nos. 338, 342, 343 and 369, which granted intermediate rates of duty to specified goods the produce of "Proclaimed Countries." The countries proclaimed include the United Kingdom, the Dominions and Colonies in respect of goods which do not comply with the conditions prescribed for the application of a lower tariff and most foreign countries under the terms entitling them to most favoured nation treatment. The United States of America is an important exception, while Japan is entitled to intermediate rates for eleven items only, comprising artificial silk and cotton piece goods.

The "General Tariff" applies to all importations excepting :—

- (a) Goods the produce or manufacture of the United Kingdom, shipped in the United Kingdom ;
- (b) Goods the produce or manufacture of the following countries when admissible under the British Preferential Tariff or at a special rate of duty : Canada, New Zealand, Norfolk Island, Papua and New Guinea, and British non-self-governing Colonies, British Protectorates and certain Territories governed under British mandate.
- (c) Goods admitted under the provisions of the Intermediate Tariff.

The Customs Tariff 1933-1939 provides for duties on certain goods to be deferred. Where a deferred duty on any goods is provided in the Schedule, the Minister shall refer to the Tariff Board for inquiry and report the question whether the deferred duty should or should not operate on and after the date to which it has been deferred. The Board shall report whether the goods in respect of which the deferred duty is provided are being made or produced in Australia or will be so made or produced on, or immediately after, the date to which the duty has been deferred—(a) in reasonable quantities ; (b) of satisfactory quality ; and (c) at a reasonable price having regard, among other things, to the probable economic effect of the imposition of the deferred duty upon other industries concerned, and upon the community in general. Upon receipt of a report from the Tariff Board, the Minister may defer the duty further by notice published in the *Gazette*.

During the period 3rd April, 1930, to 23rd July, 1931, a special customs duty equal to 50 per cent. of the rate already in force was imposed on a number of items which were mostly of a luxury nature. The list of items affected was gradually reduced between 24th May, 1932, and 28th February, 1935, from which date the special customs duty ceased to operate.

By proclamation of 4th April, 1930, the importation of 78 classes of goods into the Commonwealth was prohibited, but these prohibitions were all removed during the period from 24th February to 31st August, 1932.

In pursuance of the trade diversion policy of the Commonwealth Government (see par. 8 of this section), an amendment of the Customs (Prohibited Imports) Regulations of 22nd May, 1936—Item 21—prohibited the import into Australia, except under special licence, of 84 classified groups of goods produced or manufactured in foreign countries. A list of the principal items affected was published in Official Year Book No. 30. Important modifications of the licensing system as applied to the 84 groups of goods referred to were announced on 7th December, 1937, by the Minister for Trade and Customs, who stated that in respect of goods not competitive with Australian industry, licences for importation would be granted irrespective of the country of origin. In respect of goods competitive with Australian industry the licensing system then in force would operate until duties adequate to the protection of the industries concerned had been determined. Tariff Schedules amending duties to give adequate protection to Australian industries established or extended during the currency of the licensing system were embodied in Customs and Excise Resolutions submitted to Parliament on 4th May, 1938, and the licensing restrictions ceased to have force from that date. The Acting Minister for Trade and Customs explained that the Schedules should be regarded as of a temporary nature until the industries could be inquired into and reported on by the Tariff Board.

Under Item 22 the import, except under special licence, is prohibited of motor vehicle chassis produced or manufactured in any country except the United Kingdom. Imports of chassis from the principal suppliers other than the United Kingdom are restricted to the same level of imports as for the twelve months ended 30th April, 1936.

From the same date, 22nd May, 1936, customs duties were increased on imports of certain items of cotton, artificial silk and silk piece goods and on motor chassis. The duties imposed on cotton and artificial silk piece goods were reduced as from 1st January, 1937.

3. **Primage Duty.**—From 10th July, 1930, a primage duty of 2½ per cent. ad valorem was imposed on all goods whether dutiable or not dutiable, in addition to the duties collected in accordance with the Customs Tariff 1921–1930, excepting bullion, specie, radiura and certain special governmental and other imports. The rate of primage duty was subsequently increased to 4 per cent. as from 6th November, 1930.

A proclamation of 14th May, 1931, exempted certain aids to primary production, and on 11th July, 1931, a further amendment, in addition to extending the list of these goods and also exempting some minor imports from primage duty, provided for a rate of 4 per cent. ad valorem on a few other items, mainly aids to production, and increased the ad valorem rate of primage duty to 10 per cent. on all other articles imported. Amendments promulgated since 11th July, 1931, have greatly increased the list of goods exempt from primage duty.

The Customs Tariff (Primage Duties) Act 1934 imposed primage duty at rates of 4, 5, and 10 per cent. and provided for preferential treatment of certain goods admitted under the British Preferential Tariff. A proclamation of 12th December, 1934, exempted from primage duty goods the produce or manufacture of Fiji and a proclamation of 25th September, 1935, exempted from primage duty goods the produce or manufacture of the Territories of New Guinea and Papua. Under the Customs Tariff (New Zealand Preference) Act goods the produce or manufacture of New Zealand are exempt from primage duty. Similarly under the Norfolk Island Act 1913 goods the produce or manufacture of Norfolk Island are exempt from primage duty.

Customs proclamations, which came into force on 1st January, 1937, and later dates, provide in respect of specified tariff items exemptions from, and reduced rates of 4 and 5 per cent. primage duty on imports the produce or manufacture of "proclaimed countries". All countries whose goods are admissible to Australia under the intermediate customs tariff rank as proclaimed countries and include the United Kingdom, the Dominions and Colonies and most foreign countries. An important exception is the United States of America while Japan is a proclaimed country for eleven items only.

In 1937–38 the value of goods from the United Kingdom admitted under British Preferential Tariff rates was, in Australian currency, £A53,099,017 and the primage duty paid, £A1,346,039. This amount is £A1,355,868 less than the amount which would have been paid if certain goods had not been subject to preferential rates of primage duty.

4. **Preferential Tariff.**—(i) *British Preference.* The Commonwealth Tariff 1908 provided Preferential Tariff rates in favour of specified goods produced or manufactured in the United Kingdom. Subsequent amendments of the Tariff have extended the list of articles to which the preferential rates apply. The favourable treatment of the United Kingdom was again extended by Customs Tariff 1921 and when this Act was incorporated in Customs Tariff 1921–1930 further concessions were granted.

On the introduction of the preferential treatment of British goods by the Commonwealth Tariff, it was required that British material or labour should represent not less than one-fourth the value of such goods. From the 1st September, 1911, it was

required in regard to goods only partially manufactured in the United Kingdom, that the final process or processes of manufacture should have been performed in the United Kingdom and that the expenditure on material of British production and/or British labour should have been not less than one-fourth of the factory or works cost of the goods in their finished state.

These conditions were superseded by Customs Act 1934 as amended by Customs Act 1936 which repealed section 151A of the Principal Act and inserted in its stead :—

151A. (1.) For the purposes of any Customs Tariff (whether passed before or after the commencement of this section) which specifies in respect of any goods rates of duties of Customs lower than the Intermediate Tariff in respect of those goods, the following goods shall, subject to this section, be deemed to be the produce or manufacture of the United Kingdom :—

- (a) Goods which are wholly produced or wholly manufactured in the United Kingdom from materials in one or more of the following classes—
 - (i) Materials wholly produced or wholly manufactured in the United Kingdom or in Australia.
 - (ii) Imported unmanufactured raw materials.
 - (iii) Imported manufactured raw materials as determined by the Minister.
- (b) Goods of the factory or works cost of which not less than seventy-five per cent. is represented—
 - (i) by labour or material of the United Kingdom ; or
 - (ii) by labour or material of the United Kingdom and labour or material of Australia.
- (c) Goods of a class or kind not commercially produced or manufactured in Australia and of the factory or works cost of which not less than twenty-five per cent. is represented—
 - (i) by labour or material of the United Kingdom ; or
 - (ii) by labour or material of the United Kingdom and labour or material of Australia.

(2.) Where in relation to any class or kind of goods to which paragraph (c) of the last preceding sub-section applies the Minister is satisfied that it is desirable that 50 per cent. should be substituted for the percentage specified, the Minister may so determine and thereupon that paragraph shall apply to that class or kind of goods as if 50 per cent. were so substituted accordingly.

(3.) No goods shall be deemed to be the produce or manufacture of the United Kingdom unless the final process of their production or manufacture was performed in the United Kingdom.

(4.) The provisions of this section shall apply *mutatis mutandis* in relation to goods which are imported from any country in respect of which a Customs Tariff within the meaning of sub-section (1.) of this section applies, in like manner as they apply in relation to goods imported from the United Kingdom.

Sub-sections 5, 6 and 8 to 10 of section 151A relate to certain powers of the Minister and the meaning of "Intermediate Tariff" and sub-section 7 to the meaning of "unmanufactured raw materials."

Section 151B of Customs Act 1936 prescribes the conditions relating to the application of the Intermediate Tariff.

The Customs Tariff 1933-1939 provides that the British Preferential Tariff rates of duty apply to goods or manufactures of the United Kingdom provided such goods comply with the laws and statutory regulations for the time being in force affecting the grant of British preference (see Section 151A of Customs Act 1901-1936). Customs Tariff 1933-1939 also provides that the benefits of the British Preferential Tariff may

be extended wholly or in part to any British non-self-governing colony, British Protectorate, or to certain territories governed under British mandate. The benefits of the British Preferential Tariff have also been extended by separate Trade Agreements to certain goods the produce of the Dominions of Canada and New Zealand.

At the Imperial Economic Conference held at Ottawa, Canada, during July and August, 1932, a trade agreement providing increased preference was made between the Government of the United Kingdom and the Government of the Commonwealth of Australia. The Tariff proposals embodying the terms of the trade agreement came into operation on the 14th October, 1932. An Act entitled the United Kingdom and Australia Trade Agreement Act 1932 approved the provisions of the trade agreement arising out of the Conference at Ottawa. Briefly stated the Commonwealth Government agrees (a) to invite Parliament to pass legislation making the tariff changes necessary to give effect to the preference formula set forth in the agreement; (b) that protection by tariffs shall be afforded only to those industries which are reasonably assured of sound opportunities for success; (c) that during the currency of the agreement the tariff shall be based on the principle that protective duties shall not exceed such a level as will give United Kingdom producers full opportunity of reasonable competition on the basis of the relative cost of economical and efficient production, provided that in the application of such principle special consideration may be given to the case of industries not fully established; (d) that the Australian Tariff Board review existing protective duties in accordance with the above principles, and after the receipt of the report of the Board the Parliament shall be invited to vary, wherever necessary, the tariff on goods of United Kingdom origin in such manner as to give effect to such principles; (e) that no new protective duty shall be imposed and no existing duty shall be increased on United Kingdom goods to an amount in excess of the recommendation of the Tariff tribunal; (f) that United Kingdom producers shall be entitled to full rights of audience before the Tariff Board when it has under consideration above-mentioned matters; (g) that, in so far as concerns goods the produce or manufacture of the United Kingdom, the Commonwealth Government undertake to (i) repeal the proclamation prohibiting the importation of certain goods; (ii) remove as soon as practicable the surcharges imposed by resolution introduced into the Parliament of Australia on 24th May, 1932; and (iii) to reduce or remove primage duty as soon as the finances of Australia will allow. The agreement shall remain in force for a period of five years and come into effect on 20th August, 1932 (subject to the necessary legislative or other action being taken).

The prohibitions and surcharges referred to in this agreement have been abolished and primage duty on a large number of items removed or reduced. The concessions granted by the Government of the United Kingdom under the terms of the Ottawa trade agreement on goods of Australian origin are set out briefly in par. 6 of this section. Further reference to this trade agreement will be found in the Appendix to Official Year Book, No. 26, 1933.

This agreement was reviewed by a Conference of United Kingdom and Australian Ministers in London in 1938, and on 20th July, 1938, a White Paper was presented to the British House of Commons embodying the results of the negotiations.

The full text of this White Paper is as follows :

WHITE PAPER ON UNITED KINGDOM—AUSTRALIA TRADE NEGOTIATIONS.

“ United Kingdom and Australian Ministers have been engaged for some time in a review of various matters arising out of the Ottawa Agreement of 1932. Not only have the existing preferential arrangements between the two countries been examined, but Empire problems have, in a spirit of mutual sympathy and goodwill, been considered in their widest aspects, with a view to ensuring the maximum co-operation between the United Kingdom and Australia in their solution. The Ministers have reviewed broadly the principles which should in their opinion be regarded as a charter of the United Kingdom—Australia trade relations.

“The United Kingdom and Australia have a vital interest in each other. Australia in the United Kingdom—

- (a) as a great force for the bringing about and maintenance of international, political and economic peace,
- (b) as an essential element in the defence of Australia's territory and trade,
- (c) as the greatest market for Australian exports of primary products ;

the United Kingdom in Australia—

- (a) as a sister nation closely linked to the United Kingdom in matters of Empire defence,
- (b) as a country which given adequate population and full development of resources will become a great power in continued partnership with the United Kingdom,
- (c) as one of the greatest customers in the world for United Kingdom goods,
- (d) as the domicile of the largest amount of United Kingdom capital invested in any single overseas country and as a field for future United Kingdom investment.

“Both the United Kingdom and Australia have certain problems and requirements existing which each not only admits but is prepared to treat as the bases for trade relationships between the two countries. Australian Ministers recognize—

- (a) the necessity for the United Kingdom to safeguard and develop her own agriculture,
- (b) the position of the United Kingdom as a great international trade investor and shipowner,
- (c) the consequent necessity that the United Kingdom should maintain the position as a great oversea trader and in particular as an exporter of manufactured goods to the Empire and to foreign countries,
- (d) that these facts impose an upward limit upon the extent to which increased opportunities can be afforded to the Dominion producers in the United Kingdom market,
- (e) that any diminution of the total exports from the United Kingdom will tend to affect the capacity of the United Kingdom to purchase foodstuffs and raw materials from overseas suppliers and Australia.

United Kingdom Ministers recognize—

- (a) that in the interests of both countries and of the British Empire as a whole it is desirable for Australia to endeavour to bring about as soon as possible a substantial increase in her population,
- (b) that it is impossible to achieve this objective solely or principally by an expansion of Australian primary industries,
- (c) that there is therefore a necessity to combine with such expansion the sound and progressive development of Australian secondary industries.

“Both United Kingdom and Australian Ministers are strongly attached to the principle of preferential trade within the British Empire. At the same time they realize that several of the important facts above stated render it not only inevitable but desirable that both the United Kingdom and Australia should from time to time enter into trade agreements with foreign countries. In this way the two countries can assure their own full development and at the same time make an effective contribution to the expansion of International trade. To this end the United Kingdom and Australian Ministers have undertaken to co-operate in every practicable way with a view to acceptance of each other's co-operation in arriving at trade agreements with foreign countries.

“Certain immediate difficulties arise when an attempt is made to reconcile the desirability for Australia to expand her secondary industries to the maximum extent economically possible with that of the United Kingdom to maintain her exports and to secure for her exports a stable position in the Australian market. Some machinery for the adjustment of the immediate interests of the two countries was and is obviously desirable.

"In the Ottawa Agreement an attempt was made to meet these difficulties by the provisions of Articles 9 to 13 which have in practice worked fairly satisfactorily though they have been criticized from quite opposite points of view in the United Kingdom and Australia. Two possible methods of dealing with these Articles presented themselves to the Ministers. One was to endeavour to revise them so as to satisfy the requirements of both countries. This has so far proved impracticable. The other was to abolish the Articles altogether and to substitute for them a schedule of maximum rates of duty which should operate during the currency of the agreement. The principle of making trade treaties on the basis of fixing rates of duty is one which has been common to most modern international arrangements, but there may be special difficulties in applying it in the case of a young and developing country like Australia which also has a system of wage-fixing tribunals and consequently fluctuations of industrial costs. Australian Ministers have, however, stated that the Australian Government will proceed forthwith to investigate the possibility of adopting such a system. They realize that it cannot be adopted without determining (subject of course to an exception in favour of the manufacture of defence materials, as to which no ruling could be laid down in advance) upon what lines the development of secondary industries will be followed by Australia during the next few years, but they believe if inquiries are put in hand for the purpose of determining the lines of a general plan of industrial development in Australia much good would result. Exports would to that extent be protected and the necessity for Articles which at present invoke criticism would disappear.

"In making such an inquiry the Commonwealth Government propose to have regard to *inter alia* such important factors as—

- (a) the necessity for increased Australian population,
- (b) the economics and future growth of primary production in Australia,
- (c) the necessity on national and economic grounds for a continued development of Australian secondary industries,
- (d) the defence needs of Australia,
- (e) the maintenance of United Kingdom—Australian trade by effective preference to United Kingdom in Australia and to Australia in the United Kingdom,
- (f) the need for new markets for Australian exports and for foreign trade arrangements.

"In the meantime and pending the decision of the Australian Government on this matter the present agreement will continue in force, though in order to avoid some difficulties which have presented themselves in the past the United Kingdom Ministers are prepared not to press their objection to interpretations now placed by the Australian Tariff Board upon Article 10, while the Australian Ministers have undertaken to make every effort to ensure that the Tariff Board's recommendations under Article 11 are made effective.

"During the course of conversations between Ministers much discussion took place with regard to the marketing of primary produce in the United Kingdom. Australian Ministers recognize the rights of United Kingdom agriculture in accordance with the principle that the home producer is entitled to first consideration in the home market. They also recognize that the circumstances above indicated impose an upward limit upon the extent to which increased opportunities can be afforded to Dominion producers in the United Kingdom market. The United Kingdom Ministers in their turn recognize the principle that Empire producers are entitled to second consideration in the United Kingdom market and that, subject to the vital interests of the United Kingdom in its agriculture and oversea trade, the necessity of maintaining remunerative prices while safeguarding the interests of the consumer and the absorptive capacity of the United Kingdom market, an extended market should, as far as practicable, be afforded in the United Kingdom for their products. It was felt by both United Kingdom and Australian Ministers that, in the present state of trade, the interests of all parties could best be

served by means of orderly marketing secured by collective action on the part of Empire producers organizations in co-operation with corresponding bodies in other countries in respect of particular commodities. A similar method has already been adopted in regard to beef by the creation of the Empire Beef Council and the International Beef Conference, and in the opinion of the Ministers great benefit to both home and Dominion producers can be secured by co-operation of this character in relation to other commodities."

On the basis of the imports during 1913 the preferential provisions of the Tariff of 1908-1911 covered 65 per cent. of the imports of merchandise of United Kingdom origin, the margin of preference being equal to 5 per cent. of the value of the goods. On the basis of the imports during 1937-38 the Customs Tariff 1933-1939 extended the application of the Preferential Tariff rates to 90.0 per cent. of the imports from the United Kingdom, and at the same time increased the margin of preference to 19.0 per cent. ad valorem. These percentages relate to all imports on which preference was granted, whether dutiable or free under the preferential provisions. With regard to imports on which preference was granted and which were dutiable under both the Preferential and General Tariffs, the average equivalent ad valorem rate of duty paid in 1937-38 under the Customs Tariff 1933-1939 on goods of United Kingdom origin was about 15.4 per cent., whereas the same goods under the General Tariff rates would have been called upon to pay an average rate of about 39.9 per cent.

An application of the Customs Tariff 1933-1939 to the total imports of £A59,008,005 (including outside packages) from the United Kingdom entered for home consumption during the year 1937-38 shows that the value of the goods of United Kingdom origin which participated in the preferential provisions of the Tariff was £A53,099,017, upon which duty to the amount of £A4,312,158 was collected. Under the General Tariff the same goods would have paid £A14,408,564 duty or £A10,096,406 more than was paid at preferential rates, representing an additional duty of 19.0 per cent. on the value of the goods. The principal classes which benefited under the Preferential Tariff and the additional duty that would have been collected under the General Tariff during the year 1937-38 were textiles, £3,333,798; metals and metal manufacturers, £2,776,830; machines and machinery, £1,300,296; drugs, chemicals, etc., £392,214; paper, £337,807; earthenware, glass, etc., £294,861; apparel, £250,444; manufactured fibres, £233,677; optical, surgical and scientific instruments, £111,512; stationery and paper manufactures, £99,446; and spirituous liquors, £93,524.

If a preferential tariff had not been in operation in 1937-38 £A10,096,406 additional customs duty would have been collected under the general tariff on United Kingdom goods imported at preferential rates. It would be improper, however, to speak of this sum as the "value" of preference to the United Kingdom as some of the preferential goods would have come from the United Kingdom without preference.

The margin of preference granted by the preferential tariff has been increased to some extent by the operation of the Customs Tariff (Exchange Adjustment) Act 1933-1939. This Act provides for deductions of duty consequent on the depreciation in the value of Australian currency in relation to the currencies of other countries but is limited in its application to protected goods admitted under the British preferential tariff. On goods of United Kingdom origin subject to exchange adjustment in 1934-35 the deductions amounted to £A460,729 and reduced the duty from £A3,804,325 to £A3,343,596. The total amount deducted in later years cannot be stated owing to the fact that since the end of 1934 "net" rates of duty (after making allowance for exchange adjustment) recommended by the Tariff Board have been applicable.

The value of goods from countries other than the United Kingdom which were adversely affected by the preferential provisions of the Tariff amounted to £A27,337,307, and the duty collected thereon was £A7,353,914, or £A4,995,482 more than would have been paid under the British Preferential Tariff Rates.

The following table shows the effect of the Preferential provisions of the Customs Tariff on imports of goods affected favourably or adversely by the British Preferential Tariff during the years 1935-36 to 1937-38 :—

EFFECT OF THE PREFERENTIAL PROVISIONS OF THE CUSTOMS TARIFF.

IMPORTS OF GOODS AFFECTED FAVOURABLY OR ADVERSELY BY THE BRITISH PREFERENTIAL TARIFF.

Particulars.	United Kingdom.			Other Countries.(a)		
	1935-36.	1936-37.	1937-38.	1935-36.	1936-37.	1937-38.

GOODS OF A KIND WHICH WERE "FREE", IF FROM UNITED KINGDOM.

Value of goods cleared for consumption ..	£	19,189,951	20,317,326	25,040,517	12,638,770	9,676,676	12,983,535
Amount of Duty collected thereon ..	£	..	..	..	2,013,394	1,251,871	1,600,664
Average ad valorem rate of Duty collected ..	%	..	..	..	15.9	12.9	12.3
Duty which would have been collected under General Tariff rates ..	£	2,728,538	2,592,120	3,213,203	..	..	..
Average ad valorem rate of Duty which would have been collected under General Tariff rates ..	%	14.2	12.8	12.8	..	..	..

GOODS OF A KIND WHICH WERE "DUTIABLE", IF FROM UNITED KINGDOM.

Value of goods cleared for consumption ..	£	19,889,895	24,419,570	28,058,500	15,990,176	14,247,041	14,253,772
Amount of Duty collected thereon ..	£	3,662,920b	4,010,882b	4,312,158b	6,092,310	6,097,474	5,753,250
Average ad valorem rate of Duty collected ..	%	18.4	16.4	15.4	38.1	42.8	40.4
Duty which would have been collected on United Kingdom goods under General Tariff rates ..	£	7,445,011	9,306,743	11,195,361	..	..	..
Average ad valorem rate of Duty which would have been collected under General Tariff rates ..	%	37.4	38.1	39.9	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff ..	£	..	..	..	3,023,170b	2,427,105b	2,358,432b
Average ad valorem rate of Duty which would have been collected under British Preferential Tariff ..	%	..	..	..	18.9	17.0	16.6
Amount of Rebate on United Kingdom goods as against General Tariff rates ..	£	3,782,091b	5,295,861b	6,883,203b	..	..	..
Average ad valorem rate of Rebate on United Kingdom goods ..	%	19.0	21.7	24.5	..	..	..
Amount of Surcharge on goods from Other Countries as against British Preferential Tariff rates ..	£	..	..	..	3,069,140b	3,670,369b	3,394,818b
Average ad valorem rate of Surcharge on goods of Other Countries ..	%	..	..	..	19.2	25.8	23.8

(a) Goods cleared under "General Tariff." (b) In computing this amount, account has been taken of the effect of the Exchange Adjustment Act on the margin of British Preference.

NOTE.—For the purpose of the above analysis the value of imports is stated in Australian currency.

EFFECT OF THE PREFERENTIAL PROVISIONS OF THE CUSTOMS
TARIFF—continued.

Particulars.	United Kingdom.			Other Countries.(a)		
	1935-36.	1936-37.	1937-38.	1935-36.	1936-37.	1937-38.
TOTAL GOODS—"FREE" AND "DUTIABLE", AFFECTED BY THE BRITISH PREFERENTIAL TARIFF.						
Value of goods cleared for consumption ..	£ 39,079,846	44,736,896	53,099,017	28,628,946	23,923,717	27,237,307
Amount of Duty collected thereon ..	£ 3,662,920 ^b	4,010,882 ^b	4,312,158 ^b	8,105,704	7,349,345	7,353,914
Average ad valorem rate of Duty collected ..	% 9.3	9.0	8.1	28.3	30.7	27.0
Duty which would have been collected on United Kingdom goods under General Tariff rates ..	£ 10,173,549	11,898,863	14,408,564	..	..	..
Average ad valorem rate of Duty which would have been collected under General Tariff rates ..	% 26.0	26.6	27.1	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff ..	£ ..	..	..	3,023,170 ^b	2,427,105 ^b	2,358,432 ^b
Average ad valorem rate of Duty which would have been collected under British Preferential Tariff ..	% ..	..	..	10.6	10.1	8.7
Amount of Rebate on United Kingdom goods as against General Tariff rates ..	£ 6,510,629 ^b	7,887,981 ^b	10,096,406 ^b	..	..	..
Average ad valorem rate of Rebate on United Kingdom goods ..	% 16.7	17.6	19.0	..	..	..
Amount of Surcharge on goods from other Countries as against British Preferential rates ..	£ ..	..	..	5,082,534 ^b	4,922,240 ^b	4,995,482 ^b
Average ad valorem rate of Surcharge on goods of Other Countries ..	% ..	..	..	17.7	20.6	18.3

(a) Goods cleared under "General Tariff." (b) In computing this amount, account has been taken of the effect of the Exchange Adjustment Act on the margin of British Preference.

NOTE.—For the purpose of the above analysis the value of imports is stated in Australian currency.

(ii) *Intermediate Tariff Preference.* The Intermediate Tariff came into operation on 1st January, 1937, and during the year ended 30th June, 1938, was applicable wholly or in part to about 130 tariff items. In the period mentioned goods from "Proclaimed Countries" (i.e. Foreign countries entitled to most favoured nation treatment) cleared at intermediate rates of duty were valued at £A7,491,169 on which £A2,239,568 duty was collected. Under the General Tariff the same goods would have paid £A3,942,325 duty or £A1,702,757 more than was paid at intermediate rates, representing an additional duty of 22.7 per cent. on the value of the goods. At British preferential rates of duty the same goods would have paid £A820,775, or £A1,418,793 less than was paid at intermediate rates, a reduction equivalent to an ad valorem duty of 18.9 per cent.

(iii) *Exchange Adjustment.* The Customs Tariff (Exchange Adjustment) Act 1933-1939 provides for adjustments in Duties of Customs, consequent upon depreciation in the value of Australian currency in relation to the currencies of countries, on goods to which the British Preferential Tariff applies. This Act came into operation on 5th October, 1933, but subsequent amendments have extended the list of items affected. The application of Section 5 of the Act is explained hereunder :—

The deduction to be made from duty in respect of protected goods (covered by items) specified in the schedule to the Act and admissible under the British Preferential Tariff

on account of the depreciation of Australian currency in relation to the currency of the British country exporting the protected goods to Australia will depend on—

- (a) Whether the extent of depreciation is not less than 16 $\frac{2}{3}$ per cent. ; or
- (b) Whether the extent of depreciation is not less than 11 1-9 per cent., and less than 16 $\frac{2}{3}$ per cent.

If (a) applies, the deduction from the amount of duty will be—(i) one-fourth of the amount of duty ; or (ii) 12 $\frac{1}{2}$ per cent. ($\frac{1}{2}$) of the value for duty, whichever is the less :

If (b) applies, the deduction will be (i) one-eighth of the amount of duty ; or (ii) 6 $\frac{1}{4}$ per cent. of the value for duty, whichever is the less. The telegraphic transfer (buying) rate shall determine the extent of depreciation of Australian currency.

Prior to 1933-34 the Tariff Board had recommended rates of duty as though exchange was at par, but early in the year mentioned the Board decided to change the basis of its recommendations and has since shown its findings under the following headings :—

- (a) The rates which would prove reasonable and adequate under existing conditions of exchange.
- (b) An estimate as closely as can be made of the rates which would be reasonable and adequate if exchange suddenly reverted to par.
- (c) The scale of adjustment necessary to meet conditions of exchange between parity and the present adverse rate of 25 per cent.

In tariff proposals introduced on 6th December, 1934, and later, the new basis has been adopted in fixing rates of duty on certain items in accordance with the Board's recommendations as set out in (a) with provision for the adjustment of rates of duty as set out in (c). With respect to such items the deductions under the provisions of the Exchange Adjustment Act will cease to apply.

(iv) *Papua and New Guinea Preference.* The Customs Tariff (Papua and New Guinea Preference) Act 1936 which repealed the Act of 1934 provides for Customs Preference on goods the produce of Papua and on goods the produce of the Territory of New Guinea. Imports into Australia direct from the Territory of Papua or the Territory of New Guinea, of such of the goods specified in the schedule to the Act as were produced in the Territory from which they were imported, shall, notwithstanding anything contained in the Customs Tariff 1933-1938 be free of duty. The goods specified in the schedule to the Customs Tariff (Papua and New Guinea Preference) 1936 are coffee, dried lychee fruit, various native fresh fruits, edible fungi, green and dry ginger, coconuts, Rangoon beans, kapok and sesame seeds, areca nuts, cocoa beans, massoi oil, nuts (edible), sago, tapioca, spices, vanilla beans and gums. Total imports from Papua during 1937-38 amounted to £A324,876, imports of goods entitled to preference to £A129,763, and duties remitted to £A49,294. Total imports from the Territory of New Guinea during 1937-38 amounted to £A2,018,622 including gold £A1,784,549, imports of goods entitled to preference to £A64,043, and the duties remitted to £A42,231.

5. *Reciprocal Tariffs.*—(i) *General.* The Customs Tariff of 1921 introduced a new feature into Australian Tariffs in the form of an Intermediate Tariff. No provision was made in the Customs Tariffs 1933 for an intermediate tariff but in the Customs Tariff 1936 this feature was restored. The purpose of the intermediate tariff is referred to in § 2 par. 2.

The trade agreement signed at the Imperial Economic Conference, 1932, held at Ottawa, Canada, on behalf of the Government of the United Kingdom and of the Government of the Commonwealth of Australia materially altered the existing conditions of preference. The agreement provides special preferential trade conditions between the Commonwealth of Australia and the United Kingdom and certain of its dependencies. Customs Tariff 1933 embodied the main provisions of the Ottawa Agreement, and imposed duties of customs under two headings—British Preferential Tariff and General Tariff. No provision was made for an Intermediate Tariff in the abovementioned Act. The terms of the agreement conceded by the Commonwealth Government are briefly stated in § 2 par. 4, and the concessions granted by the Government of the United Kingdom on goods of Australian origin are set out in § 2 par. 6 of this chapter. A review of the trade agreement will be found in the Appendix to Official Year Book No. 26, 1933.

(ii) *Union of South Africa.* The Commonwealth Customs Tariff (South African Preference) Act 1906 and subsequent amending Acts which provided preferential rates of duty upon goods produced within the South African Customs Union were repealed from 1st July, 1926, by the Customs Tariff 1926.

A new trade agreement took effect from 1st July 1935. This agreement provides that the products of the Union of South Africa or the mandated territory of South-West Africa entering Australia and the products of Australia entering the Union of South Africa or the mandated territory of South-West Africa shall be subject to customs duties not higher than those imposed by the importing country on like products from the most favoured foreign nation. A reciprocal tariff arrangement under which products of Mozambique are admitted duty free to the Union of South Africa is exempt from the agreement.

(iii) *Dominion of New Zealand.* The Customs Tariff (New Zealand Preference) Act 1933, which came into force on 1st December, 1933, repealed earlier Acts and provides that duties on all goods specified in the schedule to the Act shall be at the rates indicated therein, and that all goods other than those provided for in the schedule shall be subject to the rates in force under the British Preferential Tariff. An amendment to this Act in 1934 provides that, where the rate of duty upon any class of goods under the New Zealand British Preferential Tariff is less than that operating in Australia under the British Preferential rate, upon request by the New Zealand Government such goods may, after proclamation, be admitted at the lower rate. The rates of duty on goods re-exported from New Zealand (not being goods the produce or manufacture of New Zealand) and which are imported into Australia, and upon which if they had been imported into Australia direct from the country of origin would have been subject to the rates of duty under the British Preferential Tariff, shall be the rates of duty in force under that tariff.

The Act provides also that films produced in New Zealand by or for the Government of New Zealand for publicity purposes shall be admitted free of duty, also that cocoa beans the produce of Western Samoa shall not be subject to any higher duties than those paid on cocoa beans the produce of any British non-self-governing Colony or Protectorate or any Territory under British mandate. Nothing in the Act shall apply to goods being the produce of Cook Islands.

Goods the produce or manufacture of the Dominion of New Zealand are exempt from primage duty.

The conditions of preference in the Act provide that goods shall be deemed to be the produce or manufacture of New Zealand if they conform to the laws and regulations in force in Australia which apply to such goods when imported under the British Preferential Tariff (*vide* section 151A of Customs Act 1901-1936) except that goods not wholly produced or manufactured in New Zealand need not contain more than 50 per cent. of New Zealand labour and/or material in their factory or works cost, instead of 75 per cent. under the conditions of the United Kingdom preference.

Of the total imports of £A2,492,707 from New Zealand during 1937-38 it is estimated that goods otherwise dutiable amounting in value to £A622,089 were admitted free under the provisions of the Preferential Tariff and the duty thus remitted was £A176,282. In addition, goods valued at £A70,765 were admitted under the preferential rates of duty, the duty remitted on such goods being £A12,928. The total of the duties remitted on the import of New Zealand goods was thus £A189,210, representing a margin of preference of 27.3 per cent. on the value of the goods entitled to preference. The principal items which benefited under the preferential provisions were undressed timber, valued at £A224,900, and fish, £A208,502, the amounts of duty remitted being £A140,541 and £A39,794 respectively.

In December, 1938, the New Zealand Government announced a policy of import control. The immediate necessity for the prohibitions was due to the seriously low level to which New Zealand credits had fallen in London, but the policy was largely dictated by the determination to develop primary and secondary industries in the Dominion, increase exports, and control imports. The increase of exports would necessarily result in increased imports, but their nature would be controlled in the interests of local production

by prohibiting luxury lines, and facilitating the importation of capital equipment and essential raw material for the production of goods which the policy of "import selection" would automatically prevent from coming into the Dominion.

During April, 1939, the Minister for Customs in New Zealand announced that imports into New Zealand of fruit, vegetables and certain other goods would be controlled by the State. The Minister stated that the object of the control was to enable imports to be co-ordinated more effectively with production in New Zealand.

The Minister further indicated that after 30th June, 1939, the imports of 220 items out of the 449 comprising the Customs Tariff would be completely prohibited regardless of country of origin. A further 40 items would have percentage reductions. The items affected include the following:—

Confectionery, spices, preserves, matches, cigars, cigarettes, manufactured tobacco, alcoholic liquors, made-up apparel (except children's hosiery), made-up hats, millinery, footwear (except gum boots, children's shoes, tennis shoes, and goloshes), floor coverings, cement, bricks, roofing tiles, musical instruments, gramophones, assembled radios, hand lawn mowers, most bottles, tinware, household electrical goods, vacuum cleaners, irons, cooking appliances (except ranges), paints, varnishes, lacquers, dressed timber, joinery, turnery, furniture, cabinetware, brooms, mops, brushes.

Assembled motor vehicles, totally prohibited; unassembled, 40 per cent. reduction.

Motor cycles and bicycles: 25 per cent. reduction, British; 55 per cent. Dominion made; 100 per cent. foreign.

(iv) *Dominion of Canada.* A reciprocal trade agreement between Canada and Australia which came into force on 1st October, 1925, was superseded by the Customs Tariff (Canadian Preference) Act of 1931, which reaffirmed the principle of granting preferences for the mutual advantage of the two countries and extended preferential conditions. Other tariff legislation in force is the Customs Tariff (Canadian Preference) Act No. 5 of 1934 as amended by Nos. 16 and 70 of 1936 and No. 5 of 1938. The commodities on which Canada grants preferential rates of duty to Australia are: Butter, brandy, champagne, cheese, currants, eggs, eucalyptus oil, fresh apricots, pears, quinces, nectarines, grapes, oranges and passion fruit, dried prunes, apricots, nectarines, pears and peaches, fruit pulp, fruits in cans, gelatine, hops, rice (uncleaned), meat (fresh and canned), peanuts, raisins, sugar, tallow, veneers and wine. Australia's preferential duties apply to the following Canadian imports:—Carbide of calcium, cash registers, corsets, fish, gloves, goloshes and rubber sand boots, etc., iron and steel tubes or pipes, printing machinery, barbed wire, paper (printing, typewriting and writing), timber, typewriters, vacuum cleaners and vehicles—motor chassis (unassembled and assembled)—and vehicle parts but not including bodies, gears, rubber tyres and tubes, storage batteries, shock absorbers, bumper bars, sparking plugs and springs.

During 1937-38 the imports from Canada amounted in Australian currency to £A10,076,525 and imports of Canadian origin entitled to preference were valued at £A9,144,203, the principal items being motor chassis and parts, £A2,503,647; timber, £A1,583,997; printing paper, £A1,580,822; fish, £A489,948; and piece goods, £A382,681. The duty on the total imports of Canadian origin entitled to preference would have been £A3,490,833 under the General Tariff, but by the preferential provisions this was reduced by £A1,979,633, or by 21.6 per cent. on the value of the imports concerned.

Australian exports to Canada subject to preference amounted to approximately £A1,412,000, the principal items being sugar, £A573,008; dried fruits, £A491,543; tallow, £A85,043; butter, £A78,953; and fruits preserved, £A75,630.

6. *Preferential Tariff of the United Kingdom.*—(i) *General.* The post-war Tariff of the United Kingdom provides Preferential Customs rates on certain goods where it is shown to the satisfaction of the Commissioners of Customs and Excise that such goods have been consigned from and grown, produced, or manufactured in the British Empire. Manufactured articles generally are not entitled to the preferential rates unless a specified

percentage of their value is the result of labour within the British Empire. In the Budget submitted to the House of Commons during June, 1925, clauses dealing with increased Imperial preference on Empire-grown tobacco, preserved and dried fruits, jams and jellies, spirits, wine, sugar and hops were proposed and adopted. The new rates of duty took effect on 1st July, 1925, excepting that relating to hops, which came into operation on 16th August, 1925.

(ii) *Australian Preference.* The principle items of interest to Australia which are accorded preferential treatment under the Preferential Tariff of the United Kingdom; Fruits, dried and preserved; jam; fruit pulp; preserved milk; wine; and brandy. Conditions of preference to goods of Australian origin imported into the United Kingdom were revised in the trade agreement signed at the Ottawa Imperial Economic Conference. Increased preference was granted and the list of commodities entitled to preference was extended. This agreement provides that for eggs, poultry, butter, cheese and other milk products free entry for produce of Australia will be continued for three years certain. Article 2 of the agreement provides that the British Government will invite Parliament to pass the legislation necessary to impose on foreign goods specified in Schedule B, the duties of customs specified therein in place of the duties (if any) now leviable. The goods and duties in Schedule B are as follows:—Wheat in grain, 2s. per quarter. (This duty was abolished as a result of the United Kingdom-United States of America trade agreement of the 17th November, 1938. See sub-par. (iv) below; butter, 15s. per cwt.; cheese, 15 per cent. ad valorem; apples, raw, 4s. 6d. per cwt.; pears, raw, 4s. 6d. per cwt.; apples, canned, 3s. 6d. per cwt., in addition to duty in respect of sugar content; other canned fruits, 15 per cent. ad valorem, in addition to duty in respect of sugar content; dried fruits, now dutiable at 7s., 10s. 6d. per cwt.; eggs in shell, (a) not exceeding 14 lb. per great 100, 1s. per great 100; (b) over 14 lb. but not exceeding 17 lb., 1s. 6d. per great 100; (c) over 17 lb., 1s. 9d. per great 100; condensed milk, whole, sweetened, 5s. per cwt., in addition to duty in respect of sugar content; condensed milk, whole, not sweetened, 6s. per cwt.; milk powder and other preserved milk, not sweetened, 6s. per cwt.; honey, 7s. per cwt.; copper, unwrought, whether refined or not, in ingots, bars, etc., 2d. per lb.; oranges, raw, 3s. 6d. per cwt. from 1st April to 30th November; grape fruit, raw, 5s. per cwt., from 1st April to 30th November, and grapes (other than hothouse) 1½d. per lb. from 1st February to 30th June. Schedule C provides that the margin of preference on wine not exceeding 27 degrees of proof spirit shall be 2s. per gallon.

The British Government undertake that the general ad valorem duty of 10 per cent. imposed by Section 1 of the Import Duties Act 1932 on the following foreign goods shall not be reduced except with the consent of the Commonwealth Government;—Leather, tallow, canned meat, zinc, lead, barley, wheaten flour, macaroni, dried peas, dressed poultry, casein, eucalyptus oil, meat extracts and essences, copra, sugar of milk, sausage casings, wattle bark, asbestos and dried fruits other than currants.

The duties provided on foreign wheat in grain, copper, lead and zinc are conditional on Empire producers continuing to offer these commodities on first sale in the United Kingdom at prices not exceeding the world price.

During the calendar year 1937 merchandise of Australian origin imported into United Kingdom amounted to £71,732,000. Of this total approximately £42,079,000 represented goods which received preferential tariff treatment over similar goods from foreign countries. If these goods had been subject to the duties imposed on foreign goods it is estimated that they would have paid approximately £6,274,000 more in duty. This represents a rebate of approximately 14.9 per cent. on the value of imports receiving preferential treatment. The main items receiving preference and the amount of the rebates were:—Wheat, £11,510,000 (rebate, £522,000); butter, £7,522,000 (rebate, £1,118,000); lead, unwrought, £4,130,000 (rebate, £68,000); beef, chilled and frozen, £3,869,000 (rebate, £774,000); sugar, £3,658,000 (rebate, £1,470,000); flour, £1,996,000 (rebate, £200,000); apples, fresh, £1,624,000 (rebate, £334,000); fruits, preserved, £1,007,000 (rebate, £190,000); raisins, £885,000 (rebate, £223,000); eggs in shell, £721,000 (rebate, £95,000); and wine, £575,000 (rebate, £637,000). The above figures

for imports have been obtained from the *Annual Statement of the Trade of the United Kingdom* 1937, and the rebate granted has been estimated from rates of duty shown in the Import Duties Act 1932, Ottawa Agreements Act 1932 and the other enactments mentioned above.

The declaration by the British Government (Schedule H of the agreement) provides for the regulation of foreign meat into the United Kingdom and undertakes that no restriction will be placed upon the importation of any meat from Australia during the period (January 1933 to June 1934) named in the "agreed programme" which is set out in Schedule H.

The views of the Government of the United Kingdom on the imports of meat into the United Kingdom were the subject of a paper presented to the House of Representatives in April, 1935. In a memorandum on "The Live Stock Situation" issued as a White Paper in July, 1934, the United Kingdom Government called attention to the very serious decline which had taken place in 1932, 1933 and the first half of 1934, in the prices of fat and store cattle in the United Kingdom market. The decline was attributed in the main to the disproportionate fall of agricultural prices as the result of the World depression and the effect on the meat industry of the expansion of oversea production which in some cases was stimulated by the payment of subsidies. The United Kingdom Government added that it was clearly impossible for that Government to acquiesce in a situation which threatened ruin to the United Kingdom live stock industry and explained that the choice lay between—

- (a) a drastic reduction of imports to the point necessary to sustain prices of United Kingdom live stock at a remunerative figure; or
- (b) the introduction in agreement with oversea countries of a levy upon imports the proceeds of which would be available for the assistance of the home industry.

In the latter case, it was explained, the quantity of imports might either be left entirely free or subjected to such moderate regulation as might be thought necessary to prevent the market from breaking altogether. It was further pointed out that, without the consent of the countries concerned, no duty could be imposed on Dominion meat before August, 1937, or on Argentine meat before November, 1936. Failing agreement on the payment of a levy on meat imports the United Kingdom Government would have no alternative but to take steps to regulate, during the currency of existing agreements, the quantity of imports to whatever extent was necessary to restore live stock prices to a remunerative level. In summing up the position the United Kingdom Government stated that it was the firm intention of His Majesty's Government in the United Kingdom to safeguard the position of the United Kingdom live stock industry.

The arrangements with the United Kingdom provide for importations of Australian meat regulated in accordance with the absorptive capacity of the United Kingdom market. Australian meat importations into the United Kingdom during the last five years as compared with the Ottawa agreement year (1931-32) have been as follows:—

Year.	Chilled Beef.	Frozen Beef and Veal.	Frozen Mutton and Lamb.	Pork.
	Cwt.	Cwt.	Cwt.	Cwt.
1931-32	Nil	1,124,000	1,488,000	Nil
1934	55,000	1,599,000	1,627,000	82,000
1935	228,000	1,468,000	1,784,000	147,000
1936	296,000	1,512,000	1,499,000	233,000
1937	458,000	1,830,000	1,883,000	234,000
1938	547,000	1,850,000	1,899,000	284,000

Imports of mutton and lamb into the United Kingdom for the twelve-monthly period from 1st October, 1938, to 30th September, 1939, were reduced by 3 per cent. below the level of the preceding twelve months, this action having been taken by the United

Kingdom Government in order to safeguard the stability of the market. This reduction applied to exports from New Zealand, while foreign supplies were reduced by 10 per cent. compared with the preceding year.

Exports of mutton and lamb from Australia for arrival in the United Kingdom during the first six months of the current year totalled 1,318,177 cwt., and total exports for the twelve months from October, 1938, to September, 1939, were estimated at 1,713,000 cwt. As this figure is within the limits imposed, the reduction of imports did not involve any actual restriction on exports of mutton and lamb from Australia.

(iii) *United Kingdom-Argentina Trade Agreement.* In connexion with the supply of meat to the Mother Country it will be of interest to compare the terms of the United Kingdom-Argentina Trade Agreement which took effect from 20th November, 1936. This Agreement provides for "minimum annual quantities" of Argentina meat to be imported into the United Kingdom as follows:—Chilled beef for year 1937 not less than the quantity imported in 1935 reduced by 138,700 cwt. For each of the years 1938 and 1939 not less than the quantity permitted in the preceding year reduced by 138,700 cwt. provided that the 1939 quantity shall be not less than 6,590,000 cwt. Frozen beef 124,600 cwt., pork 186,800 cwt., and canned beef 605,600 cwt. annually. Mutton and lamb for year 1937, 886,000 cwt. and for 1938, 797,400 cwt. In addition, customs duty has been imposed as follows:—Chilled beef $\frac{3}{4}$ d. per lb.; frozen beef $\frac{3}{4}$ d. per lb.; canned beef (excluding tongues) 20 per cent., and tongues 30 per cent. ad valorem; pork, mutton and lamb, free. If in any period Argentina is unable to supply the minimum quantities specified the United Kingdom Government may re-allocate the shortage among other countries. The agreement will remain in force until 31st December, 1939, and thereafter until terminated by six months' notice.

(iv) *United Kingdom-United States of America Trade Agreement.* The trade agreement between the United Kingdom and the United States of America, signed on 17th November, 1938, was of much interest to Australia as a country dependent on reasonable access to oversea markets for the disposal of its large surplus of agricultural products. In particular, the Commonwealth derived an interest in the United Kingdom-United States Agreement from the fact that the concurrence of the Dominions and India was sought in the modification of certain preferences, accorded by the United Kingdom under the Ottawa Agreements of 1932, in order to facilitate the satisfactory conclusion of the negotiations. The extent of the alterations in preferences to which the Commonwealth agreed was limited to:—

- (a) the abolition of the duty on foreign wheat imported into the United Kingdom,
- (b) a reduction in the duty on fresh apples during the period 15th August to 15th April and on fresh pears during the period August to January; the full duty to be maintained during the remaining months when the Australian supplies are principally marketed, and
- (c) reductions in the duties on honey and on the following fruits preserved in syrup, viz., apples, grape fruit, fruit salad, pineapples and loganberries.

In co-operating with the United Kingdom to the extent indicated the Commonwealth Government was actuated by the belief that the promotion of greater freedom in world trade as a result of the agreement between the United States and the United Kingdom would have an indirect but beneficial effect on the marketing of Australian export commodities.

7. *Trade Agreements.*—(i) *Belgium.* An agreement executed on 19th November, 1934, between the Governments of Belgium and the Commonwealth of Australia permitted Belgium to supply a specified proportion of Australian requirements of plain, clear sheet glass in return for which the Belgian Government waived all restrictions upon the importation of Australian meat and agreed not to enforce an embargo on Australian cereals. This agreement continued in force until 1st January, 1937, when a new agreement came into operation. The quota arrangement with respect to Belgian glass is a feature of the new agreement which also provides for—

- (1) Reciprocal most-favoured-nation treatment.

- (2) The grant of intermediate tariff to Belgium in respect of 53 sub-items; an undertaking not to increase the duty on seven non-protective items; primage concessions on a number of items; remission of the revenue duty on outside packages operating on goods covered by nine items; an undertaking to refer a limited number of items to the Tariff Board for inquiry and report; and reclassification of certain sheet glass not manufactured in Australia.
- (3) Consolidation of the present duty-free entry into Belgium of Australian wool, sheepskins, hides and tallow, and consolidation of the duties on fresh apples and pears.
- (4) An undertaking by Belgium that Australian barley, wheat and frozen beef will not be prohibited.

The agreement is of indefinite duration and will remain in force until terminated by six months' notice from either Government.

(ii) *Czechoslovakia*. A trade agreement concluded between the Governments of Czechoslovakia and the Commonwealth of Australia came into force on 1st January, 1937. The actual commitments of the Commonwealth Government may be summarized as follows:—

- (1) The grant to Czechoslovakia of most-favoured-nation treatment covering import duties and charges on the importation into Australia of articles from Czechoslovakia.
- (2) The grant of an intermediate tariff rate on 44 items.
- (3) The continuance of by-law admission of certain steel which is of a type not manufactured in Australia.
- (4) Remission of primage duty on a limited number of items.
- (5) An undertaking that prohibitions and restrictions shall not be discriminatory.
- (6) An undertaking to accord equitable treatment to Czechoslovakian goods should quantitative regulation of imports be maintained or adopted.

The undertakings given in paragraphs 1, 5 and 6 are reciprocal in their application. Czechoslovakia on its part undertakes to grant duty-free admission to wool, sheepskins, rabbit skins and pearlshell; to consolidate the existing low duties on lead; and to grant a reduction of duty on apples.

The agreement is for one year but will continue thereafter until terminated by three months' notice of denunciation.*

On 13th April, 1938, amendments to the agreement were adopted providing that the scope of Article 6 should be extended to include prohibitions and restrictions applying to arms, ammunition and implements of war and in exceptional circumstances to all other war supplies.

(iii) *France*. A trade agreement between the Governments of France and the Commonwealth of Australia came into force on 1st January, 1937. Briefly stated the concessions granted to France by the Commonwealth Government are as follows:—

- (1) A general pledge to accord France most-favoured-nation treatment with respect to customs duties by according to French products tariff treatment at least as favourable as that accorded to the products of the most favoured foreign country.
- (2) The grant of intermediate tariff rates on 96 tariff items or sub-items.
- (3) A reduction of primage duties on 72 tariff items or sub-items.
- (4) An undertaking to refer 16 items to the Tariff Board for inquiry and report.
- (5) A consolidation for the minimum period of the agreement—one year—of the duties on high-power insulators for use in the manufacture of electric switch-gear and transformers.

In return for the concessions granted by Australia, the French Government has agreed to accord the following benefits to Australian exports:—

- (1) The grant of the French minimum tariff duties on 20 items. Wool, hides and skins, wheat, barley, apples, meat, and metals are included in the list.

* This agreement remains unaffected by recent political events in this country.

- (2) The abolition of the special retaliatory duties of 200 per cent. of the French maximum tariff on butter and wheat.
- (3) The abolition of exchange surtax of 15 per cent. ad valorem on all Australian goods.
- (4) The reduction of the import tax on Australian products to a flat rate of 2 per cent. This tax which is similar to primage formerly ranged from 2 per cent. to 6 per cent.

The agreement has been made for one year but will continue thereafter until terminated by two months' notice from either Government.

While French quota restrictions remain, the grant of French minimum tariff duties on 20 items does not necessarily mean that the way is open for large imports of those commodities to France. For some items the French Government has been unable to grant quotas but has undertaken to examine with goodwill any request from the Commonwealth Government for a percentage of the global quota. Australian barley and apples are exceptions, the annual quota for barley having been fixed at 20,000 quintals, and for apples at 64,500 bushel cases.

(iv) *Japan.* A trade arrangement entered into between the Governments of Japan and the Commonwealth of Australia operated from 1st January, 1937 to 30th June, 1938. Under this arrangement the Commonwealth Government granted intermediate tariff rates of duty to imports of Japanese artificial silk and cotton piece goods comprising eleven tariff items from which primage duty was also removed. The maximum quantity to be imported was fixed at 102,500,000 square yards per annum, divided equally between artificial silk and cotton. In return, the Government of Japan undertook to issue permits for the import during the currency of the arrangement of 800,000 bales of Australian wool, or at the rate of 533,000 bales per annum. In accordance with the terms of the arrangement all prohibitions and super duties which had been imposed by the two Governments in 1936 were removed as from 1st January, 1937.

A new arrangement effected by an exchange of letters between representatives of the two Governments came into force on 1st July, 1938, and has a currency of one year. Under this arrangement Japan will permit the import of such quantity of Australian wool as will correspond to two-thirds of the total quantity up to 500,000 bales imported from all countries, and such additional quantity as will correspond to three-fourths of the total imports in excess of 500,000 bales. It is further provided that the difference between the quantity imported into Japan during the period from 1st January, 1937 to 30th June, 1938, and 600,000 bales shall be imported into Japan during the period of one year from 1st July, 1938. This additional quantity shall not be taken into consideration in determining Australia's wool allotment on the basis of a proportion of total imports for the year (shipments of Australian wool to Japan in the period from 1st January, 1937, to 30th June, 1938, amounted to approximately 521,929 bales).

The only alteration made in the import quotas for Japanese textiles is the inclusion of staple fibre piece goods in the artificial silk goods quota. The quantity to be imported is fixed as before at 102,500,000 square yards per annum in equal quantities of artificial silk and cotton piece goods. As in the previous agreement calico for use in the manufacture of bags is admitted without restriction.

Provision is made in the arrangement for a review by the Commonwealth Government of the textile piece goods quotas if it should appear at any time that the quantity of Australian wool to be imported into Japan during the year commencing 1st July, 1938, will be less than 266,667 bales in addition to approximately 100,000 bales representing the difference between 600,000 bales and the quantity of Australian wool imported into Japan between 1st January, 1937, and 30th June, 1938.

The Japanese Government declined to renew the agreement after 30th June, 1939, and guaranteed to maintain the reciprocal trade transactions on the same basis as obtained under the agreement.

(v) *Switzerland*. A trade agreement, concluded between the Governments of Switzerland and the Commonwealth of Australia, came into force on the 30th December, 1938. The agreement is of indefinite duration, and remains in force until six months after denunciation by either party. Briefly it provides for the following:—

- (1) Reciprocal most-favoured treatment.
- (2) The grant of an intermediate tariff rate and primage duty reductions in respect of a limited number of Swiss commodities.

These concessions are granted in respect of Swiss cheese, certain classes of textiles (mainly Swiss specialties), watches and chronometers, and trade catalogues, price lists and other printed advertising matter addressed to hospitals, medical practitioners or dentists in single copies.

- (3) The reduction and consolidation of Swiss duties on certain Australian products.

The reductions are on wool (50 centimes to 15 centimes per metric quintal) and on sandalwood oil (80 francs to 10 francs per metric quintal), and the consolidations are on apples and pears, raisins and currants, canned fruits, lead, eucalyptus oil and starch.

- (4) Minimum annual quotas of certain Australian products (apples and pears, timber and barley).

The quota on apples and pears is 15,000 metric quintals, an increase of more than 12,000 metric quintals over the quota for 1938, while the quota on timber is increased from 560 metric quintals to 10,000 metric quintals. The quota on barley is the same as that for 1938 (38,000 metric quintals).

- (5) Mutual undertaking that quantitative restrictions on imports shall not be discriminatory.
- (6) Mutual right to withdraw concessions if other countries obtain the major benefits.
- (7) Liberty on the part of either party to take any action it thinks proper to re-establish the equilibrium of the agreement, should either party adopt any measures considered to nullify or impair the advantages of the agreement.

8. Australian Trade Diversion.—On 22nd May, 1936, Sir Henry Gullett, Minister directing negotiations for Trade Treaties, announced in the House of Representatives the decision of the Government to divert portion of Australia's import trade, with the object of increasing exports of primary produce, expanding secondary industry, and bringing about an increase of rural and industrial employment.

Briefly summarized the Minister's statement indicated that certain imports would be restricted with a view to their manufacture in Australia, including motor chassis, which, it was hoped, would be made in Australia on a large scale within a few years. In the case of certain other imports it was intended to divert them from their present sources of supply to other countries which were great customers of Australia and which it was expected would become greater customers if Australia increased her purchases from them. The Government would proceed in two ways, firstly, by the adoption of a special licensing system over a limited range of imports and, secondly, by the imposition of higher duties where this course appeared more desirable. With the exception of motor chassis all goods of British origin would be exempt from the licensing system. In the case of motor chassis imports of United Kingdom origin only would be exempt from restriction. Upon application licences would be freely granted to countries with which Australia had a favourable balance of trade and to all other countries in regard to which, although the balance might be adverse to the Commonwealth, the Government was satisfied with the position.

The special licensing system was introduced on 23rd May, 1936, in the form of an amendment to the Customs (Prohibited Imports) Regulations which prohibited the import, except under special licence, of 84 classified groups of goods from foreign countries. On 7th December, 1937, the Minister for Trade and Customs announced important modifications of the licensing system and the intention of the Government to substitute adequate duties to protect Australian industries established or extended

under the licensing system. These duties were imposed by Customs and Excise Resolutions of 4th May, 1938, and all licensing restrictions on the 84 groups of goods were removed from that date. Other references to this subject and to restrictions imposed on the import of motor chassis will be found in § 2 par. 2 of this chapter.

9. **United States of America—Australian Trade Relations.**—The trade diversion policy of the Commonwealth Government as expressed by the prohibition, except under special licence, of specified imports as from 23rd May, 1936, adversely affected a wide range of goods from the United States of America, which for a number of years had enjoyed an extremely favourable trade balance with Australia. In reply to this action the United States Government withdrew as from 1st August, 1936, the most-favoured-nation treatment hitherto accorded to Australian goods including certain trade benefits extended to Australia equally with a number of countries with which the United States had concluded trade agreements. A further step bearing on the trade relations between the two countries was the extension by the Commonwealth Government to “proclaimed countries” as from 1st January, 1937, of intermediate customs tariff rates and certain primage duty concessions. The list of “proclaimed countries” includes the United Kingdom, the Dominions and Colonies, and the principal foreign countries but does not include the United States.

The alteration in the system of import licensing restrictions, which had been in operation since 23rd May, 1936, and the substitution of increased rates of duty where such were considered necessary to provide adequate protection for Australian industries, resulted in the restoration, from 1st February, 1938, by the United States Government, of the accord to Australian goods of most favoured nation treatment.

10. **Restriction of Imports into Japan.**—An Imperial Ordinance, No. 124 of 1936, affecting the trade of Australia with Japan was promulgated on 25th June, 1936, by the Government of Japan providing for the restriction of imports from proclaimed countries under certain conditions.

The restrictions imposed by this Ordinance were abolished, however, as from 1st January, 1937, so far as Australia was concerned, under the terms of the trade agreement concluded between the Governments of Japan and the Commonwealth of Australia.

11. **Tariff Board.**—The Tariff Board Act 1921–1934 provides for the appointment of a Tariff Board consisting of four members, one of whom shall be an administrative officer of the Department of Trade and Customs. This member may be appointed Chairman of the Board. Members of the Board are appointed for a term of not less than one year nor more than three years, and two members may be appointed as a Committee for making special inquiries. The purpose of the Tariff Board is to assist the Minister in the administration of matters relating to trade and customs. The more important matters which the Minister shall refer to the Board for inquiry and report include disputes arising out of the interpretation of any Customs or Excise Tariff; the necessity for new, increased or reduced duties; the necessity for granting bonuses; any proposal for the application of the British Preferential Tariff to any part of the British Dominions or any foreign country; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the tariff by charging unnecessarily high prices for his goods or acting in restraint of trade. The Minister may refer to the Board for inquiry and report the following matters:—the classification of goods under items of the Tariff that provide for admission under By-laws; the determination of the value of goods for duty; the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws of the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and any other matter affecting the encouragement of primary and secondary industries in relation to the Tariff.

Inquiries conducted by the Board relating to any revision of the Tariff, any proposal for a bounty, or any complaints that a manufacturer is taking undue advantage of the protection afforded him by the Tariff shall be held in public, and evidence in such inquiries shall be taken in public on oath, unless any witness objects to giving any evidence in public which the Board is satisfied is of a confidential nature, when the Board may take

such evidence in private. Evidence taken by the Board in connexion with any inquiry under the Customs Tariff (Industries Preservation) Act 1921-1936 shall be taken in public on oath.

The latest "Annual Report of the Tariff Board," issued in accordance with Section 18 (1) of the Tariff Board Act 1921-1934 reviews the work of the Board during the year ended 30th June, 1938. During the year the Board furnished 64 reports to the Minister for Trade and Customs, and of these reports 57 related to matters on which public inquiries had been held. The subjects dealt with comprised:—Tariff revision, 49; requests for removal of goods from by-law, 6; and establishments of new industries, 2. Six reports on the question of bringing deferred duties into operation and one dealing with a question of classification were not the subject of public inquiries. At 30th June, 1938, the Board had on hand 59 subjects on which reports had not been furnished to the Minister.

The Minister for Trade and Customs on 14th December, 1932, referred to the Tariff Board for public inquiry and report the question as to the practicability of evolving some method of varying duties imposed under protective items of the Customs Tariff to meet the operation of exchange and primage. The recommendation of the Board regarding exchange adjustment was embodied in Customs Tariff (Exchange Adjustment) Act 1933. In regard to primage duty, the Board reaffirmed its recommendation to the Minister, dated 5th August, 1932, that primage duty should be removed from protective items in the Tariff Schedule, and suggested the adoption of such recommendation so soon as the Government considered that revenue considerations permitted.

12. **Industries Preservation.**—The Customs Tariff (Industries Preservation) Act 1921-1936 provides that after inquiry and report by the Tariff Board, special duties shall be collected in the following cases when the importation of the goods referred to might be detrimental to an Australian industry:—In the case of goods sold for export to Australia at a price less than the fair market price for home consumption or at a price which is less than a reasonable price, a special dumping duty shall be collected equal to the difference between the price at which the goods were sold and a fair market price. Similar provision is made for goods consigned to Australia for sale. With regard to goods exported to Australia at rates of freight less than the normal rate of freight the dumping freight duty shall be—on goods carried free—the amount payable as freight at the normal rate; and in the case of any other goods—an amount equal to the difference between the freight paid and the freight which would have been payable at the normal rate. Special duties are also imposed in the case of goods imported from countries whose currency is depreciated. Provision is also made for the protection of the trade of the United Kingdom in the Australian market from depreciated foreign currency.

The Act provides that the Minister for Trade and Customs, after inquiry and report by the Tariff Board, may publish a notice in the *Commonwealth Government Gazette* specifying the goods upon which special rates of duty under this Act shall be charged and collected. Several amendments of the Act were recommended by the Tariff Board and put into effect by the Customs Tariff (Industries Preservation) Act 1922. The Customs Tariff (Industries Preservation) Act 1933 repeals section 8 of Act 1921-1922 and provides new clauses relating to Exchange Special Duty.

13. **Trade Descriptions.**—The Commerce (Trade Descriptions) Act 1905 as amended by the Acts of 1926, 1930 and 1933 gives power to compel the placing of a proper description on certain prescribed goods, or on packages containing the same, being imports or exports of the Commonwealth. The goods to which a trade description must be applied are:—(a) Articles used for food or drink by man, or used in the manufacture or preparation of articles used for food or drink by man; (b) medicines or medicinal preparations for internal or external use; (c) manures; (d) apparel (including boots and shoes), and the materials from which apparel is manufactured; (e) jewellery; (f) seeds and plants; and (g) brushware.

14. **Acts passed in 1938.**—The following Acts relating to Australian production and trade were assented to during the year 1938:—

Customs Tariff Act, No. 3 of 1938. An Act relating to duties of Customs.

Customs Tariff (Exchange Adjustment) Act, No. 4 of 1938. An Act to amend the Customs Tariff (Exchange Adjustment) Act 1933-1936.

- Customs Tariff (Canadian Preference) Act, No. 5 of 1938. An Act to amend the Customs Tariff (Canadian Preference) 1934-1936.
- Raw Cotton Bounty Act, No. 6 of 1938. An Act to amend the Raw Cotton Bounty Act 1934-1935.
- Dairy Produce Export Control Act, No. 18 of 1938. An Act to amend the Dairy Produce Export Control Act 1924-1937.
- Meat Export Control Act, No. 19 of 1938. An Act to amend the Meat Export Control Act 1935-1936.
- Canned Fruits Export Charges Act, No. 20 of 1938. An Act to amend the Canned Fruits Export Charges Act 1926-1935.
- Dried Fruits Export Control Act, No. 21 of 1938. An Act to amend the Dried Fruits Export Control Act 1924-1937.
- Citrus Fruits Bounty Act, No. 22 of 1938. An Act to provide for the payment of a bounty on the export of citrus fruits from the Commonwealth during 1938, 1939 and 1940.
- Excise Tariff Act, No. 24 of 1938. An Act relating to duties of Excise.
- Canned Fruits Export Control Act, No. 28 of 1938. An Act to amend the Canned Fruits Export Control Act 1926-1935.
- Customs Tariff Validation Act, No. 42 of 1938. An Act to provide for the validation of collections of duties of customs under Customs Tariff Proposals.
- Flour Tax (Wheat Industry Assistance) Assessment Act, No. 48 of 1938. An Act relating to the imposition, assessment and collection of a tax upon wheat and flour and upon certain goods in the manufacture of which flour is used, and for other purposes.
- Flour Tax Act, No. 49 of 1938. An Act to impose a Tax upon flour manufactured in Australia by any person and sold by him or used by him in the manufacture of goods other than flour.
- Flour Tax (Stocks) Act, No. 50 of 1938. An Act to impose a tax upon flour held in stock on the 5th December, 1938, by any person, not being the manufacturer of that flour.
- Flour Tax (Imports and Exports) Act, No. 51 of 1938. An Act to impose a tax upon flour and certain goods imported into Australia and upon wheat exported from Australia.
- Wheat Tax Act, No. 52 of 1938. An Act to impose a tax upon wheat grown in Australia and sold to a wheat merchant.
- Wheat Industry Assistance Act, No. 53 of 1938. An Act to provide for financial assistance to the States in the provision of assistance to the wheat industry and for other purposes.
- Motor Industry Bounty Act, No. 54 of 1938. An Act to provide for the payment of a bounty on the production of parts of motor vehicles.
- Trade Agreement (Switzerland) Act, No. 57 of 1938. An Act to approve a commercial agreement between the Government of the Commonwealth of Australia and the Swiss Federal Council and certain undertakings given in relation to that agreement.
- Apple and Pear Export Charges Act, No. 59 of 1938. An Act to impose charges upon the export of apples and pears.
- Primary Produce Export Charges Act, No. 60 of 1938. An Act to amend the Produce Export Charges Act, 1935-1937.
- Apple and Pear Publicity and Research Act, No. 61 of 1938. An Act to make provision for assisting in the production and marketing in Australia of apples and pears.
- Apple and Pear Tax Assessment Act, No. 62 of 1938. An Act relating to the imposition, assessment and collection of a tax upon apples and pears, and for other purposes also.
- Apple and Pear Tax Act, No. 63 of 1938. An Act to impose a tax upon apples and pears grown in Australia and sold by or on behalf of the grower.

- Newsprinting Paper Bounty Act, No. 64 of 1938. An Act to provide for the payment of a bounty on the production of newsprinting paper.
- Customs Tariff (No. 2) Act, No. 67 of 1938. An Act relating to duties of customs.
- Customs Tariff (No. 3) Act, No. 68 of 1938. An Act relating to duties of customs.
- Customs Tariff (No. 4) Act, No. 69 of 1938. An Act relating to duties of customs.
- Excise Tariff (No. 2) Act, No. 70 of 1938. An Act relating to duties of excise.
- States Grants (Fertilizer) (No. 2) Act, No. 74 of 1938. An Act to provide for financial assistance to the States in the making of payments to primary producers, and for other purposes.
- States Grants (Fertilizer) Act, No. 75 of 1938. An Act to amend the States Grants (Fertilizer) Act 1937.

§ 3. Trade Representatives.

1. **Oversea.**—The Commonwealth of Australia is represented in the United Kingdom by the Right Hon. S. M. Bruce, C.H., M.C., High Commissioner, with headquarters at Australia House, London. Matters affecting the oversea trade of Australia come within the scope of the duties of the office.

The Commonwealth has a Trade Representative in France, with head-quarters at Paris. This official is attached to Australia House, London.

The first appointment of a representative for Australia in the United States of America was made in 1918. The office of Commissioner-General for Australia in the United States was changed to that of Australian Government Trade Commissioner as from 1st July, 1938.

In April, 1929, a Commercial Representative for Australia was appointed in the Dominion of Canada, with head-quarters at Toronto. The position is at present vacant.

The Trade Commissioners Act 1933 provides for the appointment of one or more Trade Commissioners and Assistant Trade Commissioners of the Commonwealth in such places as the Governor-General determines. In April, 1934, the first appointment under the Act was made, Mr. R. H. Nesbitt being appointed Australian Trade Commissioner in New Zealand, with head-quarters at Wellington. Mr. Nesbitt resigned in April, 1937, and was succeeded in July, 1937, by Mr. C. E. Critchley, M.B.E., formerly Australian Trade Commissioner in Netherlands East Indies. In May, 1935, Trade Commissioners and Assistant Trade Commissioners were appointed to Japan, China and Netherlands East Indies, in January, 1937, a Trade Commissioner was appointed to Egypt and from 1st July, 1938, an Australian Government Trade Commissioner was appointed in the United States of America. The Trade Commissioners are—Canada, vacant; China, Mr. V. G. Bowden, Shanghai; Egypt, Col. C. E. Hughes, C.B.E., Cairo; Japan, Lt.-Col. E. E. Longfield-Lloyd, Tokyo; Netherlands East Indies, Mr. H. A. Peterson, Batavia; New Zealand, Mr. C. E. Critchley, M.B.E., Wellington; and United States of America, Mr. L. R. MacGregor, C.B.E., New York.

2. **In Australia.**—Trade Commissioners representing the undermentioned countries are located in Australia, viz. :—The United Kingdom, Canada, New Zealand, United States of America and France. His Majesty's Senior Trade Commissioner for the United Kingdom has his head-quarters in Sydney and Trade Commissioners are located also at Melbourne and Brisbane. The New Zealand Government Representative and Trade Commissioner, the Senior Canadian Government Trade Commissioner and the Trade Commissioners for United States of America and France are located in Sydney. Trade matters affecting other oversea countries are generally attended to by their Consular representatives.

§ 4. Method of Recording Imports and Exports.

1. **Value of Imports.**—The recorded value of goods imported from countries beyond Australia as shown in the following tables represents the amount on which duty is payable or would be payable if the duty were charged ad valorem. The value of goods is taken to be 10 per cent. in advance of their fair market value in the principal markets of the

country whence the goods were exported. Acting upon a recommendation of the Tariff Board the section of the Customs Act relating to the valuation of imports was amended, and section 154 (1) of the Customs Act 1901-1936 now provides that "when any duty is imposed according to value, the value for duty shall be the sum of the following:—

- (a) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or
- (ii) the current domestic value of the goods, whichever is the higher ;
- (b) all charges payable or ordinarily payable for placing the goods free on board at the port of export ; and
- (c) ten per centum of the amounts specified under paragraphs (a) and (b) of this sub-section.

"Current domestic value" is defined as "the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country."

Imports are recorded in British currency values, and Section 157 of the Customs Act provides that when the invoice value of imported goods is shown in any currency other than British currency, the equivalent value in British currency shall be ascertained according to a fair rate of exchange to be declared in case of doubt by the Minister. Under this section it was the practice of the Department of Trade and Customs, until the 8th December, 1920, to convert on the basis of the mint par of exchange. Since the date mentioned, in consequence of a ruling of the High Court, all conversions have been based on the commercial rates of exchange.

The term "British currency values" is not exactly synonymous with "English sterling", since imports already expressed in terms of £. s. d. are regarded for duty purposes as being expressed in British currency values. This exception to the general rule is chiefly important in the case of imports from New Zealand and the Union of South Africa when their currencies are not at par with English currency. In all the tables in this volume no correction has been made on this account, even when for the sake of brevity the term "sterling" has been used as a contraction for "British currency values."

2. **Value of Exports.**—Prior to the 1st July, 1929, the recorded value of all goods exported was taken as representing the value in the principal markets of the Commonwealth in the ordinary commercial acceptance of the term. Owing to the inflated values arbitrarily allotted in recent years to commodities which are subject to governmental control or subsidy, some change in the practice of valuation of exports of such commodities became desirable. Accordingly a new basis was adopted as from 1st July, 1929, for the statistical valuation of exports of sugar, butter and goods on which bounty or rebate was paid which would show for (a) *Sugar*—the value f.o.b. at which sold to oversea buyers, or a f.o.b. value equal to the London market price if shipped on consignment ; (b) *Goods on which bounty or rebate was paid on export*—the value in the principal markets of the Commonwealth in the ordinary commercial acceptance of the term, less the value of any bounty or rebate. Until the 31st March, 1934, the basis adopted for the value of exports of butter was the current market value, less the amount paid as export bonus. From 31st March, 1934, to 30th June, 1937, the basis was (a) sold in Australia for export—the f.o.b. equivalent of the price at which the butter was sold and (b) shipped on consignment—the f.o.b. equivalent of the ruling price overseas.

From 1st July, 1930, to 30th June, 1937, the basis adopted for the value of *wool* exported was (a) sold in Australia for export—the actual price paid plus the cost of services incurred in placing the wool on board ship, and (b) shipped on consignment—the f.o.b. equivalent of ruling Australian prices.

From 1st July, 1932, to 30th June, 1937, the basis adopted for the value of *wheat* exported was (a) sold in Australia for export—the f.o.b. equivalent of the price at which the wheat was sold, and (b) shipped on consignment—the f.o.b. equivalent of the current selling price overseas.

From 1st July, 1934, to 30th June, 1937, the basis adopted for the value of *flour* exported was (a) sold in Australia for export—the f.o.b. equivalent of the price at which the flour was sold, and (b) shipped on consignment—the f.o.b. equivalent of ruling Australian prices.

Since 1st July, 1937, the following revised definitions of f.o.b. values have been adopted for exports generally :—

- (1) Goods sold to oversea buyers before export—the f.o.b. equivalent of the price at which the goods were sold (e.g., as regards wool, the actual price paid by the oversea buyer plus the cost of all services incurred by him in placing the wool on board ship).
- (2) Goods shipped on consignment—the Australian f.o.b. equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods were dispatched for sale (as regards wool, the f.o.b. equivalent of current price ruling in Australia will normally provide a sufficient approximation to the f.o.b. equivalent of the price ultimately received).

All values to be shown in terms of Australian currency, and to include cost of containers.

3. **Customs Area.**—The Customs Area, to which all oversea trade statistics issued by this Bureau apply, is the whole area of the Commonwealth of Australia, comprising the States of New South Wales (including Australian Capital Territory), Victoria, Queensland, South Australia, Western Australia and Tasmania, and the Northern Territory. Non-contiguous territories and mandated areas are treated as outside countries, and trade transactions between the Commonwealth and these non-contiguous territories are part of the oversea trade of the Commonwealth. Such transactions are shown separately, i.e., the trade of the Commonwealth with each particular country is separately recorded and tabulated.

4. **Statistical Classification of Imports and Exports.**—The Oversea Trade Bulletin No. 35 for the year 1937–38, from which the summary figures in this Year Book have been extracted, was compiled according to a classification which came into operation on 1st July, 1922. In order to meet the demand for more detailed information relating to imports and exports the number of items has been materially increased. The revised classification was divided into 21 classes, and at 30th June, 1939, comprised approximately 2,000 separate import items and 600 export items.

5. **The Trade Year.**—From 1st July, 1914, the statistics relating to Oversea Trade have been shown according to the fiscal year (July to June). Prior to that date the figures related to the calendar year. A table is given in '§ 15 showing the total value of imports and exports in the calendar years 1935 to 1938 inclusive.

6. **Records of Past Years.**—In the years preceding federation, each State independently recorded its trade, and in so doing did not distinguish other Australian States from foreign countries. As the aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, it is unfortunate that past records of values and the direction of imports and exports were not on uniform lines. The figures in the following table for years prior to federation have been carefully compiled and may be taken as representative of the oversea trade of Australia as a whole. On the introduction of the Customs Act 1901, the methods of recording values were made uniform throughout the States, but it was not until September, 1903, that a fundamental defect in the system of recording transhipped goods was remedied. Prior to 1905 the value of ships imported or exported was not included in the returns of trade.

7. **Ships' Stores.**—Prior to 1906 goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and omitted from the return of exports. A table showing the value of these stores shipped each year since 1906 is given later in this Chapter.

§ 5. Oversea Trade.

1. Total Oversea Trade.—(i) *Including Gold.* The following table shows the total trade (including gold) of the Commonwealth with overseas countries from the earliest date for which records are available. To save space, the period 1826 to 1925-26 has been divided into quinquennia, and the figures shown represent the annual averages for the quinquennia specified. The figures for individual years were published in earlier issues of the Year Book. (See note to following table.)

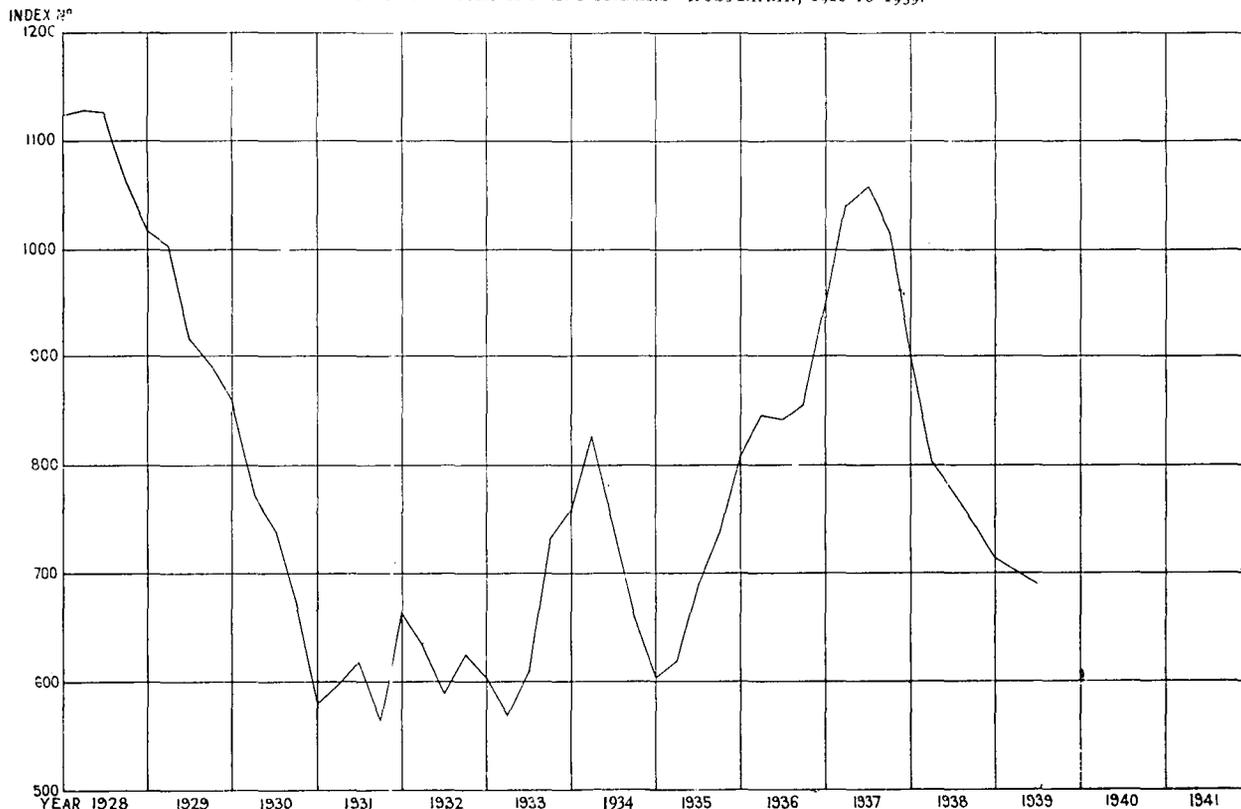
TOTAL OVERSEA TRADE: AUSTRALIA.
(INCLUDING GOLD.)

Period.(a)	Recorded Value.(c)			Value per Inhabitant.			Percentage of Exports on Imports.
	Imports.	Exports.	Total.	Imports.	Exports.	Total.	
	£1,000.	£1,000.	£1,000.	£ s. d.	£ s. d.	£ s. d.	
1826 to 30	638	153	791	10 12 5	2 10 11	13 3 4	23.9
1831 " 35	1,144	613	1,757	11 19 10	6 8 6	18 8 4	53.6
1836 " 40	2,283	1,112	3,395	14 15 9	7 4 1	21 19 10	48.7
1841 " 45	1,906	1,378	3,284	9 0 5	6 10 5	15 10 10	72.3
1846 " 50	2,379	2,264	4,643	6 18 10	6 12 2	13 11 0	95.2
1851 " 55	11,931	11,414	23,345	19 12 5	18 15 4	38 7 9	95.7
1856 " 60	18,016	16,019	34,835	18 6 1	15 11 8	33 17 9	85.1
1861 " 65	20,132	18,699	38,831	15 17 1	14 14 9	30 11 10	93.0
1866 " 70	18,691	19,417	38,108	12 7 4	12 16 11	25 4 3	103.9
1871 " 75	21,982	24,247	46,229	12 7 2	13 13 6	26 0 8	110.3
1876 " 80	24,622	23,772	48,394	11 19 7	11 10 9	23 10 4	96.6
1881 " 85	34,895	28,055	62,950	14 4 3	11 9 5	25 13 8	80.4
1886 " 90	34,675	26,579	61,254	11 16 11	9 1 0	20 17 11	76.6
1891 " 95	27,335	33,683	61,018	8 5 2	10 2 5	18 7 7	123.2
1896 " 1900	33,763	41,094	74,857	9 5 4	11 5 6	20 10 10	121.7
1901 " 05	39,258	51,237	90,495	10 1 10	13 2 9	23 4 7	130.5
1906 " 10	51,508	69,336	120,844	12 4 8	16 9 11	28 14 7	134.6
1911 " 15-16	73,411	74,504	147,915	15 7 4	15 12 10	31 0 2	101.5
1916-17 to 1920-21	100,735	115,066	215,801	19 7 9	22 2 10	41 10 7	114.2
1921-22 to 1925-26	136,844	134,545	271,389	23 15 6	23 7 7	47 3 1	98.3
1928-29 ..	143,648	141,615	285,263	22 12 3	22 5 10	44 18 1	98.6
1929-30 ..	131,081	125,000	256,081	20 7 7	19 8 7	39 16 2	95.4
1930-31(d)	60,960	105,003	..	9 7 7	16 3 2	..	..
(e)	60,960	89,456	150,416	9 7 7	13 15 4	23 2 11	146.8
1931-32(d)	44,713	109,034	..	6 16 6	16 2 9	..	..
(e)	44,713	85,843	130,556	6 16 6	13 1 11	19 18 5	192.0
1932-33(d)	58,014	121,264	..	8 15 8	18 7 3	..	..
(e)	58,014	96,853	154,867	8 15 8	14 13 3	23 8 11	167.0
1933-34(d)	60,713	124,003	..	9 2 6	18 12 8	..	..
(e)	60,713	99,021	159,734	9 2 6	14 17 6	24 0 0	163.1
1934-35(d)	74,119	113,523	..	11 1 2	16 18 9	..	..
(e)	74,119	90,654	164,773	11 1 2	13 10 6	24 11 8	122.3
1935-36(d)	85,253	136,964	..	12 12 7	20 5 10	..	..
(e)	85,253	109,372	194,625	12 12 7	16 4 1	28 16 8	128.3
1936-37(d)	92,641	162,377	..	13 12 4	23 17 3	..	..
(e)	92,641	129,664	222,305	13 12 4	19 1 1	32 13 5	140.0
1937-38(d)	113,975	157,580	..	16 12 1	22 19 2	..	..
(e)	113,975	125,838	239,813	16 12 1	18 6 8	34 18 9	110.4
1938-39(d)	102,156	140,496	..	14 14 11	20 5 8	..	..
(e)	102,156	112,202	214,358	14 14 11	16 3 11	30 18 10	109.8

(a) The figures given for the years 1826 to 1925-26 represent the annual averages for the quinquennial periods. The trade of the individual years will be found in Official Year Book No. 29 and earlier issues. From 1914-15 onwards the particulars relate to fiscal years. (b) Prior to 1906, ships' stores were included in the general exports. For value of these goods shipped each year since 1906 see later table, § 9.

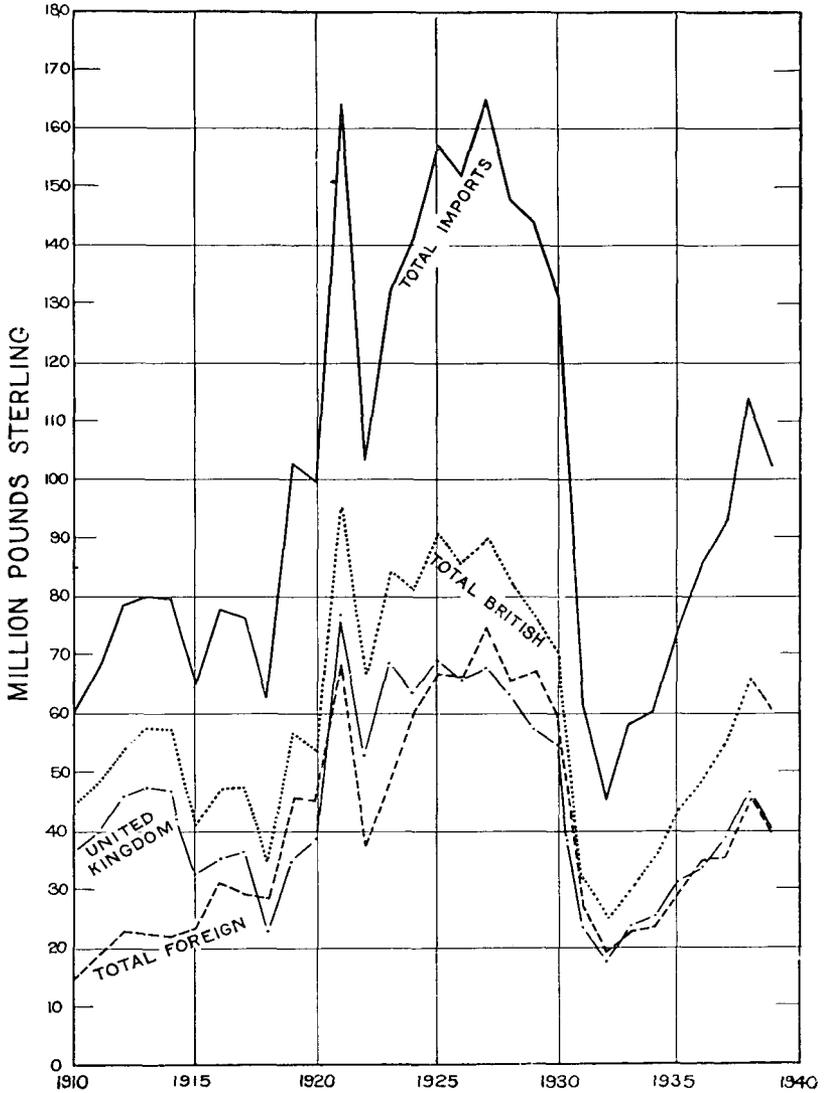
(c) For actual values for recent years, showing merchandise and bullion and specie separately, see § 8, pars. 5 and 6. (d) Recorded values. Imports, British currency; Exports, Australian currency. (e) British currency values.

EXPORT PRICES INDEX-NUMBERS—AUSTRALIA, 1928 TO 1939.

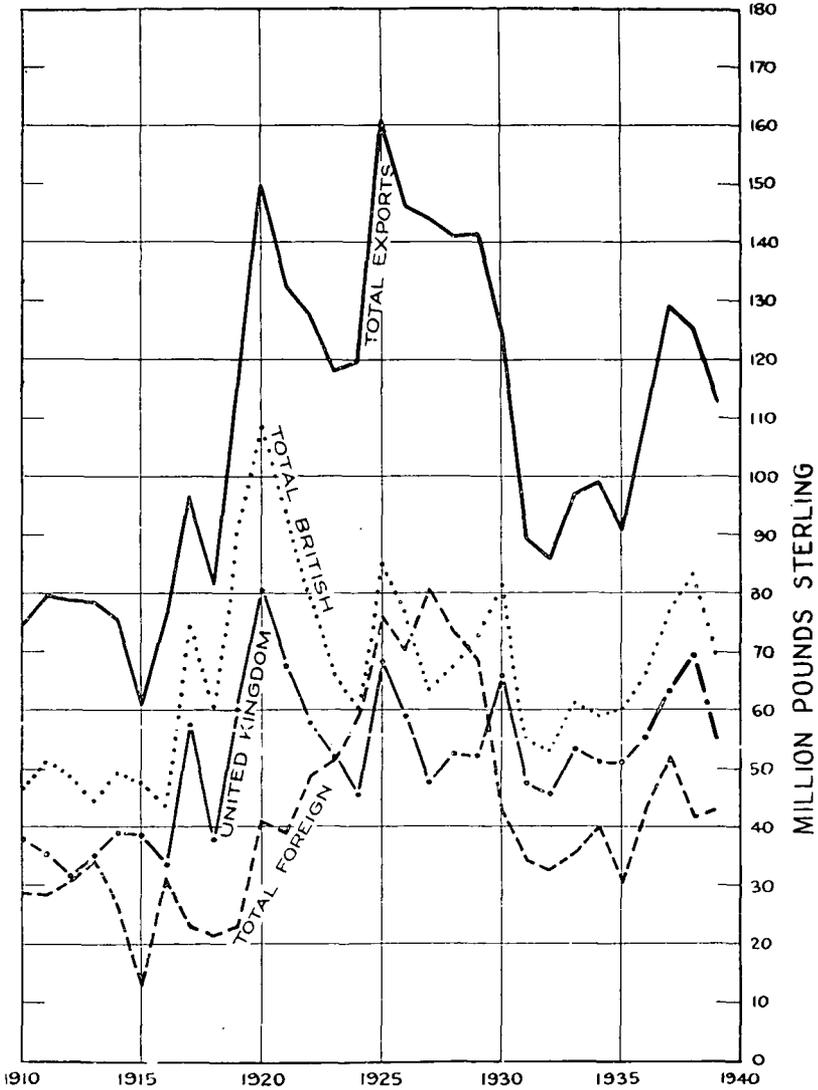


EXPLANATION.—This graph represents the Fixed Base series of Export Price Index-Numbers computed quarterly with the average for year 1928-29 as base (= 1,000).

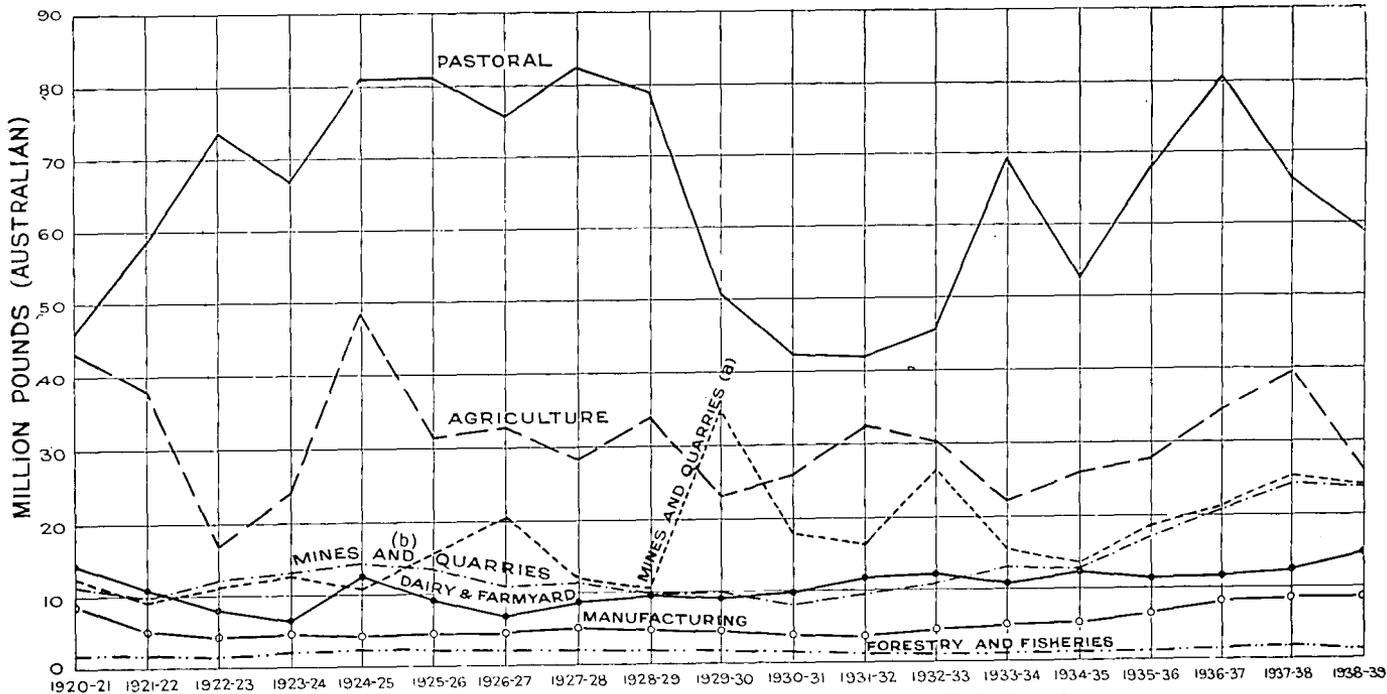
IMPORTS INTO AUSTRALIA, 1910 TO 1939.



EXPORTS FROM AUSTRALIA, 1910 TO 1939.



EXPORTS OF AUSTRALIAN PRODUCTS ACCORDING TO INDUSTRIES, 1920-21 TO 1938-39.



EXPLANATION.—Mines and Quarries (a) represents the total exports of the produce of this industry, including bullion and specie.
 Mines and Quarries (b) represents the export of products other than Gold, to which is added the value of gold produced in the respective years.

In previous issues of the Official Year Book fluctuations in the value of the oversea trade of Australia have been treated in some detail for earlier years. The enhanced prices ruling for commodities and the peculiar conditions affecting Australian trade were responsible for the high value of imports in the years following the war of 1914-18 and these factors should be taken into consideration in making comparisons with earlier years.

In 1924-25 the total value of oversea trade was £318,454,000 represented by imports £157,143,000, and exports £161,311,000. So far as total trade and exports are concerned these figures are the highest recorded, but the figure for imports was exceeded in 1920-21, and again in 1926-27. Imports in 1924-25, however, included an exceptionally large quantity of bullion and specie valued at £10,543,000. In the three years ended 1928-29 imports fell but exports were well maintained and in 1929-30 both imports and exports declined substantially. The full effects of the economic depression and of certain restrictions imposed by the Commonwealth Government are reflected in the greatly diminished trade figures for 1930-31 onwards. The lowest level was recorded in 1931-32 when the total trade amounted to £130,556,000. Most of the Government restrictions were removed in 1932. Following a gradual improvement in 1933-34 and 1934-35 recovery was more rapid in the three years ended 1937-38 owing generally to higher prices for exports of primary products and the rising flow of imports. In 1937-38, however, export prices fell sharply and declining still further in 1938-39 the value of exports in the latter year dropped by nearly £14,000,000 and total trade by more than £25,000,000.

(ii) *Excluding Gold.* In recent years there have been large gold movements of an exceptional nature, which have been included in the previous table. The fluctuations in merchandise trade (including silver as merchandise) are shown more clearly in the following table, from which all gold movements have been excluded :—

OVERSEA TRADE : AUSTRALIA.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTER.)

British Currency Values.

Year.	Imports excluding Gold.	Exports excluding Gold.	Total Trade excluding Gold.	Value per Inhabitant.			Percentage of Exports on Imports.
				Imports.	Exports.	Total Trade.	
	£1,000. Stg.	£1,000. Stg.	£1,000. Stg.	£ s. d. Stg.	£ s. d. Stg.	£ s. d. Stg.	%
1933-34	59,502	91,363	150,865	8 18 10	12 14 7	22 13 5	153.5
1934-35	72,440	82,801	155,241	10 16 2	12 7 1	23 3 3	114.3
1935-36	83,617	99,350	182,967	12 7 9	14 14 4	27 2 1	118.8
1936-37	90,642	118,555	209,197	13 6 5	17 8 6	30 14 11	130.8
1937-38	111,782	113,108	224,890	16 5 8	16 9 7	32 15 3	101.2
1938-39	99,384	97,839	197,223	14 6 11	14 2 6	28 9 5	98.4

2. *Balance of Trade.*—The table on page 500 shows the percentage of exports on imports (including gold) for quinquennial periods from 1826 to 1925-26 and for each financial year from 1928-29 to 1938-39, while the table on page 505 shows the percentage

of exports on imports (excluding gold) for each financial year 1933-34 to 1938-39. Reference to the first-mentioned table shows that prior to the quinquennial period 1891-95 the balances of trade, with two exceptions, due to temporary dislocations, had been on the side of imports, while from that period to 1920-21 the position was reversed. During the subsequent quinquennial period ended 1925-26, there was an excess of imports, as was the case in each of the years 1926-27 to 1929-30. From 1930-31 to 1938-39 exports greatly exceeded imports.

In recent years imports and exports of gold for monetary purposes have made the interpretation of the foregoing tables more difficult. In the following table, the balance of commodity trade, including the value of gold currently produced in Australia, has been separated from the monetary movement of gold:—

COMMODITY BALANCE OF TRADE AND MONETARY MOVEMENT OF GOLD.

British Currency Values.

Year.	A.	B.	C.	D.	E.	F.	G.
	Total Imports other than Gold. (Specie, Bullion and in Matte.)	Total Exports, other than Gold. (Specie, Bullion and in Matte.)	Gold produced in Australia.	Total of Merchandise exports and Gold Production. B+C	Commodity Balance of Trade. D-A	Net Exports of Gold (Specie, Bullion and in Matte) in excess of Production. F	Total Balance. E+F
	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000
1910 ..	59.0	69.8	11.6	81.4	22.4	- 7.9	14.5
1911 ..	65.4	67.5	10.5	78.0	12.6	- 0.1	12.5
1912 ..	76.8	66.8	9.9	76.7	- 0.1	1.1	1.0
1913 ..	78.4	75.1	9.4	84.5	6.1	- 7.3	- 1.2
1914 (a) ..	39.0	36.5	4.4	40.9	1.9	- 3.7	- 1.8
1914-15 ..	64.0	58.0	8.5	66.5	2.5	- 6.3	- 3.8
1915-16 ..	77.2	64.2	7.7	71.9	- 5.3	2.3	- 3.0
1916-17 ..	76.0	86.3	6.6	92.9	16.9	4.8	21.7
1917-18 ..	60.8	75.0	5.8	80.8	20.0	- 0.9	19.1
1918-19 ..	95.0	106.8	5.4	112.2	17.2	- 5.6	11.6
1919-20 ..	98.9	144.3	5.4	149.7	50.8	0.1	50.9
1920-21 ..	163.8	126.8	4.7	131.5	- 32.3	0.6	- 31.7
1921-22 ..	103.0	124.3	3.8	128.1	25.1	- 6.3	24.8
1922-23 ..	131.7	115.6	3.3	118.9	- 12.8	- 1.1	- 13.9
1923-24 ..	140.6	116.7	3.2	119.9	- 20.7	- 0.4	- 21.1
1924-25 ..	146.7	160.4	2.8	163.2	16.5	- 12.3	4.2
1925-26 ..	151.3	141.9	2.3	144.2	- 7.1	1.7	- 5.4
1926-27 ..	164.1	132.7	2.2	134.9	- 29.2	8.6	- 20.6
1927-28 ..	146.9	138.4	2.1	140.5	- 6.4	- 0.3	- 6.7
1928-29 ..	143.3	138.6	1.9	140.5	- 2.8	0.8	- 2.0
1929-30 ..	130.8	98.1	1.9	100.0	- 30.8	24.7	- 6.1
1930-31 ..	60.6	77.2	2.2	79.4	18.8	9.7	28.5
1931-32 ..	44.1	76.3	3.6	79.9	35.8	5.3	41.1
1932-33 ..	56.9	78.8	4.6	83.4	26.5	12.3	38.8
1933-34 ..	59.5	91.1	5.7	96.8	37.3	1.0	38.3
1934-35 ..	72.5	82.6	5.9	88.5	16.0	0.5	16.5
1935-36 ..	83.6	99.1	7.4	106.5	22.9	1.3	24.2
1936-37 ..	90.6	118.3	9.0	127.3	36.7	0.3	37.0
1937-38 ..	111.8	112.7	10.2	122.9	11.1	0.7	11.8
1938-39 ..	99.5	97.5	11.7	109.2	9.7	0.3	10.0

(a) First six months only.

3. Balance of Payments.—The balance of visible trade, including the net movement of precious metals, does not present a complete picture of Australia's international transactions during each year. Allowance must also be made for unrecorded imports and exports, for services rendered and received, and for international capital and interest transactions. The values of some of these items are known, and some of those remaining can be estimated with a sufficient measure of accuracy, but for many items it is difficult to make even a rough guess. A continuous investigation is being made into the values of these "invisible" items in the balance of payments.

§ 6. Direction of Oversea Trade.

1. Imports according to Country of Origin.—The following table shows the value (in British currency) of the imports into Australia during the past five years of commodities stated to be the produce or manufacture of the undermentioned countries. The figures however, do not indicate with any degree of precision the competitive forces of different countries in the Australian import trade. To measure the success or otherwise of these forces requires some analysis which will show the relative amounts of different classes of goods supplied by different countries. The results of such an analysis, confined to the major classes of manufactured goods imported, are shown in § 14 of this Chapter.

AUSTRALIAN IMPORTS : COUNTRIES OF ORIGIN.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

British Currency Values.

Country of Origin.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£ stg.	£ stg.	£ stg.	£ stg.	£ Stg.
United Kingdom	30,788,269	33,838,843	38,560,293	46,226,985	40,420,289
British Possessions—					
Canada	4,091,796	5,375,851	6,071,813	8,045,130	7,724,269
Ceylon	795,307	960,724	1,010,374	890,286	839,717
India	2,541,377	2,732,145	2,975,892	3,077,616	2,870,297
Malaya (British)	561,845	488,254	852,282	1,022,899	902,419
New Zealand	1,294,181	1,552,413	1,322,875	1,708,649	1,770,324
Pacific Islands—					
Nauru	292,431	361,986	383,641	551,920	640,085
Papua	116,716	128,078	191,742	165,245	218,405
Territory of New Guinea ..	87,523	117,419	195,935	186,884	165,503
Other Islands	346,240	435,941	598,537	438,989	371,756
Union of South Africa	177,063	284,846	250,539	290,843	244,308
Other British Possessions ..	512,224	720,930	712,069	1,066,616	1,665,309
Total, British Possessions	10,816,703	13,158,587	14,565,699	17,445,077	17,412,392
Total, British Countries ..	41,604,972	46,997,430	53,125,992	63,672,062	57,832,681
Foreign Countries—					
Belgium	477,864	568,083	783,393	1,140,974	982,107
China	364,127	657,178	683,742	601,870	461,559
France	862,147	790,108	865,919	964,554	1,028,133
Germany	2,145,315	2,062,020	3,506,581	1,720,621	1,120,912
Italy	557,438	444,141	410,002	844,983	685,453
Japan	4,624,740	4,969,571	4,004,465	5,349,087	4,093,191
Netherlands	504,573	564,236	679,192	656,101	700,709
Netherlands East Indies ..	4,390,327	4,928,025	6,176,385	7,530,509	7,119,785
Norway	382,671	415,252	440,817	495,560	378,808
Pacific Islands	18,446	33,023	69,937	44,029	46,024
Philippine Islands	79,885	92,619	110,231	123,466	120,774
Sweden	828,283	972,096	1,048,655	1,551,333	946,718
Switzerland	462,023	602,145	600,025	873,629	939,463
United States of America ..	11,041,365	13,991,705	12,959,149	17,758,684	14,647,305
Other Foreign Countries ..	2,238,227	2,656,012	2,982,232	3,456,412	2,960,101
Total, Foreign Countries ..	28,977,431	34,557,243	35,410,728	45,555,875	39,241,342
Total	70,582,403	81,554,673	88,536,720	109,227,937	97,074,023
	(a)	(a)	(a)	(a)	(a)

(a) Excluding Outside Packages, 1934-35, £1,857,507; 1935-36, £2,062,275; 1936-37, £2,105,362; 1937-38, £2,554,084; 1938-39, £2,310,204.

2. Percentage of Imports from Various Countries.—In view of the fluctuations in the total values of imports, it is somewhat difficult to ascertain from the preceding table the relative importance of the various countries in the import trade of Australia in

successive years. A better idea of the proportions of imports supplied by the various countries may be obtained from the following table of percentages:—

AUSTRALIAN IMPORTS : PERCENTAGES FROM COUNTRIES OF ORIGIN.
(EXCLUDING GOLD BULLION, SPECIE AND IN MATTER.)

Country of Origin	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	per cent.				
United Kingdom	43.62	41.50	43.55	42.32	41.64
British Possessions—					
Canada	5.80	6.60	6.85	7.37	7.96
Ceylon	1.13	1.18	1.14	0.81	0.87
India	3.60	3.35	3.36	2.82	2.96
Malaya (British)	0.80	0.60	0.96	0.94	0.93
New Zealand—	1.83	1.90	1.50	1.56	1.82
Pacific Islands—					
Nauru	0.41	0.44	0.43	0.50	0.66
Papua	0.17	0.16	0.22	0.15	0.22
Territory of New Guinea	0.12	0.14	0.22	0.17	0.17
Other Islands	0.49	0.53	0.68	0.40	0.38
Union of South Africa	0.25	0.35	0.28	0.27	0.25
Other British Possessions	0.72	0.88	0.81	0.98	1.72
Total, British Possessions..	15.32	16.13	16.45	15.97	17.94
Total, British Countries ..	58.94	57.63	60.00	58.29	59.58
Foreign Countries—					
Belgium	0.68	0.70	0.89	1.05	1.01
China	0.52	0.81	0.77	0.55	0.48
France	1.22	0.97	0.98	0.88	1.06
Germany	3.04	3.63	4.06	3.82	4.25
Italy	0.79	0.54	0.46	0.77	0.71
Japan	6.55	6.09	4.52	4.90	4.22
Netherlands	0.72	0.69	0.77	0.60	0.72
Netherlands East Indies	6.22	6.04	6.98	6.90	7.33
Norway	0.54	0.51	0.50	0.45	0.39
Pacific Islands	0.03	0.04	0.08	0.04	0.05
Philippine Islands	0.11	0.12	0.12	0.11	0.12
Sweden	1.17	1.19	1.18	1.42	0.97
Switzerland	0.66	0.74	0.68	0.80	0.97
United States of America	15.64	17.05	14.64	16.26	15.09
Other Foreign Countries	3.17	3.25	3.37	3.16	3.05
Total, Foreign Countries ..	41.06	42.37	40.00	41.71	40.42
Total	100	100	100	100	100

The relative positions of the various countries supplying goods to Australia have not varied much during the period covered by the table. The proportion from the United Kingdom has declined as has that from India, while Canada has consistently increased its percentage. Of the foreign countries Netherlands East Indies, Germany and Belgium increased their proportions, while that from Japan declined each year except 1937-38. The percentage of imports from the United States of America fluctuated without showing any particular trend.

3. Direction of Exports.—The following table shows the value in Australian currency of commodity exports to the principal countries during the five years 1934-35 to 1938-39 inclusive:—

EXPORTS FROM AUSTRALIA TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Australian Currency Values.

Country of Destination.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£ A.	£ A.	£ A.	£ A.	£ A.
United Kingdom	54,163,538	61,644,049	73,492,399	78,659,611	66,724,807
British Possessions—					
Canada	1,578,259	1,348,104	2,385,620	2,250,023	1,993,322
Ceylon	648,187	970,961	928,151	871,221	1,326,568
Fiji	361,132	483,998	592,325	713,192	622,916
Hong Kong	715,994	624,663	803,010	1,048,833	475,263
India	785,815	973,171	1,086,754	1,104,692	1,789,164
Malaya (British)	1,315,822	1,263,526	1,727,956	2,063,740	1,911,207
Mauritius	98,790	96,000	115,976	138,013	108,763
New Zealand	3,617,339	4,396,840	5,686,229	7,110,439	6,684,975
Papua	151,865	165,613	222,027	319,228	299,376
Union of South Africa	316,381	449,056	406,091	713,326	813,396
Other British Possessions	1,592,071	2,562,225	3,310,793	2,311,422	2,367,515
Total, British Possessions	11,181,655	13,334,157	17,274,932	18,644,120	18,389,595
Total, British Countries	65,345,193	74,978,206	90,767,331	97,303,731	85,114,402
Foreign Countries—					
Belgium	6,080,381	7,260,967	9,423,321	5,685,579	5,546,514
Chile and Peru	2,029	2,931	3,438	60,988	2,542
China	2,472,262	1,212,821	842,903	616,520	2,918,476
Manchuria including Kwantung Peninsula	1,613,775	839,815	142,427	190,747	63,450
Egypt	659,654	524,066	562,135	640,727	591,493
France	4,731,952	6,131,143	7,907,054	10,322,346	9,378,782
Germany	1,738,481	2,368,453	4,239,026	4,410,098	2,652,420
Italy	993,227	822,225	5,327,428	2,644,028	1,211,326
Japan	12,095,514	17,661,232	9,705,738	5,900,098	4,865,460
Netherlands	927,723	1,200,638	1,983,223	779,515	1,038,627
Netherlands East Indies	1,182,329	1,274,195	1,395,183	1,459,922	1,373,197
Norway	7,439	10,052	62,735	56,573	25,263
Pacific Islands (Foreign)	346,377	374,878	442,348	461,181	385,800
Philippine Islands	324,053	553,311	666,733	619,504	498,893
Soviet Union (Russia)	84,180	10,700	20,721	1,121,262	278,460
Spain	559,912	182,052	175,801	133,448	954
Sweden	240,751	264,018	347,687	472,657	637,033
United States of America	2,754,228	5,615,372	10,935,103	3,386,567	3,614,038
Other Foreign Countries	1,564,676	3,280,145	3,537,599	5,402,256	2,345,876
Total, Foreign Countries	38,361,543	49,457,814	57,722,263	44,364,046	37,428,618
Total	103,706,736	124,436,020	148,489,594	141,667,777	122,543,020

The comparison of the value of exports as shown in the table above is affected by two factors operating in opposite directions. The values have been depressed by prices, but have been increased by the fact that they are stated in Australian currency. In

1930-31 the recorded value of exports was increased by 17.4 per cent. by the depreciation of the currency and in subsequent years the increase from this cause amounted to 25½ per cent. Stated in sterling the value of exports of merchandise for 1938-39 was £97,838,738 against £122,543,020 in Australian currency. Up to the end of the year 1929-30 the two currencies had practically the same value.

4. **Percentage of Exports to Various Countries.**—In consequence of the fluctuations in the total values of exports, the relative importance of various countries as markets for Australian produce is shown more clearly by the following table of percentages.

EXPORTS FROM AUSTRALIA : PERCENTAGES TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country of Destination.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	per cent.				
United Kingdom	52.23	49.54	49.50	55.52	54.45
British Possessions—					
Canada	1.52	1.08	1.61	1.59	1.63
Ceylon	0.63	0.78	0.62	0.61	1.08
Fiji	0.35	0.39	0.40	0.50	0.51
Hong Kong	0.69	0.50	0.54	0.74	0.39
India	0.76	0.78	0.73	0.78	1.46
Malaya (British)	1.27	1.02	1.16	1.46	1.56
Mauritius	0.10	0.07	0.08	0.10	0.09
New Zealand	3.49	3.53	3.83	5.02	5.45
Papua	0.14	0.14	0.16	0.23	0.25
Union of South Africa	0.30	0.36	0.27	0.50	0.66
Other British Possessions	1.53	2.06	2.23	1.63	1.93
Total, British Possessions	10.78	10.71	11.63	13.16	15.01
Total, British Countries	63.01	60.25	61.13	68.68	69.46
Foreign Countries—					
Belgium	5.86	5.84	6.35	4.01	4.53
Chile and Peru	0.00	0.00	0.00	0.04	0.00
China	2.38	0.98	0.57	0.44	2.38
Manchuria, including Kwantung Peninsula	1.56	0.67	0.10	0.14	0.05
Egypt	0.62	0.42	0.38	0.45	0.48
France	4.56	4.93	5.32	7.29	7.65
Germany	1.68	1.90	2.85	3.11	2.17
Italy	0.96	0.56	3.59	1.87	0.99
Japan	11.66	14.19	6.54	4.16	3.97
Netherlands	0.90	0.96	1.34	0.55	0.85
Netherlands East Indies	1.14	1.02	0.94	1.03	1.12
Norway	0.01	0.01	0.04	0.04	0.02
Pacific Islands (Foreign)	0.33	0.30	0.30	0.33	0.31
Philippine Islands'	0.31	0.45	0.45	0.44	0.41
Soviet Union (Russia)	0.08	0.01	0.01	0.79	0.23
Spain	0.54	0.15	0.12	0.09	0.00
Sweden	0.23	0.21	0.23	0.33	0.52
United States of America	2.66	4.51	7.36	2.39	2.95
Other Foreign Countries	1.51	2.64	2.38	3.82	1.91
Total, Foreign Countries	36.99	39.75	38.87	31.32	30.54
Total	100	100	100	100	100

5. **Balance of Trade with Principal Countries.**—In the following table a comparison is made in British currency values of the total Australian trade in merchandise (excluding bullion and specie) with principal countries during the years 1937-38 and 1938-39 :—

BALANCE OF AUSTRALIAN TRADE WITH PRINCIPAL COUNTRIES.

(EXCLUDING BULLION AND SPECIE.)

British Currency Values.

Country.	Imports from— (a)		Exports to—		Excess of Exports.	
	1937-38.	1938-39. (b)	1937-38.	1938-39. (b)	1937-38.	1938-39.
	£Stg. 1,000.	£Stg. 1,000.	£Stg. 1,000.	£Stg. 1,000.	£Stg. 1,000.	£Stg. 1,000.
United Kingdom	46,226	40,420	58,309	53,273	12,083	12,853
Canada	8,045	7,724	1,796	1,592	— 6,249	— 6,132
India	3,078	2,870	745	1,569	— 2,333	— 1,301
New Zealand	1,707	1,771	5,671	5,335	3,964	3,564
Other British Countries	4,567	5,048	6,215	6,187	1,648	1,139
Total, British Countries	63,623	57,833	72,736	67,956	9,113	10,123
Belgium	1,141	982	4,560	4,428	3,419	3,446
China	602	462	492	2,413	— 110	1,951
France	965	1,028	7,725	7,488	6,760	6,460
Germany	4,171	4,131	3,500	2,118	— 671	— 2,013
Italy	845	685	1,502	967	657	282
Japan	5,349	4,093	4,711	3,885	— 638	— 208
Netherlands East Indies	7,531	7,120	1,169	1,096	— 6,362	— 6,024
United States of America	17,759	14,647	2,695	2,885	— 15,064	— 11,762
Other Foreign Countries	7,193	6,093	13,192	4,603	5,999	— 1,490
Total, Foreign Countries	45,556	39,241	39,546	29,883	— 6,010	— 9,358

(a) Excluding outside packages.

(b) Preliminary figures, subject to revision.

The balance of trade with single countries is of little significance, since in the first place, there is still a fair proportion of Australian produce distributed through the United Kingdom either immediately, by transshipment or re-sale, or ultimately, by incorporation in manufactures. Further, in very many cases international balances are equated directly by services or indirectly by exchange of goods between several countries.

6. **Principal Imports and Exports.—Countries.**—The total value of imports from and exports to each of the more important British and foreign countries during 1937-38, together with brief particulars of the principal commodities interchanged with such countries, is given hereunder. The values of imports are shown in British currency, while the exports are shown in Australian currency. Should further details be required, reference may be made to the annual publication, *Oversea Trade Bulletin*, No. 36, issued by this Bureau, which gives details of the trade with Australia of 37 of the principal countries of the world during the past five years. That publication furnishes information regarding the country of origin of each statistical item of import for the years 1937-38, and 1938-39, showing the value and (where available) the quantity imported from each country, and the value of each item imported into each of the States. The publication referred to also gives the country to which each item of exports was shipped during these years.

United Kingdom.—*Total Imports of United Kingdom Origin.* £46,228,674. The two outstanding classes of goods imported were—Machines, machinery and manufactures of metal, £21,174,615; and apparel, textiles, yarns, etc., £12,288,251. Imports of the following goods also contributed largely to the total:—Paper and stationery, £3,367,801; drugs and chemicals, £2,056,472; earthenware, crockery, glass, etc., £998,637; spirituous liquors, £625,655; optical, surgical and scientific instruments, £509,818; paints and varnishes, £372,298; foodstuffs of animal origin, £286,568; jewellery and fancy goods, £275,796; rubber and leather manufactures, £253,378; vegetable substances and fibres, £237,162; and stones and minerals, £226,023.

Total Exports to United Kingdom, £86,359,800. Of this total £86,005,697 represented Australian produce. The principal items of export were—Wool, £20,247,877; wheat, £13,600,504; butter, £9,970,954; gold, £7,700,189; mutton and lamb, frozen, £5,225,633; lead, pig, £4,678,597; beef, frozen and chilled, £4,027,715; sugar, £3,325,643; fruits, dried, £1,978,229; flour, £1,742,708; hides and skins, £1,571,390; frozen meats, other, £1,445,725; fruits, fresh, £1,425,330; zinc concentrates, £1,090,363; fruits in liquid, £1,064,795; wine, £862,166; cheese, £792,905; and eggs, £697,483.

Canada. Total Imports of Canadian Origin, £8,045,381. The principal imports were—Motor chassis and parts, £1,999,944; timber, £1,508,452; paper, £1,434,283; machines and machinery, £779,811; apparel and textiles, £507,950; fish, preserved in tins, £379,998; tools of trade, £195,258; vehicles (excluding motor), £175,407; drugs and chemicals, £120,050; sensitized films, £107,088; hides and skins, £104,797; clocks and watches, £60,547; and asbestos, £56,060.

Total Exports to Canada, £2,250,023. Of this total £2,242,455 was Australian produce. The principal items were—Sugar, £682,306; wool, £571,739; fruits, dried, £491,567; tallow, £85,043; butter, £78,953; fruits, preserved, £75,634; spirituous liquors, £40,876; hides and skins, £35,701; and gelatine and glue, £33,054.

Ceylon. Total Imports of Ceylon Origin, £890,035. The principal items were—Tea, £680,985; rubber, £170,076; and coir, £10,643.

Total Exports to Ceylon, £871,221. Of this total, £868,620 was Australian produce. The principal items were—Silver, £432,026; flour, £133,757; milk and cream, £60,884; butter, £44,193; timber, £43,400; fruits, £40,228; and meats £37,491.

Fiji. Total Imports of Fijian Origin, £455,575; include gold, £389,693; copra, £38,485; molasses, £14,743; and hides, £4,045.

Total Exports to Fiji, £713,192. Of this total, £596,543 was Australian produce. The principal items were—Machinery and metal manufactures, £209,299; bran and pollard, £59,385; flour, £43,518; oils in bulk, £40,762; tobacco, £39,430; drugs and chemicals, £32,394; spirituous liquors, £26,342; earthenware, glass, etc., £24,077; timber, £18,522; apparel and textiles, £18,045; coal, £16,267; and paints and varnishes, £12,816.

Hong Kong. Total Imports of Hong Kong Origin, £37,022. The principal items were—Lamps and lampware, £9,448; bamboo and cane, £6,825; fireworks, £6,217; and ginger, £6,003.

Total Exports to Hong Kong, £1,048,833. Of this total, £1,044,548 was Australian produce. The principal exports were—Flour, £634,477; leather, £86,790; butter, £64,238; meats, £58,468; milk and cream, £27,953; sandalwood, £21,242; wool, £19,881; timber, undressed, £18,628; fruits, fresh, £14,525; beche-de-mer, £13,928; oatmeal, wheatmeal, etc., £13,804; cheese, £9,605; and jams and fruit jellies, £8,492.

India. Total Imports of Indian Origin, £3,077,616. The principal items were—Bags and sacks, £2,058,216; hessians, £415,355; linseed, £300,257; hides and skins, £202,630; cotton, raw, £128,390; tea, £69,173; jute, £46,489; gums and resins, £36,692; nuts, edible, £34,957; mats and matting, £33,025.

Total Exports to India, £1,104,692. Of this total, £1,100,208 was Australian produce. The principal exports were—Wool, £220,905; silver, £172,047; wheat, £166,500; zinc, bars, blocks, etc., £145,441; tallow, £109,691; horses, £76,223; milk and cream, £27,161; coal, £24,799; butter, £16,880; jams and jellies, £16,493; and fruits, fresh, £13,469.

Malaya (British). Total Imports of Malayan (British) Origin, £1,023,602. The principal items were—Rubber (crude), £863,200; latex, £45,951; sago and tapioca, £34,778; spices (unground), £29,733; and tin ingots, £12,220.

Total Exports to Malaya (British) £2,063,740. Of this total, £1,981,828 was Australian produce. The principal items were—Flour, £634,411; milk and cream, £564,541; metals and machinery, £143,854; meats, £136,369; butter, £106,533; spirituous liquors, £92,913; fruits, £73,331; sheep, £35,135; drugs and chemicals, £29,134; coal, £22,426; leather, £16,433; and lard and refined animal fats, £13,749.

New Zealand. Total Imports of New Zealand Origin, £1,990,185. The principal imports were—Wool, £569,146; gold, £281,536; hides and skins, £281,093; fish, £179,923; timber, £178,689; seeds, £74,702; horses, £54,746; metals and machinery, £49,556; beans and peas, £48,917; and flax and hemp, £47,769.

Total Exports to New Zealand, £7,110,459, of which £6,567,428 was Australian produce. The principal items were—Machinery and metal manufactures, £2,150,496; wheat, £916,511; apparel and textiles, £512,025; timber, £351,178; drugs and chemicals, £342,310; paper and stationery, £268,282; optical, surgical and scientific instruments, £239,317; fruits, fresh, £222,724; fruits, dried, £178,871; rubber and leather, £146,178; earthenware, china, glass, etc., £144,768; paints and varnishes, £137,138; fruits in liquid, £133,710; coal, £117,624; tobacco, £108,982; arms, ammunition, etc., £79,074; barley, £74,664; spirituous liquors, £69,342; and confectionery, £66,614.

Papua. Total Imports of Papuan Origin, £259,382. The principal items were—Gold bar, dust, etc., £94,137; rubber, £85,050; coconuts (prepared), £46,084; copra, £15,929; and coffee, raw, £4,641.

Total Exports to Papua, £319,228, of which £206,278 was Australian produce. The principal exports were—Manufactures of metal, £49,158; machines and machinery, £33,652; tobacco, £27,444; films for cinematographs, £19,694; grain and pulse, £19,307; meats, £15,616; timber, £11,406; apparel and textiles, £8,959; and oils, in bulk, £8,012.

Territory of New Guinea. Total Imports of Territory of New Guinea Origin, £1,611,674. The principal items were—Gold bar, dust, etc., £1,424,790; coconuts (prepared), £85,245; copra, £54,985; and silver bar, ingot, etc., £13,638.

Total Exports to Territory of New Guinea, £787,991, of which £548,000 was Australian produce. The principal exports were—Manufactures of metal, £107,162; machines and machinery, £80,515; meats, £70,763; oils, in bulk, £62,881; cinematographs and films, £52,656; tobacco, £51,514; spirituous liquors, £41,531; apparel and textiles, £24,434; silver specie, £18,400; drugs and chemicals, £17,588; biscuits, £15,562; paper and stationery, £14,023; and wood and wicker, £13,429.

Union of South Africa. Total Imports of Union of South African Origin, £290,843. The principal items were—Diamonds, £141,355; fish, £49,437; asbestos (crude), £29,887; chrome ore, £15,621; tanning substances, £6,812; and maize, £6,734.

Total Exports to Union of South Africa, £713,326, of which £698,133 was Australian produce. The principal exports were—Wheat, £205,793; timber, £147,076; machinery and metal manufactures, £98,390; apparel and textiles, £89,971; gelatine and glue, £28,777; leather, £22,755; drugs and chemicals, £15,385; sporting materials, £13,607; fruits, £12,677; soap, £7,900; and meats, £6,927.

Belgium. Total Imports of Belgian Origin, £1,140,974. The principal items were—Glass and glassware, £295,782; piece goods, £265,318; carpets and carpeting, £119,125; iron and steel manufactures, £98,650; precious stones, £68,029; gloves, £63,877; machines and machinery, £57,682; paper and stationery, £28,020; arms, ammunition, etc., £22,386; and zinc, sheet, £17,657.

Total Exports to Belgium, £5,685,897. Of this total, £5,665,530 was Australian produce. The principal exports were—Wool, £4,782,798; silver and silver lead concentrates, £216,561; sheepskins, £162,594; zinc concentrates, £136,109; barley, £64,570; lead, pig, £36,166; fruits, fresh, £35,815; wheat, £33,209; copper, £32,015; wolfram ore, £25,466; and timber (undressed), £24,259.

China. *Total Imports of Chinese Origin*, £601,870. The principal items were—Apparel and textiles, £158,340; tung, etc., oil, £83,148; bristles, etc., £79,971; tea, £53,662; linseed, £23,544; nuts (edible), £22,541; silk, raw, £19,002; feathers, £13,765; drugs and chemicals, £13,247; rice, £12,165; ginger, £12,084; and cotton, raw, £11,616.

Total Exports to China, £616,520, of which £609,823 was Australian produce. The principal items were—Flour, £280,555; railway sleepers, £80,312; wool, £78,531; wheat, £37,269; tallow, £37,196; milk and cream, £33,280; butter, £16,028; sandalwood, £9,357; vessels (ships), £8,450; and leather, £6,789.

Czechoslovakia. *Total Imports of Czechoslovakian Origin*, £724,844. The principal items were—Apparel, £145,745; glass and glassware, £123,837; textiles, £94,129; iron and steel manufactures, £64,828; jewellery, £59,136; paper, £42,484; fancy goods, £24,663; bags, baskets, etc., £23,064; and machines and machinery, £21,826.

Total Exports to Czechoslovakia, £1,320,344, of which £1,319,350 was Australian produce. The principal exports were—Wool, £1,268,242; and lead, pig, £31,499.

Egypt. *Total Imports of Egyptian Origin*, £27,616. The principal items were—Asphalt, bitumen, etc., £13,345; and cigarette tubes and papers, £9,368.

Total Exports to Egypt, £638,094, of which £637,965 was Australian produce. The principal exports were—Flour, £165,086; wheat, £117,410; frozen beef, £107,654; timber, £84,078; butter, £45,845; and other meats, £23,136.

France. *Total Imports of French Origin*, £964,554. The principal items were—Apparel, £140,617; argol, £106,207; piece goods, silk, £82,991; machinery and metal manufactures, £63,465; olive oil, £61,755; piece goods, velvet, £54,170; spirituous liquors, £52,800; cigarette tubes and papers, £38,731; lace for attire, £30,668; gums and resins, £27,028; pipes, cigar holders, etc., £22,749; perfumery and toilet preparations, £21,375; fertilizers, £19,967; oils, essential, £11,539; and earthenware, glass, etc., £11,101.

Total Exports to France, £11,055,647. Of this total, £10,707,852 was Australian produce. The principal exports were—Wool, £7,111,406; sheepskins, £2,187,951; wheat, £874,054; gold, £733,301; wolfram, £38,292; and concentrates, £31,247.

Germany. *Total Imports of German Origin*, £4,170,624. The principal items were—Machinery, £1,001,093; manufactures of metal, £635,235; drugs and chemicals, £498,487; optical and scientific instruments, £263,287; paper and stationery, £262,435; piece goods, silk, £219,156; earthenware, china, glassware, etc., £200,822; gloves, £136,606; timepieces, £105,490; trimmings and ornaments, £75,477; piece goods, other than silk, £67,109; bags, baskets, etc., £63,796; oils, in bulk, £62,691; and textiles, excluding piece goods, £61,893.

Total Exports to Germany, £4,410,098, of which £4,359,317 was Australian produce. The principal exports were—Wool, £3,877,114; hides and skins, £175,227; wolfram, £108,499; apples, fresh, £76,242; metals and metal manufactures, £45,270; and eucalyptus oil, £18,172.

Italy. *Total Imports of Italian Origin*, £844,983. The principal imports were—Sulphur, £148,479; yarns, artificial silk, £142,731; argol, £102,927; piece goods, silk, £63,765; gloves, £51,634; machinery and metal manufactures, £46,004; oils (essential), £29,625; olive oil, £28,431; textiles, other than piece goods, £27,479; hemp, £20,674; and nuts (edible), £21,211.

Total Exports to Italy, £2,644,058, of which £2,640,126 was Australian produce. The principal exports were—Wool, £1,846,631; wheat, £762,629; tallow, £7,599; and hides and skins, £6,647.

Japan. *Total Imports of Japanese Origin*, £5,349,086. The principal imports were—Piece goods, silk or containing silk, £1,510,019; piece goods, cotton and linen, £888,497; silk, raw, £577,495; piece goods, other, £275,751; textiles, other than piece goods, £214,613; apparel, £208,122; fish, £200,843; machinery and metal manufactures, £187,350; fancy goods, toys, etc. £162,532; crockery and household ware, £147,774; paper and stationery, £142,464; yarns, £85,145; sulphur, £80,422; and glass and glassware, £51,852.

Total Exports to Japan, £5,900,098. Of this total, £5,859,653 was Australian produce. The principal exports were—Wool, £4,027,956; wheat, £698,948; cattle hides and skins, £302,227; iron and steel, scrap, £214,458; zinc, bars, blocks, etc, £211,986; lead, pig, £79,177; iron ore, £48,614; beef, frozen, £48,024; tallow, £42,740; trochus shell, £35,712; casein, £31,948; and milk and cream, £19,989.

Netherlands. *Total Imports of Netherlands Origin*, £656,245. The principal items were—Yarns, artificial silk, £159,200; electrical machinery and appliances, £113,178; caramel, cocoa, butter, etc., £44,799; paper, £38,437; precious stones, £38,381; piece goods, £33,223; lamps and lampware, £27,840; sausage casings, £24,052; and wire, £13,376.

Total Exports to Netherlands, £779,515, of which £739,326 was Australian produce. The principal items were—Wool, £466,198; wheat, £77,745; flour, £76,883; hides and skins, £49,099; machinery and metal manufactures, £27,613; fruits, fresh, £14,672; and tallow, £11,717.

Netherlands East Indies. *Total Imports of Netherlands East Indies Origin*, £7,530,509. The principal imports were—Petroleum spirit, £3,608,691; tea, £1,564,387; residual oil, £645,093; kerosene, £393,523; petroleum (crude), £300,728; other oils, £264,221; kapok, £218,849; rubber (crude), £213,095; hemp, £142,386; waxes, £42,011; and coffee, £25,828.

Total Exports to Netherlands East Indies, £1,467,765. Of this total, £1,451,644 was Australian produce. The principal exports were—Flour, £807,629; butter, £288,057; bacon and hams, £42,705; coal, £42,090; leather, £37,327; fruits, fresh, £29,702; malt, £28,964; biscuits, £24,274; tallow, £22,376; and machinery and metal manufactures, £21,130.

Norway. *Total Imports of Norwegian Origin*, £495,560. The principal items were—Fish, preserved in tins, £88,044; paper, writing and typewriting, £68,475; timber, dressed, £58,928; paper, wrapping, £48,742; manufactures of metal, £47,742; paper, other, £43,660; paper, printing, £37,643; wood pulp, £22,984; and oils in bulk, £9,140.

Total Exports to Norway, £56,573, of which £56,349 was Australian produce. The principal exports were—Wheat, £45,577; wool, £4,598; and apples, fresh, £3,513.

Pacific Islands (British and Foreign.) *Total Imports of Pacific Islands Origin*, £3,295,687. The principal imports were—Gold, £1,908,620; rock phosphates, £785,875; copra, £215,137; coconuts (prepared), £131,329; rubber (crude), £85,051; shells, £26,145; timber, £21,966; vanilla beans, £17,789; silver, £16,470; molasses, £14,743; and hides and skins, £12,196.

Total Exports to Pacific Islands, £2,733,494. Of this total, £2,052,002 was Australian produce. The principal exports were—Manufactures of metal, £338,428; machines and machinery, £250,114; oils in bulk, £187,135; tobacco, £166,243; flour, £165,510; meats, £126,983; spirituous liquors, £95,879; apparel and textiles, £87,416; cinematographs and films, £87,332; coal, £87,166; drugs and chemicals, £86,276; bran, pollard and sharps, £64,261; timber, £60,327; earthenware, china, cements, etc., £50,291; coke, £48,352; biscuits, £48,125; paints and varnishes, £32,283; rubber and leather, £31,707; paper and stationery, £30,699; arms, ammunition and explosives, £30,311; butter, £29,602; silver, £29,130; tea, £28,898; milk and cream, £27,916; rice, £27,090; and vegetables, £26,295.

Philippine Islands. *Total Imports of Philippine Islands Origin*, £123,466. The principal items were—Hemp, £82,474; timber, £33,855; and hoods for hats, £3,885.

Total Exports to Philippine Islands, £619,504. Of this total, £578,187 was Australian produce. The principal exports were—Flour, £273,459; butter, £71,373; meats, £67,302; milk and cream, £46,988; coal, £37,595; carbide, calcium, £16,494; and cheese, £7,717.

Poland. *Total Imports of Polish Origin*, £43,379. The principal items were—Timber, £11,729; coke, £10,450; cigarette tubes and papers, £4,568; machines and metal manufactures, £4,060; and pitch and tar, £2,506.

Total Exports to Poland, £1,066,114. The principal items were—Wool, £1,055,434; and sheepskins, £8,879.

Soviet Union (Russia). *Total Imports of Soviet Union (Russia) Origin*, £103,008. The principal items were—Hides and skins, £43,175; furs, dressed, £20,390; oils in bulk, £17,357; fish, £10,932; and flax, £3,213.

Total Exports to Soviet Union (Russia), £1,121,262. The principal items were—Wheat, £1,109,612; and wool, £10,886.

Spain. *Total Imports of Spanish Origin*, £108,225. The principal items were—Corks, etc., £64,680; liquorice, £8,405; wine, £7,898; dry colours, £5,544; nuts (edible), £4,732; and fish in tins, £3,348.

Total Exports to Spain, £133,448. The principal item was—Wheat, £132,145.

Sweden. *Total Imports of Swedish Origin*, £1,551,333. The principal imports were—Pulp for papermaking, £434,295; paper, £338,935; machines and machinery, £325,027; manufactures of metal, £142,358; timber and wood manufactures, £122,400; and vacuum cleaners, £109,276.

Total Exports to Sweden, £472,657. The principal exports were—Wool, £275,251; apples, fresh, £41,775; and hides, cattle, £41,586.

Switzerland. *Total Imports of Swiss Origin*, £873,629. The principal imports were—Clocks and watches, £302,135; machinery and metal manufactures, £210,499; piece goods, silk, £75,079; apparel and attire, £62,381; grass straw for hats, £45,481; drugs and chemicals, £44,269; piece goods, cotton and linen, £35,333; and handkerchiefs, £28,629.

Total Exports to Switzerland, £123,173. The principal exports were—Wool, £107,747; and timepieces and fancy goods, £4,697.

United States of America. *Total Imports of United States Origin*, £17,759,175. The principal imports were—Motor cars and parts, £2,941,733; motive power machinery, £2,287,069; tobacco, unmanufactured, £1,859,645; petroleum spirit, £1,081,345; machinery, other, £1,067,326; lubricating (mineral) oil, £907,811; iron and steel plate and sheet, £788,438; electrical machinery, etc., £513,670; drugs and chemicals, £445,042; wood and wicker, £419,627; paper and stationery, £390,223; films, £344,068; sulphur, £341,010; aeroplanes and parts, £304,308; metal working machinery, £254,543; tools of trade, £239,976; sausage casings, £223,973; mining machinery, £187,966; apparel and textiles, £187,856; adding and computing machinery, £175,776; fibres, £169,840; kerosene, £166,828; gums and resins, £147,377; and paints and varnishes, £139,471.

Total Exports to the United States of America, £10,859,622. Of this total, £9,180,764 was Australian produce. The principal exports were—Gold, £7,473,055; rabbit and hare skins, £852,205; concentrates, £587,586; wool, £408,763; sausage casings, £280,214; sheepskins, £250,363; pearlshell, £180,873; kangaroo skins, £170,342; hides, £138,080; and ores, £120,580.

§ 7. Trade with Eastern Countries.

1. Principal Articles Exported.—The following table shows the value of exports of Australian and other produce from Australia to Eastern countries during the last five years. The countries concerned in this trade are Borneo (British), Burma, Ceylon, China, French Indo China, Hong Kong, India, Japan, Korea, Kwantung Peninsula, Malaya (British), Manchuria, Netherlands East Indies, Philippine, Islands, Siam, Timor (Portuguese), and French and Portuguese Possessions in India. After declining sharply in 1933-34 the export trade with Eastern countries rose substantially in the next two years with increased shipments of wool, wheat, flour and minerals; the exports in 1935-36 were valued at £25,532,518, which was the highest figure recorded since 1928-29. In 1936-37 the value of exports to Eastern countries decreased by more than £8 million largely as the result of the heavy reduction in the purchases of wool by Japan; wheat shipments to Japan and China also declined in value by nearly £2 million during the year. The value of exports decreased still further in 1937-38 and again a decline in the purchase of wool by Japan coupled with the recession in wool values was the principal contributing factor. Mainly owing to heavier shipments of wheat the exports increased by more than £1 million in 1938-39.

TOTAL EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.

Article.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£ A.	£ A.	£ A.	£ A.	£ A.
Biscuits	39,767	35,682	41,114	34,001	37,353
Butter	544,215	657,264	640,544	622,195	588,393
Cheese	22,012	25,538	39,647	39,014	43,555
Coal	74,978	81,907	94,821	149,964	125,740
Fruits—					
Fresh	122,628	124,550	155,093	170,947	166,076
Dried and Preserved	42,081	40,073	45,116	46,421	42,981
Grain and pulse—					
Wheat	4,395,925	2,919,229	1,105,648	935,842	2,122,531
Flour	3,304,000	2,789,659	2,582,600	3,090,681	3,036,937
Other (prepared and unprepared)	60,306	71,798	129,050	101,585	70,288
Hay, chaff, and compressed fodder	16,014	16,187	25,111	13,553	16,156
Horses	102,586	105,995	126,518	97,525	85,895
Infants' and Invalids' Food	216,571	211,287	145,306	171,427	193,909
Iron Ore	140,535	158,064	103,974	48,614	51,477
Iron and Steel (scrap)	137,934	115,665	217,112	214,463	283,302
Farms and Textiles	42,428	42,688	49,178	46,143	44,651
Lard and Refined Animal Fats	28,432	35,046	40,738	34,432	20,246
Lead, Pig	51,084	38,614	138,237	80,206	13,350
Leather	141,907	107,944	173,761	181,723	134,319
Meats—					
Bacon and Hams	84,420	91,423	92,952	95,437	94,640
Other meats	214,182	244,439	253,450	322,298	274,015
Milk and Cream	456,108	455,420	611,021	662,234	436,472
Pearlshell and trochus shell	46,737	53,066	59,696	37,878	42,425
Sandalwood	108,600	66,845	106,448	36,676	42,330
Skins, hoofs, horns, bones, and sinews	135,836	162,214	185,803	339,223	176,055
Tallow (unrefined)	296,937	237,484	174,981	218,591	156,105
Timber (undressed)	180,984	85,191	148,753	143,690	62,893
Wool	8,785,163	14,767,219	7,860,278	4,367,877	4,180,914
Zinc—					
Bars, blocks, ingots, etc.	303,282	528,032	937,474	390,939	597,366
Concentrates					14,895
Other merchandise	695,050	614,038	654,608	898,231	1,393,170
Total merchandise	20,790,602	24,882,561	16,939,032	13,591,810	14,554,461
Specie, and gold and silver bullion	475,864	649,957	546,473	610,518	933,965
Total Exports	21,266,466	25,532,518	17,485,505	14,202,328	15,488,426

(a) Australian currency value. Estimated British currency value—1934-35, £ stg. 16,979,978; 1935-36, £ stg. 20,386,200; 1936-37, £ stg. 13,960,483; 1937-38, £ stg. 11,339,184; 1938-39, £ stg. 12,366,009.

2. Destination of Exports of Merchandise.—The next table shows the destination of merchandise exported to Eastern countries during the five years ended 1938-39:—

EXPORTS OF MERCHANDISE FROM AUSTRALIA TO EASTERN COUNTRIES.

Country of Destination.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£ A.	£ A.	£ A.	£ A.	£ A.
China	2,472,262	1,212,821	842,963	616,520	2,918,476
Hong Kong	715,994	624,663	803,010	1,048,833	475,099
India, Burma and Ceylon	961,832	1,301,206	1,468,432	1,467,340	2,247,598
Japan	12,095,514	17,661,232	9,705,738	5,900,098	4,865,469
Malaya (British)	1,315,822	1,263,526	1,727,956	2,063,740	1,911,007
Manchuria including Kwantung Peninsula	1,613,775	839,815	142,427	190,747	63,450
Netherlands East Indies	1,182,329	1,274,195	1,395,183	1,464,379	1,373,197
Philippine Islands	324,053	553,311	666,733	619,504	498,893
Siam	58,660	100,959	118,291	117,382	119,494
Other Eastern Countries	50,361	50,833	68,299	103,267	81,778
Total	420,790,602	424,882,561	416,939,032	413,591,810	414,554,461

(a) Australian currency value. Estimated British currency value, 1934-35, £ stg. 16,639,285; 1935-36, £ stg. 19,866,316; 1936-37, £ stg. 13,524,177; 1937-38, £ stg. 10,851,748; 1938-39, £ stg. 11,620,328.

3. Imports of Merchandise from Eastern Countries.—The values of imports into Australia from Eastern countries during the last five years are shown in the following table. The principal commodities imported in 1938-39, according to the countries of origin, were:—Ceylon—Tea, £703,610; India—Bags, Sacks and Hessians, £1,876,322; Japan—Silk Piece goods, £1,160,197; Cotton and Linen Piece goods, £726,052; Netherlands East Indies—Tea, £1,622,624; Petroleum Spirit, £3,431,054; Petroleum, crude, £198,453; Kerosene, £431,823; Residual Oil, £636,288.

IMPORTS OF MERCHANDISE INTO AUSTRALIA FROM EASTERN COUNTRIES.

British Currency Values.

Country of Origin.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£ stg.	£ stg.	£ stg.	£ stg.	£ stg.
China	364,127	657,178	683,742	601,870	461,559
Hong Kong	22,677	26,713	40,143	37,022	35,567
India, Burma and Ceylon	3,336,684	3,692,869	3,986,266	3,988,581	3,736,288
Japan	4,624,740	4,969,571	4,004,465	5,349,087	4,093,191
Malaya (British)	561,845	488,254	852,282	1,022,899	902,419
Manchuria including Kwantung Peninsula	3,906	8,156	20,853	16,106	14,887
Netherlands East Indies	4,390,327	4,928,025	6,176,385	7,530,509	7,119,785
Philippine Islands	79,885	92,619	110,231	123,466	120,774
Siam	1,879	6,403	2,609	6,870	3,010
Other Eastern Countries	74,423	83,993	42,039	143,047	190,109
Total	13,460,493	14,953,781	15,919,015	18,819,457	16,677,589

By comparison with footnote (a) of the previous table, the balance of trade with Eastern countries can be ascertained and shows an excess of exports from Australia during the first two years with the position reversed for the remaining years.

§ 8. Classified Summary of Australian Oversea Trade.

1. Imports.—The following table shows the value of imports into Australia during each of the last five years, arranged in accordance with the statistical classification which came into operation on 1st July, 1922 :—

IMPORTS TO AUSTRALIA : CLASSES.

- British Currency Values.

Classes.	1934-35	1935-36.	1936-37.	1937-38.	1938-39.
	£ stg.	£ stg.	£ stg.	£ stg.	£ stg.
I. Animal foodstuffs, etc.	1,247,745	1,412,896	1,509,813	1,565,765	1,599,827
II. Vegetable foodstuffs; non-alcoholic beverages, etc.	3,166,140	3,215,246	3,801,644	3,768,619	3,957,780
III. Alcoholic liquors, etc.	637,003	696,103	633,133	727,220	719,967
IV. Tobacco, etc.	1,342,796	1,614,226	1,717,677	2,011,004	1,863,887
V. Live animals	163,058	168,069	216,943	193,500	182,809
VI. Animal substances, etc.	1,069,893	1,488,143	1,465,533	2,260,898	1,942,284
VII. Vegetable substances, etc.	1,961,807	2,256,452	2,884,357	3,194,512	2,596,939
VIII. Apparel, textiles, etc.	17,735,864	17,292,354	18,059,604	21,016,945	17,756,098
IX. Oils, fats, and waxes	5,334,763	6,600,852	7,634,360	9,429,257	8,697,751
X. Paints and varnishes	445,261	490,591	576,360	590,454	580,745
XI. Stones and minerals, etc.	507,785	601,533	551,967	806,815	900,904
XII. Metals, metal manufactures, and machinery	19,301,432	25,206,625	27,277,464	37,280,008	31,274,421
XIII. Rubber and leather, etc.	1,000,357	1,185,812	1,831,914	1,915,442	1,689,598
XIV. Wood and wicker, etc.	1,847,866	1,934,955	1,787,427	2,759,081	2,079,981
XV. Earthenware, etc.	1,380,865	1,600,283	1,774,183	2,047,362	1,864,984
XVI. Paper and stationery	4,764,188	5,295,820	5,933,131	6,609,609	6,185,576
XVII. Jewellery, etc.	1,008,450	1,194,566	1,256,235	1,581,455	1,431,605
XVIII. Optical, surgical, and scientific instruments	1,074,590	1,218,299	1,284,653	1,558,483	1,600,583
XIX. Drugs, chemicals, etc.	3,537,218	4,370,127	4,515,446	5,304,092	5,598,533
XX. Miscellaneous	4,893,726	5,498,379	5,879,736	7,112,733	6,788,858
XXI. Gold and silver; and bronze specie	1,698,489	1,731,127	2,048,882	2,241,806	2,843,202
Total	74,119,496	85,252,458	92,640,462	113,975,060	102,156,352

2. Exports.—In the following table the exports from Australia are shown in classes according to the same classification as for imports, distinguishing (A) Australian produce; (B) Other produce (re-exports); and (C) Total exports.

EXPORTS FROM AUSTRALIA : CLASSES.

Australian Currency Values.

Classes.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
A. AUSTRALIAN PRODUCE.					
	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc.	20,715,328	20,584,170	21,381,880	25,576,036	27,222,912
II. Vegetable foodstuffs; non-alcoholic beverages, etc.	25,581,702	27,528,837	34,757,712	39,098,847	25,532,970
III. Alcoholic liquors, etc.	950,242	1,079,964	1,220,456	1,152,619	1,158,424
IV. Tobacco, etc.	117,975	156,600	193,911	206,528	237,948
V. Live animals	181,564	179,015	227,233	217,373	197,081
VI. Animal substances, etc.	43,163,366	58,505,775	70,350,089	53,741,716	47,192,519
VII. Vegetable substances, etc.	320,181	260,143	407,607	328,675	297,864
VIII. Apparel, textiles, etc.	381,752	375,088	534,373	582,009	446,032
IX. Oils, fats, and waxes	1,012,958	772,791	970,379	784,601	611,633
X. Paints and varnishes	98,298	119,681	155,865	187,043	173,399
XI. Stones and minerals, etc.	1,391,904	1,807,966	2,486,329	3,305,551	2,667,077
XII. Metals, metal manufactures, and machinery	4,752,582	6,811,780	8,984,355	8,974,585	9,570,802
XIII. Rubber and leather, etc.	582,244	741,296	1,010,781	834,847	745,100
XIV. Wood and wicker, etc.	883,796	963,382	1,052,396	1,363,766	1,066,288
XV. Earthenware, etc.	137,303	175,360	160,010	191,816	209,637
XVI. Paper and stationery	175,663	249,911	247,136	300,098	364,928
XVII. Jewellery, etc.	90,021	91,669	120,327	133,625	105,803
XVIII. Optical, surgical, and scientific instruments	123,912	119,168	157,466	151,834	150,709
XIX. Drugs, chemicals, etc.	546,971	573,029	773,119	760,777	717,667
XX. Miscellaneous	548,052	727,202	732,288	800,749	915,711
XXI. Gold and silver; and bronze specie	8,694,612	11,700,284	12,495,809	14,930,762	15,951,167
Total	110,450,426	133,523,111	158,419,521	153,623,857	135,475,761
	(a)	(a)	(a)	(a)	(a)

(a) Estimated British currency value, 1934-35, £ stg. 88,197,929; 1935-36, £ stg. 106,622,378; 1936-37, £ stg. 126,501,534; 1937-38, £ stg. 122,675,991; 1938-39, £ stg. 108,188,166.

EXPORTS FROM AUSTRALIA: CLASSES—continued.

Classes.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
B. OTHER PRODUCE: RE-EXPORTS.					
<i>Australian Currency Values.</i>					
	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc.	11,442	12,778	19,036	20,756	28,537
II. Vegetable foodstuffs; non-alcoholic beverages, etc.	69,706	62,904	68,814	75,378	66,886
III. Alcoholic liquors, etc.	21,989	30,096	33,656	31,927	42,820
IV. Tobacco, etc.	54,464	72,149	69,693	74,399	112,997
V. Live animals	12,855	30,461	23,469	31,040	19,687
VI. Animal substances, etc.	16,628	26,145	30,066	32,458	136,279
VII. Vegetable substances, etc.	6,204	5,264	15,979	11,292	9,092
VIII. Apparel, textiles, etc.	195,189	228,714	320,472	293,104	222,819
IX. Oils, fats, and waxes	37,371	87,489	162,530	164,253	101,711
X. Paints and varnishes	2,830	4,005	6,316	4,844	4,853
XI. Stones and minerals, etc.	878	1,475	1,763	3,938	2,443
XII. Metals, metal manufactures, and machinery	377,533	435,380	481,294	547,326	547,549
XIII. Rubber and leather, etc.	5,527	4,983	15,029	7,695	10,873
XIV. Wood and wicker, etc.	29,249	22,614	32,972	47,543	42,987
XV. Earthenware, etc.	8,554	8,030	7,945	9,502	9,428
XVI. Paper and stationery	37,239	78,194	78,606	75,548	128,388
XVII. Jewellery, etc.	39,124	111,196	65,026	81,360	74,188
XVIII. Optical, surgical, and scientific instruments	167,770	176,104	214,395	231,123	234,004
XIX. Drugs, chemicals, etc.	39,478	44,873	35,808	47,397	48,518
XX. Miscellaneous	177,049	141,960	189,826	238,822	164,647
XXI. Gold and silver; and bronze specie	1,761,829	1,855,962	2,084,568	2,016,558	3,011,845
Total	3,072,908 (a)	3,440,776 (a)	3,957,263 (a)	3,956,263 (a)	5,020,551 (a)

(a) Estimated British currency value, 1934-35, £ stg. 2,456,219; 1935-36, £ stg. 2,750,029; 1936-37, £ stg. 3,162,784; 1937-38, £ stg. 3,161,888; 1938-39, £ stg. 4,013,206.

C. TOTAL EXPORTS: AUSTRALIAN PRODUCE AND RE-EXPORTS.

<i>Australian Currency Values.</i>					
	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc.	20,726,770	20,596,948	21,400,916	25,596,792	27,251,449
II. Vegetable foodstuffs; non-alcoholic beverages, etc.	25,651,408	27,591,741	34,826,526	39,174,225	25,599,856
III. Alcoholic liquors, etc.	972,231	1,110,060	1,254,112	1,184,546	1,201,244
IV. Tobacco, etc.	172,439	228,749	263,604	280,927	350,945
V. Live animals	194,419	209,476	250,702	248,413	216,768
VI. Animal substances, etc.	43,179,994	58,531,920	70,380,155	53,774,174	47,328,798
VII. Vegetable substances, etc.	326,385	265,407	423,586	339,967	306,956
VIII. Apparel, textiles, etc.	576,941	603,802	854,845	785,113	668,851
IX. Oils, fats, and waxes	1,050,320	860,280	1,132,909	948,854	713,344
X. Paints and varnishes	101,128	123,686	162,181	191,887	178,252
XI. Stones and minerals, etc.	1,392,782	1,809,441	2,488,092	3,309,489	2,669,520
XII. Metals, metal manufactures, and machinery	5,130,115	7,247,160	9,465,649	9,521,911	10,058,351
XIII. Rubber and leather, etc.	587,771	746,279	1,025,810	842,542	756,063
XIV. Wood and wicker, etc.	913,045	985,996	1,085,368	1,411,309	1,109,275
XV. Earthenware, etc.	145,857	183,390	167,955	201,318	219,065
XVI. Paper and stationery	212,902	328,105	325,742	375,646	493,316
XVII. Jewellery, etc.	129,345	202,865	185,353	214,985	179,991
XVIII. Optical, surgical, and scientific instruments	291,682	295,272	371,861	382,975	384,713
XIX. Drugs, chemicals, etc.	586,449	617,907	808,927	808,174	766,185
XX. Miscellaneous	725,101	869,162	922,114	1,039,571	1,080,358
XXI. Gold and silver; and bronze specie	10,456,441	13,556,246	14,580,377	16,947,320	18,963,012
Total	113,523,334 (a)	136,963,887 (a)	162,376,784 (a)	157,580,120 (a)	140,496,312 (a)

(a) Estimated British currency value, 1934-35, £ stg. 90,654,148; 1935-36, £ stg. 109,372,407; 1936-37, £ stg. 129,664,318; 1937-38, £ stg. 125,837,879; 1938-39, £ stg. 112,201,372.

3. Imports of Principal Articles.—The next table shows the quantity, where available, and the value of the principal articles imported into Australia during the last five years. The articles are listed in the order in which they appear in the detailed classification:—

PRINCIPAL COMMODITIES IMPORTED : AUSTRALIA.

British Currency Values.

Article.		1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Fish, preserved in tins	lb.	23,971,763	28,059,677	29,866,030	28,323,075	28,902,983
	lb.	686,594	773,020	819,644	879,631	946,276
Tea	lb.	47,083,850	44,668,703	48,657,083	45,307,019	49,530,941
	gal.	2,084,489	2,078,334	2,141,812	2,394,335	2,482,883
Whisky	£	486,082	537,024	458,327	533,689	523,346
Tobacco and preparations thereof	£	1,342,796	1,614,226	1,717,677	2,011,004	1,863,897
	cwt.	356,181	374,780	431,589	387,580	484,181
	£	135,577	204,071	345,181	215,137	175,076
Fibres	£	169,802	644,464	845,062	1,016,969	897,755
Hides and skins	£	614,720	614,041	599,956	828,029	695,673
Pulp for paper making	ton	38,259	37,209	48,489	63,932	37,704
	£	265,162	253,610	343,153	578,045	515,679
Seeds	£	547,647	547,244	630,178	748,254	435,308
Socks and stockings	£	21,389	34,900	36,010	48,754	368,464
Gloves	£	327,524	399,424	357,629	393,016	179,422
Hats and caps	£	147,714	157,586	147,569	190,130	382,995
Trimmings and ornaments	£	313,245	333,246	361,246	418,018	887,459
Other apparel and attire	£	699,854	774,699	755,216	946,365	1,099,728
Carpets and carpeting	£	925,541	1,085,153	1,176,375	1,326,305	569,394
Floorcloths and linoleums	£	352,073	429,245	542,790	609,364	564,588
Piece Goods—						
Canvas and duck	£	511,875	507,284	506,104	751,446	4,661,651
Cotton and linen	£	4,864,089	4,153,052	4,114,015	5,533,353	2,624,118
Silk and artificial silk	£	2,901,694	2,704,410	2,853,771	3,373,618	282,262
Woolen or containing wool	£	245,448	260,871	283,306	325,102	1,742,716
All other piece goods	£	1,872,585	1,972,457	1,988,126	1,991,934	502,789
Sewing silks, cottons, etc.	£	532,768	526,652	470,522	580,248	1,509,618
Bags and sacks	£	1,464,436	1,677,322	1,656,220	1,563,251	534,328
Yarns—						
Artificial silk	£	699,473	613,675	634,392	818,800	394,328
Cotton	£	548,565	435,927	455,099	596,010	48,414
Woolen	£	39,070	80,560	83,882	61,528	62,770
Other	£	44,674	38,624	43,350	51,982	
Oils, in bulk—						
Kerosene	gal.	33,482,226	38,770,667	45,617,564	61,189,925	54,714,472
	£	419,651	467,861	560,415	833,892	660,898
Lubricating (mineral)	gal.	13,270,099	14,454,548	14,774,293	18,752,582	15,519,442
	£	663,810	729,360	752,193	989,265	780,861
Petroleum	gal.	267,632,864	319,336,547	341,547,869	402,979,165	399,517,906
	£	3,167,255	4,332,643	5,046,456	6,106,301	5,658,530
Residual and solar	gal.	90,599,493	97,176,403	104,284,965	114,409,824	130,288,368
	£	548,843	521,166	591,990	769,768	939,675
Electrical machinery and appliances	£	1,847,241	2,457,603	2,996,999	3,524,395	3,678,755
Electrical cable and wire, covered	cwt.	133,198	240,759	254,315	276,264	257,064
	£	645,955	903,582	1,073,068	1,437,220	1,234,413
Agricultural machinery	£	124,056	153,084	172,190	219,159	207,479
Metal-working machinery	£	333,658	532,070	785,711	1,056,843	1,332,911
Motive power machinery	£	1,042,739	1,866,675	2,766,077	3,726,802	2,483,812
Iron and steel—						
Pipes and tubes	£	526,981	388,060	399,483	634,267	451,144
Plate and sheet	£	2,041,436	2,529,737	2,301,162	4,414,430	2,614,283
Cutlery and platedware	£	389,385	482,740	511,186	571,539	524,487
Tools of trade	£	751,207	877,247	871,285	1,122,218	852,395
Motor cars, chassis, bodies, and parts	£	4,488,941	5,968,918	5,807,211	7,787,596	6,761,091
Rubber and rubber manufactures	£	896,692	1,047,535	1,673,993	1,786,441	1,545,366
Timber, undressed, including logs (a)	sp. ft.	308,001,093	358,148,252	289,299,720	406,782,623	348,098,462
Crockery	£	1,356,523	1,416,467	1,250,500	2,007,553	1,480,987
Glass and glassware	£	492,852	532,750	510,376	519,251	559,176
Paper, printing	£	588,809	747,576	794,908	916,724	800,470
Stationery and paper manufactures	£	1,837,220	2,031,637	2,593,305	2,468,531	2,710,334
Cinematograph films	lin. ft.	54,600,449	73,804,140	65,328,947	77,509,452	73,559,662
	£	473,943	527,057	568,127	569,723	655,455
Drugs, chemicals, and fertilizers	£	3,537,218	4,370,127	4,515,446	5,304,092	5,601,525
Arms and explosives	£	608,841	995,635	582,058	540,018	1,080,108
Musical instruments, pianos, etc.	£	77,289	111,411	159,991	178,033	175,761
Outside packages	£	1,857,507	2,067,275	2,105,362	2,547,906	2,310,204
All other articles	£	20,653,471	23,937,473	26,683,289	33,280,153	30,334,738
Total Imports	£	74,119,496	85,252,458	92,640,462	113,975,060	102,156,352

(a) Exclusive of undressed timber not measured in super. ft.

4. Exports of Principal Articles of Australian Produce.—(a) Quantities. The following table shows the quantities of the principal articles of Australian produce exported during the last five years. The articles are listed in the order in which they appear in the detailed classification:—

PRINCIPAL COMMODITIES EXPORTED : QUANTITIES, AUSTRALIA.

Article.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Butter	centl. 2,625,189	2,126,462	1,743,094	1,973,446	2,295,428
Cheese	centl. 168,294	129,726	139,236	272,454	359,236
Eggs in shell	doz. 21,718,740	17,365,132	16,473,894	11,287,303	10,144,344
Beef	centl. 2,120,991	1,968,232	2,338,542	2,938,035	2,719,638
Lamb	centl. 1,358,797	1,513,778	1,628,859	1,595,562	1,583,327
Mutton	centl. 603,144	266,295	455,724	422,462	281,558
Pork	centl. 156,361	235,777	268,165	339,594	307,174
Milk and cream	centl. 165,495	169,610	220,724	247,313	191,039
Fruits, dried	centl. 1,277,789	1,114,976	1,204,077	1,457,598	1,681,270
Fruits, fresh	centl. 2,284,592	2,517,400	2,493,172	2,555,174	2,752,381
Barley	centl. 1,450,854	1,736,042	1,302,810	2,399,234	1,309,084
Wheat	centl. 34,575,814	46,195,876	43,066,812	56,702,254	37,877,444
Flour	centl. 14,959,412	12,341,620	11,295,563	12,609,073	14,501,304
Sugar (cane)	gal. 6,229,140	6,013,266	8,126,240	8,563,500	8,860,400
Wine	gal. 3,394,597	3,706,925	4,087,731	3,897,086	3,719,496
Tobacco, manufactured	centl. 3,853	5,938	7,454	8,060	9,665
Wool (in terms of greasy wool)	centl. 9,416,661	9,117,986	9,157,858	8,554,117	9,470,604
Pearlshell	cwt. 43,467	56,306	52,058	53,289	52,332
Sandalwood	cwt. 73,420	47,943	71,115	24,813	32,962
Tallow (unrefined)	cwt. 827,136	459,324	648,774	541,336	562,500
Coal	ton 305,139	307,640	340,388	342,873	382,085
Concentrates	cwt. 2,212,329	4,368,544	3,629,890	5,471,613	5,916,685
Copper	cwt. 69,188	83,433	69,022	38,121	21,555
Lead	cwt. 3,673,347	3,882,745	3,480,876	4,270,683	4,102,297
Zinc—bar, block, dust	cwt. 537,650	846,269	955,502	618,858	892,630
Tin—ingots	cwt. 22,097	16,012	13,524	14,665	29,431
Timber, undressed, including Logs (a)	sup. ft. 36,911,000	40,307,040	44,056,160	101,033,636	77,833,352
Soap	centl. 54,371	54,507	58,962	49,007	49,871

(a) Exclusive of undressed timber not measured in super. feet.

(b) Values. The values of the principal articles of Australian produce exported during the same period as in the preceding table are given in the table hereunder:—

PRINCIPAL COMMODITIES EXPORTED : VALUES, AUSTRALIA.

Australian Currency Values.

Article.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£A.	£A.	£A.	£A.	£A.
Butter	9,586,776	9,832,733	8,801,643	10,781,067	12,891,837
Cheese	493,977	337,467	383,974	845,110	1,073,931
Eggs in shell	1,148,254	910,892	954,578	686,713	638,159
Meats	8,846,110	8,752,842	10,331,840	12,250,031	11,776,635
Milk and cream	710,166	722,301	849,465	963,836	791,011
Fruits, dried	2,165,241	1,987,164	2,059,358	2,682,352	2,864,676
Fruits, fresh	1,821,932	2,026,860	1,979,890	2,054,322	2,022,874
Fruits, preserved in liquid	997,160	805,797	1,011,994	1,287,962	1,267,070
Barley	394,466	369,391	594,495	805,444	341,935
Wheat	11,612,368	14,050,975	18,760,772	20,906,601	8,734,974
Flour	4,607,383	4,519,882	5,590,942	6,032,321	4,540,210
Sugar (cane)	2,732,184	2,757,903	3,707,360	4,026,576	4,177,741
Wine	810,021	917,624	1,042,969	943,241	991,143
Tobacco, manufactured	100,867	142,408	180,609	192,217	225,025
Hides and skins	3,501,612	5,649,427	7,296,498	6,180,776	4,094,754
Wool	39,263,282	52,339,514	62,502,629	46,982,679	42,629,461
Pearlshell	218,463	302,491	319,631	345,880	244,266
Sandalwood	108,611	66,845	106,448	36,831	42,330
Tallow (unrefined)	927,740	276,455	819,597	620,869	483,034
Coal	273,305	276,563	300,457	354,754	347,054
Concentrates	759,296	1,130,167	1,816,776	2,289,672	1,827,422
Copper	152,328	173,310	136,029	33,639	15,656
Lead	2,492,923	3,837,381	4,817,749	4,938,171	4,282,734
Zinc—bar, block, dust	484,290	905,130	1,314,038	782,341	888,524
Tin—ingots	302,271	200,807	193,238	187,469	370,137
Leather	489,252	639,966	609,256	702,503	626,198
Timber, undressed, including Logs (a)	455,661	516,022	606,702	1,202,447	926,504
Soap	83,798	92,086	88,462	75,878	74,594
Gold	8,153,758	10,709,718	11,825,898	13,910,680	14,958,633
Silver	549,824	999,506	668,323	1,018,355	992,486
All other articles	6,408,967	6,878,455	8,554,979	9,533,420	10,333,753
Total Exports (Australian Produce)	110,450,426	133,523,111	158,419,521	153,623,857	135,475,761
	(b)	(b)	(b)	(b)	(b)

(a) Exclusive of undressed timber not measured in super. feet. (b) Estimated British currency value—1934-35, £ stg. 88,197,929; 1935-36, £ stg. 106,622,378; 1936-37, £ stg. 126,501,534; 1937-38, £ stg. 122,675,954; 1938-39, £ stg. 107,510,655.

5. Imports of Merchandise, Specie and Bullion.—The table hereunder gives the value in British currency of imports into Australia during each of the last five years grouped under the headings—Merchandise, and Specie and Bullion. The imports of merchandise are shown under the sub-headings of “free” and “dutiable” goods :—

IMPORTS OF MERCHANDISE, SPECIE AND BULLION : AUSTRALIA.

British Currency Values.

Year.	Merchandise.			Specie and Bullion.	Total Imports.
	Free Goods.	Dutiable Goods.	Total Merchandise.		
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
1934-35	28,578,421	43,842,586	72,421,007	1,698,489	74,119,496
1935-36	32,693,465	50,827,866	83,521,331	1,731,127	85,252,458
1936-37	37,705,653	52,885,927	90,591,580	2,048,882	92,640,462
1937-38	44,211,749	67,521,505	111,733,254	2,241,806	113,975,060
1938-39	43,257,714	56,055,436	99,313,150	2,843,202	102,156,352

(a) Estimated Australian currency value—1934-35, £A92,834,669; 1935-36, £A106,778,705; 1936-37, £A116,032,180; 1937-38, £A142,753,763; 1938-39, £A127,950,831.

6. Exports of Merchandise, Specie and Bullion.—The next table shows the recorded value of exports from Australia during each of the last five years, grouped under the headings—Merchandise, and Specie and Bullion, giving the exports of Australian Produce and Other Produce separately :—

EXPORTS OF MERCHANDISE, SPECIE AND BULLION : AUSTRALIA.

Year.	Merchandise.			Specie and Bullion.			Total Exports. (a)
	Australian Produce.	Other Produce.	Total Merchandise.	Australian Produce.	Other Produce.	Total Specie and Bullion.	
	£	£	£	£	£	£	£
1934-35	{ 101,755,814 81,242,167	{ 1,311,079 1,046,769	{ 103,066,893 82,288,936	{ 8,694,612 6,955,762	{ 1,761,829 1,409,450	{ 10,456,441 8,365,212	{ 113,523,334 90,654,148
1935-36	{ 121,822,827 (c) 97,263,733	{ 1,584,814 1,265,320	{ 123,407,641 98,529,053	{ 11,700,284 9,358,645	{ 1,835,962 1,484,709	{ 13,536,246 10,843,354	{ 136,963,887 109,372,407
1936-37	{ (b) 145,923,712 (c) 116,505,957	{ 1,872,695 1,495,166	{ 147,796,407 118,001,123	{ 12,495,809 9,995,577	{ 2,084,568 1,667,618	{ 14,580,377 11,663,195	{ 162,376,784 129,664,318
1937-38	{ (b) 138,693,038 (c) 110,732,964	{ 1,939,762 1,548,712	{ 140,632,800 112,281,676	{ 14,930,762 11,942,981	{ 2,016,558 1,613,222	{ 16,947,320 13,556,203	{ 157,580,120 125,837,879
1938-39	{ (b) 119,524,594 95,428,817	{ 2,008,706 1,603,757	{ 121,533,300 97,032,574	{ 15,951,167 12,759,349	{ 3,011,845 2,409,449	{ 18,963,012 15,168,798	{ 140,496,312 112,201,372

(a) Does not include the value of Ships' Stores. See later table. (b) Australian currency values. (c) British currency values.

7. Imports in Tariff Divisions.—In the following table the imports into Australia during the last five years have been classified in accordance with the sixteen divisions of the Customs Tariff.

IMPORTS IN TARIFF DIVISIONS: AUSTRALIA.

British Currency Values.

Tariff Division.	Imports.				
	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
I. Ale, Spirits, and Beverages	724,243	810,479	775,444	940,419	914,006
II. Tobacco and preparations thereof ..	1,342,796	1,614,226	1,717,677	2,011,004	1,863,887
III. Sugar	18,213	21,542	28,326	31,545	40,034
IV. Agricultural Products and Groceries ..	5,359,517	5,832,041	6,762,587	6,438,463	6,331,568
V. Textiles, Felts and Furs, and Manufactures thereof, and Attire	15,589,378	15,456,564	16,221,963	18,648,002	15,921,221
VI. Metals and Machinery	13,462,994	17,659,405	19,260,713	26,736,437	22,168,275
VII. Oils, Paints, and Varnishes	5,707,247	7,380,167	8,367,745	10,269,721	9,559,838
VIII. Earthenware, Cement, China, Glass, and Stone	1,796,833	1,996,432	2,117,595	2,581,309	2,308,556
IX. Drugs and Chemicals	2,842,580	3,406,834	3,387,632	3,821,966	4,035,376
X. Wood, Wicker, and Cane	1,847,866	1,976,646	1,787,427	2,770,894	2,114,721
XI. Jewellery and Fancy Goods	1,476,572	1,807,147	1,772,176	2,203,995	2,045,947
XII. Hides, Leather, and Rubber	1,184,908	1,506,155	2,314,197	2,142,089	1,875,175
XIII. Paper and Stationery	5,010,840	5,534,365	6,239,326	7,133,843	6,473,254
XIV. Vehicles	5,685,833	7,885,946	7,988,486	10,415,428	9,263,302
XV. Musical Instruments	77,289	111,441	150,991	178,033	285,638
XVI. Miscellaneous	8,301,732	8,158,740	8,753,533	10,914,478	10,400,018
— Free Goods not specially mentioned in Tariff	1,992,166	2,363,201	2,945,762	4,495,628	3,712,334
Total Merchandise ..	72,421,007	83,521,331	90,591,580	111,733,254	99,313,150
Specie and Bullion ..	1,698,489	1,731,127	2,048,882	2,241,806	2,843,202
Grand Total	74,119,496	85,252,458	92,640,462	113,975,060	102,156,352

8. Imports and Net Customs Revenue.—The percentage of net Customs revenue collected on the total value of all merchandise imported in each year was as follows:—1934-35, 23.1 per cent.; 1935-36, 22.3 per cent.; 1936-37, 22.0 per cent.; 1937-38, 20.4 per cent.; and 1938-39, 21.9 per cent. Primage duty was in force during these years, and adding this to net customs revenue, the percentages were as follows:—1934-35, 27.8 per cent.; 1935-36, 26.7 per cent.; 1936-37, 25.3 per cent.; 1937-38, 23.5 per cent.; and 1938-39, 25.0 per cent. The percentages of net Customs revenue, omitting primage, on the total value of dutiable goods only were—1934-35, 38.2 per cent.; 1935-36, 36.6 per cent.; 1936-37, 37.7 per cent.; 1937-38, 33.7 per cent.; and 1938-39, 39.5 per cent. The calculations are based on uniform currency values and on the assumption that the value of clearances approximated to the value of imports during the same period.

9. Protective and Revenue Customs Duties.—In the following table the value of goods cleared for home consumption classified under protective and revenue duties and the gross duty collected are shown for the United Kingdom and other countries :—

IMPORTS (CLEARANCES) CLASSIFIED UNDER PROTECTIVE AND REVENUE DUTIES : AUSTRALIA.

Australian Currency Values.

Item.	1935-36.			1936-37.			1937-38.		
	United Kingdom.	Other Countries.	Total.	United Kingdom.	Other Countries.	Total.	United Kingdom.	Other Countries.	Total.
Dutiable Goods :—	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.
Protective	9,417	7,639	17,056	10,347	7,380	17,727	11,940	9,758	21,698
Revenue	10,488	35,511	45,999	14,087	35,065	49,152	16,141	43,917	60,058
Total Dutiable Goods ..	19,905	43,150	63,055	24,434	42,445	66,879	28,081	53,675	81,756
Free Goods	21,911 (a)	20,042 (a)	43,364	22,990 (a)	23,012 (a)	47,226	28,151 (a)	26,842 (a)	58,183
Total All Goods ..	41,816 (a)	63,192 (a)	106,419	47,424 (a)	65,457 (a)	114,105	56,232 (a)	80,517 (a)	139,939

PERCENTAGE OF TOTAL GOODS CLEARED FOR HOME CONSUMPTION.

	%	%	%	%	%	%	%	%	%
Dutiable Goods :—									
Protective	8.9	7.2	16.1	9.1	6.5	15.6	8.6	6.9	15.5
Revenue	9.8	33.4	43.2	12.3	30.7	43.0	11.5	31.4	42.9
Total Dutiable Goods ..	18.7	40.6	59.3	21.4	37.2	58.6	20.1	38.3	58.4
Free Goods	20.6	18.8	40.7	20.2	20.2	41.4	20.1	19.2	41.6
Total All Goods	39.3	59.4	100.0	41.6	57.4	100.0	40.2	57.5	100.0

GROSS CUSTOMS DUTY COLLECTED.

	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.	£A 1,000.
Dutiable Goods :—									
Protective	1,847	3,429	5,276	2,035	3,311	5,346	2,335	4,040	6,375
Revenue	1,825	17,236	19,061	1,981	18,615	20,596	1,984	21,199	23,183
Total Dutiable Goods ..	3,672	20,665	24,337	4,016	21,926	25,942	4,319	25,239	29,558

AVERAGE AD VALOREM RATE OF DUTY ON GOODS CLEARED FOR HOME CONSUMPTION.

	%	%	%	%	%	%	%	%	%
Dutiable Goods :—									
Protective	19.6	44.9	30.9	19.7	44.9	30.2	19.6	41.4	29.4
Revenue	17.4	48.5	41.4	14.1	53.1	41.9	12.3	48.3	38.6
Total Dutiable Goods ..	18.5	47.9	38.6	16.4	51.7	33.8	15.4	47.0	36.2

(a) Exclusive of goods admitted free for Commonwealth, Consuls, etc., and free reimported not distributed according to United Kingdom and other origin.

§ 9. Ships' Stores.

Prior to 1906 goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and have been omitted from the export figures. The value of these stores shipped each year during the period 1929-30 to 1938-39 showing bunker coal separately, is given in the following table:—

VALUE OF STORES SHIPPED ON OVERSEA VESSELS—AUSTRALIA.

Period.	Bunker Coal.	All Stores (including Coal).	Period.	Bunker Coal.	All Stores (including Coal).
	£ A.	£ A.		£ A.	£ A.
1929-30 ..	742,383	2,046,561	1934-35 ..	544,877	1,712,547 ^a
1930-31 ..	607,537	1,653,141 ^a	1935-36 ..	576,549	1,808,291 ^a
1931-32 ..	534,897	1,559,574 ^a	1936-37 ..	564,071	1,740,437 ^a
1932-33 ..	550,277	1,621,640 ^a	1937-38 ..	578,456	2,091,249 ^a
1933-34 ..	495,051	1,620,907 ^a	1938-39 ..	561,063	2,105,619 ^a

(a) Estimated British currency value—1930-31, £ stg. 1,408,032; 1931-32, £ stg. 1,225,119; 1932-33, £ stg. 1,294,723; 1933-34, £ stg. 1,294,137; 1934-35, £ stg. 1,367,303; 1935-36, £ stg. 1,443,745; 1936-37, £ stg. 1,389,570; 1937-38, £ stg. 1,669,660; 1938-39, £ stg. 1,681,133.

In addition to bunker coal, the principal items of ships' stores supplied to oversea vessels in 1938-39 were—Oils, £650,487 (mainly fuel oils); meats, £268,711; butter, £53,277; fish, £48,739; and vegetables, fresh, £57,625.

The net Customs duty collected on ships' stores carried to Australia on oversea vessels and consumed in Australian waters amounted in 1938-39 to £61,964.

§ 10. Movement of Specie and Bullion.

1. Imports and Exports.—The following tables show the values of gold and silver specie and bullion, and of bronze specie imported into and exported from Australia during the years 1934-35 to 1938-39:—

IMPORTS AND EXPORTS, SPECIE AND BULLION: AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
IMPORTS.					
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
Gold—Specie ..	206	1,093	69	1,070	14,637
Bullion ..	1,679,380	1,634,417	1,998,311	2,191,969	2,757,488
Total ..	1,679,586	1,635,510	1,998,380	2,193,039	2,772,125
Silver—Specie ..	3,057	77,939	34,092	29,576	50,738
Bullion ..	15,704	17,333	16,211	18,866	20,143
Total ..	18,761	95,272	50,303	48,442	70,881
Bronze—Specie ..	142	345	199	325	196
GRAND TOTAL ..	(a)1,698,489	(a)1,731,127	(a)2,048,882	(a)2,241,806	(a)2,843,202

(a) Estimated Australian currency value—1934-35, £A2,127,357; 1935-36, £A2,168,238; 1936-37, £A2,566,225; 1937-38, £A2,807,862; 1938-39, £A3,561,111.

IMPORTS AND EXPORTS, SPECIE AND BULLION: AUSTRALIA—*continued.*

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
EXPORTS.					
	£ A.	£ A.	£ A.	£ A.	£ A.
Gold—Specie ..	206,618	994,924	181,785	96,820	110,204
Bullion ..	9,609,980	11,532,943	13,705,495	15,815,523	17,843,088
Total ..	9,816,598	12,527,867	13,887,190	15,912,343	17,953,292
Silver—Specie ..	106,122	151,671	101,947	43,232	42,726
Bullion ..	530,822	874,495	587,974	989,296	966,716
Total ..	636,944	1,026,166	689,921	1,032,528	1,009,442
Bronze—Specie ..	2,899	2,213	3,266	2,449	278
Total—					
Australian Produce	8,694,612	11,700,284	12,495,809	14,930,762	15,951,167
Other Produce ..	1,761,829	1,855,962	2,084,568	2,016,558	3,011,845
GRAND TOTAL ..	10,456,441	13,556,246	14,580,377	16,947,320	18,963,012
	(a)	(a)	(a)	(a)	(a)

(a) Estimated British currency value—1934-35. £ stg. 8,365,212; 1935-36, £ stg. 10,843,354; 1936-37, £ stg. 11,663,195; 1937-38, £ stg. 13,556,203; 1938-39, £ stg. 15,168,797.

2. Imports and Exports by Countries.—The next table shows the imports and exports of specie and bullion from and to various countries during the year 1938-39:—

IMPORTS AND EXPORTS OF SPECIE AND BULLION BY COUNTRIES: AUSTRALIA, 1938-39.

Country.	Imports.			Exports.		
	Specie.	Bullion.	Total.	Specie.	Bullion.	Total.
	£ Stg.	£ Stg.	£ Stg.	£ A.	£ A.	£ A.
Australia (a) ..	50,918	..	50,918	..	..	..
United Kingdom ..	13,331	976	14,307	109,240	1,909,128	2,018,368
Ceylon ..	..	..	..	..	903,829	903,829
India ..	..	..	..	..	23,533	23,533
Malaya (British) ..	..	..	..	200	..	200
New Zealand ..	..	379,144	379,144	5,446	459	5,905
Pacific Islands—						
Fiji ..	..	699,824	699,824	..	..	..
Gilbert and Ellice						
Islands Colony ..	..	..	..	140	..	140
Nauru ..	..	..	..	500	..	500
Papua ..	..	85,461	85,461	615	..	615
Solomon Islands ..	..	582	582	75	..	75
Territory of New						
Guinea ..	..	1,600,691	1,600,691	30,581	..	30,581
Union of South Africa	..	10,044	10,044	..	..	..
Total, British						
Countries ..	64,249	2,776,722	2,840,971	146,797	2,836,949	2,983,746
France ..	..	..	..	..	7,327	7,327
Germany ..	..	..	..	..	7,745	7,745
Netherlands East						
Indies ..	..	..	..	6,403	..	6,403
Switzerland ..	..	869	869	..	..	..
United States of						
America ..	1,322	40	1,362	8	15,957,783	15,957,791
Total, Foreign						
Countries ..	1,322	909	2,231	6,411	15,972,855	15,979,266
GRAND TOTAL ..	65,571	2,777,631	2,843,202	153,208	18,809,804	18,963,012
	(b)	(b)	(b)	(c)	(c)	(c)

(a) Australian produce reimported. (b) Estimated Australian currency value—£A3,561,111. (c) Estimated British currency value—£ Stg. 15,168,797.

§ 11. Exports according to Industries.

1. **Classification.**—The following table gives an analysis of the exports of Australian produce according to the main classes of industry in which the goods were produced for the years 1937–38 and 1938–39 in comparison with those for the year 1913. The index-number based on the year 1913 shows the variations in the total recorded value only of exports in each industrial group, and has not been adjusted either for price-changes or in accordance with the variation of the Australian £ in relation to sterling.

A graph is published on page 504 of this chapter which shows the value of exports of Australian produce according to industrial groups from 1920–21 to 1938–39.

EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIAL ORIGIN.

VALUE OF EXPORTS.

Industrial Group.	1913. (a)		1937–38.		1938–39.	
	£A	Index No.	£A	Index No.	£A	Index No.
Agriculture	10,677,734	100	39,783,020	373	26,206,305	245
Pastoral	42,057,346	100	66,189,177	157	59,115,286	141
Dairy and Farmyard	3,854,734	100	12,909,679	335	14,975,986	389
Mines and Quarries (c)	21,926,310	100	24,580,964	112	23,983,912	109
Fisheries	424,849	100	386,995	91	288,382	68
Forestry	1,106,549	100	1,335,079	121	1,055,880	95
Total, Primary Produce	80,047,522	100	145,184,914	181	125,625,751	157
Manufacturing	2,304,693	100	8,483,513	368	8,649,379	375
Total	82,352,215	100	153,668,427	187	134,275,130	163

(a) Base year. (b) Estimated British currency value, 1937–38, £ stg. 122,689,364, index-number 149; 1938–39, £ stg. 107,205,692; index-number 130. (c) Australian production of gold substituted for exports of gold each year.

2. **Relative Importance of Industrial Groups.**—In the previous table the value of commodities in each industrial group of exports of Australian produce is that recorded at date of shipment from Australia, with the exception that the value of the production of gold in Australia in each year has been substituted in the Mines and Quarries group for actual shipments of gold in each year. This has been done to eliminate the exports of gold for monetary purposes. In order of importance the pastoral group occupied the highest place and in 1913 the value of commodities included in this group represented 51.1 per cent. of the total exports, as compared with 43.1 in 1937–38, and 44.0 per cent. in 1938–39.

Exports of agricultural produce rank next in importance. Compared with the previous year the value of agricultural exports was nearly five millions higher in 1937–38 owing to increased exports of wheat combined with higher prices. From 13.0 per cent. of the total exports in 1913, agricultural produce increased to 19.5 per cent. in 1938–39.

According to value, exports of dairy and farmyard produce increased from 4.7 per cent. in 1913 to 11.0 per cent. in 1934–35, declined during the succeeding years to 8.4 per cent. in 1937–38, and improved to 11.2 per cent. in 1938–39. Though the products of mines and quarries declined seriously subsequent to the year 1913, a recovery has been made in more recent years, the figures for 1938–39 representing 17.9 per cent. of the total exports. The manufacturing group of exports, which represented 2.8 per cent. in 1913, increased to 6.4 per cent. in 1938–39.

Compared with the year 1913, exports of agricultural produce in 1938–39 showed an increase of 145 per cent., pastoral produce 41 per cent., dairy and farmyard produce 289 per cent., mines and quarries, 9 per cent., the manufacturing group 275 per cent., and total exports 63 per cent. The exports of the products of fisheries and forests were slightly lower in 1938–39 than in 1913.

3. Australian Production and Exports according to Industry.—The following table shows the total values of Australian production and Australian exports during the period of ten years, 1928–29 to 1937–38, classified according to industries; the proportion of each industrial group to total production and to total exports; and in the last column the percentage exported of the production of each industrial group :—

VALUE OF AUSTRALIAN PRODUCTION AND EXPORTS, ACCORDING TO INDUSTRY.

Australian Currency Values.

Industrial Group.	Value of Production during Ten Years.	Percentage on Total Production.	Value of Exports during Ten Years.	Percentage on Total Exports.	Percentage Exported of the Production in each Industrial Group.
	£A1,000.	%	£A1,000.	%	%
Agriculture	786,438	20.47	295,767	24.71	37.61
Pastoral	864,934	22.51	594,615	49.68	68.75
Dairy and Farmyard	464,411	12.08	108,193	9.04	23.30
Mining	202,367	5.27	134,632	11.25	66.53
Forestry and Fisheries	106,079	2.76	12,947	1.08	12.21
Total, Primary Produce..	2,424,229	63.09	1,146,154	95.76	47.28
Manufacturing	1,418,257	36.91	50,794	4.24	3.58(a)
Total	3,842,486	100.00	1,196,948	100.00	31.15(a)

(a) See letterpress in the concluding paragraph of this section.

The figures relating to value of production and value of exports are subject to the qualifications mentioned previously. A period of ten years is embraced, and the values of production and of exports therein give a very fair index of the relative importance of the several industrial groups. Of the total production 63.09 per cent. was classified as primary produce and 36.91 per cent. as manufactured articles. The main contributing groups in the primary produce section were pastoral with 22.51 per cent., agriculture with 20.47 per cent., and dairy and farmyard produce with 12.08 per cent. of the total production.

Exports of primary produce represented 95.8 per cent. of the total exports. The primary groups in order of value were pastoral 49.7 per cent., agricultural 24.7 per cent., mining 11.3 per cent., dairy and farmyard 9.0 per cent., and forestry and fisheries 1.1 per cent. The manufacturing group accounted for the other 4.2 per cent.

The figures in the last column of the table are of special interest, as they show the percentage exported of the production of each industrial group. Of the total primary production during the period, 47.28 per cent. was exported. Approximately 38 per cent. of the agricultural production, 69 per cent. of the pastoral production, 23 per cent. of the dairy and farmyard production, 67 per cent. of the mining production, and 12 per cent. of the production of forestry and fisheries combined were sent abroad.

The total exports of gold bullion and specie are not included in the value of exports of the mining industry, the actual production of gold during the period being taken.

On account of the inherent difficulties of classifying production and exports by industries, the figures given for the manufacturing industry should not be interpreted too literally. In the first place, the value of manufacturing "production" stated is not the total value of output, but only the "value added" by manufacturing processes, while the value of manufactured exports represents the total value of the goods, including raw materials, etc. Secondly, some of the exported goods classified as primary produce have been increased in value by manufacturing processes, but have not been changed in form sufficiently to warrant their inclusion as manufactured products, e.g., flour, butter and sugar.

§ 12. Australian Index of Export Prices.

1. **The Old Annual Series.**—With the exception of a few years after 1929–30 an annual index of export prices has been published by the Commonwealth Bureau of Census and Statistics since its inception. An index was at first obtained by valuing the exports (other than gold) of each successive year at the prices of 1901, and dividing the values so obtained into the export values actually recorded. These computations were carried back to 1901. In 1918 the procedure was changed and brought into harmony with the methods adopted by the Bureau for constructing other price indexes. The average quantities of the principal exports (other than gold) for the nineteen years 1897 to 1916 were taken, and valued at the prices of each successive year. Comparisons of the resulting totals for different years were assumed to give the required comparisons of export price-levels for those years. The two methods would, however, give the same results only if the proportion of different exports for each year in question was the same as the average for the nineteen years. The proportion was, in fact, varying appreciably from year to year with the seasons. The old index was, therefore, based on a different system of weighting in each year, so that the results were not comparable for different years. The new method gave comparable and satisfactory results so long as the proportion of different exports was not widely different from the average of 1897 to 1916. After the war, however, the relative importance of different exports changed considerably. By about 1930 it began to appear that the change was great enough to throw some doubt on the accuracy of the index. It was published with increasing reluctance until 1929–30, after which it was withdrawn from publication.

Following that year endeavours were made to design and compile new series of index-numbers which would reflect more accurately the short- and intermediate-period fluctuations in export prices.

2. **The New Monthly Series.**—An attempt was made to overcome some of the difficulties occasioned by variations in the proportions of the different exports by compiling two separate series of monthly index-numbers. The first series was compiled in very much the same way as the old annual index-numbers, although certain important changes have been made in the data utilized. These are described below. For the present it may be noted that the purpose of this index is to provide comparisons, over a limited number of years, of the level of prices of those commodities normally exported from Australia, making no allowance for any benefit or disadvantage accruing from variations during the period in the relative proportions of the different kinds of exports. It is thus an index purely of price changes. The second series was designed for shorter-period comparisons—from one or more months of the current year to the corresponding months of the previous year. The latter is compiled in such a way as to take more close account of the actual quantities of each article exported at current prices; and hence to indicate with rather greater accuracy the extent to which price-movements have affected the actual value of our current exports. It will be clear, therefore, that the two series are designed to measure different things, any differences between the results being explicable on wider grounds than mere differences in formulae.

Reference has already been made to the fact that the data on which the new series are based differ from those utilized in the old series of annual index-numbers. These changes apply to both of the new series.

The most important change was the use of actual (or calculated) export parities, based on actual price quotations, in place of the "unit-values" declared at the Customs. Declared unit values are not satisfactory even in an annual index-number, partly because the returns are not always sufficiently accurate, and partly because there is a constant variation in the proportions of different grades and qualities included in the actual exports of any given period. An obvious example of the latter type of inaccuracy is furnished by the case of wool, the poorer grades of which are shipped during certain months of the off-season. In a monthly series of index-numbers, declared unit-values are even less satisfactory, as the difficulties are greatly magnified over short periods, during which the inaccuracies have little chance of averaging out.

Moreover, the export parities have in all cases been based on prices f.o.b. Australian ports. Where freight and selling charges form an appreciable percentage of the selling price, the use of unadjusted oversea quotations results in some distortion of the amplitude of the percentage fluctuations in prices.

The old index took no account of gold exports. The omission is natural and reasonable for countries which produce little or no gold. For gold-producing countries, although some exports of gold would be irrelevant (e.g., the Australian shipments of gold reserves during the depression), the exports of newly-produced gold should be taken into account. In the new series, therefore, gold is included, but the weight given to it is not the quantity exported but the quantity produced.

Each series of index-numbers takes account of 20 items, which constitute about 85 per cent. of the total value of exports of merchandise and silver and gold production.

3. **Monthly Index (Fixed Weights).**—The original "multipliers" used for the first series of index-numbers were, in round figures, the average annual exports (or production, in the case of gold) during the five years 1928-29 to 1932-33. This period was chosen some time ago as being fairly representative of the mutual relationship of the different export commodities over the period from 1928 to 1933 and, so far as it was possible to judge at the time, over the ensuing few years. As from July, 1936, the "multipliers" were revised to bring them into accord with observed changes in the composition of Australian exports. They are now based on the average annual exports (production, in the case of gold) during the three years 1933-34 to 1935-36. The break of continuity has been bridged by the usual method of splicing.

The twenty items, together with the units of quantity and the "multipliers", are given in the following table. It should be noted that (i) the "multiplier" allotted to wheat has been increased to take into account the "wheat equivalent" of flour exported, (ii) that allotted to greasy wool has been increased to take into account the "greasy equivalent" of scoured wool, tops and wool on skins, and (iii) those allotted to metals have been increased to take into account the metallic contents of ores and concentrates exported. This is the only satisfactory method of dealing with these commodities, for which it is not possible to secure satisfactory export price quotations in their own right.

EXPORT PRICE INDEX : WEIGHTING SYSTEM (FROM 1st JULY, 1936).

Item.	Unit of Quantity.	Quantity "Multipliers" for New Index-numbers.	Percentage Value Weights if applied to 1938-39.
1. Wheat (and wheat equivalent of flour) ..	bushel	101,000,000	13.41
2. Sultanas	ton	38,200	1.50
3. Lavias	ton	3,000	0.12
4. Currants	ton	13,400	0.41
5. Sugar (cane)	ton	305,000	3.10
6. Wool (as in the grease)	lb.	975,000,000	43.32
7. Tallow	cwt.	600,000	0.60
8. Cattle hides	lb.	28,000,000	0.61
9. Calf skins	lb.	1,800,000	0.08
10. Beef (frozen)	lb.	182,000,000	2.80
11. Lamb (frozen)	lb.	138,000,000	3.79
12. Mutton (frozen)	lb.	44,000,000	0.52
13. Pork (frozen)	lb.	16,000,000	0.48
14. Butter	cwt.	2,140,000	13.75
15. Silver	oz.	7,300,000	0.76
	(standard)		
16. Copper	ton	3,600	0.22
17. Tin	ton	1,300	0.34
18. Zinc	ton	99,000	1.94
19. Lead	ton	208,500	3.63
20. Gold (production)	oz. (fine)	937,000	8.62
			100.00

The relative importance of the several items in the whole index is roughly indicated in the last column, which shows in percentage form the "value aggregates" for 1938-39, i.e., the average prices for that year multiplied by the "quantity multipliers".

The monthly index-numbers of export prices in terms of Australian currency for the period January, 1928 to August, 1939 are set out in the following table. Index-numbers are also given of the same prices in terms of English sterling for the period July, 1929 to August, 1939. Differences in the value of English and Australian currency were sufficiently negligible to be ignored in the previous eighteen months.

MONTHLY EXPORT PRICE INDEX : AUSTRALIA.

(Base : 1928 = 1,000.)

Month.	1928.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
(i) IN TERMS OF AUSTRALIAN CURRENCY.											
January ..	1,036	761	514	595	548	785	580	772	957	755	653
February ..	1,036	708	557	593	518	759	567	779	934	736	651
March ..	1,052	672	587	562	510	739	564	785	988	730	635
April ..	1,058	689	585	552	516	726	605	790	1,000	722	630
May ..	1,061	694	578	547	561	676	644	790	983	725	630
June ..	988	673	553	533	607	648	652	747	946	697	648
July ..	997	647	535	550	659	620	656	769	954	710	657
August ..	975	635	509	580	661	627	664	804	952	686	653
September ..	965	597	515	604	708	581	714	790	901	661	740
October ..	936	544	597	567	676	564	749	820	880	668	768
November ..	946	543	646	553	714	557	741	893	802	656	769
December ..	936	519	595	550	710	550	736	920	796	647	..
Simple Average	1,000	640	564	566	616	653	656	805	924	699	..
(ii) IN TERMS OF ENGLISH STERLING.											
January ..	1,036	747	428	475	438	627	463	616	764	603	521
February ..	1,036	691	428	473	414	606	453	622	746	588	520
March ..	1,052	645	451	449	407	590	450	627	789	583	507
April ..	1,058	648	449	441	412	580	483	631	798	576	503
May ..	1,061	653	443	437	448	540	514	631	785	579	503
June ..	998	633	425	426	485	517	521	596	755	556	517
July ..	997	609	411	439	526	495	524	612	762	567	525
August ..	975	597	391	463	528	501	530	642	760	548	521
September ..	965	562	395	482	565	464	570	631	719	528	591
October ..	936	503	458	453	540	450	598	655	703	533	613
November ..	946	499	496	442	570	445	592	713	640	524	614
December ..	936	477	474	439	567	439	588	735	636	517	..
Simple Average	1,000	605	437	452	492	521	524	643	738	559	..

4. Monthly Index (Changing Weights).—The second series of the new index-numbers is designed merely for comparisons with the corresponding month, or period of months, of the previous year. The same price quotations are used, but the "multipliers" are much more closely in accord with the actual experience of the periods in question.

For any given month, the procedure is to multiply the price of each commodity in that month, and its price in the corresponding month of the previous year, by the quantity exported during the given month. A comparison of the resulting aggregates gives one possible measure of the change in prices over the period; i.e., the change assuming that the proportions of the different kinds of exports whose prices are to be measured were the same as their proportions in the given month. Another possible measure is given by assuming that the proportions of the different kinds of exports in the given month had been the same as their proportions in the corresponding month of the previous year. Accordingly the first step in the procedure is repeated, substituting the quantities exported during the corresponding month of the previous year.

The index-numbers so obtained have been proved over a period of years to lie very close together. As it is convenient for practical reasons to have one single figure rather than two close alternatives the two index-numbers are multiplied together and the square root of the product extracted. This is taken to be the index-number for the month, the prices of the corresponding month of the previous year being taken as base. The above could have been expressed more shortly, of course, by saying that Fisher's "ideal" formula has been used.

The index-numbers for two or more months of one year, as compared with the corresponding period of the previous year, are computed in very much the same way. The process merely involves the cumulative addition of the aggregates computed for the individual months, and extraction of the index-numbers as explained above.

In order to indicate more clearly the method of computation followed, and to enable comparisons to be made with the results obtained from the first series of index-numbers, the following table sets out the data in detail for the trade year 1938-39.

MONTHLY EXPORT PRICE INDEX (CHANGING WEIGHTS): AUSTRALIA.

Month.	Index-numbers Based on Quantities of 1936-39.	Index-numbers Based on Quantities of 1937-38.	Final Index-numbers (on "Ideal" Formula).	Index-numbers Based on Standard "Multiplication" (First Series).
--------	--------------------------------------------------------	--------------------------------------------------------	----------------------------------------------------	------------------------------------------------------------------------------

(a) INDIVIDUAL MONTHS.

(Base: Prices in corresponding month of previous year = 1,000.)

July	760	753	757	744
August	767	775	771	721
September	762	757	759	734
October	794	788	791	759
November	896	853	874	818
December	844	826	835	813
January	864	865	864	865
February	878	865	871	884
March	867	839	853	870
April	865	820	843	873
May	875	845	860	869
June	911	895	903	930

MONTHLY EXPORT PRICE INDEX (CHANGING WEIGHTS): AUSTRALIA—*continued.*

Month.	Index-numbers Based on Quantities of 1938-39.	Index-numbers Based on Quantities of 1937-38.	Final Index-numbers (on "Ideal" Formula).	Index-numbers Based on Standard "Multipliers" (First Series).
(b) PERIODS OF THE TRADE YEAR ENDING IN MONTH STATED. (Base: Prices in corresponding period of previous year = 1,000.)				
July	760	753	757	744
August	763	762	762	732
September	762	761	762	733
October	772	770	771	739
November	805	793	799	753
December	813	800	806	762
January	820	807	813	775
February	828	815	821	787
March	832	818	825	795
April	835	818	827	802
May	838	821	830	807
June	842	825	834	816

Monthly export price index-numbers are now issued currently in regular press notices.

§ 13. External Trade of Australia and other Countries.

1. *Essentials of Comparisons.*—Direct comparisons of the external trade of any two countries are possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance and charges may be added thereto. Again, the values of imports and exports in the one may be declared by merchants, whereas in the other they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of imports would arise from the different methods of converting the moneys of foreign countries, i.e., from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium than that of other countries. France and the United Kingdom also re-export largely, whereas in Canada, Australia and New Zealand the same class of trade represents a comparatively small proportion of the total trade.

2. *"Special Trade" of Various Countries.*—Special trade may be defined according to the interpretation of the British Board of Trade, as (a) imports entered for consumption in the country (as distinguished from imports for transshipment or re-export), and (b) exports of domestic products.

In the following table the figures relate as nearly as possible to imports entered for consumption in the various countries specified, and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption, and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The figures relating to foreign countries have been extracted from the *League of Nations Review of World Trade.*

**IMPORTS FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS
(MERCHANDISE ONLY): VARIOUS COUNTRIES, 1938.**

Country.	Trade.			Trade per Inhabitant.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
	£1,000,000 Stg.	£1,000,000 Stg.	£1,000,000 Stg.	£ s. d. Stg.	£ s. d. Stg.	£ s. d. Stg.
Australia (a) ..	99.3	96.4	195.7	14 6 9	13 18 3	28 5 0
United Kingdom ..	858.8	470.9	1,329.7	18 1 8	9 18 4	28 0 0
Canada ..	138.0	194.6	332.6	12 6 2	17 7 3	29 13 5
India ..	112.5	121.3	233.8	0 6 3	0 6 10	0 13 1
New Zealand ..	44.0	46.7	90.7	27 8 8	29 2 4	56 11 0
Union of South Africa ..	99.4	100.1	199.5	10 1 0	10 2 6	20 3 6
Argentine Re- public ..	90.6	89.6	180.2	7 2 0	7 0 5	14 2 5
Belgium ..	157.5	149.1	306.6	18 15 8	17 15 7	36 11 3
China ..	53.4	31.4	84.8	0 2 6	0 1 6	0 4 0
Manchuria ..	70.7	34.8	105.5	2 8 3	1 3 9	3 12 0
Czechoslovakia ..	59.5	72.7	132.2	3 18 1	4 15 5	8 13 6
Denmark ..	73.2	69.2	142.4	19 6 0	18 4 10	37 10 10
France ..	271.1	179.1	450.2	6 9 2	4 5 4	10 14 6
Germany ..	448.8	433.2	882.0	6 11 4	6 6 9	12 18 1
Italy ..	119.7	111.8	231.5	2 15 0	2 11 5	5 6 5
Japan ..	153.6	154.8	308.4	2 2 6	2 2 11	4 5 5
Netherlands ..	159.2	116.9	276.1	18 4 10	13 7 11	31 12 9
Netherlands East Indies ..	54.7	78.3	133.0	0 16 3	1 3 3	1 19 6
Norway ..	59.0	38.8	97.8	20 4 0	13 5 8	33 9 8
Poland ..	50.5	46.0	96.5	1 8 9	1 6 3	2 15 0
Soviet Union (Russia) ..	53.5	51.3	104.8	0 6 4	0 6 0	0 12 4
Sweden ..	106.3	94.7	201.0	16 18 3	15 1 4	31 19 7
Switzerland ..	74.3	61.5	135.8	17 15 3	14 14 1	32 9 4
United States of America ..	398.7	625.6	1,024.3	3 1 3	4 16 1	7 17 4

(a) Year ended 30th June, 1939.

**§ 14. Trade of the United Kingdom with Australia compared with that
of Competing Countries.**

Proportion of Trade from United Kingdom and Competing Countries.—The failure of the United Kingdom to maintain the position formerly held in the import trade of Australia has been a matter of more than ordinary interest for some years. Since 1908 permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From the 8th August, 1907, the Commonwealth Customs Tariffs have provided preferential rates of Customs Duties on certain goods the produce or manufacture of the United Kingdom with the object of assisting the British manufacturer to retain or improve his position in this market, in relation to other countries. The main provisions in these Acts relating to preference are dealt with on previous pages in this Chapter.

In an investigation into the relative position occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. The imports to Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber, etc., which the United Kingdom could not supply. These items, in addition to others not available from that country, have, therefore, been omitted from the computation hereunder.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, Germany, Japan and the United States. These countries have been selected as the principal competitors with the United Kingdom for the trade of Australia under the specified headings. Totals for the five years 1913 and 1935-36 to 1938-39 are shown in the table hereunder:—

AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES.

British Currency Values.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	U.S. of America.	All Countries.
		£stg.	£stg.	£stg.	£stg.	£stg.	£stg.
Foodstuffs of animal origin	1913 ..	301,025	3,093	12,071	6,988	289,229	947,697
	1935-36	247,197	1,269	..	61,668	216,112	1,412,896
	1936-37	281,017	1,208	1,148	61,203	250,934	1,509,813
	1937-38	286,568	1,151	1,771	218,674	251,297	1,565,765
	1938-39	300,283	993	548	175,629	209,761	1,599,827
Spirituous and alcoholic liquors	1913 ..	1,227,561	343,394	143,426	1,689	2,805	1,947,248
	1935-36	602,630	49,706	2,098	..	1,670	696,103
	1936-37	537,672	53,024	2,268	82	286	633,133
	1937-38	625,655	52,800	3,436	82	917	727,220
	1938-39	613,874	58,642	4,320	157	1,180	719,967
Apparel, textiles, and manufactured fibres	1913 ..	12,254,561	961,025	1,712,395	475,973	623,542	19,035,750
	1935-36	9,476,808	258,601	2,283,969	3,223,969	280,505	17,292,354
	1936-37	11,074,231	248,517	323,320	2,358,656	119,571	18,059,604
	1937-38	12,288,251	336,375	607,471	3,204,718	187,856	21,016,945
	1938-39	10,033,422	411,056	503,713	2,543,081	281,766	17,756,098
Metals, metal manufactures, and machinery	1913 ..	13,905,483	217,148	2,380,152	7,657	3,817,705	21,670,212
	1935-36	13,550,180	30,267	1,043,339	237,560	6,848,650	25,206,625
	1936-37	16,142,408	42,731	1,345,957	248,435	6,061,105	27,277,464
	1937-38	21,174,615	63,465	1,636,328	187,350	9,360,634	37,280,008
	1938-39	18,246,658	53,404	1,449,405	167,570	6,886,329	31,274,421
Paper and stationery	1913 ..	1,789,377	21,930	266,483	10,656	403,679	3,134,750
	1935-36	3,052,273	52,786	208,138	78,785	292,268	5,295,820
	1936-37	3,042,380	57,158	234,760	82,581	318,546	5,933,131
	1937-38	3,367,801	51,847	262,435	142,464	390,223	6,609,609
	1938-39	2,945,640	51,572	316,741	88,448	372,572	6,185,576
Jewellery, time-pieces, and fancy goods	1913 ..	521,290	88,070	263,688	19,307	138,217	1,442,292
	1935-36	232,717	19,545	127,992	195,594	71,047	1,194,566
	1936-37	243,601	26,891	153,485	197,994	83,846	1,256,235
	1937-38	275,796	29,130	178,755	208,609	132,078	1,581,455
	1938-39	275,301	31,330	104,239	175,305	121,981	1,431,605
Earthenware, cements, glass, etc.	1913 ..	650,138	40,245	453,188	21,493	62,887	1,565,727
	1935-36	879,191	8,115	170,663	227,804	127,791	1,690,283
	1936-37	930,126	13,862	167,352	183,558	79,753	1,774,183
	1937-38	998,637	11,101	200,822	228,858	71,928	2,047,362
	1938-39	946,215	16,980	204,527	182,983	89,857	1,861,974
Drugs, chemicals, and fertilizers	1913 ..	1,020,647	245,426	304,179	139,178	210,758	2,721,902
	1935-36	1,902,253	215,782	352,333	175,803	622,350	4,370,127
	1936-37	1,880,665	208,572	490,370	130,362	567,083	4,515,446
	1937-38	2,056,472	203,987	498,487	136,677	786,052	5,304,092
	1938-39	2,288,387	196,220	476,737	47,651	1,003,679	5,598,553
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	485,216	68,686	347,045	688	433,837	1,717,035
	1935-36	218,850	5,924	28,082	40,250	98,325	1,185,812
	1936-37	241,252	5,200	35,409	42,193	83,039	1,831,914
	1937-38	253,378	4,674	29,398	50,165	121,323	1,915,442
	1938-39	247,671	4,979	47,374	38,215	114,235	1,689,598
Total, above-mentioned imports	1913 ..	32,155,498	1,989,017	5,882,627	683,629	5,982,659	55,082,613
	1935-36	30,162,108	641,995	2,422,228	4,244,431	8,558,718	58,344,586
	1936-37	34,373,352	657,163	2,953,387	3,305,064	7,564,163	62,790,923
	1937-38	41,327,173	754,530	3,418,903	4,377,597	11,302,308	78,047,898
	1938-39	35,897,451	825,176	3,107,604	3,421,039	9,141,360	68,117,619
Total imports (less bullion and specie)	1913 ..	40,948,803	2,222,631	7,029,325	950,300	10,907,512	78,196,109
	1935-36	33,833,435	790,108	2,964,049	4,960,571	13,901,326	83,518,869
	1936-37	38,559,366	865,919	3,596,584	4,004,466	12,959,149	90,591,580
	1937-38	46,226,172	964,554	4,170,624	5,349,085	17,758,684	111,733,254
	1938-39	40,419,283	1,028,133	4,131,212	4,093,191	14,647,305	99,313,150

Stated as percentages the figures in the preceding table are shown below :—
AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES : PERCENTAGES.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	U.S. of America.	All Countries.
		%	%	%	%	%	%
Foodstuffs of animal origin	1913 ..	31.77	0.33	1.27	0.74	39.52	100
	1935-36	17.50	0.09	0.00	4.58	15.30	100
	1936-37	18.61	0.08	0.08	4.05	16.62	100
	1937-38	18.30	0.07	0.11	13.97	16.05	100
	1938-39	18.77	0.06	0.03	10.98	16.86	100
Spirituos and alcoholic liquors	1913 ..	63.04	17.64	7.37	0.09	0.14	100
	1935-36	86.57	7.14	0.30	0.00	0.24	100
	1936-37	84.92	8.37	0.36	0.01	0.05	100
	1937-38	86.03	7.26	0.47	0.00	0.13	100
	1938-39	85.26	8.15	0.60	0.02	0.16	100
Apparel, textiles, and manufactured fibres	1913 ..	61.48	4.82	8.59	2.39	3.13	100
	1935-36	54.80	1.50	2.83	18.64	1.62	100
	1936-37	61.32	1.37	2.89	13.06	0.66	100
	1937-38	58.47	1.60	2.89	15.25	0.89	100
	1938-39	56.51	2.32	2.84	14.33	1.59	100
Metals, metal manufactures, and machinery	1913 ..	64.17	1.00	10.98	0.04	17.62	100
	1935-36	53.76	0.12	4.14	0.94	27.17	100
	1936-37	59.17	0.16	4.93	0.91	22.22	100
	1937-38	56.80	0.17	4.39	0.50	25.11	100
	1938-39	52.51	0.15	4.17	0.48	19.82	100
Paper and stationery	1913 ..	57.41	0.70	8.50	0.34	12.88	100
	1935-36	57.64	1.00	3.93	1.49	5.52	100
	1936-37	51.27	0.96	3.95	1.39	5.36	100
	1937-38	50.95	0.78	3.97	2.16	5.90	100
	1938-39	47.62	0.83	5.12	1.43	6.02	100
Jewellery, time-pieces, and fancy goods	1913 ..	36.14	6.11	18.28	1.34	9.58	100
	1935-36	19.48	1.64	10.71	16.37	5.95	100
	1936-37	19.39	2.14	12.21	15.76	6.67	100
	1937-38	17.44	1.84	11.30	13.19	8.35	100
	1938-39	19.23	2.19	7.28	12.25	8.52	100
Earthenware, cements, glass, etc.	1913 ..	41.52	2.57	28.94	1.37	4.02	100
	1935-36	52.01	0.48	10.01	13.48	7.56	100
	1936-37	52.42	0.78	9.43	10.34	4.49	100
	1937-38	48.78	0.54	9.81	11.18	3.51	100
	1938-39	50.82	0.91	10.98	9.83	4.83	100
Drugs, chemicals, and fertilizers	1913 ..	37.49	9.02	11.18	5.11	7.74	100
	1935-36	43.53	4.94	8.06	4.02	14.24	100
	1936-37	41.64	4.61	10.85	2.88	12.55	100
	1937-38	38.77	3.85	9.40	2.58	14.82	100
	1938-39	40.87	3.50	8.52	0.85	17.93	100
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	28.26	4.00	20.21	0.04	25.27	100
	1935-36	22.45	0.70	2.37	5.59	8.25	100
	1936-37	13.16	0.28	1.93	2.30	4.53	100
	1937-38	13.23	0.24	1.53	2.62	6.33	100
	1938-39	14.66	0.29	2.80	2.26	6.76	100
Total, above-mentioned articles	1913 ..	58.38	3.61	10.68	1.24	10.86	100
	1935-36	51.70	1.10	4.15	7.27	14.67	100
	1936-37	54.74	1.04	4.70	5.26	12.04	100
	1937-38	52.95	0.97	4.38	5.61	14.48	100
	1938-39	52.70	1.21	4.56	5.02	13.42	100
Total imports (less bullion and specie)	1913 ..	52.37	2.84	8.99	1.22	13.95	100
	1935-36	40.51	0.95	3.55	5.95	16.64	100
	1936-37	42.56	0.95	3.97	4.42	14.30	100
	1937-38	41.37	0.86	3.73	4.79	15.89	100
	1938-39	40.70	1.04	4.16	4.12	14.75	100

The total value of the commodities included in the competitive classes increased from £55,082,613 during 1913 to £122,631,560 during 1926-27, but declined during the economic depression to £29,576,008 in 1931-32. Subsequently the total value rose to £78,047,898 in 1937-38 only to fall away again in 1938-39 to £68,117,619. The principal classes of competitive imports are (a) metals, metal manufactures and machinery (value £31,274,421 in 1938-39) and (b) apparel, textiles and manufactured fibres (value £17,756,098 in 1938-39). The value of goods included in these two groups represented 72 per cent. of the total value of competitive commodities during 1938-39.

In 1938-39 the United Kingdom supplied 52.70 per cent. of the total value of competitive goods. In 1913 the corresponding figure was 58.38 per cent. and in 1937-38 52.95 per cent. In four of the nine competitive groups of imports, the proportion supplied by the United Kingdom declined during 1938-39 as compared with the previous year. In the five groups—foodstuffs of animal origin; jewellery, timepieces and fancy goods; earthenware, cements, glass, etc.; drugs, chemicals and fertilizers; rubber and leather and manufactures thereof, etc.—which reported gains, the share of the total purchases supplied by the United Kingdom, was 18.77 per cent., 19.23 per cent., 50.82 per cent., 40.87 per cent., and 14.66 per cent. respectively.

The share of Japan in the competitive trade increased in proportion to other countries from 1.24 per cent. in 1913 to 8.11 per cent. in 1934-35, but declined appreciably during the next three years to 5.02 per cent. in 1938-39. The most important classes of competitive goods imported from Japan are silk piece goods, cotton and linen piece goods, yarns, crockery, fancy goods and sulphur. The total value of imports from Japan in the competitive groups during 1938-39 was £3,421,039, and of this total silk piece goods valued at £1,160,429 represented 34 per cent., and cotton and linen piece goods valued at £726,050 represented 21 per cent., or together 55 per cent. of the total competitive goods imported from Japan.

The position of the United States of America in the competitive trade improved from 10.86 per cent. in 1913 to 23.52 per cent. in 1928-29; after 1929-30 it declined progressively to 8.17 per cent. in 1932-33, but recovered somewhat in recent years and in 1938-39 represented 13.42 per cent. of the total. Of the total competitive trade from this country approximately 75 per cent. was represented by metals, metal manufactures and machinery.

The position of France declined from 3.61 per cent. in 1913 to 1.21 per cent. in 1938-39. Apparel, textiles, and drugs, chemicals and fertilizers are the most important imports from France.

The proportion of the imports supplied by Germany was 10.68 per cent. in 1913, 0.86 per cent. in 1923-24, and 4.56 per cent. in 1938-39. The principal classes of imports from Germany are manufactured metals and machinery, apparel and textiles, and drugs and chemicals.

§ 15. Oversea Trade in Calendar Years.

For the purpose of comparison with countries which record overseas trade in calendar years the following table has been compiled to show Australian imports and exports for each quarter of the calendar years 1935 to 1938:—

OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA.

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£ Stg. 1,000.	£ 1,000. °	£ Stg. 1,000.	£ 1,000	£ Stg. 1,000	£ 1,000

QUARTER ENDED MARCH.

1935 ..	18,317	{ (R) 28,890 (S) 23,065 }	389	{ (R) 2,221 (S) 1,777 }	18,706	{ (R) 31,111 (S) 24,842 }
1936 ..	21,456	{ (R) 38,157 (S) 30,464 }	349	{ (R) 3,010 (S) 2,408 }	21,805	{ (R) 41,167 (S) 32,872 }
1937 ..	21,521	{ (R) 43,358 (S) 34,617 }	482	{ (R) 3,483 (S) 2,788 }	22,003	{ (R) 46,841 (S) 37,405 }
1938 ..	27,919	{ (R) 36,441 (S) 29,094 }	535	{ (R) 4,176 (S) 3,341 }	28,454	{ (R) 40,617 (S) 32,435 }

OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA—(continued).

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£ Stg. 1,000.	£1,000.	£ Stg. 1,000.	£1,000.	£ Stg. 1,000.	£1,000.
QUARTER ENDED JUNE.						
1935 ..	17,367	{ (R) 26,121 (S) 20,854 }	436	{ (R) 2,623 (S) 2,099 }	17,803	{ (R) 28,744 (S) 22,953 }
1936 ..	19,955	{ (R) 24,095 (S) 19,239 }	465	{ (R) 3,000 (S) 2,399 }	20,420	{ (R) 27,095 (S) 21,638 }
1937 ..	23,367	{ (R) 36,068 (S) 28,797 }	502	{ (R) 3,961 (S) 3,168 }	23,869	{ (R) 40,029 (S) 31,965 }
1938 ..	27,024	{ (R) 33,553 (S) 26,789 }	670	{ (R) 4,023 (S) 3,218 }	27,694	{ (R) 37,576 (S) 30,007 }

QUARTER ENDED SEPTEMBER.

1935 ..	20,122	{ (R) 19,913 (S) 15,898 }	397	{ (R) 2,954 (S) 2,363 }	20,519	{ (R) 22,867 (S) 18,261 }
1936 ..	22,803	{ (R) 21,879 (S) 17,468 }	563	{ (R) 3,470 (S) 2,776 }	23,366	{ (R) 25,349 (S) 20,244 }
1937 ..	27,260	{ (R) 29,286 (S) 23,382 }	523	{ (R) 4,345 (S) 3,475 }	27,783	{ (R) 33,631 (S) 26,857 }
1938 ..	26,102	{ (R) 25,528 (S) 20,382 }	759	{ (R) 5,166 (S) 4,132 }	26,861	{ (R) 30,694 (S) 24,514 }

QUARTER ENDED DECEMBER.

1935 ..	21,987	{ (R) 39,754 (S) 31,740 }	527	{ (R) 4,070 (S) 3,255 }	22,514	{ (R) 43,824 (S) 34,995 }
1936 ..	22,899	{ (R) 45,146 (S) 36,045 }	501	{ (R) 3,502 (S) 2,801 }	23,400	{ (R) 48,648 (S) 38,846 }
1937 ..	29,530	{ (R) 41,208 (S) 32,901 }	494	{ (R) 4,406 (S) 3,523 }	30,024	{ (R) 45,614 (S) 36,424 }
1938 ..	24,644	{ (R) 38,867 (S) 31,032 }	657	{ (R) 4,638 (S) 3,710 }	25,301	{ (R) 43,505 (S) 34,742 }

TOTAL FOR YEAR.

1935 ..	77,793	{ (R) 114,678 (S) 91,557 }	1,749	{ (R) 11,868 (S) 9,494 }	79,542	{ (R) 126,546 (S) 101,051 }
1936 ..	87,113	{ (R) 129,277 (S) 103,216 }	1,878	{ (R) 12,982 (S) 10,384 }	88,991	{ (R) 142,259 (S) 113,600 }
1937 ..	101,678	{ (R) 149,920 (S) 119,697 }	2,001	{ (R) 16,195 (S) 12,954 }	103,679	{ (R) 166,115 (S) 132,651 }
1938 ..	105,689	{ (R) 134,389 (S) 107,297 }	2,621	{ (R) 18,003 (S) 14,401 }	108,310	{ (R) 152,392 (S) 121,698 }

(R) Recorded values, Australian currency. (S) British currency values.

§ 16. Excise.

Although excise goods have no immediate bearing on oversea trade the rates of excise duty are in some cases related to the import duty on similar goods. Moreover as the Excise Acts are administered by the Department of Trade and Customs it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of Customs and Excise Revenue are shown in Chapter XXVII. "Public Finance."

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID : AUSTRALIA.

Article.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Spirits—	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.
Brandy (Pure Australian Standard Brandy) ..	} 171,067	181,428	186,603	193,923	198,583
Brandy (Blended Wine Brandy, etc.) ..					
Gin (Distilled from Barley, Malt, Grain, or Grape Wine, etc.) ..	199,328	221,370	229,870	282,349	269,118
Whisky (Australian Standard Malt Whisky) ..	} 164,875	157,359	150,238	158,515	157,705
Whisky (Australian Blended Whisky) ..					
Rum (Australian Standard Rum) ..	323,938	337,562	337,484	326,249	347,648
Liqueurs ..	3,506	3,661	4,758	5,591	5,705
Spirits, n.e.i. ..	50	28	195	415	170
Spirits for Industrial or Scientific Purposes ..	111,860	114,622	112,498	112,594	114,129
Spirits for Fortifying Wine (Distilled from Doradillo Grapes) ..	} 669,498	759,257	804,760	786,836	770,997
Spirits for Fortifying Wine					
Spirits for making Vinegar	17,377	19,138	18,464	15,496	17,965
Amylic Alcohol and Fusel Oil ..	16	27	39	27	23
Concentrated Grape Must ..	7,163	36,448	(c)	(c)	(c)
Total, Spirits ..	1,668,678	1,830,900	1,844,909	1,881,995	1,882,043
Spirits for the manufacture of Scents, etc.(a) ..	liq. gal. 50,328	liq. gal. 55,093	liq. gal. 58,864	liq. gal. 45,541	liq. gal. ..
Spirits for the manufacture of Essences(b) ..	proof gal. ..	proof gal. ..	proof gal. ..	proof gal. 17,328	proof gal. 57,376
Spirits for the Manufacture of Scents, etc.(b) ..	..	..	..	13,452	47,778
Beer	gal. 58,079,741	gal. 64,690,532	gal. 70,260,813	gal. 79,246,025	gal. 83,904,645
Tobacco — Manufactured, n.e.i. ..	lb. 13,915,260	lb. 14,556,348	lb. 14,948,726	lb. 15,462,073	lb. 15,734,675
Tobacco—Hand-made ..	173,302	41,903	40,019	47,418	41,774
Tobacco—Unmanufactured, etc. ..	..	..	..	887,264	5,604,256
Total, Tobacco ..	14,088,562	14,598,251	14,988,745	16,396,755	21,380,705

(a) To 31st December, 1937.

(b) From 1st January, 1938.

(c) Not available.

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID: AUSTRALIA—*continued.*

Article.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	lb.	lb.	lb.	lb.	lb.
Cigars—Machine-made ..	55,040	53,770	61,088	63,613	71,051
Cigars—Hand-made ..	200,007	168,036	195,553	204,475	187,450
Total, Cigars ..	255,047	221,806	256,641	268,088	258,501
Cigarettes—Machine-made	4,769,793	5,189,509	5,651,755	6,203,852	6,891,144
Cigarettes—Hand-made ..	271	556	169	272	114
Total, Cigarettes ..	4,770,064	5,190,065	5,651,924	6,204,124	6,891,258
Cigarette Tubes and Papers	60 papers or tubes. 73,828,386	60 papers or tubes. 81,590,257	60 papers or tubes. 86,588,851	60 papers or tubes. 90,046,428	60 papers or tubes. 101,977,824
Matches	gross of boxes. 3,355,327	gross of boxes. 2,994,258	gross of boxes. 3,095,260	gross of boxes. 3,260,806	gross of boxes. 3,278,759
Petrol	gal. 28,405,489	gal. 28,831,464	gal. 33,059,655	gal. 31,978,588	gal. 27,878,912
Playing Cards	doz. packs. 112,229	doz. packs. 107,127	doz. packs. 122,639	doz. packs. 109,907	doz. packs. 117,412

§ 17. Interstate Trade.

Prior to the federation of the Australian Colonies (now States), each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Commonwealth Government under the provisions of the Constitution Act (Section 93). On the expiry of the "book-keeping" period, these records were discontinued as from 13th September, 1910, and the latest published statements were for the year 1909. Later the Governments of Western Australia and Tasmania revived the records, and statistics of the subject are available again for those States.

At the Conference of Statisticians held in January, 1928, it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities.

The Government Statist for South Australia publishes some figures for that State made up from the records of Western Australia and Tasmania, and from various other sources. The statistics of interstate trade for New South Wales, Victoria and Queensland are very meagre. The Melbourne Harbour Trust publishes, in its annual report, the quantities of various commodities of interstate trade loaded and discharged in the Port of Melbourne. The trade with individual States is not disclosed.

CHAPTER XVII.

MINERAL INDUSTRY.

(NOTE.—A table showing particulars of mineral production for the year 1938 will be found in the Appendix. With the exception of gold this information was not available when this chapter was compiled. Details of gold production are included in § 2 hereinafter.)

§ 1. The Mineral Wealth of Australia.

1. **Place of Mining in Australian Development.**—The value of production from the mineral industry is now considerably less than that returned by the agricultural or the pastoral industry, nevertheless it was the discovery of gold in payable quantities that first attracted population to Australia in large numbers and thus accelerated its national development.

2. **Extent of Mineral Wealth.**—The extent of the total mineral wealth of Australia cannot yet be regarded as completely ascertained, as large areas of country still await systematic prospecting. More detailed reference to this matter will be found in preceding Official Year Books. (See No. 22, p. 755.)

3. **Quantity and Value of Production in 1937.**—The quantities (where available) and the values of the principal minerals produced in each State, and in Australia as a whole, during the year 1937 are given in the tables immediately following. It must be clearly understood that the figures quoted in these tables refer to the quantities and values of the various minerals in the form in which they were reported to the State Mines Departments, and represent amounts which the Mines Departments consider may fairly be taken as accruing to the mineral industry as such. They are not to be regarded as representative of Australia's potentiality as a producer of *metals* this matter being dealt with separately in § 17 hereinafter. New South Wales is, of course, in normal times, a large producer of iron and steel from ironstone mined in South Australia. As the table shows, the latter State receives credit for this ironstone in its mineral returns. The iron and steel produced therefrom cannot be assigned to the mineral industry of New South Wales, but the value of the transformation from ore to metal is credited to the manufacturing industry of that State. Similarly lead, silver-lead and zinc are credited in the form reported to the State of origin—chiefly New South Wales—although the actual metal extraction is carried out principally in South Australia and Tasmania.

MINERAL PRODUCTION: QUANTITIES, 1937.

Minerals.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
Antimony ..	ton	144	295	1	..	565	..	..	1,005
Arsenic ..	..	..	..	..	..	3,387	..	..	3,387
Asbestos ..	cwt.	..	..	..	2,420	3,500	40	..	5,960
Barytes ..	ton	264	70	..	2,693	..	76	..	3,103
Bismuth ..	cwt.	1	..	169	..	..	4	..	174
Brown Coal ..	ton	..	3,393,919	..	..	..	..	..	3,393,919
Coal ..	..	10,051,519	257,945	1,120,179	..	553,510	91,121	..	12,074,274
Copper (ingot, matte, etc.) ..	..	3,627	..	5,149	340	35	12,420	7	21,578
Diatomaceous earth ..	..	2,997	100	93	..	..	..	..	3,190
Gold ..	fine oz.	68,607	145,799	127,281	6,962	1,000,647	20,276	11,563	1,381,135
Gypsum ..	ton	9,153	20,862	..	116,121	9,073	..	..	155,209
Ironstone ..	..	677	..	4,479	1,866,414	..	61	..	1,871,631
Kaolin ..	..	10,660	5,686	50	292	..	..	..	16,688
Lead ..	..	(a)	..	38,474	12	..	9,117	..	(b) 47,603
Lead and silver-lead ore, concentrates, etc. ..	..	281,624	..	..	..	6,163	..	26	287,813

(a) See letterpress preceding this table.

(b) Incomplete.

MINERAL PRODUCTION: QUANTITIES, 1937—continued.

Minerals.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
Limestone flux ..	ton	144,371	..	18,876	25,885	..	302,093	..	491,225
Magnesite ..	"	19,494	141	..	70	..	..	..	19,705
Manganese ore ..	"	107	..	1,035	..	..	..	..	1,142
Molybdenite ..	cwt. (a)	320	615	465	..	..	..	..	1,400
Osmiridium ..	oz.	..	..	..	..	..	586	..	586
Phosphate ..	ton	16	..	..	..	..	..	..	16
Pigments ..	"	781	6	..	..	..	..	..	787
Platinum ..	oz.	46	..	..	..	..	..	..	46
Salt ..	ton	..	(c)	..	73,558	..	..	..	(d) 73,558
Silver ..	fine oz. (b)	44,330	5,443	3,264,994	955	180,562	1,060,785	..	4,557,069
Tin and tin ore ..	ton	1,143	218	1,171	..	80	1,090	41	3,743
Wolfram ..	cwt.	915	..	1,963	..	..	5,820	5,831	14,529
Zinc and concentrates ..	ton	219,838	..	27,598	..	..	23,481	..	270,917

(a) Ore and Sands. (b) See letterpress preceding this table. (c) Not available.
(d) Incomplete.

The values of the minerals raised in each State in 1937 are given in the following table:—

MINERAL PRODUCTION: VALUES, 1937.

Minerals.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N.T.	Australia.
	£	£	£	£	£	£	£	£
Antimony ..	3,468	4,563	44	..	9,236	..	..	17,311
Arsenic ..	..	..	..	..	91,492	..	..	91,492
Asbestos ..	..	..	..	1,177	10,162	29	..	11,368
Barytes ..	440	270	..	5,796	..	174	..	6,680
Bismuth ..	7	..	3,588	..	..	78	..	3,673
Brown Coal ..	..	325,950.	..	..	..	..	..	325,950
Coal ..	5,823,469	171,369	934,107	..	340,444	66,883	..	7,336,272
Copper (ingot and matte) ..	72,406	..	308,968	21,620	986	759,332	55	1,163,367
Diamonds ..	200	..	..	..	..	..	..	200
Diatomaceous earth ..	5,994	412	191	..	..	..	..	6,597
Gems ..	..	..	1,410	..	..	..	..	1,410
Gold ..	595,855	1,266,507	1,104,760	60,372	8,688,921	176,130	100,402	11,993,007
Gypsum ..	8,627	6,221	..	87,091	9,809	..	..	111,748
Ironstone ..	374	..	2,858	2,146,376	..	36	..	2,149,644
Kaolin ..	8,381	4,929	93	876	..	..	..	14,279
Lead ..	(g)	..	667,939	285	..	212,492	..	1,100,716
Lead and silver-lead ore, concentrates, etc. ..	4,306,616	..	..	..	7,248	..	328	4,314,192
Limestone flux ..	28,317	..	13,179	9,709	..	82,444	..	133,649
Magnesite ..	36,552	536	..	86	..	..	..	37,174
Manganese ore ..	322	..	4,269	..	..	..	..	4,591
Molybdenite ..	1,139	5,790	3,849	..	..	..	..	10,778
Opal ..	3,357	..	100	11,887	..	..	..	15,344
Osmiridium ..	..	..	..	..	..	9,077	..	9,077
Phosphate ..	77	..	..	..	..	..	..	77
Pigments ..	1,185	120	..	..	..	..	..	1,305
Platinum ..	455	..	..	..	..	..	..	455
Salt ..	..	(f)	..	147,116	..	..	..	(g) 147,116
Silver ..	(b) 3,997	491	284,592	86	20,596	95,770	..	(g) 405,532
Tin and tin ore ..	336,628	44,127	202,614	..	12,421	260,673	7,205	803,668
Wolfram ..	13,051	..	26,139	..	..	71,643	84,832	195,665
Zinc and concentrates ..	657,967	..	606,150	..	..	525,824	..	1,789,941
Unenumerated ..	(c) 73,007	910	7,642	16,972	(d) 38,867	21,780	e 12,969	172,147
Total ..	11,981,891	1,832,195	4,392,492	2,509,449	9,230,182	2,282,365	205,851	32,434,425

(a) For items excluded see letterpress below. (b) See letterpress above preceding table.
(c) Includes dolomite £11,814, silica £15,919, fireclay £15,422, and zircon-rutile-ilmenite £21,155.
(d) Includes tantalite £29,011. (e) Mica £12,524. (f) Not for publication. (g) Incomplete.

It should be pointed out in connexion with the figures given in the table above that the totals are exclusive of certain commodities, such as stone for building and industrial uses, sand, gravel, brick and pottery clays, lime, cement and slates, which might be included under the generic term "mineral." Valuations of the production of some of these may be obtained from the reports of the various Mines Departments, but in regard to others it is impossible to obtain adequate information. In certain instances, moreover, the published information is of little value. Some of the items excluded, such as cement, carbide and sulphuric acid, are included in manufacturing production, and, in any case, only the raw material could properly be included in mineral production. The items excluded from the total for New South Wales in 1937 consisted of—lime, £75,648, building stone, £122,210; Portland cement, £1,348,826; coke, £909,822; road material and gravel, £1,094,710; shell grit, £18,170; sulphur and sulphuric acid, £48,649; and brick and pottery clays, £254,776. Carbide and cement, £359,803, have been excluded from the Tasmanian figures.

4. Value of Production, 1933 to 1937.—The values of the minerals produced in the various States for the years 1933 to 1937 are given in the table hereunder:—

MINERAL PRODUCTION: VALUES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
	£	£	£	£	£	£	£	£
1933 ..	6,964,834	1,060,437	2,373,251	1,076,434	5,269,194	845,668	18,150	17,607,968
1934 ..	7,766,504	1,092,029	2,713,135	1,713,537	5,884,430	750,389	28,806	19,948,830
1935 ..	9,210,820	1,394,253	2,887,440	2,498,617	6,107,990	1,071,507	76,900	23,247,527
1936 ..	10,136,789	1,623,003	3,613,511	2,513,359	7,771,454	1,624,036	98,601	27,380,753
1937 ..	11,981,891	1,832,195	4,392,492	2,509,449	9,230,182	2,282,365	205,851	32,434,425

The value of the mineral production in 1937 exceeded that of 1936 by more than £5,000,000. With the exception of South Australia, all of the States recorded increases in values, mainly through the agency of gold, zinc and concentrates, coal, silver-lead ores and concentrates, copper, tin and wolfram. Of these gold was the most important; the production increased by 201,384 fine oz., which, at its enhanced price, accounted for nearly £1,800,000 of the increase mentioned above.

Zinc and concentrates followed gold in the order of increase during 1937, the value of production rising by £855,000 mainly owing to an improvement in prices. The quantity production declined in New South Wales and Queensland but this was more than offset by the increased output recorded in Tasmania. The latter State resumed production in 1936 after a lapse of five years.

The production of silver-lead ores and concentrates in New South Wales increased by 25,626 tons. This was accompanied by a slight rise in price with the result that the value of output exceeded that of 1936 by £491,000.

The quantities of copper, lead and tin were also greater in 1937 and were likewise accompanied by increases in values.

Coal also increased in quantity and price; the average price for Australia increased from 11s. 9d. per ton in 1936 to 12s. 2d. per ton in 1937.

The production of 14,529 cwt. of wolfram in 1937 was more than double that of the previous year. As the increase in quantity was the result of a steep advance in price the value of production rose from £39,500 in 1936 to £195,600 in 1937.

Particulars of the variations in production, etc., by States, will be found in greater detail in the various sections hereinafter.

5. Total Production to end of 1937.—In the next table will be found the estimated value of the total mineral production in each State up to the end of 1937. The items mentioned as excluded from the preceding table are also omitted in this table.

Thus the total for New South Wales falls short by £62,000,000 of that published by the State Department of Mines, the principal items excluded being coke, £18,709,000; cement, £23,968,000; lime, £1,960,000; and considerable values for marble, slate, granite, ocher, gravels, etc., which the Department now includes in the returns for quarries.

MINERAL PRODUCTION: VALUES TO END OF 1937.

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	£	£	£	£	£	£	£	Million. £
Gold ..	66,337,578	308,311,580	90,926,197	1,980,740	204,910,271	9,559,917	2,560,782	685
Silver and lead ..	137,954,055	267,603	9,460,117	384,275	2,356,207	9,857,853	66,652	160
Copper ..	15,833,051	216,686	27,639,542	33,215,233	1,811,043	23,652,492	235,630	103
Iron ..	7,754,064	15,641	506,448	18,666,543	36,722	91,229	..	27
Tin ..	16,136,100	1,056,094	12,072,155	..	1,646,968	18,555,224	661,760	50
Wolfram	303,698	11,885	1,102,453	301	1,441	400,374	336,256	2
Zinc ..	26,127,335	..	1,141,829	15,993	5,437	1,805,006	..	29
Coal ..	223,252,089	17,089,365	24,918,764	..	8,767,652	2,454,605	..	277
Other ..	8,895,429	948,374	2,932,925	6,007,850	728,381	2,487,035	133,096	22
Total ..	502,593,399	327,917,228	170,700,430	60,270,935	220,264,122	68,863,735	3,994,176	1,355

The "other" minerals in New South Wales include alunite, £212,000; antimony, £373,000; arsenic, £194,000; bismuth, £245,000; chrome, £134,000; diamonds, £148,000; magnesite, £343,000; molybdenite, £216,000; opal, £1,623,000; scheelite, £200,000; and oil shale, £2,695,000. In the Victorian returns antimony ore was responsible for £619,000. The value for coal in this State includes £3,358,000 for brown coal. Included in "other" in the Queensland production were opal, £188,000; gems, £643,000; bismuth £142,000; cobalt, £158,000; molybdenite, £610,000; limestone flux, £816,000; and arsenic, £124,000. The chief items in South Australian "other" minerals were salt, £3,805,000; limestone flux, £321,000; gypsum, £1,395,000; phosphate, £135,000; and opal, £160,000. In the Tasmanian returns osmiridium was responsible for £623,000, scheelite for £112,000, and iron pyrites for £211,000.

6. **Quarries.**—Hitherto the data published in the Official Year Book relating to the mineral industry has contained no reference to quarrying. At the Conference of Australian Statisticians held in March, 1935, it was resolved that the values of quarry products should be included with mining. Steps are now being taken to give effect to this resolution, but some time must elapse before material can be collected in all States.

7. **Geophysical Methods for Detection of Ore Deposits.**—Reference to the application of geophysical survey methods in Australia will be found in Official Year Book No. 24, p. 570. See also § 16 hereinafter.

§ 2. Gold.

1. **Discovery in Various States.**—The discovery of gold in payable quantities was an epoch-making event in Australian history, for, as one writer aptly phrases it, this event "precipitated Australia into nationhood." A more or less detailed account of the finding of gold in the various States appears under this section in Official Year Books Nos. 1 to 4:

2. **Production at Various Periods.**—In the following table will be found the values of the gold raised in the several States and in Australia as a whole during each of the eight decennial periods from 1851 to 1930, and in single years from 1926 to 1937. Owing

to the defective information in the earlier years the figures fall considerably short of the actual totals, for during the first stages of mining development large quantities of gold were taken out of Australia by successful diggers who preferred to keep the amount of their wealth secret.

GOLD : VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	£	£	£	£	£	£	£	£
1851-60..	11,539,583	93,337,052	14,565	..	..	788,564	..	105,670,764
1861-70..	13,676,103	65,106,264	2,076,494	..	..	12,174	..	80,871,035
1871-80..	8,576,654	40,625,188	10,733,048	579,068	..	700,048	79,022	61,293,028
1881-90..	4,306,541	28,413,792	13,843,081	246,668	178,473	1,514,921	713,345	49,216,821
1891-1900..	10,332,120	29,904,152	23,989,359	219,931	22,308,524	2,338,336	906,988	89,999,410
1901-10..	9,569,492	30,136,686	23,412,395	310,080	75,549,415	2,566,170	473,871	142,009,109
1911-20..	4,988,377	13,354,217	9,876,677	238,808	46,808,351	873,302	a 100,652	76,240,384
1921-30..	940,946	2,721,309	1,976,715	47,564	20,462,957	193,833	(a) 9,894	26,353,218
1926 ..	82,551	208,471	43,914	3,219	1,857,716	17,936	(a) 594	2,214,401
1927 ..	76,595	163,699	161,321	1,776	1,734,571	20,646	(a) 468	2,159,076
1928 ..	54,593	144,068	56,395	2,258	1,671,093	15,306	(a) 431	1,944,054
1929 ..	31,842	111,609	40,250	4,289	1,602,142	23,772	(a) 553	1,814,457
1930 ..	53,066	102,456	33,224	5,569	1,773,500	18,976	(a) 57	1,986,848
1931 ..	118,623	262,488	79,652	17,328	3,054,743	28,150	(a) 2,535	3,563,519
1932 ..	203,622	351,586	173,144	22,018	4,413,809	43,137	(a) 4,196	5,211,512
1933 ..	226,068	448,228	710,168	49,619	4,915,950	51,579	(a) 4,449	6,406,061
1934 ..	307,662	597,040	982,636	58,582	5,534,491	48,139	(a) 8,124	7,536,674
1935 ..	439,149	768,401	904,755	64,109	5,677,328	73,143	(a) 44,458	7,971,334
1936 ..	525,792	1,018,670	1,048,748	-66,593	7,326,309	152,291	b 112,786	10,251,184
1937 ..	595,855	1,266,507	1,104,760	60,372	8,688,921	176,130	100,462	11,993,007
Total—								
1851-1937	66,337,817	308,311,580	90,926,203	1,980,201	204,910,271	9,559,825	2,560,782	684,586,679

(a) Period ended June of year stated.

(b) Eighteen months ended December of year stated.

The values quoted on this page are in Australian currency throughout.

Owing to the exhaustion of the more easily worked deposits and the unprofitableness of gold mining during the era of high prices following the Great War, the production of gold in Australia declined from 3,838,029 oz. in 1903 to 427,159 oz. in 1929, the lowest output since the discovery of the precious metal.

Increased activity in prospecting due to prevailing economic conditions resulted in some improvement in 1930, but the marked development since that year received its impetus from the heavy depreciation of Australian currency in terms of gold. Oversea and local capital were attracted to the industry, and the employment of advanced geological methods and technical improvements brought many difficult or extinct propositions into profit. The output of gold rose from 466,593 ozs. in 1930 to 1,381,135 ozs. in 1937, and further increases are forecast. Values in Australian currency assigned to the production of gold during recent years in the table above are £5 19s. 9d. in 1931, £7 5s. 11½d. in 1932, £7 14s. 3½d. in 1933, £8 10s. 0½d. in 1934, £8 15s. 1½d. in 1935, £8 13s. 2d. in 1936 and £8 13s. 8d. in 1937. Monthly fluctuations in the price of gold in London and in Australia are shown in Chapter XXVII. "Public Finance." Reference to the bounty paid by the Commonwealth Government on local production will be found in § 16 par. 1 hereinafter.

The amount of gold raised in Australia in any one year attained its maximum in 1903, in which year Western Australia also reached its highest point. For the other States the years in which the greatest yields were obtained were as follows:—New South Wales, 1852; Victoria, 1856; Queensland, 1900; South Australia, 1894; and Tasmania, 1899.

The following table shows the quantities of gold raised in the various States and in Australia during each of the five years ending 1937. A separate line is added showing the total production in thousands of fine ounces from 1851 to 1937:—

GOLD : QUANTITY PRODUCED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Australia.
	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.
1933 ..	29,252	58,183	91,997	6,361	637,207	6,673	(a) 594	830,267
1934 ..	36,123	70,196	115,471	6,870	651,338	5,622	(a) 989	886,609
1935 ..	50,102	87,609	102,990	7,333	649,049	8,343	(a) 5,066	910,492
1936 ..	60,739	117,596	121,174	7,681	840,208	17,600	b 12,998	1,183,996
1937 ..	68,607	145,799	127,281	6,962	1,000,647	20,276	11,563	1,381,135
Total (c)								
1851-1937	15,294	71,920	20,730	425	43,206	2,179	569	154,323

(a) Year ended 30th June.
omitted in each case.

(b) Eighteen months ended December of same year.

(c) '000

3. **Changes in Relative Positions of States as Gold Producers.**—The figures in the table showing the value of gold raised explain the enormous increase in the population of Victoria during the period 1851 to 1861, when an average of over 40,000 persons reached the Colony each year. With the exception of the year 1889, when its output was exceeded by that of Queensland, Victoria maintained its position as the chief gold producer for a period of forty-seven years, until its production was surpassed by that of Western Australia in 1898. From that year onward Western Australia contributed practically half, and so far as the last ten years are concerned nearly four-fifths, of the entire yield of Australia.

4. **Place of Australia in the World's Gold Production.**—The table given below shows the world's gold production, and the share of Australia therein in decennial periods since 1851 and during each of the last seven years for which returns are available. The figures given in the table have been compiled from the best authoritative sources of information.

GOLD : WORLD'S PRODUCTION.

Period.	World's Production of Gold.	Gold Produced in Australia.	Percentage of Australia on Total.
	Fine oz.	Fine oz.	%
1851-60 ..	61,352,295	24,877,013	40.55
1861-70 ..	53,675,679	19,038,661	35.47
1871-80 ..	50,473,314	14,429,599	28.59
1881-90 ..	51,998,060	11,586,626	22.28
1891-1900 ..	102,695,748	21,187,661	20.63
1901-10 ..	182,891,525	33,434,069	18.28
1911-20 ..	206,114,773	17,426,466	8.45
1921-30 ..	186,091,278	5,841,902	3.14
1931 ..	22,786,773	595,123	2.61
1932 ..	24,204,275	714,135	2.95
1933 ..	25,568,779	830,267	3.25
1934 ..	27,063,639	886,609	3.28
1935 ..	29,446,483	910,492	3.09
1936 ..	33,136,416	1,183,996	3.57
1937 ..	34,520,225	1,381,135	4.00

For the year 1937 the world's production of gold in fine ounces was 34,520,000, as compared with a return of 33,136,000 fine ounces in 1936. It is estimated that the world's production in 1938 approximated 37,109,000 fine ounces, of which Australia's share amounted to 1,592,035 fine ounces or 4.29 per cent.

The quantities of gold produced in the ten principal producing countries in each of the five years 1933 to 1937 are given in the table hereunder. Particulars of the quantities

and values of gold produced in all countries for the ten years 1928-37 will be found in *Production Bulletin* No. 32, Part II., issued by this Bureau.

GOLD PRODUCTION IN PRINCIPAL COUNTRIES.

Country.	1933.	1934.	1935.	1936.	1937.
	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.
Union of South Africa	11,013,712	10,479,857	10,773,991	11,336,214	11,734,575
Soviet Union	2,814,000	3,700,000	4,500,000	5,500,000	5,000,000
Canada	2,949,309	2,972,074	3,284,890	3,748,028	4,096,213
United States	2,276,682	2,742,161	3,163,166	3,759,645	4,088,500
Australia	830,267	886,609	910,492	1,183,996	1,881,135
Mexico	637,727	662,000	682,319	753,950	846,381
Rhodesia	645,087	693,265	727,928	801,513	808,447
Japan	502,875	531,371	589,030	713,666	720,000
Gold Coast	305,908	326,040	358,835	428,144	559,212
India	336,100	322,100	327,600	333,300	330,744

The next table shows the average yearly production in order of importance of the yield in the principal gold-producing countries for the decennium 1928 to 1937:—

GOLD : AVERAGE ANNUAL PRODUCTION IN PRINCIPAL COUNTRIES, 1928 TO 1937.

Country.	Quantity.	Country.	Quantity.
	Fine oz.		Fine oz.
Union of South Africa	10,925,760	Mexico	681,043
Soviet Union	2,883,862	Rhodesia	649,027
Canada	2,870,976	Japan	527,982
United States	2,676,434	India	337,624
Australia	785,424	Gold Coast	314,431

5. **Employment in Gold Mining.**—The number of persons engaged in gold mining in each State at various intervals since 1901 is shown in the following table. The figures are inclusive of prospectors, etc., so far as they are ascertainable, and include those who may not have worked during the whole of the year.

GOLD MINING : PERSONS EMPLOYED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1901	12,064	27,387	9,438	(a)1,000	19,771	1,112	(a) 200	70,972
1903 (b)	11,247	25,208	9,229	(a)1,000	20,716	973	(a) 200	68,573
1913	3,570	11,931	3,123	800	13,445	481	175	33,525
1923	1,141	2,982	603	32	5,555	119	30	10,462
1931	9,944	4,258	2,751	180	6,344	166	70	23,713
1932	8,154	6,089	3,893	142	7,983	250	89	26,600
1933	6,913	6,126	4,161	231	9,900	229	95	27,655
1934	7,080	6,943	3,867	804	12,523	275	115	31,607
1935	6,652	6,960	3,931	243	14,708	216	403	33,113
1936	5,204	6,959	3,983	283	15,696	230	372	32,727
1937	3,885	6,180	3,436	192	16,174	179	388	30,434

(a) Estimated.

(b) Year of Maximum Production.

Owing to causes referred to earlier in this section, the number employed in gold mining had dwindled to the comparatively small figure of 6,108 in 1929. Stimulated by the enhanced price of gold in recent years employment in the industry rose more than five-fold to 33,113 in 1935, but the numbers employed declined during each of the last two years.

6. **Bounty on Production.**—A reference to the bounty provided by the Commonwealth on gold production in Australia will be found in § 16 par. 1 hereinafter.

§ 3. Platinum and Platinoid Metals.

1. **Platinum.**—(i) *New South Wales.* The deposits at present worked in the State are situated in the Fifield division, near Parkes and in the Ballina division. The production in 1937 from these divisions amounted to 19 oz. and 27 oz. respectively making a total of 46 oz. valued at £455, as compared with 47 oz. valued at £410 in the preceding year. The total production recorded to the end of 1937 amounted to 20,186 oz., valued at £128,492.

(ii) *Victoria.* In Gippsland the metal has been found in association with copper and 127 oz. were produced in 1913, but there has been no production in recent years.

(iii) *Queensland.* Platinum, associated with osmiridium, has been found in the beach sands between Southport and Currumbin, in creeks on the Russell gold-field near Innisfail, and in alluvial deposits on the Gympie gold-field, but no production has been recorded.

2. **Osmium, Iridium, etc.**—(i) *New South Wales.* Small quantities of osmium, iridium and rhodium are found in various localities. Platinum, associated with iridium and osmium, has been found in the washings from the Aberfoil River, about 15 miles from Oban; on the beach sands of the northern coast; in the gem sands at Bingara, Mudgee, Bathurst and other places. In some cases, as for example in the beach sands of Ballina, the osmiridium and other platinoid metals amount to as much as 40 per cent. of the platinum, or about 28 per cent. of the whole metallic content.

(ii) *Victoria.* In Victoria, iridosmine has been found near Foster, and at Waratah Range, South Gippsland.

(iii) *Tasmania.* The yield of osmiridium was returned as 587 oz. in 1937 valued at £9,077 compared with the record production of 3,365 oz. in 1925 valued at £103,570. The decrease in later years was largely due to the decline in price from £31 in 1925 to £15 12s. 6d. per oz. in 1937, but the depletion of the known alluvial deposits was also a factor.

§ 4. Silver, Lead and Zinc.*

1. **Occurrence in Each State.**—Particulars regarding the occurrence of silver and associated metals in each State were given in Official Year Books, Nos. 1 to 5.

2. **Production.**—(i) *General.* The values of the production of silver, silver-lead ore and lead from the various States during the five years ending 1937 are given hereunder:—

SILVER AND LEAD : VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	£	£	£	£	£	£	£	£
1933 ..	1,783,207	198	708,804	..	6,860	70,795	(a) 410	2,570,274
1934 ..	2,199,823	370	671,255	..	7,199	43,850	(a) 11	2,922,508
1935 ..	3,189,388	642	755,899	..	12,687	63,713	..	4,022,329
1936 ..	3,820,785	525	899,101	357	14,001	215,449	..	4,950,218
1937 ..	4,310,613	491	1,172,531	371	27,844	308,262	328	5,820,440

(a) Year ended 30th June.

(ii) *New South Wales.* The figures quoted above for New South Wales for the year 1937 include silver to the value of £3,997 and silver-lead ore and concentrates valued at £4,306,616. Since the Sulphide Corporation Ltd. ceased smelting operations in 1922 the silver (metal) is obtained chiefly in the refining of gold and copper ores, and there has been no production of lead (pig) in the State. It may be noted here that the bulk of the carbonate and siliceous ore from the Broken Hill field is sent for treatment to Port Pirie in South Australia, while the remainder of the ore is concentrated on the field and then dispatched to Port Pirie for refining. The output of silver-lead ores and concentrates for 1937 showed an increase both in quantity and value over that of the previous year and was chiefly due to the improvement in the price of lead. The output of silver, however, decreased by 12,664 fine ounces to 44,330 fine ounces.

* Further details in regard to zinc are given in § 7 hereinafter.

It must be understood that the totals for New South Wales in the table above represent the net value of the product (excluding zinc) of the silver-lead mines of the State. In explanation of the values thus given, it may be noted that, as previously mentioned, the metallic contents of the larger portion of the output from the silver-lead mines in the State are extracted outside New South Wales, and the Mines Department considers, therefore, that the State should not take full credit for the finished product. The real importance of the State as a producer of silver, lead and zinc is thus to some extent overlooked. The next table, however, which indicates the quantities of these materials locally produced and the contents by assay of concentrates exported during selected years, will show the estimated total production and the value of the metal contents of all ore mined in New South Wales :—

SILVER AND LEAD : PRODUCTION IN NEW SOUTH WALES.

Year.	Metal Produced within Australia.				Contents of Concentrates Exported.			
	Silver.	Lead.	Zinc.	Value.	Silver.	Lead.	Zinc.	Value.
	oz. fine.	tons.	tons.	£	oz. fine.	tons.	tons.	£
1903 ..	6,489,689	92,293	286	1,790,929	1,736,512	29,706	14,625	308,714
1913 ..	5,908,638	106,432	4,121	2,709,867	8,596,251	117,993	184,149	3,759,691
1923 ..	7,233,236	124,470	41,153	5,707,739	4,834,718	40,906	149,319	1,813,287
1933 ..	7,430,479	158,475	53,956	3,579,886	790,792	18,344	63,849	475,161
1934 ..	7,380,624	153,641	54,629	3,384,193	826,896	22,142	34,016	345,350
1935 ..	8,422,316	180,958	67,666	4,933,492	660,630	11,947	72,285	424,929
1936 ..	7,778,514	157,755	57,744	4,608,888	779,289	18,569	68,011	549,310
1937 ..	8,731,750	184,822	43,254	6,353,963	1,048,749	13,832	64,785	889,991

The figures given above are quoted on the authority of the Mines Department of New South Wales. Accurate details in regard to gold, copper, antimony, cadmium and cobalt contained in the silver-lead ores are not available. Cadmium was first extracted in 1922 at Risdon, in Tasmania, and in 1937 the amount won from ores of New South Wales origin was given as 162.28 tons, valued at £59,042. As pointed out previously, credit for the value is not taken in the New South Wales returns, the value accruing to the State being taken as that of the declared value of the concentrates at the time of their dispatch.

(a) *Broken Hill.* Broken Hill, in New South Wales, is the chief centre of silver production in Australia. A description of the silver-bearing area in this district is given in earlier issues of the Official Year Book. (See No. 4, page 506.)

Although the returns are not complete in all cases, the following table relating to the companies controlling the principal mines at Broken Hill will give some idea of the richness of the field :—

SILVER : BROKEN HILL RETURNS TO END OF 1937.

Mine.	Value of Output to end of 1937.	Dividends and Bonuses Paid to end of 1937.
	£	£
Broken Hill Proprietary Co. Ltd.	53,818,488	15,873,491
Broken Hill Proprietary Block 14 Co. Ltd.	4,750,508	670,160
British-Australian Broken Hill Co. Ltd.	5,858,998	821,280
Broken Hill Proprietary Block 10 Co. Ltd.	4,946,989	1,432,500
Sulphide Corporation Ltd. (Central and Junction Mines)	28,725,764	3,740,625
Broken Hill South Ltd.	27,397,159	7,135,000
North Broken Hill Ltd.	23,824,365	7,635,190
Broken Hill Junction Lead Mining Co.	1,185,058	87,500
Junction North Broken Hill Mine	3,511,940	171,431
The Zinc Corporation Ltd.	14,313,591	4,411,036
Barrier South Ltd.	151,517	50,000
Total	168,484,377	42,028,213

The returns relating to dividends and bonuses paid are exclusive of £1,744,000, representing the nominal value of shares in Block 14, British, and Block 10 companies, allotted to shareholders of Broken Hill Proprietary Company. If the output of the companies which were, prior to 1937, engaged in treating the tailings, etc., be taken into consideration, the totals for output and dividends shown in the table would be increased to about £175.7 millions and £45.0 millions respectively. The authorized capital of the various companies amounted to £18,918,000 in 1937. This increase of £7.5 million is due to the authorized capital of the Broken Hill Proprietary Co. being raised from £7.5 million to £15 million. In 1937 the dividends and bonuses paid amounted to £2,680,446 shared in by the Companies controlling the principal mines as follows:—Zinc Corporation, £318,788; North Broken Hill, £875,000; Broken Hill South, £760,000; Broken Hill Proprietary, £621,658, and Sulphide Corporation, £105,000. The dividend of the latter company is quoted in sterling.

(b) *Other Areas.* Silver is found in various other localities in New South Wales, but the production therefrom in 1937 was relatively unimportant. An important development was the reopening of the Captain's Flat silver-lead-zinc mine which is expected to reach the production stage in 1939. The rate of production is to be 500 tons per day, increasing to 1,000 tons per day as soon as additional equipment has been installed. In addition to the production of silver-lead-zinc ores, it is expected that 80,000 tons of iron pyrites will be railed to Port Kembla annually where the sulphur contents will be used for the large-scale manufacture of sulphuric acid and superphosphates.

(iii) *Victoria.* The silver produced in 1937 amounted to 5,443 fine ounces, valued at £491, and was obtained in the refining of gold at the Melbourne Mint.

(iv) *Queensland.* The production of silver increased by nearly 181,000 fine oz. to about 3.3 million fine oz., and lead increased by 2,711 tons to 38,474 tons, practically all of which was won from the mine and works at Mount Isa in the Cloncurry mineral field.

(v) *South Australia.* Silver ore has been discovered at Miltalie and Poonana, in the Franklin Harbour district, also at Mount Malvern and Olivaster, near Rapid Bay, and in the vicinity of Blinman and Farina, at Baratta, and elsewhere. There was no production between 1932 and 1935 but in 1936, 1,560 fine oz. of silver valued at £157 was produced. In addition 10 tons of lead were mined for a value of £200. In 1937, 955 fine oz. of silver and 12.4 tons of lead valued at £86 and £285 respectively were produced.

(vi) *Western Australia.* The quantity of silver obtained as a by-product and exported in 1937 was 180,502 oz., valued at £20,596.

(vii) *Tasmania.* The silver produced in 1937 amounted to 1,060,785 oz., valued at £95,770, and the lead to 9,117 tons, valued at £212,492. This represents a very great increase on that of the previous year. About 978,000 oz. of the total silver output were contained in silver-lead, while 83,000 oz. were contained in the blister copper produced by the Mount Lyell Co.

(viii) *Northern Territory.* A rich deposit of silver-lead and copper ore was located in 1930 at the Jervois Range about 200 miles east of Alice Springs. Development is hindered, however, by transport difficulties and lack of permanent water. Rich sulphides have been found at Barrow Creek. There was no record of production in 1931, 1932, 1935 and 1936. The quantity and value of the production of silver-lead ores in other years was as follows:—1933, 24 tons, £410; 1934, 8 tons, £11; and 1937, 26 tons, £328

3. *Production of Silver in Australia.*—The following table sets out as fully as possible the total production of silver in Australia. It is based on the data published by the Australian Mines and Metals Association and shows the quantities of refined silver recovered by smelters and mints and the estimated metallic contents of ores and concentrates exported:—

SILVER : PRODUCTION IN AUSTRALIA.

Particulars.	1914.	1924.	1934.	1937.	1938.
	fine oz.	fine oz.	fine oz.	fine oz.	fine oz.
Metal recovered by—					
Smelters	4,020,904	7,529,845	8,583,133	9,279,983	9,102,178
Mints	226,019	101,368	91,416	230,526	254,961
Metallic contents in ores and concentrates exported ..	8,901,212	2,242,170	2,579,082	4,267,571	4,538,402
Total Production ..	13,148,135	9,873,383	11,253,631	13,778,080	13,895,541

4. **World's Production.**—The world's production of silver during the last five years for which particulars are available is estimated to have been as follows :—

SILVER : WORLD'S PRODUCTION.

Total.	1933.	1934.	1935.	1936.	1937.
World's production in 1,000 fine oz. ..	172,000	193,000	223,000	249,000	271,000

The world's production of silver in millions of fine ounces during the years 1917, 1927 and 1937 amounted respectively to 186, 254 and 271, of which Australia contributed 9.4 million, 11.6 million and 13.9 million fine ounces, or 5.0 per cent., 4.6 per cent. and 5.1 per cent. respectively. The production for Australia includes an estimate of the silver contents of the ores, bullion and concentrates exported.

Arranged in order of importance the estimated yields in 1937 from the principal silver-producing countries were as follows :—

SILVER PRODUCTION IN PRINCIPAL COUNTRIES, 1937.

Country.	Production.	Country.	Production.
	Fine oz. (^{000 omitted.})		Fine oz. (^{000 omitted.})
Mexico	84,679	Burma	6,180
United States	70,986	Soviet Union	5,000
Canada	22,978	Honduras	3,211
Peru	16,993	Belgian Congo	2,962
Australia	13,778	Yugoslavia	2,242
Japan	10,000	Chile	1,786
Bolivia	9,452	Newfoundland	1,448
Germany	(a) 6,541	Union of South Africa	1,101

(a) Year 1936.

5. **Prices of Silver, Lead and Zinc.**—In view of the close association in Australia, particularly in New South Wales, of ores containing these metals, the average prices of each metal during the last five years have been incorporated in the table hereunder :—

PRICES OF SILVER, LEAD AND SPELTER.

Metal.	1934.	1935.	1936.	1937.	1938.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Silver (Standard)					
per oz.	0 1 9.22	0 2 4.95	0 1 8.06	0 1 8.07	0 1 7.52
Lead .. per ton	11 1 0	14 5 7	17 13 4	23 4 3	15 5 4
Spelter per ton	13 15 6	14 3 6	15 0 9	22 5 9	13 19 10

A marked recovery in the prices of lead and spelter occurred on the London Metal Market between November, 1936, and March, 1937, when the price of lead rose from £22 to £33 per ton and that of spelter from £16 to more than £33 per ton. Prices receded after that month and by December, 1937, were quoted at £16 and £15 per ton respectively. By December, 1938, these prices had declined further to £15 and £14. Silver at the latter date was about 1s. 8d. per oz.

6. *Employment in Silver, Lead and Zinc Mining.*—The average number of persons employed in mining for these metals during each of the last five years is given below :—

SILVER, ETC., MINING : PERSONS EMPLOYED.

Year.	N.S.W. (a)	Q'land.	S. Aust.	W. Aust. (b)	Tasmania. (a)	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1933 ..	3,197	553	..	10	962	..	4,722
1934 ..	3,237	523	..	4	958	1	4,723
1935 ..	3,536	544	..	..	1,046	..	5,126
1936 ..	4,163	601	3	32	1,386	..	6,185
1937 ..	5,225	578	2	29	1,586	..	7,420

(a) Silver, lead and zinc.

(b) Principally lead and silver-lead ore.

§ 5. Copper.

1. *Production.*—The production of copper in the various States has been influenced considerably by the ruling price, which has undergone extraordinary fluctuations. In 1923 when copper was worth £65 18s. 1d. per ton the production of metal amounted to 17,012 tons exclusive of 4,534 tons of ore. During the three years ended 1934 the price averaged little more than £31 per ton and the production dropped to an average of about 13,800 tons. Production responded to an improvement in price between 1935 and 1937, the output in the latter year increasing to 21,578 tons of metal, concentrates and ore. The values of the local production as reported and credited to the mineral industry for the years 1933 to 1937 are shown hereunder. Quantities for Australia as a whole as returned by the several State Mines Departments are appended on separate lines at the foot of the table :—

COPPER : PRODUCTION.

State.	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
New South Wales	26,775	25,398	39,071	53,687	72,406
Queensland	105,031	95,903	101,489	161,688	308,968
South Australia	2,928	8,475	11,065	22,609	21,620
Western Australia	1,132	..	..	97	986
Tasmania	395,286	267,342	464,007	556,734	759,332
Northern Territory .. ..	..	..	..	(a) 1,972	55
Australia	531,152	397,118	606,632	796,787	1,163,367
Ingot, Matte, etc.	tons 14,493	12,003	16,992	18,069	18,694
Ore and Concentrates	tons ..	96	56	819	2,884

(a) Eighteen months ended 31st December, 1936.

2. *Sources of Production.*—(i) *New South Wales.* The production during 1937 amounted to 750 tons of electrolytic copper and 2,877 tons of ore and concentrates, the latter being exported overseas. Practically all of the copper was obtained at Port Kembla from the treatment of 1,518 tons of copper matte forwarded by the Broken Hill Smelters and derived from Broken Hill silver-lead ores. Copper mines operated in the State during the year but the outputs were very small. Since 1919 the production in New South Wales has rarely exceeded 1,000 tons, whilst previously it had ranged from 2,500 tons in 1915 to 10,600 tons in 1911.

(ii) *Queensland.* The yield in this State amounted in 1937 to 5,149 tons valued at £308,968. Although an improvement on the yields of recent years the output for 1937 was very much less than that of 1920 when nearly 16,000 tons valued at £1,552,000 were raised. The falling-off was due primarily to the low prices realized for copper. The returns from the chief producing areas in 1937 were as follows: Cloncurry, 2,720 tons, £163,200; Herberton, 146 tons, £8,769; and Mount Morgan, 1,962 tons, £117,700.

(iii) *South Australia.* Deposits of copper are found over a large portion of South Australia and its total production easily exceeds that of any other State. Compared with the output of previous years the production of South Australia has dwindled during recent times to very small dimensions, and is now exceeded by that of Tasmania and Queensland. A short account of the discovery, etc., of some of the principal mining areas, such as Kapunda, Burra Burra, Wallaroo and Moonta, was given in earlier issues of the Official Year Book. The Moonta and Wallaroo copper field, which was opened in 1860, was worked continuously and up to the close of 1931, £20,500,000 of copper was produced. Since 1933 the field has been worked on a co-operative basis known as the Moonta Mining Scheme which was referred to in previous issues of the Official Year Book. The production of copper in this State in 1937 amounted to 340 tons, valued at £21,620.

(iv) *Western Australia.* Thirty-five tons of copper valued at £986 were exported from this State during 1937, compared with 2 tons valued at £97 exported in 1936.

(v) *Tasmania.* The quantity of copper produced in Tasmania during 1937 was 12,420 tons, valued at £759,332, the whole of the production being by the Mount Lyell Mining and Railway Co. Ltd. This Company treated 57,846 tons of ore and concentrates and produced 12,470 tons of blister copper, containing copper 12,381, silver 83,233 oz., and gold 6,171 oz., the whole being valued at £A1,008,970.

(vi) *Northern Territory.* Copper has been found at various places, but the development of these deposits is hindered by low prices and the difficulties of transport. For the eighteen months ended December, 1936, 204 tons of ore were raised. This was the first production recorded since 1932-33. In 1937, 7 tons valued at £55 were also produced.

3. *Prices.*—The great variation in price that the metal has undergone is shown in the following table, which gives the average prices in London and New York during each of the last five years. The figures are given on the authority of *The Mineral Industry* :—

COPPER PRICES : LONDON AND NEW YORK.

Year.				Average London Price per Ton Standard Copper.	Average New York Price in Cents per lb. Electrolytic Copper.
				£	Cents.
1933	..	..	..	32.52	7.02
1934	..	..	..	30.28	8.43
1935	..	..	..	31.87	8.65
1936	..	..	..	38.44	9.47
1937	..	..	..	54.47	13.17

As evidence of the tremendous variation in price it may be noted that in December, 1916, the average London price of standard copper was £145.32 per ton, while in June, 1927, it was quoted at £54.03. In 1930, the average price was £54, and during each of the next five years just over £30 per ton. It rose to £60 in June, 1937, but declined thereafter to £35 in June, 1938, only to rise again to more than £43 in December, 1938.

4. **World's Production of Copper.**—The world's production of copper during the five years 1933–1937 is estimated to have been as follows. The figures have been taken from the statistical summary prepared by the Imperial Institute.

COPPER : WORLD'S PRODUCTION.

Year.	1933.	1934.	1935.	1936.	1937.
World's production—tons ..	1,040,000	1,300,000	1,470,000	1,700,000	2,300,000

The yields from the principal copper-producing countries in 1937 were as follows :—

COPPER : PRODUCTION IN PRINCIPAL COUNTRIES, 1937.

Country.	Production.	Country.	Production.
	Tons.		Tons.
United States	748,009	Mexico	45,350
Chile	410,000	Yugoslavia	44,000
Rhodesia	245,888	Peru	36,000
Canada	236,620	Germany	28,960
Belgian Congo	148,210	Spain	27,000
Soviet Union	90,000	Australia	21,578
Japan	86,215	Union of South Africa	11,209

During the year 1937 the share of the United States in the world's copper production amounted to nearly one-third, while the Australian proportion was less than 1 per cent.

The recovery in the world consumption of copper, which commenced in 1935, continued throughout 1936 and during a part of 1937. Although the world production and consumption figures reached record levels in 1937, business activity slumped towards the close of the year, the price of copper dropping from more than £60 in May to less than £40 in December.

5. **Employment in Copper Mining.**—The number of persons employed in copper mining during each of the last five years was as follows :—

COPPER MINING : PERSONS EMPLOYED.

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1933	(a) 13	175	54	..	1,483	1	1,726
1934	4	151	45	..	1,471	..	1,671
1935	7	170	54	..	1,758	..	1,989
1936	9	196	54	..	1,610	4	1,873
1937	27	306	75	..	1,714	8	2,130

(a) No production from copper mines.

In 1917 over 9,000 persons were engaged in copper mining.

§ 6. Tin.

1. **Production.**—The price of tin during 1937 averaged more than £242 per ton in London. This was the highest figure for the past ten years and production in Australia responded accordingly. The next table shows the values of the production as reported to the Mines Departments in each of the States during the five years 1933 to 1937. A separate line is appended showing the recorded tonnage for Australia during each of the specified years :—

TIN : PRODUCTION.

State.	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
New South Wales	218,244	328,130	287,890	268,454	336,628
Victoria	1,350	3,886	14,475	14,750	44,127
Queensland	123,620	179,404	187,234	157,889	202,614
Western Australia	4,557	6,765	8,829	6,882	12,421
Tasmania	190,041	219,246	258,919	206,656	260,673
Northern Territory	(a) 2,519	(a) 9,566	(a) 6,036	(b) 4,176	7,205
Total	540,331	746,997	763,383	658,807	863,668
Ingot, Matte etc. .. . tons	2,948	3,169	3,395	3,187	3,377
Concentrates .. . tons	72	154	207	225	366

(a) Year ended 30th June.

(b) Eighteen months ended December.

2. **Sources of Production.**—(i) *New South Wales.* The production in 1937 was stated at 1,116 tons of ingots valued at £331,530, and 27 tons of concentrates valued at £5,098 were exported overseas. A large proportion of the output in this State is obtained in normal years by dredging, principally in the New England district, the quantity of stream tin won in 1937 being 527 tons. The Tingha area was the principal contributor to the output in 1937, the yield from this district comprising 574 tons of concentrates. Amongst other areas, Emmaville produced 243 tons of concentrates and Ardlethan 153 tons of concentrates and 62 tons of ore, while the lode mines at Torrington returned a yield of 188 tons of tin oxide.

(ii) *Victoria.* The production of tin in this State is obtained chiefly by dredging in the Beechworth district and by mining in the Toora district in Gippsland. The production in 1937 amounted to 218 tons of concentrates valued at £44,127 compared with 86 tons valued at £14,750 in 1936.

(iii) *Queensland.* The chief producing districts in Queensland during 1937 were Herberton, 661 tons, valued at £114,165; Cooktown, 94 tons, £17,615; Stanthorpe, 170 tons, £31,762; Chillagoe, 96 tons, £15,889 and Kangaroo Hills, 147 tons, £22,834. The total production, 1,171 tons, £202,614, showed an increase of 63 tons and £44,725 on that for 1936, but is far below that of the early years of this century, when the production ranged between 2,000 and 5,000 tons per annum.

(iv) *Western Australia.* The quantity of tin reported in this State in 1937 amounted to 80 tons, valued at £12,421, and was obtained in the Pilbara and Greenbushes fields.

(v) *Tasmania.* For 1937, the output amounted to 1,090 tons of tin, valued at £260,673, an increase of 86 tons in quantity and £54,017 in value over the return for the previous year. The production of tin in this State has substantially increased since 1929 when the metal produced amounted to only 640 tons. The mines associated with the production of tin are well equipped to deal efficiently with the deposits recently opened up.

(vi) *Northern Territory.* The production for the eighteen months ended December, 1936, amounted to 51 tons of concentrates valued at £7,256. For the year ended December, 1937, 41 tons of concentrates valued at £7,205 were produced. Under the stimulus of high prices, concentrates were produced in Central Australia for the first time, principally at the Anningee tin-field. Production was maintained at Maranboy in North Australia.

3. *World's Production.*—The world's production of tin during each of the last five years was as follows:—

TIN : WORLD'S PRODUCTION.

1933.	1934.	1935.	1936.	1937.
Tons. 89,000	Tons. 117,000	Tons. 136,000	Tons. 179,000	Tons. 208,000

The world production of tin increased to a record high level in 1937 and was due principally to the increased output of the chief producing countries—Malaya, Netherlands East Indies, Bolivia and Siam. These countries produced three-quarters of the world's total production in 1937. The agreement controlling the production and export of tin has been extended to 1941. The parties to this agreement are those countries already mentioned together with Nigeria, Congo and Indo-China. Production in Australia is not affected.

The yields from the principal producing countries in 1937 were as follows:—

TIN : PRODUCTION IN PRINCIPAL COUNTRIES, 1937.

Country.	Production.	Country.	Production.
	Tons.		Tons.
Malaya	77,468	Burma	4,636
Netherlands East Indies	39,165	Australia	3,743
Bolivia	25,127	Japan	2,300
Siam	15,985	Argentina	2,200
China	11,100	United Kingdom	1,087
Nigeria	10,782	Indo-China	1,577
Belgian Congo	8,133	Portugal	1,095

Australia's share of the world's tin production; estimated at 208,000 tons in 1937, would appear to be a little less than 2 per cent.

4. *Prices.*—The average prices of the metal in the London market for the years 1933 to 1938 were as follows:—

TIN PRICES : LONDON.

Year.	Average Price Per Ton.	Year.	Average Price Per Ton.
	£ s. d.		£ s. d.
1933	194 11 11	1936	204 12 8
1934	230 7 5	1937	242 6 7
1935	225 14 5	1938	189 12 1

The average price of tin rose to £242 per ton in 1937 compared with £118 in 1931, the peak depression year. In 1938 the price receded to £189 per ton.

5. **Employment in Tin Mining.**—The number of persons employed in tin mining during the last five years is shown below :—

TIN MINING : PERSONS EMPLOYED.

Year.	N.S.W.	Victoria. (a)	Q'land.	W. Aust.	Tas.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1933	1,448	..	818	63	1,007	33	3,369
1934	1,903	10	1,214	73	1,247	120	4,567
1935	1,807	5	1,122	58	1,452	30	4,474
1936	1,762	6	1,270	48	1,284	37	4,407
1937	1,781	8	1,389	60	1,367	27	4,632

(a) The tin produced in Victoria was raised by a dredging company operating primarily for gold.

§ 7. Zinc.

1. **Production.**—(i) *New South Wales.* (a) *Values Assigned.* The production of zinciferous concentrates is confined chiefly to the Broken Hill district of New South Wales, where zincblende forms one of the chief constituents in the enormous deposits of sulphide ores. During the earlier years of mining activity on this field a considerable amount of zinc was left in tailings, but from 1909 onwards improved methods of treatment resulted in the profitable extraction of the zinc contents of the accumulations at the various mines.

As the metallic contents of the bulk of the concentrates, etc., produced in the Broken Hill district are extracted outside New South Wales, the mineral industry of that State is not credited by the Mines Department with the value of the finished product. During 1937 the zinc concentrates produced amounted to 219,838 tons, valued at £657,967. Portion of the zinc concentrates produced is treated at Risdon in Tasmania. The production from these concentrates in 1937 as recorded by the Electrolytic Zinc Company of Australia Ltd. at Risdon amounted to 43,254 tons of zinc and 162.28 tons of cadmium. This is referred to in the Tasmania production below. The balance, which in 1937 amounted to 130,880 tons, valued at £699,898, was exported overseas.

The reopening of the mine at Captain's Flat by the Lake George Mines Ltd. was an important development in 1937. Production is expected to commence early in 1939 and an increase of 20,000 tons in the annual output for Australia is forecast.

(b) *Local and Foreign Extraction.* A statement of the quantity of zinc extracted in Australia and the estimated zinc contents of concentrates exported overseas during the five years 1933 to 1937 will be found in § 17 hereinafter.

(ii) *Queensland.* The production of zinc in the Cloncurry district of Queensland during 1937 was 27,598 tons valued at £606,150, compared with 4,411 tons valued at £68,863 obtained in 1935. The metal was produced by the Mount Isa Mines Ltd.

(iii) *South Australia.* Zinc is known to exist in various localities in South Australia, but there has been no production during recent years.

(iv) *Tasmania.* The production of zinc from Tasmanian ores was suspended from 1931 to 1935. Developmental work on the Mount Read-Rosebery district was continued during that period and production, which commenced in 1936, amounted to 18,769 tons valued at £283,175. In 1937, 23,481 tons valued at £525,824 were obtained. The latter represents the first full year's operations since the inception of milling at Rosebery.

The Electrolytic Zinc Co. at Risdon operated during 1937 on raw materials obtained wholly from Broken Hill in New South Wales. Production amounted to 43,254 tons of slab zinc valued at £1,276,470, and 162.28 tons of cadmium, valued at £59,042.

2. **World's Production.**—The world's production of zinc ore in terms of metal during the five years 1933–37 was as follows :—

ZINC : WORLD'S PRODUCTION.

1933.	1934.	1935.	1936.	1937.
Tons. 986,000	Tons. 1,162,000	Tons. 1,540,000	Tons. 1,700,000	Tons. 1,860,000

The yields from the principal producing countries in 1937 were as given hereunder, the figures referring to slab zinc produced in the various countries, irrespective of the source of the ore. In common with some other industrial metals, the production and consumption of zinc reached record high levels in 1937. Prices on the London Metal Market averaged £22 5s. 9d. for 1937 and were the highest since 1929.

ZINC : PRODUCTION IN PRINCIPAL COUNTRIES, 1937.

Country.	Production.	Country.	Production.
	Tons.		Tons.
United States	497,236	France	60,000
Belgium	222,016	Japan	45,000
Germany	160,000	Norway	40,624
Australia	146,740	Italy	37,382
Canada	141,555	Mexico	33,558
Poland	105,481	Netherlands	24,256
Soviet Union	70,000	Rhodesia	14,031
Great Britain	62,000	Czechoslovakia	7,104

The figures for Australia have been taken from returns supplied by the Australian Mines and Metals Association. On a world's production of 1,610,000 tons of slab zinc Australia's output of 146,740 tons represents 9 per cent.

3. **Prices.**—Information regarding prices of zinc will be found in the table in § 4 par. 5. *ante*.

§ 8. Iron.

1. **General.**—Iron ore is widely distributed throughout Australia, but the extent of the deposits has never been determined. The only two known ore bodies of large extent, high grade and easy access are those situated at Yampi Sound, Western Australia and at Iron Knob, South Australia. Estimates of the reserves at these centres place the quantities available at approximately 100 million tons and 150 million tons respectively. In a report submitted to the Government the Commonwealth Geologist stated that, bearing in mind the expansion of the iron industry in Australia, these reserves were sufficient for *not more than two generations and that unless supplies were conserved Australia would, by that time, become an importer of iron ore.* As the result of this advice, the Commonwealth Government prohibited the export of iron ore from 1st July, 1938. A survey of the iron ore resources of Australia is now in progress.

2. **Production.**—(i) *New South Wales.* The production from ores mined in New South Wales amounted to 4,580 tons in 1935, valued at £18,320. This is the only occasion since 1929 that ore of New South Wales origin has been used in the production of pig iron in that State. For many years the chief source of supply has been South Australia.

Small quantities of iron oxide produced in New South Wales are used by the various gasworks for purifying gas, and also in the manufacture of paper, and for pigments. These supplies are drawn chiefly from the deposits in the Port Macquarie Division.

During 1937 the iron oxide raised amounted to 677 tons, valued at £374. Ironstone flux amounting to 2,432 tons valued at £950 was raised in the Goulburn Division during 1933. This is the only production recorded since 1922.

(ii) *South Australia.* The production from the deposits worked by the Broken Hill Pty. Co. Ltd., at Iron Knob and at Middlebank reached its maximum in 1936, when 1,887,298 tons of ore valued at £2,170,392 were raised. The output in 1937 was somewhat lower than those of the previous two years and amounted to 1,866,414 tons valued at £2,146,376. The extent of the recovery that has been made in the iron and steel industry may be gauged from a comparison with the output of 289,179 tons in 1931.

(iii) *Western Australia.* Developmental works were continued on the deposits at Yampi Sound and at the end of 1937, 40 men were employed. These have not yet reached the production stage.

(iv) *Tasmania.* The production of ironstone in Tasmania during 1937 amounted to 61 tons, valued at £36. This ore, which was exported to Japan, was the first output recorded since 1908. Iron pyrites is also obtained in this State. The production, which amounted to 40,630 tons, valued at £43,723 in 1937, is not included in the mineral returns, but is credited to the manufacturing industry, as it is a by-product from the flotation of copper ore at Mount Lyell. This product is exported to the mainland, where the sulphur contents have displaced imported sulphur in the manufacture of chemical fertilizers. The recovery has grown considerably since 1932, when the output amounted to 274 tons.

(v) *Other States.* Reference to the iron ore deposits in the other States will be found in preceding issues of the Official Year Book (see No. 22, page 779).

3. *Iron and Steel Bounties.*—During the year 1937–38 the bounties paid under the Iron and Steel Products Bounty Act on articles manufactured from locally produced materials were as follows : Wire-netting, £6,741 ; traction engines, £25,556. Corresponding amounts paid during 1938–39 were £5,736 and £17,313 respectively.

4. *World's Production of Iron and Steel.*—(i) *General.* The Australian production of iron and steel at present forms a very small proportion of the world's output. According to the *The Mineral Industry*, the production in the principal countries during the latest available three years was as follows :—

PIG IRON AND STEEL : WORLD'S PRODUCTION.

Country.	Pig Iron.			Steel Ingots and Castings.		
	1935.	1936.	1937.	1935.	1936.	1937.
	Thousands of Tons.			Thousands of Tons.		
United States ..	21,373	31,029	37,127	34,550	48,478	51,792
Germany ..	12,539	15,303	15,957	16,096	19,158	19,816
Soviet Union ..	12,493	14,400	14,520	12,520	16,300	17,824
Great Britain ..	6,426	7,686	8,497	9,842	11,698	12,963
France ..	5,799	6,237	7,917	6,264	6,562	7,761
Japan ..	2,716	2,869	3,561	4,532	5,368	6,423
Belgium ..	3,060	3,207	3,843	2,966	3,105	3,777
Luxemburg ..	1,872	1,987	2,513	1,837	1,981	2,510
Czechoslovakia ..	811	1,140	1,675	1,197	1,559	2,315
Italy ..	622	816	790	2,471	2,328	2,087
Poland ..	394	582	724	946	1,143	1,450
Canada ..	600	679	898	936	1,115	1,401
Sweden ..	566	585	646	895	1,022	1,104
India ..	1,056	1,541	1,453	912	880	971
Australia ..	569	662	665	613	716	830
Hungary ..	85	306	362	225	460	706
Austria ..	193	248	380	364	418	650
Union of South Africa	171	199	272	254	298	332
Total—All Countries	72,111	89,802	92,848	97,887	124,794	135,317

The figures for world production of iron and steel reached an exceptionally low level in 1932, namely, pig iron, 39,275,000 tons; steel, 50,029,000 tons. Since that year all steel-producing nations have recorded continuous increases in production. The principal producers in Australia are the Broken Hill Proprietary and the Australian Iron and Steel Co., the former situated at Newcastle and the latter at Port Kembla in New South Wales. Additional plant has been authorized at both of these works in order to meet the increasing demand for steel in Australia whilst an extension of the industry to South Australia is also contemplated.

(ii) *Australia.* The production of steel and pig iron in New South Wales, which is the only producing State, is shown during each of the last ten years.

PIG IRON AND STEEL : AUSTRALIAN PRODUCTION.

Year ended 30th June—	Pig Iron.	Steel Ingots.	Steel Rails, Bars and Sections.	Year ended 30th June—	Pig Iron.	Steel Ingots.	Steel Rails, Bars and Sections.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1929 ..	461,110	432,773	353,921	1934 ..	487,259	518,326	431,765
1930 ..	308,369	314,917	256,696	1935 ..	698,493	696,861	585,838
1931 ..	232,783	228,363	188,708	1936 ..	783,233	820,395	671,244
1932 ..	190,132	221,488	178,740	1937 ..	913,406	1,073,479	837,445
1933 ..	336,246	392,666	295,523	1938 ..	929,676	1,159,075	906,426

§ 9. Other Metallic Minerals.

Tungsten ores—wolfram and scheelite—occur in several of the States, in the Northern Territory and on King Island in Bass Strait, the last-named being the subject of an investigation in 1934. On account of the low prices during recent years, mining activities were restricted and production intermittent. In 1937, however, prices soared to the record level of £16 6s. per cwt., compared with only £3 2s. 9d. per cwt. in 1932. As a result, production of wolfram and scheelite responded accordingly. The production during the past five years is shown in the following table:—

WOLFRAM AND SCHEELITE : PRODUCTION, AUSTRALIA.

Particulars.		1933.	1934.	1935.	1936.	1937.
WOLFRAM.						
New South Wales	cwt.	5	950	1,095	105	915
	£	16	6,506	5,694	560	13,051
Queensland ..	cwt.	260	740	480	404	1,963
	£	760	5,049	2,888	1,889	26,139
Tasmania ..	cwt.	2,080	3,884	4,640	4,143	5,820
	£	7,301	27,375	29,345	28,323	71,643
Northern Territory	cwt.	..	(a) 800	(a) 1,846	(a) 1,721	5,831
	£	..	(a) 3,114	(a) 10,380	(a) 8,748	84,832
Total ..	cwt.	2,345	6,374	8,061	6,373	14,529
	£	8,077	42,044	48,307	39,520	195,665
SCHEELITE.						
New South Wales	cwt.	..	130	50	245	202
	£	..	818	381	1,631	3,401
Queensland ..	cwt.	..	..	22	..	38
	£	..	..	120	..	533
Total ..	cwt.	..	130	72	245	240
	£	..	818	501	1,631	3,934

(a) Year ended June.

Detailed information in regard to the occurrence and production of other metallic minerals in each of the States will be found in Official Year Book No. 22, pp. 780-3 and preceding issues.

§ 10. Coal.

1. **Production in each State.**—An account of the discovery of coal in each State will be found in preceding issues of the Official Year Book. (See No. 3, pp. 515-6.) The quantity and value of the production in each State and in Australia during the years specified are given in the table hereunder:—

COAL : PRODUCTION.

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
QUANTITY.							
	Tons	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1913 ..	10,414,165	593,912	1,037,944	..	313,818	55,043	12,414,882
1921 ..	10,793,387	514,859	954,763	..	468,817	66,476	12,798,302
1931 ..	6,432,382	571,342	841,308	..	432,400	123,828	8,401,260
1934 ..	7,873,180	356,958	956,558	..	500,343	113,633	9,800,672
1935 ..	8,698,579	476,495	1,051,978	..	537,188	123,714	10,887,954
1936 ..	9,199,466	426,725	1,046,879	..	565,075	132,264	11,370,409
1937 ..	10,051,519	257,945	1,120,179	..	553,510	91,121	12,074,274
VALUE.(b)							
	£	£	£	£	£	£	£
1913 ..	3,770,375	274,371	403,767	..	153,614	25,367	4,627,494
1921 ..	9,078,388	603,323	831,483	..	407,117	63,446	10,983,757
1931 ..	4,607,343	362,284	699,926	..	336,178	98,004	6,103,735
1934 ..	4,541,923	215,413	752,303	..	278,704	81,262	5,869,605
1935 ..	4,887,341	282,253	843,034	..	318,013	86,204	6,416,845
1936 ..	5,126,850	253,835	858,732	..	331,565	92,269	6,663,251
1937 ..	5,823,469	171,369	934,107	..	340,444	66,883	7,336,272

(a) Exclusive of brown coal, shown in next table.

(b) At the pit's mouth.

The figures for Victoria already quoted are exclusive of brown coal, the quantities and values of which were as follows. The reduced output for 1935 is attributable to floods which retarded production during the early months of the year.

BROWN COAL : PRODUCTION IN VICTORIA.

Year.	Quantity	Value. (a)	Year.	Quantity.	Value. (a)
	Tons.	£		Tons.	£
1913 ..	2,984	569	1934 ..	2,617,534	264,192
1921 ..	79,224	31,074	1935 ..	2,221,515	317,444
1926 ..	957,935	188,899	1936 ..	3,044,897	323,914
1931 ..	2,194,453	251,511	1937 ..	3,393,919	325,950

(a) Cost of Production.

2. **Distribution and Production of Coal in each State.**—(i) *New South Wales.*—The coal deposits of New South Wales constitute the most important and extensively worked in Australia. The principal fields are known as the Northern, Southern and Western, and are situated at Newcastle, Bulli and Lithgow respectively.

The coal from the various districts differs considerably in quality—that from the Northern district being especially suitable for gas-making, household purposes and steam, while the product of the Southern and Western is essentially a steaming coal. At the present time the Greta coal seams in the Northern division are being worked extensively between West Maitland and Cessnock, and this stretch of country, covering a distance of 15 miles, is now the most important coal-mining district in Australasia.

The table hereunder gives the yields in each of the three districts during the five years 1933 to 1937 :—

COAL : PRODUCTION IN DISTRICTS OF NEW SOUTH WALES.

District.	1933.	1934.	1935.	1936.	1937.
	Tons.	Tons.	Tons.	Tons.	Tons.
Northern	4,651,483	5,227,647	5,679,802	6,197,554	6,674,362
Southern	1,218,014	1,344,669	1,558,282	1,626,143	1,880,440
Western	1,248,940	1,300,864	1,460,495	1,375,769	1,496,717
Total	7,118,437	7,873,180	8,698,579	9,199,466	10,051,519
Total Value (a) £ ..	4,306,799	4,541,923	4,887,341	5,126,850	5,823,469
Average value per ton (a) ..	12s. 1d.	11s. 6d.	11s. 3d.	11s. 2d.	11s. 7d.

(a) At the pit's mouth.

During the five years ended 1927, the average annual production of coal in New South Wales exceeded 11,000,000 tons, but in 1928 the output declined to 9,448,000 tons owing to a reduction of oversea and interstate orders. A prolonged stoppage of work in the Northern mines during the next two years and the advent of the industrial depression reduced the yield to 6,430,000 tons in 1931 since when it has gradually risen to 10,052,000 tons in 1937. This latter quantity may be compared with 11,618,000 tons, the maximum output recorded in 1924. Of the total quantity of coal won in New South Wales since the inception of operations to the end of the year 1937, viz., 413,500,000 tons, about 281,000,000 or 68 per cent. was obtained in the Northern District, 85,000,000 tons or 21 per cent. came from the Southern District, and 48,000,000 tons or 11 per cent. was contributed by the mines in the Western District.

The quantity of coal cut by machinery in New South Wales amounted to 2,788,274 tons in 1937 or 27.7 per cent. of the total output for the State, compared with 20.5 per cent. so cut in 1927.

(ii) *Victoria. (a) Black Coal.* The deposits of black coal in Victoria occur in three main areas in the southern portion of the State, nameily, the Wannon, the Otway and South Gippsland, which total approximately 3,500 square miles. The workable seams are restricted to the South Gippsland area, where the thickness ranges from 2 feet 3 inches to 6 feet. The total production of black coal in Victoria to the end of 1937 amounted to 17,645,000 tons valued at £13,631,406.

The output of black coal in Victoria during the last five years was as follows :—

BLACK COAL : PRODUCTION IN VICTORIA.

Year.	State Coal Mine.	Other Coal Mines.	Total Production.	Total Value. (a)	Average Value per ton. (a)
	Tons.	Tons.	Tons.	£	s. d.
1933	444,868	78,132	523,000	328,704	12 7
1934	268,861	88,097	356,958	215,413	12 1
1935	393,532	82,963	476,495	282,253	11 10
1936	355,605	71,120	426,725	253,835	11 11
1937	187,934	70,011	257,945	171,369	13 3

(a) At the pit's mou

(b) *Brown Coal.*—(i) *General.* Victoria is richly endowed, both in quantity and quality, in its brown coal deposits. Some account of these deposits and of the operations of the State Electricity Commission in connexion therewith will be found in preceding Official Year Books (see No. 22, page 785). The brown coal produced in Victoria in 1937 amounted to 3,391,419 tons, all but 2,500 tons being procured at the State open cut at Yallourn. During the year 1937-38, 3,597,048 tons of brown coal were produced by the State Electricity Commission, of which 1,993,371 tons went to the power station and 1,603,677 tons to the briquette factory.

(ii) *Production of Briquettes.* The briquetting plant started operations in November, 1924, and the output for fourteen months ending December, 1925, was 77,945 tons. In 1926 the output was 95,477 tons which had increased to 180,905 tons in 1930 and to 416,545 tons in 1937. The Yallourn briquettes are considered to be equal in quality to those produced in the best German factories.

(iii) *Queensland.* The distribution of production during the year 1937 was as follows:—

COAL : PRODUCTION IN QUEENSLAND, 1937.

District.	Production.	District.	Production.
	Tons.		Tons.
Ipswich .. °	546,259	Clermont	63,769
Bowen	245,309	Chillagoe (Mount Mulligan)	18,770
Darling Downs	77,588	Mount Morgan	16,072
Maryborough	79,229	Other	3,238
Rockhampton	69,945		
		Total	1,120,179

The production in 1937 was the highest since 1929, but it is still 18 per cent. below the peak production of 1,369,000 tons attained in that year. The distribution of the output in 1937 was as follows: Railway Department, 431,044 tons; other industries within the State, 606,161 tons; exported, 82,974 tons. There were 54 collieries operating in the Ipswich district, 7 in the Darling Downs, 6 in the Maryborough area, 5 in Clermont district, 4 in Rockhampton district, 1 in Chillagoe district, 1 at Mount Morgan, 1 at Mackay, and 2 in the Bowen district; a total of 81 collieries for the State. State coal mines are in operation at Collinsville in the Bowen field, at Styx in the Central area, and at Mount Mulligan.

(iv) *South Australia.* So far no coal has been worked in South Australia (see Official Year Book No. 22, page 786).

(v) *Western Australia.* The production from the five collieries operating on the Collie field amounted in 1937 to 553,510 tons, a decrease of 11,565 tons on the return for 1936. The value of this production, however, increased by £8,879 to £340,444. The number of men employed was 723 and the output per man was 766 tons, which was 30 tons greater than in 1936. The total production of coal from the Collie coalfield to the end of 1937 amounted to 13,272,500 tons.

(vi) *Tasmania.* The production in 1937 amounted to 91,121 tons, being 41,143 tons less than the total for 1936. Industrial troubles in the Eastern Division were chiefly responsible for this reduction in output. About 28,700 tons of the total output in 1937 were contributed by the Cornwall Coal Company, 22,200 tons by the Mt. Nicholas Proprietary and 13,700 tons by the Jubilee Company. The three mines combined raised 65,000 tons or about 71 per cent. of the total output of the State. The Cornwall Coal Company absorbed the Mt. Nicholas Colliery in 1937 and operations at the latter mine have been abandoned.

(vii) *Australia's Coal Reserves.* The latest available estimate of the actual and probable coal reserves of Australia is shown in the Report of the Royal Commission on the Coal Industry 1929-1930, and is based upon that prepared by the Coal and Lignites Panel of the Power Survey Sectional Committee of the Standards Association of Australia. The following table shows the actual and probable coal reserves as determined by that Committee:—

ACTUAL AND PROBABLE COAL RESERVES OF AUSTRALIA.

(Millions of Tons.)

State.	Black Coal.	Sub-bituminous and Brown Coal.
New South Wales	13,929	..
Victoria	40	37,000
Queensland	2,238	67
South Australia .. .. .	..	57
Western Australia .. .. .	..	3,500
Tasmania	244	..
Total	16,451	40,624

3. *Production in Various Countries.*—The total known coal production of the world in 1937 amounted to about 1,510 million tons, towards which Australia contributed about 15.5 million tons, or 1 per cent. The following tables show the production of the chief British and foreign countries during each of the four years ended 1937:—

COAL : PRODUCTION IN BRITISH EMPIRE.

Year.	Great Britain.	British India.	Canada.	Australia.	New Zealand.	Union of S. Africa.
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BLACK COAL.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1934 ..	220,728,000	22,057,000	9,461,000	9,801,000	832,000	12,002,000
1935 ..	222,249,000	23,017,000	9,193,000	10,888,000	825,000	13,360,000
1936 ..	228,448,000	22,611,000	10,146,000	11,370,000	859,000	14,607,000
1937 ..	240,409,000	25,036,000	14,139,000	12,074,000	970,000	15,246,000

BROWN COAL, LIGNITE.

1934 ..	..	..	2,870,000	2,618,000	1,228,600	..
1935 ..	..	..	3,186,000	2,222,000	1,290,000	..
1936 ..	..	..	3,452,000	3,045,000	1,281,000	..
1937 ..	..	..	(a)	3,394,000	1,308,000	..

(a) Included with black coal.

COAL : PRODUCTION IN FOREIGN COUNTRIES.

Year.	Germany.	Austria.	Hungary.	Belgium.	France. (b)	Czecho- slovakia.	Yugoslavia.
BLACK COAL.							
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1934 ..	122,885,000	246,900	744,000	25,972,000	46,880,000	10,519,000	381,000
1935 ..	140,744,000	246,500	810,000	26,087,000	46,363,000	10,791,000	394,000
1936 ..	155,783,000	240,500	814,000	27,427,000	44,512,000	12,040,000	434,000
1937 ..	181,599,000	226,600	903,000	29,213,000	43,618,000	16,683,000	432,000
Year.	Spain.	Poland.	Nether- lands.	Soviet Union.	Japan.	China. (c)	United States.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1934 ..	5,838,000	28,771,390	12,146,000	92,456,000	35,358,000	20,568,000	371,907,000
1935 ..	6,995,000	28,091,945	11,690,000	93,736,000	34,354,000	12,000,000	379,046,000
1936 ..	(d)	29,278,000	12,600,000	106,677,000	37,466,000	12,000,000	440,774,000
1937 ..	(d)	35,646,000	14,095,000	120,643,000	(d)	(d)	441,349,000

BROWN COAL, LIGNITE.

Year.	Germany.	Austria.	Hungary.	Belgium.	France.	Czecho- slovakia.	Yugoslavia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1934 ..	135,098,000	2,806,000	6,081,000	..	1,009,000	14,932,000	3,866,000
1935 ..	145,028,000	2,924,000	6,612,000	..	885,000	14,977,000	3,971,000
1936 ..	158,848,000	2,851,000	6,993,000	..	905,000	15,697,000	3,971,000
1937 ..	182,106,000	3,191,000	7,928,000	..	1,000,000	17,757,000	4,523,000
Year.	Spain.	Poland.	Nether- lands.	Soviet Union.	Japan.	China.	United States.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1934 ..	294,000	26,000	91,032	(a)	125,000	..	(a)
1935 ..	299,000	18,000	85,000	13,602,000	(d)	..	(a)
1936 ..	(d)	13,000	87,000	17,333,000	(d)	..	(a)
1937 ..	(d)	19,000	141,000	(a)	(d)	..	(a)

(a) Included with black coal. (b) Exclusive of Saar District, which produced 11,139,000 tons in 1934, and 1,673,000 tons from 1st January to 17th February, 1935. From this date production has been included with that of Germany. (c) Includes about 300,000 tons of lignite yearly. (d) Not available.

Compared with the previous year, the production for 1937 showed a satisfactory increase in practically all of the major producing countries of the world. Any decrease which did occur was very small. The production of the British Empire amounted to 313,000,000 tons in 1937, an increase of 15,000,000 tons or 5 per cent. on that of 1936. The production of foreign countries increased by 80,000,000 tons to 1,200,000,000 tons, or by 7 per cent. in the same period.

4. Exports.—(i) *General.* The quantity of coal of Australian production (exclusive of bunker coal) exported to other countries in 1937-38 was 392,873 tons, valued at £354,754. New South Wales exported 392,013 tons, Queensland, 859 tons, and Victoria

1 ton. The quantities and values of the oversea exports of Australian coal for the years specified are shown in the appended table :—

COAL : OVERSEA EXPORTS, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 (a) ..	2,098,505	1,121,505	1934-35 ..	305,139	273,305
1921-22 ..	1,028,767	1,099,899	1935-36 ..	307,540	276,553
1931-32 ..	344,015	341,800	1936-37 ..	340,388	300,457
1933-34 ..	292,416	269,296	1937-38 ..	392,873	354,754

(a) Calendar Year.

Australian coal taken for bunker purposes during the same years was as follows :—

COAL : BUNKER, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 (a) ..	1,647,870	1,018,375	1934-35 ..	575,418	544,875
1921-22 ..	1,498,035	2,178,101	1935-36 ..	614,333	576,549
1931-32 ..	506,140	534,897	1936-37 ..	605,425	564,071
1933-34 ..	523,014	495,032	1937-38 ..	614,762	575,319

(a) Calendar Year.

(ii) *New South Wales.* The total export of coal from New South Wales in 1937 amounted to 3,330,493 tons, valued at £2,846,411 of which 2,959,773 tons, valued at £2,495,302 were shipped from Newcastle. Interstate exports amounted to 2,407,978 tons, valued at £2,016,340 and were divided as follows :—Cargo, 2,039,475 tons, £1,735,630; bunker, 368,503 tons, £280,710. Oversea exports totalled 922,515 tons, valued at £830,071, representing 547,422 tons of bunker coal, valued at £498,832 and 375,093 tons of cargo coal, valued at £331,239.

The distribution of the total output from New South Wales collieries during the last five years was as follows, the particulars given for quantity exported including coal shipped as bunker coal :—

COAL : DISTRIBUTION OF OUTPUT, NEW SOUTH WALES.

Year.	Exports to Australian Ports.	Exports to Foreign Ports.	Local Consumption.	Total.
	(a)	(a)		
	Tons.	Tons.	Tons.	Tons.
1933	1,623,840	831,338	4,663,259	7,118,437
1934	1,882,873	807,154	5,183,153	7,873,180
1935	1,889,274	876,591	5,932,714	8,698,579
1936	2,166,241	911,176	6,122,049	9,199,466
1937	2,407,978	922,515	6,721,026	10,051,519

(a) Including Bunker.

For the period of five years shown in the table above, 23 per cent. of the total output was exported to other States, 10 per cent. was sent overseas, and 67 per cent. was consumed locally.

The figures quoted in the table above are given on the authority of the New South Wales Mines Department.

5. **Consumption in Australia.**—It is possible from the information available to show with reasonable accuracy the disposal of the coal produced in Australia and the quantity retained for home consumption.

Under normal circumstances the production and consumption of coal move in the same direction, but in times of industrial troubles large consumers may be compelled to rely upon accumulated stocks, and, consequently annual figures may be thrown out

of alignment. For this reason the following table has been prepared on a quinquennial basis in order to smooth out any departures from the normal :—

COAL : PRODUCTION AND UTILIZATION IN AUSTRALIA.

Particulars.	Average for Five Years ending.			
	1932-33.		1937-38.	
BLACK COAL.				
Production of Saleable Coal (a)	Tons. 9,091,883		Tons. 10,539,869	
Imports	186,827		15,307	
Total Supplies	9,278,710		10,555,176	
Exported overseas	331,298	% 3.57	327,671	% 3.10
Exported as bunker, overseas	564,989	6.10	587,183	5.56
Total	896,287	9.67	914,854	8.66
Consumed as fuel in—				
Electric Light and Power Works	1,513,046	16.31	1,699,458	16.10
Factories (b)	1,582,078	17.05	1,910,037	18.09
Railway Locomotives (c)	2,297,706	24.76	2,250,992	21.33
Total	5,392,830	58.12	5,860,487	55.52
Consumed as raw material in—				
Gas Works	1,146,305	12.35	1,074,304	10.18
Coke Works	596,401	6.43	1,313,243	12.44
Total	1,742,706	18.78	2,387,547	22.62
Balance available for consumption including accumulation of stocks (d)	1,246,886	13.43	1,392,288	13.20
Grand Total	9,278,710	100.00	10,555,176	100.00
BROWN COAL.				
Production of Brown Coal	Tons. 2,096,100		Tons. 2,873,756	
Utilization—				
As fuel in Electric Light and Power Works	1,107,536	% 52.8	1,541,571	% 53.6
Used in Briquette Works (e)	988,564	47.2	1,332,185	46.4
Total	2,096,100	100.0	2,873,756	100.0

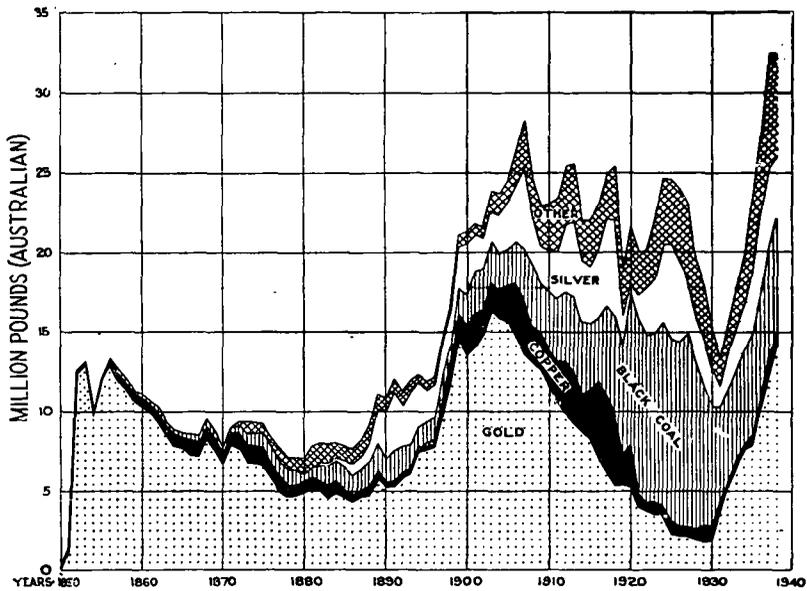
(a) Estimated.

(b) Estimated where details were not available. Not including Brown coal.

see Note (e). (c) Government Railways only. (d) Including bunker coal for Interstate and

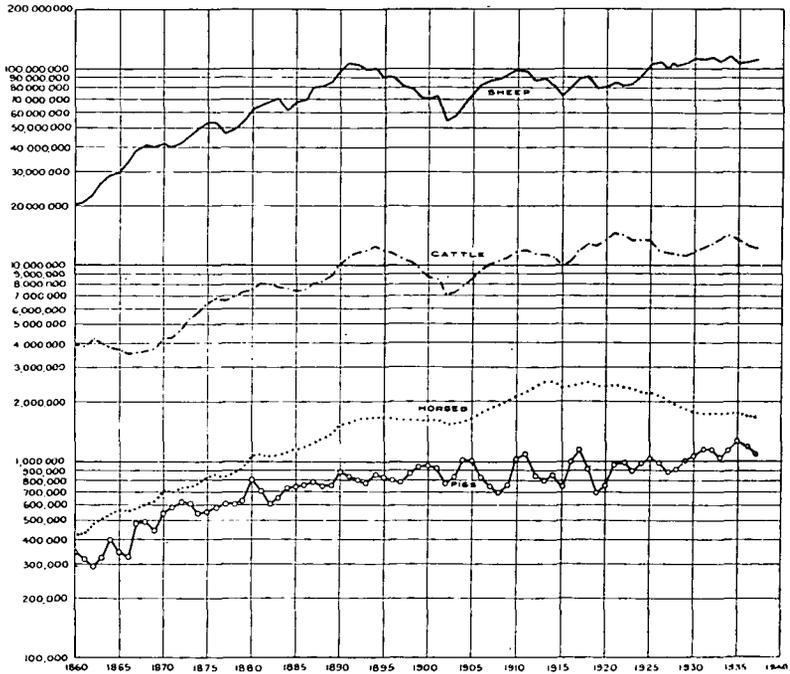
Intrastate Shipping. (e) A portion of the briquette output is consumed in factories.

VALUE OF PRINCIPAL MINERALS PRODUCED—AUSTRALIA, 1850 TO 1938.



EXPLANATION.—The upper curve represents the total value of mineral production while the vertical distances between the curves represent the value of production of each mineral.

LIVE STOCK—AUSTRALIA, 1860 TO 1937.



(See page 583.)

EXPLANATION.—This is a ratio graph, the vertical scale being logarithmic and the curves rise and fall according to the rate of increase or decrease. Actual numbers are indicated by the scale at the side of the graph.

The production of coal is ascertained only in calendar years and to relate it to the other factors in the table, it was necessary to have recourse to estimates which in all probability differ but slightly from the actual figures.

6. Prices.—(i) *New South Wales*. The price of New South Wales coal depends on the district from which it is obtained. Previously the northern district coal generally realized a somewhat higher rate than the southern or western product, but latterly the average price in the southern fields has been slightly in excess of that prevailing in the northern area. The average price at the mine in each district and for the State as a whole during the last five years is given in the following table. The increase in 1937 is the first recorded since 1927.

COAL PRICES : NEW SOUTH WALES.

Year.	Northern District.	Southern District.	Western District.	Average for State.
	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.
1933	12 9	12 6	9 5	12 1
1934	12 0	12 2	8 10	11 6
1935	11 9	11 10	8 8	11 3
1936	11 6	11 8	8 9	11 2
1937	11 11	12 7	9 0	11 7

(ii) *Victoria*. In Victoria the average price of coal per ton at the pit's mouth in 1933 was 12s. 7d.; in 1934, 12s. 1d.; in 1935, 11s. 10d.; in 1936, 11s. 11d.; and in 1937, 13s. 3d. These averages are exclusive of brown coal, which in 1937 cost 1s. 11d. per ton to produce.

(iii) *Queensland*. Prices in the principal coal-producing districts during the last five years were:—

COAL PRICES : QUEENSLAND.

District.	Value at Pit's Mouth.				
	1933.	1934.	1935.	1936.	1937.
	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.
Ipswich	14 9	14 11	15 5	16 0	16 4
Darling Downs	18 2	18 4	18 3	18 10	19 3
Wide Bay and Maryborough	22 7	22 11	23 1	23 9	23 7
Rockhampton	16 6	16 7	16 7	17 4	17 4
Clermont	13 11	12 11	12 5	12 8	13 0
Bowen	13 9	13 6	13 10	14 0	14 2
Mount Mulligan (Chillagoe)	28 5	26 0	29 0	28 9	30 5
Average for State ..	15 10	15 11	16 0	16 5	16 8

In 1901 the average value at the pit's mouth was 7s. per ton, and the average for the ten years 1901 to 1910 was about 6s. 8d.

(iv) *Western Australia*. The average prices of the Collie (Western Australia) coal during the last five years were: 1933, 12s. 8d.; 1934, 11s. 2d.; 1935, 11s. 10d.; 1936, 11s. 9d.; and 1937, 12s. 4d.

(v) *Tasmania*. The average prices per ton of coal at the pit's mouth in Tasmania for the last five years were: 1933, 14s. 9d.; 1934, 14s. 4d.; 1935, 13s. 11d.; 1936, 13s. 11d.; and 1937, 14s. 8d. per ton.

7. **Prices in the United Kingdom.**—During the five years 1933 to 1937 the average selling prices of coal per ton at the pit's mouth in the United Kingdom were: 1933, 13s.; 1934, 12s. 11d.; 1935, 13s.; 1936, 14s. 0½d.; and 1937, 15s. 2½d.

8. **Employment in Coal Mines.**—The number of persons employed in coal mines, both above and below ground, in each of the producing States is given in the following table for the years 1913, 1923, and for each of the years 1933 to 1937:—

COAL MINES : PERSONS EMPLOYED.

Year.	New South Wales.	Victoria.		Queensland.	Western Australia.	Tasmania.	Total.
		Black.	Brown.				
	No.	No.	No.	No.	No.	No.	No.
1913 ..	18,843	1,377	(a)	2,548	559	136	23,463
1923 ..	22,969	2,131	(a)	2,662	713	268	28,743
1933 ..	13,349	1,517	272	2,448	626	313	18,525
1934 ..	13,465	1,502	319	2,385	624	342	18,637
1935 ..	13,337	1,397	615	2,455	689	340	18,833
1936 ..	14,221	1,367	419	2,432	768	334	19,541
1937 ..	14,981	1,359	390	2,442	723	322	20,217

(a) Production prior to 1924 was of little importance.

The maximum number was employed in 1926 when 31,774 persons were engaged in the coal mines of Australia. Shortly after that year the industrial depression and a prolonged stoppage of work on one of the principal fields of New South Wales during 1929 and 1930 seriously affected the figures of employment. Since 1934 there has been a gradual improvement, but the numbers employed in 1937 were still less than two-thirds of the maximum figure already quoted. As the production in 1937 was not so far below the record output of 13.7 million tons in 1924, it would appear that the growth of mechanization in the industry has been a factor in raising production during recent years. In 1927, 20.5 per cent. of the total output of coal in New South Wales was cut by machinery, while in 1937 the percentage had increased to 27.7.

9. **Accidents in Coal Mining.**—(i) *Australia.* The following table gives the number of persons killed or injured, with the proportion per 1,000 employed, and in relation to the quantity of coal raised, this being a factor which must be reckoned with in any consideration of the degree of risk attending mining operations. Although no precise definition of an accident is available, any disablement from misadventure which rendered the injured unfit for work for fourteen or more days has been uniformly adopted by the State Departments of Mines. A further table gives the rate of fatalities during the last five years.

COAL MINING : EMPLOYMENT AND ACCIDENTS, 1937.

State.	Persons Employed in Coal Mining.	No. of Persons.		Proportion per 1,000 Employed.		Tons of Coal raised for each Person.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales ..	14,981	26	68	1.37	4.54	386,597	147,816
Victoria ..	1,749	14	7	8.00	4.00	260,847	521,694
Queensland ..	2,442	2	168	0.82	68.79	560,090	6,668
Western Australia ..	723	..	251	..	347.17	..	2,205
Tasmania ..	322	1	6	3.11	18.64	91,121	15,187
Total ..	20,217	43	500	2.13	24.73	359,725	30,936

The next table shows the average number of miners employed, number of fatalities, and rate per 1,000 during the quinquennium 1933-37 :—

COAL MINING : FATALITIES, 1933 TO 1937.

State.	Average No. of Coal Miners Employed.	Average No. of Fatal Accidents.	Rate per 1,000 Employed.
New South Wales	13,876	15.00	1.08
Victoria	1,831	3.20	1.74
Queensland	2,432	3.00	1.23
Western Australia	686	0.20	0.29
Tasmania	336	0.40	1.19
Total	19,161	21.80	1.14

(ii) *Other Countries.* According to the report of the Chief Inspector of Mines, the average death rate per 1,000 miners from accidents in coal mines in Great Britain during the quinquennium 1933-37 was 1.11, the rates varying between 1.35 in 1934 and 1.02 in 1936 while the rate for Australia for the same period was 1.14.

§ 11. Coke.

1. *Production.*—(i) *General.* Notwithstanding the large deposits of excellent coal in Australia, the production of coke was limited to about 250,000 tons prior to the war. This was below local requirements and necessitated a fairly considerable import from abroad. During recent years, however, a high standard of excellence has been attained in the local product and imports have almost ceased, while Australian coke is being shipped to New Zealand and other islands in the Pacific. For the year 1937-38 the coke imported amounted to 15,781 tons, of which 7,732 tons were obtained from the United Kingdom and 5,000 tons from Poland, South Australia being the chief importing State. The quantity exported was 36,076 tons, valued at £55,512, of which 30,847 tons, valued at £47,163, were sent to New Caledonia.

(ii) *New South Wales.* The table hereunder gives the production in New South Wales during the last five years as recorded by the Department of Mines :—

COKE : PRODUCTION IN NEW SOUTH WALES.

Items.	1933.	1934.	1935.	1936.	1937
Quantity .. tons	473,427	688,621	857,875	893,201	939,944
Value, total .. £	512,693	636,346	802,887	800,632	909,822
Value, per ton ..	21s. 8d.	18s. 6d.	18s. 9d.	17s. 11d.	19s. 4d.

The figures quoted refer to the product of coke ovens, and are exclusive of coke produced in the ordinary way at gas works. Prior to the industrial depression the maximum production of coke was 709,000 tons in 1927; the output fell to 217,509 tons in 1931, but with the general recovery of trade the figure rose to a new high level of 940,000 tons in 1937.

(iii) *Queensland.* A small quantity of coke is made in Queensland, the quantity returned in 1937 being 30,459 tons, of which 26,864 tons were produced at Bowen State Coke Works. The greater proportion of the output of these works was consigned to the Mount Isa Mines Ltd, and to the Chillagoe State Smelters. Hitherto the coke used at these ore-treatment works was imported from New South Wales, but now the output is sufficient to meet the requirements of the State. In addition, a quantity was exported to Noumea during 1937. The following table shows the amount manufactured locally during the last five years :—

COKE : PRODUCTION IN QUEENSLAND.

Year.	1933.	1934.	1935.	1936.	1937.
Quantity .. tons	15,096	25,655	24,877	23,326	30,459

In order to avoid duplication with coal values, the returns for coke have not been included in the general tables of mineral production in the early part of this chapter.

§ 12. Oil Shale and Mineral Oil.

1. *Oil Shale.*—(i) *General.* Reference to the deposits of oil shale and the search for mineral oil in Australia will be found in Official Year Book No. 22, pp. 791 to 793.

(ii) *New South Wales.* The establishment of the oil-shale industry in Australia by the development of the deposits at Newnes in New South Wales has received the serious consideration of both the Commonwealth and the New South Wales Governments. The project has been the subject of a number of investigations, and a series of reports in connexion therewith have been issued. In 1937 negotiations were completed between the two Governments and the National Oil Proprietary Ltd., in which the latter company undertook to develop the shale-oil industry in the Newnes-Capertee district. The Commonwealth Government agreed to protect the industry by exempting from excise up to 10 million gallons of the Company's output of petrol for a period of 25 years. The successful establishment of this project will probably lead to an expansion of the industry in Australia; it should provide another avenue for employment and serve as a valuable training ground for technicians. Production is expected to commence not later than January, 1940.

(iii) *Tasmania.* About 38,000 gallons of crude oil were produced in 1934 from shale treated in Tasmania, while the total quantity of oil distilled from shale up to the end of 1934 was set down at 357,000 gallons. The plant operated by the Tasmanian Shale Oil Company closed down at the end of January, 1935.

2. *Coal Oil.*—Attention has been directed to the production of oil from coal by a number of processes. A committee consisting of nominees of the Commonwealth and State Governments, excepting Western Australia, and of Imperial Chemical Industries Ltd., was appointed to advise on specific questions submitted to it. In a report submitted in June, 1937, it was stated that the stage had not been reached when Australia could establish plants for the production of oil from coal. The committee recommended, however, that close touch be kept with developments abroad.

3. *Natural Oil.*—(i) *Australia.* Natural oil does exist in Australia. This has been proved in Queensland, Victoria and Western Australia. Conditions favourable to accumulation in commercial quantities have been shown to exist in Queensland, Western Australia and New South Wales. In the latter State, however, no strong positive evidence of its existence has been recorded. In Victoria, while oil has been proved to exist in considerable quantities, the problem as to whether it can be produced on a commercial basis has still to be worked out.

Reference is made in § 16 hereinafter to the assistance afforded by the Commonwealth the search for petroleum oil.

(ii) *Victoria.* The production of crude petroleum oil in the year 1937 amounted to 9,372 gallons, valued at £176. The total production to the end of that year amounted to 100,303 gallons, worth £2,448. In conjunction with the State Government, the Commonwealth Government is carrying out a scout drilling campaign in the Gippsland area of Victoria.

(iii) *Queensland.* Great hopes were at one time entertained in regard to the petroliferous area in Queensland, but while gas and light to medium gravity oils have been found at Roma, and gas and oily wax at Longreach, structural conditions for accumulations on a commercial scale have not yet been located in the drilled areas. The search for oil was continued during 1938 by several companies in localities situated at Mount Bassett, near Roma, at Hutton Creek and at Arcadia.

(iv) *South Australia.* Under prescribed conditions, the South Australian Government offers a bonus of £5,000 to the person or body corporate which first obtains from a local bore or well 100,000 gallons of crude petroleum containing not less than 90 per cent. of products obtainable by distillation.

(v) *Western Australia.* During recent years oil geologists have examined territories under the direction of three companies. All the reports so far furnished have recommended additional work and expenditure. Legislation governing petroleum prospecting was passed during the year. One company, financially assisted by the Commonwealth and State Governments, was to commence deep-drilling operations in the Kimberley district in 1939.

§ 13. Other Non-metallic Minerals.

A more or less detailed statement regarding the occurrence and production of other non-metallic minerals is given in preceding Official Year Books (see No. 22, pp. 793 to 796). The tables of quantities and values in § 1 of this Chapter will show the production of the principal items in this class for each State during the year 1937.

§ 14. Gems and Gemstones.

1. *Diamonds.*—It is difficult to secure accurate returns in connexion with the production of precious stones, but the yield of diamonds in 1937 in New South Wales was estimated at 200 carats, valued at £200. These were won by fossickers in the Inverell district. The total production to the end of 1937 is given at 205,243 carats, valued at £148,000.

2. *Sapphires.*—The production of sapphires in New South Wales during 1929 was returned as 65 ozs., valued at £450, obtained wholly at Sapphire in the Inverell division, but no output has been recorded since. Production during recent years has been restricted owing to the unfavourable market.

In Queensland, gems to the value of £1,410 were purchased on the Anakie sapphire fields in 1937. It is probable that many were sold privately or held for better prices. For these reasons the returns are considered to be very incomplete. There were about 120 miners operating on the fields during 1934 but their number decreased to 25 in 1937. Production has declined very considerably since 1920, when the yield was valued at £66,000.

3. *Precious Opals.*—The estimated value of the opal won in New South Wales during the year 1937 was £3,357, obtained on the Lightning Ridge, White Cliffs and Grawin fields. The figures quoted, however, do not represent the total output, as in many instances miners, buyers and collectors leave the fields before a record of their production or purchases can be secured. Some very fine stones are at times obtained, one weighing 5 ozs. and valued at £300 being found in 1911. Three finds of large stone were made in 1928, the gems weighing 790, 590 and 232 carats respectively, and showing

fine fire and lustre. Occasionally black opals of very fine quality are found, one specimen from the Wallangulla field, weighing $6\frac{1}{2}$ carats, being sold in 1910 for £102, while in the early part of 1920 a specimen realized £600. It is stated that this locality is the only place in the world where the "black" variety of the gem has been found. The total value of opal won in New South Wales since the year 1890 is estimated at £1,622,795, but, as pointed out above, the figures are to some extent understated.

Small quantities of precious opal are found in the Beechworth district in Victoria.

The opaliferous district in Queensland stretches over a considerable area of the western interior of the State, from Kynuna and Opalton as far down as Cunnamulla. The yield in 1937 was estimated at £100, and up to the end of that year at about £188,000. These figures are, however, merely approximations, as large quantities of opal, of which no record is obtained, are disposed of privately. Production during recent years has been limited by the paucity of demand and only 6 persons were engaged during 1937. The greatest recorded output was for the year 1895 when the yield was valued at £32,750.

Owing to the poor market for gems, production from the Coober Pedy opal field, situated in the Stuart Range in South Australia, fell from £11,056 in 1929 to £1,517 in 1934, but the demand has since improved and the production in 1937 amounted to £11,887. The field is extremely prolific, a large quantity of precious white opal having been raised therefrom, while only a small portion of the known opal-bearing area has been thoroughly tested. The greatest yield for the State in any one year was obtained in 1920 when the value of production was returned at £24,000.

4. **Other Gems.**—Various other gems and precious stones have from time to time been discovered in the different States, the list including agates, amethysts, beryls, chiasolite, emeralds, garnets, olivines, moonstones, rubies, topazes, tourmalines, turquoises and zircons. In Western Australia, 609 carats (rough) of emeralds, valued at £278, were produced during 1929 in the Cue district on the Murchison gold-field. The value of the 3,750 carats reported from the same area in 1930 was not ascertainable as there were no sales during the year. There has been no recorded production since 1930.

§ 15. Numbers Engaged, Wages Paid and Accidents in Mining.

1. **Total Employment in Mining.**—The number of persons engaged in the mining industry in Australia fluctuates according to the season, the price of industrial metals, the state of the labour markets, and according to the permanence of new finds and the development of the established mines. During the year 1937, the number so employed was as follows:—

NUMBER OF PERSONS ENGAGED IN MINING, 1937.

State.	Number of Persons engaged in Mining for—						Total.
	Gold.	Silver, Lead and Zinc.	Copper.	Tin.	Coal.	Other.	
New South Wales ..	3,885	5,225	27	1,781	14,981	1,419	27,318
Victoria ..	6,180	..	..	8	1,749	100	8,037
Queensland ..	3,436	578	306	1,389	2,442	773	8,924
South Australia ..	192	2	75	..	..	556	825
Western Australia ..	16,174	29	..	60	723	150	17,136
Tasmania ..	179	1,586	1,714	1,367	322	260	5,428
Northern Territory ..	388	..	8	27	..	134	557
Australia ..	30,434	7,420	2,130	4,632	20,217	3,392	68,225

Included in the figures for "other" in South Australia were 260 engaged in mining iron ore, 56 gypsum miners, 105 salt gatherers, and 56 opal miners. The Tasmanian figures include 49 osmiridium miners, and those for the Northern Territory, 50 mica miners.

The following table shows the number of persons engaged in mining in each State at intervals since 1901 and the proportion so employed to the total population :—

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION.

State.	1901.		1911.		1921.	
	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.
New South Wales	36,615	2,685	37,017	2,225	29,701	1,410
Victoria	28,670	2,381	15,986	1,210	5,211	339
Queensland	13,352	2,664	13,201	2,147	5,847	766
South Australia	7,007	1,931	6,000	1,457	2,020	406
Western Australia	20,895	11,087	16,596	5,787	7,084	2,122
Tasmania	6,923	4,017	5,247	2,760	3,170	1,486
Northern Territory .. ..	..	..	715	21,595	131	3,356
Australia	113,462	2,992	94,762	2,109	53,164	974
State.	1931.		1936.		1937.	
	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.
New South Wales	30,682	1,200	26,590	997	27,318	1,014
Victoria	6,463	359	8,828	478	8,037	433
Queensland	6,753	730	8,830	902	8,924	902
South Australia	518	90	1,043	178	825	140
Western Australia	7,147	1,653	16,652	3,700	17,136	3,772
Tasmania	3,397	1,512	5,054	2,187	5,428	2,320
Northern Territory	145	2,918	508	9,667	557	10,294
Australia	55,105	844	67,505	996	68,225	998

The general falling-off since 1901 is largely due to the causes mentioned in each section hereinbefore. The proportion to population shows increases since 1931 in all States excepting New South Wales, and is attributable mainly to the larger numbers engaged in the search for gold. Since that year the increase in the number so employed was approximately 6,700 persons. The number engaged in mining for tin increased by 2,400, while increases were also recorded in the mining for silver, lead and zinc, 4,000, and copper, 300. These increases were offset to some extent by the decrease in coal mining from 21,400 in 1931 to 20,200 in 1937, which decline is largely responsible for the lower proportion employed in New South Wales.

2. *Wages Paid in Mining.*—Information regarding rates of wages paid in the mining industry, which in earlier issues of the Official Year Book was given in this chapter, is now contained in the *Labour Report* issued by this Bureau.

3. Accidents in Mining, 1937.—The following table gives particulars of the number of men killed or injured in mining accidents during the year 1937 :—

MINING ACCIDENTS, 1937.

Mining for—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
KILLED.								
Coal ..	26	14	2	..	..	1	..	43
Copper ..	..	..	3	..	..	1	..	4
Gold ..	6	8	5	1	36	..	..	56
Silver, lead and zinc ..	8	..	2	..	2	2	..	14
Tin ..	..	..	..	..	..	1	..	1
Other minerals	1	..	1	..	..	..	..	2
Total ..	41	22	13	1	38	5	..	120

INJURED.								
Coal ..	68	7	168	..	251	6	..	500
Copper ..	..	..	45	2	..	53	..	100
Gold ..	33	19	43	2	1,018	..	1	1,116
Silver, lead and zinc ..	201	..	32	..	..	16	..	249
Tin ..	1	..	6	..	..	16	..	23
Other minerals	5	..	..	9	..	3	..	17
Total ..	308	26	294	13	1,269	94	1	2,005

§ 16. Government Aid to Mining.

1. Commonwealth.—(i) *General.* Assistance to mining has been given by the Commonwealth under the provisions of the Precious Metals Prospecting Act 1926, the Gold Bounty Act of 1930, the Petroleum Oil Search Acts 1936, which superseded the Petroleum Prospecting Acts of 1926, 1927 and 1928, the Loan Appropriation (Unemployment Relief) Act 1934 and the Northern Australia Survey Act 1934.

In addition to this financial assistance considerable sums have been spent by the Commonwealth Government in an endeavour to locate new mineral fields. In conjunction with the Empire Marketing Board a sum of £32,000 was made available to provide for geophysical prospecting in Australia. This survey was begun in April, 1928, and completed in February, 1930. A report in connexion therewith was issued.

In 1934 the Northern Australia Survey Act was passed. Under this Act the Governments of the Commonwealth and the States of Queensland and Western Australia agreed to co-operate in the conduct of an aerial, geological and geophysical survey of certain areas in Australia north of the 22nd parallel of south latitude. This survey was conducted during the three years ended 1937, and has now been extended to the end of 1940. The total cost of the survey will involve an expenditure of £252,000, of which the Commonwealth Government will contribute £140,000, Queensland £67,500 and Western Australia £44,500. The latest report was in respect of the period ending 31st December, 1938, and a number of reports on individual areas have been issued as appendices.

(ii) *Metalliferous Mining.* The Precious Metals Prospecting Act 1926 provided a sum of £40,000 of which £15,000 was to be expended in the Northern Territory, and the balance allocated to the States in such proportions as the Minister determined. The total expenditure under this Act amounted to £27,000, but no further assistance is contemplated from this fund.

The Gold Bounty Act 1930 provided that for a period of ten years from 1st January, 1931, a bounty of £1 per ounce would be payable under prescribed conditions by the Commonwealth on each ounce of fine gold produced in excess of the average production for the three years 1928-30. Under the Financial Emergency Act 1931 the Bounty was reduced to 10s. per ounce, subject to increases of 1s. for each decrease of 3s. per cent. in the average rate of exchange. The rate of exchange on which the reduction to 10s. per ounce was based was taken as 30 per cent. Under the Financial Emergency Act of 1932 the bounty was temporarily suspended.

Under the Loan Appropriation (Unemployment Relief) Act 1934 a sum of £283,750 was made available to the States as grants for assistance to metalliferous mining. In addition a further sum of £210,000 was made available during the two years ended June, 1938, for the same purpose. The total amount of assistance granted by the Commonwealth Government was £543,750, distributed among the States and Territories as follows:—New South Wales, £75,700; Victoria, £95,700; Queensland, £130,500; South Australia, £46,300; Western Australia, £106,400; Tasmania, £39,150; Northern Territory, £45,000; and Papua, £5,000.

(iii) *Search for Oil.* The Commonwealth Government has encouraged the search for oil in Australia, Papua and New Guinea and considerable sums have been spent during the past ten years in geological surveys and in drilling operations. Details of efforts made during that period are shown in previous issues of the Official Year Book.

In 1936 the Petroleum Oil Search Act was passed which replaced all previous enactments. Under this Act a sum of £250,000 was appropriated to assist in the search for oil in Australia and the Territories of Papua and New Guinea. Considerable preliminary geological surveys have already been conducted and attention is now being directed to the testing of approved sites by drilling. A technical committee known as the Commonwealth Oil Advisory Committee was appointed to act in an advisory capacity and to deal with applications for assistance.

The moneys made available under the Act mentioned may be applied—

- (1) to the payment of advances to persons and companies engaged in drilling operations or in the conduct of geological surveys in connexion with the search for petroleum; and
- (2) for the purchase of drilling plants.

Under the provisions of the Act four modern rotary-drilling plants have been purchased. These are made available on hire to companies engaged in the search. Since their purchase the four plants have been in use continuously, one in each of the States of Queensland, Victoria, New South Wales and Western Australia.

The Commonwealth Oil Refineries Ltd. of which the Government of the Commonwealth of Australia is the principal shareholder has undertaken an extensive programme of prospecting for oil. The investigation is under the control of an Australian Advisory Committee of Geologists appointed by the Company, the personnel of which comprises the Commonwealth Geological Adviser, the Government Geologist of South Australia and two other members.

(iv) *Appointment of Geological Staff.* In 1927 a small geological staff, including a palaeontologist, was appointed. The Geological Adviser visited the United States and Argentine Republic in 1930 to study oil-fields conditions on the spot, and submitted a comprehensive report, which was published as a Parliamentary Paper in 1931. Experimental aerial photographic surveys have been carried out in conjunction with the Royal Australian Air Force to determine whether similar methods were applicable under Australian conditions, and a report on the investigations has been issued.

(v) *Standing Committee on Liquid Fuels.* The Commonwealth Government has appointed a Standing Committee on Liquid Fuels to co-ordinate knowledge concerning the production of liquid fuels and the use of substitutes therefor, and to furnish information

which will enable Australia to obtain greater independence in regard to fuel supplies. This Committee undertakes the investigation of such matters as the production of oil from coal, benzol, power alcohol, shale oil and the use of producer gas in road vehicles.

2. **New South Wales.**—The chief aid given by the Government of New South Wales has been in the assistance to prospectors, but there were no appropriations from the Prospecting Vote for the three years ended 1937–38; all claims are met from Unemployment Relief Funds, and the Commonwealth Grant. Aid is granted on a footage basis to sink, drive, etc., on approved sites to which a valid mining title is held. Grants approved during the year amounted to £22,529 but the actual expenditure in respect of work completed amounted to £19,426. Loans are also made to assist in the erection of crushing batteries or reduction plants on which interest at the rate of 4 per cent. is charged. During the year loans totalling £6,535 were approved. A reward amounting to £250 was paid in 1937 in connexion with the discovery of a new gold deposit near Weethalle.

3. **Victoria.**—During the year 1936–37 expenditure in connexion with mining amounted to £39,686. Of this amount £8,601 consisted of advances to prospectors and £12,785 was advanced to companies on a £ for £ basis under conditions of Commonwealth Grant for assistance to metalliferous mining. The balance of £18,300 was provided for operation of State batteries and boring operations, etc.

4. **Queensland.**—State assistance to the mining industry in 1937–38 amounted to £52,574, of which £50,743 was advanced to prospectors, the balance consisting of grants under the Mining Machinery Advances Act £341, and £1,490 for the provision of transport facilities, etc., to mineral fields. In addition to the amounts above, a sum of £9,987 was spent in connexion with the aerial survey of North Australia.

Mining operation conducted by the State include three coal mines situated at Bowen, Styx and at Mt. Mulligan, three batteries at Kidston, Charters Towers and Bamford, an assay office at Cloncurry, smelting works at Chillagoe, coke works at Bowen, and the State treatment works at Irvinebank. The battery at Charters Towers continued to be leased privately.

5. **South Australia.**—Aid is given to the mining industry under the terms of the Mining Acts of 1930 and 1931. Up to the end of 1937 the total amount of subsidy paid was £70,915, of which £16,796 has been repaid, and £4,700 written off, leaving a debit of £49,419. Portion of this amount is represented by machinery that has fallen into the hands of the Government. Repayments must be provided from profits, but in only two instances have the profits enabled a full return to be made. The State maintains batteries and cyanide works at Mount Torrens, Peterborough, Mongolata, Tarcoola and Glenloth, and assays for public purposes are made at the School of Mines. Advances to prospectors in 1937 amounted to £3,767.

6. **Western Australia.**—Under the Mining Development Act of 1902 assistance was granted in 1937 in accordance with the subjoined statement:—Aid to prospectors, £6,619; subsidies on stone crushed for the public, £92; advances in aid of mining work and equipment of mines with machinery, £106. Other assistance granted from the vote on various matters during the year amounted to £483. The total amount involved was £7,300.

In 1937 there were 24 State batteries in operation of which three were leased. The amount expended thereon up to the end of 1937 was £91,981 from revenue, £378,314 from loan fund and £41,793 from other sources giving a total of £512,088. The working expenditure up to the end of 1937 exceeded the revenue by £93,038. The total value of gold and tinf produced to the end of 1937 at the State plants was £9,596,744. Free assays and determinations of mineral values for prospectors are made at the Kalgoorlie School of Mines and at the Government laboratory at Perth.

7. **Tasmania.**—Aid to Mining in 1937 amounted to £3,224, of which £354 was expended as sustenance, £1,984 as assistance to companies and individuals, and £886 on construction of roads and tracks.

METALLIC CONTENTS OF ORES, ETC., PRODUCED AND EXPORTED. 581

Tributers' assays are made at a nominal charge, and all tribute surveys are carried out free of charge by the Assay and Survey Office at Zeehan.

8. Northern Territory.—During the year 1936–37 the assistance granted to prospectors amounted to £444. In addition a sum of £11,912 was also granted to assist mining companies and mine owners.

The Government maintains batteries at Maranboy, Pine Creek and Tennant Creek. Government Assayers situated at Darwin and Alice Springs make free assays for prospectors, and arrange for the sampling, storage and sale of ores.

§ 17. Metallic Contents of Ores, etc., Produced and Exported.

1. Local Production.—According to returns compiled from various sources by the Australian Mines and Metals Association, the quantities of the principal metals (exclusive of gold) extracted in Australia during the five years 1934 to 1938 were as follows:—

REFINED METALS PRODUCED IN AUSTRALIA.

Metal.		1934.	1935.	1936.	1937.	1938.
Silver	oz.	8,674,549	8,983,950	8,498,674	9,510,509	9,357,139
Lead, pig	tons	160,201	181,211	159,504	186,757	182,214
Zinc	"	54,629	67,666	70,509	69,750	69,820
Copper	"	7,970	11,768	13,313	17,400	17,098
Tin	"	2,330	2,837	2,717	2,907	3,229

The local production of pig iron during the quinquennium 1923–27 ranged between 330,000 tons in 1923 and 517,000 tons in 1927. Complete information for the later years is not available from the returns published by the Association, but according to the metal extraction returns published in the *Statistical Register of New South Wales*, the production of pig iron in that State amounted in 1933–34 to 487,259 tons, in 1934–35 to 698,493 tons, in 1935–36 to 783,233 tons, in 1936–37 to 913,406 tons and in 1937–38 to 929,676 tons. As pointed out previously, the iron ore used is now obtained from South Australia.

2. Metallic Contents of Ores, Concentrates, etc., Exported.—The estimated metallic contents of ores, concentrates, etc. exported during the five years 1934 to 1938 as supplied by the Australian Mines and Metals Association, are given in the following table:—

METALLIC CONTENTS OF ORES, CONCENTRATES, ETC., EXPORTED.

Metal.	Contained in—	1934.	1935.	1936.	1937.	1938.
Silver	oz. { Lead-Silver-Gold Bullion Lead Concentrates and Ores Zinc Concentrates and Ores Copper and Gold Ores ..	1,819,546	2,506,015	2,810,828	3,505,293	3,400,581
		612,014	275,154	444,052	557,438	831,809
		147,522	217,266	222,536	204,840	306,012
	
	Total	2,579,082	2,998,435	3,477,416	4,267,571	4,538,402
Lead	tons { Lead-Silver-Gold Bullion Lead Concentrates and Ores Zinc Concentrates and Ores	35,804	36,723	33,450	41,773	40,369
		21,075	9,819	17,497	10,086	15,049
		803	1,658	1,587	1,420	1,958
	
	Total	57,682	48,000	52,534	53,279	57,376
Zinc	tons { Lead Concentrates and Ores Zinc Concentrates and Ores	..	..	..	..	..
		26,963	54,693	75,391	76,990	93,561
	
	Total	26,963	54,693	75,391	76,990	93,561
Copper	tons Ores, Matte, etc. ..	1,122	1,361	2,770	2,389	3,228
Tin	tons Concentrates and Ores ..	198	289	246	192	102

§ 18. Oversea Exports of Ores, Metals, etc.

The following table shows the quantities and values of the principal overseas exports of ores, concentrates and metals, the produce of Australia, together with the countries to which the respective products were forwarded, for the year 1937-38:—

OVERSEA EXPORTS OF AUSTRALIAN ORES, METALS, ETC., 1937-38.

Article.	Exports to—							Other Countries.
	Total Exports.	United Kingdom.	U.S. America.	Belgium.	Germany.	Japan.	New Zealand.	
QUANTITY.								
Ores—	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Copper ..	38,004	..	32,639	280	..	5,085	..	..
Silver and Silver-lead ..	37,953	20,031	724	15,983	..	..	..	1,215
Iron ..	3,358,370	4,375	1,597,640	2,935	..	1,752,020	..	1,400
Wolfram ..	19,037	2,828	1,211	1,549	7,349	..	..	6,100
Tin ..	728	26	..	702	..	..	..	..
Zinc ..	..	..	..	..	..	..	..	..
Other ..	153,659	803	83,198	14,891	53,756	40	64	907
Concentrates—								
Silver and Silver-lead ..	647,528	119,350	274,501	252,964	713	..	..	..
Zinc ..	4,467,635	4,004,155	..	393,062	200	..	..	(b) 70,218
Copper ..	236,452	64	233,008	..	3,380	..	..	..
Tin ..	6,436	4,690	..	788	..	..	..	958
Lead Slime Residue ..	13,599	10,151	..	2,915	..	..	..	533
Gold Ore, Quartz and Concentrates ..	23,489	62	15,482	7,753	..	..	192	..
Other ..	4,412	449	3,695	..	..	..	..	268
Cadmium—Blocks, Ingots, etc. ..	3,406	2,140	..	..	..	..	6	1,260
Copper—								
Matte ..	37,471	..	..	37,471	..	..	..	..
Ingot ..	650	..	..	..	..	..	650	..
Tin—Ingot ..	14,665	9,243	400	400	..	..	4,360	262
Lead—								
Pig ..	4,255,297	4,062,042	16,936	30,037	..	71,685	35,279	39,318
Matte ..	..	..	..	..	..	..	..	..
Zinc—Bars, Blocks, etc. ..	618,777	308,206	..	..	..	162,047	2,958(d)	145,566
Platinum, Osmium, etc. ..	(a) 404	404	..	..	..	..	..	..
Gold—								
Bar, Dust, etc. ..	1,599,318	880,905	672,067	37	..	..	..	(c) 46,309
Silver—								
Bar, Ingot, etc. ..	9,056,428	3,351,061	48,825	200	64,493	..	2,209(e)	5,589,640
VALUE.								
Ores—	£	£	£	£	£	£	£	£
Copper ..	6,965	..	5,229	364	..	1,372	..	..
Silver and Silver-lead ..	49,818	38,928	950	9,825	..	..	..	115
Iron ..	95,626	604	45,812	403	..	48,614	..	193
Wolfram ..	284,565	42,531	16,677	25,466	108,499	..	..	91,392
Tin ..	2,034	74	..	1,960	..	..	..	..
Zinc ..	..	..	..	..	..	..	..	..
Other ..	70,131	9,280	23,234	11,594	20,324	4,840	134	725
Concentrates—								
Silver and Silver-lead ..	496,504	71,109	208,798	216,561	36	..	..	..
Zinc ..	1,316,990	1,149,832	..	136,109	30	..	(b)	31,019
Copper ..	380,372	547	375,393	..	4,432	..	..	..
Tin ..	50,746	33,402	..	8,275	..	..	..	9,069
Lead Slime Residue ..	9,075	5,637	..	3,200	..	..	..	238
Gold Ore, Quartz and Concentrates ..	35,363	7,566	24,577	3,161	..	..	59	..
Other ..	11,159	7,712	3,395	..	..	..	..	52
Cadmium—Blocks, Ingots, etc. ..	105,573	58,660	..	..	..	..	205	46,708
Copper—								
Matte ..	31,651	..	..	31,651	..	..	..	..
Ingot ..	1,988	..	..	..	..	..	1,988	..
Tin—Ingot ..	187,469	113,165	5,470	6,272	..	..	59,567	2,995
Lead—								
Pig ..	4,913,762	4,678,597	25,837	36,166	..	79,177	43,715	50,270
Matte ..	..	..	..	..	..	..	..	..
Zinc—Bars, Blocks, etc. ..	752,090	356,793	..	..	..	211,986	3,634(d)	179,677
Platinum, Osmium, etc. ..	6,843	6,843	..	..	..	..	..	..
Gold—								
Bar, Dust, etc. ..	13,823,124	7,610,252	5,812,878	318	..	..	..	(c) 399,676
Silver—								
Bar, Ingot, etc. ..	984,576	369,458	4,782	17	7,187	..	256(e)	602,876
Total	23,616,424	14,560,990	6,553,032	491,342	140,508	345,989	109,558	1,415,005

(a) Mainly osmiridium exported from Tasmania and platinum from New South Wales. (b) France, 70,175 cwt., £31,009. (c) France. (d) India, 117,984 cwt., £145,441; Kwantung Peninsula, 12,799 cwt., £14,840; Burma, 11,999 cwt., £15,381. (e) Ceylon, 4,029,366 fine ozs., £430,829; India, 1,560,274 fine ozs., £172,047.

CHAPTER XVIII. PASTORAL PRODUCTION.

§ 1. Initiation and Growth of Pastoral Industry.

1. **Early Statistics.**—The live stock which Captain Phillip brought with him when establishing the first settlement in January, 1788, is stated to have comprised seven horses, six cattle, twenty-nine sheep, twelve pigs and a few goats. Later in the same year, in a letter from Captain Phillip to Lord Sydney, then Secretary of State for the Colonies, an enclosure sets forth the numbers of each kind of live stock in the colony on 1st May, 1788. These details together with those of later enumerations are shown in the following table :—

LIVE STOCK : AUSTRALIA.

Date.	Horses.	Cattle.	Sheep.	Pigs.	Goats.
1st May, 1788	7	7	29	74	19
10th November, 1791	4	18	57	37	(c)
1st July, 1794	(a) 20	40	576	(c)	522
15th June, 1795	(b) 49	176	832	(c)	985
1st September, 1796	57	227	1,531	1,869	1,427
15th August, 1800	203	1,044	6,124	4,026	2,182

(a) Not including three asses.

(b) Not including seven asses.

(c) Not stated.

The return for the year 1788 includes, in addition to poultry, five rabbits.

2. **Subsequent Statistics.**—The statistical returns of live stock in Australia subsequent to the year 1800 referred mainly to those in possession of the Government, omitting those owned by individuals. Doubtless the growth of population, the expansion of the area settled and the increase of private ownership made it difficult in those early times to secure accurate returns. The figures continued to be somewhat defective up to 1860, but from that year onwards fairly complete information is available for most of the States. At the present time, statistics of live stock are collected annually in all the States principally through the agency of the police, but in the years 1885 to 1888 inclusive, and 1893 to 1895 inclusive, these particulars were not collected in South Australia, and similar gaps occur in the Victorian records for the periods 1895 to 1899 inclusive and 1901 to 1903. In order to obtain totals for Australia for these years the missing numbers have been supplied by interpolation. The results so obtained probably differ but slightly from the actual numbers for the respective years.

3. **Increase in Live Stock.**—Particulars concerning the numbers of each of the principal kinds of live stock in Australia at decennial intervals from 1860 to 1930, and from 1931 onwards in single years are given in the following table, and are shown continuously on the graph on page 570.

During the seventy-seven years covered by the table the live stock of Australia increased considerably, horses, 305 per cent.; cattle, 230 per cent.; sheep, 463 per cent.; and pigs, 213 per cent. The average annual increases which these aggregates represent are as follows:—Horses, 1.84 per cent.; cattle, 1.56 per cent.; sheep, 2.27 per cent.; and pigs, 1.49 per cent.

LIVE STOCK : AUSTRALIA.

31st December.		Horses.	Cattle.	Sheep.	Pigs.
1860	..	431,525	3,957,915	20,135,286	351,096
1870	..	716,772	4,276,326	41,593,612	543,388
1880	..	1,068,774	7,527,142	62,184,252	815,776
1890	..	1,521,598	10,299,816	97,881,221	891,138
1900	..	1,609,654	8,640,225	70,602,995	950,349
1910	..	2,165,866	11,744,714	98,066,046	1,025,850
1920	..	2,415,510	13,499,737	117,957,727	764,406
1930	..	1,792,734	11,720,916	110,568,279	1,071,679
1931	..	1,775,550	12,260,955	110,618,893	1,167,845
1932	..	1,765,437	12,783,137	112,926,931	1,162,407
1933	..	1,763,225	13,512,486	109,921,053	1,046,867
1934	..	1,767,758	14,048,671	113,048,037	1,158,274
1935	..	1,764,430	13,911,659	108,875,801	1,293,964
1936	..	1,762,750	13,491,072	110,242,704	1,202,752
1937	..	1,746,513	13,078,356	113,372,518	1,100,082

4. **Fluctuations.**—The increases referred to, however, have not been continuous, marked fluctuations having taken place during the period, mainly on account of droughts which have from time to time left their impress on the pastoral history of Australia. These were in evidence in 1868, 1877, 1883-4, 1892, 1893, 1895, 1901-2, 1912, 1914, 1918, 1919, 1922-23, 1925-26 and 1927-28.

The years in which the numbers of live stock attained their maxima are as follows :—Horses, 1918, 2,527,149; cattle, 1921, 14,441,309; sheep, 1937, 113,372,518; and pigs, 1935, 1,293,964.

5. **Live Stock in Relation to Population.**—The number of each kind of live stock per head of the population of Australia has varied during the past seventy-seven years in the manner shown in the succeeding table :—

LIVE STOCK PER HEAD OF POPULATION : AUSTRALIA.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Year.	Horses.	Cattle.	Sheep.	Pigs.
1860	0.38	3.45	17.58	0.31	1930	0.28	1.81	17.07	0.17
1870	0.43	2.60	25.24	0.33	1932	0.27	1.95	17.23	0.18
1880	0.48	3.37	27.87	0.37	1933	0.26	2.03	16.52	0.16
1890	0.48	3.17	31.06	0.28	1934	0.27	2.11	16.97	0.17
1900	0.43	2.29	18.75	0.25	1935	0.26	2.06	16.13	0.19
1910	0.49	2.65	22.16	0.23	1936	0.26	1.98	16.20	0.18
1920	0.44	2.49	15.11	0.14	1937	0.26	1.91	16.59	0.16

6. **Live Stock in Relation to Area.**—The numbers of live stock per square mile in the several States and Territories of Australia are given in the following table :—

LIVE STOCK PER SQUARE MILE, 1937.

State or Territory.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales	1.71	9.76	166.64	1.15
Victoria	4.09	21.40	214.65	3.24
Queensland	0.66	8.89	33.55	0.42
South Australia	0.52	0.85	23.43	0.18
Western Australia	0.15	0.76	8.95	0.07
Tasmania	1.20	9.72	96.16	1.64
Northern Territory	0.06	1.70	0.05	0.00
Australian Capital Territory	1.30	8.86	280.50	0.44
Australia	0.59	4.40	38.11	0.37

7. Minor Classes of Live Stock.—Excluding Victoria, where the details are not available, the numbers of minor classes of live stock returned for 1937 were as follows:—Goats, 84,577; camels, 3,004; mules and donkeys, 11,867; and ostriches, 12. Of these, goats were most numerous in Queensland, camels, mules and donkeys in Western Australia, and ostriches in South Australia. In the raising of goats, some attention has been devoted to the angora goat and its product (mohair), and 6,504 angora goats are included in the total of 84,577 goats shown above. Of these, 1,717 were in New South Wales, 1,000 in Queensland, 2,490 in South Australia, 844 in Western Australia, and 451 in Tasmania.

8. Net Exports of Principal Pastoral Products.—The quantities by which the exports of the principal pastoral products of Australia exceeded the imports for the years 1933-34 to 1937-38 were as follows:—

NET EXPORTS OF PASTORAL PRODUCTS : AUSTRALIA.

Product.	Unit of Quantity.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
QUANTITIES.						
Animals (living)—						
Cattle	No.	115	63	76	-665	184
Horses	"	3,249	4,123	3,783	4,674	3,549
Sheep	"	42,914	58,182	64,340	49,896	67,808
Bones	cwt.	8,737	10,207	17,188	16,603	17,895
Glue-pieces and Sinews	"	225	1,251	379	(a)	-1,945
Glycerine	lb.	-288,222	-9,282	-1,193,982	-1,163,777	-1,023,406
Hair	"	-119,775	-559,673	-962,875	-1,152,954	-1,820,795
Hoofs	cwt.	(a)	(a)	(a)	(a)	(a)
Horns	"	(a)	(a)	(a)	(a)	(a)
Meats—						
Frozen Beef (b)	lb.	173,076,002	212,099,109	196,818,221	233,851,658	293,802,831
" Mutton and Lamb	"	171,106,849	196,192,828	178,005,079	208,457,576	201,800,129
" Rabbits and Hares	pair	(a)	(a)	(a)	(a)	(a)
" Other	lb.	12,214,574	15,012,149	15,098,299	18,498,278	20,737,142
Potted, and Extract of	"	(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc.	lb.	4,620,270	5,941,584	6,418,202	9,197,093	12,230,650
Other (excluding Bacon and Ham)	"	466,613	408,396	561,341	637,509	398,085
Sausage Casings	cwt.	19,361	14,543	8,938	12,502	11,973
Skins—						
Hides	No.	(a)	(a)	(a)	(a)	(a)
Sheep	"	(a)	(a)	(a)	(a)	(a)
Rabbit and Hare	cwt.	99,339	84,744	91,443	66,446	43,946
Other (including Undressed Furs)	"	(a)	(a)	(a)	(a)	(a)
Tallow	cwt.	471,591	822,751	445,358	624,521	524,170
Wool—						
Greasy	lb.	728,676,211	782,278,901	742,738,515	755,610,976	708,509,619
Scoured	"	72,670,544	66,408,783	68,053,803	66,594,446	61,314,071
Tops	"	2,923,974	3,104,232	3,144,411	3,746,779	3,746,779
Wool	"	1,911,741	1,303,616	1,647,629	1,219,681	1,219,681
Waste	"	837,184	1,067,598	880,045	621,324	621,324

NOTE.—The minus sign (—) signifies net imports.

(a) Quantity not available.

(b) Including chilled beef

The values of the net exports for the same five years are furnished in the next table, and amount to no less a total than £324,359,242 for the period, or an average of £64,871,848 per annum, of which wool represents 79.02 per cent. Meat, skins and tallow rank next in order of importance.

NET EXPORTS OF PASTORAL PRODUCTS: AUSTRALIA.

Product.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
VALUES. (a)					
	£	£	£	£	£
Animals (living)—					
Cattle	-27,300	-26,491	-30,244	-24,921	-11,131
Horses	35,646	-15,631	3,473	-9,385	-16,276
Sheep	14,440	39,118	36,062	16,605	47,458
Bones	6,058	7,406	9,911	9,804	10,919
Glue-pieces and Sinews	1,128	2,908	4,812	317	-1,618
Glycerine	1,172	4,962	-34,937	-38,748	-41,326
Hair	-58,098	-81,902	-115,077	-120,245	-177,266
Hoofs	5,755	6,092	5,935	(c)	8,560
Horns	14,301	18,083	16,721	19,762	21,811
Meats—					
Frozen Beef (b)	2,020,049	2,559,605	2,481,803	3,035,943	4,367,049
" Mutton and Lamb	3,575,827	4,475,665	4,465,691	5,233,626	5,339,832
" Rabbits and Hares	425,665	443,484	243,023	(c)	172,225
" Other	216,428	266,167	286,475	385,061	406,748
Potted, and Extract of	-29,452	-29,507	-32,925	-38,916	-25,391
Preserved in Tins, etc.	130,996	152,880	191,316	295,172	390,535
Other (excluding Bacon and Ham)	10,881	7,649	9,885	10,407	7,459
Sausage Casings	184,373	106,210	9,206	60,582	125,366
Skins—					
Hides	119,344	147,782	450,577	976,227	929,687
Sheep	2,624,990	1,753,908	2,808,267	3,785,748	3,435,260
Rabbit and Hare	949,819	867,068	1,732,715	1,623,046	1,033,519
Other (including Undressed Furs)	99,772	-32,942	-110,180	165,265	-238,123
Tallow	476,309	922,505	653,353	812,828	611,844
Wool—					
Greasy	49,463,224	34,095,191	45,806,287	54,921,808	40,531,631
Scoured	6,646,248	4,598,459	5,548,336	6,659,952	
Tops	434,472	331,833	404,644	532,121	
Noils	121,445	75,950	123,481	112,969	
Waste	32,220	39,935	48,848	32,780	
Total Values	67,495,712	50,727,387	65,017,998	78,458,168	62,659,977

NOTE.—The minus sign (-) signifies net imports. (a) Australian currency values.
(b) Including chilled beef. (c) Not recorded separately.

9. Value of Pastoral Production.—Particulars of the gross, local and net values of pastoral production for each State are shown in the following table for the year 1937-38 together with the totals for the preceding four years. Fuller details of the source of the information and an explanation of the terms used in this compilation will be found in Chapter XXVIII. "Miscellaneous". It should be noted, however, that maintenance costs have not been computed in all States and depreciation has not been deducted; consequently the net value of production is inflated to the extent of these costs.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, 1937-38.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)
				Seed used and Fodder for Farm Stock.	Value of other materials used in process of Production.	
	£	£	£	£	£	£
New South Wales	38,923,000	3,666,000	35,257,000	986,000	332,000	33,939,000
Victoria	21,147,151	1,603,518	19,543,633	375,000	635,410	18,533,223
Queensland	18,062,000	1,809,000	16,253,000	667,000	222,000	15,364,000
South Australia	5,721,643	594,812	5,126,831	131,819	138,383	4,856,629
Western Australia	4,973,257	519,210	4,454,047	294,961	155,776	4,003,310
Tasmania	1,697,200	130,550	1,566,650	57,830	38,240	1,470,580
Total 1937-38	90,524,251	8,323,090	82,201,161	2,512,610	1,521,809	78,166,742
1936-37	95,429,294	7,952,997	87,476,297	1,737,541	1,317,480	84,421,276
1935-36	83,224,102	7,506,983	75,717,119	1,505,633	983,754	73,227,732
1934-35	64,647,128	6,986,693	57,660,435	1,314,516	587,420	55,758,499
1933-34	84,302,489	7,634,309	76,618,180	1,205,686	545,903	74,806,591

(a) No deduction has been made for depreciation and maintenance.

Although depreciation has not been deducted in arriving at the net value of production this item was compiled in each State for 1937-38 and amounted in the aggregate to £456,000.

10. **Consumption of Meats.**—Particulars of the per capita consumption of meat in Australia are shown in the following table, together with details for certain other countries. The figures have in each case been obtained from official sources, although it is not definitely known that they are all on a similar basis.

The average consumption in Australia is slightly lower than that of New Zealand, but it is greatly in excess of that of Canada, Great Britain and the United States. Compared with Australia the consumption of beef, mutton and lamb in these countries is relatively small, but pork consumption is greatly in excess of the average recorded for both Australia and New Zealand.

The world's supply of beef, mutton and lamb is obtained chiefly from countries situated in the Southern Hemisphere of which Argentine Republic, Australia, New Zealand and Uruguay are the main contributors. Argentine Republic furnishes the largest export of beef and New Zealand that of mutton and lamb, while Australia occupies second place in both commodities. Supplies of pork and pork products are largely drawn from countries in the Northern Hemisphere. It is to be expected, therefore, that the per capita consumption of beef, mutton and lamb will be greatest in the southern producing countries, and pig meat in the northern.

ESTIMATED PER CAPITA CONSUMPTION OF MEAT: AUSTRALIA AND OTHER COUNTRIES.

Description.	Australia, 1937-38.	New Zealand.	Great Britain, 1937.	Canada, 1937.	United States of America, 1936.
	lb.	lb.	lb.	lb.	lb.
Beef and Veal	150.60	125-150	69.00	58.89	65.50
Mutton and Lamb	76.31	90.00	30.00	6.16	6.50
Pork and Bacon and Ham .. .	17.58	21.00	42.00	62.35	54.80
Total All Meats	244.49	..	141.00	127.40	126.80

§ 2. Horses.

1. **Suitability of Australia for Horse-breeding.**—From the earliest times the suitability of the climate and pastures of Australia for the production of serviceable breeds of horses has been fully recognized. By the importation of high-class sires, and the careful selection of breeding mares, these natural advantages have been utilized to the fullest extent in breeding all classes of horses. As a consequence of this combination of advantages, the Australian horse, whether of the heavy draught, medium weight, or light saddle and carriage variety, compares more than favourably with the product of other lands. The Australian horse is highly regarded by the military authorities in India and considerable numbers are purchased each year for remount purposes, although the demand is not so great as in former years.

2. **Distribution throughout Australia.**—The States of New South Wales, Queensland and Victoria together depasture more than 76 per cent. of the total number of horses in Australia. In the following table figures are given for each State and Territory during each of the last five years:—

HORSES : NUMBER.

31st Dec.	N.S.W. (a)	Vic. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T. (a)	Total.
1933	532,028	361,005	448,918	196,789	159,646	30,299	33,590	950	1,763,225
1934	534,853	357,877	447,804	198,765	161,636	30,662	35,094	1,067	1,767,758
1935	542,862	356,106	441,075	197,368	160,181	30,626	35,152	1,060	1,764,430
1936	545,829	357,158	440,568	200,870	155,177	30,971	31,056	1,121	1,762,750
1937	528,625	359,106	445,916	197,334	151,067	31,578	31,662	1,225	1,746,513

(a) 31st March year following.

The number of horses attained its maximum in Australia during 1918, when a total of 2,527,149 was recorded; in the same year the United States of America made its highest recording, and Canada reported likewise in 1921. The number in Australia has declined considerably since 1918 as the result of the development in motor transportation and the increasing use of petrol-driven cultivating and other machinery on farms.

During the past five years, however, the returns have been practically stationary probably due to the halt in the use of power-driven machinery on farms owing to depressed prices.

The number of horses in Australia from 1860 onwards may be ascertained from the graph on page 570.

3. **Proportions in the Several States and Territories.**—The percentages of the numbers of horses in the several States and Territories on the total for Australia for the year 1937 were:—New South Wales, 30.27; Victoria, 20.56; Queensland, 25.53; South Australia, 11.30; Western Australia, 8.65; Tasmania, 1.81; Northern Territory, 1.81; and Australian Capital Territory, 0.07 per cent.

The percentages in the various States have remained practically constant during the last quinquennium.

4. **Relation to Population.**—In proportion to population, horses are much more numerous in the Northern Territory than in any other of the principal divisions of Australia. Queensland is next in order, while the Australian Capital Territory has the smallest number of horses per head. The number per head of population has declined in all the statistical divisions since 1927. For the year 1937 the relative numbers were.—New South Wales, 0.20; Victoria, 0.19; Queensland, 0.45; South Australia, 0.33; Western Australia, 0.33; Tasmania, 0.13; Northern Territory, 5.85; Australian Capital Territory, 0.12; and Australia, 0.26.

5. **Comparison with other Countries.**—The numbers of horses in the leading horse-breeding countries of the world are as follows:—

HORSES : NUMBERS IN PRINCIPAL COUNTRIES.

Country.	Year.	Number of Horses (,000 omitted).	Country.	Year.	Number of Horses (,000 omitted).
Soviet Union ..	1937	16,200	Dutch East Indies	1936	656
U.S. of America ..	1937	11,163	Uruguay ..	1930	623
Argentine Republic	1937	8,527	Sweden ..	1937	620
Brazil ..	1935	6,052	Cuba ..	1934	569
China ..	1935	4,080	Spain ..	1933	568
Poland ..	1937	3,888	Lithuania ..	1937	552
Germany ..	1937	3,430	Denmark ..	1937	552
Canada ..	1937	2,883	Chile ..	1936	528
France ..	1937	2,742	Bulgaria ..	1926	482
India (British and Native)	1935	2,379	Peru ..	1931	432
Rumania ..	1935	2,167	Eire ..	1937	429
Mexico ..	1931	1,888	Haiti ..	1935	400
Manchuria ..	1936	1,840	Latvia ..	1937	392
Australia ..	1937	1,747	Bolivia ..	1931	390
Japan ..	1936	1,432	Siam ..	1936	374
Yugoslavia ..	1936	1,216	Finland ..	1936	369
United Kingdom ..	1935	1,103	Greece ..	1936	359
Colombia ..	1934	972	Netherlands ..	1937	300
Union of South Africa	1930	868	New Zealand ..	1937	278
Hungary ..	1937	798	Belgium ..	1937	265
Italy ..	1937	796	Austria ..	1934	261
Turkey ..	1937	723	Paraguay ..	1935	237
Czechoslovakia ..	1936	704	French Morocco ..	1937	210
			Estonia ..	1937	209

6. **Oversea Trade in Horses.**—(i) Exports. Australia's export trade in horses has fluctuated considerably since the war, and is now far below that of earlier years. For instance, during the period 1901–5 the average number exported was over 18,000, whereas during the last five years the figure was 4,222. The total number of horses exported during the latter period amounted to 21,110, valued at £678,400, equal to an annual average of 4,222 for £135,680. The average export price was £32 2s. 9d. The horses exported to India, where they are largely used for army remounts, numbered 3,420 or 81 per cent. of the average exports for the quinquennium.

(ii) Imports. The number of horses imported into Australia is comparatively small, consisting mainly of valuable stud animals from the United Kingdom and racehorses from New Zealand. The average value per head of the horses imported during the last

five years was £393. The average number imported per annum was, however, only 346, and the average annual value, £136,115. The following table gives the imports, exports and net exports of horses during each of the years from 1933-34 to 1937-38:—

HORSES: IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
1933-34 ..	367	61,627	3,616	97,273	3,249	35,646
1934-35 ..	388	150,703	4,511	135,072	4,123	-15,631
1935-36 ..	352	132,645	4,135	136,118	3,783	3,473
1936-37 ..	352	180,686	5,026	171,301	4,674	-9,385
1937-38 ..	273	154,912	3,822	138,636	3,549	-16,276

(a) Australian currency values.

NOTE.—The minus sign (-) signifies net imports.

§ 3. Cattle.

1. **Purposes for which Raised.**—Cattle-raising is carried out in all the States, the main object in certain districts being the production of stock suitable for slaughtering purposes, and in others the raising of profitable dairy herds. The great impetus which the development of the export trade in Australian butter gave to the dairying industry led to a considerable increase in numbers and an improvement in quality of the dairy herds in Victoria, New South Wales and Southern Queensland in particular, the portion of Australia in the temperate zone being the best adapted to this industry. On the other hand, beef-producing cattle are mainly raised in the tropical districts, i.e., in the northern parts of Queensland, in the Northern Territory, and in the Kimberley district in the north of Western Australia.

2. **Distribution throughout Australia.**—Until 1880, New South Wales was the principal cattle-raising State, but in that year Queensland occupied the leading position, which it has since maintained. There was a very rapid increase in the number of cattle in Australia up to the year 1894, when 12,311,617 head were depastured. From 1895 onwards, however, the effects of droughts and the ravages of tick fever reduced the number to 7,062,742 in 1902. Following the disastrous drought which terminated in the latter year the herds were gradually built up, and, despite recurring droughts, they continued to increase until the maximum number of 14,441,300 cattle was attained in 1921. After that year the numbers dropped continuously to 1929, largely owing to the decline in the overseas demand for frozen beef. They recovered with the expansion of dairying during the depression years, but are again declining, the loss during the last three years amounting to 1,000,000 head.

The numbers of cattle, beef and dairy, in the several States and Territories during each of the last five years are as follows.—

CATTLE: NUMBER.

31st Dec.	N.S.W. (a)	Vic. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Aus. Cap. Ter. (a)	Total.
1933	3,361,771	2,002,235	5,781,170	352,728	885,669	262,256	859,867	6,790	13,512,486
1934	3,482,831	2,085,080	6,052,641	346,479	911,940	261,588	899,679	8,433	14,048,671
1935	3,388,538	2,091,246	6,033,004	335,354	882,761	270,035	900,535	10,186	13,911,659
1936	3,288,169	2,004,959	5,950,572	328,013	792,508	261,597	855,398	9,856	13,491,072
1937	3,019,581	1,880,429	5,959,165	324,163	740,241	254,812	891,640	8,325	13,078,356

(a) 31st March, year following.

Although the proportion is not as high as it has been in the past, Queensland was carrying 45.57 per cent. of the cattle in Australia in 1937.

The largest relative gain since 1930 occurred in the Australian Capital Territory followed by Victoria, South Australia and the Northern Territory; increases were also recorded in the remaining States. The percentage in each of the States and Territories during 1937 was:—New South Wales, 23.09; Victoria, 14.38; Queensland, 45.57; South Australia, 2.48; Western Australia, 5.66; Tasmania, 1.95; Northern Territory, 6.81; Australian Capital Territory, 0.06.

3. Comparison with other Countries.—The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world at the latest available date:—

CATTLE : NUMBERS IN VARIOUS COUNTRIES.

Country.	Year.	Number of Cattle (,000 omitted).	Country.	Year.	Number of Cattle (,000 omitted).
India (British and Native) ..	1935	161,381	Tanganyika Territory	1936	4,837
U.S. of America ..	1937	65,930	French Equatorial and West Africa	1935	4,734
Soviet Union ..	1937	50,900	Cuba ..	1935	4,651
Brazil ..	1935	40,514	Dutch East Indies ..	1936	4,402
Argentine Republic	1937	33,101	New Zealand ..	1937	4,389
China ..	1935	22,647	Rumania ..	1935	4,327
Germany ..	1937	20,469	Yugoslavia ..	1936	4,074
France ..	1937	15,755	Eire ..	1937	3,955
Australia ..	1937	13,078	Spain ..	1933	3,570
Union of South Africa	1936	11,081	Denmark ..	1937	3,084
Poland ..	1937	10,569	Sweden ..	1937	2,962
Mexico ..	1930	10,083	Paraguay ..	1935	2,920
Canada ..	1937	8,841	Rhodesia ..	1936	2,907
United Kingdom ..	1937	8,639	Venezuela ..	1929	2,750
Colombia ..	1935	8,337	Nigeria ..	1936	2,750
Uruguay ..	1932	7,372	Sudan (Anglo-Egyptian)	1937	2,700
Italy ..	1937	7,287	Netherlands ..	1937	2,627
Turkey ..	1937	6,551	Uganda ..	1937	2,509
Siam ..	1937	5,618	Chile ..	1937	2,460
Kenya ..	1935	5,233	Austria ..	1934	2,349
Madagascar ..	1936	4,990	Bolivia ..	1931	2,064
Czechoslovakia ..	1937	4,930			

4. Imports and Exports of Cattle.—The products of the cattle-raising industry figure largely in the export trade of Australia, although the export of live cattle has never been large. The number of cattle imported is also small, consisting, as in the case of horses, mainly of valuable animals for stud purposes. Details are as follows:—

CATTLE : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
1933-34 ..	208	33,983	323	6,683	115	— 27,300
1934-35 ..	161	30,382	224	3,891	63	— 26,491
1935-36 ..	164	33,527	240	3,283	76	— 30,244
1936-37 ..	946	32,276	281	7,355	— 665	— 24,921
1937-38 ..	164	16,913	348	5,782	184	— 11,131

(a) Australian currency values.

NOTE.—The minus sign (—) signifies net imports.

The average value of the cattle imported during the last five years was £89 10s. 5d. per head, while the average value of the cattle exported during the same period was £19 1s. 3d. As previously stated, the imported cattle were required principally for stud purposes.

5. **Cattle Slaughtered.**—The number of cattle slaughtered during each of the years 1933 to 1937 is given hereunder:—

CATTLE (INCLUDING CALVES) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N. Ter.	Aus. Cap. Ter. (a)	Total.
1933	769,776	471,895	719,277	104,488	99,217	34,558	4,363	1,616	2,205,190
1934	974,749	593,248	851,393	140,170	110,124	37,581	4,358	1,791	2,713,414
1935	1,100,472	774,395	866,410	153,686	120,123	39,588	1,531	1,620	3,057,825
1936	1,186,476	904,389	1,040,980	166,468	124,214	46,718	4,814	2,339	3,476,898
1937	1,223,320	971,338	1,266,412	167,451	145,375	48,451	2,456	2,693	3,827,496

(a) For year ended 30th June of year following.

6. **Production and Consumption of Beef.**—The production of beef in Australia during the year 1937–38 was estimated at 1,336,813,000 lb. The requirements of the local market absorbed 1,033,767,000 lb. or approximately 77 per cent., leaving a balance of 303,046,000 lb. or 23 per cent., which was exported as frozen, chilled or canned beef. (See also § 1 par. 10 *ante*.)

7. **Exports of Frozen Beef.**—The export of frozen meat from Australia dates from about the year 1881, and since that year the trade has grown considerably, the quantities and values exported during the past five years being as follows:—1933–34, 173,076,092 lb., £2,020,050; 1934–35, 212,099,109 lb., £2,559,605; 1935–36, 196,823,248 lb., £2,481,896; 1936–37, 233,854,189 lb., £3,036,239; and 1937–38, 293,803,532 lb., £4,367,064. Since 1932–33 chilled beef to the extent mentioned hereunder has been included in the foregoing. (See Table in § 1 par. 8.) The largest purchaser of Australian beef is the United Kingdom, which during the year 1937–38 took £4,027,714 worth, or about 92.2 per cent., of the total shipments. Other countries importing Australian beef were in order of importance Egypt, Malaya (British), Japan, Malta and the Philippine Islands; these countries, together with the United Kingdom, accounted for 98.5 per cent. of the total value of export.

Hitherto owing to the distance from the chief markets of the world it was possible to export meat from Australia in a frozen condition only, which circumstance placed the beef industry in Australia at a serious disadvantage in view of the preference for chilled beef. Investigations conducted by the Council for Scientific and Industrial Research in Australia and the Low Temperature Research Station at Cambridge in England proved, however, that chilled beef could be successfully transported from Australia to the United Kingdom. Trial shipments of 254,000 lb. were made during 1932–33 and 1,515,000 lb. in 1933–34. The success of these shipments indicated the practicability of Australia entering the chilled beef trade and exports increased during subsequent years in the following manner:—1934–35, 21,570,928 lb., £322,239; 1935–36, 23,193,737 lb., £348,047; 1936–37, 41,869,695 lb., £608,175; and 1937–38, 58,690,559 lb., £972,341.

8. **Agreements Regarding Meat at the Ottawa Conference.**—A stimulus to the Australian meat industry was provided by the agreement at the Imperial Economic Conference at Ottawa in August, 1932, under the terms of which the Government of the United Kingdom undertook to regulate importations of foreign meat from 1st January, 1932.

This matter is more specifically referred to in § 2, par. 6 of Chapter XVI. "Trade".

9. Imports of Chilled and Frozen Beef into the United Kingdom.—The following statement shows the quantities and values of chilled and frozen beef imported into the United Kingdom during each of the five years 1934 to 1938 :—

IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES INTO THE UNITED KINGDOM.

Country of Origin.	1934.	1935.	1936.	1937.	1938.
CHILLED—QUANTITY.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Brazil	509,103	508,512	508,653	496,818	517,374
Uruguay	560,997	561,500	545,283	583,689	558,384
Argentine Republic	6,942,113	6,937,141	7,108,768	6,993,075	6,881,441
Other Foreign Countries .. .. .	..	..	..	..	..
British Countries	238,445	478,336	616,981	896,117	1,005,252
Total Chilled	8,250,658	8,485,549	8,779,685	8,969,699	8,962,451
CHILLED—VALUE.					
	£	£	£	£	£
Brazil	798,693	793,741	809,936	909,703	981,920
Uruguay	937,456	907,452	839,141	1,046,813	1,046,274
Argentine Republic	11,695,034	11,529,888	12,001,446	13,449,779	13,772,817
Other Foreign Countries .. .. .	..	..	..	..	..
British Countries	380,422	728,673	900,359	1,651,332	1,870,670
Total Chilled	13,811,605	13,959,754	14,550,882	17,057,627	17,671,681
FROZEN—QUANTITY.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Brazil	5,473	11,245	3,421	7,900	3,879
Uruguay	40,950	41,971	36,090	53,974	72,208
Argentine Republic	97,234	93,933	113,479	111,798	158,048
Other Foreign Countries .. .. .	..	..	..	1	..
Australia	1,322,855	1,104,511	1,055,162	1,325,749	1,191,278
New Zealand	697,146	464,758	277,904	246,999	207,482
Other British Countries	4,866	4,509	4,248	12,413	1,454
Total Frozen	2,168,524	1,720,927	1,490,304	1,758,834	1,634,349
Grand Total (Chilled and Frozen)	10,419,182	10,206,476	10,269,989	10,728,533	10,596,800
FROZEN—VALUE.					
	£	£	£	£	£
Brazil	7,635	17,417	5,230	12,199	6,768
Uruguay	63,800	78,018	62,610	94,434	134,511
Argentine Republic	153,758	159,524	172,338	199,506	288,742
Other Foreign Countries .. .. .	..	..	..	2	..
Australia	1,660,554	1,481,103	1,316,743	1,969,902	1,892,477
New Zealand	824,611	606,849	344,012	363,996	313,337
Other British Countries	5,578	6,134	5,143	18,792	2,054
Total Frozen	2,715,936	2,349,045	1,906,076	2,658,831	2,637,889
Grand Total (Chilled and Frozen)	16,527,541	16,308,799	16,456,958	19,716,458	20,309,570

§ 4. Sheep.

1. **Initiation of the Pastoral Industry.**—Fortunately for Australia, the suitability of its climate and general conditions for the production of a high class of wool were, at an early date in the history of its settlement, surmised and tested by Captain Macarthur, one of the pioneer sheep-breeders of New South Wales. To the energy of this enterprising pastoralist is due in large measure the rapid and extremely satisfactory development of Australia as a producer of fine wool, and, while it would appear that the introduction of the merino sheep into Australia was not due to Macarthur, a great deal of the credit for having successfully established the pastoral industry in Australia must certainly be his.

2. **Distribution throughout Australia.**—With the exception of a short period in the early sixties, when the flocks of Victoria outnumbered those of the mother State, New South Wales has occupied the premier position in sheep-raising, and practically one-half of the sheep of Australia are in this State.

Fluctuations in the number of sheep recorded for each year in Australia from 1860 onwards may be seen from the graph on page 570. Five marked periods of decline depleted the numbers at successive intervals, but these losses were made up rapidly. In every year since 1925 the sheep flocks have exceeded 100 millions, reaching 113,372,518 in 1937, the greatest number ever recorded in Australia. At no previous period have such large numbers been depastured continuously, and the development has taken place notwithstanding an average annual slaughter of approximately nineteen million sheep and lambs for the mutton and lamb trade.

The numbers of sheep in the several States and Territories for each year from 1933 to 1937, together with an estimate of the numbers at the 31st December, 1938, are shown in the table hereunder.

SHEEP : NUMBER.

31st Dec.	New South Wales. (a)	Victoria. (a)	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Aust. Cap. Ter. (a)	Total.
1933	52,104,000	17,195,969	20,072,804	7,941,060	10,322,350	2,035,052	18,076	231,742	109,921,053
1934	53,327,000	16,783,631	21,574,182	7,884,919	11,197,156	2,038,450	23,356	219,343	113,048,037
1935	51,936,000	17,457,291	18,060,093	7,945,745	11,082,972	2,139,900	25,483	228,317	108,875,801
1936	53,166,010	17,663,103	20,011,749	7,905,112	9,007,535	2,233,655	11,162	244,378	110,242,704
1937	51,563,181	18,863,467	22,497,970	8,904,402	8,732,076	2,520,950	26,856	263,616	113,372,518
1938	648,000,000	17,007,352	22,500,000	9,936,586	9,165,000	2,500,000	25,000	245,540	109,347,178

(a) 31st March year following.

(b) Estimate as at 31st December, 1938.

3. **Proportion in the Several States and Territories.**—Apart from the effect of drought the relative numbers of sheep depastured in the different States remain fairly constant. The flocks of Western Australia which were depleted in 1936 by drought declined further in 1937, but the total for Australia increased by 3 million owing to gains in the other States. The forecast for 1938 indicates a decline of $4\frac{1}{2}$ million compared with the previous year, and is a reflection of the severity of the drought experienced in Victoria and in parts of New South Wales.

The percentage distribution in 1937 was:—New South Wales, 45.48; Victoria, 16.64; Queensland, 19.84; South Australia, 7.85; Western Australia, 7.71; Tasmania, 2.23; Northern Territory, 0.02; Australian Capital Territory, 0.23 per cent.

4. **Comparison with other Countries.**—As regards the size of its flocks and the quantity and quality of wool produced Australia has long occupied a leading position amongst the sheep-raising countries of the world. The following figures taken mainly from the *Year Book of the International Institute of Agriculture* represent the latest returns available in regard to the number of sheep in the principal wool-producing countries. The leading position is held by Australia, with 113 million, followed by the Soviet Union with 67 million, the United States of America with 53 million and India (British and Native), 43 million. On account of drought the number of sheep in the Union of South Africa dropped from 46 million in 1933 to 36 million in 1935, but rose to 40 million in 1936. In Argentine Republic sheep flocks also declined from 44.4

million in 1930 to 38 million in 1935, and likewise increased to 40 million in 1936. During the years 1925 to 1929 the sheep flocks of the Soviet Union exceeded those of Australia. The maximum number recorded was 130 million in 1928, but after that year a remarkable decline took place and the number depastured in 1934 was only 46,848,000. It was proposed under the second Five Year Plan to increase the number to 85 million by 1937, but the total grew to only 66,600,000 inclusive of goats. Russian sheep are almost entirely coarse-wooled and the poor quality wool does not ordinarily figure in world trade. Efforts are being made, however, by the Soviet Government to improve the quality of the wool and the quantity shorn per fleece by cross-breeding with merinos. In 1928-29 and 1929-30, 2,031 and 5,006 sheep, valued at £6,017 and £13,606 respectively, were exported from Australia to the Soviet Union for breeding purposes. As pointed out in par. 5 following, however, the export of stud sheep is subject to control. Production of wool in the Soviet Union apparently amounted to about 259 million lb. only during the year 1937. This represents an average weight of fleece shorn of about 3 lb., which is considerably less than half of that obtained in Australia:—

SHEEP : NUMBERS IN VARIOUS COUNTRIES.

Country.	Year.	No. of Sheep (,000 omitted).	Country.	Year.	No. of Sheep (,000 omitted).
Australia ..	1937	113,373	Italy ..	1937	9,095
Soviet Union (a) ..	1937	66,600	Bulgaria ..	1926	8,740
United States of America ..	1937	52,918	Greece ..	1936	8,440
Argentine Republic ..	1937	43,790	Algeria ..	1936	6,268
India (British and Native) ..	1935	42,624	Chile ..	1936	5,752
Union of South Africa ..	1937	43,100	Bolivia ..	1931	5,232
New Zealand ..	1937	31,306	Iraq ..	1937	4,976
United Kingdom ..	1937	25,541	Germany ..	1937	4,684
China ..	1935	20,957	Mexico ..	1930	3,674
Spain ..	1933	19,093	Tunis ..	1936	3,532
Turkey ..	1937	16,449	Canada ..	1937	3,340
Iran ..	1934	16,019	Portugal ..	1934	3,274
Uruguay ..	1932	15,406	Kenya ..	1930	3,243
Brazil ..	1935	12,645	Poland ..	1937	3,182
Rumania ..	1935	11,838	Eire ..	1937	3,000
Peru ..	1929	11,209	Manchuria ..	1936	3,000
French Morocco ..	1937	10,373	Somaliland ..	1936	2,500
France ..	1937	9,994	Sudan (Anglo-Egyptian) ..	1937	2,500
Yugoslavia ..	1936	9,568	Syria and Lebanon ..	1937	2,274
French Equatorial and West Africa ..	1935	9,488	Nigeria ..	1936	1,993
			Tanganyika Territory ..	1936	1,862

(a) Including goats.

5. Oversea Imports and Exports of Sheep.—As in the case of cattle, the oversea exports of live sheep from Australia are of comparatively little importance. During the last five years the principal consignments of ordinary sheep have been made to Malaya (British) from the State of Western Australia. The purchases by buyers from New Zealand, South Africa, Soviet Union and Japan at the Australian Stud Sheep Sales in previous years opened up a regular export trade with these countries in stud sheep. On the 27th November, 1929, however, the export of stud sheep was prohibited, except with the approval of the Minister for Trade and Customs. Consequently exports declined during 1931-32 and amounted to 297 sheep only, valued at £1,702, as compared with 6,389 valued at £32,933 in 1929-30. In 1937-38 exports of stud sheep amounted to 10,461 valued at £41,054, of which 9,405 sheep valued at £28,239 were shipped to Japan.

The ordinary flock sheep exported from Australia are, for the most part, consigned to Malaya and the Pacific Islands. The following table shows the imports and exports of stud and flock sheep for the years 1933-34 to 1937-38 :—

SHEEP : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
1933-34 ..	1,522	12,906	44,436	27,346	42,914	14,440
1934-35 ..	1,377	15,233	59,559	45,351	58,182	30,118
1935-36 ..	2,167	18,917	66,507	54,979	64,340	36,062
1936-37 ..	5,903	46,371	55,799	62,976	49,896	16,605
1937-38 ..	4,241	41,712	72,049	89,170	67,808	47,458

(a) Australian currency values.

6. **Sheep Slaughtered.**—The numbers of sheep slaughtered in the several States during each of the years from 1933 to 1937 were as follows :—

SHEEP (INCLUDING LAMBS) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Nor. Ter.	Aus. Cap. Ter.(a)	Total.
1933..	7,180,612	7,773,289	1,299,285	1,495,127	1,092,222	366,156	900	25,367	19,232,958
1934..	6,829,477	7,646,070	1,275,936	1,591,054	1,079,516	349,044	..	22,207	18,793,304
1935..	6,054,749	7,691,488	972,458	1,642,550	1,160,663	351,684	..	21,948	17,895,540
1936..	6,428,027	7,914,433	1,024,519	1,697,498	1,106,107	341,586	..	24,230	18,536,400
1937..	6,875,496	8,128,544	1,120,729	1,588,507	1,227,843	372,547	..	25,375	19,339,041

(a) Year ended 30th June, year following.

7. **Production and Consumption of Mutton and Lamb.**—The production of mutton and lamb during the year 1937-38 amounted to 728,730,000 lb., of which 523,848,000 lb. or 72 per cent. was consumed locally, leaving a balance of 204,882,000 lb. or 28 per cent. for exportation. (See also § 1 par. 10.)

8. **Exports of Frozen Mutton and Lamb.**—The export trade of mutton and lamb preserved by cold process expanded rapidly until 1913 when 205 million lb. were dispatched. Progress was interrupted during the war years and exports declined thereafter to a very low figure. The high wool prices which prevailed during the post war years were no doubt a factor in causing this decline. In 1919-20 and in 1922-23 large shipments were made aggregating 247 million lb. and 168 million lb. respectively, but these were isolated cases. Prior to 1923-24 the shipments consisted mainly of frozen mutton, but from that year onwards lamb supplanted mutton and there has been an almost uninterrupted increase in the quantity of lamb shipped overseas each year.

The quantity and value of the shipments of mutton and lamb during each of the last five years were as follows :—Lamb, 1933-34, 124,755,938 lb., £2,893,138 ; 1934-35, 135,879,651 lb., £3,515,230 ; 1935-36, 151,377,838 lb., £4,020,163 ; 1936-37, 162,885,887 lb., £4,466,801 ; 1937-38, 159,556,221 lb., £4,645,624. Mutton, 1933-34, 46,351,359 lb., £682,705 ; 1934-35, 60,314,351 lb., £960,479 ; 1935-36, 26,629,544 lb., £445,589 ; 1936-37, 45,572,359 lb., £766,851 ; 1937-38, 42,246,245 lb., £694,357.

As with beef, the principal customer in this trade is the United Kingdom, which absorbed 97 per cent. of the total quantity exported from Australia during the year 1937-38.

9. **Resolutions at Ottawa Conference.**—Reference has already been made to the agreement reached at the Imperial Economic Conference at Ottawa regarding the regulation of imports of meat into the United Kingdom. (See § 3 par. 8 ante.)

10. Imports of Frozen Mutton and Lamb into the United Kingdom.—The quantities and values of frozen mutton and lamb imported into the United Kingdom from various countries for the five years ended 1938 are given in the following table:—

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM.

Country of Origin.	1934.	1935.	1936.	1937.	1938.
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MUTTON—QUANTITY.

	cwt.	cwt.	cwt.	cwt.	cwt.
Chile	82,258	89,326	95,759	94,201	96,594
Uruguay	13,690	6,232	8,240	16,553	23,713
Argentine Republic	137,748	150,423	121,908	110,907	98,897
Other Foreign Countries	2,895	2,870	2,063	4,871	1,424
Total, Foreign	236,591	248,851	227,970	226,532	220,628
Australia	461,259	424,050	227,097	405,929	367,078
New Zealand	898,965	1,041,563	888,864	862,182	1,014,873
Other British Countries .. .. .	..	..	350	4,582	2,605
Total, British	1,360,224	1,465,613	1,116,311	1,272,693	1,384,556
Grand Total	1,596,815	1,714,464	1,344,281	1,499,225	1,605,184

MUTTON—VALUE.

	£	£	£	£	£
Chile	163,574	129,856	177,128	163,122	166,009
Uruguay	23,260	10,635	13,945	28,128	43,859
Argentine Republic	261,398	223,070	219,406	202,384	192,276
Other Foreign Countries	4,744	3,984	3,204	8,762	2,500
Total, Foreign	452,976	367,545	413,683	402,396	404,644
Australia	845,228	693,878	421,720	727,408	622,939
New Zealand	1,716,799	1,754,720	1,616,742	1,638,107	1,779,394
Other British Countries .. .. .	..	..	613	8,482	4,194
Total, British	2,562,027	2,448,598	2,039,075	2,373,997	2,406,527
Grand Total	3,015,003	2,816,143	2,452,758	2,776,393	2,811,171

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM—
continued.

Country of Origin.	1934.	1935.	1936.	1937.	1938.
LAMB—QUANTITY.					
	cwt.	cwt.	cwt.	cwt.	cwt.
Chile	124,067	118,554	111,209	115,682	99,199
Uruguay	124,702	130,176	118,055	148,876	147,633
Argentine Republic	783,868	754,827	777,996	778,943	794,736
Other Foreign Countries	27,641	28,561	37,230	38,006	42,949
Total, Foreign	1,060,278	1,032,118	1,044,490	1,081,507	1,084,517
Australia	1,165,848	1,360,158	1,268,909	1,476,615	1,532,034
New Zealand	2,655,611	2,591,399	2,641,494	2,740,202	2,660,949
Other British Countries	242	18	558	4,174	7,312
Total, British	3,821,701	3,951,575	3,910,961	4,220,991	4,200,295
Grand Total	4,881,979	4,983,693	4,955,451	5,302,498	5,284,812
LAMB—VALUE.					
	£	£	£	£	£
Chile	365,115	271,858	316,386	312,972	287,386
Uruguay	311,953	327,257	316,870	419,469	411,699
Argentine Republic	2,051,554	1,898,688	2,091,387	2,179,470	2,245,353
Other Foreign Countries	67,008	77,642	101,194	108,090	113,258
Total, Foreign	2,795,630	2,575,445	2,825,837	3,020,001	3,057,696
Australia	3,320,964	3,934,693	3,698,058	4,349,418	4,572,915
New Zealand	8,414,183	8,063,996	8,264,409	8,753,793	8,744,555
Other British Countries	674	51	1,529	11,704	17,831
Total, British	11,735,821	11,998,740	11,963,996	13,114,915	13,335,301
Grand Total	14,531,451	14,574,185	14,789,833	16,134,916	16,392,997

§ 5. Wool.

1. **General.**—Australia is the leading wool-growing country in the world. With less than one-sixth of the world's sheep Australia produces one-quarter of the world's supply. Moreover, half of the world's production of fine quality merino wool is produced in Australia. The bulk of the production is exported, but with the greater activity of Australian woollen mills the quantity used locally is increasing; the amount so used represented 7 per cent of the total production in 1937–38.

The important position held by Australia among the principal sheep and wool producing countries of the world is more clearly shown in the following table :—

SHEEP AND WOOL : PRINCIPAL PRODUCING COUNTRIES.

Country.	Year.	No. of Sheep (in millions).	Wool Production (in millions of lb., greasy).
Australia	1937-38	113.4	1,023
United States of America	1937-38	52.9	455
Argentine Republic.. .. .	1937-38	43.8	380
New Zealand	1937-38	31.3	297
Soviet Union	1937-38	66.6	259
Union of South Africa	1937-38	43.1	246

2. **Greasy and Scoured Wool.**—Whether the weight of the wool clip should be stated as “in the grease” or as “scoured or washed” is a matter which seriously affects comparisons between the clips of different seasons and of different countries. The quantity of extraneous matter and grease in a fleece differs, not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, while it varies also with the breed and the condition of the sheep. There is, moreover, no clearly defined standard in regard to the cleanliness of wool described as scoured or washed. Consequently, any comparisons of the weight of the Australian clip for different years or seasons whether on a greasy or a scoured basis cannot be regarded as exactly similar. After extensive inquiry the Bureau estimates the average clean weight at 46.15 per cent. of the greasy weight ; or, in other words, 1 lb. of clean wool is equivalent to 2½ lb. of greasy.

The quantity of scoured or washed Australian wool exported during the last five years was approximately 16 per cent. of the total wool exports regarded as “greasy”.

3. **Production.**—(i) *Quantity.* The bulk of the Australian wool production is shorn from live sheep. Approximately 6 per cent. is obtained by fellmongering and about 5 per cent. is on skins exported. Statistics of wool production are compiled from data received from growers, fellmongers, etc. The following table gives the production for each of the last five seasons, but the figures shown for 1938-39 have been estimated and therefore are subject to revision. Particulars of the gross value of wool produced in Australia are also shown ; these values are based upon the average price of greasy wool realized at auction in the principal markets of the Commonwealth :—

WOOL : TOTAL PRODUCTION.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.(c)
	lb.	lb.	lb.	lb.	lb.
New South Wales (a)	496,876,887	474,359,226	505,375,065	496,824,150	437,700,000
Victoria	156,761,979	163,397,896	163,048,510	178,890,131	170,500,000
Queensland	174,088,413	142,793,328	153,766,368	174,751,280	(d)
South Australia	77,790,933	81,709,440	76,604,296	86,606,388	97,000,000
Western Australia	95,836,161	92,458,673	69,935,210	70,684,855	(d)
Tasmania	14,035,000	16,300,000	14,067,000	15,598,500	15,000,000
Northern Territory (b)	35,000	35,000	35,000	35,000	35,000
Total—Quantity	1,015,424,373	971,053,563	982,831,449	1,023,390,304	985,000,000
	£	£	£	£	£
Value ..	40,446,000	55,186,000	63,585,782	54,131,618	43,700,000

(a) Including Australian Capital Territory.
Subject to revision.

(d) Not yet available.

(b) Approximate figures.

(c) Preliminary.

(ii) *Estimate for 1939-40.* No official information is yet available for the season ending June, 1940. In many parts the wool is not yet shorn. At a conference of the National Council of Wool Selling Brokers and the Australian Wool Growers Council, it was stated that the production was expected to approximate 3,371,000 bales. Should this estimate be realized the total production of wool in Australia for 1939-40 would approximate 1,050,000,000 lb.

4. *Care Needed in Comparing Clips.*—In comparing successive clips allowance must be made for the circumstance that, owing to climatic or other conditions, the time of shearing may be so far delayed in some areas that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

5. *World's Wool Production.*—The following table gives details of the world's wool production and shows the importance of Australia as a wool-producing country. Out of a total production of 3,877 million lb. in 1937-38, Australia produced 1,023 million lb., or 26.3 per cent. It is also interesting to note that the share of the British Empire in world production during the same year was estimated at 1,823 million lb., or 47.0 per cent.

WOOL: WORLD'S PRODUCTION.

(In millions of lb., "greasy" basis.)

Countries.	Average Annual Pre-war Production. (a)	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Australia	741.4	995.9	1,015.4	971.1	982.8	1,023.4
United States ..	314.1	459.8	451.0	452.7	448.6	454.6
Argentine Republic ..	358.7	387.0	370.0	359.0	379.0	380.0
New Zealand ..	198.5	290.0	265.0	304.0	303.5	297.0
Soviet Union (Russia)	380.0	121.0	128.0	158.4	202.1	259.0
Union of South Africa	165.9	283.0	219.0	250.0	277.0	246.0
China (b)	100.0	110.0	110.0	110.0	110.0	110.0
Uruguay	157.0	93.0	112.0	110.0	114.0	110.0
United Kingdom ..	134.0	120.0	115.0	109.0	108.0	107.0
India (b)	100.0	100.0	100.0	100.0	100.0	100.0
Turkey	118.0	36.6	35.4	41.1	48.9	64.5
Spain	72.0	78.0	73.0	66.0	66.0	60.0
France	80.7	53.6	52.8	52.7	53.9	55.1
Morocco (French) ..	14.9	34.0	35.6	40.8	40.7	47.8
Rumania	13.2	43.3	43.0	42.9	42.9	45.0
Germany	52.0	31.3	32.2	36.3	40.1	43.3
Brazil	35.0	35.3	36.4	37.5	37.5	43.2
Chile	17.4	34.6	37.0	35.2	35.7	36.0
Iran	12.1	36.5	40.0	37.5	37.5	35.3
Yugoslavia	25.4	30.1	31.0	32.2	33.6	31.5
Italy	55.0	41.0	36.0	30.0	30.0	30.0
Bulgaria	23.7	20.9	21.3	21.1	20.4	20.7
Canada	11.2	19.3	19.5	19.4	18.9	19.0
Algeria	35.2	14.5	15.2	16.1	17.6	17.2
Eire .. ..	..	19.6	17.0	16.5	17.6	16.4
Basutoland .. ..	..	9.9	5.1	7.3	6.0	4.7
Falkland Islands ..	..	4.0	4.0	4.2	4.0	4.6
Other Countries ..	71.2	193.9	201.4	214.0	222.3	215.9
Total	3,286.6	3,696.1	3,621.3	3,675.0	3,798.6	3,877.2

(a) Average for years 1909 to 1913 inclusive.

(b) Estimated.

6. **Consumption of Locally Processed Wool.**—It is impossible to obtain particulars of the total consumption of wool in Australia, as considerable quantities of manufactures of wool are imported. It is possible, however, to secure with reasonable accuracy the quantities of wool used in Australian factories and mills to produce woollen cloth and other woollen goods, such as hosiery and knitted ware. Some difficulties arise in the aggregation of returns from individual mills concerned only with one process in the manufacture of the completed article and whose output constitutes the raw material of other mills. It is believed, however, that the risk of duplication has now been reduced to a minimum and that the figures stated below can be accepted as substantially accurate. Reference is made to the woollen mills established in Australia in Chapter XXIII. "Manufacturing Industry".

In the following table particulars are given of the quantity of wool processed in Australian factories during each of the past ten years.

For reasons mentioned in § 5 par. 2 above, the factor used for converting wool in terms of scoured, tops, yarn, etc., to a greasy basis must be regarded as approximate.

CONSUMPTION OF LOCALLY PROCESSED WOOL IN AUSTRALIA.

(In terms of greasy.)

Year.		Quantity.	Year.		Quantity.
		lb.			lb.
1928-29	.. ..	44,481,718	1933-34	.. ..	60,881,494
1929-30	.. ..	49,606,200	1934-35	.. ..	55,753,478
1930-31	.. ..	35,200,996	1935-36	.. ..	70,205,840
1931-32	.. ..	50,159,704	1936-37	.. ..	71,579,920
1932-33	.. ..	65,343,392	1937-38	.. ..	68,377,043

7. **Exports of Wool.**—(i) *Greasy—Quantities.* Of the total weight of greasy wool shipped overseas during the last five years 35 per cent. was sent to the United Kingdom, as compared with 38 per cent. dispatched in pre-war years. The other leading consignees since 1933-34 were Japan 20 per cent.; Belgium 14 per cent.; France 11 per cent.; and Germany 7 per cent. The balance of 13 per cent. was distributed among all other countries. The following table shows the quantities of "greasy" wool exported, and the principal countries of recorded destination:—

EXPORTS OF WOOL IN THE GREASE: AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom	212,004,088	209,887,487	292,725,835	244,568,575	277,210,184	294,411,888
Other British Countries	(a)	1,162,155	1,252,059	2,477,886	2,396,043	7,931,028
Belgium	55,143,706	62,649,202	124,169,015	102,501,997	120,959,807	87,862,566
France	149,835,946	65,017,851	75,760,166	64,602,287	76,063,696	123,835,665
Germany	106,344,966	113,529,765	27,220,923	27,116,447	41,451,486	53,956,616
Italy	4,381,197	58,549,566	17,694,730	4,502,392	35,775,546	29,577,669
Japan	7,262,683	170,444,059	196,125,519	234,518,700	84,058,539	69,162,890
Netherlands	(a)	3,270,646	16,450,416	15,296,631	8,798,135	7,084,535
Poland	(a)	9,051,704	12,058,269	12,679,782	12,296,714	17,988,525
United States of America	15,486,447	5,359,242	5,448,868	24,810,766	72,758,475	4,193,670
Other Foreign Countries	6,382,577	6,902,103	16,878,821	18,722,139	27,404,760	31,821,901
Total	556,841,340	735,823,780	785,784,621	751,887,602	759,174,375	721,826,953

(a) Included with Other Foreign Countries.

(ii) *Scoured and Washed including Tops, Noils and Waste—Quantities.* The exports of "scoured and washed" wool including tops, noils and waste during the period shown were as follows:—

EXPORTS OF WOOL—SCOURED AND WASHED, INCLUDING TOPS, NOILS AND WASTE : AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13. (a)	1933-34.	1934-35.	1935-36	1936-37.	1937-38.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	32,032,577	34,245,804	36,713,150	33,670,787	34,770,657	30,951,063
Canada ..	(b)	3,483,351	3,270,402	4,226,701	5,227,856	4,686,416
Other British Countries ..	(c)	646,731	862,051	1,000,077	1,363,204	1,650,938
Belgium ..	7,528,058	14,710,178	10,733,900	10,826,486	8,701,786	5,115,051
France ..	16,068,910	5,863,131	9,843,830	10,835,868	7,668,430	8,238,396
Germany ..	12,310,967	11,213,776	2,879,686	3,927,532	3,561,744	2,772,248
Italy ..	265,442	2,638,595	1,073,491	213,531	593,359	310,170
Japan ..	1,888,161	2,863,131	1,027,420	1,814,949	474,775	695,954
Poland ..	(b)	1,526,197	1,187,583	2,003,013	812,765	555,721
Other Foreign Countries	252,995	1,515,761	4,392,352	5,378,311	9,134,695	6,687,941
Total ..	70,347,110	78,706,655	71,983,865	73,897,255	72,309,271	61,664,498

(a) Including "tops."

(b) Included with Other Foreign Countries.

(iii) *Total Value of Exports.* The total value of the wool exported from Australia during the five years ending 1937-38 averaged 42 per cent. of the value of the total exports of merchandise of local origin, but during 1937-38 the proportion was only 33 per cent. The total value during the periods under review together with the principal countries to which wool was exported is shown in the next table:—

VALUE OF WOOL EXPORTS : AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
United Kingdom ..	10,608,967	17,762,789	16,007,777	18,379,416	23,025,184	20,247,877
Other British Countries ..	(a)	526,133	409,286	657,572	948,495	834,619
Belgium ..	2,546,915	6,864,323	5,433,157	6,184,099	8,195,565	4,782,798
France ..	6,494,832	4,691,794	3,558,066	4,413,359	5,441,316	7,111,406
Germany ..	5,131,282	8,698,904	1,511,094	2,052,436	3,578,244	3,877,114
Italy ..	202,434	4,237,212	807,775	273,549	2,594,586	1,846,631
Japan ..	516,528	12,127,621	8,680,119	14,594,465	7,513,956	4,042,266
Netherlands ..	(a)	303,844	825,971	1,068,533	707,361	466,199
Poland ..	(a)	784,609	617,064	968,108	918,665	1,056,739
United States of America	795,328	485,840	352,466	2,102,066	7,039,771	391,356
Other Foreign Countries	296,356	642,457	1,063,165	1,661,958	2,541,424	2,326,557
Total ..	26,592,642	57,125,526	39,265,940	52,345,561	62,504,567	46,983,561

(a) Included with Other Foreign Countries.

8. *Exports and Local Sales of Wool.*—Approximately 90 per cent. of Australian wool is now disposed of locally. Buyers from the United Kingdom, France, Belgium, Germany and other European countries, and from America, Japan, China and India attend the sales conducted in Sydney, Albury, Melbourne, Geelong, Ballarat, Brisbane, Adelaide, Perth, Hobart and Launceston. Particulars regarding exports and local sales, as well as quantities and proportions of the various descriptions of wool marketed in each State, will be found in the *Production Bulletin* issued by this Bureau.

9. *Value.*—Wool is the chief factor in the pastoral wealth of Australia, and the nation's prosperity is largely dependent upon the satisfactory sale of the clip. The heavy decline in the price of wool which commenced in 1929-30 continued during the succeeding three years. In 1933-34, prices rose in a remarkable manner, averaging 15.84d. per lb., compared with 8.72d. per lb. for the previous year, an increase of 81.6 per cent. A decline in 1934-35 was succeeded by a period of rising prices in the two years

following, but in 1937-38 and in 1938-39 values again receded. The effect of fluctuating wool values upon the national income is reflected in the following figures. Based on the average auction room price of greasy wool the output for the season 1937-38 was valued at £54,132,000 compared with £63,586,000 in 1936-37. These values may be compared with £81,430,000 in 1924-25 when the record price was realized and £34,804,000 in the depression year 1930-31. On the average of the five seasons 1933-34 to 1937-38 the annual clip was valued at £55,277,000.

The value of the clip for 1938-39 is estimated at £43,700,000, but as complete details in regard to production are not yet available this figure is subject to revision.

The following table gives the average auction room price in Australia of greasy wool as compiled by the National Council of Wool-selling Brokers. This price represents the average price realized for all greasy wool of whatever type or quality marketed during the years indicated.

WOOL : AVERAGE MARKET PRICE PER LB.

Description.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	<i>d.</i>	d.	d.	d.	d.	d.	d.
Greasy (a)	8.72	15.84	9.75	14.01	16.48	12.51	10.39

(a) National Council of Wool-selling Brokers.

Measured in terms of Australian, sterling and gold currencies the approximate values of greasy wool per lb. since 1929-30 were as follows :—

GREASY WOOL : AVERAGE VALUES PER LB.

Year.	Australian Currency.	Sterling.	Gold Prices.
	<i>d.</i>	<i>d.</i>	<i>d.</i>
1929-30	10.29	10.29	10.29
1930-31	8.36	6.96	6.96
1931-32	8.46	6.69	5.10
1932-33	8.72	6.98	4.84
1933-34	15.84	12.65	8.19
1934-35	9.75	7.78	4.68
1935-36	14.01	11.19	6.79
1936-37	16.48	13.16	8.03
1937-38	12.51	9.99	6.15
1938-39	10.39	8.30	4.84

The average values shown in sterling and gold currencies have been calculated by converting the average prices shown in Australian currency on the basis of the average rate of exchange between the months of September and June in each year. Though not exact these results will suffice for general purposes.

10. Wool Realization Scheme.—The affairs of the British-Australian Wool Realization Association have been liquidated and consequently references to its operations which appeared in previous Official Year Books are not repeated in this issue.

11. United Kingdom Importation of Wool.—The appended statement of the quantities and values of wool imported into the United Kingdom during the year 1937 from the principal wool-producing countries shows the important position which Australia occupies in the supply of wool to the Mother Country :—

WOOL (a) : IMPORTS INTO UNITED KINGDOM, 1937.

Country of Origin.	Quantity.	Value.	Country.	Quantity.	Value.
	lb.	£		lb.	£
Australia ..	300,963,700	20,397,001	Other British Possessions	2,898,800	154,168
New Zealand ..	180,526,400	12,033,163	Peru ..	882,300	66,167
Union of South Africa ..	97,672,900	5,306,492	Belgium ..	3,471,900	297,985
Argentine Republic ..	74,307,500	4,044,705	Falkland Islands	2,174,200	115,367
India ..	43,149,000	2,036,212	Germany ..	179,200	11,030
France ..	28,422,300	2,196,699	United States of America ..	1,043,400	71,755
Uruguay ..	19,433,700	1,259,751	Other Countries	12,575,700	683,595
Chile ..	5,705,300	377,802			
Eire ..	9,580,200	602,512	Total ..	782,986,500	19,654,404

(a) Greasy and Scoured.

Of the importations of wool into the United Kingdom, Australian wool represented 38 per cent. of quantity and 41 per cent. of value, and New Zealand 23 per cent. of quantity and 24 per cent. of value. Altogether, 636,965,200 lb., valued at £40,644,915, were received from British Possessions, these figures being equivalent to 81 per cent. of the total weight and 82 per cent. of the total value of all wool imported.

Preliminary figures show that during 1938, 882.2 million lb. of wool were imported into the United Kingdom; the chief sources of supply were Australia 366.3 million lb., New Zealand 198.0 million lb., Union of South Africa 106.7 million lb., and Argentine Republic 79.4 million lb., a total of 750.4 million lb. or 85 per cent.

12. Principal Importing Countries and Sources of Supply.—The following table furnishes in respect of the principal importing Countries details of their production and imports of wool for the year 1937, together with the chief sources of supply. The quantities imported refer to the actual weight of wool without distinguishing between greasy and scoured. They are also exclusive of any wool imported on skins.

WOOL : PRINCIPAL IMPORTING COUNTRIES AND SOURCES OF SUPPLY.

(In millions of lb.)

Importing Country.	Production(a) of Importing Country.	Quantity imported from—					Total Imports.
		Australia.	Union of South Africa.	Argentine Republic.	New Zealand.	Other Countries.	
United Kingdom ..	107.0	274	41	60	150	259	784
Belgium ..	0.7	103	23	21	10	99	256
Czechoslovakia ..	2.1	11	1	4	1	16	33
France ..	55.1	106	34	34	15	148	337
Germany ..	43.3	51	66	25	10	75	227
Italy ..	30.0	44	12	25	0	12	93
Japan ..	..	102	51	11	38	56	258
Poland ..	12.1	12	2	6	3	19	42
United States of America ..	454.6	36	3	60	33	190	322
Total ..	..	739	233	246	260	874	2,352

(a) As in the grease.

In connexion with the total imports shown in the above table, it should be noted that a considerable transit trade exists between continental countries. It must not be assumed, therefore, that the whole of the imports recorded by these countries are retained for their own consumption. The countries chiefly concerned with this transit trade are United Kingdom, Belgium, and France. The quantities re-exported during 1937 were:—United Kingdom, 232 million lb., or 30 per cent., of the total imports; Belgium, 113 million lb., or 44 per cent.; and France, 69 million lb., or 20 per cent.

13. **Inquiry into Wool Industry.**—A Committee was appointed by the Commonwealth Government on the 15th August, 1932, to inquire into and report on the condition of the Australian Wool Industry. The report of the Committee was presented on the 24th November, 1932. The inquiry covered costs of production, prices, etc., and recommendations were made for the rehabilitation of the industry. For fuller details see Official Year Book No. 29, page 644.

§ 6. Trade in Hides and Skins.

1. **Extent of Trade.**—In addition to the hides and skins treated locally, considerable quantities are exported; the value of cattle and horse hides, and sheep and other skins sent overseas during the five years 1933-34 to 1937-38 amounted to £27,048,101, or an average of £5,409,620 per annum.

2. **Sheepskins with Wool.**—The exports of sheepskins with wool aggregating £14,223,206 during the five years constitute the largest item in the values referred to in the preceding paragraph. During the year 1937-38 France was the largest purchaser, taking 64 per cent. of the total consignments, while the United Kingdom ranked next with 20 per cent., followed by United States, with 6 per cent. The exports of sheepskins with wool during each of the years from 1933-34 to 1937-38 were as follows:—

EXPORTS OF SHEEPSKINS WITH WOOL : AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number ..	11,478,513	10,765,364	11,811,480	12,130,265	12,713,364
Value .. £	2,627,389	1,772,595	2,805,083	3,636,659	3,381,480

3. **Sheepskins without Wool.**—Sheepskins without wool are exported chiefly to the United States of America, this country taking 50 per cent. of the shipments in 1937-38. Quantities and values for the last five years are given in the table hereunder:—

EXPORTS OF SHEEPSKINS WITHOUT WOOL : AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number ..	177,814	247,050	255,636	1,543,713	916,157
Value .. £	13,384	11,768	19,370	169,250	79,461

4. **Hides.**—(i) *Exports.* The export trade in cattle hides, which fell away during the depression years, has again become important. The consignments in 1937-38 were distributed as follows:—United Kingdom, £527,036; Japan, £302,227; Germany, £37,495; Finland, £60,268; Italy, £6,158; Canada, £17,567; Other Countries, £141,297.

The exports during the last five years are given in the table below:—

EXPORTS OF CATTLE HIDES : AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number ..	482,339	690,578	807,604	1,034,937	1,063,896
Value .. £	369,927	417,071	613,717	940,024	1,092,048

Calfskins exported during the years 1933-34 to 1937-38 numbered 2,881,992 valued at £711,309 and were shipped mainly to the United States of America, the value of the skins taken by that country averaging 58 per cent. of the total exports during the year 1937-38. The annual export of horse hides is very small, and for the past five years averaged only 6,926 hides valued at £4,234.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the average annual value during the last five years amounting to £307,727. New Zealand is the chief source of supply, and small quantities are obtained also from the Pacific Islands, France and Italy. The quantities and values of cattle hides, including calfskins, imported into Australia during the years 1933-34 to 1937-38 were as follows :—

IMPORTS OF CATTLE HIDES : AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36	1936-37.	1937-38.
Quantity cwt.	64,447	90,703	64,902	47,705	69,955
Value (a) £	288,125	336,872	301,217	248,848	363,573

(a) Australian currency values.

The number of horse hides imported into Australia is small. The value of imports during 1937-38 amounted to £1,219 in Australian currency.

5. *Other Skins.*—The exports of skins other than those mentioned in the preceding paragraphs were valued as follows :—

EXPORTS OF OTHER SKINS : AUSTRALIA.

Description.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Rabbit and Hare	953,901	876,221	1,744,834	1,649,412	1,052,709
Opossum ..	7,832	134,044	18,938	375,152	78,961
Kangaroo ..	175,597	159,571	229,469	125,033	182,490
Fox ..	168,034	50,232	61,943	80,390	68,684
Wallaby ..	30,325	12,051	12,803	25,789	27,635
Other ..	6,779	4,583	5,966	15,458	31,559
Total ..	1,342,468	1,236,702	2,073,953	2,271,234	1,442,038

These skins were shipped principally to the United States of America and the United Kingdom, the values taken by each during 1937-38 being as follows :—

OTHER SKINS : EXPORTS TO UNITED STATES AND UNITED-KINGDOM, 1937-38.

Description.	United Kingdom.	United States of America.
	£	£
Rabbit and Hare	196,997	853,205
Opossum	58,193	19,862
Kangaroo	12,059	170,342
Fox	49,224	18,267
Wallaby	11,997	15,590
Other	5,301	13,011
Total	333,771	1,089,277

CHAPTER XIX.

AGRICULTURAL PRODUCTION.

NOTE. —Except where otherwise stated, the "agricultural" years hereafter mentioned are taken as ending on 30th June.

§ 1. Introductory.

A brief reference to the attempts at cultivation by the first settlers in New South Wales and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813 and west of the Blue Mountains thereafter is contained in early issues of the Official Year Book of the Commonwealth of Australia. (See No. 22, p. 670.)

§ 2. Progress of Agriculture.

1. **Early Records.**—In an "Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797," Governor Hunter gives the acreage under crop as follows:—Wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres.

At a muster taken in 1808 the following was the return of crops:—Wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

By the year 1850 the area under crop had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850 the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres.

The gold discoveries of 1851 and subsequent years had at first a very disturbing effect on agricultural progress, the area under crop declining from 491,000 acres in 1850 to 458,000 acres in 1854. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres. The largest increase took place in Victoria, which returned an area of 299,000 acres. For the same year South Australia had 264,000 acres in cultivation, Tasmania 229,000 acres, and New South Wales, 223,000 acres.

2. **Progress of Cultivation.**—The following table shows the area under crop in each of the States and Territories of Australia at decennial intervals since 1860 and during each of the last five seasons:—

AREA UNDER CROP.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Aus. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1860-1	246,143	387,283	3,353	359,284	24,705	152,860	..	..	1,173,628
1870-1	385,151	692,840	52,210	801,571	54,527	157,410	..	..	2,143,709
1880-1	606,277	1,548,809	115,978	2,087,237	63,902	140,788	..	..	4,560,991
1890-1	852,704	2,031,955	224,993	2,093,515	69,678	157,376	..	..	5,430,221
1900-1	2,446,767	3,114,132	457,397	2,369,680	201,338	224,352	..	..	8,813,666
1910-11	3,386,017	3,952,070	667,113	2,746,334	855,024	286,920	360	..	11,893,838
1920-21	4,465,143	4,489,503	779,497	3,231,083	1,804,987	297,383	296	1,966	15,069,838
1930-31	6,811,247	6,715,660	1,144,216	5,426,075	4,792,017	267,632	1,550	5,419	25,163,816
1933-34	6,283,951	5,266,913	1,313,438	5,078,558	4,215,360	288,390	1,250	6,467	22,454,327
1934-35	5,687,988	4,677,683	1,296,619	4,629,303	3,838,618	292,000	1,132	5,456	20,428,799
1935-36	5,735,681	4,438,761	1,334,690	4,463,163	3,754,158	242,189	1,070	4,330	19,974,042
1936-37	5,957,520	4,407,312	1,506,423	4,577,707	3,884,349	293,251	1,305	4,728	20,602,595
1937-38	6,470,160	4,662,354	1,618,738	4,736,428	4,201,548	255,260	1,612	5,631	21,951,731

The progress of agriculture was practically uninterrupted from 1860 to 1915-16, when, as the result of a special effort to raise wheat during the Great War of 1914-18, 18,528,234 acres were cultivated in Australia. Four years later the area under crop was down to 13,296,407 acres owing to the accumulation of wheat stocks consequent

upon the difficulty of securing freight space during the war years. After the termination of hostilities the area again began to expand and rose steadily to a new maximum of 25,163,816 acres in 1930-31. Thereafter the slump in wheat prices seriously depressed the agricultural industry and the area under crop receded to less than 20 million acres in 1935-36. During the next two years the area increased by almost 2 million acres. Wheat is the most extensively grown crop in Australia and material changes in the total area under crop are largely a reflection of variations in the acreage sown to this cereal.

3. **Artificially-sown Grasses.**—In all the States there are considerable areas under artificially-sown grasses mainly sown on uncultivated land after burning off the scrub, and not included in "area under crops." These areas are, however, liable to revert to their natural state, and the information respecting them is too uncertain for formal record.

4. **Australian Agricultural Council.**—Arising out of a conference of Commonwealth and State Ministers on agricultural and marketing matters held at Canberra in December, 1934, a permanent organization known as the Australian Agricultural Council was formed. The Council consists of the Federal Minister for Commerce, the Federal Minister in charge of Development and the State Ministers of Agriculture, with power to co-opt the services of other Federal and State Ministers as required. The principal functions of the Council are (i) the promotion of the welfare and development of agricultural industries generally; (ii) the improvement of the quality of agricultural products and the maintenance of high grade standards; (iii) to ensure, as far as possible, balance between production and available markets; and (iv) organized marketing, etc.

In addition a permanent technical committee known as the Standing Committee on Agriculture was formed to act in an advisory capacity to the Council and to undertake the following duties:—(i) to secure co-operation and co-ordination in agricultural research throughout Australia; (ii) to advise the Commonwealth and State Governments, either directly or through the Council, on matters pertaining to the initiation and development of research on agricultural problems; and (iii) to secure co-operation between the Commonwealth and States and between the States themselves, with respect to quarantine measures relating to pests and diseases of plants and animals, and to advise the Commonwealth and State Governments with respect thereto. The personnel of this Committee consists of the permanent heads of the State Departments of Agriculture, members of the Executive Committee of the Council for Scientific and Industrial Research, and the Secretary of the Department of Commerce.

§ 3. Distribution, Production and Value of Crops.

1. **Distribution of Crops.**—The following table gives the areas in the several States under each of the principal crops for the season 1937-38:—

AREA UNDER PRINCIPAL CROPS, 1937-38.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Anst.	Tas.	Nor. Ter.	Aus. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Wheat ..	4,464,664	2,686,057	372,935	3,161,739	3,026,420	21,081	..	2,055	13,734,951
Oats ..	255,144	394,436	7,709	332,434	386,112	32,439	..	148	1,408,422
Maize ..	125,049	20,879	174,243	22	1	..	..	43	320,207
Barley—									
Malting ..	6,070	113,598	5,923	358,570	32,607	8,641	..	..	525,400
Other ..	5,472	26,179	2,732	52,718	12,323	655	..	7	100,086
Beans and Peas	18	8,294	499	13,743	3,007	15,337	..	..	40,898
Rye ..	5,012	1,051	2	5,428	803	382	..	54	12,732
Other Cereals	23,737	..	..	95	50	281	..	..	24,163
Hay ..	759,562	1,079,039	73,629	562,057	432,399	73,047	..	2,732	2,982,465
Green Forage	638,408	121,839	441,560	144,320	268,589	24,764	..	442	1,639,922
Grass and other									
Seeds ..	(a)	9,358	13,049	5,336	180	1,262	..	..	29,185
Orchards and other Fruit									
Gardens ..	87,293	75,067	31,136	29,874	21,976	31,677	..	98	277,121

(a) Not available.

3. Area under Principal Crops in Australia.—The area under the principal crops during each of the last five seasons, together with the average for the decennial period 1919-28 is shown hereunder :—

AREA UNDER PRINCIPAL CROPS : AUSTRALIA.

Crop.	Average, 1919-28.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.
Barley (a)	248	410	395	486	394	525
Maize	315	304	295	298	318	320
Oats	974	1,374	1,562	1,564	1,525	1,408
Rice	1.6	20	22	22	23	24
Wheat	9,750	14,901	12,544	11,957	12,317	13,735
Green Forage	859	1,121	1,234	1,423	1,625	1,640
Hay	2,998	3,081	3,178	3,007	3,101	2,982
Beans and Peas	46	71	51	52	48	41
Onions	7	8	7	7	8	8
Potatoes (b)	136	140	131	125	130	114
Sugar Beet	1.7	3	3	3	3	4
Vineyards	99	116	117	119	123	125
Hops	1.6	1	1	1	1	1
Sugar Cane	229	329	322	335	359	358
Cotton	31	87	78	55	62	53
Tobacco	2	16	8	11	12	11
Market Gardens (c)	44	51	53	55	62	66
Orchards	275	282	278	271	278	277
All Other Crops	104	139	150	183	214	260
Total	16,122	22,454	20,429	19,974	20,603	21,952

(a) Malting only. (b) Not including Sweet Potatoes. (c) Including Pumpkins and Melons.

4. Total and Average Production of Principal Crops in Australia.—The following table shows the production of the principal crops for the five years ended 1937-38 and for the decennium 1919-1928 :—

TOTAL AND AVERAGE PRODUCTION OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	Average, 1919-28.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Barley (a)	1,000 bushel	4,541	7,014	6,991	8,413	6,383	10,802
Maize	" "	8,251	7,494	8,101	7,468	7,246	6,817
Oats	" "	14,221	16,922	16,006	18,721	16,662	17,165
Rice	" "	117	2,172	1,888	2,164	2,277	2,269
Wheat	" "	118,905	177,338	133,393	144,218	151,390	187,256
Hay	ton	3,606	3,583	3,811	3,498	3,448	3,424
Beans and Peas	bushel	714	1,057	721	616	778	625
Onions	ton	38	52	42	35	53	56
Potatoes (b)	" "	358	328	286	323	461	345
Sugar (Beet)	" "	2.0	5.3	5.0	5.1	4.2	5.6
Grapes	" "	211	362	361	364	409	505
Wine	gallon	12,928	13,996	16,265	17,728	20,168	20,430
Raisins and Currants	cwt.	623	1,370	1,335	1,281	1,469	1,960
Hops	lb.	2,276	1,953	2,065	2,403	2,376	2,277
Sugar (Cane)	ton	332	666	641	647	783	810
Cotton, Unginned	lb.	6,997	17,718	26,924	20,785	19,199	11,793
Tobacco	" "	1,925	4,348	3,113	5,557	5,198	5,980
Pumpkins and Melons	ton	48	54	54	62	66	82

(a) Malting only. (b) Not including Sweet Potatoes.

5. Average Yield per Acre of Principal Crops in Australia.—Details of the average yield per acre for Australia of the principal crops are shown hereunder for the periods indicated:—

AVERAGE YIELD PER ACRE OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	Average, 1919-28.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Barley (a)	bushel	18.30	17.09	17.69	17.31	16.20	20.36
Maize	"	26.16	24.67	27.46	25.09	22.81	21.29
Oats	"	14.60	12.32	10.83	11.97	10.93	12.19
Rice	"	74.49	107.36	88.84	99.64	97.36	93.59
Wheat	"	12.20	11.90	10.63	12.06	12.29	13.63
Hay	ton	1.20	1.16	1.20	1.16	1.11	1.15
Beans and Peas	bushel	15.62	14.97	14.02	11.95	16.16	15.27
Onions	ton	5.09	6.35	5.97	4.95	6.81	6.67
Potatoes (b)	"	2.63	2.35	2.19	2.59	3.55	3.02
Sugar (Beet)	"	1.21	1.64	1.63	1.62	1.20	1.39
Grapes (c)	"	2.80	3.31	3.30	3.29	3.62	4.40
Wine (c)	gallon	"	296	342	364	411	412
Raisins and Currants (c)	cwt.	"	25.00	24.52	23.43	26.20	32.60
Hops (c)	lb.	1,511	2,001	2,173	2,388	2,243	2,193
Sugar (Cane) (c)	ton	2.20	2.80	2.83	2.71	3.06	3.17
Cotton, Unginned (c)	lb.	395	260	620	378	309	224
Tobacco	"	866	291	392	527	449	563
Pumpkins and Melons	ton	3.38	2.84	2.91	3.02	2.34	2.57

(a) Malting only. (b) Not including Sweet Potatoes. (c) Per acre of productive crops.

6. Gross Value of Agricultural Production in Australia.—The following table shows the gross value of recorded agricultural production at the principal markets in each State for the years 1932-33 to 1937-38:—

GROSS VALUE OF AGRICULTURAL PRODUCTION : AUSTRALIA.

Crops.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000.
Barley (a)	911	884	984	1,036	1,326	2,231
Maize	1,234	1,277	1,298	1,619	1,785	1,761
Oats	1,550	1,853	1,940	2,136	2,282	2,537
Rice	352	392	383	409	458	459
Wheat	33,316	27,897	24,738	29,768	40,471	37,000
Green Forage	3,046	2,540	2,435	2,703	2,784	3,043
Hay	9,520	10,265	10,587	10,061	12,104	13,629
Beans and Peas	302	234	194	165	258	222
Onions	218	230	311	297	250	255
Potatoes (b)	1,701	1,905	2,491	2,561	2,165	2,442
Sugar Beet	73	91	76	77	65	97
Grapes	3,918	3,674	3,562	3,754	4,233	4,865
Hops	128	142	151	172	171	190
Sugar Cane	7,098	7,601	7,310	7,493	8,742	9,065
Tobacco	961	340	257	484	437	533
Cotton, Unginned	125	283	397	376	330	205
Market Gardens (c)	1,965	2,029	2,136	2,240	2,330	2,395
Orchards	7,414	7,082	7,343	7,702	8,508	9,204
Other Crops	1,640	2,013	1,994	2,335	2,704	3,116
Total, Gross Value	75,562	70,732.	68,587	75,388	91,403	93,229

(a) Malting only. (b) Not including Sweet Potatoes. (c) Including Pumpkins and Melons.

7. Value of Production—Gross and Net.—In issues of the Official Year Book up to No. 27 the gross, local and net values of agricultural production were shown for each of the years 1926-27 to 1932-33, computed in accordance with resolutions of the several Conferences of Australian Statisticians. It was apparent, however, that the

methods used in the various States were not in complete harmony and at the Conference held in March, 1935, attention was directed to the elimination of any existing differences in computation. The success achieved at that Conference makes it possible to present the values of agricultural production for 1933-34 and subsequent years on a basis of uniformity not hitherto attained. A more detailed reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used will be found in Chapter XXVIII. "Miscellaneous".

In computing the net value of production no deduction has been made for the cost of maintenance of farm buildings and fences, or for the depreciation of farm machinery; consequently the figure stated is inflated to this extent.

GROSS, FARM AND NET VALUE OF AGRICULTURAL PRODUCTION: AUSTRALIA, 1933-34 TO 1937-38.

(AS ESTIMATED BY STATE STATISTICIANS IN ACCORDANCE WITH CONFERENCE RESOLUTIONS.)

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)	Depreciation. (estimated)
				Seed used, and Fodder for Farm Stock.	Value of other Materials used in process of production.		
	£	£	£	£	£	£	£
New South Wales ..	25,112,000	4,682,000	20,430,000	4,763,000	838,000	14,829,000	995,000
Victoria ..	24,106,207	3,829,433	20,276,774	4,204,616	1,109,746	14,962,412	875,000
Queensland ..	14,931,000	1,191,000	13,740,000	1,312,000	1,164,000	11,261,000	615,000
South Australia ..	14,726,730	2,005,481	12,721,249	2,760,838	800,470	9,159,941	569,000
Western Australia ..	10,535,740	1,780,205	8,755,535	1,749,098	863,732	6,142,705	454,000
Tasmania ..	3,711,080	711,490	2,999,590	381,570	135,520	2,482,500	75,000
Total—							
1937-38 ..	93,122,757	14,199,609	78,923,148	15,171,122	4,911,468	58,840,558	3,583,000
1936-37 ..	91,296,975	12,271,859	79,025,116	11,652,661	4,258,970	63,113,485	3,546,290
1935-36 ..	75,102,654	11,565,632	63,537,022	10,769,940	4,328,089	48,438,993	3,514,894
1934-35 ..	68,439,685	11,842,411	56,597,274	9,003,817	4,457,259	43,136,198	3,497,623
1933-34 ..	70,670,428	13,606,575	57,063,853	8,459,625	4,911,958	43,692,270	3,374,295

(a) No deduction has been made for depreciation and maintenance.

§ 4. Wheat.

1. Royal Commission on the Wheat Industry.—A Royal Commission was appointed in January, 1934, to inquire into and report upon the economic condition of the industries of growing, handling and marketing wheat, and the manufacturing, distributing and selling of flour and bread. A searching inquiry was made by the Commission and the results of its investigations were submitted in a series of five reports. The first and second reports covered the wheat-growing industry, the third, that of baking, the fourth, the flour-milling industry, while the fifth, completed in February, 1936, dealt with the history of the Commission's investigations and traversed the principal recommendations submitted.

Reference to the financial assistance to the wheat industry will be found in § 18, Bounties hereafter.

2. Progress of Wheat-growing.—(i) Area and Production. (a) Seasons 1933-34 to 1938-39. Wheat is the principal crop raised in Australia, and its progress since 1860 has been almost continuous. Prominent features in its early development were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its

progress but its subsequent recovery was assisted by the invention of mechanical appliances, the recognition of superphosphate as an aid to production, and the introduction of new and more suitable varieties for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion. The continued progress was interrupted by the Great War and the recent economic depression. As previously mentioned, any variation in the acreage sown to this cereal is materially reflected in the total area under crop. The area and yield of wheat for grain in each State are given below for the five years ended 1937-38; the table also includes an estimate for the 1938-39 crop and the average for the decennium ended 1937-38:—

WHEAT: AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aust. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1933-34 ..	4,584,092	3,052,931	232,053	3,821,795	3,183,216	24,097	3,087	14,901,271
1934-35 ..	3,892,768	2,459,583	221,729	3,188,225	2,764,373	16,656	1,844	12,544,178
1935-36 ..	3,851,373	2,323,753	239,631	2,989,490	2,540,696	10,404	1,619	11,956,666
1936-37 ..	3,982,864	2,393,827	283,648	3,058,457	2,575,283	21,317	1,466	12,316,862
1937-38 ..	4,464,664	2,686,057	372,935	3,161,739	3,026,420	21,681	2,055	13,734,951
1938-39 (a) ..	4,568,000	2,748,000	400,000	3,084,000	3,412,000	10,200	2,100	14,224,300
Average for ten seasons 1929-38 ..	4,246,176	3,159,722	254,333	3,562,970	3,150,574	18,474	2,015	14,394,264
PRODUCTION.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1933-34 ..	57,057,000	42,613,106	4,361,614	35,373,466	37,305,100	560,665	66,852	177,337,803
1934-35 ..	48,678,000	25,850,528	4,076,181	27,455,600	26,985,000	307,525	40,398	133,393,232
1935-36 ..	48,822,000	37,552,062	2,690,316	31,615,744	23,315,417	186,014	36,216	144,217,769
1936-37 ..	55,668,000	42,844,816	2,016,236	28,714,653	21,549,000	570,895	26,352	151,389,952
1937-38 ..	55,104,000	48,173,191	3,749,443	43,425,423	36,224,800	526,007	49,809	187,255,673
1938-39 (a) ..	59,124,000	18,104,000	8,448,000	31,737,000	36,712,000	243,000	59,000	154,422,600
Average for ten seasons 1929-38 ..	54,870,600	41,287,848	3,510,988	34,215,331	35,506,780	398,873	38,683	169,829,103

(a) Subject to revision.

The acreage under wheat for grain increased steadily until 1915-16, when, largely as the result of a special war effort, 12,484,512 acres were sown. After that year, however, there was a serious decline, brought about by war conditions and unfavourable seasons, and the area in 1919-20 fell to 6,419,160 acres, or only half that of 1915-16.

From 1920-21 onwards there was a rapid extension of the area under wheat until, in response to the urge of Commonwealth and State Governments, the maximum area of 18 million acres was sown in 1930-31. The acreage declined to 14½ million acres in the following year, and after expanding by more than one million acres in 1932-33 declined heavily in the next three years to slightly under 12 million acres. The reduction in acreage was of course brought about by unprofitable prices for the grain during the depression years. With improved prices the area under wheat again rose until more than 14.2 million acres were sown in 1938-39.

Seasonal conditions under which the wheat crop of 1937-38 were grown were generally favourable in all States. In Victoria the average yield of 17.93 bushels per acre considerably exceeded the average for the decennium ending 1937-38 (13.07 bushels). In New South Wales the average of 12.34 bushels was lower than the ten yearly average by 0.58 bushels whilst in South Australia the yield was more than four bushels in excess of the ten yearly average. Seasonal conditions in Western Australia were much better than during the previous three years; the average yield was 11.97 bushels per acre or three quarters of a bushel above the decennial average. The average yield per acre for Australia in 1937-38 amounted to 13.63 bushels, compared with 12.29 bushels for the previous year and 11.80 bushels, the average for the decennium ending 1937-38.

The total production of grain for 1937-38 amounted to 187.3 million bushels compared with 151.4 million bushels, the production of the previous year, and with 213.9 million bushels, the record harvest of 1932-33.

For the last eighteen years the annual production of wheat has exceeded 100 million bushels, and in the opinion of agricultural experts the improved methods of agriculture practised by wheat-growers, such as seed selection, bare fallowing, application of fertilizers, etc., will assure the crop against total failure in the future.

Final figures are not yet available in respect of the 1938-39 wheat harvest, but the area sown according to the latest estimate was 14,224,000 acres, an increase of approximately 489,000 acres or $3\frac{1}{2}$ per cent. on that of the previous year, whilst the production was 154.4 million bushels, or 10.86 bushels per acre, compared with 187.3 million bushels or 13.63 bushels per acre for the previous year. Average crops were harvested in practically all States except Victoria, which experienced one of the driest seasons on record. The average yield in this State was only 6.59 bushels, the lowest since 1914-15, when 1.38 bushels per acre were returned.

(b) *Area, Production and Prices, 1861-70 to 1921-30.* The following table gives the average area, production and yield per acre for decennial periods since 1861, together with the average wholesale price since 1871. The price quoted represents the average at Melbourne (Williamstown), and may be accepted as fairly representative for Australia.

**WHEAT: AVERAGE AREA, PRODUCTION AND WHOLESALE PRICE,
AUSTRALIA.**

Period.	Area.	Production.	Yield per Acre.	Average Wholesale Price.
	Acres.	Bushels.	Bushels.	s. d.
1861-70	831,457	10,621,697	12.77	(a)
1871-80	1,646,383	17,711,312	10.76	5 1
1881-90	3,257,709	26,992,020	8.29	4 7
1891-1900	4,086,701	29,933,993	7.32	3 8
1901-10	5,711,230	56,058,070	9.82	3 10
1911-20	8,927,974	95,479,866	10.69	5 0
1921-30	11,290,543	135,399,860	11.99	5 8

(a) Not available.

(ii) *Average Yield.* In the next table will be found the average yield of wheat per acre for specified periods:—

WHEAT: YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1932-33 ..	16.42	14.81	9.97	10.43	12.33	20.64	19.03	13.57
1933-34 ..	12.45	13.96	18.80	9.26	11.72	23.27	21.66	11.90
1934-35 ..	12.50	10.51	18.38	8.61	9.76	18.46	21.91	10.63
1935-36 ..	12.68	16.16	11.23	10.58	9.18	17.88	22.37	12.06
1936-37 ..	13.98	17.90	7.11	9.39	8.37	26.78	17.98	12.29
1937-38 ..	12.34	17.93	10.05	13.74	11.97	24.95	24.24	13.63
1938-39 (a)	12.94	6.59	21.12	10.29	10.76	23.82	28.71	10.86
Average 10 seasons, 1929-38	12.92	13.07	13.80	9.60	11.27	21.59	19.20	11.80

(a) Subject to revision.

Variation in the average yields are chiefly due to the vagaries of the seasons. The best average yields for single seasons were obtained in 1924-25, 15.20 bushels; in 1920-21, 16.08 bushels; and in 1866, 16.35 bushels. In the last-mentioned year less than 1,000,000 acres of relatively fertile land were sown. Annual averages for the past three decennia were 11.37, 12.20 and 11.80 bushels per acre.

(iii) *Relation to Population.* The main wheat-producing States of Australia are New South Wales, Victoria, South Australia and Western Australia. Queensland production closely approaches local demands, but Tasmania imports from the mainland to satisfy its needs, though partly in exchange it ships flour made from local wheat which is particularly suitable for biscuits. Normally the production of wheat greatly exceeds Australian requirements, and from half to three-quarters of the crop is exported overseas. In the pre-war period 1909-1913 Australia ranked sixth on the list of exporting countries but the position has improved in recent years and its exports are now exceeded only by those of Canada and Argentine Republic. The quantity exported from Australia was approximately 20 per cent. of the total quantity shipped by exporting countries during the five years ended 1936.

3. *Wheat Farms.*—Particulars of the number of farms growing wheat for grain on 20 acres and upwards during the past five years are shown in the following table. It should be remembered that a farm worked on the share system or as a partnership is included as one holding only.

NUMBER OF FARMS GROWING WHEAT FOR GRAIN ON 20 ACRES AND UPWARDS :
AUSTRALIA.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	No.	No.	No.	No.	No.
New South Wales ..	16,312	15,099	14,923	15,425	16,287
Victoria ..	14,319	12,582	12,051	12,090	12,936
Queensland ..	2,188	1,957	1,847	2,211	2,809
South Australia ..	13,133	13,053	11,974	12,155	12,251
Western Australia ..	9,632	9,161	8,681	8,625	8,841
Tasmania ..	413	275	171	379	372
Total ..	55,997	52,127	49,647	50,885	53,496

4. *Australian and Foreign Wheat Yields.*—(i) *Average Yield.* The next table gives the average return per acre in the principal wheat-growing countries of the world, ranging from a maximum in the Netherlands of 42½ bushels per acre to a minimum in French Morocco of nearly 5 bushels per acre :—

WHEAT : YIELD PER ACRE IN VARIOUS COUNTRIES.

Country.	Average Yield in Bushels per acre.		Country.	Average Yield in Bushels per acre.	
	Average, 1935-1937.	1938.		Average, 1935-1937.	1938.
Denmark ..	42.83	52.17	Turkey ..	14.49	a 16.86
Netherlands ..	42.68	47.16	Brazil ..	14.19	b 14.39
Belgium ..	37.49	46.86	Rumania ..	14.11	19.27
Eire ..	33.75	34.07	Argentine Republic	13.44	15.32
Sweden ..	33.70	39.77	Greece ..	13.10	16.86
New Zealand ..	33.45	g 32.49	Syria ..	13.07	16.54
Germany ..	32.71	38.06	United States of		
Switzerland ..	32.18	34.44	America ..	12.93	13.26
United Kingdom ..	32.05	37.84	Manchukuo ..	12.77	a 12.81
Egypt ..	30.90	31.25	Australia ..	12.74	10.88
Norway ..	30.77	30.40	Soviet Union ..	f 12.53	e 12.37
Japan ..	28.41	25.46	Portugal ..	12.49	a 13.31
Finland ..	25.28	27.40	Spain ..	12.23	..
Czechoslovakia ..	24.96	..	Chosen ..	11.74	12.31
Italy ..	21.21	23.93	Uruguay ..	11.74	11.39

WHEAT: YIELD PER ACRE IN VARIOUS COUNTRIES—*continued.*

Country.	Average Yield in Bushels, per acre.		Country.	Average Yield in Bushels per acre.	
	Average, 1935-1937.	1938.		Average, 1935-1937.	1938.
France ..	20.54	27.63	Colombia ..	10.95	(c) 10.12
Hungary ..	20.30	24.16	India ..	10.77	11.29
Bulgaria ..	19.60	22.90	Mexico ..	9.68	(a) 8.81
Latvia ..	18.04	20.26	Canada ..	9.25	13.50
Poland ..	17.39	18.37	Algeria ..	7.60	8.52
Lithuania ..	16.96	18.43	Tunisia ..	7.51	11.80
Yugoslavia ..	16.63	21.16	Palestine ..	7.47	(a) 8.39
Iran ..	15.91	(d) 15.91	Union of South Africa ..	7.29	8.36
Chile ..	15.72	(g) 16.08	Iraq ..	5.95	(a) 6.56
China ..	15.70	..	French Morocco ..	4.66	7.39
Estonia ..	15.38	18.25			

(a) Year 1937. (b) Year 1936 average of two years. (c) Year 1935 average of two years.
 (d) Year 1934. (e) Year 1935. (f) Average 1933-35. (g) Year 1937-38.

(ii) *Total Production.* The latest available official statistics of the production of wheat in various countries are given in the following table:—

WHEAT: TOTAL PRODUCTION IN VARIOUS COUNTRIES.

Country.	Yield in Bushels (,000 omitted).		Country.	Yield in Bushels (,000 omitted).	
	Average, 1935-1937.	1938.		Average, 1935-1937.	1938.
Soviet Union ..	91,089,696	91,132,801	Iran ..	23,647	(b) 70,941
China ..	755,716	..	Sweden ..	23,620	30,184
United States of America ..	708,945	930,801	Iraq ..	17,341	(f) 21,311
India ..	360,502	402,453	Syria and Lebanon ..	17,243	23,358
Italy ..	267,787	297,317	Belgium ..	15,935	20,056
France ..	263,983	345,385	Union of South Africa ..	15,514	17,420
Canada ..	231,191	350,010	Netherlands ..	15,290	15,138
Argentine Republic ..	191,220	319,665	French Morocco ..	15,273	21,476
Germany ..	166,091	214,723	Portugal ..	15,009	(f) 14,539
Australia ..	161,209	154,427	Tunisia ..	14,208	17,637
Spain ..	133,658	..	Uruguay ..	13,579	15,288
Turkey ..	123,817	(f) 140,313	Denmark ..	13,195	16,902
Rumania ..	121,106	181,790	Mexico ..	11,634	(f) 11,216
Yugoslavia ..	88,926	111,329	Chosen ..	9,622	10,399
Hungary ..	81,042	96,782	Lithuania ..	8,716	9,233
Poland ..	74,340	79,802	New Zealand ..	7,246	(e) 6,043
United Kingdom ..	58,998	69,253	Eire ..	7,171	7,837
Bulgaria ..	57,380	78,986	Latvia ..	6,032	7,052
Czechoslovakia ..	56,316	..	Switzerland ..	5,513	6,096
Japan ..	48,109	45,244	Brazil ..	5,425	(a) 5,512
Egypt ..	44,767	45,933	Finland ..	5,332	7,973
Manchukuo ..	34,346	(f) 38,015	Colombia ..	4,272	(c) 3,755
Algeria ..	32,172	34,941	Palestine ..	3,771	(f) 4,682
Chile ..	30,342	(e) 30,394	Estonia ..	2,495	3,139
Greece ..	27,668	35,934			

NOTE.—The harvests reported above for 1938 relate to the year 1938 for the Northern, and 1938-39 for the Southern Hemisphere.

(a) Year 1936, average of two years. (b) Year 1934. (c) Year 1935, average of two years.
 (d) Year 1935. (e) Year 1937-38. (f) Year 1937. (g) Average, 1933-35.

A complete statement of the world's production of wheat is not possible owing to the failure of certain countries to supply the necessary information. The International Institute of Agriculture, Rome, has, however, compiled figures obtained from the countries reporting with the following results:—

WHEAT: WORLD'S PRODUCTION.(a)

Year.	Area.	Production.	Yield per acre.
Average 1909-1913..	270,266,000	3,779,479,000	13.98
.. 1927-1931..	333,140,000	4,637,000,000	13.92
1933	333,510,870	4,820,038,000	14.45
1934	330,792,770	4,619,418,000	13.96
1935	339,194,170	4,698,049,000	13.85
1936	345,223,410	4,516,740,000	13.08
1937	360,148,250	4,810,322,000	13.36
Average 1933-1937..	341,773,894	4,692,913,400	13.73

(a) From countries reporting including the Soviet Union.

Australia's contribution to the world's wheat during the last five years was 3.83 per cent. as to area and 3.38 per cent. in regard to production.

The chief country excluded from the above table is China which in the year 1937 produced 636 million bushels of wheat from an area of 42.6 million acres or an average yield of 14.93 bushels per acre. It is stated by the International Institute, however, that these figures for China are largely conjectural and can be accepted only as approximate estimates. In addition they do not include all of the Territories embraced in the Chinese Republic. By the addition of the production of this country the world's total production for the year 1937 would exceed 5,447 million bushels.

The total area harvested in 1937 increased by 15 million acres, practically all of which occurred in the United States of America. In comparison with the average for the period 1927-31, areas sown to wheat throughout the world have increased considerably.

The world's acreage under wheat in 1937 was the highest ever recorded, but the production was somewhat lower than that for the record year of 1930 when the production amounted to 4,882 million bushels. A succession of bountiful years commencing in 1928 led to very heavy accumulations of stocks, particularly in North America. These stocks reached their maximum between the years 1932 and 1934 but owing to reductions in world production during the three years ending in 1936, they were again reduced to normal dimensions. This led to an upward movement in price which, in turn, caused areas to again expand to the record level of 1937. Production, assisted by favourable seasonal conditions, reached record dimensions and stocks again accumulated with depressed prices. In 1938 the position was aggravated by another abundant world harvest and prices receded to the levels reached in the depression years of 1931-34. Heavy accumulation of stocks are reported in surplus-producing countries and a period of low prices is anticipated.

5. **Price of Wheat.**—The collapse in the price of wheat which occurred between 1928 and 1931 was chiefly due to the accumulation of stocks in exporting countries. The weighted average price of wheat (shippers' limits Sydney, Melbourne and Adelaide) fell from 5s. 1½d. in 1928 to 2s. 4¾d. in 1931, a decline of 53 per cent. In 1932 the price increased to 3s. 0½d. but dropped to 2s. 9¾d. in 1933 and to 2s. 7½d. in 1934. In September, 1935, prices increased to more than 3s. 4d. and continued to rise until in December, 1936, the average price was almost 5s. 3d. From that month until October, 1937, the average exceeded 5s. The price receded to 4s. 6d. in November, and dropped further to 4s. 4d. in December, at which figure it remained until March, 1938, when it declined to 4s. Since March, 1938, the price has fallen in successive stages to 2s. 6d. in November, 1938, and, up to June, 1939, it has fluctuated between that figure and 2s. 3d. per bushel. The table hereunder shows prices of Australian wheat during each of the last six years :—

PRICE OF WHEAT : AUSTRALIA.

(WEIGHTED AVERAGE OF SHIPPERS' LIMITS FOR GROWERS' BAGGED LOTS, SYDNEY, MELBOURNE AND ADELAIDE.)

Item.	1933.	1934.	1935	1936.	1937.	1938.
Price per bushel	s. d. 2 9½	s. d. 2 7½	s. d. 3 1¾	s. d. 4 1¾	s. d. 5 0½	s. d. 3 4¾

6. **Exports of Wheat and Flour.**—(i) *Quantities.* The table appended shows the exports and net exports of wheat and flour from 1934-35 to 1938-39. For the sake of convenience, flour has been expressed at its equivalent in wheat, 1 ton of flour being taken as equal to 48 bushels of grain. Wheat and flour have been imported to tide over lean seasons on only two occasions since 1900; in 1902-3 the wheat harvest was as low as 12,378,000 bushels and wheat and flour representing 12,468,000 bushels of wheat were imported, whilst an equivalent of 7,279,000 bushels was imported in 1914-15 to supplement the yield of 25 million bushels produced in that season. During the last five years exports in terms of wheat ranged between 98,182,472 bushels in 1938-39 and 124,764,585 bushels in 1937-38, the net exports for the period averaging 107,580,295 bushels :—

WHEAT AND FLOUR : EXPORTS FROM AUSTRALIA.

Year.	Exports.			Net Exports.
	Wheat.	Flour.	Total.	
	Bushels.	Eq. Bushels.(a)	Bushels.	Bushels.
1934-35 ..	75,959,690	33,502,608	109,462,298	109,457,913
1935-36 ..	76,993,133	29,619,888	106,613,021	106,610,518
1936-37 ..	71,778,020	27,109,344	98,887,364	98,885,980
1937-38 ..	94,503,757	30,262,608	124,766,365	124,764,592
1938-39 (b) ..	63,352,445	34,831,200	98,183,645	98,182,472

(a) Equivalent in bushels of wheat.

(b) Subject to revision.

(ii) *Destination.* The following table gives the exports of wheat to various countries for each of the five years ended 1937-38, together with averages for the pre-war period 1909-13:—

WHEAT : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Average, 1909-13.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
United Kingdom ..	30,305,384	45,531,316	41,198,166	46,776,049	44,244,213	61,522,285
India ..	(a)	280,120	168,697	486,535	200	734,572
Eire ..	..	3,959,445	2,622,852	4,744,435	5,698,955	1,012,370
Union of South Africa ..	2,992,355	39,472	21,027	326,905	2,777	954,908
Other British Countries	(a)	494,546	438,727	1,446,725	957,367	4,507,005
Belgium ..	1,213,131	37,180	253,020	2,428,838	612,773	162,378
China ..	(a)	1,476,012	13,663,894	5,052,790	1,272,500	143,663
Egypt ..	135,377	203,760	1,605,768	562	30,045	490,548
France ..	1,681,918	..	..	40,613	775,791	3,875,697
Germany ..	286,822	..	..	..	797,100	..
Italy ..	581,309	699,225	18,838	1,736,663	10,166,855	3,837,228
Japan ..	330,131	7,720,102	15,530,335	11,043,610	2,507,307	2,844,940
Other Foreign Countries	4,465,847	1,247,350	437,466	2,909,408	4,712,137	14,418,163
Total ..	41,997,274	61,598,528	75,959,690	76,993,133	71,778,020	94,503,757

(a) Included with "Other Foreign Countries."

Exports of flour from Australia for the periods mentioned are given in the next table:—

FLOUR : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Average, 1909-13.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
United Kingdom ..	27,699	136,677	99,332	130,998	177,329	187,943
Ceylon ..	3,389	18,893	18,821	17,090	16,210	14,305
Hong Kong ..	2,672	27,663	50,616	44,382	40,503	66,291
Malaya (British) ..	15,492	50,834	61,926	55,592	66,596	65,464
Union of South Africa	30,714	436	371	345	208	273
Other British Countries	(a)	61,490	46,158	60,314	65,758	76,623
China ..	(a)	79,261	814	951	2,113	31,544
Egypt ..	(a)	27,766	26,864	23,722	35,005	18,674
Manchuria (b)	..	(c)	240,181	112,789	9,422	11,941
Netherlands East Indies	26,099	80,623	82,147	82,077	74,228	83,079
Philippine Islands ..	13,680	10,998	27,437	40,491	35,522	27,280
Other Foreign Countries	47,367	47,851	43,304	48,130	41,184	47,054
Total ..	167,112	542,492	697,971	617,081	564,778	630,471

(a) Included with "Other Foreign Countries."

(b) Including Kwantung Peninsula.

(c) Included with China.

7. *Exports—Principal Countries.*—The following table shows the net quantities of wheat exported from the chief exporting countries in recent years and during the pre-war period. In the years before the war of 1914-18 the Soviet Union was the outstanding contributor to the world's supply of wheat followed by the United States of America, but in recent years the net exports from both of these countries have been relatively unimportant. Canada now occupies the foremost position with Argentine Republic and Australia coming next in order.

Although the local production of wheat is less than 4 per cent. of the world's total, the exports from Australia represented just under 20 per cent. of the quantities shipped during 1932 to 1936, and as an exporting country Australia has made the greatest relative advance since 1913.

WHEAT.(a) : NET EXPORTS, PRINCIPAL COUNTRIES.

Country.	Average 1909-13.		1936.	1937.	Average 1932-36.	
	'ooo Bushels.	Per cent.	'ooo Bushels.	'ooo Bushels.	'ooo Bushels.	Per cent.
Soviet Union (b) ..	157,109	23.71	4,255	33,803	17,070	2.91
United States of America ..	100,864	15.22	..	33,943	22,150	3.77
Argentine Republic ..	95,041	14.34	63,082	147,491	133,866	22.82
Canada ..	89,919	13.57	263,794	112,462	221,223	37.70
British India ..	50,886	7.68	20,044	20,043	5,160	0.88
Australia ..	49,417	7.46	95,897	99,649	116,621	19.88
All Other Countries ..	119,351	18.02	98,069	(c)	70,620	12.04
Total ..	662,587	100.00	545,141	(c)	586,710	100.00
World's Production ..	3,779,479		4,516,740	4,810,322	4,646,659	
Percentage of Australian Net Exports on Total Net Exports	7.46		17.59	(c)	19.88	
Percentage of Australian Production on World's Production ..	2.39		3.35	3.89	3.53	

(a) Including flour expressed in terms of wheat. (b) The average for 1909-13 is not strictly comparable with the later years, owing to changes of frontiers during 1921. (c) Not yet available.

8. Imports—Principal Countries.—The quantities of wheat and flour (expressed in terms of wheat) imported into the principal countries for the periods indicated are shown in the following table. The United Kingdom is easily the leading importing country. The quantities imported into certain European countries, particularly Germany, Netherlands, Belgium and Italy are both relatively and actually much smaller now than formerly owing to the encouragement given to the local wheat-growing industries in those countries. During recent years the imports of wheat into China and Japan have grown considerably, and a large share in this trade has been supplied by Australia :—

WHEAT.(a) : IMPORTS, PRINCIPAL COUNTRIES.(b)

Country Importing.	Average, 1909-13.		1936.	1937.	Average, 1932-36.	
	'ooo Bushels.	Per cent.	'ooo Bushels.	'ooo Bushels.	'ooo Bushels.	Per cent.
United Kingdom ..	219,365	30.42	208,932	202,105	217,102	33.09
Germany ..	89,732	12.44	2,752	47,161	19,804	3.02
Netherlands ..	76,340	10.59	20,301	24,103	24,102	3.67
Belgium ..	73,963	10.26	43,993	44,972	44,417	6.77
Italy ..	57,156	7.93	19,698	60,926	23,011	3.51
France ..	38,682	5.36	21,929	18,785	38,326	5.84
Brazil ..	20,774	2.88	36,288	36,226	33,548	5.11
Egypt ..	7,915	1.10	158	115	1,421	0.22
Union of South Africa	6,519	0.90	66	37	451	0.07
China (c) ..	5,526	0.77	16,125	6,914	46,983	7.16
Japan ..	3,714	0.52	12,504	(d)	19,016	2.90
All Other ..	121,409	16.83	208,144	(d)	187,880	28.64
Total ..	721,095	100.00	590,890	(d)	656,061	100.00

(a) Including flour expressed in terms of wheat. (b) In some instances the average 1909-13 is not strictly comparable with the other years shown, owing to changes of frontiers. (c) Including Manchurian ports. (d) Not yet available.

9. **Consumption of Wheat.**—*Australia.* The estimated consumption of wheat for food and the quantity used for seed in Australia during the last five years are shown hereunder :—

AVERAGE HUMAN CONSUMPTION, 1933-34 TO 1937-38.

Flour milled	1,276,936 tons
Less net exports of flour	610,508 tons
Less net exports of flour in biscuits	1,107 ..
	611,615 ..
	665,321 ..
Change in flour stocks	-2,864 ..
Net quantity consumed	662,457 ..
Equivalent in terms of wheat	31,797,936 bushels
Net quantity consumed per head of population—	
As flour	196lb.
As wheat	4.7 bushels

AVERAGE USED FOR SEED, 1933-34 TO 1937-38.

Average area sown for grain, hay and green forage ..	14,037,338 acres
Average quantity of seed used	13,831,234 bushels
Average quantity of seed used per acre	59 lb.
Average quantity per head of population	2.05 bushels

In addition to the above, allowance must be made for wheat fed to poultry and other live stock. The quantity so used is estimated at 8,900,000 bushels or 1.32 bushels per head of population for the five years ended 1937-38. Almost the whole of this quantity is used in the form of grain as feed for poultry, principally fowls, which numbered about 15.4 million during the year 1937-38. The average quantity of flour consumed per annum for the five years under consideration was 196 lb. per head of population, which, expressed in terms of wheat, represents 4.7 bushels. The estimates of grain used for seed in Victoria, South Australia and Western Australia are based on data collected from growers. In the other States estimates supplied by the Agricultural Departments have been used. The average annual quantity used for the purposes indicated during the last five years was 2.05 bushels per head of population, or 59 lb. per acre sown. The consumption of wheat in Australia for all purposes during the period dealt with averaged 54,529,000 bushels, or 8.1 bushels per head of population.

10. **Value of the Wheat Crop.**—The estimated value of the wheat crop in each State and in Australia during the season 1937-38 is shown below.

WHEAT : VALUE OF CROP(a), 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value	11,020,800	9,835,360	781,135	7,832,384	7,414,763	105,200	9,962	36,999,604
Value per acre ..	£2/9/4	£3/13/3	£2/1/11	£2/9/7	£2/9/0	£4/19/10	£4/16/11	£2/13/11

(a) Gross value of total crop, including seed used on farm, valued at metropolitan prices but exclusive of value of straw.

11. **Varieties of Wheat Sown.**—Particulars of the variations of wheat sown and the areas thereunder are collected from time to time. The following table shows particulars of the nine principal varieties sown in the four main producing States and the percentage each bears to the total area sown for the year 1937.

WHEAT : PRINCIPAL VARIETIES SOWN IN STATES, 1937.

New South Wales.		Victoria.		South Australia.		Western Australia.	
Variety.	Per-cent- age.	Variety.	Per-cent- age.	Variety.	Per-cent- age.	Variety.	Per-cent- age.
	%		%		%		%
Ford ..	20.7	Gnurika ..	45.1	Ranee ..	25.5	Bencubbin ..	94.8
Nabawa ..	17.8	Ranee ..	20.7	Nabawa ..	12.8	Glueclub ..	12.2
Dundee ..	15.5	Free Gallipoli ..	11.6	Sword ..	10.2	Merredin ..	9.6
Bencubbin ..	7.2	Dundee ..	9.0	Bencubbin ..	5.6	Totagin ..	7.5
Baringa ..	6.9	Bencubbin ..	2.3	Gluyas ..	5.6	Gluyas Early ..	7.0
Waratah ..	5.9	Sepoy ..	2.2	Dundee ..	5.2	Nabawa ..	5.6
Ranee ..	3.9	Rajah ..	1.3	Waratah ..	5.1	Noongaar ..	5.4
Bobin ..	3.4	Bobin ..	1.1	Ford ..	4.5	Waratah ..	2.8
Pusa No. 4 ..	2.4	Nabawa ..	0.9	Ghurka ..	3.1	Ford ..	1.7
All Others ..	16.3	All Others ..	5.8	All Others ..	24.3	All Others ..	13.4
Total ..	100.0	Total ..	100.0	Total ..	100.0	Total ..	100.0

It is interesting to note the changes that have taken place in the leading varieties during recent years. In New South Wales, Nabawa, a variety relatively unimportant in 1929, became prominent in 1933. It occupied the leading position until 1936 when it was displaced by Ford. The leading variety sown in Victoria between 1929 and 1934 was Free Gallipoli, but since 1935 it has been supplanted by Ranee and Ghurka. In South Australia Nabawa came into prominence in 1933 but in 1936, though still relatively important, it ceded leading position to Ranee. Nabawa was the principal variety in Western Australia until it was displaced by Bencubbin in 1934. While this latter variety had occupied only 7 per cent. of the total area in 1933, in the year following no less than 22.5 per cent. was sown to Bencubbin and in 1937 it retained its leading position with nearly 35 per cent. More than 1,000 different varieties of Australian wheat have been catalogued by the Council for Scientific and Industrial Research.

12. Stocks of Wheat and Flour.—Stocks of wheat and flour held by each State at 30th November, 1938, and the total held in Australia on the same date for the previous four years will be found in the following table. The figures have been compiled from information collected from millers, merchants, the Railway Departments and other sources, but are exclusive in certain instances of stocks held by farmers:—

WHEAT AND FLOUR : STOCKS AT 30th NOVEMBER, 1938.

State.	Wheat.		Flour.		Total in terms of wheat.(a)
	Bushels.	Tons.	Bushels.	Tons.	
New South Wales ..	2,766,936	28,473	4,133,640		
Victoria ..	3,700,614	34,943	5,377,878		
Queensland ..	290,432	5,284	544,064		
South Australia ..	1,665,128	9,127	2,103,224		
Western Australia ..	466,016	9,719	932,528		
Tasmania ..	195,593	1,956	289,481		
Total, 30th November, 1938 ..	9,084,719	89,502	13,380,815		
" " 1937 ..	5,233,866	76,450	8,903,466		
" " 1936 ..	3,505,469	101,063	8,350,493		
" " 1935 ..	12,371,270	89,637	16,673,867		
" " 1934 ..	34,708,963	112,385	40,103,463		

(a) One ton of flour treated as equivalent to 48 bushels of wheat.

13. Voluntary Wheat Pools.—(i) *General.* Voluntary wheat pools operated in the States of Victoria, South Australia and Western Australia during the season 1938-39. In New South Wales the pool was inactive during the year. The system adopted in these States is somewhat similar, and is a co-operative one controlled by trustees, or committees appointed by the growers, the whole of the proceeds, less administrative

expenses, being distributed amongst contributors of wheat to the pool. The trading names of these organizations in the various States are as follows :—

New South Wales.—The Wheat Growers' Pooling and Marketing Co. Ltd.

Victoria.—Victorian Wheat-growers' Corporation Ltd.

South Australia.—South Australian Co-operative Wheat Pools Ltd.

Western Australia.—The Trustees of the Wheat Pool of Western Australia.

The marketing of wheat in Queensland is conducted on a compulsory basis by the State Wheat Board, consisting of four elected representatives and one member nominated by the Minister for Agriculture who represents the Queensland Government.

(ii) *Delivery of Wheat to Pools, Costs, etc.* The quantities of wheat received and the estimated average costs per bushel of rail freight and of administrative and other expenses are given hereunder. As the season's operations are not yet complete, the costs shown are subject to revision.

WHEAT RECEIVED BY VOLUNTARY POOLS, 1938-39.

Particulars.	Unit.	Victoria.	Queensland. (a)	South Australia.	Western Australia.
Wheat received ..	Bushel	157,557	7,965,216	1,129,955	9,148,000
Percentage on Total Market- able Wheat ..	%	1.2	94	4	28
Estimated average cost of rail freight to seaboard, per bushel ..	d.	4.65	5½	3.1	4½
Estimated average cost per bushel of Administration and other expenses ..	d.	3.35	(b)2½	(b)4½	3½

(a) Compulsory Pool.

(b) Approximate.

(iii) *Finance.* The requisite financial accommodation in Victoria and South Australia was furnished by the Commonwealth Bank. In Western Australia funds were made available by financial houses in London. Initial advances made available to growers on the delivery of their wheat at country stations are shown, together with subsequent payments, in the following table :—

WHEAT POOLS ADVANCES(a) PER BUSHEL MADE TO SEPTEMBER, 1939.

Particulars.	Victoria.	South Australia.	Western Australia.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1st Payment	} 2 6½	1 4	1 2
2nd Payment		0 6	0 7
3rd Payment		0 3	0 2
Final Payment		(b)	(b)

(a) Less Rail Freight.

(b) Final payment not yet made.

In Queensland the Commonwealth Bank provides the financial assistance necessary to make advances on wheat delivered, the State Government guaranteeing the Wheat Board's accounts with the bank. All wheat not required for consumption on the farm is delivered to the Board, which is the sole marketing agency. The crop in 1938-39 amounted to about 8,448,000 bushels, of which 7,965,216 bushels, or 94 per cent., was delivered into the pool. Net advances made to growers on No. 1 milling wheat totalled, thus far, 1s. 6d. per bushel; other milling grades bear the dockages ranging from ½d. to 4½d. per bushel assessed at the time of delivery according to quality. The dockages on feed and other wheat is somewhat higher.

14. **Special Tabulation of Wheat Holdings.**—(i) *General.* With the co-operation of the State Statisticians an extensive analysis was made of the returns collected at the annual agricultural census of 1935-36 in respect of all holdings growing wheat for grain in the principal producing States. The results are published in the following tables.

(ii) *Wheat Holdings: Number, Area and Production.* The areas of the holdings growing wheat for grain are shown in the following table together with the production of wheat thereon:—

WHEAT HOLDINGS: NUMBER, AREA AND PRODUCTION, 1935-36.

State.	Holdings.			Wheat.			
	Growing Wheat for Grain.	Total Area.	Average Area.	Area Sown.	Average Area Sown.	Production.	Average Production per Holding.
		No.	Acres.		Acres.		Acres.	Bushels.	Bushels.
New South Wales ..	15,923	24,379,178	1,531	3,851,373	242	48,822,000	3,066
Victoria ..	13,780	12,482,336	906	2,323,753	169	37,552,062	2,725
South Australia ..	12,787	17,896,496	1,400	2,989,490	234	31,615,744	2,472
Western Australia ..	9,039	19,339,951	2,140	2,540,696	281	23,315,417	2,579
Total (Four States)	51,529	74,097,961	1,438	11,705,312	227	141,395,223	2,742

(iii) *Wheat Holdings and Sheep.* One of the objects of the analysis was to ascertain the extent to which certain other forms of farm production were combined with the growing of wheat. It will be seen from the table below that 75 per cent. of the wheat holdings carried sheep, the numbers depastured forming a considerable proportion of the sheep populations of the individual States.

WHEAT HOLDINGS AND SHEEP, 1935-36.

State.	Holdings.				Number of Sheep.	Total Number of Sheep in State. (a)		Percentage on Wheat Farms.
	Without Sheep.		With Sheep.			No.	%	
	No.	%	No.	%	No.	No.	%	
New South Wales ..	2,296	14.42	13,627	85.58	13,393,541	51,936,000	25.78	
Victoria ..	3,806	27.62	9,974	72.38	4,841,152	17,457,291	27.72	
South Australia ..	4,115	32.18	8,672	67.82	3,750,864	7,945,745	47.21	
Western Australia ..	2,295	25.39	6,744	74.61	4,482,667	11,082,972	40.45	
Total (Four States)	12,512	24.28	39,017	75.72	26,468,224	88,422,008	29.93	

(a) Including Sheep outside Wheat Areas.

(iv) *Wheat Holdings and Dairy Cows.* In addition to sheep, the great majority of holdings also carried dairy cows. As indicated in the footnote to the table the particulars available for New South Wales refer only to those holdings which are registered as dairies and therefore an effective comparison cannot be made for the four States.

WHEAT HOLDINGS AND DAIRY COWS, 1935-36.

State.	Holdings.				Number of Dairy Cows.	Total Number of Dairy Cows in State. (b)		Percentage on Wheat Farms.
	Without Dairy Cows.		With Dairy Cows.			No.	%	
	No. (a)	%	No. (a)	%	No. (a)	No. (a)	% (a)	
New South Wales ..	1,993	14.46	11,787	85.54	109,049	(1,091,562)	11.00	
Victoria ..	1,980	15.48	10,807	84.52	79,139	987,676	45.37	
Western Australia ..	1,791	19.01	7,248	80.19	32,243	130,132	24.78	
Total (Three States)	5,764	16.19	29,842	83.81	220,431	1,291,514	17.07	

(a) The particulars available for New South Wales refer to registered dairies only. These details show that of the 15,923 holdings growing wheat for grain, 1,775 were also registered as dairies and the number of dairy cows carried was 51,344.

(b) Including dairy cows outside wheat areas.

(v) *Wheat Holdings and Pigs.* The extent to which pig raising is conducted in conjunction with the growing of wheat for grain is indicated in the next table:—

WHEAT HOLDINGS AND PIGS, 1935-36.

State.	Holdings.				Number of Pigs.	Total Number of Pigs in State. (a)	Percentage on Wheat Farms.
	Without Pigs.		With Pigs.				
	No.	%	No.	%			
New South Wales ..	10,462	65.70	5,461	34.30	59,673	436,944	13.66
Victoria ..	8,298	60.22	5,482	39.78	41,100	314,301	13.08
South Australia ..	5,425	42.43	7,302	57.57	58,628	93,458	62.73
Western Australia ..	5,318	58.83	3,721	41.17	62,079	98,026	63.33
Total (Four States)	29,503	57.26	22,026	42.74	221,480	942,729	23.49

(a) Including Pigs outside Wheat Areas.

(vi) *Wheat Holdings: Area Sown and Yield per Acre.* The holdings growing wheat for grain were classified for each of the principal producing States according to areas sown and yields per acre. It is possible to show only the totals for the four States combined in the Year Book. Details for the States are published in *Production Bulletin* No. 30 issued by this Bureau. The classification according to areas sown is as follows:—

WHEAT HOLDINGS CLASSIFIED ACCORDING TO AREAS SOWN, 1935-36.
(PRINCIPAL PRODUCING STATES.)

Area under Wheat for Grain. Acres.	Holdings.		Area under Grain.		Production.	
	No.	%	'000 Acres.	%	'000 Bushels.	%
1-19	3,843	7.5	36	0.3	517	0.4
20-49	4,167	8.1	132	1.1	1,908	1.4
50-99	5,521	10.7	390	3.3	5,894	4.2
1-99	13,531	26.3	558	4.7	8,319	6.0
100-199	11,979	23.2	1,712	14.6	25,320	17.9
200-299	11,064	21.5	2,623	22.4	33,967	24.0
300-399	7,160	13.9	2,373	20.3	26,808	19.0
400-499	3,691	7.2	1,594	13.6	16,668	11.8
100-499	33,894	65.8	8,302	70.9	102,763	72.7
500-599	1,805	3.5	955	8.2	10,124	7.2
600-699	946	1.8	594	5.1	6,105	4.3
700-799	489	0.9	357	3.1	3,864	2.7
800-899	284	0.6	236	2.0	2,582	1.8
900-999	188	0.4	175	1.5	1,865	1.3
1,000-1,999	368	0.7	453	3.9	4,716	3.3
2,000 and over	24	..	75	0.6	967	0.7
500 and over	4,104	7.9	2,845	24.4	30,223	21.3
Total	51,529	100.0	11,705	100.0	141,305	100.0

Wheat is grown in the principal producing States on an extensive scale; more than 76 per cent. of the production in 1935-36 was sown on areas of 200 acres or more. Although 13,531 holdings grew wheat on small areas of under 100 acres the yield therefrom was only 6 per cent. of the total. At the other end of the scale less than 10 per cent. was reaped from the very large areas of 700 acres or over. The average area sown was 227 acres.

In the next table the classification according to average yields is shown :—
WHEAT HOLDINGS CLASSIFIED ACCORDING TO AVERAGE YIELDS, 1935-36.
PRINCIPAL PRODUCING STATES.

Average Yield per Acre.		Holdings.		Area under Grain.		Production.	
Bushels.		No.	%	'000 Acres.	%	'000 Bushels.	%
Under 3 ..	..	5,404	10.5	1,445	12.3	1,998	1.4
3 and under 6 ..	..	5,817	11.3	1,585	13.5	7,132	5.1
6 " " 9 ..	..	6,672	12.9	1,751	15.0	13,085	9.3
9 " " 12 ..	..	6,830	13.3	1,659	14.2	17,283	12.2
12 " " 15 ..	..	6,180	12.0	1,405	12.0	18,828	13.3
15 " " 18 ..	..	5,885	11.4	1,170	10.0	19,195	13.6
18 " " 21 ..	..	4,929	9.6	906	7.7	17,629	12.5
21 " " 24 ..	..	3,628	7.0	684	5.8	15,365	10.9
24 " " 27 ..	..	2,994	5.8	544	4.7	13,852	9.8
27 " " 30 ..	..	1,551	3.0	298	2.6	8,471	6.0
30 " " 33 ..	..	1,109	2.2	182	1.6	5,700	4.0
33 " " 36 ..	..	290	0.6	46	0.4	1,593	1.1
36 " " 39 ..	..	172	0.3	23	0.2	867	0.6
39 " " 42 ..	..	36	0.1	4	..	144	0.1
42 " " 45 ..	..	13	..	2	..	79	0.1
45 " " 48 ..	..	15	..	1	..	59	..
48 " " 54 ..	..	4	..	..	..	25	..
Total ..	..	51,529	100.0	11,705	100.0	141,305	100.0

The most significant feature of the above tabulation is the very low returns obtained from considerable areas sown; more than 3 million acres, or one-quarter of the total sowings, yielded less than 6 bushels to the acre and practically one-half of this acreage returned yields of under 3 bushels. On the other hand the productivity of vast tracts of wheat country is indicated by the yields of 15 bushels or more over an area of 3.9 million acres, whilst nearly 1 million acres returned 25 bushels or over to the acre.

§ 5. Oats.

1. Progress of Cultivation.—(i) *Area and Production.* Oats are usually next in importance to wheat amongst the grain crops cultivated in Australia, but while wheat grown for grain accounted for 62.57 per cent., oats represented only 6.41 per cent. of the area under crop in 1937-38. The acreage and production of oats for the last five years are shown in the table hereunder.

OATS: AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1933-34 ..	203,693	525,976	5,207	265,074	342,642	31,199	130	1,373,921
1934-35 ..	237,405	506,638	4,566	367,192	408,810	36,611	331	1,561,553
1935-36 ..	279,622	505,623	6,823	299,771	448,156	23,928	248	1,564,171
1936-37 ..	235,817	381,069	7,932	414,723	463,129	21,953	238	1,524,861
1937-38 ..	255,144	394,436	7,709	332,434	386,112	32,439	148	1,408,422
Average 10 seasons, 1929-38 ..	201,185	447,049	4,538	276,351	358,843	30,778	188	1,318,932
PRODUCTION.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1933-34 ..	3,178,470	6,778,754	69,534	2,087,772	3,949,905	854,239	3,357	16,922,031
1934-35 ..	3,856,680	5,248,787	82,198	2,412,117	4,244,322	1,054,256	7,662	16,906,022
1935-36 ..	4,735,740	6,365,056	119,459	2,380,908	4,557,774	556,776	5,061	18,720,774
1936-37 ..	3,967,560	6,107,885	22,417	2,363,806	3,445,167	751,244	4,200	16,662,279
1937-38 ..	3,395,130	5,327,199	79,323	2,960,944	4,364,370	1,032,173	5,922	17,165,061
Average 10 seasons, 1929-38 ..	3,312,828	6,019,659	59,870	2,166,822	3,861,995	867,195	3,771	16,292,140

The oat crop showed considerable variation during the past decennium, ranging from 14,108,677 bushels in 1928-29 to 18,720,774 bushels in 1935-36, with an average for the period of 16,292,140 bushels. For Australia as a whole the record yield of oats was obtained during 1924-25, when 19,393,737 bushels were harvested. The demand for the grain for oatmeal varies from 1½ million bushels to 2 million bushels annually. The cereal is mainly used as feed grain, and its value, particularly in good seasons, does not warrant an extension of area.

The principal oat-growing State is Victoria, which produces on the average more than one-third of the total quantity grown in Australia. South Australia, Western Australia and Tasmania also produce considerable quantities in excess of local requirements.

(ii) *Average Yield.* The average yield per acre of oats varies considerably in the different States, being highest in Tasmania and lowest in South Australia. Averages for each of the last five seasons, and for the decennium 1929 to 1938 are given in the table below :—

OATS : AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1933-34	15.60	12.89	13.35	7.88	11.53	27.38	25.82	12.32
1934-35	16.25	10.36	18.00	6.57	10.38	28.80	23.14	10.83
1935-36	16.94	12.59	17.50	7.94	10.17	23.27	20.41	11.97
1936-37	16.82	16.03	2.83	5.70	7.44	34.22	17.65	10.93
1937-38	13.31	13.51	10.29	8.90	11.30	31.82	40.01	12.19
Average for 10 seasons 1929-38	16.47	13.47	13.19	7.84	10.76	28.18	20.06	12.35

The smallest average yield per acre ever recorded for Australia was that experienced in the abnormally dry season 1914-15, viz., 5.60 bushels, while the largest in the last ten years was that of the season 1932-33, amounting to 15.73 bushels per acre.

2. *World's Production.*—The world's production of oats for the year 1937, as computed by the International Institute of Agriculture, amounted to 3,605 million bushels. This quantity was harvested from 139 million acres, and represents an average yield of 25.94 bushels per acre. In comparison with this average return per acre, that of Australia for the same period (12.19 bushels) appears very small. Yields in excess of 40 bushels per acre are not uncommon, whilst in Belgium, Netherlands and Eire the average exceeded 50 bushels per acre during 1937. The following table shows the world's production and average yield for the last five years, together with the average for the quinquennium 1927-1931 :—

OATS : WORLD'S PRODUCTION.

Year.	Area.	Production.	Average Yield per Acre.
	Million Acres.	Million Bushels.	Bushels.
Average 1927-31	147	3,288	22.30
1932	142	3,556	25.20
1933	139	3,365	24.09
1934	136	3,210	23.64
1935	146	3,732	25.56
1936	138	3,290	23.84
1937	139	3,605	25.94

3. **Prices of Oats.**—The average wholesale prices in the Metropolitan markets for the year 1937-38 are given in the following table:—

OATS: AVERAGE WHOLESALE PRICES, 1937-38.

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	3 8½	3 5	4 2½	2 6	2 4½	3 1½

4. **Imports and Exports.**—The production of oats in Australia is sufficient to admit of a small regular export trade. The quantities and values of oats imported into and exported from Australia during the years 1933-34 to 1937-38 are given hereunder:—

OATS: IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£	Bushels.	£	Bushels.	£
1933-34 ..	3,542	772	87,275	12,789	83,733	12,017
1934-35 ..	7,302	1,728	576,062	61,581	568,760	59,853
1935-36 ..	3,790	1,065	244,698	28,783	240,908	27,718
1936-37 ..	11,828	1,676	258,703	35,923	246,875	34,247
1937-38 ..	5,268	1,777	234,990	37,136	229,722	35,359

(a) Australian currency values.

The quantity of oats imported into Australia is usually not very large, although in 1927-28 the net import amounted to 460,581 bushels. New Zealand is the chief supplier. The principal countries to which oats were exported during the years quoted were the United Kingdom, New Zealand, Malaya (British), Ceylon, India and Mauritius.

5. **Oatmeal, etc.**—The production of oatmeal in Australia during 1937-38 amounted to 337,896 cwt., practically the whole of which is consumed locally, the quantity of oats used for oatmeal being 1,967,206 bushels, or about 11 per cent. of the total production. Oversea trade in this and similar products is small; the imports of oatmeal, wheatmeal and rolled oats during 1937-38 amounted to 5 cwt., and exports to 31,267 cwt.

6. **Value of Oat Crop.**—The estimated value of the oat crop for the season 1937-38 was as follows:—

OATS: VALUE OF CROP,(a) 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value..	594,150	876,768	15,535	392,769	493,174	163,430	1,036	2,536,862
Value per acre ..	£2/6/7	£2/4/5	£2/0/4	£1/3/8	£1/5/7	£5/0/9	£7/0/9	£1/16/0

(a) Exclusive of the value of straw.

§ 6. Maize.

1. **States Growing Maize.**—Maize is grown for grain chiefly in New South Wales and Queensland, the area so cropped in these States during the season 1937-38 being 299,292 acres, or 93 per cent. of the total for Australia. Of the balance, Victoria contributed 20,879 acres, South Australia 22 acres, Western Australia 1 acre and the Australian Capital Territory 13 acres. The climate of Tasmania is unsuitable for the growing of maize for grain. In the States mentioned the crop is grown to a greater or lesser extent for green forage, particularly in connexion with the dairying industry

2. Progress of Cultivation.—(i) *Area and Production.* Notwithstanding its extensive cultivation in other countries the area under maize in Australia has fluctuated around 294,000 acres during the past decennium. Compared with the previous year, the area in 1937-38 increased by 2,500 acres, but the acreage sown was considerably less than the comparatively large areas of 414,914 and 400,544 acres sown respectively in 1910-11 and 1927-28.

The area and production of maize for grain in each State for the last five years and the average for the decennium 1929-1938 are given in the following table.

MAIZE : AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Nor. Ter.	Aus. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1933-34..	117,231	19,538	166,948	18	14	..	12	303,761
1934-35..	115,570	18,727	160,607	30	34	..	13	294,981
1935-36..	119,849	20,377	157,370	3	..	..	17	297,616
1936-37..	116,286	20,115	181,266	..	38	..	5	317,710
1937-38..	125,049	20,879	174,243	22	1	..	13	320,207
Average 10 seasons 1929-38	113,344	18,172	162,255	9	20	..	8	293,808

PRODUCTION.

	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1933-34..	3,133,890	644,933	3,715,764	150	183	..	60	7,494,080
1934-35..	3,238,590	719,360	4,142,079	450	216	..	132	8,100,827
1935-36..	3,324,780	638,643	3,504,045	108	..	..	129	7,467,705
1936-37..	3,302,520	704,506	3,148,814	..	486	..	57	7,246,383
1937-38..	3,403,140	783,835	2,628,458	1,050	3	..	126	6,816,612
Average 10 seasons 1929-38	3,031,662	657,585	3,665,148	211	227	..	64	7,354,897

The greatest production of maize in Australia was recorded in 1910-11, when it amounted to over 13,000,000 bushels. A bountiful harvest in Queensland increased the Australian total to 12,400,000 bushels in 1924. The production in 1937-38 amounted to 6,816,612 bushels, and the average for the decennium ended 1937-38 was 7,354,897 bushels.

(ii) *Average Yield.* The following table gives particulars of the average yields per acre of the maize crops of the States for the seasons 1933-34 to 1937-38 and for the decennium 1929-1938 :—

MAIZE : AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	N. Ter.	Aus. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1933-34 ..	26.73	32.96	22.26	8.33	13.07	..	5.00	24.67
1934-35 ..	28.02	38.41	25.79	15.00	6.35	..	10.15	27.46
1935-36 ..	27.74	31.34	22.27	36.00	..	..	7.59	25.09
1936-37 ..	28.40	39.50	17.37	..	12.79	..	11.40	22.81
1937-38 ..	27.21	37.54	15.08	47.73	3.00	..	9.69	21.29
Average for 10 seasons 1929-38	26.75	36.19	22.59	24.82	11.37	..	8.48	25.03

The average for Victoria is generally amongst the highest in the world. The area, however, is comparatively small and is situated in specially favourable districts. The average for New South Wales is generally higher than that for Queensland.

(iii) *Production per Acre—Various Countries.* The average for Australia for the past 10 years was 25.0 bushels per acre. During the period 1927-31 the United States of America averaged 25.0 bushels, Argentine Republic 31.9 bushels, Rumania 16.4 bushels, and the Soviet Union 14.5 bushels per acre.

3. *World's Production.*—The following table furnishes particulars of the world's acreage, production and average yield per acre of maize according to the data compiled by the International Institute of Agriculture :—

MAIZE : WORLD'S PRODUCTION.

Year.	Area.	Production.	Average Yield
			per Acre.
	Million Acres.	Million Bushels.	Bushels.
Average 1927-31	200	4,354	21.78
1933	213	4,334	20.39
1934	203	3,697	18.16
1935	203	4,303	21.20
1936	201	3,740	18.61
1937	198	4,642	23.44

The United States is the most important maize-producing country in the world. Approximately 100,000,000 acres are planted there annually, and in normal seasons more than 2,000 million bushels are reaped, representing about 50 per cent. of the world's production. About 85 per cent. of the production is fed to live stock on farms, 10 per cent. is used for human food, and only a very small fraction—less than one per cent.—is exported.

4. *Price of Maize.*—The average wholesale price of maize in the Sydney market for each of the last five years is given in the following table :—

MAIZE : AVERAGE PRICE, SYDNEY.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	<i>s. d.</i>	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	3 6½	3 5	4 10½	5 3	5 2½

5. *Oversea Imports and Exports.*—The imports of maize into Australia during the five years ended 1937-38 were negligible, averaging 20,000 bushels compared with nearly 600,000 bushels during the five years ended 1929-30. Details of imports and exports for the years 1933-34 to 1937-38 are as follows :—

MAIZE : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Imports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£	Bushels.	£	Bushels.	£
1933-34	23	26	3,120	731	-3,097	-705
1934-35	7	16	3,430	851	-3,423	-835
1935-36	47,609	12,233	527	129	47,082	12,104
1936-37	7,934	2,326	1,130	366	6,804	1,960
1937-38	47,442	8,493	54	20	47,388	8,473

NOTE.—The minus sign (—) denotes net exports.

(a) Australian currency values.

South Australia and Victoria were the only States producing more than 1,000,000 bushels on the average during the past decade, the yields being respectively 5,418,269 and 1,963,925 bushels, the higher return per acre in the latter State tending to diminish the advantage held by South Australia in regard to acreage.

(ii) *Malting and Other Barley.* (a) Year 1937-38. Particulars for the season 1937-38 are as follows:—

BARLEY-MALTING AND OTHER: AREA AND PRODUCTION, 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia. (a)
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Malting Barley ..	6,070	113,598	5,923	358,570	32,607	8,641	525,409
Other Barley ..	5,472	26,179	2,732	52,718	12,323	655	100,086
Total ..	11,542	139,777	8,655	411,288	44,930	9,296	625,495
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Malting barley ..	87,420	2,122,035	84,598	7,767,673	454,764	285,395	10,801,885
Other barley ..	79,440	586,484	36,423	879,370	129,291	20,769	1,732,197
Total ..	166,860	2,708,519	121,021	8,647,043	584,055	306,164	12,534,082

(a) Including Australian Capital Territory, 7 acres, 420 bushels.

Taking Australia as a whole, about 84 per cent. of the area under barley in 1937-38 was sown with malting or English barley while the remainder consisted of Cape and other varieties. The proportion, however, varied largely in the several States. The disposal of barley during the season 1937-38 was as follows: malt works, 3,295,372 bushels; flour and other grain mills, 1,32,094 bushels; distilleries, 38,436 bushels; exports, 4,796,468 bushels; leaving a balance of 4,271,712 bushels for feed and seed.

(b) *Progress of Cultivation.* The following table sets out the acreage and production of malting and other barley in Australia during the last five seasons:—

BARLEY-MALTING AND OTHER: AREA AND PRODUCTION, AUSTRALIA.

Season.	Acres.			Bushels.			Average Yield per Acre.		
	Malting.	Other.	Total.	Malting.	Other.	Total.	Malting.	Other.	Total.
1933-34 ..	410,478	54,481	464,959	7,013,769	945,249	7,959,018	17.09	17.35	17.12
1934-35 ..	395,243	60,678	455,921	6,990,756	1,041,699	8,032,455	17.69	17.17	17.62
1935-36 ..	485,870	79,000	564,870	8,412,712	1,212,265	9,624,977	17.31	15.35	17.04
1936-37 ..	393,797	76,460	470,257	6,382,760	954,007	7,336,767	16.20	12.48	15.60
1937-38 ..	525,409	100,086	625,495	10,801,885	1,732,197	12,534,082	20.56	17.31	20.04
Average 10 seasons 1929-38..	393,367	62,182	455,549	7,079,060	1,052,455	8,131,515	18.00	16.93	17.85

During the past ten seasons the area and production of malting barley have represented over six times the corresponding figures for other barley. The average yield per acre differs very little in respect of the two classes, the results for the last ten-yearly period being slightly in favour of the Malting variety.

(iii) *Average Yield.* The average yield of barley per acre varies considerably in the different States, being as a rule highest in Tasmania and Victoria, and lowest in Western Australia. Details for each State during the last five seasons, and for the decennium 1929-38, are given in the following table :—

BARLEY : YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1933-34	16.50	17.76	17.40	17.09	13.34	21.97	17.12
1934-35	17.83	18.37	16.31	17.94	8.94	30.37	17.62
1935-36	18.55	19.89	14.32	16.49	13.23	17.74	17.04
1936-37	17.15	21.43	5.62	13.99	11.21	34.65	15.60
1937-38	14.44	19.38	13.98	21.02	13.00	32.94	20.04
Average for 10 seasons 1929-38	16.78	20.23	16.22	17.51	11.74	25.12	17.85

2. **Comparison with Other Countries.**—In comparison with the barley production of other countries, that of Australia appears extremely small. Particulars for some of the leading countries during 1937 are as follows :—China, 281 million bushels; United States, 210 million bushels; Germany, 160 million bushels; India, 103 million bushels; Turkey, 101 million bushels; and Canada, 80 million bushels. Details of production in the Soviet Union are not available but in 1935 production approximated 360 million bushels.

3. **World's Production.**—The following table shows the world's acreage under barley, together with the production and average yield per acre, according to the results compiled by the International Institute of Agriculture :—

BARLEY : WORLD'S PRODUCTION.

Period.	Area.	Production.	Average Yield per Acre.
	Million Acres.	Million Bushels.	Bushels.
Average 1927-31	89.5	1,771	19.77
1933	87.3	1,774	20.34
1934	88.2	1,678	19.09
1935	94.1	1,846	19.62
1936	90.2	1,767	19.59
1937	92.9	1,825	19.65

4. **Prices.**—The average prices in the Melbourne market during each of the last five years are given in the following table :—

BARLEY : AVERAGE MELBOURNE PRICES PER BUSHEL.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	s. d.	s. d.	s. d.	s. d.	<i>s. d.</i>
Malting barley	2 8	2 11	2 10½	4 0½	4 1¾
Cape barley	2 3½	2 5	2 5	3 7	3 7

5. **Imports and Exports.**—Australian exports of barley during the last five years averaged 3,295,558 bushels. The grain was consigned mainly to the United Kingdom, New Zealand and Belgium, South Australia being the principal exporting State. Particulars of the Australian oversea imports and exports for the last five years are contained in the following table:—

BARLEY : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£	Bushels.	£	Bushels.	£
1933-34	134	59	2,701,908	305,359	2,701,774	305,300
1934-35	12	5	2,901,708	394,466	2,901,696	394,461
1935-36	2	3	3,472,084	369,391	3,472,082	369,388
1936-37	126	69	2,605,620	504,495	2,605,494	504,426
1937-38 .. ..	..	..	4,796,468	805,943	4,796,468	805,943

(a) Australian currency values.

In some years there is an export of Australian pearl and scotch barley, the total for 1937-38 reaching 373,860 lb., valued at £2,477, consigned mainly to the United Kingdom.

6. **Imports and Exports of Malt.**—In pre-war times the imports of malt into Australia were fairly extensive, the supply being obtained principally from the United Kingdom. Since 1914, however, imports have practically ceased. The production of malt in Australia is more than sufficient to meet local requirements and the surplus is shipped chiefly to the East and New Zealand. Details of imports and exports for the five years ended 1937-38 are given in the next table:—

MALT : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Bushels.	£	Bushels.	£	Bushels.	£
1933-34	178	197	24,472	8,259	24,294	8,062
1934-35	152	74	55,990	17,209	55,838	17,135
1935-36	300	195	62,518	19,457	62,218	19,262
1936-37	395	217	123,463	40,352	123,068	40,135
1937-38	252	155	164,548	62,327	164,296	62,172

(a) Australian currency values.

7. **Value of Barley Crop.**—The estimated value of the barley crop for the season 1937-38 and the value per acre are shown in the following table:—

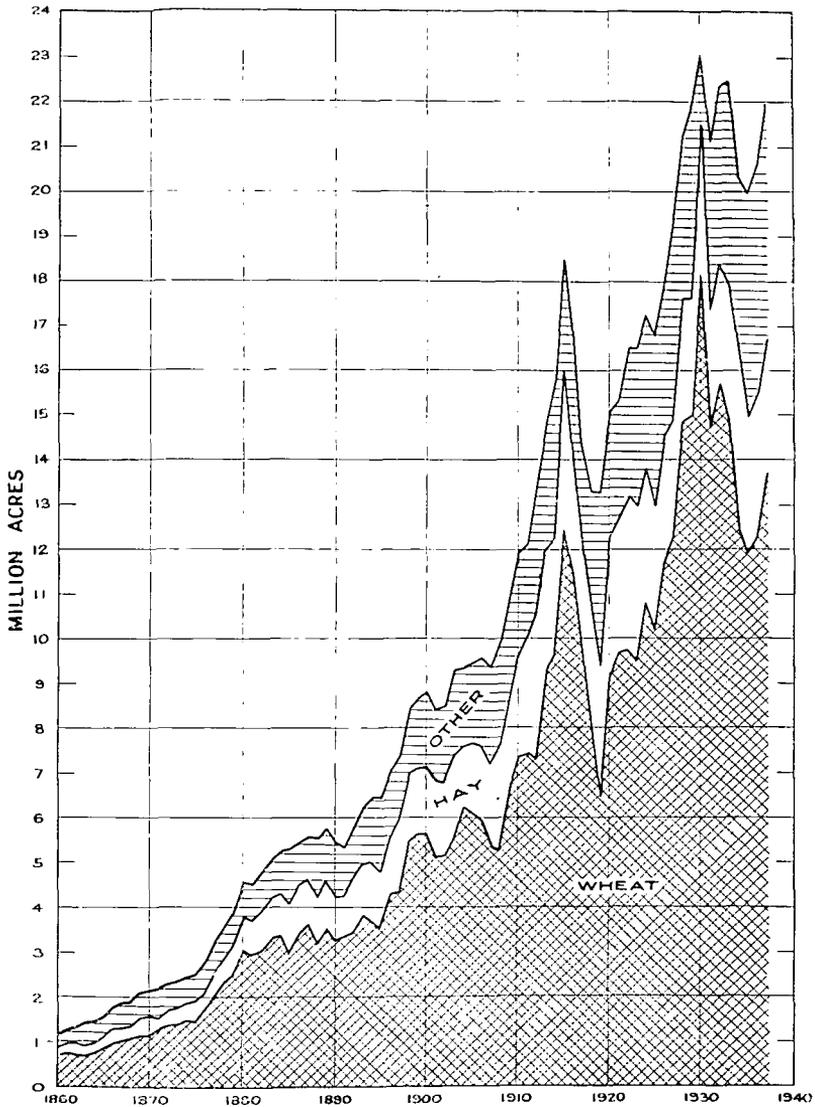
BARLEY : VALUE OF CROP(a), 1937-38.

Value.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Total	32,320	499,583	25,750	1,520,238	91,913	60,630	2,230,516
Per acre	£2/16/0	£3/11/6	£2/19/6	£3/13/11	£2/0/11	£6/10/5	£3/11/4

(a) Exclusive of the value of straw.

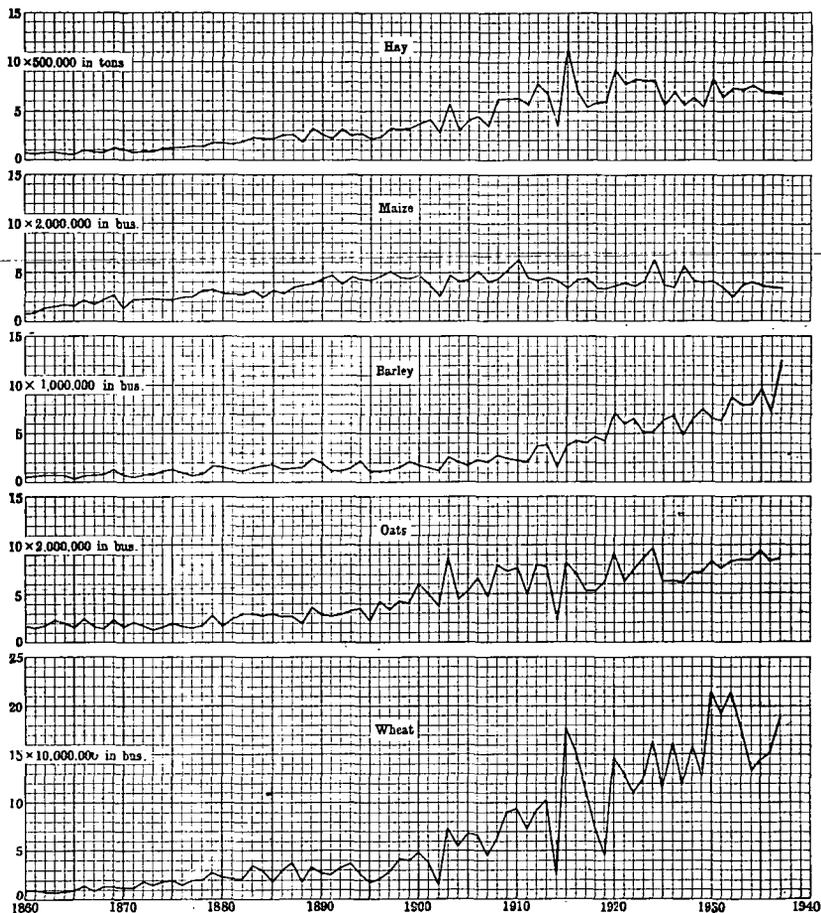
(b) Including Australian Capital Territory, £82.

AREA UNDER CROP—AUSTRALIA, 1860-61 TO 1937-38.



EXPLANATION.—The total area under crop is shown by the top curve in this graph, and the area under wheat by the bottom curve. The vertical distances between these curves and that in the centre indicate the areas under hay and other crops.

PRODUCTION OF PRINCIPAL CROPS—AUSTRALIA, 1860 TO 1937-38.



EXPLANATION.—A separate base line is provided for each of the crops dealt with. In each instance the base of a small square represents an interval of one year, the vertical height of such square representing in the case of wheat, 10,000,000 bushels; oats, 2,000,000 bushels; barley, 1,000,000 bushels; maize, 2,000,000 bushels; and hay, 500,000 tons. The height of each curve above its base line denotes the aggregate yield in Australia of the particular crop during the successive seasons.

§ 8. Rice.

Experimental rice cultivation was carried on at the Yanco Experimental Farm in New South Wales for a number of years, but it was not until 1924-25 that an attempt was made to grow the crop on a commercial basis. In that year production amounted to 16,240 bushels from 153 acres, or an average of 106 bushels per acre. Favoured by tariff protection and high average yields the development of rice culture in the Murrumbidgee Irrigation Area made rapid progress, and the production now exceeds the annual requirements of Australia. The growing of rice has been attempted in other States but the areas are only of an experimental nature. New South Wales is practically the only producing State. During the past five years an annual average of 258,000 centals of cleaned and 10,000 centals of uncleaned rice has been exported from Australia, mainly to the United Kingdom, New Zealand, Canada and the Pacific Islands.

Figures relating to area, production, etc., since 1931-32 will be found in the following table:—

RICE : AREA, PRODUCTION, ETC., AUSTRALIA.

Year.	No. of Growers. (a)	Area.	Production Paddy Rice.	Average Yield.	Imports.		Exports.		Retail Price.
					Un-cleaned.	Cleaned.	Un-cleaned.	Cleaned.	
		Acres.	Bushels.	Bushels.	Centals.	Centals.	Centals.	Centals.	Pence per lb.
1931-32 ..	277	19,589	1,349,869	68.91	..	40,363	40,968	92,157	3.48
1932-33 ..	280	22,034	1,901,476	86.30	..	44,063	29,623	79,860	3.24
1933-34 ..	292	20,226	2,171,544	107.36	..	41,368	7,556	209,348	3.24
1934-35 ..	290	21,746	1,888,445	88.84	67	37,725	28,618	235,872	3.22
1935-36 ..	304	21,715	2,163,580	99.64	963	41,697	9,820	215,793	3.27
1936-37 ..	320	23,384	2,276,575	97.36	26	32,605	2,137	320,893	3.07
1937-38 ..	319	23,737	2,268,907	95.59	9,535	33,315	2,825	308,844	3.09

(a) New South Wales.

The production from several small experimental plots in States other than New South Wales is included in the above figures, but the quantity is negligible.

§ 9. Other Grain and Pulse Crops.

In addition to the grain crops already specified, the principal other grain and pulse crops grown in Australia are beans, peas and rye. The total area under the first two mentioned crops for the season 1937-38 was 40,898 acres, giving a yield of 624,625 bushels, or an average of 15.27 bushels per acre, which was more than the average yield for the decennium ended 1937-38, viz., 15.09 bushels per acre. Beans and peas are grown chiefly in Tasmania, South Australia and Victoria. Peas are exported in considerable quantities to the United Kingdom, the chief exporting State being Tasmania. The total area under rye in Australia during the season 1937-38 was 12,732 acres, yielding 118,636 bushels, or an average of 9.32 bushels per acre, as compared with the average of 12.34 bushels for the last ten seasons. Of the total area sown to rye in 1937-38, about 44 per cent. was located in South Australia, 41 per cent. in New South Wales, and 9 per cent. in Victoria.

§ 10. Potatoes.

1. Progress of Cultivation.—(i) *Area and Production.* Victoria possesses peculiar advantages for the growth of potatoes, as the rainfall is generally satisfactory, and the climate is unfavourable to the spread of Irish blight; consequently the crop is grown in nearly every district except in the wheat belt. Tasmania comes next in order of importance, followed by New South Wales. The area for these three States accounts for 83 per cent. of the total for Australia.

The area and production of potatoes in each State during the last five years and the average for the decennium 1929-38 are given hereunder :—

POTATOES : AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1933-34 ..	20,089	60,856	11,936	5,824	4,462	36,518	7	139,692
1934-35 ..	19,662	54,214	11,666	4,664	4,050	36,358	15	130,629
1935-36 ..	22,743	44,287	13,620	4,612	4,946	34,719	62	124,989
1936-37 ..	24,909	45,627	13,448	4,657	4,324	36,967	88	130,020
1937-38 ..	21,372	41,105	10,817	4,387	4,202	32,468	34	114,385
Average 10 seasons 1929-38..	18,996	58,059	10,815	5,065	4,899	35,744	26	113,607
PRODUCTION.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933-34 ..	43,532	142,132	20,123	19,501	21,204	81,274	9	327,775
1934-35 ..	46,033	109,329	21,627	19,377	19,162	70,018	17	285,563
1935-36 ..	62,882	104,125	24,765	19,257	26,278	85,806	127	323,240
1936-37 ..	66,255	196,623	15,826	20,923	22,916	138,557	218	461,318
1937-38 ..	50,833	134,712	16,565	21,615	21,587	99,969	101	345,382
Average 10 seasons 1929-38..	42,818	156,113	17,150	19,739	22,635	93,089	53	351,597

(a) Includes Northern Territory, 3 acres.

The area sown to potatoes fluctuated around 140,000 acres over a long term of years, but the acreage has declined during the last five years and was only 114,385 acres in 1937-38. The greatest yield during the past decade was 461,318 tons in 1936-37, compared with the record output of 507,153 tons in 1906-7. The record production of 507,153 tons was obtained in 1906-7.

(ii) *Average Yield.* Particulars for each State for the five seasons ended 1937-38 and for the decennium ended 1937-38 are given hereunder :—

POTATOES : AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933-34 ..	2.17	2.34	1.69	3.35	4.75	2.23	1.29	2.35
1934-35 ..	2.34	2.02	1.82	4.15	4.73	1.92	1.13	2.19
1935-36 ..	2.76	2.35	1.82	4.18	5.31	2.47	2.05	2.59
1936-37 ..	2.66	4.31	1.18	4.49	5.30	3.75	2.48	3.55
1937-38 ..	2.38	3.28	1.53	4.93	5.14	3.08	2.97	3.02
Average for 10 seasons 1929-38..	2.25	2.69	1.58	3.90	4.62	2.60	2.00	2.63

Compared with the average yield per acre obtained in other countries, that returned for Australia is very low; the production in New Zealand, for example, in 1937-38 averaged 6.36 tons per acre from an area of 23,100 acres, as compared with 3.02 tons per acre from 114,000 acres in Australia.

(iii) *Relation to Population.* The average annual production of potatoes per head of the population of Australia for the last five seasons was approximately 116 lb. In Tasmania, where this crop is of far greater importance in relation to population than is the case in any other State, the production per head in 1906-7 was nearly a ton, while for the last five seasons it has averaged $8\frac{1}{2}$ cwt. Details for each State for the five seasons ended 1937-38 are as follows :—

POTATOES : PRODUCTION PER 1,000 OF POPULATION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933-34 ..	17	78	21	34	48	355	1	49
1934-35 ..	17	59	23	33	43	306	2	43
1935-36 ..	24	56	25	33	59	373	13	48
1936-37 ..	25	106	16	35	51	596	22	68
1937-38 ..	19	72	17	37	47	420	10	50

(iv) *Consumption.* The consumption in Australia during the last five years averaged about 51 tons per 1,000 of population, or about 115 lb. per head. These figures include the quantities used for seed. Omitting seed potatoes the consumption per 1,000 of population would be 45 tons or 100 lb. per head. From the figures shown above, therefore, it is apparent that New South Wales, Queensland and South Australia do not produce the quantities necessary for their requirements and must import from Tasmania and Victoria which have a surplus.

2. *Imports and Exports.*—Under normal conditions small quantities of potatoes are exported, principally to the Pacific Islands and Papua. In case of a shortage in Australia, supplies are usually obtained from New Zealand. Figures showing the trade for the last five years are given in the following table :—

POTATOES : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value. (a)	Quantity.	Value. (a)	Quantity.	Value. (a)
	Tons.	£	Tons.	£	Tons.	£
1933-34	29	348	1,940	12,639	1,911	12,291
1934-35 .. ..	..	18	1,165	12,510	1,165	12,492
1935-36	19	364	1,363	14,034	1,344	13,670
1936-37	1	13	1,368	12,641	1,367	12,628
1937-38 .. ..	..	3	4,269	26,565	4,269	26,562

(a) Australian currency values.

3. *Value of Potato Crop.*—The estimated value of the potato crop of each State for the season 1937-38 is given in the following table :—

POTATOES : VALUE OF CROP, 1937-38.

Value.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total	291,230	801,536	124,237	200,625	136,898	887,220	579	2,442,325
Per acre	£13/12/6	£19/10/0	£11/9/8	£45/14/8	£32/11/7	£27/6/6	£17/0/7	£21/7/0

§ 11. Other Root and Tuber Crops.

1. *General.*—Root crops, other than potatoes, are not extensively grown in Australia, the total area under such crops for the season 1937-38 being only 35,665 acres. The most important were onions, mangolds, sugar beet, turnips and sweet potatoes. Of these, onions, sugar beet and mangolds are most largely grown in Victoria, turnips in Tasmania, and sweet potatoes in Queensland. The total area under onions in Australia

during the season 1937-38 was 8,362 acres, giving a yield of 55,750 tons, and averaging 6.67 tons per acre. The area in 1937-38 under root crops other than potatoes and onions was 27,303 acres, from which a production of 210,576 tons was obtained, or an average of 7.71 tons per acre. The areas and yields here given are exclusive of the production of "market gardens," reference to which is made in § 17 par. 2.

2. Imports and Exports.—The only root crop, other than potatoes, in which any considerable oversea trade is carried on by Australia is that of onions. During the last five years 1,285 tons, valued at £A.12,327, were imported, principally from Japan, the United States of America and New Zealand, while during the same period the exports, which amounted to 16,161 tons, valued at £A.105,099, were shipped mainly to New Zealand, the Pacific Islands, the Philippine Islands and Canada.

§ 12. Hay.

1. General.—(i) *Area and Production.* As already stated, the chief crop in Australia is wheat grown for grain. Next in importance is hay, which for the season 1937-38 averaged 13.58 per cent. of the total area cropped. In most European countries the hay consists almost entirely of meadow and other grasses, but in Australia a very large proportion consists of wheat, oats and lucerne. The area under hay of all kinds in the several States during the last five years is given hereunder.

HAY : AREA AND PRODUCTION.

Season.	N.S.W.		Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1933-34 ..	724,538	1,196,259	92,943	507,248	479,768	77,625	2,299	3,080,680	
1934-35 ..	757,414	1,261,552	86,477	561,071	413,138	96,019	2,502	3,178,173	
1935-36 ..	658,810	1,140,361	71,309	566,064	494,495	74,741	1,690	3,007,470	
1936-37 ..	747,927	1,181,612	62,758	539,127	478,099	89,394	1,959	3,100,876	
1937-38 ..	759,562	1,079,039	73,629	562,057	432,399	73,047	2,732	2,982,465	
Average 10 seasons									
1929-38 ..	718,591	1,100,666	66,826	539,089	432,876	83,141	2,066	2,943,255	
PRODUCTION.									
Season.	N.S.W.		Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933-34 ..	920,480	1,353,796	144,250	539,846	512,439	109,397	2,540	3,582,748	
1934-35 ..	1,004,761	1,464,264	154,157	571,133	462,947	150,083	3,363	3,810,708	
1935-36 ..	837,386	1,346,953	122,687	586,658	504,571	96,888	2,534	3,497,677	
1936-37 ..	917,499	1,403,049	73,787	501,003	412,982	136,871	2,456	3,447,647	
1937-38 ..	825,309	1,245,935	98,218	687,312	450,419	112,995	3,565	3,423,753	
Average 10 seasons									
1929-38 ..	919,749	1,310,573	101,886	567,244	462,351	120,815	2,500	3,485,118	

Owing to various causes, the principal being the variation in the relative prices of grain and hay and the favourableness or otherwise of the season for a grain crop, the area under hay is liable to fluctuate considerably. The area under hay in Australia during the season 1915-16, 3,597,771 acres, was the largest on record, whilst the average during the decennium ended 1937-38 amounted to 2,943,255 acres.

(ii) *Average Production.* During the last ten years Queensland and Tasmania show the highest average production per acre, although the area sown in these States is small. For the same period the lowest yield for Australia as a whole was that

of 21 cwt. per acre in 1929-30, while the highest was that of 26 cwt. in 1932-33. The average for the decennium was nearly 24 cwt. Particulars for the several States for the seasons 1933-34 to 1937-38 and the average for the ten years ended 1937-38 are given hereunder :—

HAY : PRODUCTION PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Aus-tralia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933-34	1.27	1.13	1.55	1.06	1.07	1.41	0.92	1.16
1934-35	1.33	1.16	1.78	1.02	1.12	1.56	1.34	1.20
1935-36	1.27	1.18	1.72	1.04	1.02	1.30	1.50	1.16
1936-37	1.23	1.19	1.18	0.93	0.86	1.53	1.25	1.11
1937-38	1.09	1.15	1.33	1.22	1.04	1.55	1.31	1.15
Average for 10 seasons 1929-38.. ..	1.28	1.19	1.52	1.05	1.08	1.45	1.21	1.18

(iii) *Varieties Grown.* Information in regard to the crops cut for hay is available for all States excepting Tasmania. It is known, however, that oaten hay constitutes the most important variety grown in the island State.

Details for the last five seasons are given in the following table :—

HAY : VARIOUS KINDS GROWN.

Varieties.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Acres.	Acres.	Acres.	Acres.	Acres.
NEW SOUTH WALES—					
Wheaten	324,129	271,272	224,632	293,854	348,339
Oaten	275,493	349,174	328,866	342,334	312,337
Barley	933	1,354	930	912	815
Lucerne	123,280	134,703	103,478	110,422	97,354
Other	703	911	904	405	717
Total	724,538	757,414	658,810	747,927	759,562
VICTORIA—					
Wheaten	155,688	117,436	77,795	72,837	90,244
Oaten	945,855	1,016,205	926,293	940,958	817,001
Lucerne, etc.	94,716	127,911	136,273	168,717	171,794
Total	1,196,259	1,261,552	1,140,361	1,181,612	1,079,039
QUEENSLAND—					
Wheaten	6,058	3,472	1,789	5,259	6,004
Oaten	4,280	3,426	2,928	3,218	4,187
Lucerne	77,473	75,538	62,779	42,526	51,084
Other	5,132	4,041	3,813	11,755	12,354
Total	92,943	86,477	71,309	62,758	73,629
SOUTH AUSTRALIA—					
Wheaten	246,999	264,373	213,703	243,561	194,196
Oaten	247,879	280,710	334,529	277,413	343,480
Lucerne	3,572	4,444	5,093	3,944	6,052
Other	8,798	11,544	12,739	14,209	18,329
Total	507,248	561,071	566,064	539,127	562,057
WESTERN AUSTRALIA—					
Wheaten	216,688	138,989	214,406	201,792	175,374
Oaten	238,718	251,288	250,039	241,485	220,922
Lucerne	179	238	63	120	335
Other	24,183	22,623	29,987	34,702	35,768
Total	479,768	413,138	494,495	478,099	432,399

Oats is most largely used for hay in New South Wales, Victoria, South Australia, Western Australia and Tasmania, and lucerne in Queensland. For all States the proportions of the principal kinds of hay produced averaged 59 per cent. for oaten, 27 per cent. for wheaten, 7 per cent. for lucerne, and 7 per cent. for other hay.

2. **Comparison with Other Countries.**—As already noted, the hay crops of most European countries consist of grasses of various kinds, amongst which clover, lucerne, sainfoin and rye grass occupy prominent places. The statistics of hay production in these countries are not prepared on a uniform basis, consequently any attempt to furnish extensive comparisons would be misleading. It may be noted, however, that in Great Britain the production of hay from clover, sainfoin, etc., for the year 1937 amounted to 2,846,000 tons from 1,878,391 acres, while from permanent grasses a yield of 5,252,000 tons of hay was obtained from 4,856,651 acres, giving a total of 8,098,000 tons from 6,735,042 acres, or an average of about 24 cwt. per acre.

3. **Imports and Exports.**—Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for oversea trade, and consequently does not in such circumstances figure largely amongst the imports and exports of Australia. During 1937-38, 196 tons were imported, while the exports amounted to 2,466 tons, valued at £15,496, the principal purchases being made by Malaya (British), Philippine Islands, New Zealand, India, and Ceylon.

4. **Value of Hay Crop.**—The following table shows the value, and the value per acre, of the hay crop of the several States for the season 1937-38 :—

HAY : VALUE OF CROP, 1937-38.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total Value ..	4,842,880	5,152,877	619,998	1,627,031	980,126	384,200	21,531	13,628,643
Value per acre ..	£6/7/6	£4/15/6	£8/8/5	£2/17/11	£2/5/4	£5/5/2	£7/17/8	£4/11/5

§ 13. Green Forage.

1. **Nature and Extent.**—A considerable area is devoted to the production of green forage, mainly in connexion with the dairying industry. Under normal conditions, the principal crops cut for green forage are maize, sorghum, rape and lucerne, while small quantities of sugar-cane also are so used. In certain circumstances the area sown to green forage may be supplemented by areas of cereals sown originally for grain. In an adverse season some cereal crops may show no promise of producing grain or even hay and consequently the area may be turned over to stock for grazing. Particulars concerning the area under green forage in the several States during each of the last five years are given in the following table :—

GREEN FORAGE : AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1933-34	444,946	121,737	311,462	70,147	146,402	25,689	699	1,121,082
1934-35	477,060	115,037	338,312	91,783	186,233	24,941	548	1,233,914
1935-36	610,401	111,056	379,651	98,121	197,931	25,500	548	1,423,208
1936-37	645,713	102,744	429,782	136,548	284,676	24,742	836	1,625,041
1937-38	638,408	121,839	441,560	144,320	268,589	24,764	442	1,639,922

2. Value of Green Forage Crops.—The value of these crops is variously estimated in the several States, and the Australian total for the season 1937-38 may be taken approximately as £3,043,443, or about £1 17s. 1d. per acre.

§ 14. Sugar-cane and Sugar-beet.

1. Sugar-cane.—(i) *Area.* Sugar-cane for sugar-making purposes is grown only in Queensland and New South Wales, and much more extensively in the former than in the latter State. Thus, of a total area of 358,187 acres under sugar-cane in Australia for the season 1937-38, there were 337,334 acres, or about 94 per cent., in Queensland. Sugar-cane growing appears to have been started in Australia in or about 1862, as the earliest statistical record of sugar-cane as a crop is that which credits Queensland with an area of 20 acres for the season 1862-63. In the following season the New South Wales returns show an area of 2 acres under this crop. The area under cane in New South Wales reached its maximum in 1895-96 with a total of 32,927 acres. Thenceforward, with slight variations, it gradually fell to 10,490 acres in 1918-19, but from that year it expanded until 1924-25, when about 20,000 acres were planted. Since 1924-25, the area has fluctuated between 15,000 acres and 20,000 acres, the average for the decennium ended 1937-38 amounting to 17,590 acres. In Queensland, although fluctuations in area are manifest, the general trend has been upwards. In 1936-37, the acreage under cane was the highest on record, namely, 338,686 acres, whilst in the succeeding year, the area was about 1,300 acres less. The area under sugar-cane in Australia from 1933-34 and the average for the decennium ended 1937-38 are given in the following table:—

SUGAR-CANE : AREA.

Season.	New South Wales.		Queensland.		Australia.		Total.
	Pro- ductive.	Unpro- ductive.	Pro- ductive.	Unpro- ductive.	Pro- ductive.	Unpro- ductive.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
1933-34	10,015	6,914	228,154	83,756	238,169	90,670	328,839
1934-35	7,572	10,959	218,426	85,500	225,998	96,459	322,457
1935-36	10,416	9,794	228,515	86,185	238,931	95,979	334,910
1936-37	10,231	10,190	245,918	92,768	256,149	102,958	359,107
1937-38	10,716	10,137	245,131	92,203	255,847	102,340	358,187
Average 10 seasons 1929-38	8,739	8,851	225,709	82,162	234,448	91,013	325,461

(ii) *Productive and Unproductive Cane.* The areas given in the preceding table do not include the small acreage cut for green forage which in 1937-38 amounted to 4,363 acres in Queensland. The whole area was not necessarily cut for crushing during any one season, there being always a considerable amount of young and "stand-over" cane, as well as a small quantity required for plants. Thus the season in which the highest acreage is recorded may not show the greatest area of productive cane cut for crushing.

(iii) *Production of Cane and Sugar.* For Queensland, statistics of the production of sugar-cane are not available prior to the season 1897-98. In that season the total for Australia was 1,073,883 tons, as against the maximum production of 5,494,610 tons in 1937-38. The average production of cane during the decennium ended 1937-38 was 4,523,873 tons. With the exception of 1932-33, the yield of sugar during each of

the seven years ended 1937-38 has exceeded 600,000 tons. The average for the decennium amounted to 628,555 tons. Particulars relative to the total production of cane and sugar for the last five years are as follows. The average for the ten seasons ended 1937-38 is also included for comparison :—

SUGAR-CANE : PRODUCTION OF CANE AND SUGAR.

Season.	New South Wales.		Queensland.		Australia.	
	Cane.	Sugar.	Cane.	Sugar.	Cane.	Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933-34	230,918	27,586	4,667,122	638,559	4,898,040	666,145
1934-35	227,424	29,428	4,271,380	611,161	4,498,804	640,589
1935-36	280,472	36,461	4,220,435	610,080	4,500,907	646,541
1936-37	275,169	38,158	5,170,571	744,676	5,445,740	782,834
1937-38	361,724	47,077	5,132,886	763,242	5,494,610	810,319
Average 10 seasons 1929-38	222,473	27,510	4,301,400	601,045	4,523,873	628,555

The production of raw sugar in Australia in 1937-38 amounted to 810,319 tons manufactured from 5,494,610 tons of cane, and was greatly in excess of the previous highest recording of 782,834 tons in 1936-37. Official data are not available regarding the total number engaged in the sugar industry in Queensland, other than the number of separate holdings growing cane and employees in sugar mills which in 1937-38 totalled 7,875 and 4,324 respectively. In the report of the Sugar Inquiry Committee, 1931, however, it was stated that the number of persons employed in all branches of the industry was 28,737. In addition, there is the employment afforded in New South Wales, particulars of which are not available, but the number is probably in the vicinity of 2,000.

Final figures for the 1938-39 season are not yet complete, but latest estimates indicate a yield of 816,000 tons of raw sugar from 5,670,000 tons of cane crushed.

(iv) *Average Production of Cane and Sugar.* Owing to climatic variation, comparison between the average yields of cane per productive acre in Queensland and New South Wales cannot be accurately made except on an annual basis. In New South Wales the crop matures in from 20 to 24 months, whereas in Queensland a period of from 12 to 14 months is sufficient. Allowing for the disparity in maturing periods, the average annual yields of cane per productive acre during the decennium ending 1937-38 were 13.89 tons for New South Wales, and 17.59 tons for Queensland. Similarly, the yields of sugar per acre crushed for the same period were estimated at 1.72 tons and 2.46 tons respectively. Leaving aside the consideration mentioned above, the yields of cane and sugar per acre crushed for Australia for the ten years ended 1937-38 were 19.30 tons and 2.68 tons respectively, as compared with 17.90 tons and 2.20 tons for the decennium ended 1927-28.

(v) *Quality of Cane.* The quantity of cane required to produce a ton of sugar varies with the variety planted, the district and the season. For the decennium ended 1937-38 it took 7.20 tons of cane to produce 1 ton of sugar or 13.89 per cent. of its total weight. As the result of the systematic study of cane culture in Queensland and improvements in field and mill methods the sugar content of the cane has been considerably increased, and in 1937-38 only 6.73 tons of cane were required to produce one ton of sugar. It is believed that this is the highest sugar content obtained anywhere in the world. During the ten years ended 1927-28 it required on the average 8.12 tons of cane to produce one ton of sugar in Australia, whereas the average figure for the decennium ended 1937-38 was reduced to 7.20 tons.

SUGAR-CANE AND SUGAR: YIELD PER ACRE.

Season.	New South Wales.			Queensland.			Australia.		
	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933-34	23.06	2.75	8.37	20.46	2.80	7.31	20.57	2.80	7.35
1934-35	30.03	3.89	7.73	19.56	2.80	6.99	19.91	2.83	7.02
1935-36	26.93	3.50	7.69	18.47	2.67	6.92	18.84	2.71	6.96
1936-37	26.90	3.73	7.21	21.03	3.03	6.94	21.26	3.06	6.96
1937-38	33.76	4.39	7.68	20.94	3.11	6.73	21.48	3.17	6.78
Average 10 seasons 1929-38.. ..	25.46	3.15	8.09	19.06	2.66	7.16	19.30	2.68	7.20

The Bureau of Sugar Experiment Stations in Queensland is rendering useful service to the sugar industry by advocating and demonstrating better methods of cultivation, the more scientific use of fertilizers, lime, etc., and by producing and distributing improved varieties of cane.

(vi) *Relation to Population.* The yield of raw sugar in Australia during the last five years was more than sufficient to supply local requirements, the average production during the period amounting to 235 lb. per head of population. Details for the period 1933-34 to 1937-38 are as follows:—

RAW SUGAR: PRODUCTION PER HEAD OF POPULATION.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
New South Wales	lb. 24	lb. 25	lb. 31	lb. 32	lb. 39
Queensland	1,505	1,425	1,406	1,695	1,718
Australia	224	214	215	258	264

(vii) *Consumption.* The average annual consumption of raw sugar during the five years ended 1937-38 was estimated at 356,483 tons, equal to 118.20 lb. of raw sugar or 112.88 lb. of refined sugar per head of population. Sugar contained in jam, preserved fruit, milk, etc., exported during the period has been excluded in arriving at the figures quoted. The quantity of sugar used during the five years in factories is shown in the following table, the figures including, where necessary, estimates of consumption based on the sugar contents of the finished product. Particulars of sugar used in establishments not classified as factories are not available, and consequently the quantities shown below are deficient to that extent.

SUGAR: CONSUMPTION IN FACTORIES, AUSTRALIA.

Factories.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Aerated Waters and Cordials	Tons. 5,779	Tons. 6,490	Tons. 7,786	Tons. 8,905	Tons. 10,744
Bacon Factories	60	66	165	276	281
Bakeries—including Cakes and Pastry	8,110	9,032	10,404	} 17,150	} 18,182
Biscuits	5,710	6,339	6,663		
Breweries	10,023	11,208	12,404	13,451	15,663
Condensed and Concentrated Milk	6,620	7,501	5,547	7,637	8,034
Confectionery, Ice Cream, &c.	17,685	20,356	21,123	24,809	25,644
Jams, Jellies and Preserved Fruit	26,108	28,022	31,930	} (a)40,721	} (a)42,218
Jelly Crystals	649	699	665		
Total	80,744	89,713	96,687	112,949	120,766

(a) Including Condiments, Pickles, etc.

2. **Sugar-beet.**—(i) *Area and Production.* Victoria is the only State at present growing beets for sugar, and particulars in regard to acreage and production for the last four years and for the decennium 1929-38 are incorporated in the table below:—

SUGAR-BEET: AREA AND PRODUCTION, VICTORIA.

Particulars.		1934-35.	1935-36.	1936-37.	1937-38.	Average 10 seasons 1929-38.
Area harvested ..	acres	3,062	3,165	3,475	4,046	3,099
Production ..	tons	40,788	37,634	31,079	48,594	36,872
Average per acre ..	"	13.32	11.89	8.94	12.01	11.90
Sugar produced ..	"	4,998	5,115	4,180	5,625	4,702

Seasonal conditions were favourable during 1937-38 and yields above the average were generally recorded. The quantity of beet required to produce one ton of sugar was 8.64 tons as compared with 7.43 tons for the previous year and 7.84 tons, the average for the decennium ended 1937-38.

(ii) *Encouragement of Beet-growing.* The irrigation scheme on the Macalister River has provided an assured water supply for the district and has enabled the industry to expand. A fine grade of white sugar is manufactured at Maffra, and considerable quantities of beet pulp and molasses are distributed for stock feed.

3. **Sugar Bounties.**—Reference is made to the various Acts in connexion with sugar bounties and sugar excise tariffs in early issues of the Official Year Book. (See No. 6, pp. 394 to 396.)

4. **Sugar Purchase by Commonwealth Government.**—The steps taken by the Commonwealth Government in connexion with this matter are also referred to in the Official Year Book. (See No. 18, p. 720.)

5. **Sugar Agreement in Australia—Embargo on Imports, etc.**—By agreement between the Commonwealth and Queensland Governments in 1925, the embargo on the importation of foreign sugar, which was first introduced in September, 1915, was extended for three years from 1st September, 1925. The price of raw sugar needed for home consumption was fixed at £27 per ton, £1 of which was to defray administrative and general expenses of the Sugar Board and to provide special concessions to certain consumers of sugar. The embargo was later extended for a further period of three years until 1st August, 1931, on practically the same terms as previously. In response to representations, the Commonwealth Government appointed a Committee of Inquiry on the 23rd August, 1930, to report on the industry. The Committee consisted of eight members, representing the various interests concerned. The reports of the Committee were made available in March, 1931, and the renewal of the sugar agreement with certain modifications was recommended. The terms of the new agreement followed largely on those previously in force, particularly as regards the embargo on imports and the fixation of prices. The assistance to the fruit industry was increased from an average of £180,000 per annum to £315,000 by way of grant from the sugar industry. The agreement was signed on 1st June, 1931, and was to remain in force for a period of five years from 1st September, 1931. In 1932, however, conferences arranged between the Commonwealth Government and representatives of the industry agreed to a reduction of $\frac{3}{4}$ d. per lb. in the retail price of sugar from 1st January, 1933, until the end of the period of the agreement (31st August, 1936). It was also decided to reduce the amount of the assistance to the fruit industry to £200,000. A renewal of the agreement for a period of five years commencing 1st September, 1936, was negotiated between the Commonwealth and Queensland Governments in July, 1935. No alteration was made in the wholesale or retail price of sugar, but an increase of £16,000 per annum was granted to the fruit industry.

6. **International Sugar Agreement.**—Delegates of 21 Nations representing 90 per cent. of producers met in London and entered into an agreement on 6th May, 1937, providing for the regulation of the production and marketing of sugar in the world during

a period of five years from 1st September, 1937. The object of the agreement is to assure an adequate supply of sugar at a price not exceeding the cost of production, including a reasonable profit, to efficient producers. For this purpose, each country was given a basic annual export quota—which will be increased in proportion to any expansion in sugar consumption. By this means, and by limitations on stocks and measures to encourage more consumption it is expected that the International Sugar Council, which has been established to administer the agreement, will be able to hold in proper balance the supplies and requirements of sugar. The export quota originally allotted to Australia was 400,000 long tons. For the year ended 31st August, 1939, this was increased to 458,274 long tons and for the corresponding period 1940 it was reduced to 415,600 long tons.

7. **Net Return for Sugar Crop.**—Calculations by the Sugar Board regarding the disposal of the crop, net value of exports and the average price realized during each of the last five years will be found in the following table:—

SUGAR : NET RETURN, ETC., FOR CROP, AUSTRALIA.

Year.	Percentage Exported.	Net Value of Exports per Ton.	Average Price per Ton for Whole Crop.	Estimated Value of Crop.
	(a)	(a)	(a)	
	Per cent.	£ s. d.	£ s. d.	£
1933-34	47.89	8 0 6	16 6 3	10,640,318
1934-35	50.56	7 11 3	15 13 9	10,791,092
1935-36	47.97	7 18 9	16 5 11	11,010,892
1936-37	54.07	7 19 0	15 7 4	12,203,675
1937-38	54.94	8 6 0	15 7 6	12,748,348

(a) As supplied by the Queensland Sugar Board.

The estimated value of the raw sugar produced has been taken from the audited accounts of the Queensland Sugar Board. The values stated represent the gross receipts from sales in Australia and overseas less refining costs, freight, administrative charges, etc., and export charges, but not deducting concessions to the fruit industry and other rebates which in 1937-38 amounted to £312,656. The value thus obtained represents the net market value of all raw sugar sold, and since 1933 is divided between the growers and millers in the approximate proportions of 70 per cent. and 30 per cent. respectively. Prior to that year the distribution was about two-thirds to the grower and one-third to the miller.

8. **Imports and Exports of Sugar.**—Owing to the embargo and the increased production of sugar in Australia imports have practically ceased. Particulars concerning the imports and exports of cane sugar for the last five years are as follows:—

SUGAR : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	(a) £	Tons.	(a) £	Tons.	(a) £
1933-34	3	48	308,366	2,857,306	308,363	2,857,258
1934-35	1	38	311,513	2,733,190	311,512	2,733,152
1935-36	22	415	300,680	2,758,170	300,658	2,757,755
1936-37	33	620	406,250	3,707,360	406,217	3,706,740
1937-38	47	817	427,184	4,026,698	427,137	4,025,881

(a) Australian currency values.

9. **Sugar By-products.**—Large quantities of molasses are produced as a by-product in the sugar mills. Details for a series of years of the quantities produced and the proportions used for distilling, fuel, manure and other purposes will be found in Chapter XXIII. "Manufacturing". A distillation plant erected at the Plane Creek Central Sugar Mill, Mackay, was opened during 1927 and produces power alcohol of excellent quality.

A material known as "megass board" can be made from the residuum of crushed fibre after the removal of the sugar content from the sugar cane, and the possibility of the manufacture of artificial silk from the same material has also been considered. Up to the present, however, there is no record of commercial production of artificial silk, but a fibre board suitable for insulation and lining is now being produced.

10. **Sugar Prices.**—The prices of sugar in Australia from 1915 to 1941 are shown in the following table. During recent years the prices were fixed in accordance with the agreements referred to on page 646.

SUGAR : PRICES FOR CONSUMPTION IN AUSTRALIA.

Date of Determination.	Raw Sugar.			Refined Sugar.		
	Price to Grower and Miller per Ton.			Wholesale Price per Ton.		Retail Price per lb.
	£	s.	d.	£	s.	d.
19.7.15 to 15.1.16	18	0	0	25	10	0
16.1.16 to 30.6.17	18	0	0	29	5	0
1.7.17 to 24.3.20	21	0	0	29	5	0
25.3.20 to 30.6.20	21	0	0	49	0	0
1.7.20 to 31.10.22	30	6	8	49	0	0
1.11.22 to 30.6.23	30	6	8	42	0	0
1.7.23 to 21.10.23	27	0	0	42	0	0
22.10.23 to 31.8.25	26	0	0	37	11	4
1.9.25 to 31.8.31	(a) 26	10	0	37	6	8
1.9.31 to 4.1.33	26	0	0	37	6	8
5.1.33 to 31.8.36	24	0	0	33	4	0
1.9.36 to 31.8.41	24	0	0	33	4	0

(a) The price of raw sugar for the years 1925 to 1937 was estimated at from £24 to £26 10s. per ton, but as the result of the values received for the surpluses exported, the actual price obtained in 1925-26 was £19 10s. 7d.; in 1926-27, £24 10s. 10d.; in 1927-28, £22 0s. 4d.; in 1928-29, £20 17s. 11d.; in 1929-30, £20 8s. 2d.; in 1930-31, £19 12s. 11d.; in 1931-32, £18 2s. 11d.; in 1932-33, £18 17s. 9d.; in 1933-34, £16 6s. 3d.; in 1934-35, £15 13s. 9d.; in 1935-36, £16 5s. 11d.; in 1936-37, £15 7s. 4d.; and in 1937-38, £15 17s. 4d.

§ 15. Vineyards.

1. **Progress of Cultivation.**—(i) *Area of Vineyards.* The date of introduction of the vine into Australia has been variously set down by different investigators, the years 1815 and 1828 being principally favoured. It would seem, however, that plants were brought out with the first fleet in 1788, consequently the Australian vine is as old as Australian settlement. As already mentioned, a report by Governor Hunter gives the area under vines in 1797 as 8 acres. From New South Wales the cultivation spread to Victoria and South Australia, and these States have now far outstripped the mother State in the area under this crop. In Queensland and Western Australia also, vine growing has been carried on for many years, but little progress has been made. In Tasmania the climate is not favourable to the growth of grapes. The purposes for which grapes are grown in Australia are three in number, namely, (a) for wine-making, (b) for table use, and (c) for drying. The total area under vines in the several States

during each of the last five years and the average for the decennium ended 1937-38 are given in the following table :—

VINEYARDS : AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.		Acres.
1933-34..	15,243	40,485	1,963	52,880	5,700	There are no vineyards in Tasmania.	116,271
1934-35..	15,143	41,180	1,926	53,361	5,737		117,347
1935-36..	15,158	41,081	2,470	54,219	6,051		118,979
1936-37..	16,542	41,895	2,501	56,122	6,105		123,165
1937-38..	16,950	41,883	2,716	57,414	6,208		125,171
Average 10 seasons 1929-38	15,599	40,476	2,042	53,534	5,532		117,183

The total area under vines in Australia has shown a substantial expansion since 1860. This development has been interrupted from time to time, decreases occurring in 1896, the years between 1904 and 1910, and in 1914. Since the latter year the area increased without interruption from about 61,000 acres to more than 114,000 acres in 1924-25, due largely to the planting of varieties suitable for drying. Subsequently the area fluctuated somewhat but increased again to the record area of 125,171 acres in 1937-38.

(ii) *Report on the Wine Industry.* An investigation into conditions in the wine industry was undertaken by the Commonwealth Director of Development and the Senior Inspector of Excise, Department of Trade and Customs, and a comprehensive report was presented to Parliament on the 17th July, 1931.

(iii) *Wine Production, Bounties, etc.* The production of wine has not increased as rapidly as the suitability of soil and climate would appear to warrant, owing chiefly to two causes. In the first place Australians are not a wine-drinking people; it is estimated that they consume approximately 5 million gallons or 0.8 gallons per head per annum and consequently the local market is restricted. Secondly, the comparatively new and unknown wines of Australia must compete in the markets of the old world with the well-known and long-established brands from other countries. Continued efforts are being made to bring the Australian wines under notice, and with the assistance of a Commonwealth bounty on the export of fortified wine of specified strength, the industry has been greatly stimulated. Particulars of the Wine Export Bounty are shown in § 18 hereafter. The Wine Export Bounty Act 1930 which provided for payment at the rate of 1s. 9d. per gallon was replaced by a new Act in 1934 which fixed the rate at 1s. 3d. per gallon for the two years ending 28th February, 1937, and thereafter at a reduction of 1d. per gallon for each succeeding year until 1940 when it will be 1s. per gallon.

At the Imperial Economic Conference at Ottawa in 1932, the margin of preference granted by the Government of the United Kingdom was 2s. per gallon on Australian wines not exceeding 27 degrees of proof spirit. Hitherto the duties imposed were as follows :—Empire wines not exceeding 27 degrees, 2s. per gallon, foreign wines not exceeding 25 degrees, 3s. per gallon, a margin of preference of 1s. per gallon. The margin of 2 degrees in the strength of Empire wines is also considered a measure of preference. The bulk of the wine exported from Australia contains more than 27 degrees of proof spirit, and, under the duties in force in the United Kingdom in 1932, Australian wines of a strength exceeding 27 but under 42 degrees enjoy a preference of 4s. per gallon.

The quantity of wine produced in the several States during the last five seasons together with the average for the decennium ended 1937-38 is given in the table hereunder :—

WINE : PRODUCTION.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	No production of wine in Tasmania.	Gallons.
1933-34 ..	1,813,034	1,691,391	31,796	10,032,012	427,458		13,995,691
1934-35 ..	1,539,274	1,276,176	38,050	12,914,905	496,252		16,264,657
1935-36 ..	2,567,812	1,683,049	22,569	13,023,587	430,941		17,727,958
1936-37 ..	2,944,494	1,818,917	29,121	15,026,502	348,960		20,167,994
1937-38 ..	2,690,315	1,433,637	16,909	15,888,878	400,292		20,430,031
Average 10 seasons 1929-38	1,997,181	1,560,476	34,949	12,717,742	383,861		16,694,209

2. Imports and Exports of Wine.—(i) *Imports.* The principal countries of origin of wine imported into Australia are France, Spain, Portugal and Italy, the bulk of the sparkling wines coming from France. The imports for the last five years are given hereunder :—

WINE : IMPORTS INTO AUSTRALIA.

Year.	Quantity.			Value. (a)		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£	£	£
1933-34 ..	5,469	18,772	24,241	16,612	16,137	32,749
1934-35 ..	7,936	20,367	28,303	26,577	17,422	43,999
1935-36 ..	5,701	24,214	29,915	19,017	18,258	37,275
1936-37 ..	7,197	27,039	34,236	20,721	20,799	41,520
1937-38 ..	9,002	40,759	49,761	21,598	26,926	48,524

(a) Australian currency values.

(ii) *Exports.* Practically all of the wine exported from Australia is sent to the United Kingdom; approximately 190,000 gallons are sent to other countries. New Zealand absorbs the major portion of this quantity although exports to Canada have increased under the Canadian-Australian Trade Treaty; the former took 109,409 gallons valued at £47,613 while the latter imported 49,368 gallons valued at £20,446, during 1937-38. Exports for the last five years are given in the following table :—

WINE : EXPORTS FROM AUSTRALIA.

Year.	Quantity.			Value. (a)		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£	£	£
1933-34 ..	5,289	3,063,449	3,068,738	6,683	796,705	803,388
1934-35 ..	4,111	3,392,570	3,396,681	5,854	806,334	812,188
1935-36 ..	4,070	3,705,557	3,709,627	5,649	928,955	934,604
1936-37 ..	3,400	4,085,563	4,088,963	6,231	1,038,198	1,044,429
1937-38 ..	4,908	3,893,549	3,898,457	5,760	938,916	944,676

(a) Australian currency values.

3. *Other Viticultural Products.*—(i) *Table Grapes.* Grapes for table use are grown in all the States except Tasmania, but the area cultivated to this variety is only about 7 per cent. of the productive area under grapes. The greatest development in the industry has taken place in the drying of raisins and currants, particularly in Victoria and South Australia. The quantities of table grapes grown during the last five seasons are as follows:—

TABLE GRAPES : PRODUCTION.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1933-34	4,469	3,837	2,050	695	2,602	13,653
1934-35	3,638	3,113	1,900	646	3,214	12,511
1935-36	4,376	4,215	2,184	547	2,676	13,998
1936-37	5,107	3,754	2,058	582	2,720	14,221
1937-38	5,076	4,372	2,259	657	2,918	15,282

(ii) *Raisins and Currants.* The quantities of raisins (sultanas and lexias) and currants dried during each of the last five seasons are given in the following table:—

RAISINS(a) AND CURRANTS : PRODUCTION.

Season.	N. S. Wales.		Victoria.		South Aust.		Western Aust.		Australia.	
	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
1933-34	3,922	721	33,962	7,476	12,480	8,018	595	1,323	50,959	17,538
1934-35	3,381	755	29,637	8,801	12,234	9,259	646	2,037	45,898	20,852
1935-36	4,158	864	35,486	4,421	10,508	5,871	773	1,958	50,930	13,114
1936-37	5,416	1,094	37,267	7,610	11,381	8,093	707	1,887	54,771	18,684
1937-38	6,139	1,155	48,504	8,948	16,609	9,367	725	1,887	71,977	21,337
Average 10 seasons 1929-38	4,051	721	35,724	7,915	11,379	7,871	686	1,643	51,840	18,150

(a) Sultanas and Lexias.

4. *Imports and Exports of Raisins and Currants.*—The following table gives the oversea imports and exports of raisins and currants during each of the last five years:—

RAISINS AND CURRANTS : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value. (b)	Quantity.	Value. (b)	Quantity.	Value. (b)
RAISINS.						
1933-34	tons. 5	£ 570	tons. 46,825	£ 1,867,134	tons. 46,820	£ 1,866,564
1934-35	(c)104	(c)5,988	40,041	1,447,686	39,937	1,441,698
1935-36	(a)	20	37,998	1,501,146	37,998	1,501,126
1936-37	(a)	51	40,875	1,540,909	40,875	1,540,858
1937-38 .. ..	..	..	47,490	1,968,450	47,490	1,968,450
CURRANTS.						
1933-34 .. ..	..	..	15,659	632,978	15,659	632,978
1934-35	(a)	15	14,562	583,422	14,562	583,407
1935-36	(a)	35	9,945	375,923	9,945	375,888
1936-37	(c)14	(c)678	11,739	440,734	11,725	440,056
1937-38 .. ..	..	..	15,266	571,143	15,266	571,143

(a) Quantity negligible.

(b) Australian currency values.

(c) Reimports.

Since 1912 Australia has not only produced sufficient raisins and currants for home consumption, but has been able to maintain a large export trade. The average annual production for the decennium ended 1937-38 was almost 70,000 tons, of which 52,128 tons were exported and about 17,800 tons were available for local requirements. The chief countries importing Australian raisins and currants are the United Kingdom, Canada and New Zealand, the quantities exported thereto in 1937-38 being, 44,209, 14,207 and 3,358 tons or 70, 23 and 5 per cent. respectively. Exports to Canada have increased from 4,600 tons in 1928-29 to 14,207 tons in 1937-38. Under the terms of the agreement reached at the Imperial Economic Conference at Ottawa in 1932, the tariff in the United Kingdom on dried fruits imported from foreign countries was increased from 7s. per cwt. to 10s. 6d. per cwt. As already stated, the United Kingdom absorbed in 1937-38, 70 per cent. of Australia's exports, and the preference given should prove of considerable benefit to the Australian grower. The existence of the Anglo-Grecian Trade Treaty, however, precludes any immediate prospect of an advance in the present rate of preference—2s. per cwt.—being secured on Australian currants imported into Great Britain.

§ 16. Orchards and Fruit Gardens.

1. *Progress of Cultivation.*—The greatest area under orchards and fruit gardens was attained in 1933-34 when 281,989 acres were planted. The total area under orchards and fruit gardens in the several States during the last five years is given in the following table:—

ORCHARDS AND FRUIT GARDENS: AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1933-34 ..	90,227	76,945	31,511	28,899	20,658	33,679	70	281,989
1934-35 ..	87,035	76,254	30,646	29,167	20,811	33,779	70	277,762
1935-36 ..	82,702	75,788	28,544	29,122	21,667	33,372	76	271,271
1936-37 ..	87,887	76,760	28,828	29,755	22,143	32,285	66	277,724
1937-38 ..	87,293	75,067	31,136	29,874	21,976	31,677	98	277,121

2. *Varieties of Crops.*—(i) *General.* The varieties grown differ in various parts of the States, ranging from such fruits as the pineapple, paw-paw, mango and guava of the tropics to the strawberry, the raspberry and the currant of the colder parts of the temperate zone. The principal varieties grown in Victoria are the apple, peach, pear, orange, plum and apricot. In New South Wales, citrus fruits (oranges, lemons, etc.) occupy the leading position, although apples, peaches, plums, pears, cherries and bananas are extensively grown. In Queensland, the banana, the pineapple, the apple, the orange, the peach, the plum, and the coco-nut are the varieties most largely cultivated. In South Australia, in addition to the apple, orange, apricot, plum, peach and pear, the almond and the olive are extensively grown. In Western Australia, the apple, orange, pear, plum, peach, apricot and fig are the chief varieties. In Tasmania, the apple occupies nearly four-fifths of the fruit-growing area, but small fruits, such as the currant, raspberry and gooseberry are extensively grown, while the balance of the area is taken up with the pear, apricot, plum and cherry. The following tables give the acreage—bearing and non-bearing—under the principal kinds of fruit, and the quantity and value of fruit produced.

(ii) Area. The table hereunder shows the total acreage for 1937-38:—

ORCHARDS AND FRUIT GARDENS : AREA, 1937-38.

Fruit.	New South Wales.	Victoria.	Queens-land.	South Australia.	Western Australia.	Tasmania.	Aus-tralian Capital Territory.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Apples ..	18,173	28,907	5,629	10,507	12,933	24,441	57	100,647
Apricots ..	2,003	4,472	282	3,167	684	1,348	6	11,962
Bananas ..	14,714	..	8,174	..	246	..	..	23,134
Cherries ..	3,587	1,389	8	1,033	56	98	3	6,174
Citrus—								
Oranges ..	20,102	4,570	4,324	4,580	3,053	..	..	40,914
Mandarins ..	4,117							
Lemons ..	2,818							
Other ..	580							
(a)		13	51	48	..	..	692	
Nectarines and								
Peaches ..	8,397	14,346	1,384	1,856	1,100	80	6	27,169
Nuts ..	906	580	102	2,558	350	..	3	4,499
Pineapples ..	229	..	6,549	..	11	..	..	6,789
Pears ..	4,013	12,623	319	1,795	1,029	2,370	5	22,154
Plums and Prunes	5,498	3,977	1,213	2,454	1,107	466	12	14,727
Small Fruits ..	21	712	194	414	32	2,797	..	4,170
Other Fruits ..	2,135	1,836	2,549	1,023	654	77	6	8,280
Total ..	87,293	75,067	31,136	29,874	21,976	31,677	98	277,121

(a) Included with oranges, etc.

(iii) Production.—(a) Quantities. The production in 1937-38 is shown in the next table:—

ORCHARDS AND FRUIT GARDENS : PRODUCTION, 1937-38.

Fruit.	New South Wales.	Victoria.	Queens-land.	South Australia.	Western Australia.	Tasmania.	Aus-tralian Capital Territory.	Australia.
Apples .. bushel	1,234,802	2,454,471	269,410	1,275,486	930,678	4,792,000	2,021	10,958,868
Apricots	197,846	409,417	13,912	511,452	61,388	140,500	321	1,334,836
Bananas	1,845,394	..	758,726	..	26,504	..	..	2,630,624
Cherries	140,493	41,987	255	46,065	692	3,000	35	232,527
Citrus—								
Oranges	2,021,761	674,182	293,113	802,255	304,852	..	..	4,442,390
Mandarins ..	314,417	17,381						
Lemons	253,012	186,821						
Other	64,409	1,007						
578		578	578	2,264	..	..	74,881	
Nectarines and								
Peaches	639,059	1,712,228	93,713	207,183	78,130	5,800	174	2,736,287
Nuts lb.	422,464	263,528	10,594	1,278,256	62,733	..	50	2,037,625
Pineapples ..	30,284	..	1,331,091	..	118	..	..	1,361,493
Pears bushel	455,610	1,527,032	26,179	279,058	93,922	214,000	153	2,595,954
Plums and Prunes	453,549	249,287	76,017	165,333	71,975	60,700	221	1,077,082
Small Fruits ..	305	17,889	4,235	9,187	673	111,983	..	144,272

(b) Gross Values. The gross value of production for the various classes of fruit for the year 1937-38 is given in the following table:—

ORCHARDS AND FRUIT GARDENS : VALUE OF PRODUCTION, 1937-38.

Fruit.	New South Wales.	Victoria.	Queens-land.	South Australia.	Western Australia.	Tasmania.	Australian Capital Territory.	Australia.
	£	£	£	£	£	£	£	£
Apples	371,830	552,256	80,966	239,325	383,465	1,198,000	609	2,826,451
Apricots	92,570	92,119	7,867	129,518	28,136	28,100	150	378,460
Bananas	1,052,450	..	383,764	..	19,141	..	..	1,455,355
Cherries	115,320	31,490	280	32,821	1,315	1,500	30	182,756
Citrus—								
Oranges	690,540	233,221	116,031	220,590	127,187	..	..	1,501,433
Mandarins ..	101,160	6,301						
Lemons	78,280	65,387						
Other	23,910	352						
114		114	1,490	842	..	..	189,129	
2,800		2,800	37,226	1,230	..	..	26,708	
Nectarines and								
Peaches	260,760	408,154	29,225	58,788	37,226	1,230	75	795,458
Nuts	10,065	9,972	290	34,724	2,875	..	1	57,927
Pineapples ..	7,130	..	268,681	..	91	..	..	275,902
Pears	159,810	343,582	6,545	66,798	47,398	51,700	54	675,887
Plums and Prunes	185,670	43,793	26,604	36,418	30,289	10,120	87	333,041
Small Fruits ..	1,462	35,405	10,473	14,271	3,173	148,340	..	213,124
Other Fruits ..	58,843	116,335	70,921	20,924	24,541	1,010	68	292,642
Total	3,209,800	1,938,367	1,014,350	869,314	731,368	1,440,000	1,074	9,204,273

3. **Principal Fruit Crops.**—(i) *Area.* The area in Australia under the principal fruit crops for the year 1913-14 and for each of the last five years is shown hereunder :—

PRINCIPAL FRUIT CROPS : AREA, BEARING AND NON-BEARING, AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.(a)
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1913-14 ..	56,577	7,778	24,840	13,645	9,657	8,410
1933-34 ..	101,812	28,440	52,724	22,392	19,751	16,210
1934-35 ..	102,414	26,593	49,247	22,990	20,578	15,741
1935-36 ..	102,003	21,801	47,506	22,876	20,316	15,290
1936-37 ..	103,507	21,126	48,520	23,858	21,298	15,647
1937-38 ..	100,647	23,134	47,416	25,705	22,154	14,727

(a) Includes Prunes.

(ii) *Production*—(a) *Quantities.* In the next table the total production for the principal varieties of fruit grown in Australia is shown for the same periods :—

PRINCIPAL FRUIT CROPS : PRODUCTION IN AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.(a)
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1913-14 ..	5,000,178	835,868	1,638,961	930,144	951,277	621,525
1933-34 ..	10,500,288	2,636,288	5,159,524	1,762,923	1,914,118	943,102
1934-35 ..	9,569,161	3,027,168	5,307,146	2,011,542	1,934,975	1,004,821
1935-36 ..	9,771,290	3,367,480	5,057,081	1,762,673	2,458,087	905,936
1936-37 ..	10,998,866	2,369,175	4,971,761	2,132,654	2,692,207	1,115,129
1937-38 ..	10,958,868	2,630,624	5,106,061	2,639,722	2,595,954	1,077,082

(a) Includes Prunes.

(b) *Values.* The value of the principal fruit crops during the periods mentioned is given in the subjoined table :—

PRINCIPAL FRUIT CROPS : VALUE OF PRODUCTION, AUSTRALIA.

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.(a)
	£	£	£	£	£	£
1913-14 ..	1,132,427	157,710	719,808	306,433	258,235	135,654
1933-34 ..	2,249,108	1,013,812	1,540,767	455,021	465,875	243,549
1934-35 ..	2,581,568	900,657	1,444,203	572,543	499,937	269,626
1935-36 ..	2,500,361	915,409	1,575,662	554,094	639,429	268,669
1936-37 ..	2,794,633	1,114,025	1,686,569	640,433	669,782	333,186
1937-38 ..	2,826,451	1,455,355	1,717,270	754,929	675,887	333,041

(a) Includes Prunes.

4. **Imports and Exports of Fruit.**—(i) *General.* A considerable export trade in both fresh and dried fruits is carried on by Australia with oversea countries. The import trade in fresh fruits declined heavily when a Customs duty of 1d. per lb. was imposed in 1920-21 on imported bananas, which had previously been the chief variety of fresh fruit imported into Australia. Under the terms of the agreement reached at Ottawa in 1932, however, 40,000 centals of bananas may be admitted annually from Fiji at the rate of duty of 2s. 6d. per cental. The imports of dried fruits at present consist mainly of dates. The export trade in fresh and dried fruits has grown to considerable dimensions, the value of the shipments in 1937-38 amounting to £2,055,186 and £2,684,485 respectively. Apples constitute the bulk of the fresh fruit exported although the exports

of citrus fruits and pears are fairly considerable, and experiments are being conducted in regard to the dispatch of other fruits. Shipments of raisins and currants have increased greatly since 1914-15, and are mainly responsible for the growth in the dried fruits exports. Dried apricots also figure amongst the exports.

(ii) *Fresh Fruits.* Information with regard to the Australian oversea trade in fresh fruits is given hereunder :—

FRESH FRUITS : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	lb.	£	lb.	£	lb.	£
1933-34 ..	6,219,200	33,592	240,290,800	2,011,731	234,071,600	1,978,139
1934-35 ..	4,212,300	20,247	226,132,000	1,777,331	221,919,700	1,757,084
1935-36 ..	3,720,500	18,910	248,865,300	1,969,580	245,144,800	1,950,670
1936-37 ..	3,704,000	19,986	249,329,200	1,980,102	245,625,200	1,960,116
1937-38 ..	4,251,800	22,469	255,622,600	2,055,186	251,370,800	2,032,717

(a) Australian currency values.

(iii) *Exports of Apples, Pears and Citrus Fruits.* The quantity and value of apples, pears and citrus fruits exported during each of the last five years are shown in the following table :—

APPLES, PEARS AND CITRUS FRUITS : EXPORTS FROM AUSTRALIA.

Year.	Apples.		Pears.		Citrus Fruits.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Cental.	£	Cental.	£	Cental.	£
1933-34 ..	2,058,965	1,654,241	171,753	163,585	132,666	132,363
1934-35 ..	1,745,337	1,307,791	254,978	240,836	242,932	212,170
1935-36 ..	2,008,656	1,494,524	275,860	270,262	190,094	188,255
1936-37 ..	1,847,189	1,344,885	336,812	320,325	256,784	228,356
1937-38 ..	1,929,088	1,399,773	258,433	245,505	313,649	317,793

(iv) *Dried Fruits.* The quantity and value of oversea imports and exports of dried fruits, other than raisins and currants, for the last five years are shown below ; approximately 90 per cent. of the total imports consisted of dates obtained almost entirely from Iraq :—

DRIED FRUITS(a) : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Imports.	
	Quantity.	Value.(b)	Quantity.	Value.(b)	Quantity.	Value.(b)
	lb.	£	lb.	£	lb.	£
1933-34 ..	8,302,384	71,594	5,674,846	151,573	2,627,538	— 79,979
1934-35 ..	13,187,250	94,903	5,507,100	134,426	7,680,150	— 39,523
1935-36 ..	11,912,272	86,590	4,144,611	110,423	7,767,661	— 23,833
1936-37 ..	10,917,696	76,653	2,600,332	78,553	8,257,364	— 1,900
1937-38 ..	13,744,314	94,445	5,331,569	144,892	8,412,745	— 50,447

(a) Excluding raisins and currants referred to separately under Vineyards, § 15 par. 4. (b) Australian currency values.

(v) *Jams and Jellies.* Jams and jellies were exported in large quantities during the war years and in 1918-19 the record shipment of 79,277,560 lb., valued at £1,847,970, was dispatched from Australia. Since that year, however, the trade has dwindled, the value of the exports in 1937-38 amounting to only £121,395. Particulars relative to imports and exports during each of the last five years are as follows :—

JAMS AND JELLIES: IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	lb.	£	lb.	£	lb.	£
1933-34..	16,159	909	2,245,262	55,958	2,229,103	55,049
1934-35..	30,322	1,265	2,949,105	63,425	2,918,783	62,160
1935-36..	50,010	1,910	7,019,191	134,796	6,969,181	132,886
1936-37..	59,852	2,333	5,541,620	106,433	5,481,768	104,100
1937-38..	125,604	4,461	6,206,248	121,395	6,080,644	116,934

(a) Australian currency values.

(vi) *Preserved Fruit.* Details concerning the quantities and values of preserved fruit imported into Australia cannot readily be obtained, owing to the fact that in the Customs returns particulars concerning fruit and vegetables are in certain cases combined. The total value of fruit and vegetables preserved or partly preserved in liquid, or pulped, imported into Australia during 1937-38 was £22,647, or £28,365 in Australian currency. Oversea exports in 1937-38 were as follows—Apricots, 9,051,221 lb., £140,220; peaches, 42,913,577 lb., £605,453; pears, 29,240,351 lb., £428,843; pineapples, 2,432,206 lb., £51,272; and other, 8,278,275 lb., £135,319; or a total shipment valued at £1,361,107.

§ 17. Minor Crops.

1. *General.*—In addition to the crops previously dealt with, there are many others which, owing either to their nature, or to the fact that their cultivation has advanced but little beyond the experimental stage, do not occupy so prominent a position. Some of the more important of these are included under the headings—Market Gardens, Pumpkins and Melons, Nurseries, Grass Seed, Tobacco and Millet. Cotton growing has received considerable attention in the tropical portions of Queensland, and the prospects of establishing this industry are hopeful. The total area in Australia during the season 1937-38 devoted to crops not dealt with in previous sections was 251,947 acres, the major portion of which consisted of cotton, market gardens, grass seed, pumpkins and melons, canary seed and tobacco.

2. *Market Gardens.*—Under this head are included all areas on which mixed vegetables are grown. Where considerable areas are devoted to the production of one vegetable, such for instance as the potato, the onion, the melon, the tomato, etc., the figures are usually not included with market gardens, but are shown either under some specific head, or under some general head as "Other Root Crops," or "All Other Crops." The area under market gardens during each of the last five seasons is given hereunder:—

MARKET GARDENS: AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1933-34 ..	5,664	20,010	833	2,105	3,281	779	61	32,733
1934-35 ..	6,696	20,728	801	1,994	3,024	869	13	34,125
1935-36 ..	7,026	20,633	950	1,555	3,074	812	52	34,102
1936-37 ..	7,335	20,790	1,105	1,499	3,399	752	48	34,928
1937-38 ..	7,268	19,819	947	1,546	3,497	584	34	33,695

3. *Grass and Other Seed.*—The area under this crop during 1937-38, exclusive of New South Wales, for which complete figures as to area are not available, was 29,185 acres, of which 9,358 acres were in Victoria, 13,049 acres in Queensland, 5,336 acres in South Australia, 180 acres in Western Australia and 1,262 acres in Tasmania. The production for these States was 389,414 bushels. In addition to the areas planted above there were 17,262 acres sown to canary seed in Queensland, 2,922 acres in South Australia, 1,329 acres in Victoria and 57 acres in New South Wales, returning a yield of 126,643 bushels.

4. **Tobacco.**—Tobacco growing some years ago promised to occupy an important place amongst the agricultural industries of Australia. Thus, as early as the season 1888-89, the area under this crop amounted to 6,641 acres, of which 4,833 were in New South Wales, 1,685 in Victoria, and 123 in Queensland. This promise was, however, not fulfilled, and after numerous fluctuations, in the course of which the Victorian area rose in 1895 to over 2,000 acres, and that in Queensland to over 1,000 acres, the total area declined considerably.

In all the States in which its cultivation has been tried, the soil and climate appear to be suitable for the growth of the plant, and the large import of tobacco in its various forms is an index of the market for a satisfactory product. The total net imports of tobacco into Australia during the year 1937-38 were valued at £A.2,237,019, while the net quantity of unmanufactured tobacco imported was 23,289,024 lb. valued at £A.2,374,426. The area under this crop in 1937-38 amounted to 10,623 acres which produced 6 million lb. Victoria with 4,736 acres and Queensland with 3,812 acres were the chief producing States.

It has been proved that suitable leaf can be grown, and efforts are now being directed to the elimination of disease, and to improving the quality and aroma of the finished product. As the result of an agreement with the Commonwealth Government, the Australian Tobacco Manufacturers agreed to purchase 7.2 million lb. of suitable leaf in 1931-32 at an average price of 2s. 3d. per lb.; actually more than 10.5 million lb. was purchased at an average of 2s. 1½d. per lb. The agreement was not renewed and the area declined from 26,272 acres in 1932-33 to 10,623 acres in 1937-38.

The following table furnishes details of the average area, production, etc., in quinquennial periods from 1901 to 1935, and annually from 1932-33 to 1937-38:—

TOBACCO : AREA AND PRODUCTION IN AUSTRALIA.

Period.	Area.	Production.	Value.	Number of Producers Registered.
	Acres.	lb.	£	No.
1901-05	1,412	1,172,976	(a)	387
1906-10	1,678	1,419,040	41,581	518
1911-15	2,496	2,106,160	65,615	479
1916-20	1,648	1,449,616	104,978	487
1921-25	2,677	1,962,576	158,748	925
1926-30	2,478	1,632,243	121,589	666
1931-35	15,856	6,580,566	631,038	..
1932-33	26,272	9,723,056	960,565	5,527
1933-34	16,304	4,348,964	339,663	5,081
1934-35	8,429	3,113,315	256,655	4,205
1935-36	10,538	5,557,304	483,571	3,501
1936-37	11,572	5,198,352	437,446	3,168
1937-38	10,623	5,979,629	512,700	2,681

(a) Not available.

In 1929 a Select Committee was appointed by the House of Representatives to report on the tobacco industry in Australia. The report of the Committee was submitted on 1st July, 1930, and among the recommendations made was one for the formation of a Tobacco Investigation Committee. This Committee was formed, and was financed jointly by the Commonwealth Government and the British-Australasian Tobacco Company, the Company undertaking to contribute up to £3,000 on a £ for £ basis. In 1933 another Committee was appointed. The recommendation of this Committee, which reported on 16th November, 1933, that the sum of £20,000 should be provided annually for five years to assist the States to continue economic and scientific investigations, was adopted and this amount was distributed during the succeeding five years. The annual allocation was £5,000 to the Council for Scientific and Industrial Research, £3,750 to each of the States of New South Wales, Victoria and Queensland, and £1,250 each to South Australia, Western Australia and Tasmania. At the end of this period, the Commonwealth Government made a further grant for another five-year term.

Commencing with 1939 the amount allotted was £15,000. This sum decreases annually by £1,250 until, in 1943, the amount will be £10,000. The total for the five years amounts to £62,500 and is allocated as follows:—Council for Scientific and Industrial Research, £25,000; New South Wales, £5,250; Victoria, £7,500; Queensland, £9,750; South Australia, £3,000; Western Australia, £9,000; and Tasmania, £3,000. The Council for Scientific and Industrial Research is investigating diseases affecting the tobacco plant, including work on disease-resisting varieties, and is making tests of smoking quality. The Council has been successful in discovering effective means of preventing blue mould, and consequently the development of the industry should proceed on much sounder lines than hitherto. The States are carrying out field investigations on disease resistance, selection, yield and quality improvement, and are conducting instructional, demonstrational and field experimental work.

5. **Pumpkins and Melons.**—The total area under this crop in Australia during 1937–38 was 32,061 acres, of which 4,738 acres were in New South Wales, 1,431 acres in Victoria, 25,003 acres in Queensland, 372 acres in South Australia, 482 acres in Western Australia and 32 acres in Tasmania. The production for Australia amounted to 82,214 tons.

6. **Hops.**—Hop growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for the season 1937–38 being 1,085 acres, of which 928 acres were in Tasmania, 142 acres in Victoria and a small area of 15 acres in Western Australia. The Tasmanian area, though still small, has increased during the present century, the total for the season 1901–2 being 599 acres. In Victoria the area, which in 1901–2 was 307 acres, dwindled to 71 acres in 1918–19, then rose to 312 acres in 1925–26 and dropped to 142 in 1937–38. The cultivation of hops was much more extensive in Victoria some 50 years ago than at present, the area in 1883–84 being 1,758 acres. During the year 1937–38 the imports of hops exceeded the exports by 65,900 lb., valued at £A.6,116. New Zealand supplied the whole of the quantity imported.

7. **Flax.**—For many years flax was grown intermittently in the Gippsland district of Victoria, and attempts were made to introduce its cultivation into Tasmania and New South Wales, but without success. About the end of the year 1917 the shortage of flax fibre was acute, and endeavours were made by the Commonwealth Government to encourage local cultivation. The acreage in Victoria increased from 419 acres in 1917–18 to 1,611 acres in 1919–20, but fell to 179 acres in 1928–29. As the result of a bounty introduced in 1930 the area increased to 1,216 acres in 1930–31, but this expansion was not maintained during the years following. In 1937–38, however, another attempt was made to establish the industry and 1,167 acres were planted in this State compared with 927 acres in the previous year. In South Australia, 2 acres producing 6 cwt. of seed valued at £132 was also recorded.

The linseed flax industry has been the subject of two investigations during recent years. In 1933, the Development Branch of the Prime Minister's Department examined the industry and recommended in its report that any aggressive policy of expansion should be avoided. A second investigation was made under the direction of the Council for Scientific and Industrial Research in 1936. The report issued in that year indicated the possibility of developing the flax industry in Australia and that further investigation and experiment appeared to be justified. A special vegetable fibre section of the Council was established to carry out further studies of the problem. Largely as a result of the efforts of the Council, private enterprise is again attempting the development of the industry in Victoria.

Bounty was paid on flax and linseed grown in Australia between the years 1907 and 1918 and again for a period of five years ending 28th February, 1935. During these periods the total amounts disbursed as bounty were £2,376 and £2,839 respectively.

8. **Millet.**—Millet figures in the statistical returns of three of the States. The total area devoted thereto in 1937–38 was 4,440 acres, of which 2,913 acres were in New South Wales, 768 in Victoria, and 759 in Queensland. The particulars here given relate to millet grown for grain and fibre, the quantity for green forage being dealt with in the section relating thereto.

9. **Nurseries.**—In all the States fairly large areas are occupied as nurseries. Figures in regard to acreages under flowers, fruit trees, etc., are available for New South Wales, Victoria, South Australia, Western Australia, and Tasmania. During 1937-38 the areas in these States were 924, 951, 184, 196, and 317 acres respectively.

10. **Cotton.**—The cultivation of cotton was begun in Queensland in 1860, and ten years later the area cropped had increased from 14 acres to over 14,000 acres. The reappearance of American cotton in the European market on the conclusion of the Civil War gave a severe setback to the new industry, and the area declined continuously till 1888, when only 37 acres were planted. Later on the industry was revived, and manufacturing on a small scale was undertaken on two separate occasions at Ipswich, but low prices over a term of years checked development. In 1913 the Queensland Government made an advance of 1½d. per lb. on seed cotton, and ginned it on owner's account, the final return being equal to about 1¾d. per lb. The rise in price enabled the Government to offer a guarantee of 5½d. per lb. for seeded cotton of good quality for the three years ended 31st July, 1923, and the area picked increased from 166 acres in 1920 to 50,186 acres in 1924. Guarantees were continued until 1926, when the Commonwealth Government granted a bounty of 1½d. per lb. on the better grades and ¾d. on the lower grades of seed cotton grown in Australia. In addition to this direct assistance to the growers the Government subsidized the cotton-manufacturing industry by granting a graduated bounty, varying from ¾d. to 1s. per lb., on all cotton yarn manufactured in Australia which contained 50 per cent. of home-grown cotton. This bounty, however, ceased to operate after 30th June, 1932. The Raw Cotton Bounty Act of 1934, which repealed the previous Acts, provided, *inter alia*, that a bounty of 5½d. per lb. to 30th November, 1935, 4¾d. per lb. to 30th November, 1936, and 4½d. per lb. to 30th November, 1939, fluctuating according to variation in the Liverpool price, shall be payable on raw cotton produced in Australia from Australian grown seed. The amount of raw cotton for the purpose of the bounty was limited to the requirements of Australia plus 20 per cent. With the change over to the bounty system, a cotton pool was formed in Queensland under the Primary Products Pools Act, and a Cotton Board was elected to control the handling, financing and marketing of all cotton grown in the State.

The area under cultivation and the production in Queensland since the year 1927 are shown hereunder:—

COTTON: AREA AND PRODUCTION IN QUEENSLAND.

Year.	Area.		Yield of Unginned Cotton.
	Acres.		lb.
1927	14,975		7,060,756
1928	20,316		12,290,910
1929	15,003		8,024,502
1930	22,652		17,022,897
1931	22,452		15,244,644
1932	29,995		6,270,116
1933	68,203		17,718,306
1934	43,397		26,924,179
1935	54,947		20,785,418
1936	62,200		19,198,600
1937	52,692		11,792,828

11. **Coffee.**—Queensland is the only State in which coffee has been grown to any extent, and the results have not been satisfactory. The area under crop reached its highest point in the season 1901-2 with 547 acres. Thereafter the acreage fluctuated, but on the whole with a downward tendency, and in 1937-38 only 15 acres were recorded with a production of 7,077 lb.

12. **Other Crops.**—Miscellaneous small crops grown in Australia include tomatoes, rhubarb, artichokes, arrowroot, chicory and flowers.

§ 18. Bounties.

1. **Bounties.**—The bounties paid by the Commonwealth Government during the year ended 30th June, 1939, amounted to £406,287. This amount refers only to bounties paid under the Bounties Acts and does not include financial assistance given to wheat-growers and other primary producers under other Acts. Particulars of the assistance so rendered by the Commonwealth Government are furnished hereafter. Details of the amounts paid as bounty during the years 1934–35 to 1938–39 are as follows:—

BOUNTIES : AUSTRALIA.

Articles on which Bounty was Paid.	Rate of Bounty Payable.(a)	Date of Expiry of Bounty.	Amount Paid.				
			1934–35.	1935–36.	1936–37.	1937–38.	1938–39.
Iron and Steel Products Bounty Act—			£	£	£	£	£
*Fencing Wire ..	£2 12s. per ton (d)..	(e) 6th Nov., 1930	..	..	..	..	..
*Galvanized Sheets ..	£2 12s. per ton (b) ..	(e) 27th Mar., 1931	..	..	..	..	..
*Wire Netting ..	£3 8s. per ton (c) ..	..	10,644	10,659	8,467	6,741	5,736
Traction Engines ..	According to capacity, £40–£90 per tractor less 10 per cent. from 9th July, 1930, increased to 16 per cent. from 7th November, 1930, and to 40% from 11th July, 1931. Restored to original rate from 4th December, 1933	..	6,192	9,814	20,503	25,556	17,313
Sulphur Bounty Act— Sulphur from Australian Pyrites and other Sulphide Ores or Concentrates	£2 5s. per ton ..	..	50,831	74,282	68,011	83,144	87,575
Flax and Linseed Bounties Act 1930 ..	Rates vary according to year	28th Feb., 1935	599	62	..	..	..
Wine Export Bounty Act 1934–35— Fortified Wine, containing not less than 34 per centum of proof spirit, exported from Australia from 1st March, 1935, to 29th February, 1940	1s. 3d. per gallon from 1st March, 1935, to 28th February, 1937, reduced by 1d. per annum from 1938 to 1s. per gallon in 1940	29th Feb., 1940	184,330	194,467	214,886	184,693	167,872

(a) All bounties are subject to 20 per cent. reduction from 20th July, 1931, excepting those payable on gold, wine, wheat, fruit exported, and raw cotton produced subsequent to 31st December, 1937. (b) Amount of Bounty raised to £3 12s. per ton on 1st January, 1928; to £4 10s. per ton from 1st January, 1930; reduced to £3 10s. on 21st June, 1930; and to £3 3s. on 10th July, 1930. Bounty ceased on 27th March, 1931, owing to increase in Customs duty. (c) Amount of Bounty reduced to £2 14s. per ton on 10th July, 1930; to £2 5s. 6d. per ton on 7th November, 1930; and to 12s. per ton from 11th July, 1931. (d) Amount of Bounty reduced to £2 6s. on 10th July, 1930. Bounty ceased on 6th November, 1930, owing to increase in Customs duty. (e) Date Bounty ceased.

BOUNTIES: AUSTRALIA—continued.

Articles on which Bounty was paid.	Rate of Bounty Payable.(a)	Date of Expiry of Bounty.	Amount Paid.				
			1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Cotton Bounty Act— Seed Cotton grown in Australia and delivered and graded as prescribed	Varies on Higher Grades from 1½d. per lb. up to 1932, to ½d. per lb. in 1936 Varies on Lower Grades from ½d. per lb. up to 1932, to ¼d. per lb. in 1936	31st Jan., 1935	£ 21,729	£ ..	£ ..	£ ..	£ ..
Raw Cotton Bounty Act— Raw cotton produced in Australia and graded as prescribed	5½d. per lb. to 30th November, 1935, 4½d. to 30th November, 1936, and 4¼d. per lb. to 30th November, 1939, fluctuating according to variations in Liverpool price	30th Nov., 1939	96,752	77,089	50,643	95,044	115,012
Papua and New Guinea Bounties Act— Cocoa and Coffee Beans, etc.	1½d. per lb. ..	31st Dec., 1937	1,430	1,166	1,285	1,774	..
Papua and New Guinea Bounties Act— Cocoa Beans ..	1½d. per lb. ..	31st Dec., 1947	..	..	..	..	2,885
Bamboos and Rattans (Unmanufactured)	£4. per ton ..	.. ..	..	..	..	..	27
Manila, Sisal and Other Hemp Fibres	£6 per ton ..	.. ..	..	..	..	..	2
Coir Fibre ..	£3 per ton ..	.. ..	..	..	..	..	45
Gold Bounty Act— Gold produced in Australia as prescribed	Varies according to production (b)	(c) 30th Sept, 1932	..	..	..	..	..
Fruit Exported— Oranges	6d. per case .. 2s. per export case	(d) .. (d) ..	5,227 .. ..	.. 7,886	....	....	....
Oranges, Lemons, Grape Fruit and Mandarins	Varies from 1s. to 2s. per case	(d) ..	..	..	7,431	..	..
Apples and Pears ..	4d. per bushel case	(d) ..	..	81,047	..	..	..
	4½d. " " "	(d) ..	..	..	104,045	..	..
	2½ " " "	(d) ..	..	..	..	54,643	..
Prunes	½d. per lb. "	(d) ..	..	6,707	..	..	..
	¼d. " "	(d) ..	..	..	2,200	..	..
Total .. ..	.. ..	.. ..	377,734	463,179	477,471	461,402	406,287

(a) All Bounties are subject to 20 per cent. reduction from 20th July, 1931, excepting those payable on gold, wine, fruit exported, and raw cotton produced subsequent to 31st December, 1937, and amounts paid under the Papua and New Guinea Bounties Act subsequent to 31st December, 1937. (b) Rate of Bounty on gold produced for the nine months ending September, 1932, was 4.056s. per fine ounce. (c) Date Bounty ceased. (d) Acts passed in respect of each year.

2. **Other Financial Assistance.**—In addition to the payment of bounties mentioned in the preceding paragraph financial assistance has been granted by the Commonwealth Government for the relief of wheat-growers, fruit-growers and other primary producers. The amounts shown, however, do not include such items as the expenditure on cattle tick control, banana industry, tobacco investigation and apple and pear research, which indirectly benefits the industries concerned. The distribution as bounty, relief or subsidy has been made in the following manner:—

AMOUNTS PAID BY THE COMMONWEALTH GOVERNMENT TO ASSIST PRIMARY PRODUCERS: AUSTRALIA.

Amounts paid to—	Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Total.
		£	£	£	£	£	£	£	£
Wheat-growers as—									
Bounty (a) ..	1931-32	950,546	820,635	64,620	874,630	716,826	2,057	..	3,429,314
Relief ..	1932-33	570,902	442,421	49,744	507,138	436,145	2,342	308	2,000,000
Relief ..	1933-34	911,094	603,586	76,455	704,543	639,493	(d) 57,024	805	3,053,000
Bounty (a) ..	1934-35	531,593	285,000	45,717	300,687	296,652	2,543	222	1,402,414
Special Relief ..	1934-35	100,000	192,000	12,000	127,000	137,000	5,250	..	573,250
Relief ..	1934-35	590,000	400,000	42,740	503,545	434,527	(d) 33,906	226	2,004,944
Relief ..	1935-36	565,327	441,948	42,835	432,146	392,850	(d) 10,493	360	1,915,869
Relief (e) ..	1938-39	558,489	307,564	70,824	398,559	421,296	(d) 51,961	..	1,808,693
Total ..	..	4,777,951	3,493,154	395,935	3,908,248	3,474,789	195,486	1,921	16,247,484
Fruit-growers as—									
Relief (c) ..	1933-34	8,225	36,321	478	5,258	10,918	63,800	..	125,000
Relief (c) ..	1934-35	12,538	22,299	2,103	13,116	14,713	70,231	..	135,000
Total ..	..	20,763	58,620	2,581	18,374	25,631	134,031	..	260,000
Primary Producers (other than wheat-growers)—									
Manure subsidy ..	1932-33	19,993	88,697	32,588	34,930	50,823	17,711	32	244,684
Manure subsidy ..	1934-35	23,000	95,000	21,000	46,000	52,000	13,000	..	250,000
Manure subsidy ..	1935-36	56,211	203,324	40,944	99,610	105,821	28,127	94	534,131
Manure subsidy ..	1936-37	40,058	129,637	25,144	59,136	58,327	14,610	88	327,000
Manure subsidy ..	1937-38	30,048	99,746	18,828	48,000	53,028	12,450	66	262,166
Manure subsidy (b) ..	1938-39	26,000	75,000	18,020	32,000	44,000	11,000	..	206,020
Total ..	..	195,220	691,404	156,524	319,676	363,999	96,898	280	1,824,001
Grand Total ..	..	4,993,934	4,243,178	555,040	4,246,298	3,864,419	426,415	2,201	18,331,485

(a) Rate of Bounty 4d. per bushel in 1931-32 and 3d. per bushel in 1934-35. (b) Subject to revision.
(c) Growers of apples, pears and mandarins. (d) Includes special grant to Tasmania. (e) Including the unexpended balance (£23,892) and without deducting refunds and expenses (£14,862).

The moneys granted for the assistance of wheat-growers in 1932-33 and 1933-34 were paid through the Governments of the States on an acreage basis. In 1934-35, in accordance with the recommendations of the Royal Commission on the wheat industry, assistance took the form of a bounty of 3d. per bushel, supplemented by a further relief payment of 3s. per acre. Further special relief was given to those farmers who were adversely affected by the weather conditions of the season 1934-35. Altogether, the amount paid during 1934-35 for the benefit of wheat-growers exceeded £4 million. For the year 1935-36 the amount paid by the Commonwealth Government as relief was £1,915,869. No financial assistance was made to wheat-growers by the Commonwealth Government during the years 1936-37 and 1937-38. In 1938-39, however, a sum of £1,808,693, collected through the medium of a flour tax, was allocated for distribution as relief to wheat-growers. Of this amount £1,769,939 was the actual amount paid to States for the year 1938-39 (see footnote (e) above). The relief granted to fruit-growers was paid to growers of apples, pears and mandarins. Assistance has been given to primary producers, other than wheat-growers, in the form of a manure subsidy;

the rate was 15s. for each ton of artificial manure used in the production of primary produce, reduced in 1936-37 to 10s. per ton. Since 1932-33 more than £1,824,000 has been distributed in this manner. In addition to the assistance outlined above the Loan (Farmers' Debt Adjustment) Act 1935 made provision for grants, totalling £12 million to be made available to the States for the adjustment of farmers' debts. Of this amount £10 million was allocated as follows:—New South Wales, £3,450,000; Victoria, £2,500,000; Queensland, £1,150,000; South Australia, £1,300,000; Western Australia, £1,300,000; and Tasmania, £300,000. The remaining £2 million is to be allocated in the same proportion, but is subject to review at a later date.

§ 19. Fertilizers.

1. **General.**—In the early days of settlement in Australia scientific cultivation was little understood. It was common, as in other new countries, for the land to be cropped continuously to a degree of exhaustion. The divergent character of the soils presented a difficulty in the proper use of fertilizers for different crops and the outstanding development of wheat-growing made a system of crop rotation impracticable. The importance of fallowing and the application of suitable fertilizers in adequate quantities is, however, now widely appreciated by farmers. The introduction of the modern seed-drill acting also as a fertilizer-distributor has greatly facilitated the use of artificial manures and much land formerly regarded as useless for cultivation has now been made productive.

2. **Fertilizers Acts.**—In order to protect the users of artificial manures, legislation has been passed in each of the States regulating the sale and prohibiting the adulteration of fertilizers. A list of these Acts and their main features will be found in Official Year Book No. 12 (page 378).

3. **Imports.**—The Australian production of prepared fertilizers is sufficient for local requirements. Imports consist chiefly of rock phosphate, which is used in making superphosphate, a valuable fertilizer for cereals. During 1937-38 the value of rock phosphate imported represented 71 per cent. of the total imports of fertilizers. Nauru and Gilbert and Ellice Islands Colony supplied the whole of the shipments. Sodium nitrate is obtained chiefly from Chile.

The imports of manures during the last five years are given in the following table. Although considerable quantities of manufactured superphosphate were imported up to the year 1914-15, imports during recent years were very small:—

FERTILIZERS: IMPORTS INTO AUSTRALIA.

Fertilizer.		1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (a)	1937-38. (a)
Ammonium Sulphate	cwt.	305,972	229,200	491,208	573,979	604,566
" "	£	127,015	104,809	216,671	240,089	279,949
Potash Salts	cwt.	124,871	149,701	209,379	269,476	212,308
" "	£	66,290	59,841	75,120	115,925	97,989
Rock Phosphate	cwt.	7,480,378	8,201,296	10,488,165	13,259,884	15,551,909
" "	£	593,971	610,092	735,962	893,252	984,313
Sodium Nitrate	cwt.	59,534	83,548	110,273	134,311	188,129
" "	£	30,899	39,431	49,580	71,885	84,664
Superphosphate	cwt.	..	51,360	40	20	..
" "	£	..	3,449	9	4	..
Other	cwt.	120,382	7,712	116,549	38,425	3,357
" "	£	20,313	3,431	13,598	6,075	3,275
Total	cwt.	8,091,137	8,722,817	11,415,614	14,276,095	16,560,269
	£	838,488	821,053	1,090,940	1,327,230	1,450,190

(a) Australian currency values.

4. Exports.—The subjoined table shows the exports of manures for the years 1933-34 to 1937-38. Practically all these fertilizers are manufactured locally, the quantities exported being consigned chiefly to the Pacific Islands, New Zealand and Japan :—

FERTILIZERS : EXPORTS FROM AUSTRALIA.

Fertilizer.		1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Ammonium sulphate	cwt.	279	2,553	4,061	5,011	2,613
" "	£	121	1,074	1,569	974	1,094
Bonedust	cwt.	25	41	2,576	2,865	3,224
" "	£	10	17	1,396	1,597	1,809
Rock phosphate	cwt.	..	..	..	1	220
" "	£	..	..	..	7	60
Sodium nitrate	cwt.	6	1	..	59	10
" "	£	7	1	..	59	17
Superphosphate	cwt.	633	31,116	36,454	41,254	33,924
" "	£	155	5,590	6,261	7,136	5,875
Other "	cwt.	21,445	18,188	29,300	68,817	102,664
" "	£	8,493	1,703	11,665	34,104	52,484
Total	cwt.	22,388	51,899	72,391	118,007	142,655
	£	8,786	8,385	20,891	43,877	61,339

5. Quantities Locally Used.—Information regarding the area manured and the quantity used in each State during the year 1937-38 is given in the following table. The details are not complete as the area manured and the quantity used in the top-dressing of pasture lands in Queensland is not available. This omission, however, does not seriously impair the value of the table. Details of the area manured with natural manure (stableyard, etc.) have been omitted; in 1937-38 the area and quantity involved amounted to 112,048 acres and 549,380 loads :—

AREA MANURED AND QUANTITY OF MANURE USED, 1937-38.

State or Territory.	Artificial Manure (Superphosphates, Bonedust, Nitrates, etc.)				Total Area Manured.	Total Artificial Manure Used.
	Area under Crop Manured.		Pasture Lands Top-dressed.			
	Acres.	Tons.	Acres.	Tons.		
New South Wales	4,254,150	137,489	875,730	40,880	5,129,880	178,369
Victoria	4,011,791	174,485	3,700,131	189,796	7,711,922	364,281
Queensland	236,308	66,889	(a)	(a)	(b) 236,308	(b) 66,889
South Australia	4,228,577	176,351	996,764	51,196	5,225,341	227,547
Western Australia	4,088,534	194,926	1,067,732	54,714	5,156,266	249,640
Tasmania	216,792	20,597	231,000	12,534	447,792	33,131
Northern Territory	..	..	..	..	..	..
Australian Capital Territory	4,835	216	2,967	141	7,802	357
Total	17,040,987	770,953	6,874,324	349,261	23,915,311	1,120,214

(a) Not available.

(b) Excluding Pasture Lands. Quantity considered to be negligible.

Particulars of the quantity of artificial manure used in each of the States and Territories during the past ten years are included in the next table. These details include the quantity used in the top-dressing of pasture lands except where indicated by the footnote. The omission of Queensland, as previously mentioned, does not detract from the value of the table as the area involved is considered to be negligible :—

QUANTITY OF ARTIFICIAL MANURE USED : AUSTRALIA.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	(b) Tons.
1928-29 ..	126,946	257,498(a)	36,644	184,994	201,022	23,500	..	116	830,734
1929-30 ..	129,076	269,967(a)	22,925	196,746	231,128	24,810	..	137	874,789
1930-31 ..	132,619	274,420(a)	28,783	205,110	236,146	24,870	..	131	902,079
1931-32 ..	70,374	163,234(a)	31,255	148,707	178,509	22,050	..	92	614,221
1932-33 ..	89,955	199,557(a)	35,505	157,995	199,337	24,235	..	128	706,712
1933-34 ..	98,313	217,251(a)	42,517	158,989	203,848	25,844	..	120	746,882
1934-35 ..	101,885	211,657(a)	44,279	157,189	196,741	25,824	..	135	737,710
1935-36 ..	123,472	251,897(a)	40,393	174,593	202,325	27,104	2	166	819,952
1936-37 ..	151,088	306,846(c)	40,392	208,053	224,473	31,364	..	304	962,525
1937-38 ..	178,369	364,281(a)	66,889	227,547	249,640	33,131	..	357	1,120,214

(a) Exclusive of quantity used in top-dressing pasture lands. (b) Incomplete. See Note (a).
(c) 1935-36.

As mentioned in § 18 the Commonwealth Government has encouraged the use of artificial manure by subsidizing primary producers, other than wheat-growers, at the rate of 15s. per ton up to 1936-37 when it was reduced to ros. per ton. The expansion in the use of artificial manure since 1932-33, when the subsidy was introduced, is indicated in the table above.

6. Local Production.—Complete information regarding local production of fertilizers is not available. The number of firms engaged in the manufacture of chemical fertilizers in Australia for the year 1937-38 was 32, made up as follows:—New South Wales, 5; Victoria, 4; Queensland, 5; South Australia, 6; Western Australia, 5; and Tasmania, 7; The production of superphosphates in Australia during 1937-38 amounted to 1,233,744 tons, the largest producing States being Victoria, Western Australia and South Australia.

§ 20. Ensilage.

1. Government Assistance in Production.—The various State Governments devote a considerable amount of attention to the education of the farming community in regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connexion with the design of the silos and the cutting and packing of the silage.

2. Quantity Made.—Information regarding the number of holdings on which ensilage was made and the quantity made during the seasons 1933-34 to 1937-38 is given in the following table.

ENSILAGE MADE.

State.	1933-34.		1934-35.		1935-36.		1936-37.		1937-38.	
	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.
	(a) No.	Tons.	(a) No.	Tons.	(a) No.	Tons.	(a) No.	Tons.	(a) No.	Tons.
New South Wales ..	892	70,835	1,068	88,991	1,311	109,731	1,350	113,542	1,399	109,628
Victoria ..	214	11,900	369	22,145	326	22,346	549	32,902	841	46,860
Queensland ..	134	8,515	105	7,566	86	5,644	(b) 86	(b) 5,644	291	14,831
South Australia ..	92	5,098	109	6,794	124	9,160	118	9,270	160	11,183
Western Australia ..	433	19,974	423	16,996	332	14,896	306	13,197	379	17,650
Tasmania ..	58	2,301	52	2,473	29	1,341	17	619	20	648
Australia ..	1,823	118,623	2,126	144,965	2,208	163,118	2,426	175,174	3,090	200,800

(a) No. of holdings on which ensilage was made. (b) 1935-36.

The drought of 1902-3 drew increased attention to the value of stocks of ensilage and during the four seasons ended 1909-10 there was an increase both in the number of holdings on which ensilage was made and in the quantity produced. The following five seasons, however, showed a falling off, but the reduction was due to the fact that stocks had not been drawn upon to any great extent during the previous seasons. The accumulated stocks proved of great value during the 1914 drought, though far below what would have been the case if more attention had been paid to production during the

previous years, when there was a surplus of green forage. The quantities made since that date have fluctuated considerably, but the output has increased during recent years, the production of 200,800 tons in 1937-38 being the greatest yet recorded in any year.

§ 21. Agricultural Colleges and Experimental Farms.

1. **General.**—In most of the States agricultural colleges and experimental farms have been established with a view to the promotion of more scientific methods in agriculture, stock-breeding and dairying. In the colleges, and on some of the farms, provision is made for the accommodation of pupils to whom both practical and theoretical instruction is given by experts in various branches of agriculture. Analyses of soils and fertilizers are made, manures are tested, and elementary veterinary science, etc., are taught, while general experimental work is carried on with cereal and other crops, not merely for the purpose of showing that it is practicable to produce certain crops in a given place, but to show also how it is possible to make farming pay in the locality. Opportunities are afforded for practice in general agricultural work, and instruction is given in the conservation of fodder; in cheese and butter making; in the management, breeding and preparation for the market of live stock; in the eradication of pests and weeds; and in carpentering, blacksmithing and other trades.

Expert lecturers visit the various agricultural and dairying centres, and there is a wide distribution of periodical agricultural gazettes and bulletins.

2. **Agricultural Colleges and Experimental Farms.**—In previous issues of this volume detailed information was given regarding agricultural colleges, experimental farms and agricultural education generally. See Year Book No. 11, pages 393-5, and a summary in respect of the year 1937-38 will be found in the *Production Bulletin* No. 32, Part II., issued by this Bureau.

3. **Agricultural and Stock Departments.**—A synopsis of the activities and operations of the Agricultural and Stock Departments of the several States on 30th June, 1920, will be found in Official Year Book No. 14, pages 1180 to 1191.

§ 22. Employment in Agriculture.

Information relating to the number of persons employed is furnished annually by landholders of one acre and upwards. The particulars furnished refer to the owner, occupier or manager, those members of his family and other employees who are permanently engaged throughout the year in the work of the farm. Casual labour, such as harvesters and fruitpickers, is excluded. In the collection of statistics of this nature difficulty is experienced in correctly determining whether the duties of female employees are more domestic than rural and on that account it is considered advisable to leave females out of the table.

MALES EMPLOYED IN AGRICULTURE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
1913-14 ..	61,525	51,932	33,362	34,111	18,210	11,789	210,929
1923-24 ..	48,176	49,740	38,186	31,532	22,153	12,905	202,692
1932-33 ..	42,556	41,845	46,203	30,457	26,079	13,199	200,339
1933-34 ..	42,084	38,514	46,097	30,329	24,925	13,945	195,894
1934-35 ..	42,135	37,294	47,242	30,177	23,775	13,353	193,976
1935-36 ..	42,204	35,926	45,878	30,096	22,585	12,731	189,420
1936-37 ..	43,648	35,575	(a) 45,878	30,273	22,317	12,138	189,829
1937-38 ..	43,279	35,592	(a) 45,878	30,365	22,527	11,929	189,570

(a) 1935-36.

Although the area under crop has expanded considerably during the past two decades there has been a decrease in the numbers employed in agriculture owing to the increasing use of machinery both in the cultivation of the soil and in the harvesting of the crops. For a number of years prior to the economic depression the value of machinery employed in agricultural pursuits steadily increased until it reached nearly £39 million in 1928-29. After 1929-30 machinery values declined each year to £30 million in 1934-35, but thereafter rose again to £35 million in 1937-38.

CHAPTER XX.

FARMYARD, DAIRY AND BEE PRODUCTS.

§ 1. Introductory.

1. **General.**—The introduction of cattle into Australia and the early history of the dairying industry are referred to in some detail in earlier issues of this work (see Official Year Book No. 6, p. 430). It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossings of strains have resulted in an increased and improved milk supply. In Australia, dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter, and rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the wider application of scientific methods in the treatment of animals and pasturages and in the processes of manufacture, coupled with herd testing and effective State supervision, the dairying industry has shown rapid expansion. An investigation into the problems of the dairying industry was instituted by the Commonwealth Government in 1929, and the first report, which relates to farm production, was completed in 1930. It was proposed to issue additional reports, but the investigation was discontinued. Investigation by the British Medical Research Council into the vitamin content of Australian, New Zealand and British butter respectively showed high and uniform results for the Australian product, the figures being on a par with those for the United Kingdom and other European countries. It was demonstrated also that Australian production and marketing methods do not adversely affect the vitamin content of the butter and that the loss during cold storage even for as long as two years is insignificant.

2. **Official Supervision of Industry.**—Dairy experts of the various State Agricultural Departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce. A high standard of cleanliness, both of *personnel* and *matériel*, prevails. Financial assistance of a temporary nature is also given.

The export trade is regulated by the terms of the Commonwealth Commerce Act 1905 and regulations thereunder. The provisions of this Act are set out in detail in Official Year Book No. 6, pp. 431-2. It will be sufficient to state here that the true trade description, etc., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector.

3. **Stabilization Scheme.**—(i) *Voluntary Plan.* During the period from January, 1926 to May, 1934, a voluntary scheme known as the "Paterson Plan" was in operation, and had the effect of stabilizing the price of butter in Australia. The scheme provided for the payment of a levy on all butter produced in Australia sufficient to pay a bounty on export which ranged from 3d. to 4½d. per lb. The local price was raised by the amount of the bounty per unit while the return to the producer on all butter produced was increased by approximately the difference between the rate of bounty paid and the rate of levy charged.

The scheme, however, did not receive the full support of all manufacturers of butter and was superseded by a system of compulsory control of sales.

(ii) *Compulsory Plan.* Legislation known as the Dairy Produce Act was passed by the Commonwealth Parliament towards the end of 1933, and at the same time complementary legislation was passed by the States of New South Wales, Victoria, Queensland and Tasmania. As a result of a referendum among producers held in 1936, Tasmania withdrew from the plan and the State Act expired. In the Commonwealth Act power was given to regulate interstate trade whilst the State Acts were designed to regulate trade within the respective States. The authority set up by each State Act fixed the proportion of the State's production to be sold within the State, whilst the Commonwealth Act protected this allocation by regulating the movement of butter and cheese from one State to another and so ensured the removal from the Australian market of the surplus production.

The compulsory plan was invalidated by the decision of the Privy Council which declared in the James (Dried Fruits) Case that no power existed in the Commonwealth Constitution to regulate trade between the States; the marketing of dairy produce is now being continued on a voluntary basis.

4. *Mixed Farming.*—Dairying is not now, as formerly, wholly confined to agriculturists, since many graziers in a large way of business have lately given it their attention. In non-coastal regions it is generally carried on in conjunction with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. Local wants are thus met, and in many places remote from the metropolis well-equipped factories have been established. The extent to which dairy cows and pigs are run in conjunction with the growing of wheat is referred to in Chapter XIX. "Agriculture".

5. *Factory System.*—Cream separation and butter-making are often carried on together under the co-operative system. The creation of large central butter factories, supplied by numerous separating establishments or "creameries," has resulted in a considerable reduction in the cost of manufacture, since improved appliances such as refrigerators, etc., may be profitably worked at the larger establishments. The product is also of a more uniform quality and the number of farmers who prefer to convert the cream rather than send it to the factory is rapidly diminishing. Formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, but separator butter requires less than $2\frac{1}{2}$ gallons.

6. *Butter and Cheese Factories.*—The factories in Australia for the manufacture of butter, cheese and condensed milk numbered 520 in 1937-38 as compared with 563 in 1927-28. The factories were distributed among the States as follows:—New South Wales, 132; Victoria, 172; Queensland, 104; South Australia, 47; Western Australia, 21; and Tasmania, 44. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXIII.

7. *Ottawa Conference.*—The agreement reached at the Imperial Economic Conference at Ottawa in August, 1932, has materially assisted the dairying, bee and poultry industries. Under its terms free entry into the United Kingdom of eggs, poultry, butter, cheese and other milk products of Australian origin was allowed for the three years to 15th November, 1935, and thereafter pending further arrangements, while similar goods imported from foreign countries were subjected to customs duties. The rates imposed on the undermentioned items were as follows:—butter, 15s. per cwt.; cheese, 15 per cent. ad valorem; eggs in shell, 1s. od. to 1s. 9d. per great hundred; honey, 7s. per cwt.; milk powder, unsweetened, 6s. per cwt.; and condensed milk, 5s. and 6s. per cwt. The review of these preferences is reserved to the Government of the United Kingdom. The Agreement at the Ottawa Conference regarding the regulation of imports of bacon has been superseded by the introduction of a Bacon Marketing Scheme by the British Government. Under this scheme foreign supplies are adjusted according to the quantities furnished by British and Dominion producers. Details of imports into the United Kingdom are given in § 9 hereafter.

8. **Employment.**—The number of persons employed in the dairying industry is ascertained at the annual census of dairy production. The particulars collected are in respect of those persons who are permanently engaged in the actual work of the farm and include owner, occupier or manager, members of the family and other permanent employees. Casual hands are excluded; so are females whose duties are mainly domestic although they may assist in the outdoor work of the farm. In the earlier years, however, these females were in many cases included as farm workers.

EMPLOYMENT IN DAIRYING INDUSTRY.

Year and Sex.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
		No.	No.	No.	No.	No.	No.	No.
1916-17	Males	22,363	19,460	13,040	1,350	518	1,133	57,864
	Females	16,644	14,936	12,154	8,211	500	1,921	54,366
1926-27	Males	29,106	27,296	21,172	2,259	2,088	2,035	83,956
	Females	12,525	11,789	14,849	2,787	516	1,218	43,684
1933-34	Males	38,358	41,433	29,808	4,087	5,142	3,542	122,370
	Females	7,246	8,466	19,539	2,987	1,305	2,125	41,668
1934-35	Males	38,231	41,833	32,132	4,339	5,089	3,138	124,762
	Females	6,823	8,531	20,493	3,244	1,180	1,916	42,196
1935-36	Males	38,150	42,072	31,457	4,500	5,465	3,539	125,183
	Females	6,481	7,790	21,080	2,756	1,249	2,462	41,818
1936-37	Males	37,450	41,922	(a)31,457	4,578	5,261	3,332	124,000
	Females	5,444	7,666	(a)21,080	2,331	1,143	2,234	39,898
1937-38	Males	35,940	41,878	(a)31,457	4,540	5,495	3,634	122,944
	Females	6,027	7,406	(a)21,080	2,779	1,129	2,146	40,567

(a) Information not available; figures for previous year shown.

The employment of males shown in the above table gives some indication of the expansion of the dairying industry since 1916-17. This is further exemplified in the following table:—

DAIRYING INDUSTRY: AUSTRALIA.

Year.	Number of Dairy Cows.	Production of Butter.	Value of Machinery employed on Dairy Farms.	Number of Males employed.
	No.	lb.	£	No.
1916-17	1,747,351	182,470,778	1,076,738	57,864
1926-27	2,434,745	253,250,173	2,526,000	83,956
1936-37	3,343,293	396,261,693	4,235,000	124,000
1937-38	3,368,899	430,261,610	4,768,000	122,944

§ 2. Dairy Cattle and Dairy Products.

1. **Dairy Herds.**—The dairy herds of Australia were severely depleted during the drought of 1914-15, when the number was reduced to 1,684,393. Following that year there has been a steady expansion in the number of dairy cattle until in 1937 there were nearly 3.4 million, the number having doubled in the course of two decades. In New South Wales, Victoria, South Australia and Tasmania the proportion of dairy cattle to all cattle is high. In Queensland, the Northern Territory and Western Australia there is a greatly preponderating number of other cattle, the main object in these areas being the production of beef. Dairying, however, has developed greatly in Southern Queensland since 1914-15, and the largest contribution to the Australian increase previously mentioned has been made by this State. The number of dairy cows shown in the following table includes heifers intended for milking and being within three months of calving. These heifers, however, are not collected in Tasmania, but in the other States they numbered 155,102.

NUMBER OF CATTLE AND DAIRY CATTLE.

State.		1933.	1934.	1935.	1936.	1937.
New South Wales	All Cattle	3,361,771	3,482,831	3,388,538	3,288,169	3,019,581
	Dairy Cows	1,097,842	1,112,861	1,091,562	1,069,888	1,047,332
Victoria	All Cattle	2,002,235	2,085,080	2,091,246	2,004,959	1,880,429
	Dairy Cows	910,187	951,849	987,676	967,755	952,906
Queensland	All Cattle	5,781,170	6,052,641	6,033,004	5,950,572	5,959,165
	Dairy Cows	877,409	939,254	955,746	914,815	985,858
South Australia	All Cattle	352,728	346,479	335,354	328,013	324,163
	Dairy Cows	163,875	170,250	173,706	169,761	164,903
Western Australia	All Cattle	885,669	911,940	882,761	792,508	740,241
	Dairy Cows	121,818	129,875	130,132	126,301	124,278
Tasmania	All Cattle	262,256	261,588	270,035	261,597	254,812
	Dairy Cows	94,375	91,223	97,350	93,657	92,493
Northern Territory	All Cattle	859,867	899,679	900,535	855,378	891,640
	Dairy Cows	(a)	(a)	(a)	(a)	(a)
Australian Capital Territory	All Cattle	6,790	8,433	10,186	9,856	8,325
	Dairy Cows	426	1,019	1,052	1,116	1,129
Australia	All Cattle	13,512,486	14,048,671	13,911,659	13,491,072	13,078,356
	Dairy Cows	3,265,932	3,396,331	3,437,224	3,343,293	3,368,899

(a) Not available.

2. Milk.—The annual quantity of milk produced per dairy cow varies greatly with breed, locality and season, reaching as high as 1,000 gallons, but averaging for the whole of Australia for all dairy cows and for all seasons prior to 1916 considerably under 300 gallons per annum. In recent years not only has there been an improvement in the quality of the cattle, but the application of scientific methods is being continually extended, and the 300-gallon average has been exceeded in each year since 1924, the yield of 392 gallons in 1931 constituting a record. The average annual yields per cow given in the following table for the last five years are based on the number of dairy cows which were in milk during any part of the year. The average given, is, therefore, below that for cows which were yielding during the greater part of the year. It should be noted that there are many difficulties attending the collection of the total quantity of milk obtained during any year. In addition, there is the further difficulty of ascertaining with any degree of accuracy the average number of cows in milk during the same period. The average yield per cow shown hereunder may be accepted as sufficiently reliable to show the general trend:—

MILK PRODUCTION.

Heading.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus. Cap. Ter.	Australia. (b)
1933-34—								
Dairy Cows (a) .. No.	1,028,874	878,972	799,537	139,482	112,005	91,115	400	3,050,385
Production 1,000 gals.	368,691	368,806	289,065	54,400	34,904	29,160	277	1,145,303
Aver. per cow .. gal.	358	420	362	390	312	320	693	375
1934-35—								
Dairy Cows (a) .. No.	1,052,644	887,841	870,637	150,745	120,045	92,799	683	3,175,394
Production 1,000 gals.	337,459	403,039	302,173	53,359	36,758	31,840	297	1,184,925
Aver. per cow .. gal.	340	454	347	354	306	343	435	373
1935-36—								
Dairy Cows (a) .. No.	1,055,539	925,295	910,760	156,122	123,932	94,286	988	3,266,922
Production 1,000 gals.	345,346	399,742	261,266	59,042	38,138	33,737	272	1,137,543
Aver. per cow .. gal.	327	432	287	378	308	358	275	348
1936-37—								
Dairy Cows (a) .. No.	1,036,131	938,966	899,092	157,485	121,697	95,504	1,022	3,249,897
Production 1,000 gals.	317,617	423,305	206,315	63,699	36,771	31,156	365	1,079,228
Aver. per cow .. gal.	306	451	227	404	302	326	357	332
1937-38—								
Dairy Cows (a) .. No.	1,013,739	926,353	902,866	154,705	118,979	93,075	1,056	3,210,773
Production 1,000 gals.	328,008	408,271	274,043	69,067	44,740	32,425	374	1,156,928
Aver. per cow .. gal.	324	441	304	446	376	348	354	360

(a) Mean for the year.

(b) Exclusive of Northern Territory.

3. Butter and Cheese.—Although the quantity of dairy production is affected by the nature of the season, the large increase in the output of butter has been maintained in recent years despite the unfavourableness of some seasons. The average annual production rose from 270,000,000 lb. for the quinquennium 1924-1928 to 436,000,000 lb. for the latest five years. The largest production of butter in Australia was recorded

in 1934-35, when, as a result of a specially favourable season, 469,000,000 lb. were manufactured. In 1937-38 seasonal conditions reduced the yield to 430,262,000 lb. but the latest available figures indicate an increase to 450,000,000 lb. in 1938-39.

The total output of cheese is likewise dependent upon seasonal conditions. The production in 1937-38 was 56,607,000 lb., which exceeded the previous record in 1936-37 by nearly 12,000,000 lb.

The production of butter and cheese for the last five years was as follows :—

BUTTER AND CHEESE PRODUCTION.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
BUTTER.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	147,963,411	145,277,595	125,169,296	109,830,751	120,882,732
Victoria	134,942,177	147,651,179	148,132,507	154,769,391	141,321,445
Queensland	127,343,160	133,624,597	115,920,415	87,474,757	118,244,260
South Australia	19,755,685	18,513,229	20,964,305	20,892,369	22,428,298
Western Australia	11,911,912	13,308,003	12,908,745	12,360,924	15,373,334
Tasmania	9,003,800	10,689,043	10,613,358	10,918,278	11,997,323
Australian Capital Territory	16,283	15,086	13,849	15,223	14,216
Australia	450,936,428	469,078,732	433,722,475	396,261,693	430,261,610
CHEESE.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	9,072,508	8,445,468	7,356,203	7,417,640	8,004,873
Victoria	8,363,233	10,095,139	10,973,804	13,350,124	16,466,038
Queensland	13,887,320	12,192,383	9,149,283	7,789,890	11,963,445
South Australia	5,316,971	6,649,661	8,103,663	12,104,819	15,516,879
Western Australia	285,161	643,571	865,482	1,012,139	885,418
Tasmania	1,551,000	1,948,963	2,150,281	2,994,227	3,770,189
Australia	38,476,493	39,975,185	38,598,716	44,728,839	56,606,842

4. **Condensed or Concentrated Milk.**—The manufacture of this product is of comparatively recent growth, the quantity of milk treated in 1901 being negligible, but production increased annually until in 1911 the output reached 23 million lb., nearly doubling that of the previous year. Thenceforward rapid progress was made, the greatest development taking place in Victoria. The output of condensed, concentrated and powdered milk in this State amounted in 1933-34 to 41,899,267 lb.; in 1934-35 to 51,390,850 lb.; in 1935-36 to 38,598,154 lb.; in 1936-37 to 53,159,599 lb. and in 1937-38 to 57,634,422. Production in New South Wales during 1937-38 was 12,183,920 lb. No condensed or concentrated milk is made in Tasmania. Information regarding production in the remaining States is not available for publication, but the volume is relatively unimportant. The total production for Australia in 1937-38 amounted to 77,555,508 lb. Imports of milk into Australia consist almost entirely of malted or otherwise medicated milk.

5. **Oversea Trade in Butter, Cheese and Milk.**—The following tables give the imports, exports and net exports of butter, cheese and condensed milk. In each of the five years dealt with the exports of these commodities exceeded the imports :—

BUTTER, CHEESE, AND MILK: IMPORTS AND EXPORTS, AUSTRALIA.

Australian Currency Values.

Products.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
IMPORTS.					
Butter	£ 2,096	3,826	2,678	1,691	3,428
	113	309	167	133	286
Cheese	£ 74,791	88,511	130,864	126,066	156,188
	5,949	7,052	10,225	9,069	11,551
Milk—concentrated and preserved	£ 60,289	12,861	129,039	79,737	44,135
”	2,342	942	3,876	2,515	1,048

BUTTER, CHEESE AND MILK : IMPORTS AND EXPORTS, AUSTRALIA—*contd.*

Products.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
EXPORTS.					
Butter	lb. 262,518,906	212,646,177	174,309,396	197,345,647	229,542,779
"	£ 9,586,776	9,028,243	8,801,643	10,781,124	12,228,140
Cheese	lb. 16,829,780	12,972,627	13,924,572	27,245,638	35,924,467
"	£ 404,024	337,467	384,027	845,130	1,073,931
Milk—concentrated and preserved	lb. 16,593,664	16,961,023	22,169,680	24,717,435	19,106,953
"	£ 711,242	722,301	851,769	963,873	791,100
NET EXPORTS.					
Butter	lb. 262,516,810	212,642,351	174,306,718	197,343,956	229,539,351
"	£ 9,586,663	9,027,934	8,801,476	10,780,991	12,227,854
Cheese	lb. 16,754,989	12,884,116	13,793,708	27,119,572	35,768,279
"	£ 398,075	330,415	373,802	835,161	1,062,380
Milk—concentrated and preserved	lb. 16,533,375	16,948,162	22,040,641	24,637,698	19,062,818
"	£ 708,900	721,359	847,893	961,358	790,052

6. Local Consumption of Butter and Cheese.—The local production of butter and cheese, with the subtraction therefrom or the addition thereto of the net export or import for the corresponding period, represents approximately the quantity available for consumption in Australia. The figures for the five years ended 1937-38 are as follows:—

BUTTER AND CHEESE : LOCAL CONSUMPTION.

Products.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	lb.	lb.	lb.	lb.	lb.
Butter .. Total .. .	206,639,167	206,561,922	221,080,124	221,964,975	232,917,654
" .. Per head of population .. .	31.05	30.82	32.75	32.62	33.93
Cheese .. Total .. .	29,220,417	23,220,196	25,714,600	30,935,131	29,487,270
" .. Per head of population .. .	4.39	3.46	3.81	4.55	4.30

Consumption in 1937-38 averaged 33.93 lb. of butter and 4.30 lb. of cheese per head of population. The consumption of butter in the United Kingdom, Canada and New Zealand is given at 24.8 lb., 32.7 lb., and 40.7 lb. per head per annum respectively, while that of cheese amounted to 8.6 lb., 3.5 lb., and 8 lb. respectively.

§ 3. Pigs and Pig Products.

1. Pigs.—The number of pigs in Australia has varied considerably since the commencement of the present century. In 1904, the total amounted to 1,062,703, but after a period of fluctuations it declined to 695,968 in 1919. In 1921 the number increased to 960,000 and from that year it remained fairly constant up to 1928. Since that year more than 1,000,000 pigs have been recorded annually in Australia with the maximum figure of 1,293,964 in 1935. The distribution of pigs among the States and Territories in 1937 was—New South Wales, 356,765; Victoria, 285,259; Queensland, 282,941; South Australia, 66,647; Western Australia, 64,598; Tasmania, 43,067; Northern Territory, 388; Australian Capital Territory, 417; total, 1,100,082. The figures for New South Wales, Victoria and the Australian Capital Territory represent the number as on the 31st March, 1938.

A more accurate index of the development of pig raising in Australia is provided in the following table which combines the number of slaughterings with the numbers returned each year from 1928. The table discloses substantial increases in the number of pigs raised over the period under review:—

NUMBER OF PIGS AND NUMBER SLAUGHTERED : AUSTRALIA.

Year.	Number of Pigs.	Number Slaughtered.	Year.	Number of Pigs.	Number Slaughtered.
1928	910,181	1,360,388	1933	1,046,867	1,636,974
1929	1,018,324	1,337,001	1934	1,158,274	1,763,332
1930	1,071,679	1,469,718	1935	1,293,964	1,983,745
1931	1,167,845	1,510,635	1936	1,202,752	2,073,909
1932	1,162,407	1,585,133	1937	1,100,082	1,897,430

2. **Bacon and Ham.**—The highest production of bacon and ham was reached in 1935-36 with an output of 77,655,178 compared with 72,800,000 lb., the average for the last five years. The production in 1937-38 amounted to 70,340,190 lb. and was distributed among the several States as follows:—New South Wales, 21,374,691 lb.; Victoria, 16,696,404 lb.; Queensland, 19,607,223 lb.; South Australia, 6,196,378 lb.; Western Australia, 4,010,446 lb.; Tasmania, 2,454,528 lb.; Australian Capital Territory, 520 lb. Practically the whole of the bacon and ham produced is consumed locally. On the experience of the last five years the local consumption was about 71,200,000 lb. per year, or 10.5 lb. per unit of population. The bacon and ham exported from Australia is consigned chiefly to the Pacific Islands and the East.

3. **Pork Consumption.**—Particulars available regarding the consumption of pork (excluding bacon and ham) give an average for Australia of 7.58 lb. per head of population. Including bacon and ham, the average consumption amounted to 18 lb. compared with 21 lb. in New Zealand, 62 lb. in Canada, and 55 lb. in the United States of America.

4. **Oversea Trade in Pig Products.**—The oversea trade in pigs and pig products for the five years ended 1937-38 is shown in the following table.—

PIG PRODUCTS: OVERSEA TRADE, AUSTRALIA.

Australian Currency Values.

Particulars.		1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
PIGS.						
Imports	No.	12	11	39	10	56
"	£	291	257	2,124	413	3,079
Exports	No.	201	239	131	164	152
"	£	809	799	708	607	979
Net Exports	No.	189	228	92	154	96
"	£	518	542	-1,416	194	-2,100
BACON AND HAM.						
Imports	lb.	11,014	11,712	5,168	2,760	7,212
"	£	803	774	313	209	605
Exports	lb.	1,664,501	1,562,498	1,701,575	1,752,518	1,675,969
"	£	96,579	98,825	109,760	112,680	117,654
Net Exports	lb.	1,653,487	1,550,786	1,696,407	1,749,758	1,668,757
"	£	95,776	98,051	109,447	112,471	117,049
LARD.						
Imports	lb.	17,973	25,718	6,963	29,644	28,244
"	£	481	493	301	941	1,127
Exports	lb.	1,483,680	2,523,749	2,792,008	4,051,472	3,852,835
"	£	25,969	41,758	53,603	69,374	60,249
Net Exports	lb.	1,465,707	2,498,031	2,785,045	4,021,828	3,824,591
"	£	25,488	41,265	53,302	68,433	59,122
FROZEN PORK.						
Imports	lb.	..	150,032	85,942	7,746	34
"	£	..	6,703	3,513	210	3
Exports	lb.	8,663,864	15,636,132	23,577,743	26,816,453	33,959,412
"	£	210,793	401,306	587,410	687,043	934,575
Net Exports	lb.	8,663,864	15,486,100	23,491,801	26,808,707	33,959,378
"	£	210,793	394,603	583,897	686,833	934,572

NOTE.—The minus sign (—) signifies net imports.

Hitherto the output of pig products in Australia was usually sufficient to meet local requirements and provide a small surplus for export. During the five years ended 1937-38, however, oversea exports of frozen pork showed a remarkable increase averaging

22,100,000 lb. as compared with an average of 373,000 lb. for the five years ended 1930-31. The chief pig product consumed in the United Kingdom is bacon and ham, the imports of which during 1937 amounted to 7.6 million cwt., valued at £32,448,000, the supplies being obtained chiefly from Denmark.

The agreement at the Ottawa Conference regarding the regulation of supplies from foreign countries and the Dominions has been superseded by the institution of a Bacon Marketing Scheme by the British Government. The scheme aims at creating a regular market for home producers of bacon pigs and necessitates adjustment of foreign supplies to conform with British bacon factories' requirements after estimated home and Dominion production is provided for. The estimated share of Australian production in this market was allocated at 8 million lb. in 1935, 14½ million lb. in 1936, 22 million lb. in 1937 and 23 million lb. in 1938: these figures indicate a steady expansion of the trade in bacon pigs.

§ 4. Total Dairy Production.

The dairy production for each State in 1937-38 is shown below:—

DAIRY PRODUCTION, 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Total.
MILK.								
Used for—	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
Butter ..	247,435,171	311,100,306	243,118,240	44,295,964	33,679,418	22,882,983	58,055	902,570,137
Cheese ..	8,019,435	16,863,055	11,518,217	14,822,662	832,772	3,675,890	..	53,731,731
Condensing and concentrating								
Other purposes ..	9,150,747	26,788,619	(a)	(a)	(a)	..	..	b35,939,366
	63,402,566	53,519,456	c	19,406,409	c	9,948,115	c	10,227,388
								5,866,153
								316,019
Total ..	328,007,619	408,271,436	274,042,866	69,066,741	44,739,578	32,425,031	374,074	1,156,927,345
BUTTER.								
In Factories On Dairy and other Farms ..	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
	115,930,292	137,016,414	114,941,221	18,922,496	13,702,317	9,206,773	..	409,719,513
	4,952,440	4,305,031	3,303,039	3,505,802	1,671,017	2,790,550	14,218	20,542,097
Total ..	120,882,732	141,321,445	118,244,260	22,428,298	15,373,334	11,997,323	14,218	430,261,610
CHEESE.								
In Factories On Dairy and other Farms ..	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
	7,701,411	16,032,366	11,942,225	15,516,879	883,619	3,554,706	..	55,631,206
	303,462	433,672	21,220	..	1,799	215,483	..	975,636
Total ..	8,004,873	16,466,038	11,963,445	15,516,879	885,418	3,770,189	..	56,606,842
CONDENSED, CONCENTRATED, OR POWDERED MILK.								
In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
	12,183,920	57,634,422	(a)	(a)	(a)	..	..	d 77,555,508

(a) Figures not available for publication. milk used for condensing and concentrating.

(b) Excluding States marked (a).
(d) Including States marked (a).

(c) Includes

DAIRY PRODUCTION, 1937-38—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aus. Cap. Ter.	Total.
BACON AND HAM.								
In Factories On Dairy and other Farms ..	lb. 20,795,580	lb. 16,006,409	lb. 19,486,358	lb. 5,812,506	lb. 3,850,444	lb. 2,085,969	..	lb. 68,037,266
	579,111	689,995	120,865	383,872	160,002	368,559	520	2,302,924
Total ..	21,374,691	16,696,404	19,607,223	6,196,378	4,010,446	2,454,528	520	70,340,190

Particulars in regard to the production of other milk products are not available for all the States, but casein amounting to 5,094,630 lb., valued at £124,094, was manufactured in Victoria during 1937-38.

§ 5. Value of Dairy Production.

The values of dairy production on a gross, local and net basis are shown in the following table. The presentation of these values has become possible by the adoption in the several States of uniform principles in determining production and marketing costs. Production values for this and other industries are dealt with more fully in Chapter XXVIII. "Miscellaneous".

GROSS, LOCAL AND NET VALUE OF DAIRY PRODUCTION, 1937-1938.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)	Depreciation (estimated).	
				Fodder fed to Farm Stock.	Value of Other Materials used in process of Production.			
	£	£	£	£	£	£	£	
New South Wales ..	13,729,000	1,563,000	12,166,000	1,974,000	11,000	10,187,000	60,000	
Victoria ..	12,989,517	554,114	12,435,403	1,815,398	125,000	10,495,005	24,000	
Queensland ..	9,017,000	227,000	8,790,000	1,154,000	193,000	7,443,000	65,000	
South Australia ..	2,645,345	82,871	2,562,474	585,762	85,356	1,891,356	11,000	
Western Australia ..	1,580,768	55,033	1,525,735	554,872	145,509	825,354	8,000	
Tasmania ..	1,109,000	41,500	1,067,500	281,000	32,880	753,620	6,000	
Total	1937-38	41,070,630	2,523,518	38,547,112	6,365,032	592,745	31,589,335	174,000
	1936-37	36,007,428	2,358,882	33,738,546	5,689,618	501,866	27,547,062	166,411
	1935-36	34,678,738	2,311,612	32,367,126	5,071,598	447,644	26,847,884	166,742
	1934-35	31,373,771	2,215,442	29,158,329	4,566,888	231,201	24,360,240	185,435
	1933-34	27,430,149	1,962,017	25,468,132	4,467,143	238,737	20,762,252	206,469

(a) No account has been taken of maintenance costs and depreciation.

§ 6. Poultry Farming.

1. General.—Poultry is kept in varying numbers by farmers, and production therefrom furnishes a considerable addition to the annual agricultural or dairying returns. For many years, however, poultry-keeping has been carried on as a separate industry, while it is also practised in conjunction with other rural industries. Special poultry farms have been instituted by the State Governments for scientific breeding, experts have been appointed to advise and instruct in the care and management of the various kinds of poultry, and exhibitions of leading breeds have been arranged, as well as egg-laying competitions. Co-operative egg-collecting circles have been formed in some districts; eggs are also delivered with milk and cream to the local butter factories, and thence forwarded to market.

2. Number of Principal Kinds.—The number of principal kinds of poultry is included in the annual census of live stock in all States except Victoria and Tasmania. The former State completed a census at 30th June, 1933, and the numbers at that date are shown in the table below. The details for Tasmania have been estimated. In 1913 a complete census was also taken and these data have been included for comparative purposes in the following table:—

POULTRY : NUMBER OF PRINCIPAL KINDS, AUSTRALIA.

State.	Fowls.	Ducks.	Geese.	Turkeys.
1913.				
	No.	No.	No.	No.
New South Wales ..	3,351,629	261,075	23,948	216,274
Victoria ..	3,855,538	288,413	59,851	(a) 100,000
Queensland ..	841,630	35,337	7,457	27,192
South Australia ..	1,440,385	55,659	18,245	49,066
Western Australia ..	999,452	100,828	6,243	49,588
Tasmania (a) ..	350,000	35,000	12,000	8,000
Total ..	10,838,634	776,312	127,744	459,120
1937-38.				
	No.	No.	No.	No.
New South Wales ..	5,052,341	190,764	24,993	211,104
Victoria (b) ..	5,496,969	292,882	39,283	113,966
Queensland ..	1,147,137	41,271	5,215	16,209
South Australia ..	2,009,574	43,004	16,031	48,944
Western Australia ..	1,203,369	29,493	1,596	20,354
Tasmania (a) ..	450,000	35,000	10,000	10,000
Total ..	15,359,390	632,414	97,118	420,577

(a) Estimated.

(b) 30th June, 1933.

3. Value of Poultry Products.—Difficulty is experienced in obtaining complete figures for the production of poultry products. Arising from a series of Conferences of Australian Statisticians uniform procedure has been established for the valuation of these products. The following table sets out the values accruing to the poultry industry for Australia on a gross, local and net basis, and has been compiled from data actually collected or carefully estimated by the State Statistical Bureaux:—

GROSS, LOCAL AND NET VALUE OF POULTRY PRODUCTS, 1937-38.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Feed and Other Costs.	Net Value of Production. (£)	
	£	£	£	£	£	
New South Wales ..	4,248,000	352,000	3,896,000	1,648,000	2,248,000	
Victoria ..	4,791,556	422,393	4,369,163	1,467,137	2,902,026	
Queensland ..	750,000	110,000	640,000	278,000	362,000	
South Australia ..	1,002,269	97,465	904,804	578,312	326,492	
Western Australia ..	647,323	119,127	528,196	277,136	251,060	
Tasmania ..	439,600	32,970	406,630	39,520	367,110	
Total	1937-38	11,878,748	1,133,955	10,744,793	4,288,105	6,456,688
	1936-37	10,653,915	985,421	9,668,494	3,987,408	5,681,086
	1935-36	9,575,755	856,936	8,718,819	3,050,257	5,668,562
	1934-35	8,955,815	857,091	8,098,724	2,837,065	5,261,659
	1933-34	8,542,275	801,683	7,740,592	2,561,232	5,179,360

(a) No account has been taken of maintenance costs and depreciation.

4. Oversea Trade in Poultry Products.—The Australian oversea export of poultry products is confined chiefly to eggs in shell and egg contents which are mainly consigned to the United Kingdom; New South Wales, Victoria and South Australia are the largest exporters, the total exports of eggs and egg contents in 1937-38 amounting to £703,639. In accordance with the terms of the Ottawa Conference Agreement a customs duty varying between 1s. and 1s. 9d. per 10 dozen was imposed by the Government of the United Kingdom on imported eggs of foreign origin; this has assisted Australia to obtain a larger share in this valuable market. Exports from Australia rose from less than 3 million dozen valued at £219,000 in 1928-29 to 21.7 million dozen valued at more than £1.1 million in 1934-35, but declined during the past three years to 11.3 million dozen in 1937-38. Exports of frozen poultry have declined quantitatively in the past two years, but values have been maintained. The oversea trade during the five years ended 1937-38 was as follows:—

POULTRY PRODUCTS : TRADE, AUSTRALIA.

Australian Currency Values.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
LIVE POULTRY.					
Imports No.	77	137	154	2,780	39
" £	239	401	605	1,256	81
Exports No.	2,047	1,233	1,733	1,099	2,175
" £	986	799	973	572	860
Net Exports No.	1,970	1,096	1,579	-1,681	2,136
" £	747	398	368	-684	779
FROZEN POULTRY.					
Imports lb.	13,290	3,129	11,671	11,589	1,349
" £	919	147	467	616	150
Exports pair	33,538	39,310	52,377	40,754	35,358
" £	16,798	20,490	36,078	35,432	36,803
Net Exports (a)	(a)	(a)	(a)	(a)	(a)
" £	15,879	20,343	35,611	34,816	36,653
Eggs.					
Imports doz.	6,003	7,002	7,311	7,625	8,388
" £	333	408	397	361	458
Exports doz.	19,617,032	21,718,740	17,365,132	16,473,894	11,287,363
" £	1,058,164	1,148,254	910,892	954,578	686,713
Net Exports doz.	19,611,029	21,711,738	17,357,821	16,466,269	11,278,975
" £	1,057,831	1,147,846	910,495	954,217	686,255
EGG CONTENTS.					
Imports lb.	24,173	31,257	46,917	32,634	31,954
" £	3,491	3,388	3,957	3,953	3,547
Exports lb.	(a)	(a)	290,612	652,858	426,320
" £	8,484	3,479	7,170	19,756	16,926
Net Exports lb.	(a)	(a)	243,695	620,224	394,366
" £	4,993	91	3,213	15,803	13,379

(a) Quantity not available.

§ 7. Bee Farming.

1. **General.**—Although practised to some extent as a separate industry, bee farming is frequently carried on in conjunction with agriculture or dairying. The returns of honey from productive hives during 1937-38 gave an average of 55.9 lb. per hive, while the average quantity of wax was 0.77 lb. per hive.

2. **Production of Honey and Beeswax.**—The number of hives and the production of honey and beeswax during the year 1937-38 are given in the following table. As these details have been collected from holdings of one acre and upwards, any production from smaller areas is omitted and consequently the production to that extent is understated. In Victoria and South Australia, however, the compulsory registration of beekeepers enables the collection to cover all producers and the production for these States is considered to be complete.

BEE HIVES, HONEY AND BEESWAX, 1937-38.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Gross Value.	Quantity.	Gross Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	74,301	20,345	94,646	3,356,609	53,286	49,945	3,438
Victoria ..	67,310	24,916	92,226	4,541,516	70,961	54,184	3,612
Queensland ..	10,338	6,428	16,766	435,274	5,894	7,726	579
South Australia ..	50,964	19,574	70,538	2,408,043	22,575	31,411	1,832
Western Australia ..	15,435	2,423	17,858	1,541,691	17,423	27,626	1,427
Tasmania ..	6,748	1,853	8,601	297,311	5,265	3,069	192
Aus. Cap. Territory ..	72	31	103	2,475	39	31	2
Australia ..	225,168	75,570	300,738	12,582,919	175,443	173,992	11,082

The table hereunder gives the production of honey and beeswax for the latest available five years :—

HONEY AND BEESWAX PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Aust. Cap. Ter.	Australia.
HONEY.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1933-34	1,397,426	1,133,279	610,330	2,561,057	621,275	168,334	..	6,491,701
1934-35	5,539,677	2,779,791	761,209	4,155,450	811,449	67,717	10,120	14,125,413
1935-36	4,577,097	5,901,463	584,288	4,160,006	916,929	238,055	7,000	16,384,838
1936-37	2,935,282	3,439,202	500,000	3,273,441	1,601,161	154,931	2,570	11,906,647
1937-38	3,356,609	4,541,516	435,274	2,408,043	1,541,691	297,311	2,475	12,582,919
BEESWAX.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1933-34	27,069	15,102	8,727	31,891	8,643	2,038	..	93,470
1934-35	79,564	30,351	9,745	45,515	11,222	1,475	22	168,894
1935-36	62,886	61,849	8,656	46,570	13,952	3,416	26	197,355
1936-37	52,461	40,612	8,000	41,660	26,424	2,171	28	171,356
1937-38	49,945	54,184	7,726	31,411	27,626	3,069	31	173,992

The production of honey and beeswax varies greatly from year to year according to the favourableness or otherwise of the seasons. During the last five years New South Wales produced on the average 3,561,000 lb. of honey and 52,600 lb. of beeswax; Victoria produced 3,560,000 lb. of honey and 40,400 lb. of wax; and South Australia 3,312,000 lb. of honey and 39,400 lb. of wax. These States together accounted for 84.8 per cent. of the total Australian production of honey and 82.2 per cent. of the beeswax. Next in order of importance were Western Australia, Queensland and Tasmania.

3. Value of Production.—The following table shows the gross, local and net values of production which have been compiled by the Statisticians of the several States on uniform methods. These data are based upon actual records but as previously explained it is known that the production in some States is understated. No production costs are taken into account and consequently the gross production valued at the farm and net values are identical.

GROSS, LOCAL AND NET VALUE OF BEE PRODUCTS, 1937-38.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Net Value of Production.(a)	
	£	£	£	£	
New South Wales	57,000	6,000	51,000	51,000	
Victoria	74,573	14,643	59,930	59,930	
Queensland	6,000	1,000	5,000	5,000	
South Australia	24,407	3,762	20,645	20,645	
Western Australia	18,850	..	18,850	18,850	
Tasmania	5,450	270	5,180	5,180	
Total	1937-38	186,280	25,675	160,605	160,605
	1936-37	168,291	24,335	143,956	143,956
	1935-36	233,906	34,662	199,244	199,244
	1934-35	235,027	31,520	203,507	203,507
	1933-34	99,757	13,871	85,886	85,886

(a) No account has been taken of maintenance costs and depreciation.

4. Oversea Trade in Bee Products.—In normal years the production of honey exceeds Australian requirements, and a small quantity is available for export. The imports into the United Kingdom average 80,000 cwt. annually, of which Australia supplies approximately 1,200 cwt. At the Imperial Economic Conference at Ottawa in 1932 the representatives of the United Kingdom, on behalf of their Government, agreed to the imposition of an import duty of 7s. per cwt. on foreign honey. For the year 1937-38 the exports from Australia amounted to £21,100 compared with a total of £30,400 in the preceding year. The more general use of frame hives has reduced the production of wax, and as a result the quantity imported has exceeded that exported during each of the last five years.

For the year 1937-38, the imports of honey amounted to 6,687 lb. and the exports to 1,365,364 lb. The imports of beeswax amounted to 51,686 lb. in 1937-38 and the exports to 21,109 lb.

§ 8. Exports of Australian Farmyard, Dairy and Bee Products.

The quantities and values of Australian farmyard, dairy and bee products exported during each of the five years ended 1937-38 are shown below:

AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS : EXPORTS.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
QUANTITY.					
Beeswax	lb. 1,451	957	395	48,656	21,109
Butter	244,299,732	262,518,906	212,646,177	174,309,396	197,345,647
Cheese	9,313,714	16,829,351	12,972,627	13,924,572	27,245,638
Eggs not in shell	(a)	(a)	290,612	652,858	426,320
Eggs	19,617,032	21,718,740	17,365,132	16,473,894	11,287,303
Feathers, Undressed	(a)	(a)			
Honey	lb. 351,674	388,761	764,696	1,934,162	1,365,364
Lard	1,483,456	2,523,749	2,792,008	4,051,472	3,552,835
Meats—					
Bacon and Ham	1,664,501	1,562,498	1,701,575	1,752,518	1,675,969
Frozen Poultry	pair 33,538	39,310	52,377	40,754	35,358
Frozen Pork	lb. 8,663,864	15,636,132	23,577,743	26,816,453	33,959,412
Milk, concentrated and preserved	19,771,958	16,553,864	16,961,023	22,169,680	24,717,435
Figs, living	No. 201	239	131	164	152
Poultry, living	2,047	1,233	1,733	1,099	2,175
VALUE.					
	£	£	£	£	£
Beeswax	94	76	28	2,934	1,322
Butter	8,194,220	9,586,776	9,832,733	8,801,643	10,781,124
Cheese	229,313	403,977	337,467	384,027	845,130
Eggs not in shell	8,484	3,369	7,170	19,756	16,926
Eggs	1,058,164	1,148,254	910,892	954,578	686,713
Feathers, undressed	694	1,491	2,257	3,110	1,192
Honey	6,458	6,828	12,840	30,380	21,081
Lard	25,963	41,758	53,603	69,374	60,249
Meats—					
Bacon and Ham	96,579	98,825	109,760	112,680	117,654
Frozen Poultry	16,798	20,490	36,078	35,432	36,803
Frozen Pork	210,793	401,306	587,410	687,043	934,575
Milk, concentrated and preserved	739,000	710,166	722,301	851,769	963,873
Figs, living	809	899	708	607	979
Poultry, living	986	799	973	572	860
Total	10,588,355	12,425,014	12,614,220	11,953,905	14,468,381

(a) Quantity not available.

Butter figures most largely in the list of exports shown above, and is consigned mainly to the United Kingdom. During the latest year under review 184,170,000 lb. were shipped thereto, representing 93 per cent. of the total exports. Shipments to the principal Eastern countries were approximately 9,672,000 lb., or nearly 5 per cent. of the total.

§ 9. British Imports of Dairy Products.

i. Quantities and Values.—The following table gives the quantities and values of the principal dairy products imported into the United Kingdom during the years 1934 to 1938:—

DAIRY PRODUCTS : IMPORTS INTO UNITED KINGDOM.

Products.	1934.	1935.	1936.	1937.	1938.
Butter	cwt. 9,695,394	9,608,016	9,740,735	9,417,669	9,508,511
"	£ 33,271,706	39,328,128	44,385,148	47,362,965	50,834,739
Cheese	cwt. 2,988,539	2,714,351	2,676,371	2,935,907	2,928,114
"	£ 7,014,317	6,649,093	7,783,747	9,252,915	9,683,627
Milk, concentrated and preserved	cwt. 2,344,678	2,005,528	1,926,629	1,978,313	1,989,218
"	£ 3,269,918	2,435,822	2,407,028	2,819,107	3,161,342
Bacon and Ham	cwt. 8,326,535	7,603,672	7,241,374	7,600,134	7,532,941
"	£ 33,172,222	30,462,249	30,247,252	32,440,620	33,937,026
Pork (a)	cwt. 1,105,420	915,098	1,025,156	1,057,159	1,180,805
"	£ 2,926,863	2,509,315	2,780,455	3,250,389	3,680,289

(a) Chilled or Frozen.

2. *Butter.*—(i) *Imports.* Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity in 1938 amounted to 1,797,875 cwt., or 19 per cent. of the total importation. The Australian contribution was valued at £9,630,407 and was exceeded only by that received from New Zealand and Denmark. These three countries combined supplied 71 cent. of the total imports compared with the same figure in 1937:—

BUTTER : IMPORTS INTO UNITED KINGDOM, 1938.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	cwt.	£		cwt.	£
New Zealand ..	2,582,560	14,476,400	Estonia ..	183,159	883,397
Denmark ..	2,365,291	12,964,470	Argentine Republic	89,876	406,839
Australia ..	1,797,875	9,630,407	Union of South Africa ..	25,312	146,196
Netherlands ..	712,110	3,466,433	British Possessions, n.e.i. ..	70,788	393,377
Latvia ..	339,899	1,596,885	Foreign Countries, n.e.i. ..	77,862	362,048
Eire ..	326,604	1,914,837			
Sweden ..	300,277	1,523,101			
Lithuania ..	228,111	1,084,748			
Finland ..	209,714	1,056,909			
Poland ..	199,073	928,692	Total ..	9,508,511	50,834,739

(ii) *London Prices.* Fluctuations in prices in London during recent years are given in the following table. The prices quoted represent the mean of the top prices quoted weekly for choicest salted Australian butter together with their f.o.b. equivalents in Sydney and Melbourne in terms of Australian currency, omitting pence.

AVERAGE PRICE PER CWT. OF AUSTRALIAN BUTTER IN LONDON (WITH F.O.B. EQUIVALENTS IN AUSTRALIAN CURRENCY).

Month.	1934-35.		1935-36.		1936-37.		1937-38.		1938-39.	
	London.	Australia. (a)								
	Shillings (Stg.).	Shillings (Aus.).								
July ..	69	73	88	96	113	126	112	126	120	135
August ..	75	80	94	103	118	132	116	130	118	132
September ..	72	76	110	123	108	120	119	134	116	130
October ..	68	72	117	131	100	111	139	158	111	124
November ..	74	79	101	112	108	120	130	147	104	115
December ..	71	75	89	97	98	108	111	124	107	119
January ..	81	88	94	103	94	103	109	122	120	134
February ..	86	94	93	102	86	94	111	124	118	132
March ..	73	78	84	91	97	107	117	131	115	128
April ..	74	79	87	95	104	116	124	140	113	126
May ..	77	83	94	103	106	118	127	143	107	119
June ..	85	92	106	118	108	120	120	135	113	126

(a) Sydney and Melbourne.

3. *Cheese.*—The value of cheese imported into the United Kingdom in 1938 was £9,683,627, of which £5,466,696 was received from New Zealand, and £2,331,142 from Canada. Small experimental shipments from Australia were made in 1908 and following years, fair prices being realized. The value of the imports from Australia during 1938 amounted to £751,194 or double that of the previous year.

4. **Bacon and Ham.**—Of a total import of bacon and ham valued in 1938 at £33,937,026, the United Kingdom received imports to the value of £15,940,376 from Denmark, £6,613,635 from Canada, £2,336,729 from the Netherlands, £1,971,621 from Poland and £2,258,993 from Eire. The import from Australia was small.

5. **Pork.**—The value of the United Kingdom imports of pork (frozen and chilled) was £3,680,289 in 1938. Imports from Australia were valued at £881,639, showing a further increase over the imports in previous years. The bulk of the supplies were received from New Zealand, namely, £1,768,227.

6. **Other Products.**—The imports to the United Kingdom from Australia of beeswax, poultry, game, lard and honey in 1938 were unimportant, but frozen rabbits to the value of £252,288 and eggs in shell to the value of £599,991 representing 81 per cent. and 5 per cent. respectively of the total imports were imported during the year.

CHAPTER XXI.

FORESTRY.*

§ 1. General.

1. **Objects of Forestry.**—Scientific forestry aims at the preservation and development of existing forest areas by safeguarding them against fire, pests and destructive agencies generally, by expert supervision of the removal of timber, by judicious thinning and by reforestation of denuded areas with suitable forest growths of local or exotic origin. It provides also for the continuance of this indispensable form of national wealth by the afforestation of available bare lands proved capable of producing various timbers. Only small areas of virgin forests still remain in Australia, as extensive inroads have been made by timber-getters, by agriculturalists and by pastoralists—who have destroyed large areas by “ring-barking”—and it is not unlikely that climatological changes have resulted therefrom. It is recognized that beneficial consequences follow on the planting of trees on denuded lands, or along eroding coasts, and that a forest covering tends to regulate to the best advantage the effects of rainfall. The existing virgin forests consist of hardwood jungle, or brush, with very little softwood, and the need for extensive softwood planting is urgent.

Efficient forestry is of particular interest in connexion with the Murray River Basin, where a large expenditure from the public funds has been incurred in the provision of locks and weirs and in the formation of irrigation settlements in the lower course of the river. The stability of flow of this river in so far as it can be assured by forest plantation may be regarded as of national importance.

Successful planting of exotics in various parts of Australia has demonstrated that both climate and soil are suitable for the cultivation of a number of highly serviceable softwoods.

2. **Extent of Forests.**—(i) *Australia.* The bulk of the present local timber supply comes from the thickly forested areas in the 30-inch and over rainfall belt south of the tropics, and the 70-inch and over rainfall belt within the tropics. The total forest area included in the divisions specified is comparatively small, and is confined to the following regions:—(a) The coastal belt in the extreme south-west of Western Australia, from a little north of Perth to Albany; (b) the Otway country in the south of Victoria, and the whole of the south-eastern portion of that State; (c) the mountain forests of Victoria and New South Wales; (d) the coastal districts of New South Wales and Queensland; (e) the greater portion of Tasmania; (f) the forests on the Murray River near Echuca; and (g) the cypress pine belt from the Murray northward to Queensland and westward of the coastal belt.

Over 90 per cent. of the timber trees of Australia consists of hardwoods belonging to the genus *Eucalyptus* (Gum Trees). Including the mallees over 400 species are now recognized, but the chief commercial varieties are confined to about 50 species.

In addition to the hardwood forests and the cypress pine belt the coastal strip in Queensland and northern New South Wales provides “rain” or “brush” forests. These tropical forests furnish the serviceable hoop pine and furniture timbers such as black bean, Queensland walnut and maple, silkwood, etc.

* A specially contributed article dealing with Forestry in Australia appeared as part of this Chapter in Official Year Book No. 19 (*vide* pp. 701 to 712 therein).

The drier wooded area of the continent contains a large number of xerophilous trees and woody shrubs which thrive in regions receiving less than 10 inches of rain per annum. Country devoid of tree growth is rare. Unsuitable soil conditions such as basalt formations, clay pans, rock exposures or sand dunes are as a rule more responsible for treeless areas than lack of rainfall. The 300-mile stretch of the Nullarbor Plain is a treeless area where the non-retentive limestone foundation accentuates the effects of a low rainfall. While, however, the major portion of Australia carries trees, and may be said to be wooded (the term "desert" applying to relatively small areas only), dense forest is confined to a very narrow fringe. The savannah forests of the interior yield minor products such as sandalwood and tan barks, but do not produce timber. These open, park-like formations carry scattered trees of low habit only. Practically the whole of Papua and New Guinea carry or has carried dense forests, the exceptions being certain small dry belts where the rainfall is less than 70 inches. Norfolk Island was originally covered with a thick jungle.

Special articles relating to Australian Eucalyptus timbers and the chemical products of Eucalypts will be found in Official Year Book No. 10, pp. 85-98.

Scientific surveys of the forests of the various States have not yet been completed and there are, in consequence, conflicting reports regarding the total forest area of Australia. At the Interstate Conference on Forestry, held at Hobart in April, 1920, it was resolved that a forest area of 24,500,000 acres was necessary to provide for the future requirements of Australia. This area was subsequently adopted at the Premiers' Conference held in May of the same year. Expert foresters, however, consider that approximately 19,500,000 acres represent the possible limit for permanent reservation in Australia. The distribution of the latter area throughout the States was estimated as follows :—

ESTIMATED FOREST AREA.

State.	Total Forest Area. Acres.	Percentage on Total Area.
New South Wales	4,000,000	2.02
Victoria	5,500,000	9.78
Queensland	6,000,000	1.40
South Australia	500,000	0.21
Western Australia	3,000,000	0.48
Tasmania	500,000	2.98
Australia	19,500,000	1.02

(ii) *Comparison with Other Countries.* The table hereunder shows the absolute and relative forest areas of Australia and other countries, and the relative areas owned by the State, by Public Institutions and by private individuals, in so far as the details are available. The term "Public Institutions" appears to include local governmental and ecclesiastical authorities, while those held by public companies, co-operative societies, etc., are included with private individuals.

The figures are based on information supplied to the International Institute of Agriculture and are the latest available. Comparisons of the returns for different countries are, however, subject to the qualification that the significance of the term "forest" is not identical in all cases. In older countries, and chiefly in Europe, scientific forestry has been practised for centuries, whereas in newer lands, such as Australia, Canada, etc., it is of comparatively recent application. Moreover, considerable areas included as forests in the newer countries contain indigenous growth of little or no commercial value, and effective comparisons cannot, therefore, be made with countries where efficient forestry has been practised for many years.

FORESTS : AREA AND OWNERSHIP, VARIOUS COUNTRIES.

Country.	Forest Area.	Per cent. of Total Area.	Percentage Owned by—		
			State.	Public Institutions other than State.	Privately.
	sq. miles.	Per cent.	Per cent.	Per cent.	Per cent.
Soviet Union	3,667,530	44.7	100.0	..	..
Canada	1,151,402	32.8	(a)	(a)	(a)
United States of America	733,539	24.7	(a)	(a)	(a)
India	307,928	27.5	(a)	(a)	(a)
Nigeria	234,990	63.8	(a)	(a)	(a)
Finland	97,540	73.5	39.8	1.7	58.5
Sweden	89,500	56.5	20.1	3.8	76.1
Japan	87,678	59.5	(a)	(a)	(a)
Germany	49,991	27.5	32.6	17.2	50.2
France	40,768	19.2	13.9	23.6	62.5
Poland	32,246	21.5	36.1	..	63.9
Australia (b)	30,469	1.0	(a)	(a)	(a)
Yugoslavia	29,504	30.6	37.5	28.9	33.6
Norway	29,454	24.7	13.0	6.4	80.6
Turkey	28,703	9.7	94.4	..	5.6
Rumania	27,544	24.2	30.5	18.3	51.2
Italy	22,425	18.7	3.0	34.0	63.0
New Zealand	20,778	20.2	(a)	(a)	(a)
Spain	19,305	10.0	(a)	(a)	(a)
Czechoslovakia	17,925	33.0	20.4	15.6	64.0
Union of South Africa	15,958	3.4	(a)	(a)	(a)
Algeria	12,257	10.7	(a)	(a)	(a)
Austria	12,116	37.4	15.7	12.6	71.7
Dutch East Indies	11,737	23.1	(a)	(a)	(a)
Bulgaria	11,469	28.8	23.0	58.8	18.2
Greece	9,291	18.5	69.3	10.3	20.4
Latvia	6,406	25.2	83.6	1.8	14.6
Great Britain	4,745	5.4	10.4	1.3	88.3

(a) Not available.

(b) Estimate of forest area possible for permanent reservation.

3. **Requisite Proportion of Forest Area.**—It is generally held that when the forest area in any country falls below 0.86 acres per head of population, that country will be obliged to import timber. Australia possesses 3.19 acres of forest per head of population and normally the excess of imports of timber over exports amounts to approximately 28,000,000 cubic feet. There are two reasons for the excess. In the first place, the area of 19,500,000 acres given as the wooded area comprises all forest lands, reproductive or otherwise. The bulk of this area consists of cut-over forests swept by fire at frequent intervals, and the area of really productive forests has not been ascertained. Secondly, Australia does not possess a sufficient supply of softwoods, and must, therefore—with the exception of a small quantity produced in Queensland and New South Wales—import the bulk of its requirements from overseas. Provided that the area of 19,500,000 acres considered possible of permanent reservation by foresters was yielding under silvicultural treatment its maximum of hard and soft woods the timber supply of Australia would be sufficient for a population of 22½ millions.

§ 2. Forestry Activities of the Commonwealth Government.

Forestry was not included amongst the matters transferred from the States to the control of the Commonwealth, and federal supervision, therefore, is restricted to the forests in the Commonwealth Territories. These territories (including Papua, New Guinea and Norfolk Island) cover a large area, and, with the exception of the Northern

Territory, are capable of sound forestry development. It is only within comparatively recent years, however, that any attempt has been made to take stock of the forestry position. The Commonwealth Forestry Bureau was instituted in 1925 to initiate sylvicultural and other forest research work and to take charge of the education and training of the professional staffs required by the Commonwealth and the State services. The Bureau received statutory powers under an Act passed in 1930. In the meantime, the Australian Forestry School was established in 1926, and not only was the training of the State forest officers begun, but a nucleus of qualified officers was sent abroad to undergo special courses of instruction with the object of staffing the research side of the Bureau. The financial situation since 1930 has delayed progress on the research side, and the educational work of the Australian Forestry School is at present the Bureau's main activity.

The forest resources of the Territories of Papua, New Guinea, Norfolk Island and the Australian Capital have been investigated, and reports in connexion therewith have been published. In the case of the Australian Capital area an active forest policy has been inaugurated.

The investigation of the dead product of the forests is entrusted to the Council for Scientific and Industrial Research, which has established a Forest Products Division. Research work is being carried out by this institution in regard to various matters, e.g., paper pulp, seasoning, preservation, tan barks, the chemistry of woods, and the utilization of forest products generally, including the substitution of local for imported woods for such purposes as butter boxes and fruit cases.

§ 3. State Forestry Departments.

1. **Functions.**—With the exception of Queensland, the powers and functions of State forest authorities are laid down under Forestry Acts and Regulations. In each State there is a Department or Commission specially charged with forestry work. The functions of these administrations are as follows :—(a) The securing of an adequate reservation of forest lands ; (b) the introduction of proper measures for scientific control and management of forest lands ; (c) the protection of forests ; (d) the conversion, marketing and economic utilization of forest produce ; and (e) the establishment and maintenance of coniferous forests to remedy existing deficiency in softwoods.

Annual reports are issued by each State forest authority.

In Victoria a forestry school has been established at which recruits are trained for the forestry service of the State.

2. **Forest Reservations.**—At the Interstate Forestry Conference held in Hobart in 1920, the State forestry authorities agreed in regard to the necessity of reserving an area of 24,500,000 acres of indigenous forest lands in order to meet the future requirements of Australia but, as previously mentioned, it is the considered opinion of expert foresters that 19.5 million acres only are possible of permanent reservation. This area was distributed among the States as set out in § 1, 2 *ante*.

Having been endorsed by the Premiers' Conference held later in the same year, this area was adopted as the Australian forest requirement towards the permanent reservation of which the authorities are now aiming. The progress made in the various States to the end of June, 1938, is set out in the following table :—

AREA OF FOREST RESERVATIONS, 30th JUNE, 1938.

Particulars.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Dedicated State forests ..	5,180,002	4,818,180	2,859,394	(c) 268,439	3,196,999	1,468,535	17,791,549
Timber and fuel reserves ..	1,371,783	(a)	3,309,015	..	2,171,961	950,000	7,802,759
Total ..	6,551,785	4,818,180	6,168,409	268,439	5,368,960	2,418,535	25,594,308

(a) Not available.

(b) Incomplete.

(c) Includes Timber and Fuel Reserves.

In addition to the work of permanently reserving their respective areas the State foresters are endeavouring to survey all timbered lands with a view to the cutting out of all those unsuitable for forestry. Considerable areas have been revoked in certain States, while dedications of new areas have resulted in gains to the permanent forest estate.

The area of State forests reserved in perpetuity amounted in June, 1938, to 17,791,549 acres, or 91 per cent. of the area considered possible of permanent reservation in Australia. Of this area a considerable proportion consists of inaccessible mountainous country and cut-over lands, while the Australian area recommended refers to merchantable forest only. The foresters of Australia are, therefore, faced with a difficult task in improving and preserving the existing forests, and in securing the reservation of further suitable forest country to ensure a permanent supply.

The Forestry Departments also control 7,802,759 acres of temporary timber and fuel reserves, but, while these areas contain some land of high value for forestry purposes, the greater part does not justify permanent reservation.

3. *Sylvicultural Nurseries and Plantations.*—Recognition of the necessity for providing by systematic sylviculture for the future softwood timber needs has led to the creation in all of the States of a number of nurseries and plantations. A brief statement showing the locality of these establishments and the nature of their activities will be found in previous issues of the Official Year Book. (See Official Year Book No. 6, pp. 451-3.) Details regarding forest plantations and the number of persons employed are given hereunder:—

FORESTRY : AREAS AND EMPLOYMENT, 1937-38.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
Total area of indigenous forest improved or regenerated acres	1,229,315	959,840	294,212	9,906	454,235	..	2,947,508
Total area of Effective Plantations—							
Softwoods .. acres	43,506	51,263	16,977	91,344	11,245	1,150	215,485
Hardwoods .. acres	..	2,500	2,263	5,223	411,168	..	21,154
Number of persons employed in Forestry Departments—							
Office Staff .. No.	100	54	105	32	40	22	353
Field Staff .. No.	104	140	849	270	(b) 567	60	1,990

(a) Mallet—mainly for bark for tanning.

(b) Including casual hands.

4. *Revenue and Expenditure.*—The revenue and expenditure of State Forestry Departments from 1933-34 to 1937-38 are given below:—

STATE FORESTRY DEPARTMENTS : REVENUE AND EXPENDITURE.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
REVENUE.					
	£	£	£	£	£
New South Wales ..	166,014	188,471	87,674	206,770	201,416
Victoria ..	179,150	158,608	176,626	199,360	213,694
Queensland ..	293,991	608,935	660,455	669,457	835,311
South Australia ..	82,888	95,730	115,513	114,638	117,305
Western Australia ..	89,895	119,232	143,158	164,888	176,201
Tasmania ..	17,445	23,066	26,904	30,693	30,722
Total ..	829,383	1,194,042	1,210,330	1,385,806	1,574,649

STATE FORESTRY DEPARTMENTS : REVENUE AND EXPENDITURE—*contd.*

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
EXPENDITURE.					
	£	£	£	£	£
New South Wales ..	(a) 213,067	(a) 349,119	(a) 179,234	84,857	190,215
Victoria ..	(a) 256,195	165,431	196,279	(a) 610,604	(a) 491,964
Queensland ..	(a) 232,930	420,178	496,928	495,740	624,087
South Australia ..	158,788	170,426	175,913	174,973	182,534
Western Australia ..	(a) 171,798	(a) 190,348	(a) 235,186	(b) 196,698	(b) 182,283
Tasmania ..	8,978	11,118	15,674	20,234	58,869
Total ..	1,041,756	1,306,620	1,299,214	1,583,106	1,729,952

(a) Including expenditure from Unemployment Relief Funds as follows:—1933-34—New South Wales, £106,370; Victoria, £93,050; Queensland, £27; Western Australia, £141,520. 1934-35—New South Wales, £236,735; Western Australia, £157,627; 1935-36—New South Wales, £117,703; Western Australia, £183,549; 1936-37—Victoria, £350,564; and 1937-38—Victoria, £238,341. (b) Including expenditure from General Loan and Trust Funds, 1936-37, £122,011; 1937-38, £155,178.

§ 4. The Australian Forestry School.

The Australian Forestry School situated at Canberra in the Australian Capital Territory was established in 1926 by the Commonwealth Government to meet the demand of the States for an institution which would give a professional training at least equal to that afforded by the recognized forestry schools abroad.

Under existing arrangements the head of the State forestry service may nominate candidates for enrolment at the school. According to the system in vogue in each State, the nomination may be made either at school leaving age or after the candidate has successfully completed the specified university course. In the first case, the youth is helped throughout his university career and is given employment in practical work during the long vacations to test his suitability as a forestry officer; in the second case he is chosen later, and the practical tests are not made until the long vacation immediately preceding his entry to the school. The possession of a nomination by a State government service is not, however, essential for enrolment, since any candidate possessing the necessary qualifications will be accepted for the diploma course, and in special cases applicants desirous of studying a particular branch of forestry will be required to follow certain lectures only. Refresher or post graduate courses are arranged to meet the needs of senior foresters.

A candidate for enrolment in the diploma course must possess—(a) a degree of a university, or (b) a certificate that he has completed the special two years' preliminary course at a university.

The qualifications for enrolment may be waived to assist an applicant of exceptional ability with a record of long service in a State Forestry Department, who has been specially recommended by the head of that service. Such applicants must show proof of education equal to that required for a school leaving certificate.

The course of instruction extends over three years, the first two of which are spent at the school, and the third in one of the forestry services of Australia.

The Commonwealth diploma of forestry is awarded to students on the following conditions:—(a) Successful completion of theoretical course; (b) Satisfactory field work during the course; and (c) One year's satisfactory practical forestry work following the school course.

Students who have passed the approved two-year preliminary science course at the Universities of Adelaide, Melbourne, Western Australia or Queensland, and two years of Diploma course at the School, may be granted the degree B.Sc.F. by their Universities, subject to certain conditions laid down, particulars of which may be obtained from the Registrar of the University concerned.

§ 5. Forest Congresses.

References to the various Forestry Conferences held in Australia and elsewhere will be found in Official Year Book No. 22, p. 743, but owing to limitations of space, the information cannot be repeated herein. The Third British Empire Forestry Conference was held in Australia and New Zealand in 1928, and the Fourth in South Africa in 1935. Publications issued in connexion with these Conferences are available on application to the various State and Commonwealth forestry authorities.

§ 6. Forestry Production.

1. Timber.—Particulars regarding logs treated and the production of rough sawn timber in forest sawmills in each State for the year 1937-38 are shown in the following table:—

OUTPUT OF NATIVE TIMBER : FOREST SAWMILLS, 1937-38.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
LOGS TREATED INCLUDING THOSE SAWN ON COMMISSION.							
Hardwood— Quantity 1,000 sup. ft.	121,979	230,567	109,082	5,944	334,201	159,261	961,034
Softwood— Quantity 1,000 sup. ft.	46,982	2,386	171,387	13,255	386	2,333	236,732
Total— Quantity 1,000 sup. ft.	168,961	232,956	280,469	19,199	334,587	161,594	1,197,766
ROUGH SAWN TIMBER PRODUCED FROM ABOVE LOGS.							
Hardwood— Quantity 1,000 sup. ft.	82,978	130,049	77,207	2,926	129,749	81,547	504,456
Softwood— Quantity 1,000 sup. ft.	30,303	1,330	110,771	8,529	138	1,332	152,403
Total— Quantity 1,000 sup. ft.	113,281	131,379	187,978	11,455	129,887	82,879	656,859

The next table gives the sawn output of native timber in both forest and town sawmills and in joinery works, box and case factories and other woodworking establishments in each State for 1923-24, 1928-29 and for the last three years.

SAWN OUTPUT OF NATIVE TIMBER : ALL MILLS.

State.	1923-24.	1928-29.	1935-36.	1936-37.	1937-38.
	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.
New South Wales ..	167,493	136,051	133,342	145,929	168,042
Victoria ..	134,639	79,018	105,935	122,908	141,439
Queensland ..	141,672	106,862	125,269	160,745	208,098
South Australia ..	1,350	3,219	12,858	13,039	16,167
Western Australia ..	161,749	145,043	109,374	130,987	129,986
Tasmania ..	63,120	46,195	76,422	81,328	83,009
Total ..	670,023	516,388	563,200	654,936	746,741

In addition to the sawn timber shown in the table, a large amount of other timber, e.g., sleepers, piles, poles, fencing material, timber used in mining, and fuel, is obtained from forest and other lands. Complete information in regard to the volume of this output is, however, not available. In Western Australia, particulars are obtained of the quantities of timber hewn by contractors for the Railway Department, mines, etc., as

well as of the quantities produced by other agencies outside forest sawmills, but the figures have not been included in the preceding two tables. The quantities so produced in the last five years were as follows:—1933-34, 31,335,186 sup. feet; 1934-35, 43,259,941 sup. feet; 1935-36, 45,614,500 sup. feet; 1936-37, 44,771,668 sup. feet; and 1937-38, 46,775,418 sup. feet. The annual reports of the Forest Departments in the States contain particulars concerning the output of timber from areas under departmental control, but owing to lack of uniformity in measurements accurate determination of total production cannot be made. Moreover, there is a fair quantity of hewn timber produced from privately owned land, but information regarding output is not available.

2. **Other Forest Products.**—(i) *Eucalyptus Oil.* Oil may be distilled from the foliage of all varieties of eucalyptus, and several of them furnish a product widely known for its commercial and medicinal uses. Complete information regarding Australian production and consumption of eucalyptus oil is not available, but considerable quantities are manufactured particularly in Victoria. Oversea exports amounted in 1933-34 to £41,010; in 1934-35 to £50,699; in 1935-36 to £53,797; in 1936-37 to £82,457; and in 1937-38 to £94,538; the bulk of the product being shipped from Victoria to the United Kingdom, the United States and Germany. Large quantities of the crude oil are used locally in flotation processes in connexion with the recovery of gold and other minerals.

(ii) *Sandalwood and Sandalwood Oil.* The distillation of oil from Western Australian sandalwood has been characterized by improvement both in quality and in quantity within recent years. It is claimed that the Western Australian oil is at least as valuable medicinally as the well-known Mysore oil, besides having an extensive use in the manufacture of perfumes. Exports of essential oils from Western Australia amounted in 1933-34 to £26,720; in 1934-35 to £35,363; in 1935-36 to £27,526; in 1936-37 to £38,185; and in 1937-38 to £35,128. The bulk of the product consisted of sandalwood oil which was shipped principally to the United Kingdom, Eastern States of Australia and Germany. In addition to its distillation, quantities of sandalwood are gathered for export each year. Western Australia is the chief source of supply, followed by South Australia, while Queensland and New South Wales also produce small quantities. In 1937-38, 1,241 tons valued at £36,831 were exported, the whole of which was shipped to the East; Hong Kong 729 tons and China 312 tons were the principal countries of destination. A table giving these details is included in § 8 hereinafter.

(iii) *Grass Tree or Yacca Gum.* South Australia is the chief State producing this gum which is used in the preparation of varnishes and lacquers. Quantities are also obtained in New South Wales and Western Australia but these are small. The production in South Australia during 1937-38 amounted to 3,278 tons; whilst the exports from Australia amounted to 2,688 tons valued at £18,812 during the same period.

(iv) *Tan Barks.* The forests of Australia are capable of yielding a wealth of tanning materials; many species of eucalyptus and other genera contain varying proportions of tannin, chiefly in the bark, but also in the wood and twigs. Although many of these species contain higher percentages of tannin than are found in the barks of oak, chestnut and hemlock, formerly the chief source of tannin material in the northern hemisphere, scattered distribution has resulted in the richest tan-bearing species only being used in Australia. These are:—Golden wattle (*Acacia pycnantha*), black or green wattle (*Acacia decurrens* or *mollissima*), and mallet (*Eucalyptus astringens*).

Up to 1913 the production of wattle bark was more than sufficient for local requirements, and an export trade was built up. The supply diminished during the six years ending 1926-27, and Australia imported on the average about 2,900 tons each year from Natal, where the plantations were originally started from Australian seed. Since 1927-28, however, exports exceeded imports in every year except 1936-37, the annual excess value averaging £11,159 during the past five years. The chief exporting States are South Australia, Tasmania and Western Australia. This matter is referred to in tables appearing in § 8 hereinafter. The other valuable tan bark, mallet (*Eucalyptus astringens*) of Western Australia, is not extensively used in Australian tanneries, but it is exported to Europe and other countries, where it is used for producing a tannin

extract. A brief account of the work done by the Council for Scientific and Industrial Research in connexion with tanning materials will be found in Official Year Book No. 22, page 743. The production of extract from the bark of karri (*Eucalyptus diversicolor*), of which very large quantities are available at karri sawmills, has passed the experimental stage, and private enterprise has started production on a commercial scale. The experimental work in kino impregnated marri (*Eucalyptus calophylla*) bark is not yet complete. The production of tan bark in Australia is estimated to exceed 25,000 tons per annum.

3. Value of Production.—As the outcome of a series of conferences of Australian Statisticians it is now possible to present the value of forestry production on a more satisfactory basis than was possible hitherto, but the relative proportions of marketing costs to gross production suggest that complete uniformity in method has not yet been obtained. Provision is made for the inclusion of all phases of forestry output, including forest sawmills, the production of logs, poles, piles, sleepers and other hewn timber, firewood, sandalwood and gums and resins. All of these items are not yet collected in all the States, but the omissions are not serious.

GROSS, LOCAL AND NET VALUE OF FORESTRY PRODUCTION, 1937-38.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Place of Production.	Value of Other Materials Used in Process of Production.	Net Value of Production.(a)	
	£	£	£	£	£	
New South Wales ..	2,310,000	131,000	2,179,000	..	2,179,000	
Victoria	1,231,322	202,148	1,029,174	..	1,029,174	
Queensland .. .	2,782,000	268,000	2,514,000	..	2,514,000	
South Australia ..	622,655	52,456	570,199	..	570,199	
Western Australia ..	1,478,636	185,080	1,293,556	20,849	1,272,707	
Tasmania	485,800	54,600	431,200	..	431,200	
Total	1937-38	8,910,413	893,284	8,017,129	20,849	7,996,280
	1936-37	8,380,565	876,878	7,503,687	197,766	7,305,921
	1935-36	7,641,162	806,524	6,834,638	27,042	6,807,596
	1934-35	7,331,603	867,464	6,464,139	26,791	6,437,348
	1933-34	5,853,862	716,712	5,137,150	..	5,137,150

(a) No account has been taken of maintenance costs and depreciation.

4. Employment.—The number of persons employed in forestry operations as revealed by the Census of the Commonwealth of Australia at the 30th June, 1933, is shown in the following table. With the exception of those employed in forest sawmills referred to in Chapter XXIII. no later details are available.

EMPLOYMENT IN FORESTRY, 30th JUNE, 1933.

Sex.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	No.	No.	No.	No.	No.	No.	(a)
Males ..	6,446	7,225	4,054	1,549	4,189	2,376	25,839
Females ..	38	29	27	8	7	5	114
Total ..	6,484	7,254	4,081	1,557	4,196	2,381	25,953

(a) Not including Northern Territory, 11, and Australian Capital Territory, 152.

§ 7. Commercial Uses of Principal Australian Timbers.

i. General.—The uses of the more important Australian timbers are many and various, and are indicated in previous issues of this work. (See Official Year Book No. 6, pp. 454-6; and Official Year Book No. 10, Section III., § 7 and 8.)

A list of Australian timbers best known on the local markets appeared in Official Year Book No. 20, p. 713. [Further references are made in "Timber and Forest Products of Queensland" (E. H. F. Swain), published in 1928.]

2. Lack of Uniformity in Nomenclature.—Unfortunately the vernacular names applied to the gums, ironbarks, etc., in the various States, and even in different parts of the same State, do not always refer to identical timbers. The resulting confusion has not only been productive of loss, but it has, to some extent, prejudicially affected the timber trade. This subject is referred to at some length in the special article "Australian Eucalyptus Timbers" in Section III., § 7 and 8, of Official Year Book No. 10. At the Forestry Conferences previously mentioned, the matter came up for special consideration, and steps were taken to establish a uniform nomenclature.

§ 8. Oversea Trade.

1. Imports.—(i) *Dressed Timber*. The quantities and values of timber imported into Australia during the four years 1934-35 to 1937-38 inclusive are shown according to countries of origin in the following tables:—

DRESSED TIMBER: IMPORTS INTO AUSTRALIA.

Country of Origin.	Quantity.				Australian Currency Values.			
	1934-35.	1935-36.	1936-37.	1937-38.	1934-35.	1935-36.	1936-37.	1937-38.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ..	21,839	369	2,609	235	2,075	34	238	76
Canada ..	2,739,082	4,301,411	6,772,408	12,286,173	26,896	44,625	66,826	165,374
Other British Countries ..	38,356	208,443	98,196	91,387	1,225	2,910	883	2,095
Norway ..	4,688,155	5,972,177	5,283,893	5,492,273	46,646	53,670	51,902	73,579
Sweden ..	3,911,008	2,041,848	2,504,871	5,362,982	38,794	18,299	28,514	81,694
U.S. of America ..	2,698,135	1,637,157	2,326,883	1,921,917	23,116	13,891	18,523	25,037
Other Foreign Countries ..	742,195	1,967,025	249,150	776,919	11,835	18,379	4,699	14,496
Total ..	14,838,770	16,128,430	17,238,010	25,931,886	150,587	151,808	171,585	362,351

The figures in the table above are exclusive of items such as architraves, veneers, etc., quantities for which are either not shown, or are expressed in dissimilar units in the Customs entries. The total value of the items so excluded amounted to £68,381 in 1937-38 including plywood, veneered or otherwise, £28,797.

The bulk of the imports of dressed timber comes from Canada, Norway, Sweden and the United States of America. Practically the whole of this timber consists of softwoods—deal and pine—used for lining, weatherboards, flooring, shelving, doors, box-making, etc.

(ii) *Undressed Timber*. Australian imports of undressed timber for the years 1934-35 to 1937-38 are given hereunder:—

UNDRESSED TIMBER, INCLUDING LOGS.(a): IMPORTS INTO AUSTRALIA.

Country of Origin.	Quantity.				Australian Currency Values.			
	1934-35.	1935-36.	1936-37.	1937-38.	1934-35.	1935-36.	1936-37.	1937-38.
	1,000. sup. ft.	1,000. sup. ft.	1,000. sup. ft.	1,000. sup. ft.	£	£	£	£
United Kingdom ..	523	202	75	170	20,542	15,696	8,513	13,577
Canada ..	212,927	265,016	261,223	334,177	762,747	825,777	959,891	1,692,500
India ..	93	101	127	190	3,856	4,299	5,859	2,596
Malaya (British) ..	105	104	127	368	735	730	894	2,930
New Zealand ..	38,702	36,697	17,095	14,574	508,658	452,167	247,935	221,333
Other British Countries ..	4,398	3,690	4,274	9,689	28,055	34,212	28,064	73,790
Japan ..	916	1,186	786	666	12,584	14,166	10,411	13,558
Netherlands East Indies ..	2	41	..	..	104	185	..	..
Norway ..	798	33	..	124	7,172	237	90	1,668
New Caledonia ..	..	..	..	..	..	..	..	..
Philippine Islands ..	4,589	3,949	3,390	4,359	41,394	37,138	31,566	42,375
Sweden ..	3,486	2,251	2,549	2,409	28,732	16,778	20,116	28,066
United States of America ..	38,717	39,863	23,485	31,695	264,023	341,432	218,937	342,674
Other Foreign Countries ..	2,745	5,015	5,042	8,362	20,442	31,307	33,990	79,393
Total ..	308,001	358,148	318,173	406,783	1,699,044	1,774,124	1,566,266	2,514,460

(a) Exclusive of timber not measured in super. feet.

By far the larger proportion of the undressed timber imports consists of softwoods such as oregon, redwood, hemlock, western red cedar and yellow pine from Canada and the United States; and kauri, rimu and white pine from New Zealand. Amongst the hardwoods imported the principal are oak from the United States of America and Japan, and furniture woods from the Pacific Islands.

2. Exports.—(i) *Undressed Timber*. The quantity and value of undressed timber exported from 1934-35 to 1937-38 are given below, the countries of destination being also shown:—

UNDRESSED TIMBER, INCLUDING LOGS. (a) : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.				Value.(b)			
	1934-35.	1935-36.	1936-37.	1937-38.	1934-35.	1935-36.	1936-37.	1937-38.
	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	£	£	£	£
United Kingdom	12,196	12,875	15,740	17,500	142,066	147,530	182,981	216,323
Canada	103	140	127	341	1,920	2,565	2,474	7,715
Ceylon	764	635	760	567	7,643	6,353	7,941	5,893
Hong Kong	33	..	69	443	200	..	621	3,740
India	7	438	..	..	114	4,514	..	..
Malaya (British)	83	..	..	..	877	..	..	..
Mauritius	276	432	403	311	2,777	4,738	5,014	5,846
New Zealand	9,991	12,842	15,055	15,835	126,089	160,382	209,419	237,098
Pacific Islands—								
Fiji	555	727	736	896	8,658	10,832	11,661	14,788
Gilbert and Ellice Islands								
Colony	17	38	67	212	286	716	955	2,272
Papua	93	139	118	424	1,416	2,344	2,056	6,980
Solomon Islands	72	94	184	236	1,207	1,532	3,391	4,800
Territory of New Guinea	145	187	136	289	2,011	2,355	2,472	4,741
Other Islands	47	53	156	407	817	867	2,617	6,590
Union of South Africa	5,438	5,399	5,097	7,358	62,047	64,957	57,768	83,055
Other British Countries	18	18	112	92	173	211	2,071	1,579
Africa, Portuguese East	1,852	574	382	346	21,104	7,271	4,370	4,983
Belgium	528	1,078	518	1,612	5,686	11,181	7,117	24,241
China	1,621	1,153	746	128	16,227	11,504	7,143	1,010
Egypt	187	392	132	228	1,871	3,919	1,317	2,280
Germany	448	236	298	81	5,048	2,625	4,661	1,066
Japan .. .. .	..	..	..	..	..	..	..	..
Netherlands	307	73	189	685	3,466	974	2,081	8,541
Pacific Islands—								
New Caledonia	85	210	60	94	1,435	3,412	1,075	1,880
New Hebrides	19	39	57	128	355	477	854	2,306
Other Islands	80	15	36	44	1,932	343	862	995
United States of America	1,656	2,445	2,800	1,150	37,335	63,081	84,896	32,850
Other Foreign Countries	290	(c) 75	78	35	2,901	(c) 1,339	885	438
Australian Produce	36,911	40,307	44,056	40,999	455,661	516,022	606,702	674,187
Other Produce	580	812	1,134	8,443	4,658	6,169	16,001	7,823
Total	37,491	41,119	45,190	49,442	460,319	522,191	622,703	682,010

(a) Exclusive of Timber not measured in super. feet.

(b) Australian currency values.

(c) Includes Iraq, 19,127 super. feet, £207, in 1935-36.

The bulk of the exports of undressed timber was consigned to New Zealand, the United Kingdom, South Africa and the United States of America, and consisted largely of the Western Australian hardwoods, jarrah and karri, which have earned an excellent reputation for such purposes as railway sleepers, harbour works, wood paving, etc. Considerable quantities of pole, pile and girder timber are also exported from New South Wales to New Zealand.

(ii) *Sleepers*. Prior to the year 1933-34 particulars of the quantities and values of sleepers exported were included in the table relating to Undressed Timber, including Logs. These details have been separated in the export returns and are now shown in the following table:—

RAILWAY SLEEPERS : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.		Value.(a)	
	1936-37.	1937-38.	1936-37.	1937-38.
	sup. ft.	sup. ft.	£	£
United Kingdom	532,200	1,184,784	5,322	16,722
Ceylon	2,439,599	3,750,156	27,335	37,499
Hong Kong .. ..	..	1,396,604	..	14,888
Mauritius	272,512	964,987	2,521	10,217
New Zealand	7,851,226	7,628,809	57,241	78,636
Pacific Islands	302,251	216,038	3,177	2,180
Union of South Africa ..	4,843,067	6,299,076	48,506	62,990
Other British Countries ..	531,756	30,024	5,317	300
Africa, Portuguese East ..	29,892	..	299	..
China	10,332,098	7,852,981	105,242	80,312
Egypt	2,435,520	8,148,120	24,355	81,481
Iran (Persia) .. ..	..	155,604	..	1,556
Iraq	2,753,058	14,479,697	27,530	141,934
Other Foreign Countries ..	..	44,556	..	445
Total	(b)32,323,179	(c)52,151,436	306,845	528,260

(a) Australian currency values.
1,803,793.

(b) Number of sleepers, 1,190,380.

(c) Number of sleepers,

3. **Classification of Imports and Exports.**—(i) *General*. The quantities of timber classified according to varieties imported and exported during the year 1937-38 are given in the next table:—

TIMBER : VARIETIES IMPORTED AND EXPORTED FROM AUSTRALIA,
QUANTITIES, 1937-38.

Description.	Unit of Quantity.	Imports.	Exports.	Excess of Imports over Exports.
Dressed	sup. ft.	25,931,886	1,107,967	24,823,919
Undressed, including logs ..	..	406,782,623	49,441,890	357,340,733
Sleepers .. ..	..	(c)	52,151,436	-52,151,436
Architraves, mouldings, etc. .	lin. ft.	46,334	140,858	-94,524
Plywood, veneered or otherwise ..	sq. ft.	3,311,581	2,966,380	345,201
Palings	No.	..	121,360	-121,360
Shingles .. ..	..	835,258	..	835,258
Staves—				
Dressed, etc. .. ..	..	..	2,388	-2,388
Undressed .. ..	..	1,336,016	7,371	1,328,645
Laths—				
For blinds .. ..	..	(a)	(a)	(a)
Other .. ..	..	..	18,352	-18,352
Doors .. ..	..	746	(a)	(a)
Wood pulp	ton	63,605	(b)	63,605
Veneers	sq. ft.	4,457,962	4,768,597	-310,635
Spokes, rims, felloes, etc. ..	..	..	(a)	(a)
Other .. ..	..	(a)	(a)	(a)

(a) Quantity not available.
separately.

(b) Exports not recorded separately.

(c) Imports not recorded

NOTE.—The minus sign (—) denotes an excess of exports.

Similar particulars relative to the values of imports and exports during the year 1937-38 are shown hereunder :—

**TIMBER : VARIETIES IMPORTED AND EXPORTED FROM AUSTRALIA,
VALUES(a), 1937-38.**

Description.	Imports.	Exports.	Excess of Imports over Exports.
	£	£	£
Dressed	362,351	27,197	335,154
Undressed, including logs	2,514,460	682,010	1,832,450
Sleepers	(b)	528,260	-528,260
Architraves, mouldings, etc.	561	1,247	-686
Plywood, veneered or otherwise	28,797	39,258	-10,461
Palings .. .. .	..	1,284	-1,284
Shingles	1,523	..	1,523
Staves—			
Dressed, etc. .. .. .	..	449	-449
Undressed	25,726	246	25,480
Laths—			
For blinds	1	93	-92
Other .. .. .	..	24	-24
Doors	30	2,715	-2,685
Wood pulp	705,545	(a)	705,545
Vencers	31,705	29,229	2,476
Spokes, rims, felloes, etc.	4	1,057	-1,053
Other	5,790	12	5,778
Total	3,676,493	1,313,081	2,363,412

(a) Australian currency values.

(b) Imports not recorded separately.

NOTE.—The minus sign (–) denotes an excess of exports.

(ii) *Sandalwood.* A considerable quantity of sandalwood is exported, principally from Western Australia to Hong Kong and China, where it is highly prized and largely used for artistic and ceremonial purposes. Particulars for the last four years are as follows :—

SANDALWOOD : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.				Value.(a)			
	1934-35.	1935-36.	1936-37.	1937-38.	1934-35.	1935-36.	1936-37.	1937-38.
	ton.	ton.	ton.	ton.	£	£	£	£
Hong Kong	2,390	1,208	2,120	728	70,007	32,842	63,344	21,242
India	112	75	105	40	3,475	2,339	3,279	1,280
Malaya (British)	112	99	140	116	3,409	2,997	4,283	3,578
Other British Countries	17	12	20	13	543	351	620	415
China	1,025	932	1,154	312	30,773	27,513	34,426	9,357
Other Foreign Countries	14	26	16	32	434	803	496	959
Total	3,670	2,352	3,555	1,241	108,641	66,845	106,448	36,831

(a) Australian currency values.

(iii) *Tan Bark*. Tan bark figures both as an export and an import in the Australian trade returns. The table hereunder refers to exports :—

TAN BARK : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.				Value.(a)			
	1934-35.	1935-36.	1936-37.	1937-38.	1934-35.	1935-36.	1936-37.	1937-38.
	cwt.	cwt.	cwt.	cwt.	£	£	£	£
United Kingdom		305		100		162		20
New Zealand	33,810	20,001	10,808	5,779	16,536	9,482	6,024	3,118
Other British Possessions ..	40			30	26			21
Germany	6,007	1,517	515	3,193	2,356	1,101	228	1,313
Other Foreign Countries ..	40	1,941	1,514	6,253	18	914	2,155	3,100
Total	39,897	23,764	12,837	15,355	18,936	11,659	8,407	7,572

(a) Australian currency values.

For a number of years prior to 1927-28 Australia had to import large quantities of tanning bark, but thereafter imports dropped to negligible quantities and exports rose annually to 89,061 cwt. in 1931-32. After 1931-32 exports declined each year to 12,837 cwt. in 1936-37 and imports rose in the latter year to 18,216 cwt., of which 15,487 cwt. consisted of wattle bark imported from South Africa.

A comparison of the imports and exports of tan bark during the last five years is given in the next table :—

TAN BARK : IMPORTS AND EXPORTS, AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	cwt.	cwt.	cwt.	cwt.	cwt.
QUANTITIES—					
Imports	1	2,556	4,362	18,216	7,361
Exports	41,350	39,897	23,764	12,837	15,355
Excess of exports over imports	41,349	37,341	19,402	-5,379	7,994
VALUES (a)—	£	£	£	£	£
Imports	1	827	1,395	6,660	3,145
Exports	21,249	18,936	11,659	8,407	7,572
Excess of exports over imports	21,248	18,109	10,264	1,747	4,427

(a) Australian currency values.

NOTE.—The minus sign (—) denotes an excess of imports.

The imports consist almost exclusively of wattle bark from the plantations in South Africa. One variety of Australian wattle is found to flourish in the sandy belts near the coast, but it is the *Acacia decurrens*, var. *mollis*, which is chiefly relied upon for the production of wattle bark in the South African plantations. Seed has been tried from New South Wales, Tasmania and Victoria, but it is stated that most of the seed is obtained from the best wattle bark areas in eastern Tasmania and western Victoria.

Two reasons are given to account for the success of the industry in the Union of South Africa :—(a) It is found that the treeless, grassy highlands of Natal are specially suitable for wattle culture, and the trees can therefore be grown in rows and economically attended to, while the necessary bark sheds and other appurtenances can be placed in the most advantageous positions; and (b) there is an abundance of cheap and efficient native labour.

(iv) *Other Tanning Substances*. Considerable quantities of tanning substances other than bark are annually imported into Australia. The total value of the importations in 1937-38 was £64,421, and was composed as follows :—Wattle bark extract, £5,699; quebracho extract, £16,810; other extract, £24,157; and valonia, myrobalans, cutch, etc., £17,755.

CHAPTER XXII.

FISHERIES.*

§ 1. General.

1. **Fish Stocks.**—Australia possesses an abundant and varied fish fauna, which embraces both tropical and temperate varieties and includes destructive as well as valuable species. In rivers and lakes both indigenous and imported varieties thrive. The latter have been introduced and acclimatized for industrial and sporting purposes by Governments and angling societies. Exploitation of the fishing areas is controlled by governmental authority. In some cases the minimum size of the fish to be taken is fixed, and in other cases the taking of some kinds is prohibited during periods prescribed according to the necessity.

2. **Progress of Industry.**—(i) *Transport and Marketing.* Despite the abundance of edible fish, the progress of the fishery industry in Australia has been slow, the difficulties of transport and marketing of the proved supplies presenting the chief obstacles.

In New South Wales, as shown in § 5 herein and § 6 of this Chapter in Official Year Book No. 17, the matter of exploiting trawlable fish was undertaken by the State Government, which also took steps to improve the conditions under which ordinary coastal fishing is carried on. In Queensland, State trawling was undertaken in 1919, and good trawling areas have been located and charted between Cape Moreton and Caloundra.

(ii) *Economic Investigations.* Although valuable work has been carried out by the State Governments in the way of experiment and culture, much yet remains to be done before the industry is at all commensurate in extent with the industrial progress or consuming capacities of Australia. All live fish imported into Australia are examined on shipboard in order to prevent the importation of undesirable fish. With the object of ascertaining the movements of oceanic fishes, and of estuarine fishes which make periodical oceanic migrations, reports are furnished regarding the various kinds of fishes, etc., and their movements along the coast. Details regarding the activities of the States in fish-culture were given in Official Year Book No. 6, pp. 471-2. By arrangement with the Commonwealth Fisheries Department some years ago members of the staff of the Australian Museum, Sydney, accompanied the F.L.S. *Endeavour* on various cruises. Specimens were collected, mounted for scientific purposes, and distributed to other Australian Museums, a considerable number being put aside for the Commonwealth Fishery Museum. As pointed out in § 4, however, this vessel was lost with all hands in 1914.

With the object of reviewing the potentialities of the fishing industry of Australia the Development and Migration Commission convened a meeting of State and Commonwealth representatives. The Conference, which was held in Melbourne during September, 1927, affirmed:—

- (1) The importance of establishing a Marine Biological Institution to study the scientific problems connected with Australian fisheries, and to collect and disseminate authoritative information and give advice on matters concerning the fisheries.
- (2) The desirability of establishing an experimental trawling unit to explore the fisheries resources of Australia.

Committees were formed to deal with important problems concerning the preservation, transportation, marketing and distribution of fish, the canning and curing of fish, the production of fish by-products, the factors of destruction in fisheries, the development of the oyster industry, etc. The reports prepared by these Committees were submitted to a further conference held in July, 1929, at which the Commonwealth Government and all State Governments were represented; it was then unanimously recommended that investigation work should be undertaken by the Commonwealth Government. The Commonwealth Government entrusted this task to the Council for Scientific and

* A specially contributed article dealing with the Marine and Fresh Water Fisheries of Australia appeared as § 6 of this Chapter in Official Year Book No. 17 (*vide* pp. 752 to 767 therein).

Industrial Research and is providing a sum of £80,000, spread over a period of five years, for the following purposes:—(i) to procure a vessel specially designed for the exploration of pelagic or surface-swimming fish, but which could also carry out certain investigations of demersal or bottom-dwelling species, (ii) to undertake experiments in the canning of fish and the determination of the chemical composition of fish thought to be suitable for the manufacture of fish by-products, (iii) to determine, by tests, the best methods of curing and preserving fish, especially the more common varieties, and (iv) in co-operation with the State authorities, to undertake a study of the systems of distribution of fish in each State with a view to improving existing transport and marketing facilities. A trawler constructed at a cost of £17,000 was commissioned in 1938 and a programme of work was laid down extending over a period of five years. During the first three years, the investigation will be confined to the south-eastern portion of the Australian coast; later it will be extended, within limits, to the south-western portion of the Continent. Experimental cruises completed so far have revealed the presence of four kinds of tuna (bonito, little tunney, skipjack and yellow-fin) and other commercial species. A Fisheries Laboratory and Research Station has been erected at Port Hacking in New South Wales.

A Commonwealth Director of Fisheries, entrusted with the task of carrying out these investigations, has been appointed for a period of five years. Other steps have been taken to initiate action according to the programme outlined above, including the building up of a staff of trained investigators. It is hoped that, as a result of the knowledge gained from this investigation, the fishery industry of Australia will develop more in keeping with the advancement made by other branches of production.

3. **Consumption of Fish.**—It has been said that the Australians are not fish-eating people, seeing that the annual consumption of fish per head of population in Great Britain is set down at 42 lb., while in Australia it has been estimated at only 13 lb. There are frequent complaints that the distribution service does not give the public adequate opportunity to satisfy its appetite for a fish diet.

4. **Oyster Fisheries.**—Natural oyster beds exist on the foreshores in the shallow waters of inlets and estuaries in several parts of Australia. By husbanding the natural crop, and by judicious transplanting, the output has been very materially augmented. The areas are leased by the Government to private persons, lengths of foreshore being taken up under oyster leases. In New South Wales and Queensland the industry has thriven, and small yields are obtained in South Australia, Victoria and Tasmania.

5. **Pearlshell, Pearls, Bêche-de-mer, etc.**—(i) *General.* Pearlshelling is carried on in the tropical waters of Queensland, the Northern Territory and Western Australia. The pearl oyster inhabits the northern and western coastal waters from Cape York to Shark Bay, a length of shore of over 2,000 miles. The shells are marketed in considerable quantities, and pearls are obtained in Queensland, Western Australia and the Northern Territory. The fishing is generally conducted with the aid of diving apparatus in water varying from 4 to 20 fathoms in depth. In Queensland and the Northern Territory the bêche-de-mer industry is carried on, and tortoiseshell is obtained on the coasts. Experiments have been made in cultivating the pearl oyster on suitable banks. In October, 1911, a pearl weighing 178 grains, and valued at £3,000, was obtained at Broome. Further details regarding pearlshelling are given in Official Year Book No. 6, p. 463. The value of trochus-shell of Australian origin exported during 1937-38 was £32,147.

(ii) *Royal Commission on Pearlshelling Industry.* In accordance with the "White Australia" policy it was originally determined that the employment of Asiatic labour in the pearlshelling industry should be restricted, and ultimately cease, and it was proposed that after 31st December, 1913, permits to bring in Asiatics for the pearling-fleet should no longer be issued. In view, however, of the disorganization of the industry occasioned by the war, the time was extended to the 30th June, 1918, after which date permits to introduce Asiatic labour were to be granted only in cases where the diver and tender of a

boat were Europeans. The Royal Commission appointed in March, 1912, presented its final report in 1916. The Commissioners stated that, though it might be practicable, they did not consider it advisable or profitable to attempt to transfer the industry from Asiatics to Europeans. They further stated that, while the labour employed is almost entirely Asiatic, they did not consider that the "White Australia" policy would be weakened or imperilled by allowing the industry to continue as then conducted.

(iii) *Tariff Board Inquiry.* Arising out of an application for the payment of a bounty on pearlshell gathered by fishing vessels registered in Australia, the industry was the subject of an inquiry by the Tariff Board which presented its report in 1935. The Board did not approve the granting of a bounty but recommended some relief to the industry in the form of the remission of primage and customs duty.

§ 2. The Fishing Industry.

1. *Boats and Men Engaged, and Take.*—(i) *General Fisheries.* The returns have been compiled from particulars supplied by the State Departments, and while the data do not generally lend themselves to presentation on a uniform basis, the principal facts have been incorporated in the tables hereunder :—

GENERAL FISHERIES, 1937-38.

State or Territory.	No. of Boats Engaged.	Value of Boats and Equip-ment.	No. of Men Em-ployed.	Total Take of—		Gross Value of Take—	
				Fish.	Spiny Lobster (Crayfish).	Fish.	Spiny Lobster (Crayfish).
	No.	£	No.	cwt.	dcz.	£	£
New South Wales(a)	1,684	110,682	(b)2,648	236,889	11,544	550,498	(c)43,503
Victoria ..	816	103,468	1,428	116,102	9,053	210,270	10,402
Queensland ..	867	74,135	1,797	(d)78,740	(e)13,384	(d)159,800	e f 8,381
South Australia(a)	1,100	150,000	1,500	75,000	21,000	227,000	16,000
Western Australia(a)	316	53,128	662	46,649	46,180	146,945	(g)20,031
Tasmania(a)(h) ..	219	54,000	304	20,587	71,276	39,168	38,366
Northern Territory	..	(i)70	3	148	..	414	..
Total ..	5,002	545,483	8,342	574,115	172,437	1,334,095	136,683

(a) Year ended December, 1937. (b) Fishermen's licences issued. (c) Including £29,393, the value of 8,888 cwt. of prawns and 5,576 dozen crabs. (d) Includes prawns. (e) Crabs. (f) Including 25 turtles valued at £36. (g) Including prawns, £1,713, and crabs £2,155. (h) Includes oyster fisheries. (i) Equipment only.

Returns for Australia for the last five years are given in the table below :—

GENERAL FISHERIES : AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
No. of boats engaged ..	4,278	4,272	4,589	4,555	5,002
No. of men employed ..	8,405	8,151	7,963	8,237	8,342
Fish obtained—					
Quantity ..	cwt. 561,035	557,214	540,167	556,645	574,115
Gross value ..	£ 1,151,812	1,159,808	1,180,885	1,369,332	1,334,095
Lobsters obtained—Gross value £	a122,409	a123,296	a117,058	142,943	136,683

(a) Exclusive of South Australia.

(ii) *Edible Oyster Fisheries.* Edible oyster fisheries are of small dimensions outside New South Wales and Queensland. During 1937-38 the available returns show the following takes :—New South Wales, 73,686 cwt., value £99,995; Queensland, 9,387 cwt., value £13,954. In Tasmania the scallop is far more important than the oyster. In 1937 the scallops taken in Tasmania were valued at £9,500.

Returns for Australia for the last five years are given in the appended table:—

EDIBLE OYSTER FISHERIES : AUSTRALIA.

Particulars.	1933-34. (a)	1934-35. (a)	1935-36.	1936-37.	1937-38.
No. of boats engaged	662	665	699	711	757
No. of men employed	666	675	687	712	677
Oysters obtained—					
Quantity cwt.	57,824	58,678	63,501	74,283	83,666
Gross value (b) £	77,590	78,287	89,989	102,683	124,169

(a) Exclusive of South Australia. (b) Including scallops in Tasmania valued at £6,000 in 1933; £5,500 in 1934; £6,650 in 1935; £7,800 in 1936; and £9,500 in 1937.

(iii) *Pearls, Pearlshell and Bêche-de-mer.* Details regarding the production, trade, etc., for these items, so far as they are ascertainable, are given hereunder. For obvious reasons no correct estimate can be obtained of the value of pearls. Pearlshell (*Margaritifera*) is widely distributed in North Australian waters over an area facing some thousands of miles of coastline, though not intensively over the whole distance. The north-west beds are the most prolific, but those around and to the north of Cape York are also of importance. There is need for further investigation into the occurrence of this valuable shell, as well as of trochus, green snail, window-pane shell (*Placuna*), the various types of trepang or bêche-de-mer (*Holothuria*), both in tropical Australian waters and those of Papua and the mandated area of New Guinea. Particulars returned for the year 1937-38 are as follows:—

PEARL, PEARLSHELL AND BÊCHE-DE-MER FISHERIES, (a) 1937-38.

State or Territory.	Number of Boats Engaged.	Value of Boats and Equip-ment.	Number of Men Em-ployed.	Quantity of Pearl-shell obtained.	Gross Value of Pearl-shell obtained.	Gross Value of Pearls obtained. (b)	Gross Value of Bêche-de-mer obtained.	Gross Value of Tortoise-shell obtained.
	No.	£	No.	Tons.	£	£	£	£
Queensland (c)	98	99,450	1,085	1,131	118,208	26	13,332	8
Western Australia (d)	82	59,830	633	919	125,447	3,516	..	..
Northern Territory	24	21,000	223	804	67,000	569	905	12
Australia	204	180,280	1,941	2,854	310,655	4,111	14,237	20

(a) No pearlshelling industry in New South Wales, Victoria, South Australia and Tasmania. (b) Incomplete; as returned. (c) Also trochus-shell to the value of £29,530 in Queensland. (d) Year ended December, 1937. (e) Also 60 cwt. trochus-shell valued at £191.

The figures for tortoiseshell and trochus-shell as returned are incomplete, as the necessary information is not collected in full detail. In the following summary of production during the last five years export figures of Australian origin are inserted for both of these items:—

PEARL, PEARLSHELL AND BÊCHE-DE-MER FISHERIES : AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
No. of boats engaged	237	230	215	221	204
No. of men employed	2,339	2,599	1,991	2,241	1,941
Pearlshell obtained—					
Quantity tons	1,675	2,107	2,275	2,780	2,854
Value £	202,755	201,243	239,952	340,244	310,655
Pearls obtained (a)—					
Value £	9,361	9,439	6,031	5,495	4,111
Bêche-de-mer obtained—					
Quantity tons	(b)	(b)	(b)	(b)	(b)
Value £	18,362	14,392	15,082	6,495	14,237
Tortoiseshell exported—					
Value £	696	747	402	367	380
Trochus-shell exported—					
Value £	41,596	44,694	41,590	51,209	32,147

(a) Incomplete; as returned.

(b) Not returned.

2. **Value of Production.**—As the outcome of a series of conferences by Australian Statisticians it is now possible to present the value of production of the fishing industry on a more satisfactory basis than was possible hitherto. It should be remembered, however, that the actual collection of statistics of the quantity of fish taken presents many difficulties and the gross values are not complete in some of the States. Particulars of the value of other materials used in the process of production are not available for all States, and consequently the values can only be stated at the point of production and not on a net basis as has been done with other industries. Variations in the relative proportions of marketing costs to gross production suggest that complete uniformity in method has not yet been attained.

GROSS AND LOCAL VALUE OF FISHERIES PRODUCTION, 1937-38.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Place of Production.	Value of other Materials used in process of Production.	Net Value of Production.(c)	
	£	£	£	£	£	
New South Wales ..	694,000	146,000	548,000	55,000	493,000	
Victoria	220,682	52,587	168,095	(b)	(b)	
Queensland	343,000	47,000	296,000	41,000	255,000	
South Australia ..	243,700	34,466	209,234	(b)	(b)	
Western Australia ..	296,130	9,550	286,580	26,400	260,180	
Tasmania	87,050	..	87,050	(b)	(b)	
Total	1937-38..	(a)1,884,562	289,603	1,594,959	(b)	(b)
	1936-37..	(a)1,916,059	278,059	1,638,000	(b)	(b)
	1935-36..	(a)1,743,694	291,634	1,452,060	(b)	(b)
	1934-35..	(a)1,595,127	252,111	1,343,016	(b)	(b)
	1933-34..	(a)1,578,328	248,603	1,329,725	(b)	(b)

(a) Not including production in the Northern Territory of a gross value of £68,900 in 1937-38; £89,446 in 1936-37; £73,109 in 1935-36; £41,526 in 1934-35; and £42,915 in 1933-34. (b) Not available. (c) No account has been taken of maintenance costs and depreciation.

3. **Fish Preserving.**—To encourage the industry the Federal Parliament provided a bounty of $\frac{1}{4}$ d. per lb. for fish preserved as prescribed during the ten years 1907-8 to 1916-17, but the bounty failed to develop the industry, and was not renewed on its expiration in 1916-17. The amount of bounty paid during the ten years was only £3,005. A further attempt to develop this branch of the fishing industry is now receiving the attention of the Commonwealth Government. Details of the proposals are shown in § 1 hereinbefore.

4. **State Revenue from Fisheries.**—The revenue from fisheries in each State during the year 1937-38 is given hereunder:—

FISHERIES : REVENUE, 1937-38.

State or Territory.	Licences.	Leases.	Fines and Forfeitures.	Other Sources.	Total.
	£	£	£	£	£
New South Wales (a) ..	3,537	9,585	526	338	13,986
Victoria	(b)1,199	16	540	82	1,837
Queensland	3,173	1,718	113	162	5,166
South Australia (a) ..	1,750	..	..	..	1,750
Western Australia (a) ..	2,404	669	333	4,202	7,608
Tasmania (a)	570	..	..	104	674
Northern Territory ..	73	..	..	..	73
Total	12,706	11,988	1,512	4,888	31,094

(a) Year ended December, 1937.

(b) Excluding £3,631 received from sporting licences.

Similar particulars for Australia for the last five years are given in the following table:—

FISHERIES : REVENUE, AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Licences	9,545	8,976	8,445	10,120	12,706
Leases	12,319	12,265	12,517	11,552	11,988
Fines and Forfeitures	957	903	1,224	1,617	1,512
Other Sources	851	842	960	1,270	4,888
Total	23,672	22,986	23,146	24,559	31,094

§ 3. Oversea Trade in Fishery Products.

1. Imports of Fish.—The development of the local fishing industry leaves much to be desired, as is evident from the large imports. For the last five years the imports were as follows:—

FISH : IMPORTS INTO AUSTRALIA.

Australian Currency Values.

Classification.		1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Fresh (oysters) ..	cwt.	3,367	4,609	4,982	2,349	893
	£	1,643	2,702	4,044	1,468	881
Fresh, or preserved by cold process	cwt.	57,346	70,585	85,777	75,910	79,411
	£	142,389	204,746	257,870	272,559	288,796
Potted	cwt.	4,900	5,794	7,426	8,419	7,733
	£	82,288	96,451	109,943	118,271	109,685
Preserved in tins ..	cwt.	174,982	209,640	246,525	262,360	247,247
	£	663,238	817,398	929,344	987,235	1,044,287
Smoked, dried, and n.e.i.	cwt.	8,405	13,340	11,102	14,891	14,172
	£	24,602	25,744	29,932	40,944	39,422
Crustaceans	cwt.	(a)	4,393	4,008	4,300	5,793
	£	(a)	42,561	38,864	39,369	57,451
Total	cwt.	249,000	308,361	359,820	368,229	355,249
	£	914,160	1,189,602	1,369,997	1,459,846	1,540,522

(a) Not recorded separately.

Tinned fish constitutes by far the largest proportion of the imports; salmon from Canada, herrings from the United Kingdom and sardines from Norway were the chief varieties imported. The potted fish comes chiefly from the United Kingdom, which also supplied a considerable proportion of the fresh fish imported in 1937-38; the bulk of the remainder came from New Zealand and the Union of South Africa. The small import of oysters is supplied by New Zealand, while Japan furnished 4,672 cwt. of the crustaceans imported.

2. **Exports of Fish.**—The exports of fish are comparatively insignificant. During the year 1937-38 they were as follows :—Fresh or preserved by cold process, 95,775 lb. £5,149; oysters, fresh, 16 cwt., £52; potted or concentrated, £539; preserved in tins, 485,879 lb., £16,167; smoked or dried, 42,332 lb., £1,608; other including salted, 263 cwt., £2,229.

3. **Exports of Pearl and Other Shell.**—The exports of pearl, tortoise and trochus-shell of Australian origin are given hereunder for the five years 1933-34 to 1937-38 :—

PEARL, TORTOISE AND TROCHUS-SHELL : EXPORTS FROM AUSTRALIA.

Article.		1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Pearlshell ..	cwt.	33,721	43,467	56,306	52,058	53,289
	£	198,347	218,463	302,491	319,631	345,580
Tortoiseshell ..	lb.	1,292	2,229	663	674	1,129
	£	696	742	402	367	380
Trochus-shell ..	cwt.	9,128	10,111	9,260	8,847	6,370
	£	41,550	44,694	41,590	51,209	32,147

The bulk of the pearlshell exported during 1937-38 was consigned to the United States of America and the United Kingdom, the respective values of the shipments amounting to £180,373 and £146,657, while trochus-shell to the value of £29,575 was dispatched to Japan.

§ 4. The Development of Fisheries in Australia.

In 1907 the Commonwealth Government decided to demonstrate what might be attained commercially by the application of modern methods in fishery. A Federal Investigation Ship, the *Endeavour*, was constructed specially for the work, and a Director of Fisheries was appointed. Experimental cruises were undertaken, which showed that Australia possesses an asset of considerable value in her sea fisheries. The *Endeavour* was unfortunately lost at sea with all on board at the end of 1914. A description of the trawling grounds discovered, data regarding oceanography to the east of Australia, and a list of the publications of the Department will be found on pp. 333 to 335 of the Official Year Book No. 14.

In accordance with the recommendations of the Australian Fisheries Conference of 1927-29 the Commonwealth Government decided to continue investigations, and the Council for Scientific and Industrial Research was entrusted with the carrying out of the programme. This has been referred to in § 1 par. 2 above.

§ 5. Trawling in Australian Waters.

The State Trawling Industry was established in New South Wales in 1915, and fishing operations were conducted with seven steel steam trawlers. The catches were landed at Sydney and Newcastle, and the fish distributed through retail shops, of which there were fourteen in the metropolitan area, one in Newcastle, and five in country towns. Early in the year 1923 the Government discontinued trawling operations, as the venture was not a commercial success. The operations of the trawlers, however, revealed some of the richest trawling areas in the world, and these localities are being successfully exploited by private enterprise. There were fourteen trawlers in commission in New South Wales during 1937, compared with eighteen in 1929. Approximately one-half of the total take of fish in that State is trawled.

CHAPTER XXIII. MANUFACTURING INDUSTRY.

NOTE.—Working proprietors are included in all cases in the "Number of Persons Engaged."

§ 1. Number of Factories.

1. Number of Factories in each State.—The following table gives the number of factories in each State for the years specified:—

FACTORIES : NUMBER.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1933-34 ..	7,818	8,896	2,345	1,733	1,606	899	23,297
1934-35 ..	8,254	9,100	2,470	1,803	1,658	926	24,211
1935-36 ..	8,486	9,160	2,482	1,895	1,946	925	24,894
1936-37 ..	8,726	9,165	2,883	1,916	2,032	946	25,668
1937-38 ..	9,097	9,241	3,063	1,980	2,066	948	26,395

2. Number of Factories in Industrial Classes.—(i) *Australia.* The next table shows the number of factories in Australia for the years specified, classified in the industrial groups agreed upon by the Conference of Statisticians in 1930. This classification, which was introduced during the year 1930-31, superseded the grouping which had been in use since 1902. The definition of a factory adopted at the Conference of Statisticians in 1902 is, however, still used, viz., "Any factory, workshop or mill where four or more persons are employed or power is used." Details in regard to some of the principal industries included in the table will be found in § 9 hereinafter.

FACTORIES : NUMBER IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
I. Treatment of Non-metalliferous Mine and Quarry Products	404	433	462	517	548
II. Bricks, Pottery, Glass, etc.	409	431	450	436	459
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease	589	596	630	655	652
IV. Industrial Metals, Machines, Implements and Conveyances	5,789	6,100	6,393	6,788	7,102
V. Precious Metals, Jewellery and Plate	255	270	277	282	290
VI. Textiles and Textile Goods	588	588	589	577	591
VII. Skins and Leather	511	518	525	537	536
VIII. Clothing	4,952	4,229	4,260	4,259	4,334
IX. Food, Drink and Tobacco	4,583	4,657	4,721	4,842	4,982
X. Woodworking and Basketware	2,243	2,446	2,541	2,715	2,771
XI. Furniture, Bedding, etc.	995	1,020	1,057	1,092	1,113
XII. Paper, Stationery, Printing, Bookbinding, etc.	1,712	1,750	1,781	1,774	1,790
XIII. Rubber	305	292	290	289	302
XIV. Musical Instruments	32	29	31	34	34
XV. Miscellaneous Products	333	349	371	390	398
Total, Classes I. to XV.	22,800	23,708	24,378	25,187	25,902
XVI. Heat, Light and Power	497	503	516	481	493
Grand Total	23,297	24,211	24,894	25,668	26,395

The number of factories in operation declined each year from 1928-29 to 1931-32 as the result of the economic depression, but the returns since the last-mentioned year reveal substantial annual increases, the number recorded in 1937-38 being the highest to date.

CLASSIFICATION OF FACTORIES ACCORDING TO NUMBER OF EMPLOYEES. 705

(ii) *States, 1937-38.* The following table shows the number of factories in each State in 1937-38, classified according to the nature of the industry:—

FACTORIES : NUMBER IN INDUSTRIAL CLASSES, STATES, 1937-38.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Aust.
	No.	No.	No.	No.	No.	No.	No.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	186	188	51	46	62	15	548
II. Bricks, Pottery, Glass, etc. ..	215	110	41	43	36	14	459
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	273	232	41	49	36	21	652
IV. Industrial Metals, Machines, Implements and Conveyances ..	2,545	2,531	707	509	626	184	7,102
V. Precious Metals, Jewellery and Plate ..	88	138	23	20	15	6	290
VI. Textiles and Textile Goods ..	153	363	22	31	13	9	591
VII. Skins and Leather ..	216	206	51	27	28	8	536
VIII. Clothing ..	1,605	1,860	298	281	236	54	4,334
IX. Food, Drink and Tobacco ..	1,553	1,438	775	533	429	254	4,982
X. Woodworking and Basketware ..	832	705	590	153	210	281	2,771
XI. Furniture, Bedding, etc. ..	346	394	142	84	95	52	1,113
XII. Paper, Stationery, Printing, Book-binding, etc. ..	671	670	178	112	131	28	1,790
XIII. Rubber ..	95	107	35	28	25	12	302
XIV. Musical Instruments ..	11	14	3	3	3	..	34
XV. Miscellaneous Products ..	158	165	38	16	18	3	398
Total, Classes I. to XV. ..	8,947	9,121	2,995	1,935	1,963	941	25,902
XVI. Heat, Light and Power ..	150	120	68	45	103	7	493
Grand Total ..	9,097	9,241	3,063	1,980	2,066	948	26,395

§ 2. Classification of Factories according to Number of Persons Engaged.

i. *States, 1937-38.*—The following table shows, for each State, the number of factories classified according to the number of persons engaged in 1937-38:—

FACTORIES : CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, 1937-38.

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF FACTORIES.							
Under 4 ..	2,616	3,229	1,081	481	979	257	8,643
4 ..	878	741	309	211	104	133	2,376
5 to 10 ..	2,431	2,221	812	625	508	355	6,952
11 to 20 ..	1,289	1,267	385	280	215	107	3,543
21 to 50 ..	1,054	1,008	266	237	180	66	2,811
51 to 100 ..	435	405	109	90	55	16	1,110
Over 100 ..	394	370	101	56	25	14	960
Total ..	9,097	9,241	3,063	1,980	2,066	948	26,395

Some marked changes have taken place in the distribution of factories according to the number of persons engaged during the past decade. In 1926-27 of a total of 21,579 factories reported, 7,644, or 35.42 per cent. had less than five persons engaged whereas in 1937-38 the number of such factories had increased to 11,019, representing 41.74 per cent. of the total of 26,395 factories. The increase in the number of small factories was probably due to the multiplication of small repair establishments (boots and shoes, cycles and motors, etc.) which are technically accounted as factories by the installation of some power machine.

In the other groups, the effect of the economic depression during the middle years of the decade is clearly noticeable, but since 1931-32 the improvement has been very steady. Factories with more than 100 persons engaged advanced from 733 in 1926-27 to a new high level of 960 in 1937-38, the persons engaged in these factories increasing from 204,363 or 43.74 per cent. of the total number to 273,502 or 48.3 per cent. during the same period.

The relative importance of large and small factories is more conclusively illustrated by a classification of persons engaged according to the size of factory in which they work:—

FACTORIES : CLASSIFICATION OF PERSONS ENGAGED ACCORDING TO SIZE OF FACTORY, 1937-38.

No. of Persons Employed in Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AVERAGE NUMBER ENGAGED DURING PERIOD WORKED.							
Under 4 ..	5,336	6,156	2,301	1,075	1,880	562	17,310
4 ..	3,512	2,964	1,236	844	416	532	9,504
5 to 10 ..	16,827	15,530	5,496	4,322	3,316	2,425	47,916
11 to 20 ..	18,736	18,704	5,712	4,096	3,054	1,553	51,855
21 to 50 ..	33,558	32,284	8,128	7,246	5,625	2,085	88,926
51 to 100 ..	30,161	28,119	7,851	6,068	3,920	1,019	77,138
Over 100 ..	119,753	99,326	22,154	21,087	5,509	5,673	273,502
Total ..	227,883	203,083	52,878	44,738	23,720	13,849	566,151
Av. per F'cty	25.05	21.98	17.26	22.60	11.48	14.61	21.45

2. Australia, 1933-34 to 1937-38.—In the following table the numbers of factories in Australia are classified according to the numbers engaged during the past five years.

FACTORIES : CLASSIFICATION ACCORDING TO NUMBER OF PERSONS ENGAGED, AUSTRALIA.

Year.	Establishments Employing on the Average—							
	20 and under.		21 to 100.		101 and upwards.		Total.	
	Es- tablish- ments.	Persons En- gaged.	Es- tablish- ments.	Persons En- gaged.	Es- tablish- ments.	Persons En- gaged.	Es- tablish- ments.	Persons En- gaged.
1933-34—								
Number ..	19,576	108,125	3,052	127,068	669	181,634	23,297	416,827
Average per establishment ..	..	5.52	..	41.63	..	271.90	..	17.89
Percentage on total ..	84.03	25.94	13.10	30.48	2.87	43.58	100.00	100.00
1934-35—								
Number ..	20,012	112,708	3,457	143,157	742	204,502	24,211	460,367
Average per establishment ..	..	5.63	..	41.41	..	275.61	..	19.01
Percentage on total ..	82.66	24.48	14.28	31.10	3.06	44.42	100.00	100.00
1935-36—								
Number ..	20,413	117,443	3,646	153,603	835	230,889	24,894	501,935
Average per establishment ..	..	5.75	..	42.13	..	276.51	..	20.16
Percentage on total ..	82.00	23.40	14.65	30.60	3.35	46.00	100.00	100.00
1936-37—								
Number ..	21,017	122,179	3,756	158,007	895	250,764	25,668	530,950
Average per establishment ..	..	5.81	..	42.07	..	280.18	..	20.69
Percentage on total ..	81.88	23.01	14.63	29.76	3.49	47.23	100.00	100.00
1937-38—								
Number ..	21,514	126,585	3,921	166,064	960	273,502	26,395	566,151
Average per establishment ..	..	5.88	..	42.35	..	284.90	..	21.45
Percentage on total ..	81.50	22.36	14.86	29.33	3.64	48.31	100.00	100.00

§ 3. Power Equipment in Factories.

1. **General.**—As a result of the decisions of the Conference of Australian Statisticians in March, 1937, statistics of power equipment in factories are now collected on a different basis from that used in 1935-36 and previous years. In those years the statistics represented the "average horse-power used" in all factories, including Central Electric Stations. In 1936-37 information was obtained in respect of the "rated horse-power" of engines ordinarily in use and of engines in reserve or idle, omitting obsolete engines. In addition, the power equipment of Central Electric Stations was collected in greater detail. In any analysis of the statistics of power equipment it is essential that some distinction should be made between Central Electric Stations and other classes of industries if duplication is to be avoided. In the following tables Central Electric Stations have been treated separately from other factories.

2. **Rated Horse-power of Engines in Factories other than Central Electric Stations.**—The following table shows the number of factories using steam, gas, oil, electricity, or water power, and the rated horse-power of engines ordinarily in use and in reserve or idle during 1937-38 :—

FACTORIES(a) : RATED HORSE-POWER OF ENGINES, 1937-38.

State.	Number of Establishments.			Rated Horse-power of Engines.	
	Using Power.	Others.	Total.	Ordinarily in use.	In Reserve or Idle (omitting obsolete).
	No.	No.	No.	H.P.	H.P.
New South Wales ..	8,605	385	8,990	604,522	76,560
Victoria ..	8,584	576	9,160	353,189	102,775
Queensland ..	2,824	187	3,011	178,344	11,059
South Australia ..	1,742	197	1,939	96,285	9,609
Western Australia ..	1,793	174	1,967	61,554	6,380
Tasmania ..	886	57	943	42,367	7,034
Australia ..	24,434	1,576	26,010	1,336,261	214,617

(a), Not including Central Electric Stations.

3. **Rated Horse-power of Engines Ordinarily in Use.**—(i) *According to Type.* Particulars of the types of engines ordinarily in use in each State and their rated horse-power are given in the next table :—

FACTORIES(a) : TYPES AND RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1937-38.

State.	Rated Horse-power of Engines ordinarily in use.								Total. (b)
	Steam.		Internal Combustion.			Water.	Motors driven by electricity.		
	Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		Purchased.	Own Generation. (c)	
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
N.S.W. ..	129,328	46,577	5,363	3,562	12,614	801	466,277	82,580	604,522
Victoria ..	37,520	29,208	6,180	3,072	10,652	516	266,041	36,602	353,189
Queensland ..	79,740	7,631	9,210	3,625	13,852	..	64,286	34,723	178,344
S. Australia ..	8,234	..	5,003	2,758	7,377	..	73,513	6,361	96,285
W. Australia ..	8,101	46	2,612	1,487	6,261	..	43,047	4,957	61,554
Tasmania ..	4,016	80	4	2,022	297	193	35,755	6,907	42,367
Australia ..	266,939	83,542	28,372	15,926	51,053	1,510	888,919	172,130	1,336,261

(a) Excluding Central Electric Stations.

(b) Excluding particulars in column (c).

(ii) *In Classes of Industry, 1937-38.* The next table shows the rated horse-power of engines ordinarily in use in the various classes of industry in each State during 1937-38 :—

FACTORIES(a) : RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1937-38.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	34,704	25,161	4,840	4,147	4,533	8,797	82,182
II. Bricks, Pottery, Glass, etc. . .	22,963	18,196	3,294	3,793	2,939	633	51,818
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	20,760	19,464	2,275	6,522	5,377	438	54,836
IV. Industrial Metals, Machines, Implements and Conveyances ..	284,581	69,708	27,571	38,353	13,224	14,571	448,008
V. Precious Metals, Jewellery and Plate ..	1,323	2,314	117	302	56	21	4,133
VI. Textiles and Textile Goods ..	18,353	38,092	2,367	2,843	612	2,807	65,074
VII. Skins and Leather ..	8,203	8,062	2,046	359	709	26	19,405
VIII. Clothing ..	8,031	11,020	1,168	928	726	150	22,023
IX. Food, Drink and Tobacco ..	100,556	75,017	95,855	22,276	17,309	6,211	317,224
X. Woodworking and Basket-ware ..	37,099	26,866	29,344	8,345	10,805	6,859	119,318
XI. Furniture, Bedding, etc. ..	7,781	7,125	2,743	2,580	1,636	729	22,594
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	25,936	27,188	4,817	2,822	2,837	793	64,393
XIII. Rubber ..	21,435	17,655	1,032	176	90	73	40,461
XIV. Musical Instruments ..	759	73	13	15	23	..	883
XV. Miscellaneous Products ..	4,456	3,098	124	310	191	159	8,338
Total, Classes I. to XV. ..	596,940	349,039	177,606	93,771	61,067	42,267	1,320,690
XVI. Gas Works ..	7,582	4,150	738	2,514	487	100	15,571
Grand Total ..	604,522	353,189	178,344	96,285	61,554	42,367	1,336,261

(a) Excluding Central Electric Stations.

4. *Capacity of Engines and Generators installed in Central Electric Stations.*—
(i) *According to Type.* Particulars of the type and the capacity of engines and generators installed in Central Electric Stations in Australia in 1937-38 are given below :—

CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT, AUSTRALIA.

Particulars.	Capacity of Engines and Generators.							Total.
	Steam.		Internal Combustion.			Water.		
	Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.			
Engines Installed—								
Total installed Rated H.P. ..	30,432	1,676,779	19,897	2,126	123,445	201,022		2,053,701
Generators Installed—								
Kilowatt capacity—								
Total installed .. K.W.	20,376	1,189,501	12,332	900	93,162	145,557		1,461,828
Effective capacity .. K.W.	16,648	1,016,896	11,459	793	86,897	141,637		1,274,330
Maximum load .. K.W.	12,911	876,556	8,838	757	65,566	122,464		1,087,092
Horse-power equivalent—								
Total installed .. H.P.	27,314	1,594,584	16,531	1,206	124,889	195,127		1,959,651
Effective capacity .. H.P.	22,317	1,303,199	15,362	1,062	116,490	189,871		1,708,301
Maximum load .. H.P.	17,308	1,175,067	11,848	1,014	87,894	164,170		1,457,301

(ii) *In States.* Details of the capacity of engines and generators installed in Central Electric Stations in each State are given in the next table for 1937-38.

CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT IN STATES, 1937-38.

Particulars.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Engines installed	Rated H.P.	929,331	505,027	217,698	175,211	105,570	120,864	2,053,701
Generators installed—								
Kilowatt capacity—								
Total installed	.. K.W.	682,111	348,782	147,274	118,920	73,455	91,286	1,461,828
Effective capacity	.. K.W.	573,927	314,685	113,428	118,287	66,096	87,907	1,274,330
Maximum load	.. K.W.	459,077	293,777	81,156	110,958	58,664	83,460	1,087,092
Horse-power equivalent—								
Total installed	.. H.P.	914,404	467,559	197,428	159,417	98,470	122,373	1,959,651
Effective capacity	.. H.P.	769,377	421,851	152,056	158,569	88,605	117,843	1,708,301
Maximum load	.. H.P.	615,416	393,822	108,794	148,745	78,642	111,882	1,457,301

§ 4. Employment in Factories.

1. Number Engaged.—All persons engaged in the manufacturing activities of a factory, including proprietors who work in their own business and "outworkers" (see paragraph 4 (ii) hereinafter) are counted as factory employees, while all those are excluded who are engaged in selling and distributing, such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods and retailing storemen. Employment has been classified as follows:—(i) Working proprietors; (ii) managers and overseers; (iii) accountants and clerks; (iv) engine-drivers and firemen; (v) skilled and unskilled workers in the factories, mills, or workshops; (vi) carters and messengers; and (vii) others.

Prior to the year 1928-29 employment in factories was computed by dividing the sum of the number engaged each week by the number of weeks worked. The figures, therefore, represented the average number engaged over the period worked, which, for many factories, was less than a full year. Commencing with the year 1928-29 the figure represents the equivalent average number engaged over a full year of fifty-two weeks. The classification of factories according to the number of persons engaged (see § 2 *ante*), however, is still based on the old method, but for all other purposes the average number engaged over the full year is used.

The following table shows, for each year from 1933-34 to 1937-38 inclusive (a) the average number of persons (including both sexes of all ages) engaged in manufacturing industries in each State; (b) the percentage of the number engaged in each State on the total number engaged in Australia; and (c) the number engaged per ten thousand of the mean population in each State and Australia.

The number of persons engaged in factories in Australia reached its highest point before the depression during the years 1926-27 to 1928-29 when the average for those years was slightly in excess of 450,000. The downward trend in manufacturing operations which began early in 1930 continued with increasing force until the number engaged had fallen to 336,658 in 1931-32, a decline of 25 per cent. on the average already quoted. In 1932-33 employment began to increase and gains were recorded in each year thereafter until a new high level of 559,160 was reached in 1937-38. Stated in relation to population, the number engaged in 1937-38 was 46,500 in excess of the previous maximum in 1926-27.

FACTORIES : EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
AVERAGE NUMBER ENGAGED DURING FULL YEAR (52 WEEKS).							
1933-34 ..	154,061	156,334	40,083	29,486	16,163	9,782	405,909
1934-35 ..	175,933	169,691	43,048	33,497	17,774	10,555	449,598
1935-36 ..	193,200	183,390	45,128	38,471	20,993	11,589	492,771
1936-37 ..	208,497	191,383	48,216	40,710	22,711	12,431	523,948
1937-38 ..	224,861	201,793	52,119	44,084	23,133	13,170	559,160

PERCENTAGE ON AUSTRALIAN TOTAL.

	%	%	%	%	%	%	%
1933-34 ..	37.96	38.52	9.87	7.26	3.98	2.41	100.00
1934-35 ..	38.93	37.74	9.58	7.45	3.95	2.35	100.00
1935-36 ..	39.21	37.21	9.16	7.81	4.26	2.35	100.00
1936-37 ..	39.79	36.53	9.20	7.77	4.34	2.37	100.00
1937-38 ..	40.21	36.09	9.32	7.88	4.14	2.36	100.00

PER 10,000 OF POPULATION.

1933-34 ..	590	857	422	506	367	427	610
1934-35 ..	664	924	448	573	401	461	671
1935-36 ..	727	995	464	656	469	503	730
1936-37 ..	778	1,033	490	692	503	535	770
1937-38 ..	830	1,084	524	746	506	553	815

2. Rates of Increase, 1933-34 to 1937-38.—The percentage of increase on the average number of persons engaged in the preceding year is shown below for each State from 1933-34 onwards :—

FACTORIES : ANNUAL PERCENTAGE INCREASES OF PERSONS ENGAGED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	%	%	%	%	%	%	%
1933-34 ..	11.22	8.24	3.45	11.91	9.10	5.95	9.49
1934-35 ..	13.61	8.54	7.40	13.60	9.97	7.90	10.76
1935-36 ..	10.38	8.07	4.83	14.85	18.11	9.80	9.60
1936-37 ..	7.92	4.36	6.84	5.82	8.18	7.27	6.33
1937-38 ..	7.85	5.44	8.09	8.29	1.86	5.94	6.72

3. Persons Engaged in Classes of Industry.—(i) *Australia*. The table hereunder gives the average number of persons engaged in factories under each industrial group in Australia for the years 1933-34 to 1937-38 inclusive :—

FACTORIES : PERSONS ENGAGED IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1933-34.	1934-35.	1935-36.	1936 37.	1937-38.
I. Treatment of Non-metalliferous Mine and Quarry Products	5,507	6,550	7,571	8,736	9,952
II. Bricks, Pottery, Glass, etc. . .	9,020	11,483	13,088	14,262	15,142
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease	13,310	14,846	16,217	17,614	18,835
IV. Industrial Metals, Machines, Implements and Conveyances	107,398	125,640	145,481	161,512	178,019
V. Precious Metals, Jewellery and Plate	2,371	2,737	3,210	3,482	3,761
VI. Textiles and Textile Goods	36,790	38,042	42,031	43,370	45,224
VII. Skins and Leather	9,513	9,779	10,440	10,872	10,437
VIII. Clothing	72,260	78,074	81,400	82,138	85,371
IX. Food, Drink and Tobacco	67,668	70,517	73,265	77,492	81,785
X. Woodworking and Basketware	19,927	24,192	27,478	29,311	31,117
XI. Furniture, Bedding, etc. . .	9,562	11,306	13,443	14,707	15,612
XII. Paper, Stationery, Printing, Book-binding, etc. . .	31,937	34,018	35,952	37,309	39,062
XIII. Rubber	6,561	7,369	6,797	6,455	7,534
XIV. Musical Instruments	572	460	451	422	441
XV. Miscellaneous Products	5,122	5,786	6,591	7,370	7,798
Total, Classes I. to XV.	397,518	440,799	483,413	515,058	550,290
XVI. Heat, Light and Power	8,391	8,799	9,356	8,890	9,070
Grand Total	405,909	449,598	492,771	523,948	559,160

In comparison with the employment levels reached in the pre-depression year of 1928-29 all classes of industries have shown considerable gains with the exception of "Musical Instruments" and "Heat, Light and Power." In these classes reductions of 76 per cent. and 12 per cent. respectively were recorded. The greatest actual gain was 48,000 persons in "Industrial Metal, etc.," while the greatest relative gain was in "Miscellaneous Products" where the numbers engaged rose by 167 per cent. The lowest relative gains occurred in "Clothing" and "Rubber."

(ii) States. Particulars of the numbers engaged in each industrial class are shown below for each State :—

FACTORIES : PERSONS ENGAGED IN INDUSTRIAL CLASSES, STATES, 1937-38.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
I. Treatment of Non-metalliferous Mine and Quarry Products	4,438	3,050	743	597	765	359	9,952
II. Bricks, Pottery, Glass, etc. . .	7,845	4,486	864	1,080	664	203	15,142
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease	7,948	7,856	598	1,517	793	123	18,835
IV. Industrial Metals, Machines, Implements and Conveyances	81,472	52,570	12,945	20,183	7,005	3,844	178,019
V. Precious Metals, Jewellery and Plate	1,043	2,273	158	192	76	19	3,761
VI. Textiles and Textile Goods	14,744	26,487	963	1,153	380	1,497	45,224
VII. Skins and Leather	4,149	4,608	867	439	342	32	10,437
VIII. Clothing	31,392	39,204	6,513	4,627	3,082	553	85,371
IX. Food, Drink and Tobacco	27,532	27,009	14,400	6,249	3,569	2,976	81,785
X. Woodworking and Basketware	9,894	7,720	6,876	1,854	2,761	2,012	31,117
XI. Furniture, Bedding, etc. . .	6,512	4,853	1,793	1,191	884	379	15,612
XII. Paper, Stationery, Printing, Bookbinding, etc. . .	16,876	13,817	3,598	2,270	1,718	783	39,062
XIII. Rubber	3,454	3,042	736	150	91	61	7,534
XIV. Musical Instruments	265	100	35	14	27	..	441
XV. Miscellaneous Products	4,076	2,693	302	328	195	204	7,798
Total, Classes I. to XV.	221,690	199,768	51,391	41,844	22,352	13,045	550,090
XVI. Heat, Light and Power	3,171	2,025	728	2,240	781	125	9,070
Grand Total	224,861	201,793	52,119	44,084	23,133	13,170	559,160

4. Persons Engaged According to Nature of Employment.—(i) *General*. In the following table the numbers of persons engaged in the States during 1937-38 are classified according to the nature of their employment :—

PERSONS ENGAGED : NATURE OF EMPLOYMENT, 1937-38.

State.	Average Number of Persons Engaged.						
	Working Proprietors.	Managers and Overseers.	Accountants and Clerks.	Engine-drivers and Firemen.	Workers, Skilled & Unskilled. (a)	Carters, Messengers and Others.	Total.
New South Wales ..	7,548	7,513	14,367	2,784	190,247	2,402	224,861
Victoria	7,919	6,749	10,382	1,823	172,847	2,073	201,793
Queensland	2,440	1,987	3,399	1,857	41,119	1,317	52,119
South Australia ..	1,551	1,559	3,207	434	36,761	572	44,084
Western Australia ..	1,227	979	1,352	514	18,657	404	23,133
Tasmania	666	565	846	284	10,694	115	13,170
Australia	21,351	19,352	33,553	7,696	470,325	6,883	559,160

(a) Including Outworkers.

(ii) *Outworkers*. The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and technically embraces only those to whom work is given out by factory owners to be done in the employees' own homes. Individuals working for themselves are not included. The following table gives particulars of the average number of outworkers connected with factories in each State during the last five years :—

FACTORIES : OUTWORKERS.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1933-34	261	164	37	11	2	15	490
1934-35	296	143	11	12	3	10	475
1935-36	235	142	10	6	..	29	422
1936-37	264	176	14	17	3	17	491
1937-38	234	152	8	23	6	12	435

(a) In all tables relating to number of hands employed in factories, outworkers are included.

The Factories Acts in each State contain provisions regulating the employment of outworkers. Records of outwork, specifying the names and remuneration of workers, and stating the places where the work is done, must be kept by factory proprietors. Fuller information regarding the operation of the Factories Acts will be found in Official Year Book No. 16, pp. 540 to 566.

5. *Distribution of Employees According to Age*.—The extension of statistics of employment in factories, which arose from the decisions of the Conference of Australian Statisticians held in March, 1937, now permits of a distribution of employees (excluding working proprietors) into three age groups. The particulars are collected in June of each year and details for 1938 are given below. These details, together with those for the previous year, are also published in the *Production Bulletin* where the figures are further distributed into sexes.

FACTORIES : DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, JUNE, 1938.

(Excluding Working Proprietors.)

State.	Under 16 Years.		16 and under 21 Years.		Adults.		Total.	
	No.	%	No.	%	No.	%	No.	%
New South Wales ..	13,531	6.16	57,252	26.07	148,818	67.77	219,601	100
Victoria ..	11,296	5.83	48,873	25.22	133,616	68.95	193,785	100
Queensland ..	3,173	6.27	11,034	21.79	36,429	71.94	50,636	100
South Australia ..	2,474	5.96	9,136	22.00	29,912	72.04	41,522	100
Western Australia ..	1,181	5.35	5,149	23.34	15,732	71.31	22,062	100
Tasmania ..	800	6.40	2,586	20.68	9,116	72.92	12,502	100
Australia ..	32,455	6.01	134,030	24.81	373,623	69.18	540,108	100

§ 5. Sex Distribution in Factories.

1. **Employment of Females.**—In all the States the employment of female labour in factories is regulated by Acts of Parliament. More extended reference to this matter will be found in Official Year Book No. 16, pp. 540 to 566.

2. **Distribution of Persons Engaged According to Sex.**—(i) *General.* In New South Wales the ratio of the number of females engaged in factories to the number of males during 1886 was about one to seven; in 1891 one to six; in 1903 it became about one to four; and is now more than one to three. In Victoria the ratio of females to males during the year 1886 was about one to five. Five years later (1891) it was somewhat less, but in 1896 had increased to about one to three, and is now almost one to two. In the remaining States the ratio is roughly one female engaged to every four males, while for Australia as a whole it is more than one to three. The employment of women is, however, mainly confined to a few trades.

(ii) *Average Number of Males and Females Engaged, 1933-34 to 1937-38.* The next table shows the average number of males and females engaged in factories in each State during the last five years:—

FACTORIES : MALES AND FEMALES ENGAGED.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
MALES.					
New South Wales ..	111,653	127,114	140,896	152,064	164,391
Victoria ..	100,959	110,910	121,734	128,457	136,160
Queensland ..	32,248	34,596	36,411	38,970	42,337
South Australia ..	23,743	27,271	31,391	33,400	36,274
Western Australia ..	12,930	14,253	16,911	18,466	18,760
Tasmania ..	7,716	8,321	9,211	10,055	10,680
Australia ..	289,249	322,465	356,554	381,412	408,602
FEMALES.					
New South Wales ..	42,408	47,919	52,304	56,433	60,470
Victoria ..	55,375	58,781	61,656	62,926	65,633
Queensland ..	7,835	8,452	8,717	9,246	9,782
South Australia ..	5,743	6,226	7,080	7,310	7,810
Western Australia ..	3,233	3,521	4,082	4,245	4,373
Tasmania ..	2,066	2,234	2,378	2,376	2,490
Australia ..	116,660	127,133	136,217	142,536	150,558

3. Rate of Variation for each Sex.—The percentages of increase or decrease on the average numbers of males and females engaged in the preceding year are shown below for the years indicated:—

ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES ENGAGED.

State.	1932-33— 1933-34.	1933-34— 1934-35.	1934-35— 1935-36.	1935-36— 1936-37.	1936-37— 1937-38.
MALES.					
New South Wales	11.97	13.85	10.84	7.93	8.11
Victoria	9.86	9.86	8.98	5.52	5.98
Queensland	7.14	7.28	5.25	6.98	8.64
South Australia	13.60	14.86	15.11	6.40	8.60
Western Australia	10.06	10.23	18.65	9.20	1.59
Tasmania	7.96	7.84	10.70	9.16	6.22
Total	10.61	11.48	10.57	6.97	7.13
FEMALES.					
New South Wales	9.32	13.00	9.15	7.89	7.15
Victoria	5.42	6.15	4.90	2.05	4.30
Queensland	7.49	7.87	3.14	6.07	5.80
South Australia	5.43	8.41	13.72	3.25	6.84
Western Australia	5.41	8.90	15.93	3.99	3.02
Tasmania	- 0.96	8.13	6.45	- 0.08	4.80
Total	6.82	8.98	7.15	4.64	5.63

NOTE.—The minus sign (—) indicates decrease.

4. Masculinity of Persons Engaged in Factories.—The extent to which females are engaged in the factories of Australia may perhaps be more clearly shown by giving the masculinity of persons engaged for each State for a series of years. The following table furnishes particulars for the years 1933-34 to 1937-38:—

FACTORIES : MASCULINITY^(a) OF PERSONS ENGAGED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1933-34	263	182	412	413	400	373	248
1934-35	275	189	409	438	405	372	254
1935-36	269	197	418	443	414	387	262
1936-37	269	204	421	457	435	423	268
1937-38	272	207	431	464	429	429	271

(a) Number of males per 100 females.

For a number of years prior to 1926-27 there were on the average 100 females engaged in factories for every 300 males, but in that year, the proportion of females began to rise with increasing activity in the clothing and textile industries in which the number of females to males is relatively high. As these trades were not as seriously affected by the depression as the heavier industries the proportion continued to rise until in 1932-33 there were only 239 males engaged to every 100 females. With the recovery of employment in the heavier industries subsequent to that year, the proportion had declined to 271 males in 1937-38.

5. Employment of Females in Particular Industries.—The greater number of females in manufacturing industries is engaged in four classes, namely:—VI., Textiles; VIII., Clothing; IX., Food and Drink; and XII., Paper, Stationery, etc. In 1937-38 these industries accounted for 81.95 per cent. of all females in factories. In two classes only did the number of females exceed the number of males, namely, in Class VI., Textiles

where there were 147 females to every 100 males and in Class VIII., Clothing, with 285 females per 100 males. The following tables show the average number of males and females engaged in each of these classes in 1937-38 :-

MALES AND FEMALES ENGAGED IN PARTICULAR INDUSTRIES, 1937-38.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
VI. Textiles and Textile Goods ..	5,564	10,938	414	729	132	569	18,346
VIII. Clothing ..	8,096	10,679	1,427	1,004	752	208	22,166
IX. Food and Drink ..	18,036	19,255	12,806	5,080	2,847	2,148	60,172
XII. Paper, Stationery, etc. ..	11,538	9,710	2,598	1,613	1,290	625	27,374
All Other Classes ..	121,157	85,578	25,092	27,848	13,739	7,130	280,544
Total ..	164,391	136,160	42,337	36,274	18,760	10,680	408,602
FEMALES.							
VI. Textiles and Textile Goods	9,180	15,549	549	424	248	928	26,878
VIII. Clothing ..	23,296	28,525	5,086	3,623	2,330	345	63,205
IX. Food and Drink ..	9,546	7,754	1,594	1,169	722	828	21,613
XII. Paper, Stationery, etc. ..	5,338	4,107	1,000	657	428	158	11,688
All Other Classes ..	13,110	9,695	1,553	1,937	645	231	27,174
Total ..	60,470	65,633	9,782	7,810	4,373	2,490	150,558

The employment of females in the several industries of Class VIII., Clothing, which is the most important group, and the relation of their number to that of the males so engaged are shown in the following table :-

FEMALES ENGAGED IN EACH INDUSTRY IN CLASS VIII., 1937-38.

Industry.	New South Wales.			Victoria.			Other States.		
	Males.	Females.	Femininity. (a)	Males.	Females.	Femininity. (a)	Males.	Females.	Femininity. (a)
Tailoring and Slop									
Clothing ..	2,183	9,853	451	2,013	5,500	323	1,347	4,869	361
Waterproof and Oil-skin Clothing ..	7	31	443	77	216	281	7	13	186
Dressmaking ..	29	1,509	5,203	645	7,752	1,202	74	2,423	3,274
Millinery ..	154	1,556	1,010	107	1,257	1,175	48	872	1,817
Shirts, Collars and Underclothing ..	350	4,113	1,175	434	4,329	997	144	1,764	1,225
Stays and Corsets ..	40	604	1,510	173	941	544	(b)	(b)	(b)
Handkerchiefs, Ties and Scarves ..	123	927	754	45	532	1,182	(b)	(b)	(b)
Hats and Caps ..	669	989	148	685	825	120	31	142	458
Gloves ..	10	38	380	34	87	256	..	..	..
Boots and Shoes ..	2,616	2,816	108	4,637	4,860	105	1,017	807	794
Boot Repairing (including Bespoke Work) ..	1,075	35	3	678	15	2	462	29	6
Boot Accessories ..	158	130	82	506	237	47	(b)	(b)	(b)
Umbrellas and Walking Sticks ..	36	84	233	18	33	183	11	19	173
Dyeworks and Cleaning (including Renovating and Repairing) ..	582	398	68	536	543	101	233	355	152
Other ..	64	213	333	91	393	437	17	91	535
Total ..	8,096	23,296	288	10,679	28,525	267	3,391	11,384	336

(a) Number of females per 100 males.

(b) Included with Other.

§ 6. Child Labour in Factories.

1. **Conditions of Child Labour.**—The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. Reference to the legislation regarding the employment of child labour in factories will be found in Official Year Book No. 16, pp. 540 to 566. The object of

the restrictions imposed is to assure amongst other things that a proper period shall be devoted to primary education, and that the early years of toil shall not exhaust the worker before the attainment of full growth.

2. Average Number of Children Engaged, 1933-34 to 1937-38.—In the returns for the various States, the term "child" denotes any person under sixteen years of age. The following table shows the average number of children of each sex employed in manufacturing industries in the years 1933-34 to 1937-38 :—

FACTORIES : CHILDREN ENGAGED.

State.	1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (b)	1937-38. (b)
MALES.					
New South Wales	3,040	3,990	4,887	5,888	6,032
Victoria	4,248	5,194	6,118	6,213	6,017
Queensland	1,135	1,146	1,543	1,680	1,835
South Australia	799	1,025	1,352	1,422	1,424
Western Australia	427	574	777	786	731
Tasmania	219	255	330	364	441
Australia	9,868	12,184	15,007	16,353	16,480
FEMALES.					
New South Wales	4,422	5,571	6,485	7,539	7,499
Victoria	5,634	6,015	6,002	5,298	5,279
Queensland	981	1,048	1,281	1,224	1,338
South Australia	644	738	876	988	1,050
Western Australia	235	426	473	432	450
Tasmania	202	294	310	289	359
Australia	12,118	14,092	15,427	15,770	15,975
TOTAL					
New South Wales	7,462	9,561	11,372	13,427	13,531
Victoria	9,882	11,209	12,120	11,511	11,296
Queensland	2,116	2,194	2,824	2,904	3,173
South Australia	1,443	1,763	2,228	2,410	2,474
Western Australia	662	1,000	1,250	1,218	1,181
Tasmania	421	549	640	653	800
Australia	21,986	26,276	30,434	32,123	32,455

(a) Average during year.

(b) As at June of year stated.

3. Percentage of Children on Total Number of Persons Engaged.—Juvenile employment in factories reached its maximum in 1937-38 when the numbers were: Males 16,480 and females 15,975, a slight increase compared with 16,353 males and 15,770 females in 1936-37, the previous highest points.

PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF PERSONS ENGAGED.

State.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	%	%	%	%	%
New South Wales	4.84	5.46	5.89	6.44	6.02
Victoria	6.32	6.61	6.61	6.01	5.60
Queensland	5.28	5.10	6.26	6.02	6.09
South Australia	4.89	5.26	5.79	5.92	5.61
Western Australia	4.10	5.63	5.95	5.36	5.11
Tasmania	4.30	5.20	5.52	5.25	6.07
Australia	5.42	5.84	6.18	6.13	5.80

4. Industries Employing Child Labour.—The employment of children is practically confined to a limited number of industries, the most important of which are specified in the next table, which shows the number engaged in June, 1938.

CHILDREN EMPLOYED IN VARIOUS INDUSTRIES, JUNE, 1938.

Class.	Industry.	N.S.W.		Victoria.		Q'land.		S. Aust.		W. Aust.		Tas.		Australia.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
II.	Bricks and Tiles, Firebricks and Fireclay Goods	148	1	40	9	22	..	24	..	4	..	4	..	242	10
..	Glass Bottles	40	..	18	5	1	..	5	..	..	..	..	..	64	5
III.	Chemicals, Drugs and Medicines	67	135	16	65	2	6	8	16	10	3	1	2	104	227
IV.	Smelting, Converting Refining and Rolling of Iron and Steel ..	306	20	273	4	..	..	138	28	3	..	..	..	720	52
..	Engineering (not Marine or Electrical) ..	367	16	381	21	139	6	101	15	51	2	10	..	1049	60
..	Electrical Installations, Cables and Apparatus ..	367	79	220	42	10	1	36	19	9	2	3	..	645	143
..	Motor Vehicles and Cycles (ii) Repairs ..	327	49	213	3	84	9	103	5	63	5	40	..	830	71
..	Motor Bodies	23	1	112	2	29	1	98	2	15	..	..	..	277	6
..	Brass and Copper Galvanized Ironworking and Tinsmithing ..	68	1	140	3	23	..	25	4	13	2	5	..	274	10
..	Wireless Apparatus ..	378	54	252	66	45	12	52	3	60	..	7	..	794	135
..	Cotton	283	104	120	8	27	..	..	..	2	..	..	..	432	114
VI.	Wool, Worsted and Shoddy	68	168	56	124	..	1	..	..	..	..	..	..	124	293
..	Hosiery and Other Knitted Goods ..	227	496	344	381	21	57	33	29	1	15	60	122	686	1100
..	Rope and Cordage ..	57	692	105	992	1	14	..	12	2	16	2	10	257	1736
VII.	Tanning, Currying and Leather Dressing ..	20	15	88	20	10	..	13	1	9	..	..	..	140	36
..	Bags, Trunks and Other Leather Goods ..	56	1	104	3	15	..	2	..	4	..	..	..	181	4
VIII.	Tailoring and Slop Clothing	61	77	35	51	5	13	8	27	5	4	..	..	114	172
..	Dressmaking	104	1184	95	430	42	320	9	176	8	47	4	36	262	2193
..	Millinery	1	212	32	698	7	122	3	193	3	99	..	6	46	1330
..	Shirts, Collars and Underclothing ..	16	284	5	113	4	85	..	36	..	11	..	..	25	529
..	Stays and Corsets ..	22	697	17	265	9	184	1	93	3	77	..	..	52	1316
..	Hats and Caps	3	104	11	44	..	8	..	..	..	..	..	..	14	156
..	Boots and Shoes ..	31	85	26	43	1	5	..	2	..	12	..	..	58	147
IX.	Bakeries (including Cakes and Pastry) ..	178	513	154	354	27	73	19	65	37	17	2	3	417	1025
..	Biscuits	62	34	95	36	17	17	32	1	9	3	27	3	242	94
..	Sugar Confectionery (including Chocolates) ..	136	338	117	98	5	10	5	32	15	19	17	17	295	514
..	Condiments, Coffee and Spices	77	437	26	132	21	70	13	49	3	15	(a)	(a)	140	703
XI.	Billiard Tables, Cabinet and Furnituremaking and Upholstery ..	47	88	29	49	3	9	27	14	18	2	1	..	125	162
XII.	Manufactured Stationery	137	25	269	17	82	13	77	6	43	2	19	..	627	63
..	Cardboard Boxes, Cartons, etc.	40	114	22	67	3	7	3	16	..	3	..	..	68	207
..	Paper Bags	59	287	34	107	1	9	..	11	..	..	..	..	94	414
..	Newspapers (including Weekly Publications) ..	2	24	9	26	6	18	..	1	3	2	..	..	20	71
..	General Printing and Bookbinding (not including Government)	3	5	13	..	..	..	..	..	..	..	..	..	16	5
..	..	142	29	29	2	58	7	22	2	20	6	5	1	276	47
..	..	226	230	259	145	58	46	39	37	52	18	11	8	645	484

(a) Not available for publication.

5. Apprenticeship.—In all the States, Acts are in force for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

§ 7. Salaries and Wages Paid and Value of Production.

NOTE.—In all tables relating to Salaries and Wages paid in Factories the amounts given are exclusive of sums drawn by working proprietors.

1. **General.**—The importance of the manufacturing industries of Australia is indicated by the fact that the total value of the output for 1937–38 was £498,779,141, of which amount the sum of £287,243,412 represented the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £15,047,705 the value of the power, fuel and light used. The difference between the sum of the last two amounts and the value of the output, viz., £196,488,024 represents the value of production as defined by the Conference of Statisticians at Sydney in 1925, i.e., “the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production.” The total amount of salaries and wages paid in factories in 1937–38 was £102,078,550. This figure, which is exclusive of amounts drawn by working proprietors, shows an increase of £11,955,418 or 13.3 per cent., as compared with the total for the previous year.

2. **Salaries and Wages Paid.**—(i) *In Classes of Industry, 1937–38.* The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table:—

FACTORIES : SALARIES AND WAGES PAID, 1937–38.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,038,206	628,937	163,534	124,538	143,228	74,264	2,172,707
II. Bricks, Pottery, Glass etc. ..	1,624,578	866,625	170,420	197,514	134,690	36,682	3,030,509
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,576,215	1,571,664	118,134	291,444	178,257	20,710	3,756,424
IV. Industrial Metals, Machines, Implements and Conveyances ..	17,451,468	10,553,351	2,706,271	4,079,890	1,467,719	842,197	37,100,896
V. Precious Metals, Jewellery and Plate ..	171,378	365,265	23,961	23,979	13,502	3,100	601,185
VI. Textiles and Textile Goods ..	2,024,569	3,571,757	124,193	159,849	50,713	211,175	6,142,256
VII. Skins and Leather ..	755,450	802,209	138,220	58,085	52,677	3,490	1,830,131
VIII. Clothing ..	3,670,441	4,864,894	666,794	429,601	323,395	58,398	10,013,526
IX. Food, Drink and Tobacco ..	5,197,083	5,309,055	3,498,079	1,092,174	736,714	459,855	16,292,960
X. Woodworking and Basketware ..	1,890,134	1,479,759	1,172,512	323,161	549,764	202,796	5,708,126
XI. Furniture, Bedding, etc. ..	1,200,613	728,407	316,821	180,891	144,793	52,470	2,623,995
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,371,492	2,665,206	701,861	434,238	356,888	169,741	7,699,426
XIII. Rubber ..	712,883	599,398	89,198	18,156	11,309	7,002	1,437,946
XIV. Musical Instruments ..	51,658	20,411	8,534	1,277	4,859	..	86,739
XV. Miscellaneous Products ..	600,530	390,634	40,910	46,347	23,519	25,873	1,127,813
Total, Classes I. to XV.	41,336,698	34,417,572	9,959,442	7,461,144	4,192,030	2,257,753	99,624,639
XVI. Heat, Light and Power ..	873,177	543,339	211,358	582,016	209,413	34,608	2,453,911
Grand Total	42,209,875	34,960,911	10,170,800	8,043,160	4,401,443	2,292,361	103,078,550

(ii) *Totals and Averages, 1933–34 to 1937–38.* The following statement shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for each of the years 1933–34 to 1937–38. The average wage paid is not comparable with that shown in similar tables in Official Year Books issued prior to No. 23,

SALARIES AND WAGES PAID AND VALUE OF PRODUCTION.

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1930, on account of the change in the method of computing the average number of hands employed, as explained earlier. The figures are exclusive of working proprietors and of the amounts drawn by them:—

FACTORIES : TOTAL AND AVERAGE SALARIES AND WAGES PAID.

Year.	Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
1933-34	Total amount paid ..	25,748,547	22,851,649	6,995,340	4,615,081	2,752,540	1,481,503	64,444,660
	Average per employee ..	174.23	153.62	182.82	163.98	181.03	160.58	166.36
1934-35	Total amount paid ..	29,514,013	25,275,014	7,889,535	5,433,531	3,111,239	1,601,217	72,824,549
	Average per employee ..	175.22	156.33	192.38	169.22	185.05	160.36	169.34
1935-36	Total amount paid ..	33,314,534	28,456,028	8,394,909	6,375,354	3,703,995	1,853,468	82,098,288
	Average per employee ..	178.66	162.28	194.66	172.21	187.09	168.33	173.65
1936-37	Total amount paid ..	36,642,444	30,986,895	9,088,637	7,172,638	4,157,733	2,074,785	90,123,132
	Average per employee ..	181.93	169.00	198.02	182.78	193.46	175.72	179.10
1937-38	Total amount paid ..	42,209,875	34,960,911	10,170,800	8,043,160	4,401,443	2,292,361	102,078,550
	Average per employee ..	194.24	180.33	204.73	189.10	200.92	183.33	189.80

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, there is a large number of hands employed in Class VIII., comprising a heavy percentage of women and children. The highest average wages per employee in 1937-38 were paid in Queensland, Western Australia and South Australia in that order.

The average rate of salaries and wages reached its maximum in 1927-28 when it amounted to £212.12. After that year there was an almost continuous decline to 1933-34 when the average rate dropped to £166.36. The figure has risen during each of the last four years.

(iii) *Earnings of Males and Females, 1937-38.* The following table shows the approximate amount of salaries and wages paid to males and females in each class of industry in each State during the year 1937-38:—

SALARIES AND WAGES : MALE AND FEMALE FACTORY EMPLOYEES, 1937-38.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
MALES.							
I. Treatment of Non-metaliferous Mine and Quarry Products ..	1,030,353	620,847	160,927	123,947	140,933	73,574	2,150,581
II. Bricks, Pottery, Glass, etc. ..	1,596,793	837,010	165,153	194,566	133,288	36,323	2,963,133
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,312,649	1,322,452	103,178	269,179	169,917	19,771	3,197,146
IV. Industrial Metals, Machines, Implements and Conveyances ..	16,936,542	10,243,076	2,665,958	3,988,986	1,445,935	831,595	36,112,092
V. Precious Metals, Jewellery and Plate ..	156,434	333,032	22,614	23,163	12,936	3,100	551,279
VI. Textiles and Textile Goods ..	1,128,209	2,085,678	75,287	127,144	29,854	118,968	3,565,140
VII. Skins and Leather ..	673,722	710,261	147,023	41,398	44,632	3,082	1,620,118
VIII. Clothing ..	1,468,694	1,909,806	238,854	135,176	111,849	28,906	3,896,285
IX. Food, Drink and Tobacco ..	4,172,843	4,461,303	3,347,077	990,536	671,595	390,836	14,034,190
X. Woodworking and Basketware ..	1,855,590	1,456,125	1,150,013	317,526	547,791	289,412	5,616,457
XI. Furniture, Bedding etc. ..	1,075,758	634,507	296,917	168,649	133,991	50,471	2,360,293
XII. Paper, Stationery, Printing, Book-binding, etc. ..	2,847,705	2,237,457	598,344	376,042	311,981	154,843	6,526,372
XIII. Rubber ..	590,959	505,007	59,165	16,873	11,097	6,811	1,189,912
XIV. Musical Instruments ..	44,979	20,128	8,534	1,163	4,859	..	79,663
XV. Miscellaneous Products ..	486,742	322,178	36,917	38,989	19,116	25,231	929,173
Total, Classes I. to XV.	35,377,972	27,698,867	9,075,961	6,816,337	3,789,774	2,032,923	84,791,834
XVI. Heat, Light and Power ..	869,115	542,191	211,358	564,804	207,423	34,308	2,420,199
Grand Total ..	36,247,087	28,241,058	9,287,319	7,381,141	3,997,197	2,067,231	87,211,033

SALARIES AND WAGES : MALE AND FEMALE FACTORY EMPLOYEES,
1937-38—*continued.*

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	7,853	8,090	2,607	591	2,295	690	22,126
II. Bricks, Pottery, Glass, etc. ..	27,785	29,615	5,267	2,948	1,402	359	67,376
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	263,566	249,212	14,956	22,265	8,340	939	559,278
IV. Industrial Metals, Machines, Implements and Conveyances ..	514,926	310,275	40,313	90,904	21,784	10,602	988,804
V. Precious Metals, Jewellery and Plate ..	14,944	32,233	1,347	816	566	..	49,906
VI. Textiles and Textile Goods ..	896,360	1,486,079	48,906	32,705	20,859	92,207	2,577,116
VII. Skins and Leather ..	81,728	91,948	11,197	16,687	8,045	408	210,013
VIII. Clothing ..	2,201,747	2,955,088	427,940	291,425	211,549	29,492	6,117,241
IX. Food, Drink and Tobacco ..	1,024,240	847,752	151,002	101,638	65,119	69,019	2,258,770
X. Woodworking and Basketware ..	34,544	23,634	22,499	5,635	1,973	3,384	91,669
XI. Furniture, Bedding, etc. ..	124,855	93,900	19,904	12,242	10,802	1,999	263,702
XII. Paper, Stationery, Printing, Book-binding, etc. ..	523,787	427,749	103,517	58,196	44,907	14,898	1,173,054
XIII. Rubber ..	121,924	94,391	30,033	1,283	212	191	248,034
XIV. Musical Instruments ..	6,679	283	..	114	..	..	7,076
XV. Miscellaneous Products ..	113,788	68,456	3,993	7,358	4,493	642	198,640
Total, Classes I. to XV.	5,958,726	6,718,705	883,481	644,807	402,256	224,830	14,832,805
XVI. Heat, Light and Power ..	4,062	1,148	..	17,212	1,990	300	24,712
Total ..	5,962,788	6,719,853	883,481	662,019	404,246	225,130	14,857,517

(iv) *Total and Average Earnings of Males and Females, 1933-34 to 1937-38.* Particulars for the last five years are given in the table hereunder :—

TOTAL AND AVERAGE SALARIES AND WAGES : MALES AND FEMALES.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
1933-34. Amount paid ..	21,885,356	18,009,598	6,353,917	4,170,047	2,475,698	1,315,417	54,210,033
Per cent. on total ..	85.00	78.81	90.83	90.36	89.94	88.79	84.12
Average per employee £	206.98	191.45	208.03	185.58	206.27	182.05	199.32
1934-35. Amount paid ..	25,215,937	20,036,314	7,184,443	4,937,285	2,806,476	1,429,620	61,610,075
Per cent. on total ..	85.44	79.27	91.06	90.87	90.20	89.28	84.60
Average per employee £	208.57	193.31	219.93	190.22	210.66	183.68	202.48
1935-36. Amount paid ..	28,576,202	22,755,111	7,654,082	5,810,399	3,353,526	1,652,851	69,802,171
Per cent. on total ..	85.78	79.97	91.18	91.14	90.54	89.18	85.02
Average per employee £	212.35	198.85	221.90	193.56	212.76	190.86	206.55
1936-37. Amount paid ..	31,450,699	24,963,887	8,296,214	6,570,225	3,777,064	1,872,019	76,930,108
Per cent. on total ..	85.83	80.56	91.28	91.60	90.84	90.23	85.36
Average per employee £	216.29	205.93	225.78	205.31	218.47	198.05	212.44
1937-38. Amount paid ..	36,247,087	28,241,058	9,287,319	7,331,141	3,997,197	2,067,231	87,221,033
Per cent. on total ..	85.87	80.78	91.31	91.77	90.82	90.18	85.45
Average per employee £	230.39	218.89	232.20	212.08	227.42	205.96	224.35

TOTAL AND AVERAGE SALARIES AND WAGES: MALES AND FEMALES
—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
1933-34. Amount paid ..£	3,863,191	4,842,051	641,423	445,034	276,842	166,086	10,234,627
Per cent. on total ..	15.00	21.19	9.17	9.64	10.06	11.21	15.88
Average per employee £	91.88	88.54	82.77	78.43	86.43	81.41	86.69
1934-35. Amount paid ..£	4,298,076	5,238,700	705,092	496,246	304,763	171,597	11,214,474
Per cent. on total ..	14.56	20.73	8.94	9.13	9.80	10.72	15.40
Average per employee £	90.40	90.27	84.51	80.64	87.30	77.93	89.17
1935-36. Amount paid ..£	4,738,332	5,700,917	740,827	564,955	350,469	200,617	12,296,117
Per cent. on total ..	14.22	20.03	8.82	8.86	9.46	10.82	14.98
Average per employee £	91.30	93.58	85.80	80.70	86.84	85.33	91.19
1936-37. Amount paid ..£	5,191,745	6,023,008	792,423	602,413	380,669	202,766	13,193,224
Per cent. on total ..	14.17	19.44	8.72	8.40	9.16	9.77	14.64
Average per employee £	92.71	96.95	86.57	82.21	90.59	86.10	93.52
1937-38. Amount paid ..£	5,962,788	6,719,853	883,481	662,019	404,246	225,130	14,857,517
Per cent. on total ..	14.13	19.22	8.69	8.23	9.18	9.82	14.55
Average per employee £	99.41	103.62	91.25	85.65	93.36	91.26	99.69

(v) *Managers, Overseers and Other Employees.* A further analysis of salaries and wages paid is given in the following table, the amounts paid to managers, overseers, etc., being differentiated from those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases:—

SALARIES AND WAGES: MANAGERS, OVERSEERS, ETC., AND OTHER EMPLOYEES, 1937-38.

Class of Industry.	Salaries and Wages Paid to—						
	Managers, Overseers, Accountants and Clerks.		All Other Employees.		All Employees.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	286,139	21,082	1,864,442	1,044	2,150,581	22,126	2,172,707
II. Bricks, Pottery, Glass, etc. ..	324,645	32,698	2,638,488	34,678	2,963,133	67,376	3,030,509
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	728,711	141,756	2,468,435	417,522	3,197,146	559,278	3,756,424
IV. Industrial Metals, Machines, Implements and Conveyances ..	4,407,195	506,962	31,704,897	481,842	36,112,092	988,804	37,100,896
V. Precious Metals, Jewellery and Plate ..	50,378	13,983	500,901	35,923	551,279	49,906	601,185
VI. Textiles and Textile Goods ..	650,116	148,300	2,915,024	2,428,816	3,565,140	2,577,116	6,142,256
VII. Skins and Leather ..	208,960	26,957	1,411,158	183,056	1,620,118	210,013	1,830,131
VIII. Clothing ..	585,346	334,874	3,310,939	5,782,367	3,896,285	6,117,241	10,013,526
IX. Food, Drink and Tobacco ..	2,717,871	428,351	11,316,319	1,830,419	14,034,190	2,258,770	16,292,960
X. Woodworking and Basketware ..	597,737	70,486	5,018,720	21,183	5,616,457	91,669	5,708,126
XI. Furniture, Bedding etc. ..	192,669	49,403	2,167,624	214,299	2,360,293	263,702	2,623,995
XII. Paper, Stationery, Printing, Book-binding, etc. ..	1,081,661	269,538	5,444,711	903,516	6,526,372	1,173,054	7,699,426
XIII. Rubber ..	225,831	34,104	964,081	213,930	1,189,912	248,034	1,437,946
XIV. Musical Instruments ..	11,713	1,984	67,950	5,092	79,663	7,076	86,739
XV. Miscellaneous Products ..	163,112	39,505	766,061	159,135	929,173	198,640	1,127,813
Total, Classes I. to XV.	12,232,084	2,119,983	72,559,750	12,712,822	84,791,834	14,832,805	99,624,639
XVI. Heat, Light and Power ..	530,131	21,840	1,899,068	2,872	2,429,199	24,712	2,453,911
Grand Total ..	12,762,215	2,141,823	74,458,818	12,715,694	87,221,033	14,857,517	102,078,550
Average paid per employee	348.58	131.46	211.44	95.79	224.35	99.69	189.80

3. Power, Fuel and Light Used.—(i) *In Classes of Industry, 1937-38.* The expenditure by factories on power, fuel and light is of considerable importance; in 1937-38 it amounted to £15,047,705, an increase of £1,481,975 as compared with the previous year. The following table shows the value of power, fuel and light used in the different classes of industry in 1937-38:—

FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED (a), 1937-38.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	339,335	228,371	62,636	45,359	93,777	68,486	837,964
II. Bricks, Pottery, Glass, etc. ..	471,919	298,758	45,144	68,949	59,044	12,647	956,461
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	222,959	242,097	14,213	47,582	41,327	3,101	571,279
IV. Industrial Metals, Machines, Implements and Conveyances ..	3,017,407	630,912	278,132	260,568	94,775	214,980	4,496,774
V. Precious Metals, Jewellery and Plate ..	10,191	17,072	840	1,922	441	129	30,595
VI. Textiles and Textile Goods ..	192,920	347,660	10,583	22,031	7,701	21,634	602,529
VII. Skins and Leather ..	68,579	74,527	17,150	1,882	6,483	155	168,776
VIII. Clothing ..	104,513	138,433	16,716	14,325	8,968	1,378	284,333
IX. Food, Drink and Tobacco ..	888,966	842,753	517,820	207,052	164,941	55,286	2,676,818
X. Woodworking and Basketware ..	98,771	86,194	69,265	17,170	41,971	19,200	332,571
XI. Furniture, Bedding, etc. ..	31,958	29,439	9,874	8,939	4,378	1,879	86,467
XII. Paper, Stationery, Printing, Book-binding, etc. ..	158,934	217,735	32,746	18,254	18,818	5,462	451,949
XIII. Rubber ..	93,457	134,786	10,018	2,293	1,608	840	243,002
XIV. Musical Instruments ..	4,213	302	36	15	58	..	4,624
XV. Miscellaneous Products ..	37,751	26,283	1,020	1,926	893	544	68,417
Total, Classes I. to XV.	5,741,873	3,315,322	1,086,193	718,267	545,183	405,721	11,812,559
XVI. Heat, Light and Power ..	1,382,088	716,868	354,557	231,591	550,042	..	3,235,146
Grand Total ..	7,123,961	4,032,190	1,440,750	949,858	1,095,225	405,721	15,047,705

(a) Including lubricants and water.

(ii) *Values of Items, 1937-38.* The following table shows the values of the various items of power, fuel and light used in factories in each State during the year 1937-38:—

FACTORIES : VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED, 1937-38.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Coal ..	2,280,595	1,459,639	617,594	297,050	316,073	88,502	5,059,453
Coke ..	1,321,091	278,488	31,143	36,636	29,797	3,312	1,700,467
Wood ..	129,596	187,835	144,221	75,212	169,410	28,360	734,634
Other (Charcoal, etc.) ..	68,793	75,638	97,121	32,630	7,737	143	282,062
Fuel Oil ..	456,451	277,449	99,992	83,916	240,027	23,311	1,181,146
Gas ..	525,659	108,839	24,959	24,450	12,848	2,897	699,652
Electricity ..	1,794,332	1,239,218	267,214	320,767	221,297	237,132	4,079,960
Water and Lubricating Oil ..	547,444	405,084	158,506	79,197	98,036	22,064	1,310,331
Total ..	7,123,961	4,032,190	1,440,750	949,858	1,095,225	405,721	15,047,705

(iii) *Quantities, 1937-38.* The following table shows the quantities of certain items of power, fuel and light used in factories in each State during the year 1937-38:—

FACTORIES : QUANTITY OF POWER, FUEL AND LIGHT USED, 1937-38.

Particulars.	Unit.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
Coal ..	Ton	2,488,672	3,443,781	451,266	219,653	254,746	70,337	6,928,455
Coke ..	Ton	1,161,165	175,731	21,410	19,697	12,957	1,547	1,392,507
Wood ..	Ton	163,694	436,023	247,482	110,619	318,795	59,598	1,336,211
Fuel Oil ..	Gal.	20,870,992	12,549,185	2,883,420	3,543,684	7,890,737	1,164,344	48,002,371

(iv) *Total Value, 1933-34 to 1937-38.* The next table gives the sums expended on power, fuel and light during the last five years:—

FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
1933-34 ..	5,239,416	3,069,749	971,680	827,049	641,324	165,663	11,214,881
1934-35 ..	5,906,307	3,323,892	1,051,474	866,567	702,375	487,592	12,338,207
1935-36 ..	6,273,485	3,505,321	1,080,525	972,636	852,327	592,001	13,276,295
1936-37 ..	6,464,942	3,677,488	1,225,255	856,808	939,166	402,071	13,505,730
1937-38 ..	7,123,961	4,032,190	1,440,750	949,858	1,095,225	405,721	15,047,705

4. *Value of Materials Used.—(i) In Classes of Industry, 1937-38.* The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in 1937-38 was £287,243,412, representing 57.59 per cent. of the value of the final output. (See par. 5.) The table hereunder shows the value of the materials used in various classes of industry in each State:—

FACTORIES : VALUE OF MATERIALS USED, 1937-38.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,548,644	1,120,791	321,055	128,152	208,986	142,745	4,470,373
II. Bricks, Pottery, Glass, etc. ..	981,990	450,200	74,724	188,057	77,372	26,438	1,798,781
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	7,652,008	5,324,805	586,631	1,343,636	1,022,485	115,102	16,044,670
IV. Industrial Metals, Machines, Implements and Conveyances ..	44,684,065	14,465,566	4,055,030	8,786,799	1,686,469	1,731,809	75,409,738
V. Precious Metals, Jewellery and Plate ..	180,576	451,029	11,374	22,405	8,938	692	675,014
VI. Textiles and Textile Goods ..	5,486,513	8,889,042	464,366	978,216	141,617	601,948	16,561,702
VII. Skins and Leather ..	3,005,606	2,839,763	1,279,457	119,314	150,268	6,398	7,409,806
VIII. Clothing ..	6,450,530	9,541,185	909,668	533,498	440,964	66,893	17,942,738
IX. Food, Drink and Tobacco ..	35,169,793	32,380,459	27,660,364	7,292,297	4,542,393	2,051,912	109,097,218
X. Woodworking and Basketware ..	5,000,244	3,075,147	2,681,578	996,272	887,606	450,776	13,091,623
XI. Furniture, Bedding, etc. ..	2,270,059	1,535,366	485,917	338,557	265,488	62,137	4,957,524
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,947,704	3,919,693	654,875	477,131	339,553	109,596	10,448,552
XIII. Rubber ..	2,133,826	2,592,733	180,624	37,598	22,530	13,545	4,980,856
XIV. Musical Instruments ..	37,195	8,268	2,004	424	659	..	48,550
XV. Miscellaneous Products ..	1,133,796	825,486	37,955	79,551	33,195	24,384	2,134,367
Total, Classes I. to XV.	121,682,549	87,419,533	39,405,625	21,321,907	9,837,523	5,404,375	285,071,512
XVI. Heat, Light and Power ..	908,914	709,612	190,070	148,017	143,918	66,369	2,171,900
Grand Total ..	122,591,463	88,129,145	39,595,695	21,469,924	9,986,441	5,470,744	287,243,412

(ii) *Total Amount, 1933-34 to 1937-38.* The following table gives the values of materials used in factories for the last five years:—

FACTORIES : VALUE OF MATERIALS USED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1933-34 ..	77,330,401	61,224,916	27,758,597	13,450,771	6,791,684	3,270,895	189,827,264
1934-35 ..	87,096,873	65,096,374	30,346,510	15,275,492	7,654,382	3,577,386	209,047,017
1935-36 ..	98,950,321	76,494,159	30,991,341	19,261,750	9,172,205	4,195,021	238,974,797
1936-37 ..	109,593,494	80,302,423	34,612,231	21,399,805	9,427,259	5,243,691	260,578,903
1937-38 ..	122,591,463	88,129,145	39,595,695	21,469,924	9,986,441	5,470,744	287,243,412

5. Value of Output.—(i) *In Classes of Industry, 1937-38.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1937-38 is shown in the following table. The figures given represent not only the increase in value due to the process of manufacture, but include also the values of the raw materials and the power, fuel and light used. The difference between the sum of the values of the materials and the fuel and light used, and the output is the real value of factory production (see par. 6).

FACTORIES : VALUE OF OUTPUT, 1937-38.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	5,189,424	2,808,306	713,786	392,024	622,908	431,928	10,158,376
II. Bricks, Pottery, Glass, etc. ..	4,429,081	2,241,357	374,021	676,115	372,184	99,796	8,192,554
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	13,851,955	9,970,909	930,861	2,050,036	1,546,740	175,387	28,525,888
IV. Industrial Metals, Machines, Implements and Conveyances ..	76,808,406	31,140,916	8,907,794	14,993,264	4,210,628	3,989,186	140,050,194
V. Precious Metals, Jewellery and Plate ..	481,506	1,022,471	52,899	67,336	32,983	5,066	1,662,261
VI. Textiles and Textile Goods ..	9,019,451	15,298,559	656,986	1,228,113	233,841	989,344	27,426,297
VII. Skins and Leather ..	4,289,226	4,237,259	1,566,862	212,403	260,077	13,811	10,579,638
VIII. Clothing ..	12,449,127	17,281,253	2,017,780	1,220,202	967,121	158,980	34,094,463
IX. Food, Drink and Tobacco ..	51,296,623	45,912,799	35,194,331	9,975,875	6,729,383	3,058,439	152,167,950
X. Woodworking and Basketware ..	8,244,563	5,527,505	4,702,998	1,526,468	1,804,429	931,152	22,737,115
XI. Furniture, Bedding etc. ..	4,208,301	2,825,221	1,004,086	625,406	506,671	144,905	9,314,590
XII. Paper, Stationery, Printing, Book-binding, etc. ..	11,423,717	9,141,044	1,862,815	1,211,242	946,697	503,123	25,088,638
XIII. Rubber ..	3,106,542	4,094,017	322,938	79,662	51,515	31,146	7,685,820
XIV. Musical Instruments ..	135,170	38,052	13,251	2,686	8,418	..	197,577
XV. Miscellaneous Products ..	2,369,877	1,591,388	104,162	179,728	71,122	66,945	4,383,222
Total, Classes I. to XV. ..	207,302,972	153,131,056	58,425,570	34,440,560	18,365,217	10,599,208	482,264,583
XVI. Heat, Light and Power ..	7,580,585	3,919,669	1,213,833	1,799,377	1,278,743	722,351	16,514,558
Grand Total ..	214,883,557	157,050,725	59,639,403	36,239,937	19,643,960	11,321,559	498,779,141

(ii) *Total, 1933-34 to 1937-38.* The following statement shows the value of output in each State during the five years ended 1937-38 :—

FACTORIES : VALUE OF OUTPUT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1933-34 ..	136,611,971	108,496,310	42,442,785	22,919,297	12,877,288	6,786,409	330,134,060
1934-35 ..	154,433,248	117,182,857	46,021,303	25,699,172	14,641,680	7,223,124	365,201,384
1935-36 ..	174,693,761	134,043,170	47,664,810	31,904,091	17,528,741	8,853,882	414,688,455
1936-37 ..	192,812,414	142,692,192	53,022,008	34,528,176	18,313,122	10,461,366	451,829,278
1937-38 ..	214,883,557	157,050,725	59,639,403	36,239,937	19,643,960	11,321,559	498,779,141

6. Value of Production.—(i) *In Classes of Industry, 1937-38.* The value of production for any industry was defined by the Conference of Statisticians at Sydney in 1925 as "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production."

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the "value of output." All these deductions with the exception of depreciation are included in the items "value of materials used" and "value of fuel used" as defined above. On account of the difficulty experienced in securing accurate figures for depreciation, it was subsequently agreed that the particulars obtained should be published but that no deduction should be made on this account for the present. The value of production as given in the following tables is obtained, therefore, by deducting "value of materials used" and "value of fuel used" from the "value of the output."

The figure thus calculated is, however, not the net value of production. The deduction for depreciation, particulars of which are shown in § 8, par. 4, was estimated at £10,316,910 for 1937-38. Many miscellaneous expenses, also, such as insurance and advertising, have not been taken into account. Hence, it must not be inferred that when wages and salaries are deducted from the value of production, the whole of the "surplus" is available for interest and profit.

The following table shows the value of production in 1937-38 in each State for the various classes of factories:—

FACTORIES : VALUE OF PRODUCTION, 1937-38.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,301,445	1,459,144	330,095	218,513	320,145	220,697	4,850,039
II. Bricks, Pottery, Glass, etc. ..	2,975,172	1,492,399	254,153	419,109	235,768	60,711	5,437,312
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	5,976,988	4,404,007	330,014	658,818	482,928	57,184	11,909,939
IV. Industrial Metals, Machines, Implements and Conveyances ..	29,106,934	16,044,438	4,574,632	5,945,897	2,429,384	2,042,397	60,143,682
V. Precious Metals, Jewellery and Plate ..	290,739	554,370	40,685	43,009	23,604	4,245	956,652
VI. Textiles and Textile Goods ..	3,340,021	6,061,857	182,037	227,866	84,523	365,762	10,262,066
VII. Skins and Leather ..	1,215,041	1,322,969	270,255	91,207	94,326	7,258	3,001,056
VIII. Clothing ..	5,894,084	7,601,635	1,091,396	672,379	517,189	90,709	15,867,392
IX. Food, Drink and Tobacco ..	15,237,864	12,689,587	7,016,147	2,476,526	2,022,549	951,241	40,393,914
X. Woodworking and Basketware ..	3,145,548	2,366,164	1,952,155	513,026	874,852	461,176	9,312,921
XI. Furniture, Bedding, etc. ..	1,906,284	1,260,416	508,295	277,910	236,805	80,889	4,270,599
XII. Paper, Stationery, Printing, Book-binding, etc. ..	6,317,079	5,003,616	1,175,194	715,857	588,326	388,065	14,188,137
XIII. Rubber ..	879,259	1,366,498	132,296	39,771	27,377	16,761	2,461,962
XIV. Musical Instruments ..	93,762	29,482	11,211	2,247	7,701	..	144,403
XV. Miscellaneous Products ..	1,198,330	739,619	65,187	98,251	37,034	42,017	2,180,438
Total, Classes I. to XV.	79,878,550	62,396,201	17,933,752	12,400,386	7,982,511	4,789,112	185,380,512
XVI. Heat, Light and Power ..	5,289,583	2,493,189	669,206	1,419,769	579,783	655,982	11,107,512
Grand Total ..	85,168,133	64,889,390	18,602,958	13,820,155	8,562,294	5,445,094	196,488,024

(ii) *Total and Averages, 1933-34 to 1937-38.* The value of production and the amount per person engaged and per head of population are shown in the following table for the years specified:—

FACTORIES : VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
VALUE.							
	£	£	£	£	£	£	£
1933-34 ..	54,042,154	44,201,645	13,712,508	8,641,477	5,444,280	3,049,851	129,091,915
1934-35 ..	61,430,068	48,762,591	14,623,319	9,557,113	6,284,923	3,158,146	143,816,160
1935-36 ..	69,469,955	54,043,690	15,682,944	11,669,705	7,504,209	4,066,860	162,437,363
1936-37 ..	76,753,978	58,712,281	17,184,522	12,271,563	7,946,697	4,815,604	177,634,645
1937-38 ..	85,168,133	64,889,390	18,602,958	13,820,155	8,562,294	5,445,094	196,488,024

PER PERSON ENGAGED.

	£	£	£	£	£	£	£
1933-34 ..	351	283	342	293	337	312	318
1934-35 ..	351	287	340	285	354	299	320
1935-36 ..	360	295	348	303	357	351	330
1936-37 ..	368	307	356	301	350	387	339
1937-38 ..	379	322	357	313	370	413	351

PER HEAD OF POPULATION.

	£	£	£	£	£	£	£
1933-34 ..	20.68	24.22	14.43	14.84	12.36	13.32	19.40
1934-35 ..	23.62	26.55	15.22	16.36	14.18	13.78	21.46
1935-36 ..	26.15	29.32	16.13	19.91	16.76	17.66	24.06
1936-37 ..	28.63	31.70	17.46	20.86	17.59	20.74	26.11
1937-38 ..	31.44	34.87	18.69	23.40	18.73	22.87	28.62

7. *Value of Output and Cost of Production.*—As the total value of the output for Australia for 1937-38 was estimated at £498,779,141, there remained, after payment of £287,243,412, the value of the materials used, of £102,078,550 for salaries and wages, and of £15,047,705 for fuel, the sum of £94,409,474 to provide for all other expenditure, depreciation, interest and profits. The following table gives corresponding particulars for each State expressed absolutely and as percentages on the total value of the output for the year 1937-38:—

FACTORIES : VALUE OF OUTPUT AND COST OF PRODUCTION, 1937-38.

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
New South Wales	£122,591,463	£7,123,961	£42,209,875	£42,958,258	£214,883,557
Victoria	£88,129,145	£4,032,190	£34,960,911	£29,928,479	£157,050,725
Queensland	£39,595,695	£1,440,750	£10,170,800	£8,432,158	£59,639,403
South Australia	£21,469,924	£949,858	£8,043,160	£5,776,995	£36,239,937
Western Australia	£9,986,441	£1,095,225	£4,401,443	£4,160,851	£19,643,960
Tasmania	£5,470,744	£405,721	£2,292,361	£3,152,733	£11,321,559
Australia	£287,243,412	£15,047,705	£102,078,550	£94,409,474	£498,779,141

VALUE AND COST, ETC.

	£	£	£	£	£
New South Wales	£122,591,463	£7,123,961	£42,209,875	£42,958,258	£214,883,557
Victoria	£88,129,145	£4,032,190	£34,960,911	£29,928,479	£157,050,725
Queensland	£39,595,695	£1,440,750	£10,170,800	£8,432,158	£59,639,403
South Australia	£21,469,924	£949,858	£8,043,160	£5,776,995	£36,239,937
Western Australia	£9,986,441	£1,095,225	£4,401,443	£4,160,851	£19,643,960
Tasmania	£5,470,744	£405,721	£2,292,361	£3,152,733	£11,321,559
Australia	£287,243,412	£15,047,705	£102,078,550	£94,409,474	£498,779,141

(a) Including the value of containers, packing, etc., also the cost of tools replaced and repairs to plant.

(b) Including lubricants and water.

FACTORIES: VALUE OF OUTPUT AND COST OF PRODUCTION, 1937-38—
continued.

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE.					
	%	%	%	%	%
New South Wales ..	57.05	3.32	19.64	19.99	100.00
Victoria ..	56.11	2.57	22.26	19.06	100.00
Queensland ..	66.39	2.42	17.05	14.14	100.00
South Australia ..	59.24	2.62	22.20	15.94	100.00
Western Australia ..	50.84	5.57	22.41	21.18	100.00
Tasmania ..	48.32	3.58	20.25	27.85	100.00
Australia ..	57.59	3.02	20.46	18.93	100.00

(a) Including the value of containers, packing, etc., also the cost of tools replaced and repairs to plant.
(b) Including lubricants and water.

§ 8. Value of Land, Buildings, Plant and Machinery.

1. General.—The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1937-38:—

FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY, 1937-38.

Value of—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	54,471,643	40,339,541	11,982,620	8,379,334	6,471,367	2,989,509	124,634,014
Plant and machinery	57,222,693	36,868,289	17,734,600	9,402,792	7,459,525	4,676,687	133,364,586
Total ..	111,694,336	77,207,830	29,717,220	17,782,126	13,930,892	7,666,196	257,998,600

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified.

2. Value of Land and Buildings.—(i) *Total for Australia, 1933-34 to 1937-38.* The appended table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries from 1933-34 to 1937-38 inclusive:—

FACTORIES : VALUE OF LAND AND BUILDINGS, AUSTRALIA.

Class of Industry.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,415,120	2,409,200	2,412,145	2,617,765	2,728,772
II. Bricks, Pottery, Glass, etc.	2,376,697	2,558,791	2,706,575	2,686,930	2,790,201
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	5,903,867	6,129,529	6,398,332	6,596,554	6,843,335
IV. Industrial Metals, Machines, Implements and Conveyances ..	25,877,989	26,718,722	27,873,261	30,061,037	32,420,428
V. Precious Metals, Jewellery and Plate ..	518,293	536,745	561,735	602,685	616,934
VI. Textiles and Textile Goods ..	5,106,496	5,169,116	5,447,503	5,558,420	5,754,347
VII. Skins and Leather ..	1,789,880	1,790,607	1,833,333	2,008,167	1,990,451
VIII. Clothing ..	9,059,219	9,571,442	9,750,735	10,282,902	10,350,944
IX. Food, Drink and Tobacco ..	27,006,548	27,949,389	28,928,977	30,166,301	31,953,396
X. Woodworking and Basketware ..	3,486,892	3,694,166	3,769,303	3,838,701	3,904,773
XI. Furniture, Bedding, etc.	1,963,269	2,056,019	2,196,782	2,370,393	2,440,997
XII. Paper, Stationery, Printing, Bookbinding, etc.	9,093,698	9,221,909	9,564,871	9,668,602	9,956,433
XIII. Rubber ..	1,893,051	1,849,493	1,842,048	1,751,707	1,790,590
XIV. Musical Instruments ..	144,215	122,887	115,948	109,531	98,947
XV. Miscellaneous Products ..	1,063,804	1,114,681	1,213,697	1,323,085	1,396,371
Total, Classes I. to XV.	97,699,038	100,892,696	104,615,247	109,642,780	115,036,919
XVI. Heat, Light and Power ..	9,838,768	9,947,961	9,994,655	9,883,357	9,597,095
Grand Total ..	107,537,806	110,840,657	114,609,902	119,526,137	124,634,014

(ii) *In Classes of Industry in States, 1937-38.* The following table gives particulars for the various classes of industry in each State.

FACTORIES : VALUE OF LAND AND BUILDINGS, STATES, 1937-38.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,326,876	774,488	199,029	154,888	113,142	160,349	2,728,772
II. Bricks, Pottery, Glass, etc.	1,592,794	768,536	122,559	176,444	109,055	20,813	2,790,201
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	2,597,521	2,875,452	174,154	469,879	643,250	83,079	6,843,335
IV. Industrial Metals, Machines, Implements and Conveyances ..	16,136,742	9,018,778	2,312,136	2,436,593	1,618,981	897,198	32,420,428
V. Precious Metals, Jewellery and Plate ..	206,071	314,995	30,148	35,785	21,150	8,785	616,934
VI. Textiles and Textile Goods ..	1,943,232	3,217,239	126,783	172,026	62,229	232,838	5,754,347
VII. Skins and Leather ..	747,414	931,532	121,182	58,360	121,707	10,256	1,990,451
VIII. Clothing ..	4,261,271	4,323,372	623,676	530,295	511,428	100,902	10,350,944
IX. Food, Drink and Tobacco ..	11,683,832	9,506,708	5,608,830	2,439,688	1,846,035	868,303	31,953,396
X. Woodworking and Basketware ..	1,615,808	1,003,408	538,595	300,254	290,843	155,865	3,904,773
XI. Furniture, Bedding, etc.	971,652	850,102	273,935	170,616	131,438	43,254	2,440,997
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	4,282,826	3,341,972	990,085	697,124	535,911	108,515	9,956,433
XIII. Rubber ..	816,805	734,051	114,883	60,725	39,256	24,870	1,790,590
XIV. Musical Instruments ..	53,906	29,101	7,460	1,770	6,710	..	98,947
XV. Miscellaneous Products ..	766,289	460,419	57,401	61,154	41,929	9,179	1,396,371
Total, Classes I. to XV.	49,003,039	38,150,153	11,300,856	7,765,601	6,093,064	2,724,206	115,036,919
XVI. Heat, Light and Power ..	5,468,604	2,189,388	681,764	613,733	378,303	265,303	9,597,095
Grand Total ..	54,471,643	40,339,541	11,982,620	8,379,334	6,471,367	2,989,509	124,634,014

(iii) *Totals in each State.* The total value of land and buildings in each State from 1933-34 to 1937-38 is given hereunder:—

FACTORIES : VALUE OF LAND AND BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1933-34 ..	46,310,925	35,563,879	9,461,870	7,989,314	5,581,057	2,630,761	107,537,806
1934-35 ..	47,937,192	36,644,621	9,942,803	7,947,825	5,673,461	2,694,755	110,840,657
1935-36 ..	49,494,222	37,678,298	10,514,513	8,268,807	5,978,111	2,675,951	114,609,902
1936-37 ..	51,629,598	38,948,268	11,483,161	8,133,147	6,279,305	3,052,658	119,526,137
1937-38 ..	54,471,643	40,339,541	11,982,620	8,379,334	6,471,367	2,989,509	124,634,034

Prior to 1929-30 the increase in the value of land and buildings was uninterrupted, rising from £23 million in 1903 to £118 million in 1929-30, a growth of £95 million in 27 years. During the three years ending 1932-33, however, there was a decline of £12 million to £105.8 million, but during the next five years the value has risen to £124.6 million.

3. *Value of Plant and Machinery.*—(i) *Total for Australia, 1933-34 to 1937-38.* The following table shows for Australia the approximate value of plant and machinery used in factories in each of the years specified:—

FACTORIES : VALUE OF PLANT AND MACHINERY, AUSTRALIA.

Class of Industry.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	5,373,802	5,279,528	5,249,528	4,881,743	6,504,872
II. Bricks, Pottery, Glass, etc. ..	2,414,175	2,649,482	2,865,499	2,858,777	3,019,476
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	5,386,426	5,638,866	5,722,327	5,923,776	6,251,926
IV. Industrial Metals, Machines, Implements and Conveyances ..	24,611,820	24,976,454	25,604,490	26,940,963	29,285,995
V. Precious Metals, Jewellery and Plate ..	148,402	162,129	175,884	187,373	196,652
VI. Textiles and Textile Goods ..	5,751,145	5,799,227	6,052,307	6,505,668	6,463,604
VII. Skins and Leather ..	913,723	892,370	898,598	902,197	900,239
VIII. Clothing ..	2,061,074	2,180,610	2,256,669	2,326,915	2,431,475
IX. Food, Drink and Tobacco ..	27,305,642	29,207,778	30,041,612	30,244,206	31,198,129
X. Woodworking and Basketware ..	3,326,466	3,490,416	3,629,550	3,597,835	3,759,553
XI. Furniture, Bedding, etc. ..	679,252	661,980	678,710	704,708	725,420
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	7,139,924	7,108,001	7,532,292	7,773,218	8,436,942
XIII. Rubber ..	1,710,597	1,639,724	1,494,225	1,401,643	1,470,300
XIV. Musical Instruments ..	33,582	24,209	18,157	14,800	10,750
XV. Miscellaneous Products ..	560,737	580,623	579,858	671,173	719,309
Total, Classes I. to XV.	87,416,767	90,291,397	92,769,706	94,934,997	101,374,642
XVI. Heat, Light and Power	32,791,361	32,349,558	32,461,385	31,742,098	31,989,944
Grand Total ..	120,208,128	122,640,955	125,231,091	126,677,095	133,364,586

Prior to 1937-38, the maximum amount invested in plant and machinery was £127.6 million in 1929-30. The amount declined to £120.2 million during the next four years, but has since risen to the record figure of £133.4 million.

(ii) *Totals in each State.* The following table shows the value of plant and machinery in each State during the last five years. It will be noted that the chief increase during the year 1937-38 was recorded in New South Wales:—

FACTORIES : VALUE OF PLANT AND MACHINERY.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1933-34 ..	49,083,921	33,270,400	16,891,339	9,161,672	5,678,638	6,122,158	120,208,128
1934-35 ..	50,453,590	33,947,056	17,114,417	9,293,448	5,763,428	6,069,016	122,640,955
1935-36 ..	51,964,982	34,194,608	17,736,543	9,280,335	6,063,901	5,990,722	125,231,091
1936-37 ..	51,979,614	36,213,626	17,460,253	9,130,748	7,142,368	4,750,486	126,677,095
1937-38 ..	57,222,693	36,868,289	17,734,600	9,402,792	7,459,525	4,676,687	133,364,586

(iii) *Value according to Industry, 1937-38.* The following table shows the value of plant and machinery used in factories in each State during 1937-38, classified according to industry:—

FACTORIES : VALUE OF PLANT AND MACHINERY, 1937-38.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	4,110,590	1,539,527	267,218	234,786	185,306	167,445	6,504,872
II. Bricks, Pottery, Glass, etc. ..	1,640,039	874,913	142,856	181,556	151,489	28,623	3,019,476
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,652,973	2,753,463	108,795	834,676	855,845	46,174	6,251,926
IV. Industrial Metals, Machines, Implements and Conveyances ..	17,003,176	5,924,531	2,038,962	2,024,943	1,023,964	1,270,419	29,285,995
V. Precious Metals, Jewellery and Plate ..	65,378	112,801	4,799	8,978	3,143	1,553	196,652
VI. Textiles and Textile Goods ..	2,043,047	3,777,497	138,399	200,981	74,446	229,234	6,463,604
VII. Skins and Leather ..	346,297	364,347	102,439	21,913	63,567	1,676	900,239
VIII. Clothing ..	833,679	1,227,337	151,798	112,592	90,471	15,598	2,431,475
IX. Food, Drink and Tobacco ..	9,451,929	6,911,829	10,842,989	1,816,696	1,687,665	487,021	31,198,129
X. Woodworking and Basketware ..	1,039,361	942,945	830,642	201,046	495,624	249,935	3,759,553
XI. Furniture, Bedding, etc. ..	293,142	205,852	85,730	81,851	40,409	18,436	725,420
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,004,846	2,751,915	692,250	510,235	360,441	117,255	8,436,942
XIII. Rubber ..	58,338	831,481	51,573	14,314	8,595	5,999	1,470,300
XIV. Musical Instruments ..	4,932	4,915	243	185	475	..	10,750
XV. Miscellaneous Products ..	404,259	264,439	15,118	17,535	11,582	6,376	719,309
Total, Classes I. to XV.	43,451,986	28,467,792	15,473,811	6,262,287	5,053,022	2,645,744	101,374,642
XVI. Heat, Light and Power ..	13,770,707	8,380,497	2,260,789	3,140,505	2,406,503	2,030,943	31,989,944
Grand Total ..	57,222,693	36,863,289	17,734,600	9,402,792	7,459,525	4,676,687	133,364,586

4. **Depreciation of Land and Buildings and Plant and Machinery.**—The following table shows the allowance made for the depreciation of land and buildings and plant and machinery used in connexion with the manufacturing industries in each State during the year 1937-38.

ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, 1937-38.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	336,553	99,729	25,865	9,405	47,585	38,363	557,500
II. Bricks, Pottery, Glass, etc. ..	202,408	50,500	10,702	19,409	13,162	1,106	297,287
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	221,018	293,087	16,644	29,280	59,331	4,643	624,003
IV. Industrial Metals, Machines, Implements and Conveyances ..	1,129,957	523,259	164,531	231,871	53,134	144,253	2,247,005
V. Precious Metals, Jewellery and Plate ..	9,260	9,263	274	2,494	305	91	21,687
VI. Textiles and Textile Goods ..	185,057	411,556	7,340	18,598	2,129	27,991	652,671
VII. Skins and Leather ..	34,255	39,760	7,935	812	2,281	192	85,235
VIII. Clothing ..	91,364	124,371	11,118	7,094	6,508	846	241,301
IX. Food, Drink and Tobacco ..	722,866	546,778	623,274	155,691	110,881	39,418	2,198,906
X. Woodworking and Basketware ..	109,982	80,340	68,281	23,044	50,015	21,292	352,954
XI. Furniture, Bedding, etc. ..	26,115	21,302	9,798	7,241	4,152	1,297	69,905
XII. Paper, Stationery, Printing, Book-Binding, etc. ..	323,724	292,123	66,557	44,483	36,740	14,649	778,276
XIII. Rubber ..	79,482	77,398	4,553	1,872	1,095	772	165,172
XIV. Musical Instruments ..	4,562	253	11	..	48	..	4,874
XV. Miscellaneous Products ..	68,453	35,935	1,438	2,127	1,391	583	109,927
Total, Classes I. to XV. ..	3,545,056	2,605,654	1,018,321	553,421	388,757	295,496	8,406,705
XVI. Heat, Light and Power ..	565,606	1,006,427	171,910	21,841	92,664	51,757	1,910,205
Grand Total ..	4,110,662	3,612,081	1,190,231	575,262	481,421	347,253	10,316,910

§ 9. Individual Industries.

1. **General.**—The preceding pages afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed account in respect of all industries, particular industries which are of special importance by reason of the employment which they provide for labour and capital or other features of special interest are dealt with hereunder. Where there are only one or two establishments of a particular class in any State, returns of output are not published but are combined with some other factory group so that the operations of individual concerns will not be disclosed.

2. Chemicals, Drugs and Medicines.—(i) *Details for each State, 1937–38.* This industry is the most important in Class III. and details for each State during the year 1937–38 are shown in the following table:—

CHEMICALS, DRUGS AND MEDICINES, 1937–38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	121	67	13	11	11	5	228
Number of persons engaged ..	2,706	1,778	201	307	184	34	5,210
Value of land and buildings ..	£ 901,876	575,947	72,182	66,751	43,054	17,675	1,677,485
Value of plant and machinery ..	£ 494,975	379,900	38,948	60,996	139,247	6,436	1,119,602
Wages paid ..	£ 495,427	338,550	37,059	42,669	37,031	4,341	955,677
Value of fuel used ..	£ 64,544	33,137	4,354	7,375	10,351	119	119,880
Value of materials used ..	£ 1,831,484	985,081	107,471	202,395	81,620	11,845	3,219,896
Total value of output ..	£ 4,034,938	2,089,464	216,936	322,650	188,958	20,107	6,873,053
Value of production ..	£ 2,138,910	1,071,246	105,111	112,880	96,987	8,143	3,533,277

(ii) *Total for Australia, 1933–34 to 1937–38.* In the returns for Australia shown in the following table it will be seen that the industry has made consistent progress during each of the last four years:—

CHEMICALS, DRUGS AND MEDICINES: AUSTRALIA.

Items.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
Number of factories ..	190	203	214	225	228
Number of persons engaged ..	3,852	4,251	4,619	4,928	5,210
Value of land and buildings ..	£ 1,350,042	1,435,705	1,556,254	1,627,073	1,677,485
Value of plant and machinery ..	£ 832,532	929,216	986,700	1,080,969	1,119,602
Wages paid ..	£ 651,557	713,018	786,211	849,254	955,677
Value of fuel used ..	£ 84,127	90,732	99,376	107,240	119,880
Value of materials used ..	£ 2,287,226	2,441,380	2,751,056	2,948,550	3,219,896
Total value of output ..	£ 4,828,851	5,171,339	5,723,675	6,362,843	6,873,053
Value of production ..	£ 2,457,498	2,639,227	2,873,243	3,307,953	3,533,277

3. Soap and Candle Factories.—(i) *Details for each State, 1937–38.* The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained; the manufacture of soap is, however, the more important. The following table gives particulars of soap and candle factories in each State for the year 1937–38:—

SOAP AND CANDLE FACTORIES, 1937–38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories ..	27	18	10	4	4	2	65
Number of persons engaged ..	1,399	723	185	140	62	25	2,534
Value of land and buildings ..	£ 325,144	206,326	33,001	58,111	(a)	(a)	b 649,362
Value of plant and machinery ..	£ 198,719	255,201	26,007	51,656	(a)	(a)	b 556,427
Wages paid ..	£ 260,770	140,725	35,614	25,238	(a)	(a)	b 478,065
Value of fuel used ..	£ 25,811	37,997	3,563	2,898	(a)	(a)	b 72,670
Value of materials used ..	£ 902,255	611,824	104,846	93,180	(a)	(a)	b 1,787,068
Total value of output ..	£ 1,832,026	1,323,103	188,888	163,277	(a)	(a)	b 3,627,830
Value of production ..	£ 903,960	673,282	80,479	67,199	(a)	(a)	b 1,768,092

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Total for Australia, 1933-34 to 1937-38.* The next table gives similar particulars for the last five years for Australia :—

SOAP AND CANDLE FACTORIES : AUSTRALIA.

Items	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	71	67	66	66	65
Number of persons engaged	1,985	2,044	2,183	2,379	2,534
Value of land and buildings	£ 640,603	626,281	613,717	624,162	649,362
Value of plant and machinery	£ 573,905	530,298	514,845	484,225	556,427
Wages paid	£ 338,517	354,011	385,431	441,857	478,065
Value of fuel used	£ 58,741	56,774	56,340	63,368	72,670
Value of materials used	£ 1,365,699	1,445,528	1,689,835	1,858,810	1,787,068
Total value of output	£ 2,696,606	2,917,802	3,107,553	3,551,887	3,627,830
Value of production	£ 1,272,166	1,415,500	1,341,378	1,629,709	1,768,092

(iii) *Raw Material Used, and Production, 1933-34 to 1937-38.* The following statement shows the quantities of certain raw material used and the production in soap and candle factories in Australia for the last five years :—

SOAP AND CANDLE FACTORIES : RAW MATERIAL USED AND PRODUCTION, AUSTRALIA.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Tallow used cwt.	492,624	511,936	491,423	518,604	511,302
Alkali used "	264,576	264,147	288,461	227,028	218,171
Coco-nut oil used, Refined	80,150	92,952	125,548	124,236	137,134
and Unrefined "	891,832	932,252	954,082	986,578	952,507
Soap made "	51,598	48,398	39,937	37,991	26,964
Candles made "					

The output for the year 1937-38 comprised the following quantities of soap :— Household, 708,602 cwt. ; toilet, 124,600 cwt. ; sand, 82,685 cwt. ; soft, 16,592 cwt. ; and other, 20,028 cwt.

4. *Chemical Fertilizers.*—(i) *Details for each State, 1937-38.* The following table gives particulars of the factories engaged in the manufacture of chemical fertilizers in each State during the year 1937-38. Details of the consumption, imports and exports of fertilizers will be found in Chapter XIX. "Agriculture."

CHEMICAL FERTILIZERS, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	5	4	5	6	5	7	32
Number of persons engaged	288	1,022	93	651	385	35	2,474
Value of land and buildings	£ 109,211	543,560	14,062	220,856	499,221	47,145	1,424,055
Value of plant and machinery	£ 126,051	790,338	14,686	613,346	642,044	28,110	2,214,575
Wages paid	£ 77,953	250,754	20,749	141,947	101,913	6,631	599,947
Value of fuel used	£ 14,061	47,331	1,487	22,029	23,138	541	108,587
Value of materials used	£ 436,976	1,191,777	241,518	562,913	730,172	75,966	3,239,322
Total value of output	£ 746,789	1,842,903	318,382	843,552	1,053,517	99,240	4,904,383
Value of production	£ 295,752	603,795	75,377	258,610	300,207	22,733	1,556,474

(ii) *Total for Australia, 1933-34 to 1937-38.* The development of this industry since 1933-34 is set out hereunder:—

CHEMICAL FERTILIZERS: AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	34	33	33	34	32
Number of persons engaged	1,706	1,801	1,996	2,214	2,474
Value of land and buildings	£ 1,446,410	1,365,737	1,378,636	1,368,075	1,424,055
Value of plant and machinery	2,095,142	2,120,628	2,127,113	2,145,237	2,214,575
Wages paid	£ 364,726	386,277	442,052	493,345	599,947
Value of fuel used	86,137	84,028	88,670	94,340	108,587
Value of materials used	2,452,106	2,370,798	2,726,551	2,873,015	3,239,322
Total value of output	£ 3,577,732	3,440,860	3,906,041	4,375,565	4,904,383
Value of production	£ 1,039,489	986,034	1,090,814	1,408,210	1,556,474

5. **Agricultural Implement Works.**—(i) *General.* The manufacture of agricultural implements is of particular interest, owing to the extensive agricultural activities and to the fact that it was one of the first to which it was sought to apply the so-called "New Protection." The articles manufactured include stripper-harvesters, header harvesters or reaper threshers, strippers, reapers and binders, stump-jump and other ploughs, harrows, disc and other cultivators, winnowers, corn-shellers and baggers, drills, kerosene and petrol engines, and other implements employed in agriculture. The stripper harvester, which combines the stripper with a mechanism for winnowing and bagging grain, is an Australian invention, and is universally employed in the larger wheat-growing areas.

(ii) *Details for States, 1937-38.* The following table gives details respecting agricultural implement works in each State for the year 1937-38:—

AGRICULTURAL IMPLEMENT WORKS, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	27	80	9	35	9	..	160
Number of persons engaged	1,244	4,539	439	1,417	117	..	7,756
Value of land and buildings	£ 165,148	405,089	31,450	159,130	43,299	..	804,116
Value of plant and machinery	£ 85,734	401,625	58,397	181,651	2,364	..	729,771
Wages paid	£ 248,709	1,021,178	84,210	250,805	24,869	..	1,629,771
Value of fuel used	£ 12,303	69,417	6,191	16,618	646	..	105,175
Value of materials used	£ 296,312	1,196,131	71,416	320,511	10,756	..	1,904,156
Total value of output	£ 642,509	2,691,479	194,589	651,988	45,093	..	4,225,658
Value of production	£ 333,894	1,425,931	116,982	305,829	33,691	..	2,216,327

(iii) *Total for Australia, 1933-34 to 1937-38.* This industry declined considerably during the war years, but great progress was made thereafter. The fall in world prices of agricultural products resulted in a considerable slackening in employment and output during the years 1929-30 to 1934-35, but the industry has expanded considerably during the past three years. Details for each of the last five years are as follows:—

AGRICULTURAL IMPLEMENT WORKS: AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	139	139	143	148	160
Number of persons engaged	3,924	4,202	5,053	6,253	7,756
Value of land and buildings	£ 607,370	587,962	608,679	689,612	804,116
Value of plant and machinery	£ 562,396	562,345	600,915	683,642	729,771
Wages paid	£ 671,861	730,906	936,350	1,232,838	1,629,771
Value of fuel used	£ 53,365	59,001	66,518	85,229	105,175
Value of materials used	£ 799,197	875,754	1,121,478	1,457,599	1,904,156
Total value of output	£ 1,766,707	1,968,593	2,528,088	3,150,732	4,225,658
Value of production	£ 914,145	1,033,838	1,340,092	1,667,904	2,216,327

6. **Engineering Works.**—Formerly, it was impossible to show separate details for the engineering industry owing to the different classifications among the States, but since 1926-27 substantial uniformity has been attained.

The classification of establishments included in the Industrial Metal Group still presents some difficulty. This arises from the fact that some establishments are engaged in two or more distinct types of industrial activity. In such cases factory proprietors are asked to furnish separate returns for each activity, but this is not always practicable and consequently there is no alternative but to classify such factories according to their predominant activity. This difficulty is most acute in engineering works, but the following figures may be accepted as reasonably representative of the engineering industry, excluding the marine and electrical branches:—

ENGINEERING WORKS,(a) 1937-38.

Items.	N.S.W.	Victoria.	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	353	379	118	73	134	10	1,076
Number of persons engaged ..	10,119	9,621	2,942	1,647	1,651	281	26,261
Value of land and buildings £	1,342,849	1,463,773	341,310	148,141	235,758	47,557	3,579,388
Value of plant and machinery ..	£ 1,088,592	1,324,930	306,482	174,508	217,218	34,407	3,146,137
Wages paid ..	£ 2,288,116	2,101,080	615,090	263,817	359,352	59,277	5,686,732
Value of fuel used ..	£ 102,801	101,141	39,076	18,902	24,756	3,220	289,806
Value of materials used ..	£ 3,263,216	3,100,547	775,771	341,807	481,067	43,727	8,007,935
Total value of output ..	£ 7,000,010	6,594,994	1,748,757	783,349	1,179,887	130,263	17,437,260
Value of production ..	£ 3,633,993	3,393,306	933,910	422,640	673,164	83,316	9,140,329

(a) Excluding marine and electrical.

(b) Including establishments previously included with smelting, converting, refining and rolling of iron and steel.

In addition to engineering works which supply ordinary requirements, many establishments manufacture special classes of machinery and implements. The manufacture of mining, smelting and textile machinery and apparatus forms an important section of this industry.

7. **Smelting, Converting, Refining and Rolling of Iron and Steel.**—The extension of the classification noted in the preceding paragraph has made possible the separate publication of details for the group of industries comprised herein. This grouping includes ironworks, foundries, the making of iron safes and doors, steel castings, iron bedsteads, sash weights, steel window frames and sashes, nuts and bolts, springs, horse-shoes, screws, lifts, tools, brickmakers' implements and oxy-acetylene welding. Particulars for the year 1937-38 are as follows:—

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL, 1937-38.

Items.	N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	167	165	..	32	1	..	365
Number of persons engaged ..	13,643	4,643	..	1,729	102	..	20,117
Value of land and buildings ..	£ 2,467,177	595,912	..	(b)	(b)	..	c 3,192,711
Value of plant and machinery ..	£ 6,511,321	553,648	..	(b)	(b)	..	c 7,171,159
Wages paid ..	£ 3,499,385	943,547	..	(b)	(b)	..	c 4,749,266
Value of fuel used ..	£ 2,005,059	150,064	..	(b)	(b)	..	c 2,195,818
Value of materials used ..	£ 15,759,957	1,292,224	..	(b)	(b)	..	c17,426,485
Total value of output ..	£ 24,974,681	2,887,321	..	(b)	(b)	..	c28,684,124
Value of production ..	£ 7,209,665	1,445,033	..	(b)	(b)	..	c 9,061,821

(a) Now included with Engineering.

(b) Particulars not available for publication.

c) Including South Australia and Western Australia.

8. **Extracting and Refining of Non-ferrous Metals and Alloys.**—The following table gives particulars of metal extraction and ore reduction works, other than those connected with iron and steel. The returns do not include particulars of plants used on mines :—

EXTRACTING AND REFINING OF NON-FERROUS METALS AND ALLOYS, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories ..	10	7	18	2	1	4	42
Number of persons engaged ..	1,056	65	1,028	1,226	88	1,867	5,330
Value of land and buildings £	194,428	18,358	294,692	(b)	(b)	468,361	c 1,118,598
Value of plant and machinery ..	£ 687,304	6,000	900,970	(b)	(b)	1,113,207	c 3,259,996
Wages paid ..	£ 298,871	16,967	215,569	(b)	(b)	492,237	c 1,477,235
Value of fuel used ..	£ 187,375	2,636	169,981	(b)	(b)	199,032	c 656,613
Value of materials used ..	£ 8,150,273	171,033	1,522,201	(b)	(b)	1,466,818	c15,291,127
Total value of output ..	£ 9,680,236	209,058	2,575,756	(b)	(b)	3,206,121	c20,613,585
Value of production ..	£ 1,342,588	35,389	883,574	(b)	(b)	1,540,271	c 4,665,845

(a) In Western Australia the majority of the plants are worked on the mines, and are therefore not included. (b) Particulars not available for publication. (c) Including South Australia and Western Australia.

9. **Railway and Tramway Workshops.**—(i) *Details for each State, 1937-38.* The railway and tramway workshops which form an important item in Class IV. are chiefly State-owned institutions. The following table giving details concerning them includes, in addition, municipal establishments for manufacturing and repairing rolling-stock. Private institutions to the number of 9 in 1937-38 have, however, been excluded :—

TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC.(a), 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	37	24	12	16	20	7	116
Number of persons engaged ..	11,763	5,926	3,670	3,321	2,029	498	27,207
Value of land and buildings £	3,037,615	1,494,253	558,424	891,345	475,830	95,055	6,552,522
Value of plant and machinery ..	£ 2,397,036	1,128,458	374,341	767,826	390,739	51,199	5,109,599
Wages paid ..	£ 2,789,791	1,442,434	941,845	778,253	460,194	112,855	6,525,372
Value of fuel used ..	£ 93,152	54,119	27,835	26,110	19,076	6,201	226,493
Value of materials used ..	£ 2,171,180	1,330,683	593,212	598,348	316,105	23,464	5,032,992
Total value of output ..	£ 5,555,691	3,098,327	1,719,200	1,542,982	956,253	156,772	13,029,225
Value of production ..	£ 3,291,359	1,713,525	1,098,153	918,524	621,072	127,107	7,769,740

(a) Government and Municipal only.

A railway workshop in the Northern Territory is chiefly engaged in making repairs to rolling-stock, etc., no new goods being manufactured. Particulars in regard to this establishment are not included in any of the tables in this chapter.

(ii) *Total for Australia, 1933-34 to 1937-38.* The following table shows the development of railway and tramway workshops in Australia since 1933-34 :—

**TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC.(a) :
AUSTRALIA.**

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories ..	109	111	115	117	116
Number of persons engaged ..	23,911	24,487	25,678	26,649	27,207
Value of land and buildings ..	£ 6,294,948	6,414,562	6,436,465	6,533,264	6,552,522
Value of plant and machinery ..	£ 5,038,157	5,012,877	5,041,663	5,058,723	5,109,599
Wages paid ..	£ 4,835,444	5,166,904	5,585,710	5,967,787	6,525,372
Value of fuel used ..	£ 226,143	222,611	236,560	233,560	226,493
Value of materials used ..	£ 3,795,359	4,052,214	4,444,903	4,717,251	5,032,992
Total value of output ..	£ 9,096,428	10,248,401	11,455,618	12,002,430	13,029,225
Value of production ..	£ 5,884,926	5,973,576	6,774,155	7,051,628	7,769,740

(a) Government and Municipal only.

The growth of the railway and tramway systems resulted in corresponding activity in workshops engaged in the manufacture or repair of rolling-stock, etc. The economic depression practically restricted the industry to repair work during recent years, but there has been considerable expansion in the last three years.

10. Motor Vehicles and Cycles.—The industries catering for the motor trade are included in Class IV., "Industrial Metals, Machines, Implements and Conveyances." Returns in regard to assembling and repairing are shown hereunder for the year 1937-38:—

ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	1,151	1,008	321	172	338	108	3,098
Number of persons engaged ..	8,537	7,223	2,128	1,710	1,518	743	21,859
Value of land and buildings £	2,780,138	1,806,143	596,226	398,540	520,878	222,784	6,324,709
Value of plant and machinery £	543,775	447,423	137,560	92,422	111,880	41,461	1,374,521
Wages paid ..	£ 1,174,601	£ 1,363,495	372,239	272,221	262,433	104,780	3,849,769
Value of fuel used ..	£ 70,682	£ 65,958	17,035	12,714	15,184	3,767	185,340
Value of materials used ..	£ 1,320,442	£ 1,042,007	398,510	230,606	317,192	105,156	3,413,913
Total value of output ..	£ 3,878,700	£ 3,143,036	1,173,401	655,035	881,045	278,180	10,009,397
Value of production ..	£ 2,487,576	£ 2,035,071	757,856	411,715	548,669	169,257	6,410,114

Particulars in regard to motor body building for the year 1937-38 are as follows:—

MOTOR BODY BUILDING, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	54	89	37	13	12	..	205
Number of persons engaged ..	1,597	3,417	597	6,966	218	..	12,795
Value of land and buildings £	272,892	553,857	84,980	297,806	47,632	..	1,257,167
Value of plant and machinery £	47,356	264,909	24,709	136,355	11,919	..	485,248
Wages paid ..	£ 329,650	£ 735,823	106,032	1,493,246	40,545	..	2,710,396
Value of fuel used ..	£ 6,899	£ 15,576	3,029	46,892	1,566	..	73,962
Value of materials used ..	£ 390,264	£ 1,387,753	112,947	2,387,409	49,539	..	4,327,912
Total value of output ..	£ 841,035	£ 2,574,895	273,442	4,576,773	105,814	..	8,371,959
Value of production ..	£ 443,872	£ 1,171,566	157,466	2,142,472	54,709	..	3,970,085

The output of motor bodies for Australia is shown in the next table:—

MOTOR BODIES PRODUCED IN AUSTRALIA.

Items.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Motor Bodies—						
Number ..	13,532	26,302	45,445	67,357	(a) 77,250	(a) 94,091
Value ..	£ 1,100,504	£ 2,112,439	£ 4,180,586	£ 6,043,735	£ 6,461,314	£ 7,411,227

(a) Including Motor Bodies assembled.

The output of motor bodies in 1937-38 exceeded the previous maximum of 88,876 produced in 1926-27.

11. **Electrical Installations, Cables and Apparatus.**—(i) *Details for each State, 1937-38.* The following table shows particulars of this industry for each State during the year 1937-38 :—

ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	144	132	16	31	26	5	354
Number of persons engaged ..	6,495	3,592	171	626	142	28	11,054
Value of land and buildings ..	£ 906,752	476,449	37,575	84,444	55,425	9,810	1,570,455
Value of plant and machinery ..	£ 480,380	261,968	7,904	38,637	9,428	971	799,283
Wages paid	£ 1,130,330	622,911	33,411	100,335	24,892	3,469	1,915,348
Value of fuel used	£ 63,442	28,767	752	6,499	1,443	113	101,926
Value of materials used	£ 1,909,594	920,558	43,512	195,625	28,105	3,914	3,101,308
Total value of output	£ 3,967,211	1,973,704	93,650	371,999	76,084	10,873	6,494,421
Value of production	£ 1,994,175	1,023,379	49,386	169,965	47,436	6,846	3,291,187

(ii) *Total for Australia, 1933-34 to 1937-38.* The increased output of electrical energy in Australia during the past five years, referred to in par. 36 below, necessitated a corresponding demand for electrical equipment. As imports declined heavily during the depression years the local industry was called upon to furnish the bulk of the new supplies, and the result of its operations has been a remarkable development in the manufacture of electrical goods in Australia.

ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS : AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	275	280	294	318	354
Number of persons engaged ..	5,774	7,098	8,137	9,215	11,054
Value of land and buildings ..	£ 1,122,331	1,168,474	1,245,877	1,349,212	1,570,455
Value of plant and machinery ..	£ 666,988	659,005	660,504	687,740	799,283
Wages paid	£ 931,727	1,130,683	1,325,736	1,534,415	1,915,348
Value of fuel used	£ 63,881	67,565	73,780	85,782	101,926
Value of materials used	£ 1,383,137	1,716,974	2,059,502	2,385,154	3,101,308
Total value of output	£ 3,131,080	3,822,333	4,329,150	5,085,776	6,494,421
Value of production	£ 1,684,062	2,037,794	2,195,868	2,614,840	3,291,187

12. **Wireless Apparatus.**—The introduction of wireless broadcasting in 1923 gave rise to a new industry in Australia. Early statistical details of the industry are not available as they were grouped together with other electrical apparatus. In 1930-31, however, a new classification of factories was adopted and "Wireless Apparatus" was shown as a separate industry. The industry is confined, almost entirely, to the States of New South Wales and Victoria. The number of broadcast listeners' licences has increased from 331,128 in 1930-31 to 1,056,004 in 1937-38, and this increase is reflected in the advancement of the industry during that period :—

WIRELESS APPARATUS : AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	57	56	67	67	73
Number of persons engaged ..	2,625	3,366	3,943	4,643	5,519
Value of land and buildings ..	£ 238,940	292,594	378,103	468,164	549,254
Value of plant and machinery ..	£ 97,587	135,208	185,626	261,341	315,325
Wages paid	£ 295,792	400,789	493,314	610,291	791,907
Value of fuel used	£ 10,969	12,503	17,670	21,354	24,022
Value of materials used	£ 958,400	1,172,663	1,398,137	1,590,978	1,949,286
Total value of output	£ 1,589,093	1,859,050	2,243,159	2,640,206	3,247,472
Value of production	£ 619,724	673,884	827,352	1,027,874	1,274,164

The number of domestic receiving sets assembled in 1937-38 was 214,007.

13. **Woollen and Tweed Mills.**—(i) *Details for each State, 1937-38.* The manufacture of woollens and tweeds was established at an early period in Australian history and was under Government control, the first record in New South Wales dating back to 1801, when a few blankets were made by convicts, while manufacture in Victoria dates from 1867. The following table gives particulars for the year 1937-38 :—

WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1937-38.

Items.	N.S.W. (a)	Victoria.	Q'land.	S. Aust. (b)	W.A.	Tas.	Australia.
Number of factories	21	52	3	7	1	3	87
Number of persons engaged ..	6,487	9,813	477	791	140	1,395	19,103
Value of land and buildings ..	£ 769,665	1,284,491	(c)	106,915	(c)	213,008	d 2,435,114
Value of plant and machinery ..	£ 1,106,110	1,777,059	(c)	170,486	(c)	214,121	d 3,416,233
Wages paid	£ 935,364	1,402,586	(c)	119,644	(c)	202,007	d 2,741,729
Value of fuel used	£ 127,795	197,846	(c)	19,288	(c)	20,888	d 379,380
Value of materials used	£ 2,656,712	3,997,134	(c)	688,410	(c)	532,652	d 8,046,352
Total value of output	£ 4,238,429	6,325,824	(c)	854,021	(c)	953,209	d 12,618,132
Value of production	£ 1,453,922	2,130,844	(c)	146,323	(c)	349,669	d 4,192,400

(a) Woolscouring not included. (b) Includes Fellmongery. (c) Particulars not available for publication. (d) Including Queensland and Western Australia.

(ii) *Total for Australia, 1933-34 to 1937-38.* The extent of the woollen and tweed milling industry in Australia during the last five years is shown in the following table :—

WOOLLEN AND TWEED MILLS (INCLUDING WOOLSCOURING) : AUSTRALIA.

Items.	1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (a)	1937-38. (a)
Number of factories	98	103	94	90	87
Number of persons engaged ..	17,546	17,486	19,693	19,239	19,103
Value of land and buildings ..	£ 2,350,997	2,335,913	2,455,141	2,412,499	2,435,114
Value of plant and machinery ..	£ 3,306,464	3,239,780	3,343,968	3,474,275	3,416,233
Wages paid	£ 2,233,024	2,234,513	2,612,723	2,514,293	2,741,729
Value of fuel used	£ 398,192	380,134	393,775	357,777	379,380
Value of materials used	£ 7,401,246	6,504,841	7,548,122	7,734,520	8,046,352
Total value of output	£ 11,635,920	10,712,076	12,545,067	12,283,298	12,618,132
Value of production	£ 3,836,482	3,827,101	4,603,170	4,191,001	4,192,400

(a) Excluding Woolscouring in New South Wales.

(iii) *Quantity and Value of Production.* The production consists chiefly of tweed cloths, flannels, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability. Detailed particulars for the several States are not available for publication. The total length of tweed and cloth manufactured in Australia in 1937-38 was 24,783,956 square yards. In New South Wales 10,690,302 square yards and in Victoria 12,969,328 square yards of tweed and cloth were manufactured. The production of flannel amounted to 4,621,113 yards, while blankets, shawls and rugs to the number of 1,270,863 were made.

Cotton ginning has been carried on intermittently in the Northern States, and the recent development in cotton growing has led to the establishment of modern ginning plants at convenient centres in Queensland. In New South Wales the first establishment for the manufacture of cotton goods was erected in 1923-24. The number of establishments treating cotton in Australia during 1937-38 was 31, the number of persons engaged 3,380, and the value of the output £2,487,521.

14. **Hosiery and Other Knitted Goods.**—(i) *Details for each State, 1937-38.* In addition to the woollen and tweed factories, there were 306 hosiery and knitting mills operating in Australia during the year 1937-38. The total number of persons engaged

in these establishments was 18,230 of which 12,856 were females. Details for each State are shown hereunder:—

HOSIERY AND OTHER KNITTED GOODS, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	76	216	1	7	3	3	306
Number of persons engaged ..	5,452	12,391	144	65	87	91	18,230
Value of land and buildings ..	£ 660,426	1,157,824	(a)	(a)	8,699	12,330	b1,861,884
Value of plant and machinery ..	£ 624,258	1,265,179	(a)	(a)	8,018	15,000	b2,926,882
Wages paid ..	£ 710,391	1,575,944	(a)	(a)	8,613	7,744	b2,319,355
Value of fuel used ..	£ 35,184	89,823	(a)	(a)	467	740	b 126,949
Value of materials used ..	£ 1,531,525	2,890,513	(a)	(a)	21,260	17,220	b4,508,691
Total value of output ..	£ 2,738,377	5,655,022	(a)	(a)	35,905	30,493	b8,534,886
Value of production ..	£ 1,171,668	2,674,686	(a)	(a)	14,178	12,533	b3,899,246

(a) Particulars not available for publication.

(b) Including Queensland and South Australia.

(ii) *Total for Australia, 1933-34 to 1937-38.* Comparative statistics for the five years are shown in the following table:—

HOSIERY AND OTHER KNITTED GOODS: AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories ..	320	310	314	297	306
Number of persons engaged ..	13,950	14,493	15,692	16,932	18,230
Value of land and buildings ..	£ 1,668,748	1,676,897	1,791,583	1,842,226	1,861,884
Value of plant and machinery ..	£ 1,620,528	1,654,979	1,711,536	1,901,624	1,926,882
Wages paid ..	£ 1,592,378	1,624,414	1,819,265	2,017,903	2,319,355
Value of fuel used ..	£ 100,989	107,812	113,773	110,334	126,949
Value of materials used ..	£ 3,420,858	3,506,659	3,768,336	3,978,863	4,508,691
Total value of output ..	£ 6,651,293	6,561,114	7,327,363	7,700,079	8,534,886
Value of production ..	£ 3,129,446	2,946,643	3,445,254	3,610,382	3,899,246

(iii) *Raw Material used and Production, 1937-38.* The main raw materials consumed in establishments manufacturing hosiery and knitted goods during the year 1937-38 consisted of woollen yarn, 5,849,124 lb.; cotton yarn, 6,220,642 lb.; silk yarn, 1,688,366 lb.; and artificial silk yarn, 5,582,276 lb. Production comprised 32,079,216 garments, valued at £4,040,467; 2,204,344 dozen pairs of stockings, valued at £2,831,293; and 1,664,418 dozen pairs of socks, valued at £1,096,746.

15. *Tanning, Currying and Leather Dressing.*—(i) *Details for each State, 1937-38.* In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser sorts of leathers, but there are now very few kinds which cannot be produced locally, and an export trade has been built up in some varieties.

TANNING, CURRYING AND LEATHER DRESSING, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories ..	61	40	14	8	7	1	131
Number of persons engaged ..	1,587	2,316	330	73	88	6	4,400
Value of land and buildings ..	£ 299,305	420,363	33,443	(a)	38,849	(a)	b 812,051
Value of plant and machinery ..	£ 207,137	241,226	33,220	(a)	25,987	(a)	b 524,125
Wages paid ..	£ 336,196	481,272	65,182	(a)	17,583	(a)	b 911,835
Value of fuel used ..	£ 29,869	51,587	5,612	(a)	1,581	(a)	b 89,699
Value of materials used ..	£ 1,447,800	1,654,513	278,468	(a)	86,172	(a)	b3,502,252
Total value of output ..	£ 2,955,427	2,436,346	391,421	(a)	127,720	(a)	b5,064,188
Value of production ..	£ 577,758	739,246	107,341	(a)	39,964	(a)	b1,472,237

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Total for Australia, 1933-34 to 1937-38.* The development of the tanning industry during the years stated is shown in the following table :—

TANNING, CURRYING AND LEATHER DRESSING : AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	153	143	135	132	131
Number of persons engaged	4,039	4,142	4,433	4,467	4,400
Value of land and buildings	£ 766,014	774,393	748,897	785,191	812,051
Value of plant and machinery	£ 504,314	506,190	513,872	504,296	524,125
Wages paid	£ 659,870	723,711	810,742	858,610	911,835
Value of fuel used	£ 81,615	82,244	84,682	85,330	89,699
Value of materials used	£ 2,818,421	2,764,343	3,099,679	3,478,457	3,502,252
Total value of output	£ 4,110,056	4,080,442	4,632,662	5,091,033	5,064,188
Value of production	£ 1,210,020	1,233,855	1,448,301	1,527,246	1,472,237

(iii) *Raw Material Used and Production, 1937-38.* The quantities of raw material used and leather produced in tanneries in each State are shown in the following table :—

TANNERIES : RAW MATERIAL USED AND PRODUCTION, 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Hides No.	609,415	900,049	142,625	(a)	51,056	(a)	b 1,731,446
Skins—							
Calf	514,977	430,347	150,365	1,232	494	..	1,097,415
Goat	753,874	419,589	7,862	673	442	..	1,182,440
Sheep	1,316,609	110,586	..	..	940	..	1,428,135
Marsupial	(a)	30,856	58,644	(a)	3,334	..	b 102,685
Reptile	(a)	(a)	(a)	..	..	..	b 4,494
Other pelts treated	2,471,676	(a)	(a)	..	157	..	b 3,189,733
Bark used—							
Wattle ton	8,439	7,989	1,752	(a)	293	(a)	b 18,789
Other	348	2,220	..	1	474	..	3,043
Tanning extract used lb.	5,297,600	2,125,455	1,166,643	(a)	769,922	(a)	b 9,379,906
Leather made—							
Sole	10,266,984	13,030,832	2,733,893	(a)	1,394,636	(a)	27,573,241
Harness	809,403	332,069	418,793	71,184	81,110	..	1,712,559
Upholstery sq. ft.	(a)	6,375,558	..	(a)	..	..	b 8,931,936
Dressed and Upper from Hides—							
Sold by Measurement—							
Patent sq. ft.	971,350	2,550,488	..	..	..	..	3,521,838
All Other	5,476,578	10,834,518	1,869,695	337,760	130,204	..	b 18,648,755
Sold by Weight—							
Waxed Kip lb.	(a)	15,060	35,719	(a)	26,406	(a)	b 181,962
All Other	(a)	147,637	93,963	134,133	15,383	(a)	b 525,007
Dressed from skins—							
Calf sq. ft.	4,658,225	3,070,500	1,496,544	6,657	3,232	..	9,235,248
Goat	3,612,915	1,712,564	41,710	4,863	2,329	..	5,374,381
Sheep	7,943,453	(a)	(a)	..	..	..	b 10,612,242
Marsupial	(a)	129,027	264,831	(a)	11,954	..	424,390

(a) Not available for publication.

(b) Including particulars for States marked (a).

16. *Boot Factories.*—(i) *Boot and Shoe Factories, 1937-38.* The boot and shoe industry holds an important place both in regard to employment afforded and extent of output. The operations of these factories have been rather obscured in recent years by the inclusion of a large number of repair establishments in the returns, but this difficulty has been overcome by the collection of separate statistics for each industry, and in the following table the details relate to boot and shoe factories as distinct from those devoted to repairing and bespoke work :—

BOOT AND SHOE FACTORIES, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	93	162	23	15	10	4	307
Number of persons engaged	5,432	9,497	849	553	351	71	16,753
Value of land and buildings	£ 435,672	576,676	37,496	57,365	43,459	9,200	1,159,868
Value of plant and machinery	£ 233,678	480,611	68,249	44,932	24,810	6,215	858,504
Wages paid	£ 781,306	1,440,428	115,725	71,142	45,569	10,120	2,404,290
Value of fuel used	£ 15,409	30,059	1,887	1,928	1,147	246	50,676
Value of materials used	£ 1,392,520	2,528,554	189,375	123,881	97,359	15,438	4,347,127
Total value of output	£ 2,563,647	4,603,609	358,219	226,589	169,129	27,579	7,948,772
Value of production	£ 1,155,718	2,044,996	166,957	100,780	70,623	11,895	3,550,969

(ii) *Boot Repairing, including Bespoke Work.* The introduction of small power plants in repairing shops has brought this class of establishment within the meaning of a factory for statistical purposes. Shops using small power plants have spread rapidly throughout Australia, and in 1937-38 the number amounted to 1,312 in which 2,294 persons were engaged in the industry. The sum of £152,709 was distributed in salaries and wages, and the output was valued at £819,255.

(iii) *Quantity and Value of Production.* The number and value of boots, shoes and slippers made at factories in each State are shown in the following table:—

BOOT AND SHOE FACTORIES : OUTPUT, 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY.							
Boots and shoes pairs	4,617,821	7,877,630	639,014	534,293	374,668	50,672	14,094,098
Slippers	3,234,895	4,378,935	(b)	(b)	222,129	..	8,234,992
Uppers (a)	18,355	14,267	102,012	(b)	152	(b)	141,384
VALUE.							
Boots and shoes	£ 2,215,389	3,931,982	313,780	216,357	133,132	26,822	6,837,462
Slippers	£ 336,527	555,495	(b)	(b)	32,299	..	954,681
Uppers (a)	£ 6,490	7,197	13,125	(b)	79	(b)	29,218

(a) Made for other than factory use.

(b) Not available for publication.

(c) Including particulars for States marked (b).

17. *Tailoring and Slop Clothing Factories.*—(i) *Details for each State, 1937-38.* The importance of this industry in the several States is shown in the following table:—

TAILORING AND SLOP CLOTHING FACTORIES, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	428	394	122	120	82	26	1,172
Number of persons engaged	12,036	8,513	2,872	1,974	969	401	26,765
Value of land and buildings	£ 1,467,942	846,068	287,713	255,409	177,530	65,647	3,100,309
Value of plant and machinery	£ 145,244	126,592	27,304	17,115	12,636	3,923	332,814
Wages paid	£ 1,389,308	1,054,139	302,227	192,432	115,145	41,442	3,094,693
Value of fuel used	£ 26,200	24,771	6,995	5,574	2,570	724	66,834
Value of materials used	£ 2,156,226	2,175,244	393,540	209,179	143,153	45,926	5,123,268
Total value of output	£ 4,258,209	3,688,535	903,195	501,549	337,935	111,890	9,801,313
Value of production	£ 2,075,783	1,488,520	502,660	286,796	192,212	65,240	4,611,211

(ii) *Total for Australia, 1933-34 to 1937-38.* Details for the last five years are as follows:—

TAILORING AND SLOP CLOTHING FACTORIES : AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	1,040	1,115	1,157	1,163	1,172
Number of persons engaged	20,951	23,579	24,877	25,546	26,765
Value of land and buildings	£ 2,516,492	2,776,968	2,885,076	3,053,302	3,100,309
Value of plant and machinery	£ 273,000	316,908	327,333	317,812	332,814
Wages paid	£ 2,126,826	2,446,429	2,578,597	2,732,213	3,094,693
Value of fuel used	£ 51,887	56,857	58,556	61,097	66,834
Value of materials used	£ 4,112,707	4,573,477	4,826,010	4,796,324	5,123,268
Total value of output	£ 7,627,067	8,407,294	8,939,837	9,138,302	9,801,313
Value of production	£ 3,462,473	3,776,960	4,055,271	4,280,881	4,611,211

18. Dressmaking and Millinery Establishments.—(i) *Details for each State, 1937-38.* Particulars of dressmaking and millinery establishments are given separately in the following tables:—

DRESSMAKING ESTABLISHMENTS, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	111	476	39	46	41	6	719
Number of persons engaged ..	1,538	8,397	857	882	721	37	12,432
Value of land and buildings ..	£ 244,328	£ 1,128,381	£ 73,586	£ 63,223	£ 74,120	£ 3,580	£ 1,587,218
Value of plant and machinery ..	£ 12,507	£ 100,529	£ 9,991	£ 9,699	£ 13,840	£ 292	£ 146,918
Wages paid ..	£ 141,084	£ 870,532	£ 72,208	£ 59,947	£ 59,105	£ 2,860	£ 1,205,736
Value of fuel used ..	£ 1,989	£ 16,310	£ 1,323	£ 1,703	£ 1,020	£ 31	£ 22,376
Value of materials used ..	£ 120,949	£ 1,784,101	£ 107,325	£ 72,122	£ 78,671	£ 1,438	£ 2,164,606
Total value of output ..	£ 330,875	£ 3,086,234	£ 225,055	£ 168,560	£ 163,272	£ 5,128	£ 3,979,124
Value of production ..	£ 207,937	£ 1,285,823	£ 116,407	£ 94,735	£ 83,581	£ 3,659	£ 1,792,142

(a) Includes Millinery.

MILLINERY ESTABLISHMENTS, 1937-38.

Items	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	59	62	14	8	9	..	152
Number of persons engaged ..	1,710	1,364	520	304	96	..	3,994
Value of land and buildings ..	£ 222,932	£ 137,037	£ 39,334	£ 19,985	£ 16,865	..	£ 436,153
Value of plant and machinery ..	£ 16,405	£ 21,341	£ 5,045	£ 2,232	£ 2,012	..	£ 47,635
Wages paid ..	£ 167,731	£ 136,112	£ 42,270	£ 26,827	£ 9,555	..	£ 382,495
Value of fuel used ..	£ 5,019	£ 3,134	£ 668	£ 750	£ 210	..	£ 9,781
Value of materials used ..	£ 310,474	£ 210,752	£ 55,528	£ 41,812	£ 18,012	..	£ 636,578
Total value of output ..	£ 623,238	£ 460,596	£ 121,468	£ 86,037	£ 32,520	..	£ 1,323,859
Value of production ..	£ 307,745	£ 246,710	£ 65,272	£ 43,475	£ 14,293	..	£ 677,500

(a) Included in Dressmaking.

(ii) *Total for Australia, 1933-34 to 1937-38.* Particulars of dressmaking and millinery establishments in Australia for the last five years are shown in the following table:—

DRESSMAKING AND MILLINERY ESTABLISHMENTS: AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories ..	812	854	863	830	871
Number of persons engaged ..	14,212	15,166	15,683	15,635	16,426
Value of land and buildings ..	£ 1,795,265	£ 1,898,295	£ 1,897,903	£ 2,031,277	£ 2,013,371
Value of plant and machinery ..	£ 176,845	£ 177,241	£ 180,934	£ 179,699	£ 194,553
Wages paid ..	£ 1,237,581	£ 1,316,645	£ 1,391,348	£ 1,441,226	£ 1,588,231
Value of fuel used ..	£ 27,205	£ 28,225	£ 30,245	£ 30,178	£ 32,157
Value of materials used ..	£ 2,327,141	£ 2,439,034	£ 2,559,119	£ 2,557,612	£ 2,801,184
Total value of output ..	£ 4,298,999	£ 4,534,059	£ 4,869,311	£ 4,965,632	£ 5,302,983
Value of production ..	£ 1,944,653	£ 2,066,800	£ 2,279,947	£ 2,377,844	£ 2,469,642

19. Shirts, Collars and Underclothing.—(i) Details for each State, 1937-38. Particulars of this industry are shown in the subjoined table :—

SHIRTS, COLLARS AND UNDERCLOTHING, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories	126	109	17	24	13	..	289
Number of persons engaged ..	4,463	4,763	841	525	542	..	11,134
Value of land and buildings ..	£ 353,348	£ 433,920	£ 51,438	£ 36,755	£ 35,022	..	£ 910,595
Value of plant and machinery ..	£ 74,348	£ 126,311	£ 10,033	£ 7,933	£ 11,172	..	£ 229,797
Wages paid	£ 421,221	£ 513,136	£ 68,371	£ 42,798	£ 50,287	..	£ 1,096,013
Value of fuel used	£ 7,840	£ 12,662	£ 1,379	£ 1,129	£ 835	..	£ 23,845
Value of materials used	£ 1,182,106	£ 1,376,094	£ 110,205	£ 60,216	£ 60,046	..	£ 2,788,667
Total value of output	£ 1,825,993	£ 2,244,038	£ 208,802	£ 122,139	£ 121,907	..	£ 4,522,879
Value of production	£ 636,047	£ 855,282	£ 97,218	£ 60,794	£ 61,026	..	£ 1,710,367

(ii) Total for Australia, 1933-34 to 1937-38. The following table shows the progress of the industry since 1933-34 :—

SHIRTS, COLLARS AND UNDERCLOTHING : AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	307	314	308	298	289
Number of persons engaged ..	10,444	10,925	11,214	11,116	11,134
Value of land and buildings ..	£ 836,660	£ 872,923	£ 842,866	£ 871,522	£ 910,595
Value of plant and machinery ..	£ 224,827	£ 235,546	£ 253,736	£ 251,396	£ 229,797
Wages paid	£ 850,459	£ 929,192	£ 1,001,615	£ 1,029,221	£ 1,096,013
Value of fuel used	£ 22,812	£ 22,947	£ 22,844	£ 23,692	£ 23,845
Value of materials used	£ 2,506,226	£ 2,663,522	£ 2,708,887	£ 2,599,519	£ 2,788,667
Total value of output	£ 3,879,571	£ 4,174,304	£ 4,311,566	£ 4,252,677	£ 4,522,879
Value of production	£ 1,350,533	£ 1,487,835	£ 1,579,835	£ 1,629,466	£ 1,710,367

20. Bacon-curing Factories.—(i) Details for each State, 1937-38. The table hereunder gives particulars of factories engaged in bacon-curing in each State for the year 1937-38 :—

BACON-CURING FACTORIES, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
Number of factories	24	19	10	5	9	7	77
Number of persons engaged ..	373	545	704	241	109	53	2,025
Value of land and buildings ..	£ 145,169	£ 234,167	£ 222,702	£ 99,291	£ 27,648	£ 23,484	£ 752,461
Value of plant and machinery ..	£ 57,649	£ 127,766	£ 116,097	£ 31,905	£ 14,766	£ 7,739	£ 355,972
Wages paid	£ 90,749	£ 119,866	£ 158,956	£ 59,344	£ 23,868	£ 10,645	£ 434,928
Value of fuel used	£ 12,597	£ 19,165	£ 27,197	£ 8,010	£ 4,536	£ 1,493	£ 72,318
Value of materials used	£ 864,486	£ 805,189	£ 1,153,300	£ 318,338	£ 241,767	£ 80,182	£ 3,468,262
Total value of output	£ 1,091,006	£ 1,010,253	£ 1,532,218	£ 434,360	£ 282,871	£ 108,768	£ 4,489,976
Value of production	£ 214,013	£ 215,899	£ 346,721	£ 108,512	£ 36,568	£ 27,183	£ 948,896

(ii) *Quantity and Value of Production.* The number of pigs cured and the quantity and value of the production of bacon-curing factories in each State for the year 1937-38 are given hereafter :—

BACON-CURING FACTORIES : PIGS CURED AND PRODUCTION, 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
PIGS CURED.							
Number	251,843	171,721	234,964	59,634	49,765	20,147	788,074
PRODUCTS.							
Bacon and ham .. '000 lb.	20,796	16,006	19,902	5,851	4,356	2,086	68,997
Lard "	810	842	988	215	258	88	3,201
VALUE.							
Bacon and ham (a) .. £	984,641	782,476	914,786	283,032	210,776	77,723	3,253,434
Lard £	19,390	28,452	25,643	5,751	7,719	2,683	89,638
Other products .. £	200,115	231,371	593,903	146,666	64,343	28,999	1,265,397

(a) Estimated.

Bacon and ham and other pig products are dealt with more fully in Chapter XX. "Farmyard, Dairy and Bee Products."

21. *Butter, Cheese and Condensed Milk Factories.*—(i) *Details for each State, 1937-38.* The subjoined table gives particulars of butter, cheese and condensed milk factories in each State during the year 1937-38 :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories ..	132	172	104	47	21	44	520
Number of persons engaged ..	1,477	3,017	1,186	534	201	240	6,655
Value of land and buildings .. £	663,821	1,157,183	620,670	188,829	80,070	69,090	2,779,663
Value of plant and machinery .. £	772,880	1,183,201	731,515	134,785	84,501	70,758	2,977,640
Wages paid £	356,604	684,200	267,088	97,567	43,761	37,560	1,486,780
Value of fuel used £	91,432	172,079	55,991	22,924	12,484	7,307	362,217
Value of materials used .. £	7,214,904	9,919,653	7,061,676	1,540,504	875,283	575,330	27,187,350
Total value of output .. £	7,994,344	12,407,723	7,709,112	1,765,509	1,047,856	731,912	31,656,156
Value of production £	688,008	2,315,991	591,445	201,781	160,089	149,275	4,106,589

(ii) *Total for Australia, 1933-34 to 1937-38.* The progress of this industry during the last five years is set out hereunder :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES : AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	531	544	517	517	520
Number of persons engaged ..	5,967	6,151	6,062	6,226	6,655
Value of land and buildings .. £	2,577,138	2,616,769	2,635,863	2,733,273	2,779,663
Value of plant and machinery .. £	2,775,355	2,779,468	2,849,645	2,938,110	2,977,640
Wages paid £	1,202,397	1,251,418	1,265,898	1,332,911	1,486,780
Value of fuel used £	311,261	320,073	310,260	335,451	362,217
Value of materials used £	17,387,974	20,182,321	22,627,448	21,995,736	27,187,350
Total value of output £	20,809,678	23,376,685	25,869,089	25,434,496	31,656,156
Value of production £	3,110,443	2,874,291	2,931,381	3,103,309	4,106,589

(iii) *Quantity and Value of Production.* The next table shows the quantities and values of butter, cheese and condensed milk produced in factories and the quantities of milk used in the manufacture of butter, cheese and condensed milk during the year 1937-38:—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES: PRODUCTION, 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
MILK USED (,000 OMITTED).							
For the manufacture of—							
Butter gals.	230,540	301,621	236,254	34,869	29,256	17,560	850,100
Cheese "	7,710	16,423	10,160	14,822	830	3,466	53,411
Condensed, &c., Milk ..	4,221	26,789	(a)	(a)	(a)	..	(b) 32,816
PRODUCTS (,000 OMITTED).							
Butter lb.	115,930	137,016	114,941	18,923	13,702	9,207	409,719
Cheese "	7,701	16,032	10,550	15,517	884	3,555	54,239
Condensed and concentrated milk lb.	5,606	32,196	(a)	(a)	(a)	..	(b) 45,549
Powdered milk "	1,951	19,869	..	..	..	..	21,820
VALUE (,000 OMITTED).							
Butter £	7,175	8,496	7,156	1,156	904	586	25,473
Cheese £	337	554	335	503	39	121	1,889
Condensed and concentrated milk £	122	734	(a)	(a)	(a)	..	(b) 1,024
Powdered milk £	100	541	..	..	..	..	641

(a) Particulars not available for publication.

(b) Includes States marked (a).

The butter, cheese and condensed milk industries are dealt with more fully in Chapter XX. "Farmyard, Dairy and Bee Products."

22. *Meat and Fish Preserving Works.*—The industries included in this group are engaged chiefly in the freezing and preserving of meat. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, while insulated space for the carriage of chilled and frozen produce is provided by steamship companies trading between Australia and other parts of the world. The substitution of the export of chilled for frozen meat has already been referred to in Chapter XVIII. "Pastoral Production."

MEAT AND FISH PRESERVING WORKS,(a) 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	7	8	11	..	2	..	28
Number of persons engaged ..	213	255	3,068	..	120	..	3,656
Value of land and buildings £	(b)	64,043	1,420,622	..	(b)	..	(c) 1,926,191
Value of plant and machinery £	(b)	24,143	814,034	..	(b)	..	(c) 1,262,995
Wages paid £	(b)	36,792	936,489	..	(b)	..	(c) 1,073,335
Value of fuel used £	(b)	3,691	120,066	..	(b)	..	(c) 138,206
Value of materials used £	(b)	243,777	5,596,588	..	(b)	..	(c) 6,154,338
Total value of output £	(b)	342,400	6,949,014	..	(b)	..	(c) 7,815,029
Value of production £	(b)	94,932	1,232,360	..	(b)	..	(c) 1,522,485

(a) Including meat extracts.
New South Wales and Western Australia.

(b) Particulars not available for publication.

(c) Including

Particulars regarding the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in Chapter XVIII. "Pastoral Production."

23. **Bakeries.**—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1937-38 is given in the table below. It should be noted, however, that, as explained in § 1 par. 2 above the details refer to establishments coming within the definition of a factory. For that reason there are a large number of bakehouses omitted and consequently the table does not give complete details of the industry. This is true of all other industries covered by the statistics of manufacturing production but, in view of the omission of such a large number of establishments in this instance, special mention of this fact is deemed desirable.

BAKERIES (INCLUDING CAKES AND PASTRY), 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	652	549	253	129	130	73	1,786
Number of persons engaged ..	4,060	3,213	1,301	894	541	1,154	11,223
Value of land and buildings ..	£ 2,171,982	£ 1,184,892	£ 477,113	£ 243,455	£ 183,391	£ 288,802	£ 4,549,635
Value of plant and machinery ..	£ 585,500	£ 376,595	£ 153,979	£ 97,477	£ 50,800	£ 85,293	£ 1,349,644
Wages paid ..	£ 741,726	£ 532,169	£ 207,686	£ 136,941	£ 85,169	£ 157,131	£ 1,860,822
Value of fuel used ..	£ 120,068	£ 87,231	£ 30,528	£ 18,797	£ 13,622	£ 15,691	£ 285,937
Value of materials used ..	£ 2,340,524	£ 1,947,531	£ 784,399	£ 462,096	£ 339,392	£ 517,845	£ 6,391,757
Total value of output ..	£ 4,069,273	£ 3,235,506	£ 1,336,541	£ 789,377	£ 561,611	£ 811,786	£ 10,804,094
Value of production ..	£ 1,608,681	£ 1,200,744	£ 521,644	£ 308,494	£ 208,597	£ 278,250	£ 4,126,400

(a) Includes Confectionery.

24. **Jam and Fruit Preserving Pickles, Sauces and Vinegar Factories.**—(i) *Details for each State, 1937-38.* The subjoined table gives particulars of factories included in this class for the year 1937-38. One establishment engaged in meat preserving has been included in the details shown for Tasmania in order that confidential information may not be disclosed.

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	30	46	13	15	7	10	121
Number of persons engaged ..	1,563	3,225	479	486	68	775	6,596
Value of land and buildings ..	£ 336,183	£ 682,800	£ 38,547	£ 122,006	£ 14,585	£ 114,893	£ 1,309,014
Value of plant and machinery ..	£ 186,996	£ 354,841	£ 32,208	£ 52,247	£ 4,862	£ 34,709	£ 665,863
Wages paid ..	£ 270,756	£ 570,468	£ 78,861	£ 69,999	£ 9,064	£ 144,042	£ 1,143,190
Value of fuel used ..	£ 23,008	£ 45,911	£ 5,486	£ 6,407	£ 864	£ 11,379	£ 93,055
Value of materials used ..	£ 1,047,266	£ 2,328,085	£ 486,010	£ 257,083	£ 33,112	£ 419,663	£ 4,571,219
Total value of output ..	£ 1,717,161	£ 3,533,091	£ 612,114	£ 411,664	£ 59,821	£ 640,440	£ 6,974,291
Value of production ..	£ 646,887	£ 1,159,095	£ 120,618	£ 148,174	£ 25,845	£ 209,398	£ 2,310,017

(ii) *Total for Australia, 1933-34 to 1937-38.* Particulars in connexion with these establishments in Australia for the last five years are given hereunder:—

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES: AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories ..	120	122	125	121	121
Number of persons engaged ..	4,895	5,213	5,773	5,906	6,596
Value of land and buildings ..	£ 1,032,409	£ 1,103,291	£ 1,125,204	£ 1,218,132	£ 1,309,014
Value of plant and machinery ..	£ 525,199	£ 521,800	£ 549,413	£ 598,126	£ 665,863
Wages paid ..	£ 722,265	£ 795,621	£ 929,792	£ 971,768	£ 1,143,190
Value of fuel used ..	£ 65,724	£ 78,144	£ 89,227	£ 87,010	£ 93,055
Value of materials used ..	£ 2,831,602	£ 3,312,257	£ 3,965,338	£ 4,177,792	£ 4,571,219
Total value of output ..	£ 4,634,959	£ 5,428,876	£ 6,276,112	£ 6,298,642	£ 6,974,291
Value of production ..	£ 1,737,033	£ 2,038,475	£ 2,221,547	£ 2,033,831	£ 2,310,017

The progress of the jam-making industry was very marked during the war years of 1914-18, when large quantities were exported overseas for the supply of army requirements. In the year 1918-19 the production amounted to 142,290,000 lb., but on the termination of hostilities in 1918 the quantity declined to 90,140,000 lb. in 1920-21. During the succeeding years the production of jam varied considerably, falling to 66,120,000 lb. in 1930-31 and subsequently improving to 90,302,000 lb. in 1935-36. In 1937-38 the output of preserved fruit reached the record figure of 157,761,000 lb., or more than 30,000,000 lb. in excess of the previous maximum in 1936-37. The production of pickles and sauces again showed a satisfactory improvement.

(iii) *Production.* The following table shows the quantity and value of jams, pickles and sauces manufactured in each State in 1937-38:—

JAMS, PRESERVED FRUIT, PICKLES AND SAUCES: OUTPUT, 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Jams and Jellies .. lb.	20,996	30,827	6,561	7,347	965	14,430	81,126
Fruit Pulp—							
Consumed in own works .. lb.	10	29	1	14	5	1	60
For sale or addition to stock .. lb.	14	153	3	21	4	108	303
Tomato Pulp—							
Consumed in own works .. lb.	13	56	..	16	4	..	89
For sale or addition to stock .. lb.	12	173	1	8	6	7	207
Fruit, preserved ..	27,004	102,487	4,989	18,038	14	5,229	157,761
Pickles .. pints	1,681	3,031	108	1,443	186	3	6,452
Sauces ..	7,096	10,928	822	2,254	678	6	21,784
VALUE.							
Jams and Jellies .. £	463,183	661,122	156,365	128,967	18,222	322,765	1,750,624
Fruit, preserved .. £	468,068	1,674,782	117,355	386,673	338	126,843	2,774,059
Pickles ..	68,367	89,667	17,874	56,136	5,177	1,728	238,949
Sauces ..	351,423	312,479	23,223	68,236	18,811	537	774,709

25. *Confectionery Factories.*—(i) *Details for each State, 1937-38.* At the close of the year 1900 there were in New South Wales 16 establishments with 706 persons engaged and in Victoria 16 establishments, employing 731 persons, the plant and machinery in the former State being valued at £2,815, and in the latter at £19,070. The figures for the year 1937-38 given hereunder show the remarkable development since 1900:—

SUGAR CONFECTIONERY FACTORIES(b), 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	67	84	21	19	11	2	204
Number of persons engaged ..	3,791	3,194	553	394	295	8	8,235
Value of land and buildings ..	£ 1,034,247	629,997	218,497	81,192	(c)	(c)	(d) 2,042,198
Value of plant and machinery ..	£ 972,104	589,871	128,318	66,637	(c)	(c)	(d) 1,830,166
Wages paid ..	£ 558,943	475,594	68,928	37,966	(c)	(c)	(d) 1,179,223
Value of fuel used ..	£ 64,399	52,781	9,662	9,065	(c)	(c)	(d) 141,459
Value of materials used ..	£ 1,850,213	1,251,166	206,383	142,015	(c)	(c)	(d) 3,555,710
Total value of output ..	£ 3,703,622	2,118,817	409,825	207,633	(c)	(c)	(d) 6,660,655
Value of production ..	£ 1,789,010	814,870	193,780	56,553	(c)	(c)	(d) 2,963,486

(a) Ice Cream factories—Other Confectionery included in Bakeries.
and Ice Cream. (c) Particulars not available for publication.

(b) Including Chocolate
(d) Includes Western Australia
and Tasmania.

(ii) *Total for Australia, 1933-34 to 1937-38.* Particulars of the confectionery industry during the last five years are shown in the following table :—

SUGAR CONFECTIONERY FACTORIES : AUSTRALIA.

Items.	1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (a)	1937-38. (a)
Number of factories	214	218	217	214	204
Number of persons engaged	6,698	7,158	7,516	7,975	8,235
Value of land and buildings	£ 1,694,606	1,721,645	1,774,452	1,902,059	2,042,198
Value of plant and machinery	£ 1,686,517	1,749,349	1,712,163	1,773,178	1,830,166
Wages paid	£ 898,592	935,214	1,010,775	1,063,421	1,179,223
Value of fuel used	£ 112,681	112,059	117,041	98,771	141,459
Value of materials used	£ 2,518,756	2,743,763	3,023,696	3,202,325	3,555,710
Total value of output	£ 4,734,105	5,120,164	5,662,146	5,573,143	6,660,655
Value of production	£ 2,102,668	2,264,342	2,521,409	2,272,052	2,963,486

(a) See notes to previous table.

The confectionery industry expanded rapidly during the war years largely as a result of the stimulus afforded by the embargo placed on the importation of luxuries during that period. The industry, however, was seriously affected by the business depression but has now regained its former position. Confectionery establishments in Tasmania have been combined with bakeries in order to conceal confidential information. Production is sufficient to supply local requirements, and an export trade is being developed. Several large British manufacturers of confectionery have established branch works in Australia.

26. *Grain Milling.*—(i) *Details for States, 1937-38.* The following table shows the position of the flour-milling industry in each State in 1937-38 :—

GRAIN MILLING, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas. (a)	Australia.
Number of factories	52	38	10	38	21	9	168
Number of persons engaged	1,205	1,101	339	446	389	117	3,597
Value of land and buildings £	839,268	543,861	201,650	164,454	260,928	69,501	2,079,662
Value of plant and machinery £	666,999	493,838	162,866	221,155	228,868	28,627	1,802,353
Wages paid	£ 297,057	260,757	84,354	91,607	91,863	26,635	852,273
Value of fuel used	£ 72,854	60,946	15,160	26,593	37,520	3,743	216,816
Value of materials used	£ 5,575,702	4,837,787	1,113,193	1,359,156	1,382,086	291,348	14,559,272
Total value of output	£ 6,396,629	5,409,048	1,303,748	1,532,632	1,686,424	340,268	16,668,749
Value of production	£ 748,073	510,315	175,395	146,883	266,818	45,177	1,892,661

(a) The manufacture of cornflour, oatmeal, etc., was also carried on in some of these establishments.

(ii) *Productions of Flour and By-products, 1933-34 to 1937-38.* The production of flour by the mills in each State for the years indicated was as follows :—

GRAIN MILLING : PRODUCTION OF FLOUR.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)	Tons.(a)
1933-34	495,779	395,566	84,159	121,811	122,000	19,253	1,238,568
1934-35	555,173	437,252	86,246	136,716	124,130	19,260	1,358,787
1935-36	523,281	435,340	86,142	124,021	118,340	20,492	1,307,616
1936-37	464,498	420,364	82,423	119,192	122,723	19,579	1,228,779
1937-38	476,881	424,302	81,242	123,878	125,472	19,155	1,250,930

(a) Tons of 2,000 lb.

The production of flour in Australia for the last year, 1,250,930 tons, was valued at £12,811,346. In addition, 525,598 tons of bran and pollard, valued at £3,407,346, were made. The quantity of wheat ground was 60,010,744 bushels.

27. **Sugar Mills.**—(i) *Details for 1937-38.* The following table shows the position of the cane-crushing branch of the sugar-making industry in New South Wales and Queensland in 1937-38. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XIX., "Agricultural Production."

SUGAR MILLS, 1937-38.

Items.	N.S.W.	Queensland.	Australia.
Number of factories	3	33	36
Number of persons engaged	260	4,324	4,584
Value of land and buildings	£ 232,755	1,055,256	1,288,011
Value of plant and machinery	£ 938,610	7,508,469	8,447,079
Wages paid	£ 100,634	1,265,163	1,365,797
Value of fuel used	£ 15,845	138,433	154,278
Value of materials used	£ 515,050	8,975,583	9,490,633
Total value of output	£ 766,624	11,418,706	12,185,330
Value of production	£ 235,729	2,304,690	2,540,419

The products of the sugar mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Part of the molasses produced is used for distillation, part is prepared for human consumption, part is turned into food-cake for cattle, part is used for manuring land, and the balance is either burnt as fuel or is allowed to run to waste. The latter, however, is a diminishing quantity.

(ii) *Progress of Industry.* (a) *New South Wales.* The following table shows the progress which has been made in this industry in New South Wales since 1911 :—

SUGAR MILLS: NEW SOUTH WALES.

Items.	1911.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	4	3	3	3	3
Number of employees	469	144	198	195	260
Cane crushed tons	147,799	227,424	280,472	275,169	361,724
Sugar produced "	17,299	29,428	36,401	38,158	47,077
Molasses produced gals	796,440	1,059,555	1,390,180	1,329,660	1,754,527

The concentration of cane-crushing in establishments fitted with modern machinery has caused the closing of the small home mill and thereby reduced the number of mills operating. The Government assistance, referred to in the chapter dealing with Agriculture, has resulted in considerable progress in the cultivation of sugar-cane and increased activity in milling. Particulars regarding cane crushed and sugar produced embodied in these tables refer to the quantities treated during the twelve months ending 30th June in each year, irrespective of the season in which the cane was grown; consequently the figures relating to cane crushed and sugar produced differ slightly from those given in Chapter XIX. "Agriculture" which relate to harvest years.

(b) *Queensland.* Details for Queensland for 1911 and the last four years are given hereunder:—

SUGAR MILLS: QUEENSLAND, 1911 TO 1937-38.

Items.	1911.	1934-35.	1935-36.	1936-37	1937-38.
Number of factories ..	49	33	33	33	33
Number of persons engaged ..	4,295	4,436	4,176	4,381	4,324
Cane crushed .. tons	1,534,451	4,271,380	4,220,435	5,170,571	5,132,886
Sugar produced .. "	173,296	611,161	610,080	744,676	763,242
Molasses—					
Sold to distillers and others .. gals.	2,393,669	5,017,717	4,792,950	6,086,864	7,071,109
Used as fodder .. "	789,564	3,035,598	3,817,755	4,351,822	3,914,113
Used as manure .. "	223,000	2,227,905	2,559,528	3,211,423	3,363,624
Run to waste .. "	1,847,333	1,162,715	1,214,678	560,326	466,481
Burnt as fuel .. "		5,339,489	4,103,475	6,354,841	5,576,764
Sold or used for other purposes .. "		..	..	397,080	157,496
In stock .. "	1,197,626	1,673,607	..	..	..
Total molasses .. "	6,451,192	18,457,031	16,488,386	20,962,356	20,549,587

28. *Sugar Refineries.*—The establishment of the sugar-refining industry considerably antedates the establishment of the sugar-milling industry, the raw material operated on in the earlier years coming chiefly from Mauritius and the East. In 1937-38 there were two sugar refineries in each of the States of Victoria and Queensland, and one in each of the States of New South Wales, South Australia and Western Australia. The quantity of raw sugar treated amounted to 358,679 tons, for a yield of 346,894 tons of refined sugar, valued at £11,157,352.

29. *Breweries.*—(i) *Details for each State, 1937-38.* The following table gives particulars concerning breweries in each State:—

BREWERIES, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	6	9	6	6	6	4	37
Number of persons engaged ..	976	1,420	393	263	405	85	3,542
Value of land and buildings .. £	924,447	769,562	412,498	188,076	247,412	136,988	2,678,983
Value of plant and machinery .. £	759,557	849,581	340,692	188,173	373,992	139,641	2,642,636
Wages paid .. £	287,046	495,043	118,227	90,267	137,728	23,274	1,151,585
Value of fuel used .. £	82,271	80,576	27,748	17,666	21,149	6,527	235,937
Value of materials used .. £	994,389	1,343,525	295,250	213,200	285,675	100,046	3,232,085
Total value of output .. £	3,311,512	2,891,604	806,041	527,137	774,106	216,070	8,526,470
Value of production .. £	2,234,852	1,467,503	483,043	296,271	467,282	109,497	5,058,448

(a) Includes Malt Works.

(ii) *Total for Australia 1933-34 to 1937-38.* The next table shows the extent of this industry for the last five years:—

BREWERIES: AUSTRALIA.

Items.	1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (a)	1937-38. (a)
Number of factories ..	42	41	37	37	37
Number of persons engaged ..	2,995	3,097	3,228	3,389	3,542
Value of land and buildings .. £	2,423,574	2,411,446	2,426,415	2,537,922	2,678,983
Value of plant and machinery .. £	2,507,559	2,476,600	2,440,700	2,454,576	2,642,636
Wages paid .. £	886,597	952,127	1,018,985	1,072,063	1,151,585
Value of fuel used .. £	189,902	104,863	202,367	214,272	235,937
Value of materials used .. £	2,011,957	2,262,174	2,552,497	2,642,395	3,232,085
Total value of output .. £	5,625,876	6,439,227	7,121,946	7,456,136	8,526,470
Value of production .. £	3,424,017	3,892,100	4,367,082	4,599,469	5,058,448

(a) Includes Malt Works in Tasmania.

The quantity of ale and stout brewed fell from 73.7 million gallons in 1928-29 to 49.8 million gallons in 1931-32, but thereafter the production increased each year to 84,021,184 gallons in 1937-38. For a number of years prior to the depression the consumption of ale and stout exceeded 11 gallons per head of the population; it dropped to 7.32 gallons in 1931-32, but has since risen to 11.62 gallons.

(iii) *Materials Used and Production.* The table below shows the quantities of raw material used and the quantity and value of ale and stout brewed in each State during the year 1937-38.

BREWERIES : MATERIALS USED AND PRODUCTION, 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
RAW MATERIAL USED.							
Malt .. bushels	1,010,520	992,860	238,027	(b)	321,980	(b)	c 2,838,906
Hops .. lb.	886,909	854,087	194,354	(b)	190,483	(b)	c 2,303,324
Sugar .. cwt.	128,100	121,480	26,460	(b)	8,380	(b)	c 313,260
RAW MATERIAL USED PER 1,000 GALLONS OF ALE AND STOUT PRODUCED.							
Malt .. bushels	31.95	32.60	34.12	(b)	47.41	(b)	c 33.79
Hops .. lb.	28.04	28.05	27.86	(b)	28.05	(b)	c 28.13
Sugar .. cwt.	4.05	3.99	3.79	(b)	1.23	(b)	c 3.73
ALE AND STOUT BREWED.							
Quantity gallons	31,630,132	30,448,726	6,975,999	(b)	6,792,000	(b)	c 84,021,184
Value (£)	3,284,751	2,850,841	804,623	(b)	718,791	(b)	c 8,376,577

(a) Exclusive of Excise duty. (b) Particulars not available for publication. (c) Includes States marked (b).

30. *Distilleries.*—Distilleries are located in all the States with the exception of Western Australia and Tasmania. The following information, which has been extracted from returns furnished by the Excise Branch of the Department of Trade and Customs, shows the materials used in distilleries in Australia and the quantity of spirits distilled therefrom for the year 1937-38 :—Materials used: barley, 68,238 bushels; barley malt, 76,811 bushels; molasses, 1,311,512 cwt.; wine, 14,277,314 gallons; raisins and currants, 60,432 cwt.; grapes, 171,734 cwt. The quantity of spirits distilled from barley, malt and grain was 437,061 gallons; from molasses, 6,762,014 gallons; and from wine, 2,923,661 gallons; total, 10,122,736 gallons. The quantity of spirits denatured during the year was 3,955,196 gallons.

31. *Tobacco, etc., Factories.*—(i) *Details for each State, 1937-38.* During the year 1937-38 there were thirty-two establishments in which the manufacture of tobacco, cigars, or cigarettes was carried on. There were no tobacco factories in Tasmania.

TOBACCO, CIGAR AND CIGARETTE FACTORIES, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
Number of factories	9	15	6	1	1	32
Number of persons engaged	3,280	2,152	49	11	152	5,644
Value of land and buildings	£ 636,323	351,331	(a)	(a)	(a)	b 1,030,344
Value of plant and machinery	£ 630,060	280,352	(a)	(a)	(a)	b 932,827
Wages paid	£ 627,858	420,939	(a)	(a)	(a)	b 1,074,196
Value of fuel used	£ 24,062	9,604	(a)	(a)	(a)	b 34,344
Value of materials used	£ 4,770,342	2,017,620	(a)	(a)	(a)	b 6,864,305
Total value of output	£ 6,149,544	3,244,604	(a)	(a)	(a)	b 9,510,121
Value of production	£ 1,355,140	1,217,371	(a)	(a)	(a)	b 2,614,472

(a) Not available for publication. (b) Including Queensland, South Australia and Western Australia.

(ii) *Total for Australia.* This industry was among the first to be established in Australia. In 1861 New South Wales had 11 factories, producing 177,744 lb. of manufactured tobacco; in the same year there was one factory in Victoria, but the quantity of tobacco manufactured is not available. The Australian market has for many years been largely supplied with local manufactures from the imported leaf. Imports during 1937-38 comprised—manufactured tobacco 701,312 lb., cigars 9,996 lb., and cigarettes 107,686 lb., while the quantities manufactured in Australian factories were respectively 16,261,872 lb., 255,781 lb., and 6,325,183 lb. The following tables show the extent of the industry in Australia for the last five years:—

TOBACCO, CIGAR AND CIGARETTE FACTORIES : AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of factories	31	29	31	32	32
Number of employees	4,395	4,818	5,155	5,447	5,644
Approx. value of land and buildings	£ 916,971	927,122	936,521	1,001,236	1,030,344
Approx. value of plant and machinery	£ 658,850	784,371	726,713	870,430	932,827
Wages paid	£ 838,608	891,064	950,790	996,065	1,074,196
Value of fuel used	£ 18,596	18,661	20,553	29,938	34,344
Value of materials used	£ 5,003,766	5,373,582	6,082,506	6,345,214	6,861,305
Total value of output	£ 6,894,327	7,216,139	8,529,491	8,714,581	9,510,121
Value of production	£ 1,871,965	1,823,896	2,426,432	2,339,429	2,614,472

LEAF USED AND PRODUCTION.

Leaf used {	Australian (Stemmed)	1,000 lb.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
..	3,307	3,352	3,653	4,249	4,231
..	13,718	13,768	14,662	15,040	15,993
Tobacco made	14,656	14,527	15,277	15,733	16,262
Cigars made	259	253	283	262	256
Cigarettes made	4,577	4,813	5,305	5,659	6,325

For many years the production of locally-grown leaf was comparatively small, and manufacturers were dependent on imported leaf for the supply of their raw material. Increased duties stimulated local production, and the quantity of Australian leaf used by manufacturers rose from 1.2 million lb. in 1929-30 to over 3 million lb. in 1930-31; in 1932-33 the quantity of local leaf used fell to 2.7 million lb., but it has since risen to 4.2 million lb. In this connexion, see item "Tobacco" in Chapter XIX. "Agricultural Production."

32. *Saw-mills, etc.*—(i) *Details for States, 1937-38.* The most important industry in Class X. is that of saw-milling. As separate particulars of forest saw-mills are not available for some of the States, both forest and other saw-mills, as well as plywood and bark mills have been combined in the following table:—

SAW-MILLS, FOREST AND OTHER ; PLYWOOD AND BARK MILLS, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	436	332	484	54	127	226	1,659
Number of persons engaged	5,271	3,926	5,523	994	2,260	1,591	19,565
Value of land and buildings	£ 740,058	412,142	405,750	186,215	205,744	75,948	2,025,857
Value of plant and machinery	£ 673,027	626,024	713,690	138,565	449,765	201,676	2,807,747
Wages paid	£ 1,020,516	749,836	946,007	190,755	461,565	232,774	3,601,453
Value of fuel used	£ 58,931	49,706	55,103	8,968	37,775	15,054	225,537
Value of materials used	£ 3,196,566	1,683,159	2,289,797	712,228	740,582	352,910	8,975,242
Total value of output	£ 4,946,103	2,958,843	3,937,289	1,007,594	1,504,919	737,340	15,092,088
Value of production	£ 1,690,606	1,225,978	1,592,389	286,398	726,562	369,376	5,891,309

(ii) *Total for Australia, 1933-34 to 1937-38.* The development of forest and other saw-mills, etc., since 1933-34 is shown in the following table :—

SAW-MILLS, FOREST AND OTHER ; PLYWOOD AND BARK MILLS : AUSTRALIA.

Items.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of establishments	1,276	1,405	1,443	1,591	1,659
Number of persons engaged	12,298	15,333	17,297	18,284	19,565
Value of land and buildings	£ 1,899,729	2,010,001	1,974,918	2,015,040	2,025,857
Value of plant and machinery	£ 2,460,647	2,595,995	2,702,063	2,671,982	2,807,747
Wages paid	£ 1,926,400	2,519,715	2,927,960	3,188,000	3,601,453
Value of fuel used	£ 115,438	139,572	170,705	184,008	225,537
Value of materials used	£ 4,022,263	5,604,845	6,663,907	7,942,375	8,975,242
Total value of output	£ 7,211,573	9,814,197	11,515,591	13,379,054	15,002,088
Value of production	£ 3,073,872	4,069,780	4,680,979	5,252,641	5,891,399

The table furnishes evidence of marked improvement during the past four years. The saw-mill output of native timber, which declined from 740 million super. feet in 1925-26 to the abnormally low figure of 237 million super. feet during the height of the depression, had recovered to 643 million super. feet in 1937-38. Further reference is made to the saw-milling industry in Chapter XXI. "Forestry."

33. **Furniture, Cabinet Making and Upholstery.**—These industries constitute the principal manufactures in Class XI. The following table gives particulars for each State :—

FURNITURE, CABINET MAKING AND UPHOLSTERY FACTORIES, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	252	302	110	67	84	36	851
Number of persons engaged	4,769	3,546	1,507	1,004	743	317	11,946
Value of land and buildings	£ 709,811	619,565	217,616	142,432	108,120	31,958	1,829,502
Value of plant and machinery	£ 244,477	145,993	68,399	76,616	31,301	14,582	581,868
Wages paid	£ 957,686	553,834	283,818	166,111	123,442	47,473	2,132,364
Value of fuel used	£ 25,680	19,455	8,338	7,301	3,634	1,387	65,795
Value of materials used	£ 1,526,391	940,845	405,586	299,346	197,426	48,678	3,418,272
Total value of output	£ 3,035,549	1,885,923	857,915	558,770	396,584	120,108	6,854,843
Value of production	£ 1,483,475	925,625	443,991	252,123	195,524	70,043	3,370,781

34. **Printing and Bookbinding Works.**—Printing and bookbinding works rank high in importance among the industries of Australia, and in 1937-38 afforded employment for about 28,169 employees, and paid more than £5,900,000 in salaries and wages, while the value of output amounted to £17,205,000. The following table gives particulars of establishments engaged in general printing and bookbinding in each State for the year 1937-38. Government printing works are included, but establishments producing newspapers and periodicals are shown separately in the succeeding table :—

GENERAL PRINTING AND BOOKBINDING ESTABLISHMENTS, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	331	430	97	62	82	20	1,022
Number of persons engaged	7,253	6,740	1,772	1,153	887	459	18,264
Value of land and buildings	£ 1,357,018	1,586,989	372,857	217,282	215,436	76,181	3,825,743
Value of plant and machinery	£ 1,238,820	1,117,529	209,396	238,887	171,409	73,909	3,048,650
Wages paid	£ 1,372,130	1,213,500	304,811	208,850	158,300	88,040	3,346,531
Value of fuel used	£ 42,060	39,009	10,186	9,130	4,890	2,427	107,702
Value of materials used	£ 1,606,850	1,383,776	274,512	186,006	160,123	59,542	3,676,809
Total value of output	£ 3,978,122	3,431,321	785,630	518,736	431,612	214,088	9,359,509
Value of production	£ 2,329,212	2,008,536	500,932	323,600	266,599	152,119	5,380,998

ESTABLISHMENTS PRODUCING NEWSPAPERS AND PERIODICALS, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	213	113	64	38	36	7	471
Number of persons engaged ..	4,302	2,554	1,458	678	599	319	9,905
Value of land and buildings ..	£ 1,691,514	786,315	543,926	367,158	275,502	29,773	3,694,188
Value of plant and machinery ..	£ 1,404,512	730,174	439,843	195,206	167,363	42,080	3,039,178
Wages paid ..	£ 1,155,813	696,156	338,541	165,646	163,564	79,875	2,599,595
Value of fuel used ..	£ 53,849	29,534	20,009	6,442	12,775	2,991	125,600
Value of materials used ..	£ 1,330,448	898,055	303,030	192,109	138,391	34,282	2,896,315
Total value of output ..	£ 3,414,924	2,050,957	890,838	461,804	403,714	263,486	7,485,723
Value of production ..	£ 2,030,627	1,123,368	567,799	263,253	252,548	226,213	4,463,868

35. Tyres, Motor and Cycle.—(i) *Details for each State, 1937-38.* During the last decade, the number of motor car and cycle users has shown a considerable advance and this necessarily has had a stimulating effect on the industry engaged in the manufacture of motor and cycle tyres. Particulars for each State during 1937-38 are shown hereunder :—

TYRES, MOTOR AND CYCLE, 1937-38.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	84	90	30	28	23	12	267
Number of persons engaged ..	2,879	2,503	1,168	1,150	86	61	5,847
Value of land and buildings ..	£ 746,586	657,477	60,880	60,725	37,270	24,870	1,587,808
Value of plant and machinery ..	£ 499,725	748,635	19,479	14,314	8,163	5,999	1,296,315
Wages paid ..	£ 618,883	511,019	21,589	18,156	10,412	7,002	1,187,061
Value of fuel used ..	£ 83,177	122,133	2,583	2,293	1,507	840	212,533
Value of materials used ..	£ 1,954,559	2,458,290	48,690	37,598	20,965	13,545	4,533,656
Total value of output ..	£ 2,805,629	3,787,197	98,082	79,662	47,970	31,146	6,849,686
Value of production ..	£ 767,893	1,206,765	46,809	39,771	25,498	16,761	2,103,497

(a) Includes Boots and Shoes and Other Rubber Goods.

(ii) *Total for Australia, 1933-34 to 1937-38.* Prior to 1930-31 particulars regarding this industry were included with Rubber Goods but separate details are now available and are shown in the following table for the last five years :—

TYRES, MOTOR AND CYCLE : AUSTRALIA.

Items.	1933-34. (a)	1934-35. (a)	1935-36. (a)	1936-37. (a)	1937-38. (a)
Number of factories ..	279	261	260	261	267
Number of persons engaged ..	3,489	3,998	4,098	4,907	5,847
Value of land and buildings ..	£ 1,311,366	1,240,749	1,257,800	1,583,004	1,587,808
Value of plant and machinery ..	£ 939,796	895,139	841,815	1,281,468	1,296,315
Wages paid ..	£ 635,547	736,865	786,713	980,567	1,187,061
Value of fuel used ..	£ 126,471	134,335	136,542	192,624	212,533
Value of materials used ..	£ 1,681,151	2,173,447	2,269,954	3,751,258	4,533,656
Total value of output ..	£ 2,859,447	3,499,132	3,788,333	5,851,930	6,849,686
Value of production ..	£ 1,051,825	1,191,350	1,331,837	1,908,948	2,103,497

(a) Includes Boots and Shoes and Other Rubber Goods for Tasmania.

It will be noted that the value of output for the year 1937-38 is the greatest recorded since the manufacture of motor and cycle tyres was shown as a separate industry.

36. **Electric Light and Power Works.**—(i) *Details for each State, 1937-38.* The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. Since 1931-32 the production of electric light and power has increased from 2,507 to 4,353 million British units, or by more than 73 per cent. Particulars for the year 1937-38 are as follows:—

ELECTRIC LIGHT AND POWER WORKS, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	107	81	52	41	90	5	385
Number of persons engaged ..	1,970	1,306	501	1,646	688	73	6,184
Value of land and buildings £	4,674,398	1,778,660	492,090	587,154	332,362	224,290	8,088,954
Value of plant and machinery £	10,599,687	6,327,762	1,703,252	1,978,889	2,158,149	1,865,366	24,533,105
Wages paid ..	£ 581,105	344,050	151,482	426,984	183,887	21,525	1,709,033
Value of fuel used ..	£ 1,191,111	573,276	349,725	220,801	534,759	..	2,878,672
Total value of output ..	£ 5,244,866	2,524,503	890,162	1,280,458	1,116,928	630,055	11,686,972

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on p. 708.

(ii) *Production 1933-34 to 1937-38.* The increase in the production of electric light and power in each of the States during the five years is clearly shown in the following table:—

ELECTRIC LIGHT AND POWER WORKS: PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	1,000 K.W.H.						
1933-34 ..	1,227,873	830,910	168,996	165,598	160,130	356,670	2,910,177
1934-35 ..	1,349,248	900,247	202,030	176,434	171,209	399,887	3,190,055
1935-36 ..	1,164,898	974,722	224,014	200,488	204,373	459,408	3,527,903
1936-37 ..	1,626,833	1,049,768	256,784	215,714	237,185	522,491	3,908,775
1937-38 ..	1,816,814	1,128,216	352,258	240,002	272,512	542,767	4,353,469

37. **Gas Works.**—(i) *Details for each State, 1937-38.* Gas works are in operation in the majority of important towns in Australia. New South Wales returned eight coke factories and Queensland three, working as separate industries, but under the new classification these are included in Class I.—Treatment of Non-metalliferous Mine and Quarry Products. The subjoined table gives particulars of gas works in each State for the year 1937-38:—

GAS WORKS, 1937-38.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	43	39	16	4	4	2	108
Number of persons engaged ..	1,201	719	227	594	93	52	2,886
Value of land and buildings £	794,206	410,728	189,674	26,579	(a)	(a)	61,508,141
Value of plant and machinery £	3,171,020	2,052,735	557,537	1,161,616	(a)	(a)	67,356,839
Wages paid ..	£ 292,072	199,289	59,876	155,032	(a)	(a)	744,878
Value of fuel used ..	£ 190,977	143,592	4,832	1,790	(a)	(a)	356,474
Value of materials used ..	£ 712,638	622,537	145,652	122,208	(a)	(a)	61,703,005
Total value of output ..	£ 2,335,719	1,395,160	323,671	518,919	(a)	(a)	64,827,586
Value of production ..	£ 1,432,104	628,987	173,187	394,921	(a)	(a)	62,768,017

(a) Not available for publication.

(b) Includes Western Australia and Tasmania.

(ii) *Coal Used and Production, 1937-38.* The following table gives details for the year 1937-38 :—

GAS WORKS : COAL USED AND PRODUCTION, 1937-38.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
COAL USED.							
Coal tons	577,030	379,960	86,929	74,324	(a)	(a)	b1,156,373
PRODUCTS.							
Gas produced 1,000 cubic ft.	10,677,273	6,939,276	1,396,428	1,154,877	(a)	(a)	b20,946,383
Gas sold 1,000 cubic ft.	9,207,134	6,225,382	1,234,609	929,985	(a)	(a)	b18,275,622
Coke produced .. tons	433,731	212,342	59,790	45,784	(a)	(a)	b 764,215
Coke for sale .. tons	349,371	123,812	28,857	32,365	(a)	(a)	b 659,118
VALUE.							
Gas sold £	1,501,328	1,740,578	483,868	432,761	(a)	(a)	b 4,427,381
Coke for sale £	372,549	177,609	30,564	53,279	(a)	(a)	b 659,118

(a) Particulars not available for publication.

(b) Includes Western Australia and Tasmania.

The output of gas declined from 20,929,569 thousand cubic feet in 1929-30 to an average of 17,800,000 thousand cubic feet during the three years ended June, 1934, but has since risen to a new high level of 20,946,383 thousand cubic feet in 1937-38.

CHAPTER XXIV.

WATER CONSERVATION AND IRRIGATION.

§ 1. Artesian Water.

1. **General.**—In every country subject to droughts, the provision of adequate systems of water conservation is a matter of prime importance. Much has been done in Australia so far as the supply of water to centres of population is concerned, and a description of the principal water-works in each State will be found in Chapter XXV. "Local Government."

Interstate Conferences on the subject of artesian water were held in 1912, 1914, 1921, 1924 and 1928, when combined Governmental action was agreed upon with reference to delimitation of the artesian basins, hydrographic surveys, reason for decrease in flow, analyses and utilization of artesian water, etc. A map showing the extent of the known artesian basins will be found on pages 761-2.

2. **The Great Australian Artesian Basin.**—The area known as the "Great Australian Artesian Basin," includes (a) considerably more than one-half of Queensland, taking in practically all that State lying west of the Great Dividing Range, with the exception of an area in the north-west contiguous to the Northern Territory; (b) a considerable strip of New South Wales along its northern boundary and west of the Great Dividing Range; and (c) the north-eastern part of South Australia proper, together with the extreme south-eastern corner of the Northern Territory. This basin (shown approximately by the map on pages 761-2) is said to be the largest yet discovered, and measures about 600,000 square miles, of which 376,000 square miles are in Queensland, 118,000 square miles in South Australia, 80,000 square miles in New South Wales, and 25,000 square miles in the Northern Territory. The area of the intake beds is estimated at 60,010 square miles, namely, 50,000 square miles in Queensland and 10,010 square miles in New South Wales. A description of the basin and its geological formation will be found in previous issues of the Official Year Book (see No. 6, p. 569).

3. **The Western Australian Basins.**—The Western Australian Basins fall naturally within five distinct groups, namely, the Eucla Basin, in the extreme south-east of the State, extending well into South Australia along the shores of the Great Australian Bight; the Coastal Plain Basin, west of the Darling Range; the North-West Basin, between the Murchison and Ashburton Rivers; the Gulf basin, between Cambridge Gulf and Queen's Channel; and the Desert Basin, between the De Grey and Fitzroy Rivers.

The Recent and Tertiary strata which enter Western Australia at its eastern border, and which have a prevailing dip towards the Great Australian Bight, form the Eucla artesian water area. Where boring operations have been undertaken, the water has been found to be salt or brackish, and there are other conditions affecting the supply, such as local variation in the thickness of the beds, their relative porosity, and the unevenness of the floor upon which they rest, which so far, have not been examined with sufficient thoroughness to enable many particulars to be given in regard to this basin.

In the Coastal Plain Basin to the west of the Darling Ranges, artesian boring has, on the other hand, been carried on successfully for many years.

4. **The Murray River Basin.**—The Murray River Basin extends over south-western New South Wales, north-western Victoria, and south-eastern South Australia. It is bounded on the west by the aozoic and palæozoic rocks of the Mount Lofty and other

ranges extending northwards from near the mouth of the Murray to the Barrier Range, and on the east and north-east by the ranges of Victoria and New South Wales. This tertiary water-basin is occupied by a succession of sedimentary formations, both porous and impervious. It is of interest to note that the waters of the Murray River are partly supplied by influx from the water-bearing beds of this basin; this is proved by the fact that, at low water, springs are observed at certain places flowing into the river bed from beneath the limestone cliffs from Pyap Bend downwards. Similar springs exist along the courses of other branches of the River Murray system, where they cut through the tertiary formation. On the Victorian side, bores have been put down, and water has been struck at various levels.

5. **Plutonic or Meteoric Waters.**—In previous Year Books will be found a statement of the theory of Professor Gregory* as to the origin of the water in the Australian artesian basins, together with the objections held thereto by a former Government Geologist of New South Wales.† (See Official Year Book No. 6, p. 570).

6. **Artesian and Sub-Artesian Bores.**—(i) *General.* The following table gives particulars regarding artesian and sub-artesian bores in each State and in the Northern Territory:—

ARTESIAN AND SUB-ARTESIAN BORES, 1937-38.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (c)	W. Aust.	N. Ter.	Australia.
Bores existing .. No.	699	450	6,774	162	273	191	(e)8,549
Total depth of existing bores feet	(a)687,880	120,000	4,830,000	115,598	224,471	63,375	(e)6,450,324
Daily flow .. 1,000 gals.	(b)66,399	(c)1,000	250,000	12,972	(d)	7,723	(e)338,094
Depth at which artesian water was struck—							
Maximum .. feet	4,338	3,200	6,000	4,851	4,006	1,760	(e)6,000
Minimum .. feet	100	20	10	233	30	42	(e)10
Temperature of flow—							
Maximum .. °Fabr.	141	100	212	208	(d)	..	(e)212
Minimum .. °Fabr.	75	60	78	82	(d)	..	(e)60

(a) Total depth of all bores. (b) Flowing bores only. (c) Government bores only.
(d) Not available. (e) Incomplete.

(ii) *Details for States.*—Considerations of space preclude the insertion of separate particulars of operations in the States during the year 1937-38. Details for earlier years will, however, be found in issues of the Official Year Book prior to No. 23, 1930.

§-2. Irrigation.

1. **General.**—Australia's first experiments in irrigation were made with the object of bringing under cultivation areas in which an inadequate rainfall rendered agricultural and even pastoral occupations precarious and intermittent, and, although these original settlements have generally proved fairly successful, most of the States, instead of promoting new settlement in unoccupied regions, are adopting the policy of making existing settlements closer, by repurchasing large estates, sub-dividing them into holdings of suitable sizes for cultivation, and selling the land upon easy terms of payments. It is in connexion with this Closer Settlement policy that the special value of irrigation is recognized. Information regarding the various irrigation schemes in operation was given in some detail in preceding issues of the Official Year Book (see No. 23, pages 637 to 661).

* See J. W. Gregory, F.R.S., D.Sc.: "The Dead Heart of Australia," London, John Murray, 1906; and "The Flowing Wells of Central Australia," Geogr. Journal, July and August, 1911.

† E. F. Pittman, A.R.S.M., formerly Government Geologist of New South Wales: "Problems of the Artesian Water Supply of Australia, with special reference to Professor Gregory's Theory." (Clarke Memorial Lecture, delivered before the Royal Society of New South Wales, 31st October, 1907); "The Great Australian Artesian Basin," Sydney, 1914; and "The Composition and Porosity of the Intake Beds of the Great Australian Artesian Basin," Sydney, 1915.

2. **Areas Irrigated.**—The following table gives the areas irrigated in each State during the years 1927-28 to 1937-38. It should be noted that the area shown for New South Wales refers only to crops irrigated. It does not include pasture land and fallow land which may have been irrigated and consequently the area is not strictly comparable with that shown for those States which include these areas.

IRRIGATION : AREAS IRRIGATED.

Season.	New South Wales. (c)	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1927-28 ..	102,533	477,500	21,411	38,379	4,292	7,016	651,131
1928-29 ..	123,129	471,695	25,344	39,236	4,907	7,054	(a)671,475
1929-30 ..	126,321	566,577	26,282	40,002	4,943	6,693	770,818
1930-31 ..	135,121	463,098	26,947	43,538	5,661	6,488	680,853
1931-32 ..	114,777	418,415	28,414	42,813	6,101	7,768	618,291
1932-33 ..	130,977	474,716	31,409	42,556	6,434	7,605	603,697
1933-34 ..	131,772	435,324	29,363	42,898	7,640	9,194	656,191
1934-35 ..	125,423	494,226	34,138	39,594	8,861	7,786	(b)710,054
1935-36 ..	138,016	495,835	44,283	42,672	11,396	8,987	(b)741,312
1936-37 ..	151,683	518,827	44,509	42,202	13,295	9,987	(b)780,663
1937-38 ..	170,719	590,112	49,154	44,250	14,284	8,428	(b)876,953

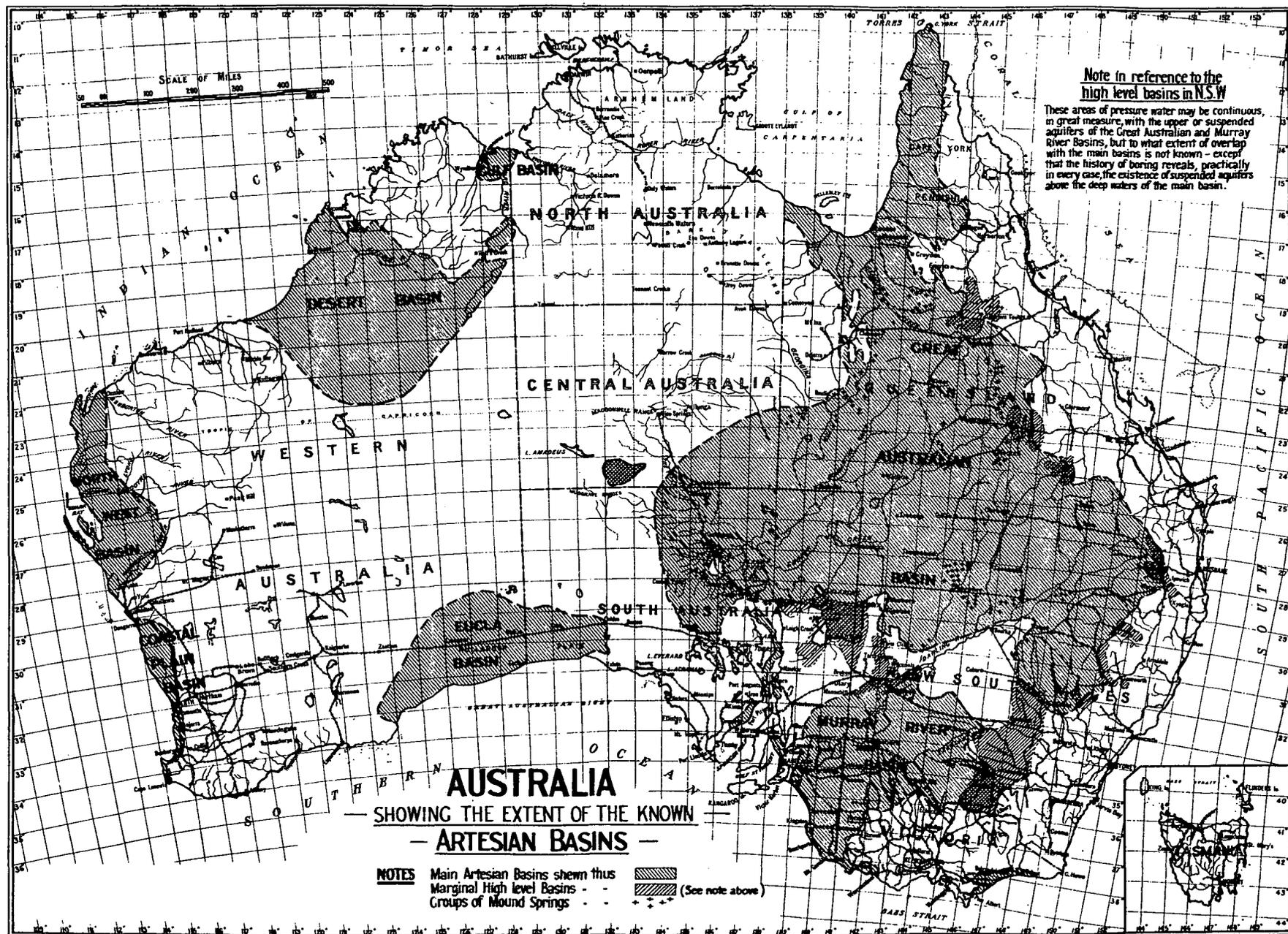
(a) Including 100 acres Northern Territory and 10 acres Australian Capital Territory. (b) Including Australian Capital Territory, 1934-35, 26 acres; 1935-36, 123 acres; 1936-37, 70 acres; 1937-38, 6 acres. (c) Not including pasture and fallow lands.

3. **Crops on Irrigated Areas.**—A classification of the crops grown on irrigated areas in each State during the year 1937-38, will be found in the table hereunder. Lucerne, grasses and green forage accounted for 33 per cent., cereals for 30 per cent., orchards and vineyards for 25 per cent., and root crops, market gardens, etc., for about 12 per cent. of the total area of crops under irrigation in 1937-38. It should be noted that the area in Victoria does not include 333,860 acres of pasture land and fallow land which were irrigated in 1937-38. Likewise 5,710 acres of pasture land are also omitted from the Tasmanian figures for the same year.

IRRIGATION : CROPS ON IRRIGATED AREAS, 1937-38.

Crop.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Cereals	96,511	65,466	457	..	..	..	162,434
Lucerne, Grasses and Green Forage ..	36,592	114,203	4,790	(b) 10,005	(b)10,155	69	175,814
Orchards and Vineyards ..	28,508	66,417	6,431	28,869	2,586	1,103	133,914
Root Crops, Market Gardens and other Crops	9,108	10,166	(a) 37,476	5,376	1,543	(c)1,546	65,215
Total	170,719	256,252	49,154	44,250	14,284	2,718	537,377

(a) Including Sugar Cane, 36,171 acres; Cotton, 237 acres; and Tobacco, 1,060 acres. (b) Including pasture land. (c) Including Hops, 928 acres.



This map was published in the Report of the Fifth Interstate Conference on Artesian Water, Sydney, 1928, and is reproduced with the permission of the Water Conservation and Irrigation Commission of New South Wales.

CHAPTER XXV.

LOCAL GOVERNMENT.

§ 1. Introduction.

1. **General.**—The following statistics relating to Local Government are somewhat incomplete and otherwise unsatisfactory, but efforts are being made to obtain fuller and more reliable information. Many of the defects in the statistics of Local Government Authorities have been eliminated, and the returns are now prepared on more uniform lines and in greater detail than formerly.

2. **Roads, Bridges, etc.**—The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in New South Wales and South Australia, more especially in the large unincorporated areas, these duties are undertaken directly by the Government. In some States, moreover, a certain proportion of the roads and bridges is constructed and maintained by the Government, which, in addition, advances money for main roads to be expended by municipalities under the supervision of special Boards. Although roads, bridges and ferries constructed and maintained directly by the Government do not properly come under the heading of "Local Government," they have been included in this chapter for the sake of convenience. Owing to the difficulty of obtaining complete particulars of receipts and expenditure by the various local governing bodies on roads under their control, the details of receipts and expenditure given in the following section are those of the Government only, relating either to the supervisory board or commission in the State or to direct activities of a department.

3. **Local Government Authorities.**—A description of the various systems of municipal government in the different States, and their development from the earliest date, was published in 1919 by the Commonwealth Bureau of Census and Statistics in a separate work entitled "Local Government in Australia."

4. **Water Supply and Sewerage.**—In the cities of Sydney and Melbourne the control of water supply and sewerage is in the hands of special Boards, while in Adelaide and Perth these services are under the direct supervision of Government Departments. In most of the other cities and towns, the municipal councils, or, in some cases, water trusts, are the controlling bodies which either construct the works out of their own resources or take them over after they have been constructed by the Government.

5. **Harbours.**—The majority of the harbours in Australia are managed by Boards, the members of which are either elected by persons interested or appointed by the Government. In a few instances, however, they are directly controlled by the Government. Only those which are controlled by Boards are dealt with in the following pages.

6. **Fire Brigades.**—In all the States, the management of fire brigades is undertaken by Boards. The members of these Boards are usually elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, together with one or more appointed by the Government, while occasionally volunteer or country fire brigades are represented.

§ 2. Roads, Bridges, Etc.

1. *New South Wales.*—(i) *General.* A central road authority was created by legislation early in 1925 for the purpose of providing improved and uniform standards of construction and maintenance of the principal roads, and to administer Governmental subsidies for work on those roads. The funds of this authority (now the Department of Main Roads) are derived principally from taxation of motor vehicles, contributions by the Commonwealth Government from the proceeds of a tax on petrol, direct contributions by Councils and special (not statutory) assistance by the State Government by way of loan moneys or special grants from revenue funds.

There are five classifications of roads which receive assistance from the central authority, and they embrace—

State Highways.—Roads which are principal avenues of communication between the coast and the interior or throughout the State and connecting with such avenues in other States.

Trunk Roads.—Roads which, being secondary avenues of road communication, form with the State Highways and other Trunk Roads, a framework of a general system of intercommunication throughout the State.

Ordinary Main Roads.—Roads which are used principally by through traffic as the means of intercommunication between towns or important centres of population and which with the State Highways and Trunk Roads form part of the general system of road communication throughout the State.

Secondary Roads.—Roads in the Metropolitan area of Sydney which carry a substantial amount of through traffic and relieve neighbouring main roads of traffic which they would otherwise have to bear.

Developmental Roads.—Roads which serve to develop a district or area of land by improving or providing access to a railway station or a shipping wharf or to a road leading to a railway station or a shipping wharf.

The State is divided into two divisions for local government and road administration purposes. The Eastern Division is incorporated in Shires and Municipalities throughout its area while the Western Division, which covers a wide tract of sparsely populated country, is unincorporated except for six municipalities and portions of two other municipalities within the Division.

In the Eastern Division assistance is given to local councils for works on classified roads as described hereunder. For other roads the cost of both construction and maintenance work is generally chargeable to the revenue of local authorities although Government assistance is not infrequently granted for works of construction and reconstruction. This is particularly so in times of acute unemployment and during recent years substantial sums have been distributed for roads by way of grants, primarily for this purpose. There is, in addition, a regular annual endowment of at least £150,000 for shires, a large proportion of which is used for road purposes.

The degree of subsidy from the central road fund in the Eastern Division varies according to the situation of the area concerned, and the classification of the road. There are two areas in this regard (County of Cumberland and Country) and five road classifications, as already described.

The County of Cumberland embraces all municipalities and shires between the Nepean-Hawkesbury River and the Pacific Ocean as far as Bulli on the South, and includes the metropolitan area of Sydney, while the Country covers the remainder of the Eastern Division. In addition to the whole of the motor taxation collected in the Country, half of that collected in the County of Cumberland is required to be spent in the Country, and the contribution by the Commonwealth Government from petrol taxation is distributed between the County of Cumberland and the Country in the same proportion as the motor taxation. The councils in the County of Cumberland, other than the City of Sydney, are required to pay a levy on the Unimproved Capital Value of lands in their areas (with a rebate of half on lands used for rural primary production) into the funds

of the central road authority, which in turn meets the full cost of all proclaimed main roads in that area, together with half the costs of proclaimed secondary roads. The rate of contribution at present is equivalent to 7/16d. in the £ of Unimproved Capital Value. The present rates of subsidy for works in the Country are as follows :—

State Highways	Full cost.
Trunk Roads	Three-quarters of cost.
Ordinary Main Roads ..	Two-thirds of cost.
Developmental Roads ..	Full cost of approved construction works only.

For new bridges these subsidies are increased so that the central authority meets the whole cost on State Highways and Trunk Roads, and three-quarters of the cost on ordinary main roads.

The full cost of all roads and bridges in the Western Division is met by the central road authority.

All work in the Western Division is carried out directly by the central road authority (7,282 miles) while in the Eastern Division the work is carried out by the Councils except for approximately 2,000 miles, mostly on State Highways.

(ii) *Length of Roads—*

Eastern Division—

Proclaimed Roads (30th June, 1938)—	Miles.
State Highways	5,197
Trunk Roads	2,155
Ordinary Main Roads ..	8,819
Secondary Roads	99
Developmental Roads ..	2,491
Minor Roads (31st December, 1937) ..	102,432
<i>Western Division (30th June, 1937) ..</i>	<i>7,282</i>
	<hr/> 128,475

Of these roads, 4,160 miles were of concrete or tar, 5,777 miles of macadam, and 23,985 miles of gravel, while 24,039 miles were formed only, 30,597 miles were cleared only, and 39,917 miles were in their natural state.

(iii) *Revenue and Expenditure.*—The revenue and expenditure of the central road authority for the year ended 30th June, 1938, were as follows :—

<i>Revenue.</i>		<i>Expenditure.</i>	
	£		£
Motor Taxation	1,891,228	Maintenance	1,483,619
Petrol Taxation	1,143,144	Construction	1,696,157
Councils direct contributions ..	224,929	Interest and other loan charges	378,098
Loans from State Government	215,547	Other	102,122
Other	52,032		
Total	3,526,880	Total	3,659,996

The total expenditure, as nearly as can be ascertained, on all roads in the State by all authorities during 1936–37 was £6,854,602.

(iv) *Sydney Harbour Bridge.* The Government expenditure in connexion with the Sydney Harbour Bridge, which amounted to £9,878,624 to the 30th June, 1938, is not included in the above figures. Of this amount £8,202,511 was provided by General Loan Account, £1,665,444 from proceeds of municipal and shire rates, £10,664 from the Unemployed Relief Fund and £5 from the Public Works Fund. Interest and exchange accounted for £1,494,988 and resumptions for £1,151,907. A reduction in the total cost of the bridge will be effected by the sale of surplus resumed lands estimated at from £200,000 to £300,000

2. *Victoria.*—(i) *General.* With the object of improving the main roads of the State the Country Roads Board was established by legislation passed in 1912. The principal duties of the board are to determine the main roads, to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance, and to recommend deviations to existing roads or the construction of new roads in order to facilitate communication or to improve the conditions of traffic.

(ii) *Length of Roads and Streets.* At the end of 1937 there were 104,087 miles² of roads and streets in Victoria, comprising 171 miles asphaltic concrete and sheet asphalt; 6,992 other bituminous; 139 concrete; 22,739 waterbound macadam, gravel, sand and hard loam pavements; 153 wood blocks, granite and other setts; 25,010 formed only; and 48,883 surveyed only but used for general traffic. Of the total length, only 2,308 miles or 2 per cent. were State highways.

(iii) *Receipts and Expenditure.* Funds created under the Act are the Country Roads Board Fund, the Loan Account and the Developmental Roads Loan Account. Particulars of the operations of these Funds are given hereunder.

(a) *Country Roads Board Fund.* All fees (other than fees for licences to drive motor cars) and fines under the Motor Car Act, and all registration fees and fines for traction engines, less cost of collection of such fees and fines, are credited to this fund. The total receipts for the year 1937-38 were £2,254,006 made up as follows:—Motor registration fees, £1,608,879; contributions by municipalities for permanent works (now subject to relief), £145,955, and for maintenance works, £156,667; sale of stores and material and hire of plant, £258,107; and other sources, £84,398. The expenditure for the year was £2,262,637, comprising maintenance and reconditioning of main roads and State highways, £1,129,652; plant, stores, administration, etc., £444,308; and interest, sinking funds, etc., £688,677. The expenditure shown for interest, sinking funds, etc., comprises the following items:—Interest and sinking fund payments on account of loan moneys, £324,832; repayments by municipalities for interest and sinking fund, £118,211; and relief to municipalities from liability in respect of interest and sinking fund, £245,634.

(b) *Country Roads Board Loan Account.* Loans to the amount of £5,322,000 have been authorized from time to time for permanent works on main roads and State highways under the Country Roads Acts. During the year ended 30th June, 1938, the amounts paid into this Account were £57,972 from the State Loans Repayment Fund, while expenditure for the year on permanent works was £58,286, and the total to the end of the year, £4,986,451.

(c) *Developmental Roads Loan Account.* For the purpose of constructing and maintaining subsidiary or developmental roads, the Government was authorized to borrow sums aggregating £6,475,000. These loan moneys were exhausted at 30th June, 1937, the total expenditure at that date being £6,425,757. The difference between the two amounts represents discount and expenses in connexion with the loan.

(d) *Total Expenditure.* In addition to expenditure from the abovementioned Funds, the following amounts were expended under special appropriations on road construction and maintenance:—Unemployment relief, £138,184, contributions by the Commonwealth Government under the provisions of the Federal Aid Roads Act, £578,843, and special Commonwealth grant towards flood repairs, £193.

The total expenditure by the Board on road construction and maintenance during the year ended 30th June, 1938, amounting to £1,907,999, may be summarized as follows:—State Highways, £418,905; main roads, £920,388; developmental roads, £375,632; unemployment relief (on main and developmental roads, etc.), £138,184; tourist roads, £52,046; Murray River bridges and punts, £2,841; and roads adjoining Commonwealth properties, £3.

3. **Queensland.**—Under the Main Roads Act 1920 a Main Roads Board was constituted, consisting of three members appointed by the Governor in Council. In 1925 the Board was abolished and its powers conferred upon a single Commissioner.

The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, secondary, mining access, tourist roads, or tourist tracks, and, under certain circumstances, to undertake their construction and maintenance.

With the exception of State highways, mining access roads or tourist tracks, no road can be proclaimed until the Commission has considered any objections thereto lodged by interested local authorities.

Local authorities are not liable for the return of any expenditure for construction on State highways, mining access roads (serving only mining interests) or tourist tracks, but are, however, responsible for up to 50 per cent. of maintenance. The liability in respect of main roads is 20 per cent. of construction costs; developmental roads 20 per cent. of interest on construction costs; secondary roads 50 per cent. of construction costs; and tourist roads as agreed prior to commencement of work. The liability in respect of maintenance of State highways, main, developmental and secondary roads is 50 per cent. In the case of mining access roads and tourist tracks no repayment is required. The Commissioner has power to reduce the amount of contribution payable by any local authority in respect of permanent works and maintenance where the rate required to produce the annual repayment exceeds 1d. in the pound on the property valuation of the whole area. He has also power to grant relief in exceptional circumstances.

At the 30th June, 1938, there were under various local authorities 120,746 miles of roads in Queensland, of which 5,456 were natural or artificial sand-clay loam, 5,233 waterbound pavement, 1,034 waterbound pavement with bitumen surface, 793 bituminous penetration macadam, 51 concrete, 25,387 formed only and 82,792 unconstructed but used for general traffic. These totals include the roads under the control of the Main Roads Commission, which at the 30th June, 1938, totalled 13,499 miles comprising 9,166 miles of main roads, 3,435 of State highways and 898 of developmental, tourist, etc., roads.

During the year ended 30th June, 1938, the receipts of the Commission amounted to £2,043,642, including £340,000 from the Treasury Loan Fund, £704,854 from motor fees, £757,809 from the Commonwealth for works under the Federal Aid Roads Scheme and £10,633 from the State Unemployment Relief Scheme. Disbursements amounted to £2,039,230, including £1,098,488 on permanent works, and £328,390 on maintenance.

4. **South Australia.**—The Highways Act 1926–1938 created a Commissioner of Highways and provided for a Highways Fund. The Commissioner is virtually empowered to determine upon which main roads he will spend the moneys available; in doing which he has to take into account (a) the moneys voted, or likely to be voted, by Parliament for main roads; (b) whether the road is or will be the main trunk route (i) connecting any large producing area, or any area capable of becoming in the near future a large producing area, with its market or nearest port or railway station; (ii) connecting two or more large producing areas, or areas capable of becoming in the near future large producing areas, or between two or more large centres of population; (iii) between the capital and any large producing area or any large centre of population; (iv) between the capitals of this State and any other State; and (c) whether the area through which the road passes is, or in the near future will be, sufficiently served by a railway or railways.

After providing for certain fixed charges the Highways Fund is to be credited with the balance received from (a) licence-fees and registration fees under the Road Traffic Act 1934–1938; (b) fees for hawkers' licences; (c) contributions from Councils; and (d) all loans raised and appropriated for roads. All moneys received by the State from the Commonwealth under the Federal Aid Roads Scheme are also expended by the Commissioner of Highways under the general provisions of the Highways Act.

The total length of roads in use for general traffic within local governing areas at the 30th June, 1937, was 52,914 miles, of which 10 miles were paved with wood or stone; 213 were bituminous concrete; 1,041 bitumen penetration; 14,546 tarpaved, metalled or gravelled; 7,445 formed only; and 29,659 unformed.

The expenditure from the Main Roads Fund, now named the Highways Fund, for the year ended 30th June, 1938, was £732,120, including £135,766 for interest on loans; the amount received from the Commonwealth Government for expenditure on Federal Aid Roads was £445,467; the amount allocated for roads in newly settled areas, etc., was £70,000; and grants in aid of rates collected paid to Councils amounted to £27,139. In sparsely-settled districts outside the incorporated areas, the roads and bridges are constructed and maintained chiefly by the Engineering and Water Supply Department under arrangement with the Commissioner of Highways. The amount so expended during the same period was £17,973. At the close of the period under review, the Commissioner was maintaining departmentally about 1,372 miles of improved main roads.

5. **Western Australia.**—In Western Australia the construction, maintenance and management of main and developmental roads throughout the State are under the control of the Commissioner of Main Roads, appointed under the Main Roads Act 1930. At the 30th June, 1938, the length of "Declared Main Roads" was 2,973 miles. Minor roads are controlled by Municipalities and District Road Boards.

6. **Tasmania.**—(i) *Length and Description of Roads.* At the 30th June, 1938, there were 9,333 miles of roads in Tasmania, comprising 551 of bitumen or oil-sprayed; 5,092 metalled and gravelled; 2,276 formed; and 1,414 grubbed and cleared. These figures are based on an actual count by the Public Works Department, and they represent a considerable reduction on those previously shown owing to the deletion of bush tracks and reserves for roads. Of the total length, 1,339 miles were State highways.

(ii) *Construction.* In Tasmania the cost of construction of roads and bridges is borne almost entirely by the State Government. Half the proceeds of the sale of land has been applied to form a Crown Lands Fund for the construction of roads to new holdings. This fund has in recent years more than met the demands on it, and expenditure therefrom since 1918 has been limited to £10,000 annually, the balance being used for redemption of debt.

Loan money expended by the Public Works Department during the year 1937-38 on the construction of roads and bridges amounted to £62,634, and expenditure from the Crown Lands Fund to £1,741. In addition, the sum of £167,513 provided by the Commonwealth Government was expended on roads. New-road mileage completed during the year was 144 miles metalled and gravelled under State votes, and 12 miles of new construction and 46 miles of reconstruction under Federal Aid Roads Scheme.

(iii) *Maintenance.* The maintenance of roads, other than State highways, is undertaken by the municipalities out of their own revenues. All bridges costing over £50 are maintained by the State Government. The maintenance of State highways is provided for by the State Highways Act 1929, which created the State Highways Trust Fund to which is paid from Consolidated Revenue a sum equal to the amount of all motor taxes collected in the immediately preceding financial year and paid into the Treasury, less 2 per cent. The expenditure on State highways for 1937-38 was £83,457.

7. **Summary of Net Loan Expenditure on Roads and Bridges.**—Figures showing the total expenditure on roads and bridges in the States are not available. The following table shows the annual net loan expenditure on roads and bridges by the central Government in each State during the years 1933-34 to 1937-38, together with the aggregate amounts of expenditure up to the 30th June, 1938. The net loan expenditure by the Government is not available for Tasmania and the figures given in the following table represent the actual amounts expended by the Department of Public Works, including sums for unemployment relief.

ROADS AND BRIDGES : NET LOAN EXPENDITURE.

Year ended 30th June—	N.S.W.	Victoria.(a)	Q'land.(b)	S. Aust.(c)	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1934 ..	Cr. 37,927	114,419	469,226	..	199,279	63,240	808,237
1935 ..	262,436	95,360	891,929	..	110,508	65,960	1,426,193
1936 ..	92,682	77,940	573,655	..	132,783	82,773	958,933
1937 ..	669,704	41,807	459,114	196,000	123,659	96,787	1,587,071
1938 ..	716,051	Cr. 50,200	460,325	152,500	154,713	62,634	1,496,023
Total to 30/6/38	17,945,383	12,373,057	7,031,878	3,568,245	2,790,035	5,438,174	49,146,772

(a) Represents expenditure from loan and on account of loan. (b) Amounts include relative expenditure by the Public Estate Improvement Branch. (c) Adjusted figures, excluding credits due to purchase of securities.

The loan expenditure given above does not represent the total expenditure on roads and bridges. It relates for the most part to capital expenditure on new works, but it must be supplemented by similar expenditure from loan funds of local bodies, Federal grants and unemployment relief moneys, and further account must be taken of expenditure on maintenance which is mainly defrayed from the current revenues.

§ 3. Local Government Authorities.

1. Area, Population and Value of Ratable Property.—(i) *New South Wales.* Practically the whole of the State, with the exception of the greater portion of the Western Division, has been divided into municipalities and shires, the total area incorporated at the end of 1937 being 184,011 square miles, of which 2,136 square miles are included in the former and 181,875 in the latter. The areas incorporated comprise the whole of the Eastern and Central Divisions of the State (with the exception of Lord Howe Island, the islands in Port Jackson and the quarantine station at Port Jackson) and a small portion of the Western Division consisting of the whole of six and part of two municipalities.

The operations of the City of Sydney are governed by the Sydney Corporation Act, 1932-1934, and those of other local government areas known as municipalities and shires by the Local Government Act, 1919, and amendments.

The area, population and value of ratable property in the incorporated areas at the 31st December, 1937, are given below. The valuations relate to ratable property only and exclude Government and other non-ratable property, the value of which is not inconsiderable in the aggregate.

LOCAL GOVERNMENT AUTHORITIES, NEW SOUTH WALES : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1937.

Local Bodies.	Number.	Area.	Population 31st December, 1937.	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Metropolitan—	No.	Acres.	No.	£	£	£
Capital City ..	1	3,220	88,270	47,822,749	150,839,540	6,787,727
Other Municipalities ..	48	152,073	1,181,860	91,731,130	275,906,008	20,745,753
Shires ..	3	283,700	56,430	7,401,122	17,800,503	1,106,152
Total ..	52	438,993	1,326,560	146,955,001	444,546,051	28,639,632
Outside Metropolitan Area—						
Municipalities ..	121	1,211,985	591,710	32,117,399	110,424,971	8,612,979
Shires ..	136	116,115,840	767,940	131,985,760	(a)	(a)
Total ..	257	117,327,825	1,359,650	164,103,159	(a)	(a)
Grand Total ..	309	117,766,818	2,686,210	311,058,160	(a)	(a)

(a) Not available.

(ii) *Victoria.* Local Government is established throughout the State, the various divisions being termed cities, towns, boroughs, or shires. The only unincorporated area is French Island in Western Port Bay. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the Local Government Act.

The financial years of the cities of Melbourne and Geelong end on the 31st December and the 31st August respectively, and those of all other municipalities on the 30th September. The area, population and value of ratable property in the incorporated areas are given below :—

LOCAL GOVERNMENT AUTHORITIES, VICTORIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1937.

Local Bodies.	Number.	Area.	Population.	Value of Ratable Property.	
				Improved Capital Value.	Annual Value.
	No.	Acres.	No.	£	£
Metropolitan—					
Capital City	1	7,740	92,850	89,310,100	4,465,505
Other	28	160,906	934,690	252,443,240	13,862,415
Total	29	168,646	1,027,540	341,753,340	18,327,920
Outside Metropolitan Area	166	56,074,895	830,160	288,332,210	14,533,036
Grand Total	195	56,243,541	1,857,700	630,085,550	32,860,956

(iii) *Queensland.* The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation area and the Somerset Dam area) is incorporated into cities, towns and shires under the Local Authorities Act 1902 and its amendments. The following table gives particulars of the area, population, and value of ratable property in the incorporated areas for the year 1936, except for the City of Brisbane for which financial particulars relate throughout to the year ended 30th June, 1937 :—

LOCAL GOVERNMENT AUTHORITIES, QUEENSLAND : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1936-37.

Local Bodies.	Number.	Area.	Population. (a)	Unimproved Capital Value.
				£
	No.	Sq. miles.	No.	
Capital City	1	385	313,430	21,067,818
Outside Metropolitan Area	143	669,449	668,704	50,816,913
Total	144	669,834	982,134	71,884,731

(a) At 31st December, 1936.

(iv) *South Australia.* The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns, and district councils in the agricultural areas. With the exception of the Corporation of Adelaide, grants are allocated to these bodies by the Commissioner of Highways for the maintenance and construction of main and other roads.

The following table gives the area, population and value of ratable property in incorporated areas for the year ended 30th June, 1937.

LOCAL GOVERNMENT AUTHORITIES, SOUTH AUSTRALIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1937.

Local Bodies.	Number.	Area.	Population.	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Metropolitan—	No.	Acres.	No.	£	£	£
Capital City ..	1	3,772	31,390	11,799,742	24,883,840	1,244,192
Other ..	20	99,215	286,077	(a)	67,916,236	3,426,721
Total ..	21	102,987	317,467	(a)	92,800,076	4,670,913
Outside Metropolitan Area ..	121	34,399,783	260,300	(a)	78,821,965	3,893,856
Grand Total ..	142	34,502,770	577,767	(a)	171,622,041	8,564,769

(v) *Western Australia.* In this State Local Government is carried on by means of (a) municipalities, and (b) district road boards. Certain functions are delegated to health boards, the personnel of which, in most cases, coincides with those of the municipalities and district road boards. The following table gives particulars of the area, population and value of ratable property in incorporated areas for the year ended October, 1937 for Municipalities, and the year ended June, 1937 for District Road Boards.

LOCAL GOVERNMENT AUTHORITIES, WESTERN AUSTRALIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1937.

Local Bodies.	Number.	Area.	Population.	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Municipalities—	No.	Acres.	No.	£	£	£
Metropolitan—						
Capital City ..	1	15,479	85,670	(a)	30,000,000	1,437,346
Other ..	8	11,374	64,677	(a)	12,634,854	608,547
Outside Metropolitan Area ..	12	32,686	48,075	(a)	5,902,752	476,093
Total ..	21	59,539	198,422	(a)	48,537,606	2,521,986
District Road Boards—						
Other Metropolitan ..	11	322,560	76,397	3,625,642	(a)	975
Outside Metropolitan Area ..	116	624,207,360	200,238	18,338,645	(a)	486,407
Total ..	127	624,529,920	276,635	21,964,287	(a)	487,382
Grand Totals ..	148	624,589,459	475,057	(a)	(a)	3,009,368

The method of valuation is not identical in the case of all District Road Boards, as in some the assessment is based on the unimproved capital value and in others partly on the unimproved capital value and partly on the annual value. The amounts given are the totals for the areas rated on each valuation, and are not a function of each other.

(vi) *Tasmania.* The whole State is divided into municipal districts, Hobart and Launceston being incorporated under separate Acts. The following table gives particulars of the area, population and value of ratable property in incorporated areas for the year ended June, 1937.

LOCAL GOVERNMENT AUTHORITIES, TASMANIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1937.

Local Bodies.	Number.	Area.	Population.	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Metropolitan—						
Capital City ..	1	17,755	50,300	£ 4,680,772	£ 12,758,483	£ 778,015
Other ..	2	99,000	13,200	1,063,886	2,779,566	142,569
Total ..	3	116,755	63,500	5,744,658	15,538,049	920,584
Outside Metropolitan Area ..	46	16,661,245	168,708	16,193,300	35,857,335	1,801,852
Grand Total ..	49	16,778,000	232,208	21,937,958	51,395,384	2,722,436

2. **Revenue and Expenditure.**—As the result of resolutions adopted at a Conference of Statisticians in 1936 the financial statistics of Local Government Authorities are now compiled in the various States on a more comparable basis than formerly.

In the returns of revenue and expenditure in the following tables for the year 1937 the proceeds from loans and expenditure thereof have been excluded, as have the operations of business undertakings controlled by the various Local Government Authorities. The profits resulting from the working of these undertakings have been taken into receipts and shown separately.

LOCAL GOVERNMENT AUTHORITIES : REVENUE, 1937.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
Taxation—							
Rates (net) ..	£ 5,081,492	£ 3,594,547	£ 1,990,870	£ 836,134	£ 639,067	£ 321,531	£ 12,614,626
Penalties ..	111,417	36,717	..	..	835	2,016	..
Licences ..	69,595	85,876	33,398	28,925	19,331	9,969	247,094
Other ..	47,242	..	..	..	..	..	47,242
Total ..	5,309,746	3,717,140	2,024,268	865,059	659,233	333,516	12,908,962
Public Works and Services—							
Sanitary and garbage services ..	454,107	154,190	368,177	(e) 749	86,581	11,140	1,074,944
Council properties ..	509,592	502,485	240,592	85,126	94,780	51,247	1,483,822
Street construction ..	327,293	172,254	14,494	(f)	10,495	1,903	526,439
Other ..	143,766	42,189	5,702	6,409	3,401	7,625	209,092
Total ..	1,434,758	871,118	628,965	92,284	195,257	71,915	3,294,297
Government Grants—							
Unemployment relief ..	933,194	69,176	803,758	..	..	..	..
Roads ..	1,313,912	..	737,350	293,024	33,312	27,562	..
Other ..	a 1,454,932	(b) 918,297	(c) 433,905	..	14,591	3,155	7,098,337
Total ..	3,702,038	987,473	1,975,013	293,024	94,753	46,036	7,098,337
Profits from Business Undertakings—							
Fees and fines ..	..	244,140	4,000	(f)	51,074	19,798	319,012
All other ..	{ 49,850	{ 10,070	{ 123,461	186,167	{ 2,930	{ 10,833	{ 825,063
Total ..	10,496,392	5,887,721	4,755,707	1,436,534	1,372,970	496,347	24,445,671

(a) Includes grants for specific work mainly to relieve unemployment, £1,241,836 and endowment £175,425. (b) Includes £802,055 sustenance and Farm Labourers' Scheme. (c) Includes £416,105 subsidy of loans. (d) Includes £25,026 sale of plant, buildings, etc. (e) Part only; major portion not available separately. (f) Not available separately. (g) Includes £297,411 collections in connexion with vehicle registrations.

In the next table the expenditure for the year 1937 is shown. The figures are exclusive of expenditure in connexion with the debt services of business undertakings.

LOCAL GOVERNMENT AUTHORITIES : EXPENDITURE, 1937.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
General Administration	696,470	585,788	292,172	139,736	122,575	55,211	1,891,952
Debt Services (excluding business undertakings)—							
Interest ..	783,545	489,508	529,970	46,228	100,223	34,047	1,983,521
Redemption ..	976,772	390,760	316,084	56,159	139,324	24,522	1,903,621
Exchange ..	39,743	..	40,522	..	2,333	3,759	77,357
Other ..	3,995	11,115	902	..	192	..	16,204
Total ..	1,795,055	891,383	887,478	102,387	242,072	62,328	3,980,703
Public Works and Services—							
Roads, streets and bridges ..	5,474,571	1,910,540	2,712,382	788,411	522,132	207,733	11,615,769
Health administration ..	125,128	49,282	89,658	33,496	35,523	20,313	353,400
Sanitary and garbage services ..	594,040	245,532	330,915	76,775	111,918	19,384	1,378,564
Street lighting ..	325,699	168,807	63,896	55,125	40,994	22,631	677,152
Council properties ..	1,203,448	734,384	184,022	105,099	223,542	47,384	2,497,879
Other ..	156,103	176,956	125,556	61,126	14,558	14,963	549,262
Total ..	7,878,989	3,285,501	3,506,429	1,120,032	948,667	332,408	17,072,026
Grants—							
Fire brigades ..	96,344	66,112	21,849	11,172	21,920	3,965	221,362
Hospitals and ambulances ..	25,498	40,875	168,244	11,838	10,364	603	262,681
Other charities ..	..	..	500	2,660	1,790	309	..
Other ..	(a)302,539	(b)246,038	14,408	(d)40,574	1,148	2,752	607,459
Total ..	424,381	353,025	205,001	66,244	35,222	7,629	1,091,502
All Other ..	114,679	(c)856,279	69,734	37,464	43,462	21,960	1,143,578
Total ..	10,909,574	5,971,976	4,960,814	1,465,863	1,391,998	479,536	25,179,761

(a) Main Roads Department and Harbour Bridge Fund. Roads Board.

(c) Includes £821,617, sustenance.

(b) Includes £196,197 to Country (d) Includes £39,807 to police.

3. **New Money Loan Raisings, Debt and Interest Payable.**—Particulars are given in the following table of new money loan raisings during the year 1937-38 and the amount of debt at 30th June, 1938, together with the interest payable annually thereon. In addition to those Local Government Authorities referred to above, the table includes details for those boards or statutory authorities administering works or services such as water supply, sewerage, electricity, roads, tramways, harbours, fire brigades, trading activities, marketing agencies, etc.

LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN RAISINGS, DEBT AND INTEREST PAYABLE, 1937-38.

Particulars.	N.S.W. £'000.	Victoria. £'000.	Q'land. £'000.	S. Aust. £'000.	W. Aust. £'000.	Tasmania. £'000.	Total. £'000.
LOCAL GOVERNMENT AUTHORITIES.							
New Money Loan Raisings(a)	4,987	799	2,129	89	223	214	8,441
Funds Provided for Redemption—							
Repayments by Instalments	2,491	634	496	77	129	59	3,886
Amounts Credited to Sinking Fund	658	98	275	2	77	52	1,162
Total	3,149	732	771	79	206	111	5,048
Debt—							
Due to Government	3,987	664	10,151	394	43	362	15,601
Due to Banks (Net Overdraft)	250	325	708	45	32	43	1,403
Due to Public Creditor	34,549	12,105	18,289	846	3,141	2,852	71,782
Total	38,786	13,094	29,148	1,285	3,216	3,257	88,786
Maturing Overseas	7,390	31	9,088	..	552	1,194	18,255
Interest Payable	1,709	582	1,357	59	142	144	3,993
SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.							
New Money Loan Raising(a)	2,935	1,425	1,290	672	2	42	6,366
Funds Provided for Redemption—							
Repayments by Instalments	870	270	214	90	12	18	1,474
Amounts Credited to Sinking Fund	402	201	13	45	3	1	665
Total	1,272	471	227	135	15	19	2,139
Debt—							
Due to Government	22,387	2,703	8,301	7,079	299	371	41,140
Due to Banks (Net Overdraft)	234	166	1,271	26	4	..	1,701
Due to Public Creditor	48,317	39,145	2,604	811	104	486	91,467
Total	70,938	42,014	12,176	7,916	407	857	134,308
Maturing Overseas	5,431	6,669	..	..	..	..	12,100
Interest Payable	2,557	1,873	466	316	18	36	5,266

(a) Excluding Loans raised and entirely redeemed within the year.

§ 4. Water Supply, Sewerage and Drainage.

1. **New South Wales.**—(i) *General.* In Sydney and its suburbs the water supply and sewerage systems are controlled by the Metropolitan Water, Sewerage and Drainage Board, and in Newcastle and its suburbs by the Hunter District Water Board. The Metropolitan Board's services extend to the South Coast and embrace Wollongong and

Port Kembla. In country districts, both waterworks and sewerage works were formerly constructed by the Public Works Department, and, when completed, handed over to the local government authority affected, by which the cost was to be repaid. Under an Act passed in 1935, the raising of loans by councils until the 30th June, 1939 to meet the capital cost of works was facilitated, and councils are now required to undertake the work of construction. In certain cases the Government contributes towards the cost.

(ii) *Waterworks.* (a) *Metropolitan.* The catchment area of the metropolitan water system, covering an area of 347 square miles, is drained by the Nepean, Cataract and Cordeaux Rivers. At 30th June, 1938, there were in the system 8 storage reservoirs with a capacity of 109,071,000,000 gallons and 80 service reservoirs with a capacity of 514,704,000 gallons. Storage facilities are provided chiefly by four reservoirs, namely, Avon, 47,153,000,000 gallons; Cataract, 20,743,000,000 gallons; Cordeaux, 20,597,000,000 gallons; and Nepean, 17,898,000,000 gallons. The total length of mains is 4,031 miles. The average daily consumption during 1937-38 was 105,290,000 gallons.

(b) *Newcastle.* The supply is drawn from the Chichester Reservoir, and is piped about 50 miles to Newcastle. The storage reservoir capacity is 5,000 million gallons. In addition to supplying Newcastle, water is reticulated in Maitland, 20 miles distant from Newcastle, and in the Cessnock coalmining field, as well as in areas adjoining these centres. The supply also extends to the farming areas of Miller's Forest and the lakeside resorts of Belmont, Swansea and Toronto. Water can also be supplied from the Hunter River at Maitland if required. Reservoirs distributed throughout the Water Supply District number 36, with a total storage capacity of 60,480,510 gallons. The total length of mains was 898 miles at 30th June, 1937.

(c) *Water Supplied, etc.* The following table gives the number of houses, the estimated population supplied, and other details for the year ended 30th June, 1938:—

WATERWORKS, SYDNEY AND NEWCASTLE: WATER SUPPLIED, 1937-38.

System.	Number of Premises Supplied.	Estimated Population Supplied.	Average Daily Supply.	Total Supply for the Year.	Average Daily Supply.	
					Per Property.	Per Head of Estimated Population.
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.
Sydney ..	341,948	1,438,000	105,290	38,431,000	308	73.21
Newcastle ..	47,089	235,400	11,253	4,107,500	239	47.79

(iii) *Sewerage and Drainage.* (a) *Metropolitan.* The Sydney sewerage system consists of three main outfalls, discharging into the Pacific Ocean. During 1937-38, new sewers laid measured 94.5 miles and three miles of stormwater drains were constructed.

(b) *Newcastle Sewerage Works.* The sewerage works for Newcastle and suburbs as originally designed were completed by the Department of Public Works and vested in the Board. The system has its outfall at Merewether Gulf, south from Newcastle. The length of new sewers laid was 23 miles in 1937-38, and properties connected increased by 1,643.

The stormwater drainage of Newcastle and adjoining areas is divided into two catchment areas, namely, the works in the Cottage Creek Stormwater Area and the works in the Trosby Creek Stormwater Area. A drainage rate of 3d. in the £ on assessed annual value of ratable property was levied in 1937-38.

(c) *Particulars of Services.* The following table supplies details of sewerage services and stormwater drains as at 30th June, 1938.

SEWERAGE AND DRAINAGE : SYDNEY AND NEWCASTLE, 1937-38.

System.	Premises Drained.	Population Served.	Length of Sewers.	Length of Stormwater Drains.
	No.	No.	Miles.	Miles.
Sydney	245,144	1,031,000	2,477.0	85.6
Newcastle	26,932	130,700	300.2	34.8

(d) *Finances.* The following statement shows the revenue and expenditure on account of the services of waterworks, sewerage and drainage during the year 1937-38:—

WATERWORKS—SEWERAGE AND DRAINAGE : SYDNEY AND NEWCASTLE, 1937-38.

Item.	Revenue.	Working Expenses, Sinking Fund Contribution, Renewals and Exchange. (a)	Interest.	Surplus + or Deficit —	Ratio of Working Expenses and Sinking Fund Contribution, etc. to Revenue.	Capital Debt.	Ratio of Revenue to Capital Debt.
	£	£	£	£	%	£	%
Sydney—							
Water ..	1,741,809	746,447	929,995	+ 65,367	42.8	25,670,843	6.79
Sewerage ..	999,989	405,401	569,871	+ 24,717	40.5	15,402,163	6.49
Drainage ..	41,526	22,157	40,282	— 20,913	53.3	1,006,479	4.13
Total ..	2,783,324	1,174,005	1,540,148	+ 69,171	42.2	42,079,485	6.61
Newcastle—							
Water ..	240,097	108,712	100,095	+ 31,290	45.3	3,034,183	7.91
Sewerage ..	115,229	61,974	64,052	— 10,797	53.8	2,182,903	5.28
Drainage ..	14,733	12,124	35,560	— 32,951	82.3	1,086,127	1.36
Total ..	370,059	182,810	199,707	— 12,458	49.4	6,303,213	5.87

(a) Sinking fund contributions amounted to £164,486 in the case of the Sydney system, comprising £97,005 for water, £63,319 for sewerage and £4,162 for drainage, the distribution of exchange aggregating £109,077, being £66,653, £40,538 and £1,886 respectively. In the Newcastle system sinking fund contributions totalled £24,712 and exchange £25,588, the charges to water account being £12,180 and £12,962, to sewerage £8,600 and £8,203 and to stormwater drainage £3,932 and £4,423 respectively.

(iv) *Waterworks, Sewerage and Stormwater Drainage Works in Country Towns.** The capital indebtedness of the water and sewerage schemes in country towns controlled by local councils was £5,723,382 at 31st December, 1937, namely, £3,767,552 for water and £1,955,830 for sewerage. Of the foregoing amounts, £3,329,248 for water and £1,522,391 for sewerage are owing to the State Government. At 31st December, 1937, country waterworks were in operation or under construction in 80 municipalities and 33 shires, and country sewerage services in 43 municipalities and seven shires.

Two country water storage systems—South-west Tablelands and Juneec—are administered by the Department of Works and Local Government. These deliver water into service reservoirs for reticulation by Councils; only a small quantity is sold directly to private consumers. The capital indebtedness of these systems was £1,061,172 at 31st December, 1937.

* Excluding the area of operation of the Hunter District Water Board (Newcastle).

A water supply system at Broken Hill was transferred from the control of the Department of Works and Local Government to a special Board in terms of an Act passed in 1938. At 31st December, 1938, the capital indebtedness of the waterworks to the State was £85,456. This amount was written off, and the Board has commenced the construction of exhaustive amplification works and sewerage services.

2. **Victoria.**—(i) *A. Melbourne and Metropolitan Board of Works. (a) General.* All land within 13 miles of the Post Office at the corner of Bourke and Elizabeth streets, Melbourne, together with the remaining areas of the Cities of Mordialloc and Moorabbin and further portions of the Shires of Dandenong and Blackburn and Mitcham, but excluding 11 square miles in the Shires of Keilor and Braybrook under the control of the Keilor and St. Albans Waterworks Trust, is included within the metropolitan area for water supply, sewerage, main drainage and river improvement purposes. This territory covers 436 square miles of land area, and in 1938 embraced 26 cities, and parts of one other city and of 11 shires, or a total of 38 municipalities or portions thereof. In addition, the Board supplies water to certain municipalities outside the metropolitan area.

The Board's liability on the 30th June, 1938, for loans raised was £25,425,360. The Board was then still empowered to borrow £1,714,574 before reaching the limit of its borrowing powers.

(b) *Receipts and Expenditure.* The ordinary receipts and expenditure for the year 1937-38 were £2,241,320 and £1,908,113 respectively, and the loan receipts and expenditure, £845,209 and £994,151 (including loan redemption £330,490) respectively.

In the following tables showing the finances of the various services, charges against General Revenue Account amounting to £456,822 have not been included.

B. Melbourne Water Supply. (a) Number of Houses, Population, and Quantity of Water Supplied. The following table gives particulars of services for the year 1937-38. The rate levied was sevenpence in the pound on the net annual value of the property served.

WATER SUPPLY, MELBOURNE: PARTICULARS OF SERVICES.

Year ended 30th June—	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Water Consumption for the Year.	Average Daily Consumption.		Length of Mains, Reticulation, etc.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1938 ..	278,310	1,104,891	81,878	29,885,542	294.20	74.11	3,146

(b) *Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The cost of construction and the financial operations for the year ended 30th June, 1938 are given below. The total capital cost to that date was £11,911,287.

WATER SUPPLY, MELBOURNE: FINANCES.

Year ended 30th June—	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
	£	£	£	%	£	£
1938 ..	145,595	968,440	151,034	15.59	533,057	284,349

(a) Includes interest on renewals and payments to sinking funds.

C. *Melbourne Sewerage.* (a) *Number of Houses Connected, etc.* Particulars of services for the year 1937-38 are given below. The rate levied was one shilling and two pence in the pound on the net annual value of the property served.

SEWERAGE, MELBOURNE : PARTICULARS OF SERVICES.

Year ended 30th June—	Number of Houses for which Sewers are Provided.	Estimated Population for which Sewers are Provided.	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1938 ..	261,872	1,039,632	48,178	17,584,810	183.9	46.3	2,560

(b) *Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The cost of construction and the financial operations for the year ended 30th June, 1938, are given below. The total capital cost to that date was £13,851,156.

SEWERAGE, MELBOURNE : FINANCES.

Year ended 30th June—	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest (a)	Surplus.
	£	£	£	%	£	£
1938 ..	238,668	1,076,731	174,227	16.18	679,310	223,194

(a) Includes interest on renewals and payments to sinking funds.

(c) *Metropolitan Sewage Farm.* The total area of the farm at the 30th June, 1938, was 22,634 acres. The following table gives details in connexion therewith for the year 1937-38. The total capital cost to the 30th June, 1938, was £1,236,953.

METROPOLITAN SEWAGE FARM : FINANCES.

Year ended 30th June—	Capital Cost for Year.	Cost of Sewage Disposal.	Interest.	Trading Profit.	Net Cost of Sewage Purification.
	£	£	£	£	£
1938 ..	22,004	32,381	55,653	12,338	75,696

(d) *Disposal of Night-soil from Unsewered Premises.* The total number of pans cleaned by the Board at its depots at Brooklyn, Campbellfield and Moorabbin, where the night-soil was disposed of by burial, was 593,229 for the year 1937-38.

D. Melbourne Drainage and Rivers—Capital Cost, Revenue, Working Expenses, Interest and Surplus. The following table gives details in connexion therewith for the year ended 30th June, 1938. The total capital cost to that date was £1,205,010.

DRAINAGE AND RIVERS, MELBOURNE: FINANCES.

Year ended 30th June—	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
1938	£ 15,994	£ 88,265	£ 19,053	% 21.58	£ 60,571	£ 8,641

(a) Includes interest on renewals and payments to sinking funds.

(ii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust, constituted in 1908, consists of five commissioners. The amount of loan money which may be raised is limited to £900,000 for water supply undertaking, £760,000 for sewerage undertaking, and £270,000 for sewerage installation to properties under the deferred payment system. The population supplied is about 48,000.

(b) *Water Supply.* The catchment area is about 16,000 acres. The storage capacity of all the reservoirs is 2,738,119,800 gallons. In addition, the State Rivers and Water Supply Commission has made available a supplementary supply of a minimum quantity of 550 million gallons of water per annum from the upper reaches of the river Barwon. There are 308 miles of mains within the water supply area. The total expenditure on waterworks to the 30th June, 1938, was £713,679, and the revenue for the year 1937-38 was £56,905; the sinking fund appropriations at June, 1938, amounted to £71,141, of which £64,350 has been expended in the redemption of loans. There is a water rate of one shilling in the pound (with minima of five shillings for unbuilt on land and one pound for tenements) on the net annual value of ratable properties. The Replacement and Contingencies Reserve (Water) amounts to £22,500.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 13½ miles of main sewers and 142½ miles of reticulation mains have been constructed. The drainage area is 9,571 acres, and the number of buildings within the drainage area is 11,927, and within the sewerage areas 11,688, while 11,670 buildings have been connected with the sewers. The total expenditure to 30th June, 1938, on sewerage works was £645,829, and on the cost of sewerage installations under deferred payment conditions £257,403, of which £3,581 is outstanding. The revenue in 1937-38 amounted to £39,935 and the sinking fund appropriations at June, 1938, were £67,715, of which £65,402 has been expended in the redemption of loans. A general rate of one shilling and threepence in the pound is levied on the net annual value of ratable properties. Replacement and Contingencies Reserves (Sewerage) amount to £13,200.

(iii) *The Ballarat Water Commission and the Ballarat Sewerage Authority.* (a) *General.* The Ballarat Water Commission was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on the 30th November, 1920. The members of the Water Commission are the Sewerage Authority. The Commissioners number seven, three (one of whom is chairman) being appointed by the Government, and four being elected by the Council of the City of Ballarat.

(b) *Water Supply.* The Water Supply District embraces an area of about 27 square miles, containing a population of about 43,000. The total storage capacity of the six reservoirs is 2,215,558,000 gallons.

The capital cost of construction of the waterworks is £668,336. The liabilities are loans due to the Government amounting to £286,420 as at 31st December, 1938. The revenue for the year 1938 was £35,303.

(c) *Sewerage.* The scheme as designed provides for a population of 90,000 persons. The capital cost of construction to 31st December, 1938, was £436,370. The method of sewerage disposal is by sedimentation, oxidation and sludge digestion. Eighty-nine sewered areas have been declared as at 1st January, 1939, comprising 9,208 tenements.

The scheme is financed by debenture-issue loans from various financial institutions, £480,620 having been provided up to 31st December, 1938, of which £54,412 has been redeemed, leaving a loan liability of £426,208 for constructional works. An expenditure of £179,144 was incurred for house connexions, of which £155,585 has been redeemed, the balance outstanding being £23,559.

(iv) *Bendigo Sewerage Authority.* The members of the Bendigo City Council constitute this Authority. The sewerage district comprises the populated area of the city of Bendigo. The works are completed and the expenditure to 30th September, 1938, was £334,263 for sewerage scheme and £183,579 for house connexions, excluding those tenements connected privately. The number of tenements connected to sewers is 6,289.

(v) *Sewerage in other Country Districts.* At the end of 1938 sewerage authorities had been constituted also in the following districts:—Ararat, Bairnsdale. Benalla, Castlemaine, Colac, Dandenong, Dimboola, Echuca, Hamilton, Horsham, Kerang, Kyabram, Kyneton, Lorne, Maffra, Mildura, Murtoa, Nhill, Portland, Sale, Shepparton, Swan Hill, Wangaratta, Warracknabeal, Warragul, Warrnambool and Yarrowonga.

(vi) *Water Supply in Country Towns and Districts.* Most of the country waterworks are controlled by the State Rivers and Water Supply Commission, but in some instances the control is by waterworks trusts or by municipal corporations.

The following table gives particulars regarding waterworks under the control of trusts and municipal corporations for the year 1938:—

COUNTRY WATERWORKS, VICTORIA : FINANCES.

Year.	Under Waterworks Trusts.				Under Municipal Corporations.			
	Number of Trusts.	Capital Cost	Capital Indebtedness.	Current Interest Outstanding.	Number of Corporations.	Capital Cost.	Capital Indebtedness.	Current Interest Outstanding.
	No.	£	£	£	No.	£	£	£
1938	109	1,992,723	1,438,061	1,724	17	887,850	567,699	208

3. *Queensland.*—(i) *Department of Works, Water Supply and Sewerage, Brisbane City Council.* (a) *General.* The whole of the water supply in the metropolitan area and the bulk supply to the City of Ipswich is filtered.

The available storage in the Brisbane River is 543 million gallons, the catchment area being approximately 4,000 square miles. In Lake Manchester the storage capacity is 5,700 million gallons, and the catchment area 28.5 square miles. The capacities of Enoggera and Gold Creek reservoirs are 1,000 million gallons and 407 million gallons respectively, and the catchment areas 12.8 and 3.8 square miles respectively.

The total capacity of the service reservoirs on Tarragindi Hill, Eildon Hill, Bartley's Hill, Highgate Hill, Roles Hill, Wickham Terrace and Paddington (elevated tank) is approximately 27,356,000 gallons.

(b) *Waterworks. Summary.* The following table gives a summary of operations for the year ended 30th June, 1938 :—

WATERWORKS, BRISBANE : SUMMARY.

Year ended 30th June—	Length of Reticulation Mains.	Number of Tenements Connected. (a)	Estimated Population Supplied.	Quantity Supplied.	Average Daily Supply.	Average Daily Supply per Head of Estimated Population.
	Miles.	No.	No.	1,000 Gallons.	Gallons.	Gallons.
1938	947	73,291	311,487	4,857,020	13,306,904	43.37

(a) Exclusive of Ipswich, which is a bulk supply.

The total length of the trunk mains is 206 $\frac{1}{4}$ miles.

(c) *Sewerage.* At the 30th June, 1938, 29,342 premises were connected to the Council's sewerage system, the estimated population served being 132,039 persons. The total length of sewers in operation is 922 miles, consisting of 474 miles of sewers within premises, and 448 miles of main and reticulation sewers.

(d) *Waterworks and Sewerage Works Finances.* The subjoined table gives particulars regarding finance during the year ended 30th June, 1938 :—

WATER AND SEWERAGE WORKS, BRISBANE : FINANCES.

Year ended 30th June—	Capital Cost.	Net Revenue from Rates.	Management and Working Expenses.	New Works Construction.	Interest and Redemption of Loans, including Sinking Fund and Overdraft.
	£	£	£	£	£
1938	10,441,203	747,697	174,234	529,223	(a) 614,761

(a) Exclusive of the sum of £54,732 paid as exchange, registry fees, etc.

(ii) *Country Towns.—(a) Water Supply.* In addition to the city of Brisbane, there were at the 30th June, 1938, sixty-eight country towns in Queensland provided with water supply systems (including four in the course of construction) constructed by municipalities chiefly from Government loans. The subjoined statement gives particulars of all water supply systems, exclusive of Brisbane, for the year 1937-38 :—

COUNTRY WATER SUPPLY SYSTEMS : QUEENSLAND.

Cost of Construction to 30th June, 1938—£3,316,202.

<i>Receipts.</i>		£	<i>Expenditure.</i>		£
Rates and sales of water	..	294,297	Office and salaries	..	23,060
Government and other loans	..	151,631	Construction	..	194,328
Government subsidy of loans	..	54,422	Maintenance	..	127,903
Other	..	21,843	Interest and redemption	..	131,234
			Other expenses	..	7,581
Total ..	..	522,193	Total ..	..	484,106
Assets	..	2,453,111	Liabilities	..	1,953,159

(b) *Sewerage Systems.* At the 30th June, 1938, there were six cities outside the Metropolitan area—Ipswich, Maryborough, Mackay, Rockhampton, Townsville, and Toowoomba—with sewerage works. Sewerage works are also in the shires of Paroo (Cunnamulla) and Quilpie. The works at Mackay and Toowoomba are in operation, whilst those for the other cities were in course of construction at the end of the year.

4. **South Australia.**—(i) *General.* The water supply and sewerage systems in this State are constructed and maintained by the Public Works Department.

(ii) *Adelaide Waterworks.* (a) *Summary.* The following table gives particulars for the year 1937-38, the figures for consumption being recorded by gaugings taken at the reservoirs and including evaporation and absorption. There are 59,147 meters in the Adelaide District.

ADELAIDE WATERWORKS : SUMMARY.

Year ended 30th June—	Number of Assessments.	Annual Value.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
	No.	£	Acres.	Million Gallons.	Miles.	Million Gallons.
1938	133,193	5,154,993	128,993	14,435	1,326	8,745

(b) *Finances.* Particulars for the year 1937-38 are given below :—

ADELAIDE WATERWORKS : FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.		Expenses.				Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Adminis-tration.	Mainten-ance.	Other.	Total.	
	£	£	£	£	£	£	£	%
1938	4,548,856	340,901	413,480	22,198	62,468	17,517	102,183	6.84

(iii) *Adelaide Sewerage.* Particulars for the year 1937-38 are given hereunder :—

ADELAIDE SEWERAGE : SUMMARY.

Year ended 30th June—	Length of Sewers.	Number of Con-nexions.	Capital Cost of Revenue-Producing Works.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates, etc.	Total.	Adminis-tration, Mainten-ance, etc.	Total.	
	Miles.	No.	£	£	£	£	£	%
1938	532	54,562	1,683,541	172,534	179,734	30,236	34,973	8.60

(iv) *Country Water Supply. (a) Summary.* The chief items of information regarding these undertakings are set forth in the table below for the year 1937-38. There are 34,104 meters in country districts.

COUNTRY WATERWORKS, SOUTH AUSTRALIA : SUMMARY.

Year ended 30th June—	Number of Assessments.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
	No.	Acres.	Million Gallons.	Miles.	Million Gallons.
1938	51,751	11,723,814	9,375	4,972	5,180

(b) *Finances.* The next table gives financial information for the year 1937-38 :—

COUNTRY WATERWORKS, SOUTH AUSTRALIA : FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.		Working Expenses.				Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Adminis- tration.	Mainten- ance.	Other.	Total.	
	£	£	£	£	£	£	£	%
1938	9,924,827	161,337	200,903	20,693	69,120	37,168	126,981	0.74

(v) *Other Sewerage Systems.* Information in summarized form is given below regarding the two suburban sewerage systems, viz., the Glenelg system and the Port Adelaide and Semaphore system, for the year 1937-38 :—

SUBURBAN SEWERAGE SYSTEMS, SOUTH AUSTRALIA : SUMMARY.

Year ended 30th June—	Length of Sewers.	Number of Con- nexions.	Capital Cost.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates.	Total.	Adminis- tration and Mainte- nance.	Total.	
	Miles.	No.	£	£	£	£	£	%
1938	381	23,595	1,691,850	69,649	71,908	35,529	38,843	1.96

5. *Western Australia.—(i) General.* The water supply and sewerage systems of Western Australia are principally under the management of Government Departments, and are divided into the following categories :—(a) Metropolitan Water Supply, Sewerage and Drainage, covering Perth, Fremantle, Claremont, Guildford, Midland Junction and Armadale District ; (b) Goldfields Water Supply ; (c) Water Supply of other towns ; (d) Agricultural Water Supply ; and (e) Artesian and sub-artesian waters.

(ii) *Metropolitan Water Supply, Sewerage and Drainage. (a) General.* The sources of the metropolitan water supply are the Victoria Reservoir, Mundaring Reservoir, Churchman Brook Reservoir, Canning Dam, certain bores and the Armadale and Wungou pipe head dams. During the year 1937-38 the construction of the Canning Dam was continued and at 30th June, 1938, there were 1,753 million gallons impounded.

The sewerage treatment works of Perth and suburbs, which had undergone modernization, consist of primary sedimentation with separate sludge digestion and discharge of effluent to the ocean. With the completion of the Victoria Park Pumping Station, in January, 1938, sewage from south of Swan River is brought to the new works. Fremantle treatment works consist of septic tanks with ocean outfall for effluent. Further extensive reticulation works were carried out during the year. At the 30th June, 1938, the number of premises connected with sewers was 32,875.

(b) *Summary.* The following table gives particulars regarding water supply for the year 1937-38 :—

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA : SUMMARY.

Year ended 30th June—	Estimated Population Supplied.	Number of Services.	Water Supplied.	Average Daily Supply.		Number of Meters.	Length of Mains.
				Per Head.	Per Service.		
	No	No.	1,000 Gallons.	Gallons.	Gallons.	No.	Miles.
1938	241,017	59,771	4,771,929	54.24	226.30	38,611	929

(c) *Finances.* The table hereunder gives separate information for the water supply and sewerage and drainage branches for the year 1937-38 :—

**METROPOLITAN WATER SUPPLY, AND SEWERAGE AND DRAINAGE,
WESTERN AUSTRALIA : FINANCES.**

Year ended 30th June—	Water Supply.			Sewerage and Drainage.		
	Capital Cost.	Revenue.	Expendi- ture.	Capital Cost.	Revenue.	Expendi- ture.
	£	£	£	£	£	£
1938	4,714,139	271,046	267,307	3,201,916	157,672	162,287

(iii) *Goldfields Water Supply.* The source of supply for the Coolgardie and adjacent goldfields, as well as for towns and districts on or near the pipe-line, is the Mundaring Reservoir, which has a capacity of 4,650 million gallons. There are several classes of consumers—the railways, the mines, domestic and other—and in 1937-38 the railways consumed 5 per cent., the mines 36 per cent., and domestic, etc., 59 per cent. of the supply. The following table gives details for the year 1937-38 :—

GOLDFIELDS WATER SUPPLY, WESTERN AUSTRALIA : SUMMARY.

Year ended 30th June—	Total Con- sumption.(a)	Number of Services.	Length of Water Mains.	Capital Cost.	Revenue.	Expendi- ture.
	1,000 gallons.	No.	Miles.	£	£	£
1938	1,684,000	13,260	1,722	5,298,061	296,715	278,671

(a) Includes 146,686,000 gallons supplied to the Metropolitan Water Supply Department.

(iv) *Water Supply of Other Towns.* During the year 1937-38 water supplied to other towns and districts amounted to 277,405,000 gallons, distributed as follows :— Railways, 21,044,000 gallons; mines 24,599,000 gallons; and 231,762,000 gallons to domestic and other consumers.

(v) *Agricultural Water Supply.* During the year 1937-38, two wells were sunk and six tanks excavated. During the twenty-eight years from the 1st July, 1910, to the 30th June, 1938, 528 tanks were built, 377 wells sunk, and 3,572 bores put down to a total depth of 170,743 feet. Of the bores mentioned, 538 yielded fresh and 311 stock water.

(vi) *Artesian and Sub-artesian Waters.* Up to the 30th June, 1938, the total number of bores put down in search of artesian or sub-artesian water and in which water was struck was 273, ranging in depth from 30 to 4,006 feet. These figures include 51 bores sunk in the metropolitan area.

6. *Tasmania.*—(i) *Hobart Water Supply.* The cost of this undertaking to the 30th June, 1938, was £583,525, but a considerable amount of reticulation work has been done out of revenue and not charged to capital account. The outstanding loans at 30th June, 1938, amounted to £502,157. At the same date the number of tenements supplied in the city and suburbs was 14,054 and the length of reticulation mains was 143 miles. The revenue for the year 1937-38 was £43,200.

(ii) *Hobart Sewerage System.* The revenue for the year ended 30th June, 1938, was £37,982. Up to that date 82.9 miles of sewers had been laid in connexion with the original city system at a cost of £219,290 and 8,702 tenements connected. Since the original city was sewered, the municipalities of Queenborough and New Town have been included in the city, and are now being sewered. In Queenborough 29.3 miles of sewers, connecting with 1,711 tenements, have been constructed at a cost of £131,109. In New Town a total of 38.6 miles of sewers has been laid, and 1,703 properties connected. The cost to 30th June, 1937, including surveys and sewerage outfall, was £114,655.

§ 5. Harbour Boards and Trusts.

1. *New South Wales.*—(i) *Maritime Services Board of New South Wales.* (a) *General.* The Port of Sydney is administered by the Maritime Services Board of New South Wales, a corporate body of five Commissioners, three of whom are full-time members and two, representing shipping and commercial interests, part-time members. The Board was brought into existence on the 1st February, 1936, by the Maritime Services Act, 1935, in order to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust in the case of the Port of Sydney and by the State Department of Navigation in the case of Newcastle and the outports.

(b) *Port of Sydney.* The functions of the Board in respect of the Port of Sydney include the provision of adequate wharfage, channels, lights and other port facilities, the control of shipping, pilotage, the imposition and collection of rates and charges on goods and vessels, the licensing of harbour craft and the general management and control of the Port.

The entrance to Sydney Harbour is nearly a mile wide, and is not less than 80 feet deep. Between the entrance, known as "The Heads", and the Harbour proper, a distance of 4 miles, there are two separate channels, each with a depth of 40 feet at low tide and a width of 700 feet. The foreshores are 188 miles in length, and the total area of the port is 14,284 acres, or 22 square miles, of which about one-half has a depth of 30 feet or more at low water ordinary spring tide. The mean range of tides is 3 feet 6 inches.

Exclusive of ferry wharves, and jetties used for private purposes, there are 64,500 feet of wharfage controlled by the Maritime Services Board, and 9,500 feet of commercial wharfage privately owned. There is ample shed accommodation, and the port is well equipped with railway wharfage for the handling of traffic which is required to pass direct from ship to rail and vice versa. For the wheat export trade, in both bulk and bags, ample wharfage accommodation and handling equipment of the most modern character are available. Facilities in all directions can be very considerably extended when required. Approximately two-thirds of the shipping wharves controlled by the Board are leased to shipping companies, the remainder, which are unleased, are directly maintained by the Commissioners.

The subjoined table gives particulars concerning the finances of the Board for the year 1937-38, in respect of the functions of the former Sydney Harbour Trust at the Port of Sydney :—

MARITIME SERVICES BOARD : FINANCES OF THE PORT OF SYDNEY.

Year ended 30th June	Revenue.				Working Expenditure.	Interest.	Surplus.	Total Capital Debt.
	Wharfage and Harbour Rates.	Tonnage Rates and Berthing Charges.	Other Sources.	Total.				
1938 ..	£ 819,117	£ 35,487	£ 331,675	£ 1,186,279	£ 440,391	£ 6482,392	£ 299,496	£ 111,325,087

(a) Includes £55,217 exchange. (b) Includes £55,987 sinking fund contributions. (c) After allowing for balance in liquidation of Capital Debt Account.

(c) *Port of Newcastle.* In regard to the volume of shipping entered, Newcastle ranks second in importance in New South Wales and fourth in Australia. It is primarily a coal-loading port, but its activities cover the shipment of general commodities. The wharfage and other facilities of the port have been further improved and extended to meet the actual and the anticipated growth of trade with the expansion of industry in the district. A terminal elevator, which has been erected for the handling of bulk wheat, has enhanced the importance of Newcastle as an exporting centre.

(d) *Port Kembla.* Port Kembla, which is sharing to an increasing extent in the shipping trade of the State, has an area of 330 acres, with depths ranging from 20 to 50 feet, and wharfage accommodation has been provided for large ocean-going vessels. Being adjacent to the southern coalfields and a rapidly developing industrial centre, its trade is growing and a great future for the port is predicted.

(e) *Other Ports.* In addition to the ports of Sydney and Newcastle, the Board controls 29 outports along the coastline of 609 miles.

(ii) *Port Charges.* There has been much ill-informed criticism of the port charges levied upon shipping in Australian ports. The fact is that the Governmental charges compare favourably with those of other parts of the world when the services rendered are taken into consideration. They are much lower than the charges at the leading ports of the United Kingdom. Direct comparisons of port charges are difficult, if not impossible, to make, because of the differing port customs, and the absence of similarity in the nature and methods of applying them. It is considered that the most satisfactory method of comparison is to take the total collections by the port authorities, and arrive at the average rate per ton. This has been done in the case of the two leading ports in Australia and in the United Kingdom, and the figures are as follows :—

PORT CHARGES : AUSTRALIA AND UNITED KINGDOM.

Port.	Net Tonnage of Vessels Entered.	Charges on Shipping.	Average Rate per Ton of Shipping.
		(excluding Pilotage).	
		£	d.
Australia—			
Sydney (1937-38)	11,653,127	233,136	4.8
Melbourne (1937)	8,437,384	207,985	5.9
United Kingdom—			
London (1937-38)	31,322,879	1,498,588	11.4
Liverpool (1937-38)	22,097,755	1,585,047	17.2

2. **Victoria.**—(i) *Melbourne Harbour Trust.* (a) *General.* Information regarding the origin and constitution of this trust will be found in Official Year Book No. 12, p. 970 *et seq.* At the 31st December, 1938, the sheds available for wharfage accommodation had a length of 18,738 feet, covering an area of 1,245,002 square feet. The area of water in the bay and River Yarra under the control of the Trust is approximately 5,321 acres and the total length of wharves, piers and jetties in the port is 61,850 feet, giving an area of over 57 acres of wharfage, of which 51,987 feet is effective berthing space. During 1938 the quantity of material raised by dredging and excavation in the river and bay amounted to 3,438,286 barge yards at a cost of £110,743. The Trust has expended £358,370 in reclaiming land within its jurisdiction by depositing 16,803,436 barge yards of material thereon.

(b) *Finances.* During the year ended 31st December, 1938, the revenue (excluding refunds) of the Trust amounted to £880,099, and expenditure to £879,660 (including the amount of £165,450 paid to Consolidated Revenue and Geelong Harbour Trust). There was a net Surplus on revenue account of £439. Appropriation for sinking fund and charges for depreciation, renewals and insurance against revenue account for the year amounted to £201,657. The capital expenditure for the year was £66,652. Up to the 31st December, 1938, the total capital expenditure amounted to £9,104,175 the loan indebtedness at that date being £4,109,476.

(ii) *Geelong Harbour Trust.* The Geelong Harbour Trust was reconstituted in 1934 under the provisions of the Melbourne and Geelong Harbour Trusts Act 1934. The Trust is under the control of three Commissioners appointed by the Governor in Council. Revenue for the year 1938 was £108,640. Revenue expenditure was £101,378 and capital expenditure £46,313, while loans outstanding at the end of that year amounted to £535,717.

(iii) *Harbour Boards.* The Harbour Boards Act 1928 made provision for the establishment of Harbour Boards at Gippsland Lakes, Welshpool, Warrnambool, Port Fairy and Portland, all of which ports were, at the commencement of the operation of this Act, under the control of the Public Works Department. The Warrnambool Harbour Board, which was constituted on 29th May, 1928 under the provisions of this Act, was abolished on 30th June, 1936 by Order in Council and the port was restored to the control of the Public Works Department.

3. **Queensland.**—(i) *Bowen Harbour Board.* The Bowen Harbour Board consists of seven members, of whom two are appointed by the Governor in Council and the remainder elected by the electors of the town of Bowen and adjacent shires. The district under its jurisdiction comprises the area within the boundaries of the town of Bowen, the shires of Proserpine and Wangaratta, and division I. of the shire of Ayr. The capital expenditure for the year 1938 was £179, while for the same period the revenue was £16,716 and the expenditure £15,576, of which £15,555 was from revenue.

(ii) *Bundaberg Harbour Board.* The Bundaberg Harbour Board consists of nine members, of whom one is appointed by the Governor in Council, four elected by the electors of the city of Bundaberg, and two each by the electors of the shires of Gooburrum and Woongarra.

The capital expenditure for the year 1938 was £758, while for the same period the revenue was £9,342 and expenditure £4,790.

(iii) *Cairns Harbour Board.* The Cairns Harbour Board, which controls the port, consists of thirteen members, representing the city of Cairns and six adjoining shires. The wharves are exclusively under the control of this Board and consist of 1,900 lineal feet in reinforced ferro-concrete, upon which spacious sheds are erected with a floor

area of 14,400 square feet, brilliantly lighted by the Barron Falls Hydro-Electricity Scheme. A most comprehensive electrical equipment is erected at the wharves capable of handling into ship two hundred tons of sugar per hour and a special sugar storage shed, fitted with this equipment, can accommodate 7,500 tons. The Board's suction dredger maintains a minimum depth of 22 feet of water in the entrance channel. Ships drawing over 27 feet of water can berth at wharves. Railway facilities are provided in front of and at rear of the wharves. The revenue of the Board, derived from harbour, berthage and miscellaneous dues, etc., for the year 1938, was £69,570, and expenditure £67,461.

(iv) *Gladstone Harbour Board.* The Gladstone Harbour Board is composed of seven members, two of whom are appointed by the Governor in Council and five elected by the electors of the town of Gladstone and the shires of Calliope and Miriam Vale.

The capital expenditure for the year 1938 was £6,663 and the total to the end of 1938 amounted to £118,320. The revenue for 1938 was £14,994, and the expenditure £17,208.

(v) *Mackay Harbour Board.* The Mackay Harbour Board consists of nine members elected by the electors of the city of Mackay and the shires of Pioneer, Sarina, Mirani and Nebo. The harbour is in course of construction.

Expenditure for the year 1938 totalled £303,190 of which £263,066 was spent on construction. Receipts totalled £130,729, harbour dues amounting to £22,971, Government Loan to £35,278, and Government subsidy of Loan to £53,022.

(vi) *Rockhampton Harbour Board.* The Rockhampton Harbour Board consists of eleven members, of whom seven are elected by the electors on the rolls of the city of Rockhampton, and the shires of Mount Morgan, Fitzroy and Livingstone. The remaining four are elected by the councillors of groups of inland shires.

The revenue for the year 1938 was £39,285 and the expenditure £38,227. The capital expenditure for the year 1938 was £5,309, and the total to the end of 1938 was £805,220.

(vii) *Townsville Harbour Board.* The Townsville Harbour Board is composed of nine members, of whom two are appointed by the Governor in Council and the remaining seven are elected by the electors of Townsville and adjacent towns and shires. All harbour works and conveniences for the use of shipping are under the control of the Board. The capital expenditure for the year 1938 was £25,360; the receipts for the year 1938 were £82,961, and the expenditure £89,181.

HARBOUR BOARDS, QUEENSLAND : FINANCES.

Year ended 31st December-	Revenue.			Expenditure.				Assets.	Liabili- ties.
	Wharfage and Harbour Dues.	Total.	Interest on Loans.	Redemp- tion of Loans.	Construc- tion and Mainten- ance.	Other.	Total.		
1938 ..	220,671	366,324	49,910	31,774	408,177	45,772	535,633	2,201,985	2,313,067

4. *Western Australia.*—(i) *Fremantle Harbour Trust.* (a) *General.* Fremantle Harbour is controlled by a Board of five Commissioners appointed by the Governor in Council. A description of the works was given in a previous Year Book (see No. 12, p. 973). Since that account was written, bulk-handling facilities have been provided and the inner harbour, entrance channel and berthing accommodation have been dredged to a depth of 36 feet below the lowest known low water. The length of berthage accommodation at all the quays is now 10,177 feet.

(b) *Finance.* The following table gives financial data for the year 1937-38 :—

FREMANTLE HARBOUR TRUST : FINANCES.

Year ended 30th June—	Expenditure.							
	Revenue.	Working Expenses.	Interest.	Sinking Fund.	Renewals Fund.	Capital Expenditure.	Surplus Revenue. (a)	Total.
1938 ..	£ 510,649	£ 246,591	£ 142,864	£ 17,937	£ 2,000	£ 2,075	£ 96,612	£ 508,079

(a) Paid to Consolidated Revenue.

(ii) *Bunbury Harbour Board.* (a) *General.* The Bunbury Harbour Board consists of five members appointed by the Government. The jetty is 4,900 feet long, with berthage accommodation of 3,700 feet, and is electrically lighted.

(b) *Finances.* Details for the year 1937-38 are given hereunder. Surplus revenue is paid into Consolidated Revenue Fund to meet interest and sinking fund :—

BUNBURY HARBOUR BOARD : FINANCES.

Year ended 30th June—	Capital Account.	Revenue.	Expenditure.
1938	£ 672,916	£ 33,117	£ (a) 53,508

(a) Includes Interest on Capital Account £31,882, none of which was contributed from the earnings of the Board.

5. *Tasmania.*—(i) *Marine Board of Hobart.* (a) *General.* The Marine Board of Hobart consists of nine wardens elected by the ship-owners of the Port of Hobart and the importers and exporters of goods into or from any port within the jurisdiction of the Board.

(b) *Finances.* The following table gives details for the year ended 30th June, 1938 :—

MARINE BOARD OF HOBART : FINANCES.

Year ended 30th June—	Capital Debt.	Revenue.		Expenditure.		
		Taxes, Dues, etc.	Total.	Interest and Sinking Fund.	Works, Services, etc.	Total.
1938	£ 31,559	£ 46,348	£ 50,581	£ 8,334	£ 40,643	£ 52,699

(ii) *Marine Board of Launceston.* (a) *General.* The Marine Board of Launceston consists of five wardens, three elected by the ratepayers of the city of Launceston and two by ratepayers of the municipalities within the Tamar District.

(b) *Finances.* The following table gives details for the year ended 30th June, 1938 :—

MARINE BOARD OF LAUNCESTON : FINANCES.

Year ended 30th June—	Total Capital Debt.	Revenue.		Expenditure.		
		Taxes, Ducs. etc.	Total.	Interest and Sinking Fund.	Works, Services, etc.	Total.
	£	£	£	£	£	£
1938..	239,633	53,724	59,884	16,223	24,770	59,844

(iii) *Marine Board of Burnie.* The length of the breakwater is 1,250 feet, with a depth up to 42 feet at low water, and a wharf alongside, 630 feet in length by 91 feet wide, with a depth at low water from 24 to 40 feet. There are two other timber wharves 600 feet and 400 feet long respectively. The receipts for the year ending 30th June, 1938, were £36,309, and the expenditure £28,805, including £15,972 interest on loans, etc.

§ 6. Fire Brigades.

1. *New South Wales.*—(i) *General.* Under the Fire Brigades Act, 1909–1927, a Board of Fire Commissioners consisting of eight members operates, and 127 fire districts have been constituted. The cost of maintenance of fire brigades is borne in proportions of quarter, quarter, and half by the Government, the municipalities, and the insurance companies concerned, but the expenditure must be so regulated that the proportion payable by the councils in a fire district shall not exceed the amount obtainable from $\frac{1}{4}$ d. in the £ rate on the unimproved capital value of ratable land in the fire district: provided that the Board, with the consent of the Minister, and at the special request of the councils of the municipalities or shires constituting or forming part of a fire district or a majority in number of such councils may, as to that district, exceed the limit above provided.

(ii) *Board of Fire Commissioners of New South Wales.* At the 31st December, 1938 the Board had under its control 79 fire stations in the Sydney fire district and 154 fire stations in the country fire districts. The Sydney fire district includes the City of Sydney and suburbs, and comprises a total area of 293 square miles. The revenue for the year 1938 was £410,406, made up as follows :—From the Government, £100,562; municipalities and shires, £100,562; fire insurance companies and firms, £201,124; and from other sources, £8,158. The disbursements for the year were £433,067.

2. *Victoria.*—(i) *General.* The Fire Brigades Act of 1928 provides for a Metropolitan Fire Brigades Board, and a Country Fire Brigades Board, each consisting of nine members, with local committees in country districts. The income of each Board is derived in equal proportions from the Treasury, the municipalities and insurance companies.

(ii) *Metropolitan Fire Brigade Board.* On the 30th June, 1938, the Board had under its control 43 stations. The total receipts for the year 1937–38 were £238,742, comprising contributions £187,126, receipts for services £30,549 and interest and sundries £21,067. The expenditure was £230,670, made up as follows :—Salaries (permanent staff) £127,810, interest and repayments of principal £17,693, and other expenditure £85,167. The loan expenditure during the year was £8,067, and the loan indebtedness at the end of the year, £218,605.

(iii) *Country Fire Brigades Board.* At 30th June, 1938, there were 124 municipal councils and 107 insurance companies included in the operations of the Act. The brigades are composed chiefly of volunteers, but in the large centres a few permanent station-keepers and partially-paid firemen are employed. Complete fire-alarm systems are installed in 41 of the larger provincial cities and townships. There were 152 registered brigades at the end of June, 1938. For the year 1937-38 the revenue was £30,886 and the expenditure £32,423. Loan expenditure during the year amounted to £6, and at the close of the year the loan indebtedness was £50,170.

3. *Queensland.*—(i) *General.* The Acts of 1920-1931 made provision for the retention of existing fire districts, and for the constitution of new districts. For each district there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows:—The Treasury two-sevenths, insurance companies three-sevenths, and local authorities two-sevenths. All volunteer fire brigades in a district must be registered.

(ii) *Fire Brigades Boards.* At the 30th June, 1938, there were fire brigades in 35 towns. The total revenue for the year 1937-38 was £108,138, received mainly from the following sources:—Government £24,608, local authorities, £24,096, insurance companies £36,230, and loans (Government and other), £19,402. The total expenditure for the year was £110,508, the chief items being salaries and wages £58,988, and interest and redemption of loans, £9,955.

4. *South Australia.* The Fire Brigades Act 1936, provides for a Board of five members, and the expenses and maintenance of brigades are defrayed as to two-ninths by the Treasury, five-ninths by insurance companies, and two-ninths by the municipalities concerned. The contribution of the Treasury, however, is limited to £10,000 and if two-ninths of the expenses and maintenance exceeds this amount five-sevenths of the excess is contributed by the insurance companies and two-sevenths by the municipalities. At the end of 1938 there were altogether 28 fire brigade stations; the total revenue for the year 1938 was £62,485.

5. *Western Australia.*—(i) *General.* Under the 1916 Act certain Municipal and Road Board Districts are constituted fire districts under the control of the Western Australian Fire Brigades Board. The income of the Board is derived as to two-eighths from Government, three-eighths from municipalities, and three-eighths from insurance companies.

(ii) *Western Australian Fire Brigades Board.* The whole of the brigades throughout the State are now controlled by the Western Australian Fire Brigades Board, and number 42. The revenue and expenditure for the year ended 30th September, 1938, were £63,238 and £62,639 respectively. The estimated value of land and buildings was £95,000 and of plant £41,000.

6. *Tasmania.*—(i) *General.* The municipal council of any municipality may, under the Act of 1920, petition the Governor to proclaim the municipality or any portion of it to be a fire district, each district to have a Board of five members. The expenses of each Board are borne in equal proportions by contributions from the Treasury, the municipality concerned, and insurance companies insuring property within the district.

(ii) *Hobart Fire Brigade Board.* The revenue of the Board for the year 1938 amounted to £6,665.

CHAPTER XXVI. PRIVATE FINANCE.

A. GENERAL.

In issues of the Official Year Book prior to No. 25 information relating to Private Finance was included in the Chapter dealing with Finance generally, but commencing with that issue a separate Chapter has been devoted thereto. The Chapter is subdivided into the following sections:—

Banking, including Savings Banks ;
Companies ;
Insurance ;
Friendly Societies ; and
Probates.

B. BANKING.

§ 1. Cheque-Paying Banks.

1. **Banking Legislation.**—(i) *Commonwealth Legislation.* Under Section 51 of the Commonwealth Constitution Act, the Commonwealth Parliament has power to legislate with respect to "Banking, other than State banking, also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money." Similar powers regarding bills of exchange and promissory notes are also granted under this section. The principal legislation enacted comprises the following: The Commonwealth Bank Act 1911–1932 constituting the Commonwealth Bank and providing for its management and that of the note issue; the Bank Notes Tax Act 1910 designed to force private notes out of circulation; and the Bills of Exchange and Promissory Notes Act 1909–1936 regulating the issue of bills of exchange, cheques and promissory notes.

(ii) *State Legislation.* The Acts under which the various banks are incorporated differ somewhat. While most of the older banks were incorporated by special Act or Charter, e.g., the Bank of New South Wales, by Act of Council 1817; the Bank of Australasia, by Royal Charter; the Bank of Adelaide, by Act of the South Australian Parliament; and the Bank of New Zealand, by Act of the General Assembly of New Zealand, the newer banks are generally registered under a "Companies Act," or some equivalent Act. This is also the case with those banks which, after the crisis of 1893, were reconstructed. Banks transacting business in any State are obliged, under the existing State laws, to furnish a quarterly statement of their assets and liabilities, and they have since the year 1908 furnished to the Commonwealth Statistician, under the Census and Statistics Act 1905–1930, quarterly statements which contain the average of the thirteen weekly statements prepared by each bank. These returns form the basis on which the statistics included herein have been compiled.

2. **Royal Commission on Monetary and Banking Systems.**—A Royal Commission was appointed by the Commonwealth Government in November, 1935, to inquire into the monetary and banking systems in operation in Australia and to report whether any, and if so what, alterations were desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report on 15th July, 1937, and a summary of the recommendations was published in Official Year Book No. 31, p. 1010.

3. **Presentation of Banking Statistics.**—In presenting statistical tabulations relating to average liabilities and assets, it is considered desirable to show the figures for the Commonwealth Bank separately from those of other Cheque-paying Banks. The

aggregate business of all trading banks is, however, given in additional paragraphs. Previously it was customary to show separate figures for each State, but this practice has now been discontinued. The figures quoted in all cases refer to the average liabilities and assets within the Commonwealth of Australia.

4. **Banks in Operation, Capital Resources, etc.—(i) Year 1939.** The paid-up capital of Cheque-paying Banks, together with their reserve funds, the dividend rate per cent., and the amount of their last dividends are shown in the following table. The information relates to the balance-sheet last preceding the 30th September, 1939. In regard to the reserve funds it must be noted that in the case of some of the banks these are invested in Government securities, while in other cases they are used in the ordinary business of the banks, and in a few instances they are partly invested and partly used in business:—

CHEQUE-PAYING BANKS: CAPITAL RESOURCES, 1939.

Bank.	Paid-up Capital.	Reserves.	Balance on Profit and Loss Account. (g)	Total Shareholders' Funds.	Reserve Liability of Shareholders.	Dividends. (h)	
						Amount for year.	Average Rate per cent.
Joint-Stock Banks—	£	£	£	£	£	£	%
Bank of New South Wales ..	8,780,000	6,150,000	322,753	15,252,753	8,780,000	526,800	6
Commercial Banking Co. of Sydney Ltd. ..	4,739,012	4,300,000	295,065	9,334,077	4,739,013	331,732	7
National Bank of Australasia Ltd. ..	5,000,000	3,300,000	156,186	8,456,186	1,800,000	300,000	6
Commercial Bank of Australia Ltd. ..	4,117,350	2,000,000	233,257	6,350,607	..	226,361	Ord. 6½, 7½ Pref. 4
Ballarat Banking Co. Ltd. ..	153,000	108,500	16,751	278,251	87,000	9,180	6
Queensland National Bank Ltd. ..	1,750,000	860,000	63,119	2,673,119	..	80,938	4½
Brisbane Permanent Building and Banking Co. Ltd. ..	750,000	220,000	29,832	999,832	..	37,500	5
Bank of Adelaide ..	1,250,000	1,000,000	65,216	2,315,216	1,250,000	62,500	5½
Bank of Australasia ..	4,500,000	4,475,000	227,879	9,202,879	4,500,000	283,000	8
Union Bank of Australia Ltd. ..	4,000,000	4,850,000	292,597	9,142,597	8,000,000	233,333 (f)	7
English, Scottish and Australian Bank Ltd. ..	3,000,000	3,295,000	488,885	6,783,885	2,000,000	168,875	3½
Total Australian Joint-Stock Banks	38,039,362	30,558,500	2,191,540	70,789,402	31,156,013	2,265,219	..
Other Cheque-paying Banks—							
Commonwealth Bank of Australia—							
General Bank ..	4,000,000	2,762,477	..	6,762,477	..	..	..
Rural Credits ..	2,000,000	340,994	..	2,340,994	..	..	..
Rural Bank of New South Wales (e) ..	214,095,095	11,702,064	..	15,797,159	..	..	..
State Bank of South Australia ..	b 2,050,000	..	..	2,050,000	..	..	..
Bank of New Zealand ..	6,328,125	3,575,000	666,462	10,569,587	..	574,219	(c)
Comptoir National d'Escompte de Paris (d) ..	2,857,143	3,200,638	281,166	6,338,947	..	285,714	10
Yokohama Specie Bank Ltd. (d) ..	10,000,000	13,715,000	1,668,655	25,383,655	..	1,000,000	10

(a) Stock and debentures issued. (b) Capital advanced by Government of South Australia and Sale of Bonds. (c) Preference "A," 10 per cent.; Preference "B," 7 3/11 per cent.; "C," Long Term Mortgage, 6 per cent.; "D," Long Term Mortgage, 7½ per cent.; Ordinary, 10, per cent. (d) Approximate. (e) See letterpress (ii) (a) following. (f) 8 per cent. less British Income Tax of 4s. 6d. in £. (g) Includes dividends declared but not paid at date of balance-sheet. (h) Dividends paid and payable out of profits earned during 1938-39. (i) Includes £940,170 Special Reserve Account established under Section 12 (2) of Rural Bank of New South Wales Act 1932.

(ii) *Suspension of Payments.* (a) *Rural Bank Department, Government Savings Bank of New South Wales.*—Particulars regarding the suspension of payments by the Rural Bank Department of the Government Savings Bank of New South Wales in 1931 and its subsequent absorption by the Commonwealth Bank were given in Official Year Book No. 26, p. 437. Steps for the rehabilitation of the Rural Bank Department reached fruition in December, 1932, when assent was given to an Act (No. 63, 1932) which provided for the reconstitution of the Government Savings Bank under the new title of "Rural Bank of New South Wales." It also provided for the creation of a Government Agency Department and conferred on the Bank certain powers of management and of borrowing, etc.

(b) *Primary Producers' Bank of Australia Ltd.* On the 24th August, 1931, the Primary Producers' Bank of Australia Ltd. was forced to close and the business of the bank has now been wound up.

(iii) *Amalgamations.* The amalgamation of the Australian Bank of Commerce Ltd. with the Bank of New South Wales became effective from the 17th November, 1931.

On the 12th November, 1931, the Brisbane Permanent Building and Banking Co. Ltd. and the Queensland Deposit Bank amalgamated, and in March, 1932, the Brisbane Permanent Building and Banking Co. Ltd. absorbed the Federal Deposit Bank which had suspended payments in September, 1931.

5. *Commonwealth Bank.*—(i) *General.* A brief account of the foundation of the Commonwealth Bank was given in Nos. 6 to 10 of the Official Year Book. The Bank began operations in the Savings Bank Department in July, 1912, and general banking was commenced in January, 1913. In 1920 the note issue passed to the control of the Bank.

The scope of the Bank was considerably broadened in 1924 when the control was entrusted to a Board of Directors consisting of a Governor, the Secretary to the Treasury, and six others "who are or have been actively engaged in agriculture, commerce, finance or industry." Commencing without any capital the Bank had accumulated profits amounting to about £4,500,000 in 1924. Of this sum £4,000,000 was transferred to the capital fund of the Bank, and authority was given to increase the capital to £20,000,000. When it was in a position to do so the Board was to fix and publish the rates at which it would discount and rediscount bills of exchange. The trading banks were required to settle their balances by cheques drawn on the Commonwealth Bank, but there was to be no compulsion regarding the amount to be kept; subsequently the banks voluntarily opened accounts with the Commonwealth Bank. All banks were required to furnish to the Treasurer quarterly statements of their average weekly liabilities and assets on a basis similar to that used previously in furnishing statistics to State authorities. No alteration was made regarding the distribution of the profits of the Bank. Apart from the net earnings of the note issue which are payable to the revenue of the Commonwealth, one-half of the profits are allocated to the Bank Reserve Fund and the other half to the National Debt Sinking Fund on Commonwealth account. Action has not yet been taken to increase the capital of the Bank nor has a discount rate been published.

A Rural Credits Department of the Bank was created by amending legislation in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce. Portion of the capital for the new Department to the extent of £2,000,000 was provided by an annual appropriation of 25 per cent. of the net profits of the note issue.

The Commonwealth Bank Act 1927 provided for the separation of the Savings Bank Department from the General Bank and its establishment as a separate institution, and the transfer to the "Commonwealth Savings Bank of Australia" of all assets and liabilities of the Savings Bank Department. The date on which this amending Act became operative was fixed by proclamation as the 9th June, 1928. The new institution

was to be managed by a Commission consisting of three Commissioners, one of whom was to be a member of the Bank Board, but, as appointments to the Commission have not yet been made, the Bank Board is still controlling the Savings Bank.

The operations of the Bank, which holds in addition to the Commonwealth Government's accounts, those of the States of Victoria (portion only), Queensland, South Australia, Western Australia and Tasmania, and many local governing bodies, have developed towards those of a Central Bank. Unlike ordinary commercial banks, it does not offer special inducements to attract private accounts. The Bank played a most important part in the financing of Government deficits during the depression years. Since the 1st July, 1927, the Bank has published a weekly statement of the accounts of the note issue and general banking departments of the Bank.

(ii) *Aggregate Profits.* Particulars of the aggregate net profits from the initiation of the Bank to the end of each of the last five financial years are as follows :—

COMMONWEALTH BANK : AGGREGATE PROFITS.

Date.	Aggregate Net Profit to Date.			
	General Bank.	Savings Bank.	Rural Credits Department.	Total.
	£	£	£	£
30th June, 1935 ..	8,192,336	3,643,844	479,587	12,315,767
„ 1936 ..	8,611,922	3,978,570	524,746	13,115,238
„ 1937 ..	8,967,854	4,284,344	574,264	13,826,462
„ 1938 ..	9,299,154	4,575,896	607,153	14,482,203
„ 1939 ..	9,655,733	4,892,178	638,733	15,186,644

In accordance with the provisions of section 30 of the Bank Act and section 9 (2) of the National Debt Sinking Fund Act, half of the net profits of the Bank have been placed to the credit of the Bank's Reserve Fund and half to the credit of the National Debt Sinking Fund. Up to 30th June, 1939, the latter fund had benefited to the extent of £4,898,677.

(iii) *Liabilities in Australia.*—(a) Year 1938-39. The following table gives particulars of the average liabilities in Australia for each quarter from September, 1938, to June, 1939 :—

COMMONWEALTH BANK OF AUSTRALIA : LIABILITIES, QUARTERLY AVERAGES.(a)

Quarter Ended—	Bills in Circulation.	Balances Due to Other Banks. (b)	Deposits.			Total Liabilities.
			Not Bearing Interest.(c)	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£
September, 1938	267,178	18,889,927	17,467,592	44,814,258	62,281,850	81,438,955
December, 1938 ..	310,873	22,796,606	20,658,320	43,408,101	64,066,421	87,173,900
March, 1939 ..	320,485	23,740,545	18,788,138	40,439,688	59,247,826	83,308,856
June, 1939 ..	350,474	18,745,765	18,127,674	43,274,759	61,402,433	80,408,672

(a) Excludes Commonwealth Savings Bank. (b) Includes deposits of "Other Cheque-paying Banks". (c) Government "Set-off" Accounts (Interstate) deducted.

(b) *Quarters ended June, 1935 to 1939.* The average liabilities in Australia for the quarter ended June in each of the years 1935 to 1939 are given in the table below :—

**COMMONWEALTH BANK OF AUSTRALIA : AVERAGE LIABILITIES,
QUARTERS ENDED JUNE.(a)**

Quarter Ended June—	Bills in Circula- tion.	Balances Due to Other Banks. (b)	Deposits.			Total Liabilities.
			Not Bearing Interest.(c)	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£
1935.. ..	227,964	23,681,964	11,757,699	33,542,161	45,299,860	69,209,788
1936.. ..	240,081	16,938,233	11,992,847	33,683,557	45,676,404	62,854,718
1937.. ..	274,326	24,459,313	16,534,597	37,035,236	54,169,833	78,903,472
1938.. ..	314,840	19,404,009	18,505,540	45,256,710	63,762,256	83,481,105
1939.. ..	350,474	18,745,765	18,127,674	43,274,759	61,402,433	80,498,672

(a) Excludes Commonwealth Savings Bank. (b) Includes deposits of "Other Cheque-paying Banks". (c) Government "Set-off" Accounts (Interstate) deducted.

(iv) *Assets in Australia.* (a) Year 1938-39. The average assets in Australia for each quarter of the year 1938-39 were as follows :—

COMMONWEALTH BANK OF AUSTRALIA : ASSETS, QUARTERLY AVERAGES.(a)

Quarter Ended—	Coin.	Bullion.	Austra- lian Notes.	Govern- ment and Municipal Securities. (b)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Overdrafts, and all other Assets (not including Contingent Assets).c,d	Total Assets.
	£	£	£	£	£	£	£	£	£
September, 1938	923,723	350,934	3,994,497	42,315,473	716,017	98,783	23,636	15,822,009	64,245,072
December, 1938	876,298	335,914	3,838,277	48,032,723	715,056	136,889	48,612	16,771,378	70,755,747
March, 1939 ..	1,020,469	310,587	4,056,100	46,424,807	703,151	133,302	72,728	17,960,242	70,681,386
June, 1939 ..	1,056,811	339,725	3,936,325	44,934,725	694,372	121,758	43,010	18,947,594	70,074,320

(a) Excludes Commonwealth Savings Bank. (b) Includes Treasury Bills. (c) Includes short-term loans in Australia other than Treasury Bills. (d) Government "Set-off" Accounts (Interstate) deducted.

(b) *Quarters ended June, 1935 to 1939.* Particulars of the average assets in Australia for the quarter ended June in each of the last five years are given in the following table :—

**COMMONWEALTH BANK OF AUSTRALIA : AVERAGE ASSETS,
QUARTERS ENDED JUNE.(a)**

Quarter Ended June—	Coin.	Bullion	Austra- lian Notes.	Govern- ment and Municipal Securities. (b)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Overdrafts, and all other Assets (not including Contingent Assets). (c)	Total Assets.
	£	£	£	£	£	£	£	£	£
1935 ..	660,426	152,345	5,010,741	43,628,905	873,892	94,949	9,753	7,657,537	58,088,548
1936 ..	718,802	384,112	5,184,487	39,512,577	818,301	122,616	14,146	9,953,832	56,708,873
1937 ..	740,085	330,555	4,172,308	33,177,572	762,422	91,318	29,834	11,761,086	61,065,160
1938 ..	864,415	353,939	4,020,697	41,952,657	719,234	108,051	28,288	11,519,773	63,206,154
1939 ..	1,056,811	339,725	3,936,325	44,934,725	694,372	121,758	43,010	18,947,594	70,074,320

(a) Excludes Commonwealth Savings Bank. (b) Includes Treasury Bills. (c) Includes short-term loans in Australia other than Treasury Bills. (d) Government "Set-off" Accounts (Interstate) deducted.

6. **Other Cheque-paying Banks.**—(i) *General.* The term "Other Cheque-paying Banks" has been adopted in preference to "Joint-stock Banks." The latter term although used for some time was not strictly correct, as the statistics relating thereto for recent years included returns for the Rural Bank Department of the Government Savings Bank of New South Wales (now Rural Bank of New South Wales) and the State Bank of South Australia, both of which are governmental banking institutions. The figures showing average liabilities and assets given in paragraphs (ii) and (iii) immediately following are, however, comparable with those given under "Joint-stock Banks" in previous issues of the Official Year Book.

(ii) *Liabilities in Australia.* (a) *Year 1938-39.* Particulars of the average liabilities in Australia of "Other Cheque-paying Banks" for each quarter from September, 1938, to June, 1939, are given in the table following:—

OTHER CHEQUE-PAYING BANKS : LIABILITIES, QUARTERLY AVERAGES.

Quarter Ended—	Notes in Circulation not Bearing Interest.	Bills in Circulation not Bearing Interest.	Balances Due to Other Banks.	Deposits.			Total Liabilities.
				Not Bearing Interest.	Bearing Interest. (a)	Total.	
	£	£	£	£	£	£	£
September, 1938	167,180	2,850,998	1,313,697	115,458,922	203,402,208	318,861,130	323,193,005
December, 1938	167,122	3,325,611	1,425,471	120,770,632	203,916,279	324,686,911	329,605,115
March, 1939	167,108	3,057,553	1,693,668	124,471,583	205,410,478	329,882,061	334,800,390
June, 1939	167,097	3,098,079	1,617,564	122,097,761	207,286,459	329,384,220	334,266,960

(a) Includes Inscribed deposit Stock of the E. S. and A. and Queensland National Banks.

(b) *Quarters ended June, 1935 to 1939.* The next table shows the average liabilities in Australia of "Other Cheque-Paying Banks" for the quarters ended June from 1935 to 1939.

OTHER CHEQUE-PAYING BANKS : AVERAGE LIABILITIES, QUARTERS ENDED JUNE.

Quarter Ended June.	Notes in Circulation not Bearing Interest.	Bills in Circulation not Bearing Interest.	Balances Due to Other Banks.	Deposits.			Total Liabilities.
				Not Bearing Interest.	Bearing Interest. (a)	Total.	
	£	£	£	£	£	£	£
1935	169,063	2,722,598	1,091,267	107,329,157	190,719,845	298,049,002	302,031,930
1936	167,447	2,806,890	1,386,509	110,636,515	187,491,212	298,127,727	302,488,582
1937	167,360	2,850,852	1,308,872	121,764,787	199,152,389	320,917,176	325,744,260
1938	167,212	2,992,693	1,608,182	122,538,549	205,242,523	327,781,072	332,549,159
1939	167,097	3,098,079	1,617,564	122,097,761	207,286,459	329,384,220	334,266,960

(a) Includes Inscribed Deposit Stock of the E. S. and A. and Queensland National Banks.

(iii) *Assets in Australia.* (a) *Year 1938-39.* The average assets in Australia of the banks are shown in the following table:—

OTHER CHEQUE-PAYING BANKS : ASSETS, QUARTERLY AVERAGES.

Quarter Ended—	Coin.	Bullion.	Austrian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities.	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Over-drafts, and all other Assets.	Total Assets.
September, 1938	1,891,602	784,660	30,553,160	39,952,483	10,219,230	3,087,590	1,931,414	310,663,312	399,083,451
December, 1938	1,992,398	938,338	32,688,295	40,297,767	10,325,488	3,297,082	2,235,979	312,426,473	404,201,820
March, 1939	2,183,499	818,782	33,812,070	47,581,420	10,304,603	2,995,657	2,068,065	307,667,251	407,431,347
June, 1939	1,966,920	1,053,054	28,109,786	48,885,718	10,492,683	2,776,480	2,210,992	313,740,609	409,236,242

(b) *Quarters ended June, 1935 to 1939.* The average assets in Australia of "Other Cheque-paying Banks" for the quarter ended June in each of the years 1935 to 1939 are given below:—

**OTHER CHEQUE-PAYING BANKS : AVERAGE ASSETS,
QUARTERS ENDED JUNE.**

Quarter Ended June.	Coin and Bullion.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities.	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Overdrafts, and all Other Assets.	Total Assets.
	£	£	£	£	£	£	£	£
1935	1,906,443	37,243,782	53,648,677	8,753,818	2,927,431	1,830,622	273,182,595	379,493,368
1936	2,023,765	29,473,860	45,610,796	8,979,458	2,734,715	1,900,411	282,512,858	373,235,863
1937	2,299,482	36,877,295	46,004,134	9,397,590	2,775,214	2,185,774	282,062,158	382,501,647
1938	2,595,942	31,543,420	44,887,709	10,023,145	2,895,047	2,228,940	308,041,359	402,215,562
1939	3,019,974	28,109,786	48,885,718	10,492,683	2,776,480	2,210,992	313,740,609	409,236,242

7. All Cheque-paying Banks.—(i) *General.* Particulars of the aggregate average liabilities and assets in Australia of all Cheque-paying Banks in the Commonwealth, including the Commonwealth Bank of Australia, are given in the subjoined paragraphs.

(ii) *Liabilities in Australia.* (a) *Year 1938–39.* The average liabilities in Australia of all Cheque-paying Banks for each quarter of the year 1938–39 were as follows:—

ALL CHEQUE-PAYING BANKS : LIABILITIES, QUARTERLY AVERAGES.(a)

Quarter Ended—	Notes in Circulation.	Bills in Circulation.	Balances Due to Other Banks.(b)	Deposits.		Total Deposits.	Total Liabilities.
				Not Bearing Interest.(c)	Bearing Interest.(d)		
	£	£	£	£	£	£	£
September, 1938	167,180	3,118,176	20,203,624	132,926,514	248,216,466	381,142,980	404,631,960
December, 1938	167,122	3,636,484	24,222,077	141,428,952	247,324,380	388,753,332	416,779,015
March, 1939 ..	167,108	3,378,038	25,434,213	143,259,721	245,870,166	389,129,887	418,109,346
June, 1939 ..	167,097	3,448,553	20,363,329	140,225,435	250,561,218	390,786,653	414,765,632

(a) Excludes Commonwealth Savings Bank. (b) Deposits of Other Cheque-paying Banks with Commonwealth Bank are treated in returns as "Balances due to Other Banks". (c) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted. (d) Includes Inscribed Deposit Stock of the E. S. and A. and Queensland National Banks.

(b) *Quarters ended June, 1935 to 1939.* The next table shows the average liabilities in Australia for the quarters ended June from 1935 to 1939.

**ALL CHEQUE-PAYING BANKS : AVERAGE LIABILITIES,
QUARTERS ENDED JUNE.(a)**

Quarter Ended June—	Notes in Circulation.	Bills in Circulation.	Balances due to Other Banks.(b)	Deposits.		Total.	Total Liabilities.
				Not Bearing Interest.(c)	Bearing Interest.(d)		
	£	£	£	£	£	£	£
1935 ..	169,063	2,950,562	24,773,231	119,086,856	224,262,006	343,348,862	371,247,718
1936 ..	167,447	3,046,980	18,324,742	122,629,362	221,174,769	343,804,131	365,343,300
1937 ..	167,360	3,125,178	26,268,185	138,299,384	236,787,625	375,087,009	404,647,732
1938 ..	167,212	3,307,533	21,012,191	141,044,095	250,499,233	391,543,328	416,030,264
1939 ..	167,097	3,448,553	20,363,329	140,225,435	250,561,218	390,786,653	414,765,632

(a) Excludes Commonwealth Savings Bank. (b) Deposits of Other Cheque-paying Banks with Commonwealth Bank are treated in returns as "Balances due to Other Banks". (c) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted. (d) Includes Inscribed Deposit Stock of the E. S. and A. and Queensland National Banks.

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(iii) *Assets in Australia.* (a) Year 1938-39. Particulars of the average assets in Australia for each quarter from September, 1938, to June, 1939, are given in the following table :—

ALL CHEQUE-PAYING BANKS : ASSETS, QUARTERLY AVERAGES.(a)

Quarter Ended—	Coin.	Bullion.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities. (b)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Overdrafts, and all other Assets (not including Contingent Assets). (c)	Total Assets.
	£	£	£	£	£	£	£	£	£
September, 1938	2,815,325	1,135,594	34,547,657	82,267,956	10,935,247	3,186,373	1,955,050	326,485,321	463,328,523
December, 1938	2,868,696	1,274,252	36,526,572	88,330,490	11,041,144	3,433,971	2,284,591	329,197,851	474,957,567
March, 1939	3,203,968	1,129,369	37,868,170	94,006,227	11,007,754	3,128,959	2,140,793	325,627,493	478,112,733
June, 1939	3,023,731	1,392,779	32,046,111	93,820,443	11,187,055	2,898,238	2,254,002	332,688,203	479,310,562

(a) Excludes Commonwealth Savings Bank loans in Australia other than Treasury Bills. Bank) deducted.

(b) Includes Treasury Bills.

(c) Includes short-term Government "Set-off" Accounts, Interstate (Commonwealth

(b) *Quarters ended June 1935 to 1939.* The average assets in Australia for the quarter ended June in each of the years 1935 to 1939 were as follows :—

ALL CHEQUE-PAYING BANKS : AVERAGE ASSETS, QUARTERS ENDED JUNE.(e)

Quarter ended June—	Coin and Bullion.	Australian Notes. (a)	Government and Municipal Securities. (d)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances and all other Assets. (c)	Total Assets.
	£	£	£	£	£	£	£	£
1935..	2,719,214	42,254,523	697,277,582	9,627,710	3,022,380	1,840,375	280,840,132	437,581,916
1936..	3,126,679	34,658,347	685,123,373	9,797,759	2,857,331	1,914,557	292,466,690	429,944,736
1937..	3,370,102	41,049,603	689,181,706	10,160,012	2,866,532	2,215,608	294,723,244	443,566,807
1938..	3,813,396	35,564,117	86,840,366	10,742,379	3,003,098	2,257,228	323,201,132	465,421,716
1939..	4,416,510	32,046,111	93,820,443	11,187,055	2,898,238	2,254,002	332,688,203	479,310,562

(a) Includes Cash with Commonwealth Bank. (Commonwealth Bank) deducted.

(b) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted. (c) Short term loans in Australia other than Treasury Bills included. (d) Includes Treasury Bills. (e) Excludes Commonwealth Savings Bank.

(iv) *Cash Reserve Ratios.* The following table shows for the quarter ended June of each of the years 1930 to 1939 the percentages of cash on liabilities "at call" and "total liabilities" respectively for the Commonwealth Bank and the Other Cheque-paying Banks. These percentages relate throughout to business within Australia.

(a) *Commonwealth Bank.* Cash reserves comprise coin, bullion and Australian notes. "Call" liabilities comprise deposits not bearing interest and balances due to other banks. The latter item is assumed to be approximately equivalent to the cash with Commonwealth Bank of the Other Cheque-paying Banks which is included in their quarterly statements with Australian Notes.

(b) *Other Cheque-paying Banks.* Cash reserves comprise coin, bullion, Australian notes and cash with the Commonwealth Bank, while "call" liabilities include deposits not bearing interest and notes in circulation. In computing the percentages in this table particulars relating to the Rural Bank of New South Wales have been excluded.

It is not strictly correct to assume that a division of deposits with Cheque-paying Banks into those bearing interest and not bearing interest would in all cases coincide with a definite division into fixed deposits and current accounts respectively, but in the absence of the data required to permit of an accurate apportionment, such a division has been adopted for the purposes of this analysis.

CHEQUE-PAYING BANKS : CASH RESERVE RATIOS.

Quarter Ended June—				On Liabilities " At Call."		On Total Liabilities.	
				Commonwealth Bank.	Other Cheque-paying Banks. (a)	Commonwealth Bank.	Other Cheque-paying Banks. (a)
				%	%	%	%
1930	..	..	..	24.4	41.9	16.7	13.5
1931	..	..	..	11.6	65.3	8.4	19.6
1932	..	..	..	18.4	56.7	10.7	17.3
1933	..	..	..	21.9	46.2	10.1	14.6
1934	..	..	..	14.2	52.5	9.1	17.4
1935	..	..	..	16.4	36.1	8.4	12.9
1936	..	..	..	21.7	28.1	10.0	10.3
1937	..	..	..	12.8	32.1	6.6	12.0
1938	..	..	..	13.8	27.8	6.3	10.2
1939	..	..	..	14.4	25.4	6.6	9.3

(a) Rural Bank of New South Wales excluded.

(v) *Advances, and Advances and Securities. Percentage on Total Deposits.* The percentages of advances, and of advances and securities on total deposits, respectively for the Commonwealth Bank, the Other Cheque-paying Banks, and for All Cheque-paying Banks, are shown in the following table. The data on which the percentages are based relate only to business within Australia.

For the Commonwealth Bank and Other Cheque-paying Banks, "Advances" are represented by the item "Advances, discounts, overdrafts, and all other assets (not including contingent assets)", which are combined with "Government and Municipal Securities" (including short-term loans in Australia) under the heading "Advances and Securities". "Deposits" include deposits of all kinds except those of Other Cheque-paying Banks with the Commonwealth Bank, i.e., "Cash with Commonwealth Bank".

In computing the percentages in this table, particulars relating to the Rural Bank of New South Wales have been excluded.

CHEQUE-PAYING BANKS : PERCENTAGE OF ADVANCES, AND ADVANCES AND SECURITIES ON TOTAL DEPOSITS.

Quarter Ended June—	Advances on Total Deposits.			Advances and Securities on Total Deposits.		
	Common-wealth Bank.	Other Cheque-paying Banks. (a)	Total. (a)	Common-wealth Bank.	Other Cheque-paying Banks. (a)	Total. (a)
	%	%	%	%	%	%
1930 ..	59.6	98.2	95.0	151.3	105.5	109.4
1931 ..	56.5	92.8	89.9	228.7	101.1	111.3
1932 ..	33.5	82.7	77.3	137.3	98.1	102.4
1933 ..	18.0	85.3	77.0	137.2	104.1	108.2
1934 ..	16.9	79.9	72.4	128.2	97.2	100.9
1935 ..	16.4	87.1	77.8	113.2	104.7	105.8
1936 ..	20.6	90.2	80.9	108.3	105.2	105.6
1937 ..	20.9	83.8	74.6	101.4	97.8	98.3
1938 ..	27.1	89.4	78.8	90.0	102.8	100.7
1939 ..	30.9	90.9	81.4	104.0	105.5	105.2

(a) Rural Bank of New South Wales excluded.

(vi) *Deposits per head of Population.* Particulars of the average deposits per head of population, calculated on the mean population of the quarter, are given for the quarter ended June of each of the last five years in the following table. The figures given, which are based on the aggregate for all Cheque-paying Banks in each State, are not adjusted on account of the Government "set-off" accounts of the Commonwealth Bank.

ALL CHEQUE-PAYING BANKS : DEPOSITS PER HEAD OF POPULATION.

Quarter Ended June—	New South Wales. (a)	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Total.
	£	£	£	£	£	£	£	£
1935 ..	47.5	65.7	46.2	43.8	42.3	36.3	32.9	51.1
1936 ..	47.5	65.6	45.9	44.6	43.2	36.5	33.1	51.3
1937 ..	52.3	70.5	47.7	49.1	44.7	38.0	36.8	55.3
1938 ..	54.3	72.1	51.1	49.6	46.4	39.9	41.5	56.8
1939 ..	54.9	70.3	49.8	49.2	43.5	42.5	40.5	56.6

(a) Includes Australian Capital Territory.

It may be mentioned here that deposits of "other Cheque-paying Banks" with the Commonwealth Bank are treated in the returns as "balances due to Other Banks".

(vii) *Proportion of Non-Interest Bearing Deposits to Total Deposits.* The sub-joined table shows for each State the proportion of non-interest bearing deposits to the total deposits with all Cheque-paying Banks during the quarter ended June of each of the years 1935 to 1939. Government "set-off" accounts of the Commonwealth Bank have been deducted in arriving at the percentage for all States combined.

ALL CHEQUE-PAYING BANKS: PROPORTION OF NON-INTEREST BEARING DEPOSITS TO TOTAL DEPOSITS.

Quarter ended June—	New South Wales.(a)	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Total.
	%	%	%	%	%	%	%	%
1935 ..	40.1	29.1	38.7	26.1	39.3	35.5	61.7	34.7
1936 ..	40.6	32.1	39.1	27.9	38.3	39.1	63.2	35.7
1937 ..	41.6	32.8	39.3	29.2	41.7	38.4	67.2	36.8
1938 ..	40.5	31.7	40.4	27.8	40.3	37.4	65.1	36.5
1939 ..	39.3	30.7	41.0	28.7	41.7	43.3	65.6	35.9

(a) Includes Australian Capital Territory.

8. Deposit Rates.—Particulars of interest rates for deposits since 1920 are given hereunder. It should be mentioned that the rates allowed by the Commonwealth Bank have not always been the same as those given by the other trading banks.

BANK DEPOSIT RATES.

Periods during which rates were in force.	Deposits for—			
	Three Months.	Six Months.	Twelve Months.	Two Years.
	Per cent. per annum.	Per cent. per annum.	Per cent. per annum.	Per cent. per annum.
24th July, 1920 to 18th August, 1927 ..	3½	4	4½	5
19th August, 1927 to 27th January, 1930	4	4	4½	5
28th January, 1930 to 25th June, 1931	4½	4½	5	5½
26th June to 26th November, 1931 ..	3½	3½	4	4½
27th November, 1931 to 7th March, 1932	3	3½	3½	4
8th March to May—June, 1932 (a) ..	2½	3	3½	4
May—June (a) to 31st October, 1932 (b)	2½	3	3½	3½
1st November, 1932 to 6th February, 1933 ..	2½	2½	3	3½
7th February, 1933 to 11th April, 1934 ..	2	2½	2½	3
12th April to 8th August, 1934 ..	2	2½	2½	2½
9th August to 10th October, 1934 ..	1½	2½	2½	2½
11th October to 16th December, 1934	1½	2	2½	2½
17th December, 1934 to 23rd March, 1936 (c) ..	1	1½	2½	2½
24th March, 1936 (d) ..	2	2½	2½	3
24th January, 1940 ..	1½	2½	2½	2½

(a) All Banks did not take simultaneous action. (b) Bank of New South Wales reduced the rates for 6, 12 and 24 months terms by one quarter of 1 per cent. from 23rd August, 1932. (c) Commonwealth Bank only. (d) Bank of New South Wales from 2nd March and Bank of Adelaide from 3rd March.

The "Premiers Plan" included, *inter alia*, provisions for the reduction of bank rates of interest on both deposits and advances.

9. Clearing House Returns.—(i) *Annual Clearings*. Particulars of the aggregate bank clearings for each capital city, as furnished by the Associated Banks, Melbourne, are given in the following table. Since October, 1929, transactions connected with the issue and redemption of Treasury Bills have resulted in largely inflated clearings. These transactions are of an abnormal character, and for the years 1934 to 1938 are shown separately. A weekly average of bank clearings is compiled from information supplied by the Commonwealth Bank, Sydney, and published in the *Quarterly Summary of Australian Statistics*.

CLEARING HOUSE RETURNS : VALUE OF BILLS, CHEQUES, ETC., 1870 TO 1938.

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1870 (a) ..	..	64,532	..	..	..	..	64,532
1880 (a) ..	..	85,877	..	..	..	..	85,877
1890 ..	..	315,190	..	..	..	..	315,190
1895 ..	108,509	130,787	..	..	..	..	239,296
1900 ..	144,080	159,949	..	..	..	..	304,029
1905 ..	189,826	187,632	32,255	..	..	..	409,713
1910 ..	274,344	261,383	61,060	..	..	..	596,787
1915 ..	357,803	299,295	96,291	60,950	..	..	814,339
1920 ..	704,546	725,006	160,539	166,011	80,758	..	1,896,860
1925 ..	909,114	803,083	192,968	171,092	101,085	25,557	2,202,899
1929 ..	1,043,320	6812,105	196,253	156,686	114,587	27,365	62,350,316
1930 ..	6872,390	6697,641	167,999	125,684	89,034	23,092	61,975,840
1931 ..	6683,176	6566,865	144,814	96,867	71,356	18,057	61,581,135
1932 ..	6588,733	6592,356	141,511	106,865	75,678	19,259	61,524,402
1933 ..	6641,400	6619,230	148,335	112,250	79,689	19,864	61,620,768
1934— Ordinary Trans- actions ..	716,084	676,407	165,555	118,656	84,628	22,463	1,783,793
Treasury Bills Transactions	256,013	55,520	..	..	..	..	311,533
Total ..	972,097	731,927	165,555	118,656	84,628	22,463	2,095,326
1935— Ordinary Trans- actions ..	775,986	724,327	181,889	132,689	94,705	24,713	1,934,309
Treasury Bills Transactions	247,683	52,369	..	..	..	..	300,052
Total ..	1,023,669	776,696	181,889	132,689	94,705	24,713	2,234,361
1936— Ordinary Trans- actions ..	842,610	755,196	188,906	139,959	101,880	27,665	2,056,216
Treasury Bills Transactions	250,829	43,176	..	..	..	..	294,005
Total ..	1,093,439	798,372	188,906	139,959	101,880	27,665	2,350,221
1937— Ordinary Trans- actions ..	937,334	844,488	204,493	157,596	104,891	29,874	2,278,676
Treasury Bills Transactions	262,630	43,424	..	..	..	..	306,054
Total ..	1,199,964	887,912	204,493	157,596	104,891	29,874	2,584,730
1938— Ordinary Trans- actions ..	942,423	838,609	217,217	159,015	109,102	30,786	2,297,152
Treasury Bills Transactions	269,264	40,655	..	..	..	..	309,919
Total ..	1,211,687	879,264	217,217	159,015	109,102	30,786	2,607,071

(a) Figures now published for these years exclude payments in coin.

(b) Excludes Treasury Bills transactions.

(ii) *Index of Annual Clearings.* The following index of bank clearings in each capital city for the years 1929 to 1938 has been computed from the figures in the previous paragraph. The base used is the average of the years 1927 to 1929. Clearings connected with the issue and redemption of Treasury Bills have been disregarded and no adjustment has been made on account of amalgamations of banking interests.

INDEX OF BANK CLEARINGS, 1929 TO 1938.

(Base: Average of Years 1927 to 1929 = 1,000.)

Year.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Total.
1927-29 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1929	1,006	1,015	1,006	926	1,015	996	1,004
1930	841	872	861	743	789	841	844
1931	659	708	743	572	632	657	675
1932	568	740	726	632	671	701	651
1933	618	774	761	663	706	723	692
1934	690	845	849	701	750	818	762
1935	748	905	933	784	839	900	826
1936	812	944	969	827	903	1,007	878
1937	904	1,055	1,049	931	929	1,088	973
1938	909	1,048	1,114	940	967	1,121	981

10. *Rates of Exchange.*—(i) *Australia on London.* The following statement, which has been prepared from data supplied by the General Manager of the Bank of New South Wales, Sydney, gives particulars of the various rates of exchange, Australia on London, in operation since 20th April, 1927. In earlier issues particulars were given of the rates in operation since 16th October, 1913. The details given show the value in Australia of £100 in London according to the rates quoted by the Associated Banks for buying and selling £100 in London on telegraphic transfer. In December, 1931, the Commonwealth Bank Board undertook the responsibility of regulating sterling exchange and announcing rates each week.

EXCHANGE RATES: AUSTRALIA ON LONDON, TELEGRAPHIC TRANSFER, FROM 20th APRIL, 1927.

Date on which Rate began to Operate.	Exchange.				Commission for £100 (Sterling).
	London.	Australia (Mean of Buying and Selling Rates).			
	£ sterling 100	£ 100 plus	£ s. d.	s. d.	
20th April, 1927	0 6 3	3 9	
27th June, 1927	0 8 9	3 9	
8th July, 1927	0 11 3	3 9	
19th March, 1928	0 15 0	5 0	
22nd July, 1929	1 0 0	5 0	
3rd September, 1929	1 5 0	5 0	
10th October, 1929	1 10 0	5 0	
18th December, 1929	1 17 6	5 0	
28th January, 1930	2 6 3	6 3	
17th February, 1930	2 16 3	6 3	
10th March, 1930	3 16 3	6 3	
24th March, 1930	6 6 3	3 9	
5th October, 1930	8 15 0	5 0	
6th January, 1931	15 6 3	3 9	
13th January, 1931	18 3 9	3 9	
17th January, 1931	25 5 0	5 0	
29th January, 1931	30 5 0	5 0	
3rd December, 1931	25 5 0	5 0	

The "Commission" which represents the Banks' "turn" on each £100 sterling exchanged has been computed by taking half the difference between the buying and selling rates.

(ii) *Sterling-Dollar rates.* The average of the daily quotations of the London-New York exchange rates are given for each month from January, 1934, to November, 1939, in the subjoined table.

STERLING-DOLLAR RATES : AVERAGE RATE FOR EACH MONTH.

Month.	1934.	1935.	1936.	1937.	1938.	1939.
	\$ to £ Stg.	$ to £ Stg.	$ to £ Stg.	$ to £ Stg.	$ to £ Stg.	$ to £ Stg.
January ..	5.056	4.895	4.960	4.908	5.000	4.669
February ..	5.019	4.875	4.996	4.894	5.018	4.686
March ..	5.089	4.776	4.971	4.885	4.985	4.686
April ..	5.154	4.835	4.944	4.916	4.979	4.681
May ..	5.105	4.890	4.971	4.939	4.965	4.682
June ..	5.059	4.936	5.020	4.935	4.960	4.683
July ..	5.042	4.956	5.023	4.967	4.931	4.682
August ..	5.067	4.971	5.027	4.983	4.881	4.610
September ..	4.996	4.933	5.041	4.961	4.805	4.046
October ..	4.942	4.908	4.900	4.956	4.768	4.030
November ..	4.990	4.925	4.888	4.994	4.710	4.030
December ..	4.946	4.929	4.907	4.997	4.671	..

(iii) *Interstate.* Exchange rates between the several capital cities of the States at 30th June, 1939, were as follows:—

INTERSTATE EXCHANGE RATES, 30TH JUNE, 1939.

Between.	And—					
	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart and Launceston.
	Rate per cent.	Rate per cent.	Rate per cent.	Rate per cent.	Rate per cent.	Rate per cent.
	s. d.	s. d.	s. d.	s. d.	s. d.	<i>s. d.</i>
Sydney ..	..	2 6	2 6	5 0	10 0	5 0
Melbourne ..	2 6	..	7 6	2 6	7 6	5 0
Brisbane ..	2 6	7 6	..	10 0	12 6	10 0
Adelaide ..	5 0	2 6	10 0	..	5 0	7 6
Perth ..	10 0	7 6	12 6	5 0	..	12 6
Hobart and Launceston ..	5 0	5 0	10 0	7 6	12 6	..

§ 2. Savings Banks.

1. *General.*—The inauguration of Savings Banks in Australia dates from the year 1819, when a private Savings Bank was opened in Sydney, New South Wales. In 1832 the legislature created "the Savings Bank of New South Wales" under the control of trustees, and shortly after its establishment the funds of the private Savings Bank were transferred to the new institution. In the other States provision for placing deposits with Savings Banks dates from 1841 in Victoria; 1854 in Queensland; 1840 in South Australia; 1863 in Western Australia (a Savings Bank was opened in 1856 but was closed a year later); 1835 in Launceston; and 1845 in Hobart. These early banks functioned as trustee Savings Banks, but, with the exception of the Hobart and Launceston institutions, were later absorbed by or amalgamated with Government Savings Banks.

Post Office Savings Banks were established in all States except South Australia dating from 1863 onwards. After the Federation of the Australian States in 1900 Post Offices were controlled by the Commonwealth Government, but they continued to act as Savings Bank agencies for State institutions until the establishment of the Commonwealth Bank in 1912, when they acted as agents for that institution.

Savings Banks at present operating are the Commonwealth Savings Bank (all States); State Savings Bank of Victoria; State Savings Bank of South Australia; and the two trustee Banks—Hobart and Launceston.

2. **The Commonwealth Savings Bank.**—The Commonwealth Savings Bank opened for business in Victoria on the 15th July, 1912; in Queensland on the 16th September, 1912; in the Northern Territory on the 21st October, 1912; and in New South Wales, South Australia and Western Australia on the 13th January, 1913. The Tasmanian State Savings Bank was absorbed by the Commonwealth Bank in January, 1913, the Queensland State Savings Bank was taken over in 1920 and the New South Wales and Western Australian State Savings Banks in 1931. The Savings Bank Department was separated from the General Bank on 9th June, 1928, and has since then operated independently, publishing its own balance-sheets and profit and loss accounts.

3. **Recent Amalgamations.**—Particulars relating to the absorption by the Commonwealth Savings Bank of the Government Savings Banks of New South Wales, and the State Savings Bank of Western Australia were given in Official Year Book, No. 29.

4. **Extension of Facilities.**—The prime object of the foundation of Savings Banks in Australia was the encouragement of thrift—deposits of one shilling and upwards being accepted—nevertheless the facilities offered, while preserving the original object, have led to developments in another direction. Although depositors may not operate on their accounts by means of cheques, they have practically all the other advantages of a current account in addition to receiving interest on their minimum monthly balances, while no charge is made by the banks for keeping the accounts.

For many years considerable use has been made of the Savings Bank account as an alternative to maintaining a fixed deposit with a Cheque-paying Bank. Deposits in Savings Banks may be withdrawn at any time with a minimum loss of interest, the rate of which is in some States greater than that offered by trading banks for six months' deposits.

5. **Classification of Depositors' Balances.**—The classification of deposits published by Savings Banks does not permit of a fully detailed analysis with respect to Australia as a whole, but information supplied to the Royal Commission on Monetary and Banking Systems for all Savings Banks except the Hobart Trustee Savings Bank shows that at 30th June, 1936, the amount on deposit in accounts with balances of less than £100 represented 21 per cent. of the total deposits; balances of over £100 but under £250, 21 per cent.; over £250 but under £500, 23 per cent.; over £500 but under £1,000, 25 per cent.; while those of over £1,000 accounted for 10 per cent. School, Penny Bank and small inoperative accounts were excluded in determining the above percentages.

6. **Number of Accounts.**—No statement is shown herein regarding the number of accounts because in some States it is possible for the same person to have an account in the Commonwealth Savings Bank as well as in the State Savings Bank. The effect of this multiplication of accounts was demonstrated by the reduction of numbers which followed the amalgamations referred to in par. 3 *ante*.

7. **Rates of Interest on Deposits.**—The "Premiers Plan" of 1931 provided, *inter alia*, for the reduction of bank rates of interest on deposits and advances. The Commonwealth Savings Bank reduced the rate of interest on depositors' balances by one per cent. from 1st July, 1931, and the other Savings Banks subsequently took similar action. The statements given hereunder show the rates of interest allowed at intervals since 1932 by State or Trustee Banks and by the Commonwealth Bank.

The table hereunder refers to interest rates allowed by State Savings Banks :—

STATE AND TRUSTEE SAVINGS BANKS : INTEREST RATES ON DEPOSITS.

Particulars.	State Savings Bank.			Trustee Savings Banks.	
	Victoria.	South Australia. (a)		Hobart.	Launceston.
	£1,000.	£1,000.		£300.	£300.
£1 to £500.		£501 to £1,000.			
Interest-bearing Limit.	%	%	%	%	%
Rates at 30th June—					
1933	2½ ; 3 (b)	3	3	2½ ; 3 (c)	2½ ; 3 (c)
1934	2½ ; 3 (b)	3	2½	2½ ; 3 (c)	2½ ; 3 (c)
1935	2 ; 2½ (b)	2¾	2½	2½ ; 3 (c)	2½ ; 3 (c)
1936	2 ; 2½ (b)	2¾	2½	2½ ; 3 (c)	2½ ; 3 (c)
1937	2 ; 2½ (b)	2¾	2½	3 ; 3½ (c)	3 ; 3½ (c)
1938	2 ; 2½ (b)	2¾	2½	3 ; 3½ (c)	3 ; 3½ (c)
1939	2 ; 2½ (b)	3 ; 2¾ (d)	2½	3 ; 3½ (c)	3 ; 3½ (c)

(a) Interest on deposits in accounts closed during the year is generally allotted at a lower rate than that applicable to accounts remaining open. (b) Deposit stock. (c) Deposits fixed for twelve months. (d) 3% on balances up to £200 and 2¾% on balances £201 to £500.

Particulars regarding the rates allowed by the Commonwealth Savings Bank are incorporated in the following table :—

COMMONWEALTH SAVINGS BANK : INTEREST RATES ON DEPOSITS.(a)

Rate at 30th June—	New South Wales, Victoria, South Australia, Western Australia and Tasmania.			Queensland.	
	£1 to £500.	£501 to £1,000.	£1,001 to £1,300.	£1 to £500.	£501 to £2,000.
	%	%	%	%	%
1933	2½	2	2	2½	2
1934	2½	1¾	1¾	2½	1¾
1935	2	1¾	1¾	2	1¾
1936	2	1¾	1¾	2	1¾
1937	2	1¾	1¾	2	1¾
1938	2	1¾	1¾	2	1¾
1939	2	1¾	1¾	2	1¾

(a) Interest bearing limit in all States except Queensland is £1,300. In Queensland it is £2,000. Interest is allowed by the Commonwealth Savings Bank at the rate shown under £1 to £500 on the first £500 of any deposit and at the rates shown under £501 to £1,000 on the second £500, etc.

On 1st July, 1932, a reduction of one-quarter of one per cent. in the rate of interest allowed on deposits became effective, followed by a similar reduction from 1st November, 1932. Further reductions of one-quarter of 1 per cent. operated from 1st June, 1934, and 1st January, 1935, respectively.

8. Statistical Returns.—Commencing from July, 1931, monthly returns have been furnished by Savings Bank authorities, and the collated data are disseminated in the form of monthly press notices. In addition, the particulars are published in the *Quarterly Summary of Australian Statistics* and the *Monthly Review of Business Statistics* issued

by the Commonwealth Statistician. The information given in the following paragraphs relates to the deposits at the 30th June in each year. For convenience of reference the information has been grouped under the following headings:—

- (i) All Savings Banks;
- (ii) Commonwealth Savings Banks; and
- (iii) State (including Trustee Banks in Tasmania) Savings Banks.

9. All Savings Banks.—(i) *Returns for year 1938-39.* The following statement gives details of the business transacted by all Savings Banks for the year 1938-39.

ALL SAVINGS BANKS : PARTICULARS, 1938-39.

State or Territory.	Amount on Deposit at beginning of Period.	Excess of Deposits over Withdrawals during year.	Interest Added during year.	Amount on Deposit at end of Period.
	£	£	£	£
New South Wales	86,015,685	-151,653	1,609,757	87,473,789
Victoria	78,877,000	69,431	1,514,620	80,461,051
Queensland	28,206,457	303,438	534,817	29,044,712
South Australia	27,243,657	-562,075	715,446	27,397,028
Western Australia	12,037,486	133,932	224,773	12,396,191
Tasmania	7,691,510	514,923	189,914	8,396,347
Northern Territory	67,921	29,457	1,436	98,814
Australian Capital Territory ..	292,461	20,724	5,619	318,804
Total	240,432,177	358,177	4,796,382	245,586,736

(ii) *Deposits—(a) Years 1935 to 1939.* The table hereunder shows for all Savings Banks the amount at credit of depositors and the average deposits per head of population at 30th June, 1935 to 1939.

ALL SAVINGS BANKS : DEPOSITS.

30th June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Aust. Cap. Ter.	Total.
TOTAL.									
	£	£	£	£	£	£	£	£	£
1935	77,906,402	72,018,713	26,196,599	24,184,988	10,929,010	6,429,914	53,541	229,896	217,949,063
1936	79,999,948	73,890,120	27,131,659	25,308,586	11,517,220	6,818,300	57,700	238,685	224,962,218
1937	81,952,399	75,720,458	27,304,438	26,505,941	11,834,794	7,214,877	59,127	259,127	230,851,161
1938	86,015,685	78,877,000	28,206,457	27,243,657	12,037,486	7,691,510	67,921	292,461	240,432,177
1939	87,473,789	80,461,051	29,044,712	27,397,028	12,396,191	8,396,347	98,814	318,804	245,586,736

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1935	29 9 2	39 3 8	27 1 3	41 7 1	24 10 5	2 3 10	9 6 24	15 2 32	5 3
1936	30 0 3	40 0 3	27 13 3	43 1 10	25 11 7	29 13 7	10 17 2	24 8 1	33 4 1
1937	30 8 9	40 16 3	27 10 5	45 0 6	26 1 1	31 0 1	10 16 9	25 4 4	33 15 10
1938	31 12 9	42 4 11	28 2 4	45 19 11	26 3 2	32 16 11	11 15 5	25 5 11	34 17 7
1939	31 16 11	42 15 4	28 11 6	15 19 9	26 12 8	35 9 7	15 19 4	26 19 0	35 5 7

For a number of years prior to the depression deposits were steadily rising and at 30th September, 1929, the aggregate amount was £225,963,165. As the depression developed withdrawals were heavy and the amount on deposit declined to £193,375,397 in June, 1931. (The lowest point, although not actually recorded, was probably reached in May, 1931.) During the next twelve months the deposits rose to £197,966,307, and they have since risen year by year until the maximum level of £245,586,736 was recorded at 30th June, 1939.

(b) *Deposits per head and Purchasing Power.* Particulars of the deposits per head of population, actual and adjusted to purchasing power by the application of retail price index-numbers at 30th June, 1928 and in each year from 1930 to 1939, are given in the following table:—

ALL SAVINGS BANKS: DEPOSITS PER HEAD OF POPULATION.

At 30th June—				Actual.		Adjusted to Purchasing Power. (a)	
				£	Index-Number.	£	Index-Number.
				1928 = 1000		1928 = 1000	
1928	..	..	..	34.14	1000	34.14	1000
1930	..	..	..	33.65	986	34.30	1005
1931	..	..	..	29.63	868	34.10	999
1932	..	..	..	30.10	882	36.48	1069
1933	..	..	..	30.51	894	38.52	1128
1934	..	..	..	31.55	924	39.14	1146
1935	..	..	..	32.41	949	39.77	1165
1936	..	..	..	33.20	972	40.00	1172
1937	..	..	..	33.79	990	39.52	1158
1938	..	..	..	34.88	1022	39.59	1160
1939	..	..	..	35.30	1034	39.09	1145

(a) On the basis of the "C" Series of Retail Price Index-numbers. Averages for June quarter in each year.

Since 1931 deposits per head increased by roughly 2 per cent. per annum until they reached a maximum of £35.30 in 1939. From 1927 to 1936 a steady increase was recorded in the purchasing power of deposits and although decreases have been recorded in two of the last three years the figure for 1939 represents a gain of 15 per cent. over the past ten years.

In interpreting the above figures it should be remembered that Savings Bank accounts are used to some extent by institutions and business people, as well as by individuals for the investment of personal savings. The relative extent to which Savings Bank accounts are used for business purposes, etc., may, and probably does, fluctuate considerably from time to time.

10. Commonwealth Savings Bank.—(i) Returns for Year 1938–39. Returns for the States and Territories for the year 1938–39 have been incorporated in the table below.

COMMONWEALTH SAVINGS BANK : RETURNS, 1938–39.

State or Territory.	Amount on Deposit at beginning of Period.	Excess of Deposits over Withdrawals during year.	Interest Added during year.	Amount on Deposit at end of Period.
	£	£	£	£
New South Wales	86,015,685	—151,653	1,609,757	87,473,789
Victoria	10,734,968	306,323	201,975	11,242,366
Queensland	28,206,457	303,438	534,817	29,044,712
South Australia	3,091,789	17,455	57,746	3,166,990
Western Australia	12,037,486	133,932	224,773	12,396,191
Tasmania	2,220,186	95,507	42,290	2,357,983
Northern Territory	67,921	29,457	1,436	98,814
Australian Capital Territory ..	292,461	20,724	5,619	318,804
Total	142,666,953	755,183	2,677,513	146,099,649

(ii) Deposits—Years 1935 to 1939. The amount on deposit with the Commonwealth Savings Bank in each State, in the Territories of Papua and New Guinea, and in London, at the 30th June in each of the years 1935 to 1939 was as follows :—

COMMONWEALTH SAVINGS BANK : DEPOSITS.

Place of Deposit.	At 30th June—				
	1935.	1936.	1937.	1938.	1939.
	£	£	£	£	£
New South Wales	77,906,402	79,999,948	81,952,399	86,015,685	87,473,789
Victoria	8,910,707	9,487,318	9,965,266	10,734,968	11,242,366
Queensland	26,196,599	27,131,659	27,304,438	28,206,457	29,044,712
South Australia	2,508,233	2,702,422	2,917,184	3,091,789	3,166,990
Western Australia	10,929,010	11,517,220	11,834,794	12,037,486	12,396,191
Tasmania	1,854,283	1,981,990	2,123,853	2,220,186	2,357,983
Northern Territory	53,541	57,700	59,127	67,921	98,814
Australian Capital Territory ..	229,896	238,685	259,127	292,461	318,804
Total	128,588,671	133,116,042	136,416,188	142,666,953	146,099,649
Papua and New Guinea (a) ..	162,646	181,048	189,251	215,864	209,570
London (a)	381,622	534,764	526,653	550,307	571,279
Grand Total	129,132,939	133,831,854	137,132,092	143,433,124	146,880,498

(a) Not included in the figures given in para. 9 (i) and (H) and 10 (i).

(iii) Balance-sheet 30th June, 1939. The Commonwealth Savings Bank publishes a half-yearly balance-sheet, and the statement hereunder shows the position at the 30th June, 1939.

COMMONWEALTH SAVINGS BANK.(a): BALANCE-SHEET 30TH JUNE, 1939.

Liabilities.		Assets.	
£		£	
Reserve Fund ..	2,713,473	Coin, Cash Balances and Money	
Depositors' Balances ..	146,880,498	at Short Call ..	11,144,343
Other Liabilities ..	7,091,438	Australian Notes ..	236,956
		Government Securities ..	108,429,857
		Securities of Municipal and	
		Other Public Authorities ..	32,719,926
		Bank Premises ..	3,281,961
		Other Assets ..	872,366
	156,685,409		156,685,409

(a) Includes London, Papua and Territory of New Guinea Branches.

(iv) *Profits.* Under the terms of the Savings Bank Amalgamation Agreements the profits of the Commonwealth Savings Bank in New South Wales, Queensland, Western Australia and Tasmania are equally divided between the Bank and the former controlling authorities in those States. After £216,454 had been so provided for, the net profit of the Commonwealth Savings Bank during 1938-39 was £316,282, one-half of which was paid to the National Debt Sinking Fund and the remainder carried to reserves. The aggregate net profit from the inception of the bank to the 30th June, 1939, was £4,892,178.

11. *State Savings Banks.*—(i) *Returns for 1938-39.* Particulars of the transactions of all State Savings Banks for the year 1938-39 are given hereunder. Throughout the following tables the figures for Tasmania refer to the Trustee Savings Banks in Hobart and Launceston. Although the accounts of these institutions are made up for half-yearly periods ending 28th February and 31st August, the managements have furnished particulars of deposits as at 30th June.

STATE SAVINGS BANKS: RETURNS, 1938-39.

State or Territory.	Amount on Deposit at beginning of period.	Excess of Deposits over Withdrawals during year.	Interest Added during year.	Amount on Deposit at end of period.
	£	£	£	£
Victoria ..	68,142,032	-236,892	1,313,545	69,218,685
South Australia ..	24,151,868	-579,530	657,700	24,230,038
Tasmania (a) ..	5,471,324	419,416	147,624	6,038,364
Total ..	97,765,224	-397,006	2,118,869	99,487,087

(a) Trustee Savings Banks, Hobart and Launceston.

NOTE.—The State Savings Banks in New South Wales, Queensland, Western Australia and Tasmania have been absorbed by the Commonwealth Savings Bank.

(ii) *Deposits—Years 1934 to 1939.* The following statement shows the amount on deposit with State Savings Banks at the 30th June in each of the years 1934 to 1939.

STATE SAVINGS BANKS: DEPOSITS.

State or Territory.	At 30th June—					
	1934.	1935.	1936.	1937.	1938.	1939.
	£	£	£	£	£	£
Victoria ..	61,610,147	63,108,006	64,402,802	65,755,192	68,142,032	69,218,685
South Australia ..	21,132,755	21,676,755	22,606,164	23,588,757	24,151,868	24,230,038
Tasmania (a) ..	4,324,246	4,575,631	4,837,210	5,091,024	5,471,324	6,038,364
Total ..	87,067,148	89,360,392	91,846,176	94,434,973	97,765,224	99,487,087

(a) Trustee Savings Banks, Hobart and Launceston.

(iii) *Assets* 1938-39. At 30th June, 1939, the assets of all State Savings Banks amounted to £108,979,792, distributed as shown hereunder.

STATE SAVINGS BANKS : ASSETS, 30th JUNE, 1939.

Particulars.	Victoria.	South Australia.	Tasmania. (a)	Total.
	£	£	£	£
Government Securities	30,432,038	12,973,364	2,336,860	45,742,262
Municipal Securities	2,637,571	415,440	1,079,910	4,132,921
Other Public Securities	16,471,634	298,598	39,557	16,809,789
Mortgages	2,446,840	5,550,421	1,574,767	9,572,028
Outstanding Interest, Dividends and Rents	682,003	226,029	65,740	973,772
War Service Homes .. ..	..	..	..	..
Landed and House Property	807,901	98,547	27,315	933,763
Fixed Deposits	19,873,000	5,047,750	1,072,000	25,992,750
Cash in hand, in transit and on Current Account	2,369,535	1,955,013	491,281	4,815,829
All other Assets	4,411	596	1,671	6,678
Total Assets	75,724,933	26,565,758	6,689,101	108,979,792

(a) Year ended 31st August, 1939. See par. (i).

(iv) *Profit and Loss Accounts*, 1938-39. Details of the Profit and Loss Accounts of the several State Savings Banks for the year 1938-39 are given in the following table :—

**STATE SAVINGS BANKS : PROFIT AND LOSS ACCOUNTS FOR YEAR
ENDED 30TH JUNE, 1939.**

Particulars.	Victoria.	South Australia.	Tasmania. (a)	Total.
	£	£	£	£
<i>Dr.</i>				
Interest allotted to Depositors ..	1,313,545	657,700	167,285	2,138,530
Amount carried to Reserves and Depreciation Funds	265,000	115,240	10,500	390,740
Writing off Bank Premises	102,900	..	11,829	114,729
Expenses of Management	578,535	153,979	35,960	768,474
All other Expenses	82,437	22,230	(c) 2,005	106,732
Balance carried forward	172,079	(b) 147,698	93,271	413,048
Total	2,514,496	1,096,847	320,910	3,932,253
<i>Cr.</i>				
Balance brought forward	176,496	(d) 147,930	92,942	417,368
Interest, Dividends and Rents ..	2,338,000	948,917	227,968	3,514,885
Total	2,514,496	1,096,847	320,910	3,932,253

(a) Year ended 31st August, 1939; see par. (i). (b) Includes £50,000, provision for interest accrued on Depositors' Balances from 7th to 30th June, 1939. (c) Includes £750, Taxation Reserve. (d) Includes Reserve brought forward from 1936-37 (Provision for Interest accrued on Depositors' Balances from 7th to 30th June, 1938, £50,000).

C. COMPANIES.

§ 1. General.

Statistics available in regard to registered companies embrace (a) Returns relating to Trustees, Executors and Agency Companies; (b) Returns relating to Registered Building and Investment Societies; and (c) Returns relating to Registered Co-operative Societies.

§ 2. Trustees, Executors and Agency Companies.

Returns for 1938 are available for eight Victorian, two New South Wales, one Queensland, four South Australian, two Western Australian and four Tasmanian companies. The paid-up capital of these twenty-one companies amounted to £1,355,952; reserve funds and undivided profits to £1,196,672; other liabilities, £436,143; total liabilities, including capital, £2,987,767. Among the assets are included—Deposits with Governments, £320,523; other investments in public securities, fixed deposits, etc., £619,220; loans on mortgage, £471,106; property owned, £1,054,891; advances to clients, £197,782; cash, £108,191; other assets, £216,054. Of the twenty-one companies, ten show the total amount of the estates, etc., under administration, the total for 1938 being approximately £161.1 millions. (The report of the Royal Commission on Monetary and Banking Systems shows the total value of estates administered by all companies as approximately £220 millions.) In respect of the twenty-one companies, net profits for the year totalled £161,464, of which £117,539 was paid in dividends.

§ 3. Registered Building and Investment Societies.

1. Summary.—Returns have been received relating to 274 Societies, but the information is not exhaustive, as particulars regarding unimportant organizations are not included.

REGISTERED BUILDING AND INVESTMENT SOCIETIES: SUMMARY, 1938.

Particulars.	N.S.W. 1937-38.	Vic. 1938.	Q'land. 1937-38.	S. Aust. 1938.	W. Aust. 1937-38.	Tas. 1938.	Total.
Societies making returns—							
Permanent .. No.	10	21	8	6	7	4	56
Terminating .. No.	192	2	6	12	6	..	218
Total .. No.	202	23	14	18	13	4	274
Number of shareholders ..	(d) 35,446	9,503	12,117	9,418	28,498	5,324	100,306
Number of shares ..	(c) 348,650	822,391	928,654	33,585	(a) 46,065	2,179,345b	2,179,345b
Number of borrowers ..	(e) 5,368	13,735	6,395	2,651	4,087	1,516	33,752
Income for year from interest, etc. .. £	257,416	369,708	118,912	23,108	88,784	39,266	897,194
Working expenses for year .. £	174,155	193,211	104,840	8,605	15,781	6,973	503,565
Amount of deposits during year .. £	329,460	1,926,535	128,053	121,010	78,913	17,987	2,601,958
Repayment of loans during year .. £	626,913	1,081,620	344,984	107,665	282,406	115,124	2,558,712
Loans granted during year .. £	f3,624,190	1,333,061	396,657	118,628	286,532	100,375	5,859,443

(a) Not available. (b) Exclusive of Western Australia. (c) Includes 152,458 shares in Star Bowkett and 160,610 in other terminating societies and excludes investment societies. (d) Includes 18,543 shareholders in Star Bowkett and 13,617 in other terminating societies. (e) Permanent Societies only. (f) Includes £2,910,093 for other terminating societies.

2. **Liabilities and Assets.**—The balance-sheets of the companies in respect of which particulars of liabilities and assets are stated hereunder cover periods ended during the year 1938. The figures quoted for the States of South Australia and Tasmania refer to the calendar year 1938, while those for the remaining States are for the fiscal year 1937–38.

REGISTERED BUILDING AND INVESTMENT SOCIETIES : LIABILITIES, 1938.

State.	Paid-up Capital or Subscriptions.	Reserve Funds. (a)	Deposits.	Bank Overdrafts and other Liabilities.	Total Liabilities.
	£	£	£	£	£
New South Wales ..	2,460,023	668,730	643,385	(b)3,064,748	6,836,886
Victoria ..	2,159,405	943,641	2,390,689	388,549	5,882,284
Queensland ..	1,721,259	60,345	14,659	74,776	1,871,039
South Australia ..	562,444	68,310	109,140	4,085	743,979
Western Australia ..	1,231,459	15,000	94,443	65,963	1,406,865
Tasmania ..	376,371	105,787	225,050	12,130	719,338
Total ..	8,510,961	1,861,813	3,477,366	3,610,251	17,460,391

(a) Includes Profit and Loss Account.

(b) Includes £2,905,723 for other terminating Societies.

REGISTERED BUILDING AND INVESTMENT SOCIETIES : ASSETS, 1938.

State.	Advances on Mortgage.	Landed and House Property, Furniture, etc.	Cash in Hand and on Deposit and other Assets.	Total Assets.
	£	£	£	£
New South Wales ..	(c)6,216,701	(a) 233,380	(b) 386,805	6,836,886
Victoria ..	5,486,793	208,943	186,548	5,882,284
Queensland ..	1,808,798	15,656	46,585	1,871,039
South Australia ..	668,702	27,531	47,746	743,979
Western Australia ..	1,311,741	32,511	62,613	1,406,865
Tasmania ..	559,678	10,150	149,510	719,338
Total ..	16,052,413	528,171	879,807	17,460,391

(a) Permanent Societies only.

(b) Includes Landed and House Property, Furniture, etc., of terminating Societies.

(c) Includes £3,192,435 for other terminating Societies.

§ 4. Co-operative Societies.

1. **General.**—Prior to 1931 the returns relating to Co-operative Societies were divided into two classes—(i) those engaged in the manufacture and marketing of primary products and trade requirements; and (ii) those engaged in retailing general household require-

ments. The former may be described briefly as Producers' Co-operative Societies and the latter as Consumers' Co-operative Societies. Particulars of those Producers' Societies which are also Consumers' Societies were compiled separately for the first time for the year 1931. The particulars given for New South Wales relate to societies registered under the Co-operation Act 1923-1929.

CO-OPERATIVE SOCIETIES: SUMMARY, 1938.

Particulars.	N.S.W. 1937-38. (a)	Vic. 1937-38.	Qld. 1937-38.	S.A. 1938.	W.A. 1937-38.	Tas. 1937-38.	Total.
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PRODUCERS' SOCIETIES.

Number of Societies	121	58	113	34	3	10	339
Number of Branches	(c) 18	18	53	12	8	19	110
Number of Members	54,168	37,638	57,036	7,788	4,245	7,739	168,614
Gross Turnover (Sales)	£ 16,469,556	£ 3,990,622	£ 11,086,034	£ 1,199,289	£ 508,541	£ 534,450	£ 33,788,492
Other Income	£ 230,131	£ 224,856	£ 330,400	£ 173,890	£ 28,860	£ 22,175	£ 1,010,312
Total Income	£ 16,699,687	£ 4,215,478	£ 11,416,434	£ 1,373,179	£ 537,401	£ 556,625	£ 34,798,804
Total Purchases during Year	£ 14,067,254	£ 3,442,133	£ 8,806,238	£ 1,075,579	£ 393,986	£ 431,201	£ 28,306,391
Total Expenditure (b)	£ 16,616,893	£ 4,195,045	£ 11,410,301	£ 1,415,896	£ 509,256	£ 557,110	£ 34,704,501
Rebates and Bonuses	£ 37,393	£ 23,441	£ 76,137	£ 43,806	£ 26,763	£ 6,069	£ 213,519
Dividends on Share Capital	£ 29,467	£ 24,139	£ 39,671	£ 8,462	£ 2,908	£ 2,935	£ 107,582

CONSUMERS' SOCIETIES.

Number of Societies	43	13	14	8	5	3	86
Number of Branches	(c) 5	5	10	41	..	2	58
Number of Members	39,846	6,504	7,398	43,680	1,665	578	99,671
Gross Turnover (Sales)	£ 2,467,574	£ 495,057	£ 374,751	£ 1,076,489	£ 84,197	£ 63,511	£ 4,561,579
Other Income	£ 59,896	£ 13,617	£ 3,447	£ 21,198	£ 2,397	£ 680	£ 101,235
Total Income	£ 2,527,470	£ 508,674	£ 378,198	£ 1,097,687	£ 86,594	£ 64,191	£ 4,662,814
Total Purchases during Year	£ 1,881,199	£ 418,732	£ 328,563	£ 863,276	£ 67,144	£ 52,537	£ 3,611,451
Total Expenditure (b)	£ 2,388,886	£ 468,900	£ 374,148	£ 1,045,805	£ 82,265	£ 62,750	£ 4,422,754
Rebates and Bonuses	£ 133,190	£ 23,564	£ 2,145	£ 47,184	£ 1,003	£ 951	£ 208,037
Dividends on Share Capital	£ 16,602	£ 3,831	£ 884	£ 15,116	£ 330	£ 433	£ 37,196

SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

Number of Societies	..	8	4	3	66	..	81
Number of Branches	..	2	13	1	40	..	56
Number of Members	..	4,379	4,450	596	14,637	..	24,062
Gross Turnover (Sales)	..	£ 1,185,401	£ 949,589	£ 133,021	£ 1,588,604	..	£ 3,856,615
Other Income	..	£ 7,759	£ 4,657	£ 29,944	£ 287,316	..	£ 329,676
Total Income	..	£ 1,193,160	£ 954,246	£ 162,965	£ 1,875,920	..	£ 4,186,291
Total Purchases during Year	£	£ 1,049,829	£ 811,738	£ 132,807	£ 1,389,686	..	£ 3,384,060
Total Expenditure (b)	£	£ 1,166,067	£ 949,705	£ 154,517	£ 1,819,182	..	£ 4,089,471
Rebates and Bonuses	£	£ 20,053	£ 1,739	£ 3,845	£ 5,243	..	£ 30,880
Dividends on Share Capital	£	£ 4,292	£ 2,052	£ 1,464	£ 5,376	..	£ 13,184

(a) Particulars relate to Societies registered under Co-operation Act 1923-1929. (b) Working expenses and purchases. (c) Not available. (d) Excluding New South Wales.

2. Liabilities and Assets.—The next table gives the liabilities and assets.
CO-OPERATIVE SOCIETIES : LIABILITIES AND ASSETS, 1938.

Particulars.	N.S.W.(a) 1937-38.	Vic. 1937-38.	Qld. 1937-38.	S.A. 1938.	W.A. 1937-38.	Tas. 1937-38.	Total.
PRODUCERS' SOCIETIES.							
Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	1,027,772	976,888	1,195,821	197,709	53,863	85,587	3,537,640
Loan Capital ..	(b)	166,506	855,184	262,172	4,000	40,752	1,328,614
Bank Overdraft ..	529,385	757,642	772,632	209,502	746	39,695	2,300,602
Accumulated Profits ..	1,000,440	127,518	235,216	61,778	12,260	12,955	3,698,077
Reserve Funds ..		344,039	1,536,698	293,688	49,533	23,952	
Sundry Creditors ..		514,480	1,735,573	310,860	52,741	66,285	
Other Liabilities ..	1,735,601	48,398	60,842	411,607	6,508	21,467	4,964,362
Total Liabilities ..	4,293,198	2,935,471	6,391,966	1,747,316	179,651	281,693	15,829,295
Assets—							
Land and Buildings ..	2,076,219	1,267,865	1,108,158	210,950	52,683	98,789	7,826,614
Machinery, Plant and other fixed Assets ..			2,587,256	325,508	44,350	54,836	
Stocks ..			609,024	797,298	20,658	52,125		2,666,876
Sundry Debtors ..	983,671	956,441	1,606,322	113,683	31,883	45,257	3,737,257
Cash in hand and on deposit ..	268,814	36,423	353,135	10,013	20,486	23,897	712,768
Profit and Loss Account ..		94,925	14,666	11,480		2,974	124,045
Other Assets ..	221,503	135,037	113,405	278,384	9,591	3,815	761,735
Total Assets ..	4,293,198	2,935,471	6,391,966	1,747,316	179,651	281,693	15,829,295
CONSUMERS' SOCIETIES.							
Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	553,860	121,102	62,692	449,048	12,727	20,608	1,220,037
Loan Capital ..	(b)	39,914	7,597	133,070	..	6,780	(c) 187,361
Bank Overdraft ..	86,260	67,268	35,617	31,199	3,469	1,766	225,579
Accumulated Profits ..	397,494	16,750	7,652	42,841	2,145	2,125	707,767
Reserve Funds ..		68,003	22,039	138,911	2,635	7,172	
Sundry Creditors ..		41,017	33,233	33,137	7,535	5,275	
Other Liabilities ..	267,045	4,189	2,185	1,179	502	1,187	396,484
Total Liabilities ..	1,304,659	358,243	171,015	829,385	29,013	44,913	2,737,228
Assets—							
Land and Buildings ..	502,324	109,452	32,028	293,289	7,935	17,150	1,020,178
Machinery, Plant and other fixed Assets ..			7,993	46,666	2,178	1,163	
Stocks ..			89,525	41,244	227,770	7,509		14,352	737,262
Sundry Debtors ..	243,963	91,966	69,253	82,204	7,355	7,531	502,272
Cash in hand and on deposit ..	53,081	55,498	4,761	30,013	873	4,547	148,773
Profit and Loss Account ..		3,923	11,972	12,081	1,373	..	328,743
Other Assets ..	148,429	7,879	3,764	137,362	1,790	170	..
Total Assets ..	1,304,659	358,243	171,015	829,385	29,013	44,913	2,737,228
SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.							
Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	..	80,786	75,544	19,633	396,309	..	572,272
Loan Capital ..	..	11,965	525	..	142,775	..	155,265
Bank Overdraft ..	..	33,106	52,647	22,124	267,070	..	375,547
Accumulated Profits ..	..	49,563	7,935	2,737	25,730	..	85,065
Reserve Funds ..	..	74,941	37,147	14,812	98,118	..	225,018
Sundry Creditors ..	..	81,369	77,508	13,076	219,280	..	391,233
Other Liabilities ..	..	6,750	9,209	12,614	114,760	..	143,333
Total Liabilities ..	..	338,480	259,615	84,996	1,264,642	..	1,947,733
Assets—							
Land and Buildings ..	..	151,534	70,195	7,245	185,137	..	549,287
Machinery, Plant and other fixed Assets ..	..		61,044	9,653	64,479	..	
Stocks		63,588	14,857	251,177	..		372,080
Sundry Debtors ..	..	64,785	63,819	32,093	571,143	..	731,840
Cash in hand and on deposit ..	..	18,000	1,538	1,046	26,194	..	46,778
Profit and Loss Account ..	..	256	..	..	37,103	..	37,359
Other Assets ..	..	40,317	20,561	20,102	129,409	..	210,389
Total Assets ..	..	338,480	259,615	84,996	1,264,642	..	1,947,733

(a) Particulars relate to Societies registered under Co-operation Act 1923-1929. (b) Not available.

(c) Excludes New South Wales.

D. INSURANCE.**§ 1. General.**

Although insurance business is conducted under State laws where such laws are in existence, or otherwise under various Companies Acts or Special Acts, Section 51 of the Commonwealth Constitution Act confers the necessary powers on the Commonwealth Parliament to legislate in regard to "insurance other than State insurance; also State insurance extending beyond the limits of the State concerned." Legislation by the Commonwealth Parliament includes the Life Assurance Companies Act 1905 limiting the amount of assurance payable on the death of children, the Marine Insurance Act 1909 defining the limits of marine insurance and regulating the terms of contracts, etc., and the Insurance Act 1932-1937, the principal features of which are given hereunder.

Companies, persons or associations of persons carrying on insurance business in the Commonwealth or in any Territory of the Commonwealth are required to deposit money or approved securities with the Commonwealth Treasurer, to the extent specified in the schedule hereunder.

SCHEDULE OF DEPOSITS.

Class of Company.	Life Assurance Business.	Other Insurance Business.
Existing companies (Australian and foreign)	£1,000 for every £5,000 of net liability up to a maximum deposit of £50,000	£1,000 for each £5,000 of annual premium income. Maximum deposit £40,000. Minimum deposit £1,000.
New companies—Australia	£5,000 per annum until maximum of £50,000 is reached. For mutual companies, after the initial deposit of £5,000, £1,000 per annum until deposit reaches a maximum of £50,000	Initial deposit, £5,000. £1,000 for every £5,000 by which the annual premium income exceeds £25,000. Maximum deposit £40,000
Overseas—		
British	£50,000	£50,000
Foreign	£60,000	£60,000

Money deposited is to be invested by the Treasurer in prescribed securities according to the selection of the depositor, and all interest accruing on deposits or securities is to be paid to depositors. Deposits are to remain as security against liability to policy-holders, and are to be available to satisfy judgments obtained in respect of policies.

If the value of money and approved securities deposited has depreciated below the value required by the Act, the Treasurer may require the depositor to lodge additional deposits to bring the total to the prescribed value.

After this Act became law, State laws governing insurance deposits ceased to operate. Deposits held by States on 1st February, 1932, could, however, remain with the States subject to the conditions embodied in the laws of the States. Whilst deposits so remained with the State, the depositors, to the extent of the value of their deposits, were exempt from liability to make deposits under the Commonwealth Act, and the conditions of State laws continued to apply to the deposits until the Commonwealth Treasurer required their return to depositors who immediately had to make deposits with the Commonwealth to the prescribed extent.

The following are not regarded as insurance businesses under the Act:—

Staff superannuation schemes;

Schemes of religious organizations solely for insurance of their property; and Friendly Society, Union and Association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned.

The following shows particulars of deposits under the Insurance Act 1932, at 30th June, 1939.

Class of Insurance.	Deposited with—		Total.
	Commonwealth.	States.	
	1939.	1939.	1939.
	£	£	£
Life	396,364	923,324	1,319,688
Other	700,914	1,905,120	2,606,034
Total	1,097,278	2,828,444	3,925,722

§ 2. Life Assurance.

1. **General.**—Since 1907 statistical returns have been collected from life assurance institutions, with results which are in the main satisfactory. The results for each of the earlier years may be found in the several Official Year Books and Finance Bulletins. The figures in the succeeding paragraphs refer to Australian business only, except where otherwise indicated.

2. **Institutions Transacting Business.**—(i) *General.* The number of institutions transacting life assurance business in Australia during 1938 was 26, including four oversea companies. Of the twenty-two Australian institutions, six are purely mutual, and fifteen are public companies. One office is a State Government institution.

(ii) *Ordinary and Industrial Business.* Of the institutions enumerated in the preceding paragraph, fourteen transacted both ordinary and industrial business. Ordinary and industrial business have, where possible, been kept separate, and figures relating to companies whose head offices are outside Australia have been restricted to the Australian business.

3. **Australian Business.** (i) *Ordinary.* (a) 1938. The following table shows particulars for each class of policy in existence during 1938. The amount assured in 1938 represents an average of more than £59 per head of population.

ORDINARY LIFE ASSURANCE : AUSTRALIAN BUSINESS 1938.

Class of Policy.	No. of Policies.	Sum Assured.	Average per Policy.
	No.	£	£
Assurances—			
Whole of Life	433,139	215,100,301	497
Endowment	675,128	159,968,537	237
Other	24,015	19,525,041	813
Endowments	49,130	9,220,048	188
Total	1,181,412	403,813,927	342
Annuities	3,681	(a) 314,499	(a) 85

(a) Amount per annum. Contingent annuities which might arise under assurance and endowment assurance contracts have hitherto been included in the total existing annuities, but have now been reclassified and omitted from that total.

(b) 1934-1938. Similar particulars for each of the last five years are shown below.

ORDINARY LIFE ASSURANCE 1934-1938 : AUSTRALIAN BUSINESS.

Year.	Assurance and Endowment Policies.				Annuities.	
	Policies in Force.	Amount.	Average per Policy.	Annual Premium Income.	No.	Amount per Annum.
	No.	£	£	£		£
1934 ..	908,620	304,778,667	335	10,240,507	2,512	207,387
1935 ..	965,597	326,018,315	338	10,873,331	2,705	265,615
1936 ..	1,038,055	352,024,524	339	11,911,755	2,977	305,093
1937 ..	1,116,033	380,134,886	341	12,634,971	3,549	376,052
1938 ..	1,181,412	403,813,927	342	13,279,373	3,681	(a)314,499

(a) See Note (a) to previous table.

(ii) *Industrial.* (a) 1938. Information in regard to industrial business in existence during 1938 is given in the following table :—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN BUSINESS 1938.

Class of Policy.				No. of Policies.	Sum Assured.	Average per Policy.
				No.	£	£
Assurances—						
Whole of Life ..	..	..	..	164,979	3,808,883	23
Endowment ..	..	..	..	2,076,137	97,010,438	47
Other ..	..	..	..	..	..	..
Endowments ..				127,224	4,632,836	36
Total ..				2,368,340	105,452,157	45
Annuities ..				2	(a) 58	(a) 29

(a) Amount per annum.

(b) 1934-1938. Similar information for each of the last five years is shown below.

INDUSTRIAL LIFE ASSURANCE 1934-1938 : AUSTRALIAN BUSINESS.

Year.	Assurance and Endowment Policies.				Annuities.	
	Policies in Force.	Amount.	Average per Policy.	Annual Premium Income.	No.	Amount per Annum.
	No.	£	£	£		£
1934 ..	1,782,291	77,024,429	43	4,455,290	2	58
1935 ..	1,920,116	83,316,521	43	4,780,269	2	58
1936 ..	2,078,460	90,748,635	44	5,215,624	2	58
1937 ..	2,253,863	99,544,760	44	5,691,704	2	58
1938 ..	2,368,340	105,452,157	45	6,094,667	2	58

4. Receipts and Expenditure.—(i) *Ordinary Business.* The following table shows the aggregate Australian receipts for the last five years of all the institutions doing business in Australia. In the latter year premiums—new and renewal—amounted to over 64 per cent., and interest, dividends and rent to 35 per cent. of the Australian receipts.

ORDINARY LIFE ASSURANCE : AUSTRALIAN RECEIPTS.

Heading.	Amount.				
	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Premiums—New ..	1,273,743	1,588,553	1,994,529	1,886,633	1,653,395
Renewal ..	8,966,764	9,284,778	9,917,226	10,748,338	11,625,978
Consideration for annuities ..	435,306	395,172	281,285	268,399	197,200
Interest, dividends and rents ..	5,686,744	5,896,289	6,368,726	6,778,610	7,173,402
Other receipts ..	280,502	23,297	143,327	76,238	15,374
Total Receipts ..	16,643,059	17,188,089	18,705,093	19,758,218	20,665,349

In 1938 claims accounted for 60 per cent. of the total expenditure; surrenders 14 per cent.; expenses of management 9 per cent.; commission 8 per cent.; and licence-fees and taxes 2 per cent.

ORDINARY LIFE ASSURANCE : AUSTRALIAN EXPENDITURE.

Heading.	Amount.				
	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Claims ..	6,345,000	6,926,774	7,111,822	7,373,965	7,417,756
Surrenders ..	1,891,512	1,637,494	1,590,232	1,574,087	1,698,860
Annuities ..	151,377	171,517	187,659	213,386	214,255
Commission ..	704,020	856,890	1,021,474	1,015,820	1,004,844
Expenses of management ..	1,031,251	1,052,207	1,115,843	1,132,610	1,136,674
Licence fees and taxes	310,126	287,840	272,543	246,669	264,467
Shareholders' dividends	67,695	80,389	89,273	92,319	96,963
Cash bonuses paid to policyholders ..	282,860	283,013	246,920	242,924	259,319
All other expenditure	151,385	136,523	161,918	227,239	255,427
Total Expenditure	10,935,226	11,432,647	11,797,684	12,119,019	12,348,565

The excess of receipts over expenditure during the past five years was as follows :—1934, £5,707,833; 1935, £5,755,442; 1936, £6,907,409; 1937, £7,639,199; and 1938, £8,316,784. During the same years the proportions that expenditures bore to receipts were as follows :—1934, 65.7 per cent.; 1935, 66.5 per cent.; 1936, 63.1 per cent.; 1937, 61.3 per cent.; and 1938, 59.8 per cent.

(ii) *Industrial Business.* The aggregate Australian receipts for the years 1934 to 1938 of institutions transacting industrial business were as follows:—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN RECEIPTS.

Heading.	Amount.				
	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Premiums—New and Renewal	4,455,290	4,780,269	5,215,624	5,691,704	6,094,667
Interest, dividends and rents	1,175,245	1,287,113	1,383,615	1,506,503	1,631,831
Other receipts	26,326	44,067	37,905	42,342	44,659
Total Receipts ..	5,656,861	6,111,449	6,637,144	7,240,549	7,771,157

Expenditure during 1938 totalled £5,118,360. Claims amounted to over 53 per cent., commission to over 24 per cent., and expenses of management to over 13 per cent.

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN EXPENDITURE.

Heading.	Amount.				
	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Claims	1,590,929	1,687,728	2,120,803	2,499,247	2,754,027
Surrenders	206,149	186,988	198,675	182,210	194,547
Annuities	136	40	36	36	36
Commission	962,185	1,008,811	1,108,600	1,212,596	1,236,077
Expenses of management	519,895	558,800	590,832	642,528	681,294
Licence fees and taxes	73,892	65,156	62,802	58,367	68,210
Shareholders' dividends	54,860	54,718	60,561	63,446	55,313
All other expenditure	138,027	96,243	85,144	123,161	128,856
Total Expenditure ..	3,546,073	3,658,484	4,227,453	4,781,591	5,118,360

The excess of receipts over expenditure for each of the last five years was:—1934, £2,110,788; 1935, £2,452,965; 1936, £2,409,691; 1937, £2,458,958; and 1938, £2,652,797.

The proportions that expenditure bore to receipts were—1934, 63 per cent.; 1935, 60 per cent.; 1936, 64 per cent.; 1937, 64 per cent.; and 1938, 66 per cent.

5. *Liabilities and Assets, 1934–1938.*—(i) *General.* The liabilities of the Australian institutions consist mainly of their assurance funds, but in the case of public companies there is a further liability on account of the shareholders' capital. The assets consist chiefly of loans on mortgage and policies; government, municipal and similar securities; shares; freehold property, etc. Loans on personal security are granted by very few of the Australian institutions.

(ii) *Australian Liabilities and Assets.* For various reasons several institutions do not attempt the division of liabilities and assets between the industrial and ordinary branches, and, therefore, the figures in the following tables relate to ordinary and industrial branches combined.

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: AUSTRALIAN LIABILITIES.

Heading.	Amount.				
	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Shareholders' capital, paid up ..	1,409,545	1,439,251	1,497,020	1,500,738	1,568,264
Assurance and annuity funds ..	103,167,021	109,850,093	116,883,577	139,158,733	148,128,869
Other funds ..	15,401,241	16,294,586	17,090,234	4,011,958	4,095,575
Claims admitted but not paid ..	1,154,272	1,246,957	1,279,646	1,335,180	1,282,790
All other liabilities ..	2,954,675	3,283,206	3,570,071	4,323,550	4,762,201
Total Australian Liabilities ..	124,086,754	132,114,093	140,320,548	150,330,159	159,837,699

(a) Includes Industrial Department Assurance Funds of the Australian Mutual Provident Society which in previous years have been included with "Other Funds"; 1937, £15,852,577, and 1938, £17,030,511.

Separate details of Liabilities in Australia and outside Australia are not available for the following institutions:—Mutual Life and Citizens' Assurance Coy. Ltd., National Mutual Life Association, Western Australian Insurance Coy. Ltd., and Mutual Life Insurance Co. of New York. The aggregate Australian assets of these institutions included hereunder are as follows:—1934, £42,385,954; 1935, £44,879,839; 1936, £48,012,199; 1937, £50,778,336; and 1938, £53,252,622. Assets and liabilities of the Liverpool and London and Globe Insurance Company Ltd. are also excluded as separate details for Life and General Departments are not available.

Assets for the years specified are set out in detail in the table hereunder:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: AUSTRALIAN ASSETS.(a)

Heading.	Amount.				
	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Government and municipal securities ..	88,389,264	94,854,302	98,905,982	109,521,627	113,485,999
Mortgages ..	38,520,928	40,932,324	45,724,422	50,401,868	55,507,924
Loans on companies' policies ..	20,579,816	20,837,744	21,172,947	21,448,626	22,971,925
Landed and house property ..	7,260,910	8,381,943	9,945,381	10,969,919	12,231,645
Life interests and reversions ..	277,694	288,050	251,632	223,446	110,443
Other investments ..	4,302,014	5,338,344	6,868,756	7,900,516	8,281,378
Outstanding premiums	941,164	964,990	971,176	957,562	1,043,071
Outstanding interest, dividends and rents	1,685,091	1,734,581	1,779,555	1,686,488	1,776,593
Cash ..	3,753,077	3,018,955	2,086,028	2,419,171	2,536,319
Establishment and organization accounts	1,125,700	1,125,668	1,136,650	1,128,658	1,107,688
All other assets ..	1,432,564	1,615,933	1,599,355	1,758,473	1,757,204
Total Australian Assets ..	168,268,222	179,092,834	190,441,884	208,416,354	220,810,189

(a) Excludes Australian assets of Liverpool and London and Globe Coy. Assets of other companies referred to above are included herein.

(iii) *Total Assets.* It has been thought desirable to restrict wherever possible the figures relating to life assurance, to business in Australia. Several of the companies whose head offices are in Australia transact, however, a large amount of business elsewhere, viz., in New Zealand, in South Africa, and in the United Kingdom, while in the case of the foreign companies, the Australian business is insignificant compared with that done elsewhere. Particulars as to this foreign business of both Australian and foreign companies will be found in *Finance Bulletin* No. 30.

The total Australasian assets of all life companies operating in Australia amounted to £278,146,227 in 1938, of which government and municipal securities (£147,396,787), and mortgages (£61,831,362), represented more than 75 per cent.

6. *New Policies issued in Australia, 1938.*—(i) *Ordinary Business.* During 1938 143,328 new policies were issued for £47,722,486. The average amount per policy was £333, which compares with an average of £341 per policy for all policies which were in existence at the end of 1937.

(ii) *Industrial Business.* New policies to the number of 393,085 were issued during the year, for a total of £18,360,806. The average per policy which was over £46 was in excess of the average for all industrial policies current at the end of 1937.

7. *Policies Discontinued in Australia.*—(i) *Ordinary Business.* The volume of business which from various causes becomes void in each year is always large. The number and amount of policies, including annuities, discontinued in the last three years and the reasons for discontinuance are given in the following table:—

ORDINARY LIFE ASSURANCE : POLICIES DISCONTINUED IN AUSTRALIA.(a)

Mode.	1936.		1937.		1938.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	21,403	5,167,814	22,138	5,278,808	21,870	5,266,062
Surrender ..	15,089	4,809,533	15,191	4,658,027	16,758	5,191,624
Forfeiture ..	33,708	11,065,082	37,627	12,649,162	39,602	13,767,082
Transfer ..	(b)—109	(b)—37,052	(b)—7	(b)—47,746	(b)—72	(b)—71,664
Total ..	70,091	21,005,377	74,949	22,538,251	78,158	24,153,104

(a) Includes Annuities.

(b) Transfers to Australian registers exceed transfers from Australia.

(ii) *Industrial Business.* The number of policies discontinued in this Branch each year is also very large. Of the total amount of discontinuances during 1938 only about 22 per cent. was due to death or maturity, while roughly 57 per cent. was due to forfeiture.

INDUSTRIAL LIFE ASSURANCE: POLICIES DISCONTINUED IN AUSTRALIA.(a)

Mode.	1936.		1937.		1938.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	57,257	1,945,131	63,299	2,243,021	68,945	2,498,193
Surrender ..	12,852	601,487 ¹	13,124	604,244	14,767	677,227
Forfeiture ..	174,596	7,983,903	181,817	8,560,354	194,694	9,355,299
Transfer ..	(b)—3	(b)—721 ¹	134	6,989	76	7,756
Total ..	244,702	10,529,800	258,374	11,414,608	278,482	12,538,475

(a) Includes Annuities.

(b) Transfers to Australian registers exceed transfers from Australia.

8. **Conspectus of Australian Life Assurance Legislation.**—A conspectus of Australian Life Assurance Legislation as then existing appeared in Official Year Book No. 18, pp. 1041 to 1059.

§ 3. Fire, Marine and General Insurance.

1. **Australasian Companies*.**—(i) *General.* Returns in some detail are available showing the revenue and expenditure, assets and liabilities, and investments of 40 insurance companies having their head offices either in Australia, New Zealand, or Fiji. The business transacted by these companies represents from 55 to 60 per cent. of the aggregate Australian business, some particulars of which are given in par. 2 following.

(ii) *Revenue and Expenditure.* The most important items of revenue and expenditure are given below. The trade surplus in 1937-38 was £1,218,926, or 13.75 per cent. of premium income.

FIRE, MARINE AND GENERAL INSURANCE COMPANIES: SUMMARY OF REVENUE AND EXPENDITURE.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
No. of Companies	42	40	40	40	40
	£	£	£	£	£
Premiums, less reinsurances ..	6,041,391	6,387,181	6,970,718	7,819,726	8,864,364
Losses	3,036,647	3,371,346	3,767,682	4,358,863	5,027,877
Expenses, commission and taxes ..	2,312,421	2,329,111	2,390,898	2,512,992	2,719,823
Trade surplus	692,323	686,724	812,138	947,871	1,218,926
Interest, rent, etc.	680,968	681,305	691,713	755,302	828,272
Total surplus	1,373,291	1,368,119	1,503,851	1,703,173	2,034,544
Dividends and Bonuses paid ..	632,210	611,359	675,541	680,269	708,576
Ratio to premium income of—	%	%	%	%	%
(a) Losses	50.26	52.78	54.05	55.74	56.72
(b) Expenses, etc.	38.28	36.47	34.30	32.14	30.68
(c) Trade surplus	11.46	10.75	11.65	12.12	13.75

(iii) *Liabilities and Assets.* The liabilities and assets for the same period are set out in the following table. Comparison of the results for 1937-38 (40 companies), with those for 1933-34 (40 companies) shows that paid-up capital increased by 5.8 per cent., while reserves increased by 38.3 per cent. Government securities represent an increasing proportion of assets.

* The statistical information in this paragraph has been extracted from the "Australasian Insurance and Banking Record".

FIRE, MARINE AND GENERAL INSURANCE COMPANIES.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
PAID-UP CAPITAL, RESERVES AND LIABILITIES.					
	£	£	£	£	£
Paid-up capital	6,311,586	6,554,157	6,566,758	6,674,188	6,676,188
Reserves and reinsurance funds (a)	10,988,132	11,233,914	11,773,597	12,623,437	14,347,012
Undivided profits	801,204	837,255	988,361	954,871	949,172
Losses unsettled	852,808	890,106	1,057,319	1,309,361	1,633,225
Sundry creditors, etc. ..	1,600,364	1,511,909	1,032,589	1,833,367	2,141,813
Dividends, etc., to pay ..	408,619	358,139	423,613	428,751	453,877
Life assurance funds (b) ..	3,286,254	3,342,977	3,594,919	3,860,147	4,153,530
Total Liabilities	24,248,967	24,728,457	26,037,156	27,684,122	30,354,817
INVESTMENTS AND OTHER ASSETS.					
	£	£	£	£	£
Loans on mortgage	747,112	689,508	906,802	923,781	1,190,444
Government securities, etc.	15,461,215	15,840,586	16,865,834	18,186,694	19,666,290
Landed and other property	3,182,121	3,164,536	3,066,336	3,158,269	3,434,926
Fixed deposits, etc.	2,008,208	1,969,170	1,973,553	2,001,642	1,933,967
Loans on life policies (b) ..	273,568	272,608	307,938	347,400	380,594
Investments	214,575	252,878	234,226	252,234	176,995
Cash and bills receivable ..	903,765	1,056,452	966,288	996,553	1,340,647
Sundry debtors and other assets	1,458,403	1,482,719	1,716,179	1,817,549	2,230,954
Total Assets	24,248,967	24,728,457	26,037,156	27,684,122	30,354,817

(a) Including amount required as reserves against unexpired risks.

(b) Some of the companies transact Life Business.

2. **Aggregate Australian Business.**—(i) *States.* While the foregoing statements relate to those companies only whose head offices are located in Australia, New Zealand or Fiji, the following particulars which are somewhat restricted in the range of information are in respect of all companies operating in Australia.

The appended table shows for each State the aggregate premium income, less reinsurances and returns, and claims paid, less reinsurances, together with the proportions of losses on premiums for all classes of insurance other than life for the years 1936-37 and 1937-38.

FIRE, MARINE AND GENERAL INSURANCE : PREMIUMS AND LOSSES.

State.	Premiums, less reinsurances and returns.		Losses, less reinsurances.		Proportion of Losses on Premiums.	
	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.
	£	£	£	£	%	%
New South Wales ..	5,944,898	6,590,333	3,148,762	3,517,159	52.97	53.37
Victoria ..	4,004,098	4,411,492	1,842,139	1,913,732	46.01	43.38
Queensland ..	1,841,506	2,138,840	965,045	1,072,782	52.41	50.16
South Australia ..	1,048,952	1,201,582	348,339	421,629	33.21	35.09
Western Australia ..	1,205,146	1,320,314	682,812	762,869	56.66	57.78
Tasmania ..	377,454	427,383	143,020	166,600	37.89	38.98
All States ..	14,422,054	16,089,944	7,130,117	7,854,771	49.44	48.82

(ii) *Classes of Insurance.* The statement hereunder shows premiums and losses in respect of the principal classes of risks, with the proportions of losses on premiums for the years 1936-37 and 1937-38.

FIRE, MARINE AND GENERAL INSURANCE : PREMIUMS AND LOSSES,
PRINCIPAL CLASSES OF RISK.

Class of Risk.	Premiums, less reinsurances and returns.		Losses, less reinsurances.		Proportion of Losses on Premiums.	
	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.
	£	£	£	£	%	%
Fire ..	5,387,784	5,518,991	1,864,513	1,809,218	34.61	32.78
Workers' Compensation ..	3,535,179	4,043,723	2,562,500	2,878,345	72.49	71.18
Motor Vehicle ..	2,793,559	3,550,005	1,732,419	2,113,606	62.01	59.54
Marine ..	885,152	975,580	272,413	259,100	30.78	26.56
Personal Accident ..	476,081	535,375	209,168	241,633	43.94	45.13
All other ..	1,344,299	1,466,270	489,104	552,869	36.38	37.71
Total ..	14,422,054	16,089,944	7,130,117	7,854,771	49.44	48.82

The volume of business measured by the amounts of premium income shows that fire insurances represented about 37 per cent. of the total during 1936-37 and 34 per cent. during 1937-38, while next in importance were workers' compensation 24 per cent. during 1936-37 and 25 per cent. during 1937-38, and motor vehicles 19 per cent. in 1936-37 and 22 per cent. in 1937-38.

During the three years 1932-33 to 1934-35 less than 45 per cent. of the premium income was required on the average to meet losses. In 1935-36 and in 1936-37 this proportion rose to about 50 per cent., falling slightly during 1937-38 to approximately 49 per cent.

E. FRIENDLY SOCIETIES.

1. *General.*—Friendly societies are an important factor in the social life of the community, as probably more than one-third of the total population of Australia comes either directly or indirectly under their influence. Their total membership exceeds 590,000, but as certain benefits, such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must, even when due allowance is made for young and unmarried members, be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration,

and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules are conformable to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward annual returns as to their membership and their finances to the Registrar, and reports are published in most of the States dealing with the returns received. The figures in the following tables are for the year 1937-38 in respect of all States except Tasmania where they relate to the calendar year 1938.

2. **Number of Societies, Lodges and Members.**—The number of different societies and lodges, the total number of benefit members at the end of the year, and their average number during the year are shown in the following table :—

FRIENDLY SOCIETIES : SOCIETIES, LODGES AND MEMBERS, 1938.

State.	Number of Registered Friendly Societies.	Number of Lodges.	Benefit Members at End of Year.	Average No. of Benefit Members during the Year.
New South Wales (c) ..	32	2,430	212,136	210,557
Victoria	76	1,478	189,042	183,342
Queensland	23	600	71,889	71,358
South Australia (a) ..	18	(d) 885	74,703	73,917
Western Australia ..	14	362	26,675	26,059
Tasmania	19	190	24,828	(b) 25,135
Total	182	5,945	599,273	590,368

(a) Excludes Juvenile Branches with 16,014 members. (b) Estimated. (c) Excludes twenty-one miscellaneous societies consisting of Medical Institutes, Dispensaries, and Accident and Burial Societies. (d) Lodges containing male and female branches counted as two branches.

3. **Sickness and Death Returns.**—Sick pay is generally granted for a number of months at full rates, then for a period at half-rates, and in some societies is finally reduced to quarter rates. The following table shows the total number of members who received sick pay during the year, the number of weeks for which they received pay in the aggregate, and the average per member sick, and further the number of benefit members who died during the year, together with the proportion of deaths per thousand average members :—

FRIENDLY SOCIETIES : SICKNESS AND DEATH RETURNS, 1938.

State.	Number of Members who received Sick Pay.	Total Number of Weeks Sick Pay Granted.	Average Number of Weeks per Member Sick.	Benefit Members.	
				Deaths.	Proportion of deaths per 1,000 (Average).
New South Wales ..	47,245	495,913	10.50	2,683	12.74
Victoria	41,883	478,305	11.42	1,985	10.85
Queensland	15,144	140,640	9.29	722	10.12
South Australia (a) ..	17,086	208,798	12.22	771	10.43
Western Australia ..	5,880	56,552	9.62	263	10.09
Tasmania	4,816	50,778	10.54	337	13.50
Total	132,054	1,430,986	10.84	6,761	11.45

(a) Excludes Juvenile Branches.

4. **Revenue and Expenditure.**—(i) *Revenue.* The financial returns are not prepared in the same way in each State, but an attempt has been made in the subjoined table to group the revenue under the main headings:—

FRIENDLY SOCIETIES: REVENUE, 1938.

State.	Entrance Fees, Members' Contributions and Levies.	Interest, Dividends and Rents.	All other Revenue.	Total Revenue.
	£	£	£	£
New South Wales ..	769,100	202,036	24,847	995,983
Victoria ..	683,959	272,665	61,982	1,018,606
Queensland ..	248,422	89,864	(a)	338,286
South Australia ..	246,809	134,528	52,876	434,213
Western Australia ..	101,658	29,345	7,410	138,413
Tasmania ..	89,305	20,953	9,451	119,709
Total ..	2,139,253	749,391	156,566	3,045,210

(a) Included in interest, dividends and rents.

(ii) *Expenditure.* The returns relating to expenditure are in greater detail than those for revenue. The figures show that the excess of revenue for the year was £512,050 for Australia, representing about 18s. 6d. per average benefit member.

FRIENDLY SOCIETIES: EXPENDITURE, 1938.

State.	Sick Pay.	Medical Attendance and Medicine.	Sums Paid at Death of Members and Members' Wives.	Adminis- tration.	All other Expendi- ture.	Total Expendi- ture.
	£	£	£	£	£	£
New South Wales ..	260,815	307,417	87,947	163,744	38,503	858,426
Victoria ..	271,491	286,804	49,252	135,282	92,008	834,807
Queensland ..	92,039	101,439	37,771	58,225	(a)	289,474
South Australia ..	102,186	98,981	38,545	47,791	38,845	326,348
Western Australia ..	33,729	38,529	14,748	23,935	5,212	116,153
Tasmania ..	28,531	31,171	22,691	18,197	7,362	107,952
Total ..	788,761	864,341	250,954	447,174	181,930	2,533,160

(a) Included in administration.

It appears from the above figures that sick pay averaged about 26s. 9d. per average benefit member, but, as the returns include pay at half and quarter rates, and as the proportion of these to full rates is not stated, the average given is somewhat indefinite. Medical attendance and medicine cost about 29s. 3d. per average benefit member.

5. **Funds.**—The two foregoing tables show that the surplus of revenue over expenditure in all States amounted to £512,050 for the year. Accumulations of profits arising in the sickness and funeral funds of these societies are invested pending claims by members, and at the end of the year 1938 the total funds of friendly societies amounted to £16,914,653 (£28 19s. 7d. per benefit member), of which approximately 17 millions were invested, principally on mortgage, loans on members' homes, real estate, and in Government and Municipal securities.

F. PROBATES.

1. Probates and Letters of Administration.—The value of the estates left by deceased persons gives some idea of the distribution of property among the general population. There were in 1938 approximately 57,800 deaths of adult persons, while the number of probates and letters of administration granted during the same period was 24,282. It would therefore appear that about 42 per cent. of the adults who died during the year were possessed of sufficient property to necessitate the taking out of probate. The details for each State are shown in the table hereunder :—

PROBATES AND LETTERS OF ADMINISTRATION, 1938.

Particulars.	New South Wales, 1937-38.	Victoria, 1938.	Queensland, 1937-38.	South Australia, 1938.	Western Australia, 1938.(b)	Tasmania, 1937.(c)(g)	Total.
Probates—							
Estates	No. 9,904	6,584	1,179	1,990	1,163	597	21,417
Gross Value	£ 25,776,575	24,386,886	5,030,480	6,178,459	3,265,782	1,705,462	63,343,644
Net Value	£ (d)	21,758,339	(d)	5,227,847	2,842,326	1,484,320	31,312,832
Letters of Administration—							
Estates	No. (a)	1,809	212	369	366	109	(e) 2,865
Gross Value	£ (a)	(a)	366,561	353,099	267,415	106,433	e 1,093,508
Net Value	£ (a)	(a)	(d)	296,993	233,856	83,500	e 614,349
Total—							
Estates	No. 9,904	8,393	1,391	2,359	1,529	706	24,282
Gross Value	£ 25,776,575	24,386,886	5,397,041	6,531,558	3,533,197	1,811,895	67,437,152
Net Value	£ (d)	21,758,339	(d)	5,524,840	3,076,182	1,567,820	31,927,181

(a) Included with Probates. (b) Applications lodged. (c) Applications dealt with. (d) Not available. (e) Incomplete. (f) Second grants are excluded, particulars having previously been included with first grants :—Estates, 10; Gross Value, £13,736; Net Value, £9,482. (g) Particulars for 1938 not yet available.

2. Intestate Estates—The number of intestate estates administered by the Curator during the year, and the amount of unclaimed money paid into Consolidated Revenue in each State during the year 1938, are given hereunder :—

INTESTATE ESTATES, 1938.

Particulars.	N.S.W.	Vic. (c)	Q'land. (c)	S. Aust.	W. Aust.	Tas. (g)(i)	Total. (d)
Intestate estates placed under control of Curator during 1938—							
Number	(b)	(h) 206	662	153	361	(g) 99	1,481
Gross Value	£ (b)	(h) 67,597	187,458	105,824	(f) 26,022	(g) 65,924	452,825
Net Value	£ (b)	(h) 56,435	138,593	82,860	(b)	(g) 47,283	325,171
Unclaimed money paid into Consolidated Revenue by Curator during 1938							
£	(b)	(a) 9,125	(e) 6,176	477	7,310	(b)	23,088

(a) Year ended 30th June, 1938. (b) Not available. (c) Year ended 30th June, 1938. (d) Incomplete. (e) Paid to Unclaimed Moneys Fund. (f) Amount collected during year. (g) Intestate estates wound up by Public Trustee, 1937-38. (h) Estates dealt with by Curator. (i) Particulars are for year 1937, details are not available for 1938.*

CHAPTER XXVII. PUBLIC FINANCE.

A.—GENERAL.

In early issues of the Official Year Book the plan was adopted of including in a single Chapter under the general heading of "Finance" the more important particulars available in connexion therewith. A departure was made in Official Year Book No. 25 by dividing the subject into separate Chapters with the two broad headings of "Public Finance" and "Private Finance". Notwithstanding that the financial transactions of Local Government Bodies and certain statutory Governmental Bodies come within the category of Public Finance, it is convenient to deal with these in a separate Chapter.

The subject of "Public Finance" has been dealt with in this Chapter under the two major divisions of Commonwealth Finance—including currency and coinage—and State Finance. The close financial relations between the Commonwealth and States particularly since the Financial Agreement has been in operation, however, demand a combination of these two divisions under the heading of Commonwealth and State Finance.

Certain banking activities are conducted by both Commonwealth and State Governments, but as the services provided are essentially connected with the banking system of the Commonwealth they have been included in the section of the Private Finance Chapter relating to Banking. An exception has been made in the case of the Commonwealth Bank Note Issue Department, which is dealt with in sub-section "Currency and Coinage" of this Chapter.

B.—COMMONWEALTH FINANCE.

§ 1. General.

1. **Financial Provisions of the Constitution.**—The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Chapter IV., "Finance and Trade," being sections 81 to 105 of the Constitution Act. Two other sections which have a most important bearing on questions of Commonwealth finance are sections 69 and 51.

Section 69 provides for the transfer to the Commonwealth from the States of certain specified departments, while section 51, in outlining the powers of the Federal Parliament, implies the transfer or creation of various other departments. Section 87 deals with the financial relations between the Commonwealth and the States. These matters have been treated in some detail in previous issues of the Official Year Book and on page 853 of this issue a *résumé* is given of the constitutional obligations upon the Commonwealth regarding payments to the States.

The Commonwealth Treasury issues annually a document entitled "The Treasurer's Statement of Receipts and Expenditure during the year ended the 30th June," with which is incorporated the report of the Commonwealth Auditor-General for the year. This series of annual statements is the principal authority for the majority of the tables given herein.

2. **Accounts of Commonwealth Government.**—(i) *General.* The Commonwealth Government, like the State Governments, bases its accounts mainly upon three funds, the Consolidated Revenue Fund, the Trust Fund and the Loan Fund. The last mentioned fund came into existence in the financial year 1911-12, but on the outbreak of war it became so important that it was treated in two parts—a General Loan Fund mainly for purposes of Public Works, and a War Loan Fund for purely war purposes. From the year 1923-24 inclusive the loan expenditure on War Service Homes was debited against works loan expenditure. Previously such expenditure had been a charge on War Loans. Since the year mentioned the transactions of the War Loan Fund consists mainly of credits arising from repayments of expenditure during previous years.

(ii) *Receipts, Expenditure, etc.* The following statement shows for the period 1922-23 to 1938-39 the Receipts, Expenditure, Excess Receipts or Deficiency for the year together with the accumulated result and the payments made from the excess receipts. The receipts and expenditure on account of the Balance of Interest on States' Debts payable by the States to the Commonwealth under the Financial Agreement have been excluded.

COMMONWEALTH CONSOLIDATED REVENUE : RECEIPTS, EXPENDITURE, ETC.

Year.	Receipts.	Expenditure.	Ordinary Transactions.		Accumulated Result.		Payments from Excess Receipts.
			Excess Receipts.	Deficiency.	Excess Receipts.	Deficiency. (f)	
	£	£	£	£	£	£	£
1922-23 ..	63,834,385	62,814,235	1,020,150	..	7,428,574	..	..
1923-24 ..	65,078,688	62,500,354	2,578,334	..	2,591,153	..	47,415,755
1924-25 ..	67,697,124	67,178,748	518,376	..	3,109,529	..	..
1925-26 ..	70,203,572	70,577,204	..	373,632	285,897	..	62,450,000
1926-27 ..	75,544,382	72,908,785	2,635,597	..	2,821,494	..	c 100,000
1927-28 ..	73,808,227	76,438,464	..	2,630,237	..	2,628,743	d2,820,000
1928-29 ..	74,894,799	77,253,774	..	2,358,975	..	4,987,718	..
1929-30 ..	77,143,389	78,614,392	..	1,471,003	..	6,458,721	..
1930-31 ..	69,566,920	80,324,539	..	10,757,619	..	17,216,340	..
1931-32 ..	71,532,298	70,218,207	1,314,091	..	1,314,091	..	..
1932-33 ..	73,512,809	69,966,201	3,546,608	..	4,860,699	..	..
1933-34 ..	73,941,953	72,640,383	1,301,570	..	6,162,209	..	..
1934-35 ..	77,360,105	76,687,900	711,205	..	713,474	..	e6,160,000
1935-36 ..	82,303,341	78,635,621	3,567,720	..	3,567,720	17,002,866	f713,474
1936-37 ..	82,807,977	81,531,419	1,276,558	..	1,276,558	15,935,146	g3,567,720
1937-38 ..	89,458,154	85,963,421	3,494,733	..	3,494,733	15,658,588	h1,276,558
1938-39 ..	95,064,790	94,437,481	627,309	..	627,309	15,658,588	i3,494,733

(a) £4,915,755 was used for debt redemption, and £2,500,000 transferred to Trust Funds. (b) Naval construction, £1,500,000; Main Roads, £750,000; Science and Industry investigations, £100,000; and prospecting for oil and precious metals, £100,000. (c) Prospecting for oil and precious metals. (d) Naval construction and Defence reserve, £2,250,000; Science and Industry investigation, £250,000; Civil Aviation, £200,000; Purchase of radium, £100,000; and Geophysical Survey of Australia, £20,000. (e) See table following. (f) Met by temporary advance from loan fund.

(iii) *Excess Receipts.* Particulars of the excess receipts, accumulated balances and allocation of excess receipts for each of the past five years are as follows:—

COMMONWEALTH CONSOLIDATED REVENUE : EXCESS RECEIPTS.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Accumulated balance	6,162,269	713,474	3,567,720	1,276,558	3,494,733
Excess receipts	711,205	3,567,720	1,276,558	3,494,733	627,309
Total for year	6,873,474	4,281,194	4,844,278	4,771,291	4,122,042
Expenditure from excess receipts—					
Grants to States	2,000,000	500,000	500,000	..	..
Defence equipment	4,160,000	..	2,000,000	..	3,494,733
Post Office Works Provision .. .. .	..	..	..	1,000,000	..
Reduction of deficit .. .. .	..	213,474	1,067,720	276,558	..
Total	6,160,000	713,474	3,567,720	1,276,558	3,494,733
Accumulated balance	713,474	3,567,720	1,276,558	3,494,733	627,309

It is proposed to allocate the accumulated surplus at 30th June, 1939, for Defence Equipment.

§ 2. Consolidated Revenue Fund.

Division I.—Nature of Fund.

The provisions made for the formation of a Commonwealth Consolidated Revenue Fund, and the means to be adopted for operating on the fund, are contained in sections 81, 82 and 83 of the Constitution.

Division II.—Revenue.

1. General.—The following table furnishes details of the revenue from each source and the amount per head of population under each of the main headings during the years 1934-35 to 1938-39:—

COMMONWEALTH CONSOLIDATED REVENUE: SOURCES.

Source.	1934-35.	1935-36.	1936-37.(a)	1937-38.(a)	1938-39.(a)
	£	£	£	£	£
Taxation	58,754,524	63,617,306	62,773,452	69,048,485	74,036,899
Percentage of Total .. %	75.9	77.4	75.8	77.2	77.9
Per head of population (d) ..	£8 15 4	£9 8 6	£9 4 6	£10 1 2	£10 13 10
Business Undertakings	14,279,362	15,222,652	16,222,910	17,167,943	17,876,401
Percentage of Total .. %	18.5	18.5	19.6	19.2	18.8
Per head of population (d) ..	£2 2 7	£2 5 1	£2 7 8	£2 10 0	£2 11 7
Territories (b)	250,087	313,770	300,253	330,975	355,401
Percentage of Total .. %	0.3	0.4	0.4	0.4	0.4
Per head of population (d) ..	£0 0 9	£0 0 11	£0 0 11	£0 1 0	£0 1 0
Other Revenue—					
Interest, etc. (c)—					
Loans to States for Soldier Settlement	1,116,827	(e)	(e)	(e)	(e)
Other	1,430,571	1,338,510	1,074,423	1,044,076	1,144,014
Coinage	133,703	167,719	295,167	362,705	127,764
Defence	40,066	38,025	41,731	29,244	151,208
Civil Aviation	3,703	4,080	4,418	5,556	5,745
Health	18,905	18,090	67,134	17,621	18,204
Patents, Trade Marks, etc.	55,209	58,783	62,163	61,435	67,914
Commerce and Marine—					
Wool Levy			72,805	77,523	74,396
Marine	212,526	218,915	216,406	182,463	158,137
Other	24,372	11,206	Dr. 1,104		
Pension Contributions	23,887	31,261	28,769	23,697	18,682
Net Profit on Australian Note Issue	797,344	855,720	898,585	839,883	766,730
Bankruptcy	31,324	29,517	30,569	36,441	30,770
Balance of Trust Accounts	10,075	72,837	477,048	10,940	..
Other	186,620	204,950	243,248	219,167	232,525
Total	4,085,132	3,049,613	3,511,362	2,910,751	2,796,089
Percentage of Total .. %	5.3	3.7	4.2	3.2	2.9
Per head of population (d) ..	£0 12 2	£0 9 0	£0 10 4	£0 8 6	£0 8 1
Grand Total (c)	77,369,105	82,203,341	82,807,977	89,458,154	95,064,790
Per head of population (d) ..	£11 10 10	£12 3 6	£12 3 5	£13 0 8	£13 14 6
Balance of Interest on States' Debts—recoverable from States	24,390,832	24,786,646	25,081,605	25,580,374	25,584,456

(a) Prior to 1936-37 interest on the Development and Migration Loan and the Brisbane-South Grafton Railway Loan was credited to "Miscellaneous Receipts" in Consolidated Revenue and debited against the Prime Minister's Department and the Department of the Interior respectively. These items are now credited to "Balance of Interest on States' Debts—payable by States" and debited against "Balance of Interest on States' Debts—recoverable from States" in Commonwealth Accounts. (b) Excluding Railways. (c) Excludes Interest on States' Debts payable by States. (d) Based on mean population of each financial year. (e) Not now paid to Consolidated Revenue.

2. Taxation.—(i) Total Collections. (a) Amount. Collections under each heading for the years 1934-35 to 1938-39 are given below:—

TAXATION: TOTAL COLLECTIONS.

Heading.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Customs	25,289,719	28,068,870	28,782,784	32,972,666	31,160,462
Excise	12,579,767	13,368,847	14,210,248	15,410,339	16,471,903
Sales Tax	8,554,076	9,432,483	8,008,427	8,023,886	9,308,334
Flour Tax	798,354	1,150,724	Dr. 12,193	3,025	1,808,972
Land Tax	1,281,424	1,326,991	1,435,465	1,368,444	1,489,436
Income Tax	8,761,619	8,775,562	8,556,014	9,398,503	11,882,440
Estate Duties	1,507,827	1,472,860	1,792,600	1,872,654	1,915,352
Entertainments Tax	Dr. 599	13	107	I	..
War Time Profits Tax	Dr. 17,663	20,956	..	Dr. 1,033	..
Total Taxation	58,754,524	63,617,306	62,773,452	69,048,485	74,036,899
Percentage on Total Revenue ..	75.9	77.4	75.8	77.2	77.9

(b) *Percentages of Total Collections.* The following table shows the percentages of the collections under each class of taxation on the total collections for the last five years :—

TAXATION : PERCENTAGES ON TOTAL COLLECTIONS.

Heading.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	%	%	%	%	%
Customs	43.0	44.1	45.9	47.8	42.1
Excise	21.4	21.0	22.6	22.3	22.3
Sales Tax	14.6	14.8	12.7	11.6	12.6
Flour Tax	1.4	1.8	..	..	2.4
Land Tax	2.2	2.1	2.3	2.0	2.0
Income Tax	14.9	13.8	13.6	13.6	16.0
Estate Duties	2.5	2.4	2.9	2.7	2.6
Entertainments Tax .. .. .	..	..	..	..	..
War Time Profits Tax .. .. .	..	..	..	..	..
Total	100.0	100.0	100.0	100.0	100.0

(ii) *Customs Revenue. (a) Classified.* Particulars for the five years 1934-35 to 1938-39 are furnished in the following table :—

COMMONWEALTH CUSTOMS REVENUE : CLASSIFICATION.

Classes.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Stimulants	1,089,416	1,140,687	1,157,797	1,174,494	1,165,503
Narcotics	2,807,749	2,940,367	3,041,660	3,243,490	3,256,496
Sugar	827	1,618	4,204	5,380	7,238
Agricultural products	1,222,775	1,218,026	1,286,331	1,268,440	1,365,938
Apparel and textiles ..	2,511,474	2,635,663	2,752,891	3,169,485	2,801,103
Metals and machinery	1,904,486	2,235,917	2,195,393	2,762,044	2,385,882
Oils, paints, etc. .. .	6,769,588	7,681,244	8,401,394	9,631,390	9,927,346
Earthenware, etc. .. .	390,629	441,431	460,849	534,912	509,980
Drugs and chemicals ..	265,114	284,718	265,068	312,532	309,984
Wood, wicker and cane	491,283	529,402	726,350	779,677	739,057
Jewellery, etc. .. .	406,918	415,606	451,511	522,365	480,916
Leather, etc. .. .	360,696	361,469	412,714	497,950	477,163
Paper and stationery	425,960	459,206	447,048	488,716	453,548
Vehicles	1,335,657	1,793,188	2,186,245	2,666,560	2,061,762
Musical instruments ..	16,210	22,186	30,041	27,956	31,589
Miscellaneous articles	850,380	1,029,470	920,854	1,173,635	1,023,556
Primage	4,259,210	4,678,358	3,833,165	4,450,901	3,913,578
Other receipts	181,347	200,314	209,359	232,739	249,823
Total Customs ..	25,289,719	28,068,870	28,782,784	32,972,666	31,160,462

(b) *States.* The following table shows the Customs Duties collected in each State during the last five years :—

COMMONWEALTH CUSTOMS DUTIES : COLLECTIONS IN EACH STATE.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
New South Wales (a)	11,141,391	12,141,828	12,807,629	14,831,986	14,070,130
Victoria	8,430,426	9,453,887	9,338,212	10,620,241	9,970,730
Queensland	2,504,179	2,682,260	2,652,736	2,955,788	2,977,792
South Australia (b)	1,576,979	1,861,204	1,906,269	2,332,090	2,090,020
Western Australia ..	1,350,046	1,585,967	1,704,018	1,814,435	1,653,906
Tasmania	286,698	343,724	373,920	412,126	397,884
Total	25,289,719	28,068,870	28,782,784	32,972,666	31,160,462

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

(iii) *Excise Revenue.* (a) *Classified.* Particulars concerning the amount of Excise collected under each head during each of the years ended 30th June, 1935 to 1939, are given hereunder :—

COMMONWEALTH EXCISE REVENUE : CLASSIFICATION.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Beer	5,093,858	5,621,051	6,109,526	6,893,739	7,288,579
Spirits	1,412,761	1,476,773	1,490,176	1,578,385	1,603,285
Concentrated Grape					
Must	1,545	1,927	2,142	1,101	935
Petrol	625,901	630,068	706,884	681,870	581,978
Matches	77,391	81,039	77,438	81,510	81,960
Tobacco	4,962,424	5,087,211	5,283,641	5,592,297	6,286,706
Cigarette Tubes and					
Papers	384,173	424,853	450,516	468,659	530,868
Licences	11,120	12,311	11,677	12,630	11,913
Playing Cards	10,594	10,614	12,231	10,906	11,432
Wireless Valves ..	..	23,000	66,017	89,242	74,247
Total Excise ..	12,579,767	13,368,847	14,210,248	15,410,339	16,471,903

(b) *States.* Excise collections in each State for the last five years were as follows :—

COMMONWEALTH EXCISE REVENUE : COLLECTIONS IN EACH STATE.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
New South Wales ..	5,863,305	6,063,761	6,724,164	7,373,723	6,940,301
Victoria	3,769,155	4,100,054	4,265,286	4,871,017	5,687,832
Queensland	1,200,478	1,212,596	1,250,125	1,304,390	1,538,042
South Australia (a)	760,531	932,145	856,021	717,076	1,018,148
Western Australia ..	862,501	914,603	957,684	972,131	1,103,481
Tasmania	123,797	145,688	156,968	171,402	184,099
Total	12,579,767	13,368,847	14,210,248	15,410,339	16,471,903

(a) Includes Northern Territory.

(iv) *Other Taxation.* (a) *Collections paid to Revenue.* The Commonwealth Government imposes other taxes as follows:—Land Tax, Estate Duty, Income Tax, War Time Profits Tax, Sales Tax and Flour Tax; Entertainments Tax has been abolished. The following statement shows particulars of the collections on account of each of the foregoing taxes during the last ten years. Owing to certain accounting technicalities the figures herein differ slightly from those on the following pages showing further particulars of the several taxes.

OTHER TAXATION COLLECTIONS : AUSTRALIA.

Year.	Land Tax.	Estate Duty.	Income Tax.	War-time Profits Tax.	Entertainments Tax.	Sales Tax.	Flour Tax.
	£	£	£	£	£	£	£
1929-30 ..	2,840,078	2,122,478	11,120,029	14,678	316,121	..	..
1930-31 ..	2,758,598	2,068,865	13,604,374	Dr. 794	186,661	3,472,854	..
1931-32 ..	2,156,765	1,385,811	13,481,982	Dr. 33,755	133,072	8,425,067	..
1932-33 ..	1,650,311	1,126,996	10,878,718	Dr. 5,750	134,042	9,369,276	..
1933-34 ..	1,325,393	1,511,296	9,314,768	1,567	51,216	8,695,689	1,253,957
1934-35 ..	1,281,424	1,507,827	8,761,619	Dr. 17,663	Dr. 599	8,554,076	798,354
1935-36 ..	1,326,991	1,472,860	8,775,562	20,956	13	9,432,483	1,150,724
1936-37 ..	1,435,465	1,792,600	8,556,014	..	107	8,008,427	Dr. 12,193
1937-38 ..	1,368,444	1,872,654	9,398,503	Dr. 1,033	1	8,023,886	3,025
1938-39 ..	1,489,436	1,915,352	11,882,440	..	..	9,308,334	1,808,972

"Other Taxation" is assessed and collected in general by the Commissioner of Taxation. The organization comprises an office in each State assessing taxpayers who are concerned with that State only, and a Central office assessing taxpayers whose interests are in more than one State. Taxes, however, may be paid to any office, so that the sums actually received by any office do not correspond to the assessments made by that office and frequently differ by very large amounts. Consequently the actual receipts by any State office, e.g., of income tax by the Queensland office, may include tax in respect of Central Office or New South Wales assessments, and, therefore, may not be a proper measure of income tax paid on account of income derived from Queensland.

The actual receipts by the various offices are the figures of necessity used by the Treasury for accounting purposes, and may be called the "Treasury" figures. These figures have been used in issues of the Official Year Book prior to No. 25. In order to give a more significant picture of the taxation in States, these figures have been discarded, and in their place are given figures supplied by the Commissioner of Taxation, which refer strictly to the assessments made on account of the State specified. The total of these figures do not quite agree with the total Treasury figures owing to certain technicalities of accounting, but the differences are small. The Taxation Office figures give a fair comparison between States, e.g., in taxation paid per head, but do not give the absolute measure of taxation, because the Central Office collections, which include taxation on account of all States, have not been allocated to the States. In the absence of precise information, it may be assumed as a rough approximation that Central Office collections may be divided among States in proportion to State office collections. It is probable, however, that a somewhat larger share is derived from the more populous States, New South Wales and Victoria.

(b) *Land Tax.* Commonwealth Land Tax was first imposed on the unimproved value of land in 1910-11. The following table shows the rates of Land Tax imposed for each assessment year since its inception:—

LAND TAX : RATE OF TAX PER £1 OF TAXABLE VALUE.

(T = Taxable Value.)

Assessment Year.	Residents.			Absentees.(a)				
	Taxable Value £1 to £75,000.	Taxable Value over £75,000.		Taxable Value £1 to £80,000.		Taxable Value over £80,000.		
		First £75,000.	Excess over £75,000.	First £5,000.	Excess over £5,000.	First £5,000.	Next £75,000.	Excess over £80,000.
1910-11 to 1913-14	$\left(1 + \frac{T}{30,000}\right)d.$	3. 5d.	6d.	1d.	$\left(2 + \frac{T-5,000}{30,000}\right)d.$	1d.	4. 5d.	7d.
1914-15 to 1917-18	$\left(1 + \frac{T}{18,750}\right)d.$	5d.	9d.	1d.	$\left(2 + \frac{T-5,000}{18,750}\right)d.$	1d.	6d.	10d.
1918-19 to 1921-22	$\frac{120}{100}\left(1 + \frac{T}{18,750}\right)d.$	6d.	10. 8d.	1. 2d.	$\frac{120}{100}\left(2 + \frac{T-5,000}{18,750}\right)d.$	1. 2d.	7. 2d.	12d.
1922-23 to 1926-27	$\left(1 + \frac{T}{18,750}\right)d.$	5d.	9d.	1d.	$\left(2 + \frac{T-5,000}{18,750}\right)d.$	1d.	6d.	10d.
1927-28 to 1931-32	$\frac{90}{100}\left(1 + \frac{T}{18,750}\right)d.$	4. 5d.	8. 1d.	. 9d.	$\frac{90}{100}\left(2 + \frac{T-5,000}{18,750}\right)d.$	. 9d.	5. 4d.	9d.
1932-33	$\frac{60}{100}\left(1 + \frac{T}{18,750}\right)d.$	3d.	5. 4d.	. 6d.	$\frac{60}{100}\left(2 + \frac{T-5,000}{18,750}\right)d.$	. 6d.	3. 6d.	6d.
1933-34 to 1937-38	$\frac{45}{100}\left(1 + \frac{T}{18,750}\right)d.$	2. 25d.	4. 05d.	. 45d.	$\frac{45}{100}\left(2 + \frac{T-5,000}{18,750}\right)d.$	. 45d.	2. 7d.	4. 5d.
1938-39 to 1939-40	$\left(\frac{1}{2} + \frac{T}{37,500}\right)d.$	2. 5d.	4. 5d.	. 5d.	$\left(1 + \frac{T-5,000}{37,500}\right)d.$	. 5d.	3d.	5d.

(a) Absentees are not allowed an exemption of £5,000.

Land Tax receipts in each State and Central Office for the years 1934-35 to 1938-39 were as follows. The particulars shown differ slightly from those quoted in (a) above.

LAND TAX RECEIPTS.

State, etc.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Central Office	399,839	471,168	482,127	438,813	525,959
New South Wales	471,857	460,030	530,603	505,143	509,913
Victoria	274,671	266,033	277,718	277,512	290,798
Queensland	29,898	24,827	27,159	26,887	29,568
South Australia	51,758	55,104	54,878	48,295	55,280
Western Australia	46,337	42,881	51,835	59,074	63,854
Tasmania	11,296	12,036	11,539	12,237	12,879
Total	1,285,656	1,332,079	1,435,859	1,367,961	1,488,251

(c) *Estate Duty.* The Commonwealth Estate Duty Act 1914 and Estate Duty Assessment Acts impose a duty on the estates of deceased persons where the net value of the estate exceeds £1,000. The rate of tax where the value of the estate for duty does not exceed £2,000 is £1 per cent. increasing by one-fifth of £1 for each £1,000 or part thereof in excess of £2,000, so that the percentage shall not exceed £15. Where the estate passes to a widow, children, or grand-children, the duty is payable at two-thirds of the ordinary rate.

Particulars of the collections in each State and Central Office for the last five years are appended. Owing to certain accounting technicalities, these figures differ slightly from the Treasury returns given in (a) above.

ESTATE DUTY RECEIPTS.

State, etc.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Central Office	644,177	721,724	989,688	902,266	999,202.
New South Wales	375,777	314,912	324,365	396,003	422,567
Victoria	301,351	237,474	308,719	397,386	294,406
Queensland	61,857	74,117	76,784	85,335	60,041
South Australia	81,740	71,497	66,447	44,295	82,789
Western Australia	29,516	41,307	21,110	31,809	34,074
Tasmania	14,635	8,426	10,253	12,506	15,960
Northern Territory .. ..	..	73	..	119	..
Total	1,509,053	1,469,530	1,797,366	1,869,719	1,909,039

Particulars relating to the number and value of estates with duty assessed for each of the last five assessment years are given in the table hereunder:—

ESTATE DUTY ASSESSMENTS.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of Estates	No. 8,072	8,157	8,887	8,803	9,085
Gross Value (a)	£,000 52,434	52,965	56,009	59,419	60,964
Dutiable Value	£,000 42,423	42,594	45,121	47,723	49,340
Duty Payable	£ 1,477,170	1,454,450	1,467,355	1,836,946	1,852,356
Average dutiable value	£ 5,256	5,222	5,077	5,421	5,431
Average duty per estate	£ 183	178	165	209	204

(a) Assessed values.

(d) *Income Tax.* The first Commonwealth Income Tax was levied during the year 1915-16. The Income Tax Assessment Act 1936 consolidated and amended the laws relating to the imposition, assessment and collection of income tax. Full details of this Act and a commentary on the Income Tax law are contained in an explanatory handbook* which also gives particulars relating to the pre-existing law. The following statement gives an index of the rate of normal tax on personal exertion and property incomes up to and including the year 1939-40. The table gives an index of the rate of tax on the taxable amount of income, and does not take into account the variations in assessment due to changes in exemptions and abatements and in the methods of assessment.

* "Explanatory handbook showing the differences between the Income Tax Assessment Act 1936 and the Income Tax Assessment Act 1922-1934" issued by the Commissioner of Taxation under the authority of the Commonwealth Treasurer, August, 1936.

INCOME TAX: INDEX OF RATE.

Assessment years in which Rates were Amended.	Index of Rate of Tax.	Assessment years in which Rates were Amended.	Index of Rate of Tax.
1915-16	1,000	1930-31	1,351 (a) (b)
1916-17	1,250	1931-32	1,419 (a) (c)
1918-19	1,625	1932-33	1,419 (a) (d)
1920-21	1,706	1933-34	1,313 (a) (e)
1922-23	1,535	1935-36	1,313 (a) (f)
1924-25	1,380	1936-37	1,181 (a) (g)
1925-26	1,200	1937-38	1,181 (a)
1927-28	1,080	1938-39	1,358 (a)
1929-30	1,214 (a)	1939-40	1,494 (a)

(a) Estimated. (b) In addition, a further tax of 1s. 6d. in the £1 was imposed on all taxable income from property. (c) In addition, a further tax of 2s. in the £1 was imposed on all taxable income from property. (d) In addition, a further tax of 2s. in the £1 was imposed on all taxable income from property over and above the exemption of £250. (e) In addition, a further tax of 1s. 2. 4d. in the £1 was imposed on all taxable income from property over and above the exemption of £250. (f) In addition, a further tax of 1s. in the £1 was imposed on all taxable income from property over and above the exemption of £250. (g) Further tax on property abolished.

A new scale of rates was struck for the assessment year 1931-32, designed to consolidate all existing rates to 1930-31, and increase them by 5 per cent. At the same time the further tax on property income was increased to 2s. in the £1. No change was made in the rates of normal tax for the 1932-33 assessment but the further tax of 2s. in the £1 on income from property was payable only on such income in excess of £250. For the 1933-34 assessment the consolidated rate for personal exertion income assessments was reduced by 15 per cent. Ordinary rates on incomes from property remained unaltered, but the further tax was reduced to 1s. 2. 4d. in the £1. The rate of tax applicable to companies was reduced from 1s. 4d. in £1 to 1s. in £1.

No alteration was made to the rates of tax in respect of the 1934-35 assessment, but the method of applying the statutory exemption was varied. The special tax on property income was reduced from 1s. 2. 4d. in £1 to 1s. in £1, but otherwise the rates were not altered for the 1935-36 assessment. A reduction of 10 per cent. was granted for the 1936-37 assessment on incomes derived from personal exertion and property, and the special tax on property incomes was abolished. The rate of tax applicable to companies remained the same, namely, 1s. in £1.

In 1938-39 rates (other than companies) were increased by 15 per cent., and in 1939-40 by a further 10 per cent. Company rates were increased to 13.8d. in the £1 in 1938-39 and to 24d. in the £1 in 1939-40.

The following table shows the receipts from Income Tax in each State and Central Office for the last five years. As previously mentioned, the totals differ from figures already given in (a) above.

INCOME TAX RECEIPTS.

State, etc.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Central Office	3,011,356	2,883,792	2,949,280	3,476,651	4,040,671
New South Wales	2,474,276	2,615,474	2,489,536	2,580,359	3,608,044
Victoria	1,910,619	1,823,450	1,773,769	1,952,543	2,397,469
Queensland	536,431	577,306	503,891	529,904	738,119
South Australia	364,505	398,578	370,895	413,877	551,129
Western Australia	321,174	349,374	340,369	326,144	369,314
Tasmania	118,692	107,393	104,684	123,902	153,671
Northern Territory	1,932	2,434	2,294	2,585	4,417
Total	8,738,985	8,757,801	8,534,718	9,405,965	11,862,834

In the table above, differences in the rapidity of assessment and collection will affect the comparison from year to year. With this proviso, the State collections (excluding Central Office collections) relative to population at the beginning of the year specified may be given.

INCOME TAX RECEIPTS PER HEAD OF POPULATION.

(EXCLUDING CENTRAL OFFICE COLLECTIONS.)

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	<i>s. d.</i>	s. d.	s. d.	s. d.	s. d.
New South Wales	18 11	19 9	18 8	19 2	26 6
Victoria	20 11	19 10	19 3	21 1	25 8
Queensland	11 2	10 11	10 3	10 8	14 9
South Australia	12 6	13 8	12 8	14 1	18 7
Western Australia	14 6	15 8	15 1	14 4	16 1
Tasmania	10 5	9 5	9 1	10 8	13 1
Six States	17 2	17 6	16 6	17 5	22 9

Agreements made in 1923 between the Commonwealth and all the States, except Western Australia, provide that the Commonwealth tax and the State tax shall be collected by an officer acting for the Commonwealth and State, the Commonwealth appointing the State Commissioner as Deputy Commonwealth Commissioner for the State under the Income Tax Assessment Act of the Commonwealth. Provisions are included relating to the transfer of officers, the accounting of receipts and the division of expenses. A joint form of income tax return is to be used in cases where the income is derived in one State only. The respective agreements are to remain in operation for a period of five years, and thereafter until the expiration of not less than six calendar months, upon notice in writing by either party to the agreement.

In Western Australia an arrangement had previously been made, whereby the Commonwealth undertook the collection of the State income tax.

(e) *Entertainments Tax.* A tax on admissions to entertainments operated from 1st January, 1917, until 27th October, 1933. Particulars of the rates of tax imposed and collections of tax to 1934-35 are given in Year Book No. 31.

The total collections representing arrears of tax from previous years amounted to £13 in 1935-36, to £107 in 1936-37, to £1 in 1937-38 and to nil in 1938-39.

(f) *War Time Profits Tax.* This tax which came into force in September, 1917, provided for a tax on the amount by which the profits made in war time exceed the pre-war standard of profits. Further details regarding its application are given in Official Year Book No. 22, 1929. The net collections, after allowing for refunds, for the five years ended 30th June, 1939, are as follows:—

1934-35, *Dr.* £17,663; 1935-36, £20,956; 1936-37, nil; 1937-38, *Dr.* £1,033; and 1938-39, nil. These collections are in respect of arrears as the Act is now inoperative.

(g) *Sales Tax.* The Sales Tax was imposed in August, 1930, as part of the Budget proposals for the year 1930-31. The rate of tax, which was fixed at 2½ per cent., was expected to yield £6.5 millions (£5 millions for the ten remaining months of the financial year) on an estimated taxable field of sales amounting to £260 millions for the year. The actual field for ten months proved to be £138 millions—equivalent to £157 millions for a full year—and realized net collections of £3,471,837. This lower total of taxable sales largely resulted from the volume of sales of exempted goods. The operation of the tax is controlled chiefly by a system of registration of taxpayers, and all manufacturers and wholesale merchants, who are the taxpayers under the Act in respect of goods sold in Australia, must be registered with the Department. The tax on imports subject to sales tax is collected by the Customs Department at ports of entry.

The Sales Tax legislation was amended on 5th October, 1931, to remove certain difficulties connected with the administration of the Acts; to extend the list of exemptions designed to assist primary production; and to provide for additional exemptions and abatements. Additional exemptions applicable to goods manufactured in Australia

became effective for the period 11th November, 1932, to 30th June, 1933, with the provision that they may be continued by regulation for a period terminating not later than 30th September, 1933; these temporary exemptions were subsequently made permanent. Further schedules of exemptions were applicable from 27th October, 1933, 1st August and 13th December, 1934, 25th October and 7th December, 1935, 26th September, 1936, and 26th September, 1939.

Under the Sales Tax Assessment (New Zealand Imports) Act 1933, the Commonwealth provided that the exemptions from Sales Tax applicable to certain goods of Australian origin only shall extend to similar classes of goods of New Zealand origin.

The rate of tax was increased to 6 per cent. on taxable sales to operate during the year 1931–32. The rate of Sales Tax payable was reduced to 5 per cent. from 26th October, 1933, and to 4 per cent. from 11th September, 1936, but was increased to 5 per cent. from 22nd September, 1938, and to 6 per cent. from 6th September, 1939.

Particulars of the net amount of Sales Tax payable, and the sales of taxable, non-taxable and exempt goods in each State for the year 1938–39 are given in the following table. The figures regarding "Tax payable" are in respect of the periods 1st July to 30th June of each year adjusted on account of rebates of tax allowed in returns to taxpayers as deductions, while those relating to sales are in respect of the periods 1st June to 31st May.

SALES TAX AND AMOUNT OF SALES, 1938–39.(a)

State or Territory.	Gross Taxable Sales.	Non-Taxable Sales.	Sales of Exempt Goods by Registered Persons.	Net Amount of Sales on which Sales Tax was payable.	Tax Collected.		
					Taxation Department.	Customs Department.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
New South Wales ..	82,633	78,051	109,719	76,221	3,567	351	3,918
Victoria ..	66,612	66,767	84,076	61,083	2,869	245	3,114
Queensland ..	22,490	10,739	38,495	21,727	992	62	1,054
South Australia ..	13,865	11,208	23,246	12,419	585	53	638
Western Australia ..	9,294	3,832	18,777	9,187	427	32	459
Tasmania ..	2,906	1,210	6,030	2,652	119	14	133
Northern Territory ..	9	3	29	7		1	1
Total ..	197,809	171,810	280,282	183,296	8,559	758	9,317

(a) The difference between the amount of tax collected and the amount of tax calculated at the ruling rate on the net amount of sales on which tax was payable is due to rebates allowed as deductions from tax without the corresponding deduction from "Net Sales".

Similar details for each year since the inception of the tax in 1930–31 are given in the following table:—

SALES TAX AND AMOUNT OF SALES, 1930–31 TO 1938–39.

Year.	Gross Taxable Sales.	Non-Taxable Sales.	Sales of Exempt Goods by Registered Persons.	Net Amount of Sales on which Sales Tax was payable.	Tax Collected.		
					Taxation Department.	Customs Department.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1930–31 ..	145,805	102,663	170,434	138,756	3,179	293	3,472
1931–32 ..	150,608	119,971	189,634	147,730	7,931	501	8,432
1932–33 ..	158,469	135,843	195,285	147,217	8,797	594	9,391
1933–34 ..	162,852	135,877	191,370	150,614	8,166	540	8,706
1934–35 ..	170,256	140,735	202,320	156,791	7,967	614	8,581
1935–36 ..	188,228	156,692	219,756	174,312	8,779	703	9,482
1936–37 ..	187,433	162,046	251,820	174,443	7,522	614	8,136
1937–38 ..	198,083	180,117	283,622	183,479	7,342	707	8,049
1938–39 ..	197,809	171,810	280,282	183,296	8,559	758	9,317
Total ..	1,565,543	1,305,754	1,984,523	1,456,638	68,242	5,354	73,596

It should be mentioned that the figures given in the foregoing tables do not represent the total sales of all commodities, as vendors trading in exempt goods only are not required to be registered and consequently the volume of their sales is not included in the statistics above.

(h) *Flour Tax.* In connexion with the Government's decision to provide £3,000,000 for assistance to necessitous wheat farmers who did not, during 1932-33, receive income which was subject to Commonwealth Income Tax, the Flour Tax Act was passed in December, 1933. The rate of tax imposed was £4 5s. per short ton on all flour sold or delivered by a miller; imported into Australia; used in the manufacture of goods imported into Australia; or held in stock by a person other than a miller. The Act, which originally operated from 4th December, 1933, and terminated on 31st May, 1934, was expected to yield £1,600,000. The Flour Tax, with a reduction in the rate to £2 12s. 6d. per short ton, was reimposed from 7th January, 1935, and was terminated by proclamation on 24th February, 1936. On 5th December, 1938, the Flour Tax was again imposed in a more or less permanent form. The new legislation provided for a tax on flour (not exceeding £7 10s. per ton) varying as the price of wheat varies from 5s. 2d. a bushel at Williamstown. Provision is made in another Act for the imposition of a special tax on wheat when world parity rises above 5s. 2d. at Williamstown.

Net collections after allowing for refunds made and outstanding were as follows:—

FLOUR TAX.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39..
	£	£	£	£	£
New South Wales	311,991	450,785	Dr. 8,744	2,400	704,152
Victoria	226,163	320,770	Dr. 465	972	531,577
Queensland	80,999	153,994	Dr. 1,074	Dr. 329	237,854
South Australia	66,990	98,580	Dr. 283	Dr. 15	141,048
Western Australia	50,059	80,873	Dr. 1,623	Dr. 3	123,856
Tasmania	25,504	40,468	Dr. 4	..	55,346
Total	761,706	1,145,470	Dr. 12,193	3,025	1,793,833

(i) *Wool Levy.* The Wool Tax Acts, assented to in May, 1936, provide for a levy on all wool grown in Australia and shorn on or after 1st July, 1936. The levy is collected through wool-brokers and dealers who furnish quarterly returns on which the levy is assessed. The levy is payable prior to export on wool not previously taxed in the hands of a broker or dealer. The rates applicable are:—6d. per bale; 3d. per fadge or butt; and 1d. per bag. The amounts levied during the past three years were as follows:—

WOOL LEVY.

State.	1936-37.	1937-38.	1938-39.
	£	£	£
New South Wales	32,616	32,689	28,949
Victoria	15,778	17,030	15,488
Queensland	11,970	13,962	14,451
South Australia	6,462	7,246	8,242
Western Australia	4,768	5,211	5,795
Tasmania	1,211	1,385	1,524
Total	72,805	77,523	74,449

(j) *Taxation Legislation.* A Royal Commission was appointed by the Commonwealth Government in October, 1932, to inquire into and report upon the simplification and standardization of the taxation laws of the Commonwealth and of the States so far as they relate to similar subject matters of taxation, e.g., income tax, land tax and death duties, and to make recommendations regarding uniformity in legislation and procedure. Four reports covering the field of inquiries were presented and as the result of subsequent conferences between the authorities concerned a substantial degree of legislative uniformity has been attained. It is intended to hold regular conferences in the future to ensure the maintenance of uniformity.

3. *Business Undertaking.*—(i) *Postal Revenue.* Particulars concerning this branch of revenue for each of the financial years from 1934-35 to 1938-39 are contained in the following table:—

COMMONWEALTH POSTAL REVENUE.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Private boxes and bags ..	66,298	68,488	70,589	73,039	74,235
Commission—					
Money orders and postal notes	248,211	265,999	268,860	280,533	288,580
Telegraphs	1,260,388	1,289,772	1,370,518	1,377,623	1,372,300
Telephones	6,027,517	6,521,747	7,061,245	7,571,635	8,039,580
Postage	5,640,159	5,933,884	6,170,144	6,498,212	6,635,977
Radio receipts	338,593	365,877	429,047	492,995	516,178
Miscellaneous	363,764	393,277	416,214	438,164	423,641
Total	13,944,930	14,839,044	15,786,617	16,732,201	17,350,491

The foregoing particulars do not include repayments of the States' proportion of pensions or contribution of officers towards pensions under State Acts.

Further particulars of Postal Revenue are given in Chapter V. "Transport and Communication."

(ii) *Railway Revenue.* The Commonwealth Government is responsible for four lines—the Trans-Australian, the Central Australian, the North Australian and the Australian Capital Territory lines. The appended table shows the amounts paid into the credit of the Consolidated Revenue Fund on account of each of these railways for the last five years:—

COMMONWEALTH RAILWAY REVENUE.

Railway.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Trans-Australian ..	215,012	248,939	270,161	267,754	330,643
Central Australian ..	80,985	98,634	122,698	124,417	137,521
North Australian ..	38,352	30,656	36,440	37,768	50,471
Australian Capital Territory ..	83	5,379	6,994	5,803	7,275
Total	334,432	383,608	436,293	435,742	525,910

The small amount of receipts for the Australian Capital Territory Railway in 1934-35 was due to a change in accounting methods.

Further particulars are given in Chapter V., part B, Railways.

4. **Other Sources of Revenue.**—The most important investments of the Commonwealth Government from which interest is derived are—Loans to States, General Trust Funds, Loans placed in London, Fixed Deposits with the Commonwealth and other Banks, and certain advances. In 1938-39 the total included interest received from British Government on Development and Migration Loans and advances for miscellaneous purposes, payable by States; Interest on General Trust Fund Investments; Interest, Nauru Island Agreement; repayments of principal and interest in respect of War Service Homes advances; and repayment of advances to the States for the benefit of Settlers. As previously mentioned, the "Balance of Interest on States' Debts" payable by States under the Financial Agreement has not been included in the "Grand Total" in the detailed statement.

Division III.—Expenditure.

1. **Nature of Commonwealth Expenditure.**—The disbursements by the Commonwealth Government of the revenue collected by it fell naturally, under the "book-keeping" system, into three classes, viz. :—

- (a) Expenditure on transferred services ;
- (b) Expenditure on new services ; and
- (c) Payment to States of surplus revenue ;

Of these three, only the first two were actual expenditure, the last being merely a transfer, the actual expenditure being incurred by the States. In accordance with the provisions of the Constitution, the expenditure on transferred services was, under the "book-keeping" system, debited to the several States in respect of which such expenditure was incurred, while the expenditure on new services was distributed *per capita*. Surplus Commonwealth revenue was paid to the States monthly. Until the end of the year 1903-4, new works, etc., for transferred departments were treated as transferred expenditure, and were charged to the States on whose behalf the expenditure had been incurred. In subsequent years all such expenditure was regarded as expenditure on new services, and distributed amongst the States *per capita*. Under the arrangement which superseded the "book-keeping" system, a specific subsidy of 25s. per head of population was made annually by the Commonwealth to the States, and there was no further debiting of expenditure to the several States. The States Grants Act 1927 provided for the abolition of the *per capita* payments as from 30th June, 1927. From 1st July, 1928, the temporary provisions of the agreement between the Commonwealth and the several States under the Financial Agreement Act 1928 were operative, and on 1st July, 1929, the Commonwealth Government took over the debts of the State under this agreement which was ratified by all Governments concerned.

2. **Details of Expenditure from Consolidated Revenue.**—(i) *General.* The following table gives details of the expenditure from Consolidated Revenue during the last five years. The "Balance of Interest on States' Debts" (recoverable from the States) is placed at the foot of the table, but is not included in the "Grand Total" therein. Details for each Department, as constituted at 30th June, 1939, are stated hereafter.

Administrative changes involving the amalgamation of certain departments and the transfer of some services from one department to another which were effected in April, 1932, are referred to in the paragraphs relating to the departments concerned.

* For an exposition of the "book-keeping system" see Official Year Book No. 6, page 780.

COMMONWEALTH EXPENDITURE FROM CONSOLIDATED REVENUE,

Departments, etc.	1934-35.	1935-36.	1936-37.(a)	1937-38.(a)	1938-39.(a)
Departments—	£	£	£	£	£
Governor-General	28,026	28,240	34,245	35,067	32,765
Parliament	487,985	390,120	505,287	516,494	444,873
Prime Minister	1,499,308	1,307,414	1,263,210	1,510,259	1,355,842
External Affairs	65,512	70,339	63,104	58,263	70,168
Treasury (b)	2,615,881	2,277,647	1,958,085	2,403,259	2,582,362
Attorney-General	223,258	239,702	252,158	263,319	281,497
Interior	1,014,178	1,267,482	972,733	1,018,526	1,275,392
Defence—					
Military	1,511,543	1,592,868	2,023,372	2,060,732	3,324,650
Naval	1,954,853	2,254,799	2,580,704	2,497,783	2,755,085
Air	485,212	551,171	948,671	1,289,973	1,384,971
Supply and Development	397,752	414,682	436,966	523,550	596,653
Civil Aviation	114,083	102,271	275,563	129,043	328,150
Trade and Customs	881,964	878,762	891,292	993,503	1,064,124
Health	190,681	268,921	241,443	402,003	338,155
Commerce	964,238	978,937	1,122,242	1,149,511	1,208,927
Total, Departments	12,434,474	12,623,355	13,569,075	14,851,285	17,043,614
Business Undertakings—					
Postmaster-General	12,015,606	12,523,878	13,204,176	13,964,473	15,028,233
Railways	1,160,822	1,016,968	1,076,077	1,140,315	1,351,041
Total, Business Undertakings	13,176,518	13,540,846	14,279,253	15,104,788	16,379,274
Territories—					
Australian Capital Territory	539,798	566,289	585,869	615,401	637,228
Northern Territory	165,369	190,832	262,113	381,931	402,899
Papua	69,160	68,509	55,821	48,825	48,830
New Guinea	3,578	3,308	13,431	5,058	5,532
Norfolk Island	3,000	7,200	4,409	5,911	5,471
Total, Territories	780,905	836,138	921,643	1,057,126	1,099,960
New Works	1,052,133	3,237,317	4,319,562	3,551,776	6,565,268
War and Repatriation (c)	19,017,861	18,241,399	18,723,953	18,948,300	19,256,812
Invalid and Old-age Pensions	11,762,030	12,797,726	13,998,693	15,798,687	15,991,782
Maternity Allowances	329,321	335,552	370,150	400,004	436,614
Payments to or for States—					
Interest on States' Debts	7,584,912	7,584,912	7,584,912	7,584,912	7,584,912
Sinking Fund on States' Debts	1,330,910	1,359,880	1,416,548	1,454,385	1,477,976
Special Grants	2,400,000	2,750,000	2,430,000	2,350,000	2,020,000
Federal Aid Roads	2,465,980	2,778,899	3,039,530	4,149,492	4,266,556
Other Grants .. ..	..	100,000	551,000	450,500	300,000
Total to or for States (d)	13,781,802	14,573,691	15,021,990	15,989,289	15,649,444
Relief to Primary Producers	4,322,856	2,449,597	327,000	262,166	2,014,713
Grand Total	76,657,900	78,635,621	81,531,419	85,963,421	94,437,481
Per head of Population	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Excess Receipts (e)	11 8 9	11 12 11	11 19 8	12 10 6	13 12 8
	711,205	3,567,720	1,276,558	3,494,733	627,309
Balance of Interest on States' Debts—payable by States	24,390,832	24,786,646	25,081,605	25,580,374	25,584,456

(a) See Note (a) on page 832. (b) Excludes Invalid and Old-age Pensions and Maternity Allowances. (c) For details see § 5. (d) Excludes balance of interest payable on States' Debts (recoverable from States). (e) Appropriated for payment of Invalid and Old-age Pensions in following year. (f) Omitting payments from accumulated excess receipts of prior years (see page 831).

The items included under the general heads above are referred to in some detail later. Particulars for each department do not include the expenditure on new works which is given in (iii) (a) below.

(ii) *Cost of Departments.*—(a) *Governor-General.* Section 30 of the Constitution enacts that, until the Commonwealth Parliament otherwise provides, there shall be payable out of the Consolidated Revenue Fund for the salary of the Governor-General an annual sum of ten thousand pounds, and a proviso is made that the salary of the Governor-General shall not be altered during his continuance in office. The expenditure in connexion with the Governor-General and establishment for the five years 1934-35 to 1938-39 was as follows:—

EXPENDITURE : GOVERNOR-GENERAL AND ESTABLISHMENT.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Salary	9,775	9,882	10,000	10,000	10,000
Governor-General's Establishment ..	11,825	10,773	13,641	15,350	12,305
Contingencies (a)	2,135	3,266	5,913	5,003	5,381
Interest and Sinking Fund	4,291	4,319	4,691	4,714	5,079
Total	28,026	28,240	34,245	35,067	32,765

(a) Represents official services outside the Governor-General's personal interests, and carried out mainly at the instance of the Government.

(b) *Parliament.* Under this head have been grouped all the items of expenditure connected with the parliamentary government of the Commonwealth for the last five years. Although the administration of the Electoral Act and the conduct of elections come within the functions of the Department of the Interior, the expenditure in connexion therewith is fundamentally incurred on account of the parliamentary government system, and for that reason is included herein.

EXPENDITURE : COMMONWEALTH PARLIAMENT.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Salaries of Ministers	12,240	13,260	15,130	15,782	19,325
Allowances to Senators	28,962	29,549	32,617	33,877	36,171
Allowances to Members of House of Representatives	59,401	61,685	67,283	70,058	74,900
Officers, staff, contingencies, etc.	55,674	59,101	61,591	64,183	71,120
Rent, repairs, maintenance, etc.	12,002	10,962	12,601	12,873	14,679
Printing	21,527	23,075	19,000	22,217	22,000
Travelling expenses of Members and others	27,619	28,968	30,472	33,347	41,429
Electoral Office	83,252	79,375	81,357	86,102	85,143
Election expenses	103,439	611	100,042	101,628	3,232
Administration of Electoral Act ..	15,187	18,017	28,232	29,391	20,029
Interest and Sinking Fund	37,937	42,243	38,283	38,463	41,444
Miscellaneous	30,745	23,274	18,679	8,573	15,401
Total	487,985	390,120	505,287	516,494	444,873

In section 66 of the Constitution provision is made for the payment from Consolidated Revenue of an annual sum for the salaries of Ministers, and section 48 specifies the amount of the allowance to each Senator and each Member of the House of Representatives. These amounts, together with subsequent increases will be found on pages 14 and 17 of this issue.

(c) *Prime Minister's Department.* This department was created during the financial year 1911-12. In addition to the services indicated below, this Department administers the external Territories of New Guinea, Papua, Nauru and Norfolk Island. For convenience, particulars of expenditure on account of these Territories are shown hereinafter under that heading. Figures for 1934-35 include expenditure in respect of those functions now administered by the External Affairs Department. The expenditure for the last five years is shown in the following table :—

EXPENDITURE : PRIME MINISTER'S DEPARTMENT.(a)

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Salaries, contingencies and miscellaneous	£ 246,671	£ 198,215	£ 239,259	(b) 472,322	£ 236,221
Audit Office	34,278	38,061	36,587	38,046	38,434
Rent, repairs, etc.	7,441	9,373	7,981	6,568	8,120
Public Service Board's Office	38,206	42,185	49,825	52,807	50,688
High Commissioner's Office	48,629	54,523	59,217	57,945	81,369
Interest and Sinking Fund	914,931	790,516	d 679,279	d 630,018	d 613,696
Mail Service, Pacific Islands	41,000	40,000	40,700	40,346	49,077
Secretariat, League of Nations	54,024	(c)	(c)	(c)	(c)
Council for Scientific and Industrial Research	96,836	126,685	140,534	177,435	197,764
Pensions and Superannuation	7,804	7,856	9,828	9,772	10,473
North Australia Survey	75,000	..	..	25,000	10,000
National Oil Pty. Ltd. Agreement .. .. .	..	..	..	..	60,000
Total	1,564,820	1,307,414	1,263,210	1,510,259	1,355,842

(a) Excluding Territories, see page 852. (b) Includes special appropriation of £250,000 for Science and Industry. (c) Included under External Affairs Department. (d) See note (a) to table on page 832.

(d) *Department of External Affairs.* The Department of External Affairs was dissociated from the Prime Minister's Department in 1935-36. Its functions include, *inter alia*, communications with British diplomatic missions and consulates on political matters, foreign affairs, inter-Imperial and Dominion political relations, treaties and international agreements, and League of Nations matters, etc. Expenditure for the years 1935-36 to 1938-39 are given in the following table :—

EXPENDITURE : EXTERNAL AFFAIRS.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.
Salaries and General	£ 7,827	£ 12,417	£ 14,215	£ 20,129
Contribution, League of Nations Secretariat	52,687	42,029	34,112	43,329
Miscellaneous	9,825	7,758	9,936	6,710
Total	70,339	63,104	58,263	70,168

Expenditure during the year 1934-35 on similar services included under the Prime Minister's Department was £65,512.

(e) *Department of the Treasury.* The sub-departments under the control of the Commonwealth Treasurer are the Treasury, the Pensions Department, the Taxation Office, the Supply and Tender Board, the Superannuation Fund Management Board, and the Bureau of Census and Statistics which was transferred from the Department

of Home Affairs on 13th April, 1932. Details of the expenditure of this Department for the last five years are given in the following table:—

EXPENDITURE: DEPARTMENT OF THE TREASURY.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Treasury	48,336	49,678	50,868	52,234	56,528
Taxation Office	521,171	547,751	579,629	595,238	618,537
Pensions and Maternity Allowance Office	117,348	123,089	125,084	133,864	138,634
Census and Statistics	26,736	30,022	37,021	47,696	60,939
Census	37,846	23,932	16,207	9,789	4,113
Rent, repairs, etc.	12,569	16,841	18,006	17,406	23,088
Interest and Sinking Fund	785,595	775,388	601,695	675,250	911,004
Exchange	722,006	637,998	445,197	579,668	514,240
Loan Conversion expenses	111,294	8	..	126,522	1,588
Miscellaneous	(a)232,980	(a)72,940	(a)84,378	(a)165,592	(a)253,691
Departmental Expenditure	2,615,881	2,277,647	1,958,085	2,403,259	2,582,362
Invalid and Old-age Pensions (b)	11,762,030	12,797,726	13,998,793	15,798,687	15,991,782
Maternity Allowance	329,321	335,552	370,150	400,004	436,614
Total	14,707,232	15,410,925	16,327,028	18,601,950	19,010,758

(a) Includes £161,153, £12,219, £2,581, £96,602 and £2,777 under Works and Services Act in 1934-35, 1935-36, 1936-37, 1937-38 and 1938-39 respectively. (b) Includes maintenance of pensioners in charitable institutions.

(f) *Attorney-General's Department.* Prior to April, 1932, the Attorney-General was also Minister for External Affairs, but the expenditure of the latter department was included in that of the Prime Minister's Department. The Bankruptcy Administration was created in 1927-28. Details for the five years 1934-35 to 1938-39 are furnished hereunder:—

EXPENDITURE: ATTORNEY-GENERAL'S DEPARTMENT.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Attorney-General's Office	19,114	20,179	22,985	19,307	19,699
Crown Solicitor's Office	23,670	24,322	26,712	24,869	27,642
Salaries of Justices of High Court	18,500	18,417	18,500	18,500	18,500
High Court expenses	13,198	14,540	14,308	16,639	15,615
Court of Conciliation and Arbitration	19,236	19,748	19,593	22,372	24,046
Public Service Arbitrator's Office	2,751	3,031	3,501	3,721	5,919
Rent, repairs, etc.	18,652	19,523	18,333	14,539	15,131
Patents, Trade Marks, etc.	44,006	53,285	59,346	67,686	71,126
Investigation Branch	10,809	11,537	11,817	13,336	16,219
Bankruptcy	36,255	36,281	37,838	42,249	44,551
Reporting Branch	10,721	10,965	10,653	11,115	13,922
Miscellaneous	6,346	7,874	8,572	8,086	9,127
Total	223,258	239,702	252,158	263,319	281,497

(g) *Department of the Interior.* In April 1932, the Departments of Home Affairs and Works were abolished, and the services under the control of these departments were assumed by a new Department styled the Department of the Interior. The Bureau of Census and Statistics, formerly under the Department of Home Affairs, was, however, transferred to the Department of the Treasury. The Commonwealth Railways and the

Northern and Australian Capital Territories, which are administered by the Department of the Interior, are for convenience respectively included under Railways (*o*) and Territories (*p*) hereinafter. The Electoral Office was previously attached to the Department of Home Affairs, but, as was the case in previous years, the expenditure of this branch is included under Parliament, in (*b*) *ante*.

Particulars of the expenditure for the last five years on services under the control of this Department are as follows:—

EXPENDITURE: DEPARTMENT OF THE INTERIOR.(a)

Details.	1934-35.	1935-36.	1936-37.(b)	1937-38.(b)	1938-39.(b)
Salaries, Contingencies and Miscellaneous—	£	£	£	£	£
Administrative ..	120,736	155,956	175,048	204,553	380,550
Meteorological Bureau ..	38,178	38,413	44,455	60,675	80,107
Solar Observatory ..	5,006	5,354	5,600	6,587	6,816
Forestry Branch ..	5,571	5,670	6,922	8,009	10,436
Rent, Repairs and Maintenance ..	12,213	13,691	16,930	14,851	17,618
Pensions and Retiring Allowances (c) ..	18,220	18,725	19,069	19,985	20,567
Petroleum Prospecting ..	1,500	256,500	2,800	..	..
Interest ..	754,634	713,363	639,109	637,926	690,061
Sinking Fund ..	57,820	59,810	62,800	65,940	69,237
All Other ..	300	..	..	..	..
Total	1,014,178	1,267,482	972,733	1,018,526	1,275,392

(a) Excludes Territories, Railways and Electoral Office. (b) See note (a) to table on page 832.
(c) Includes Superannuation.

(h) *Defence*. During the year 1938-39 the Munitions Supply Branch of the Department of Defence was created a separate Department, under the name of Supply and Development. Similarly, the Civil Aviation Branch was created the Department of Civil Aviation. Particulars shown hereunder for years prior to 1938-39 are grouped differently, for the purposes of comparison with 1938-39, from the method previously used in respect of those years. The expenditure in connexion with Defence for the last five years was as follows:—

EXPENDITURE: DEPARTMENT OF DEFENCE.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Military—	£	£	£	£	£
Central Administration ..	19,831	21,892	26,873	29,986	41,223
Salaries, General Expenses, Services, etc. ..	1,191,869	1,254,014	1,556,194	1,670,933	2,941,264
Audit (Proportion) ..	5,340	5,946	5,678	7,610	6,110
Pensions and Retiring Allowances (a) ..	(b) 45,026	43,872	48,328	52,187	54,835
Rent, Repairs, etc. ..	43,508	45,589	66,476	49,416	69,002
Interest and Sinking Fund ..	176,272	172,694	167,750	170,661	207,806
Exchange ..	29,697	48,861	152,073	79,939	(c) 4,410
Miscellaneous ..	..	..	..	..	..
Total	1,511,543	1,592,868	2,023,272	2,060,732	3,324,650
Naval—					
Salaries, General Expenses, Services, etc. ..	1,820,623	2,038,439	2,311,159	2,215,156	2,592,328
Audit (Proportion) ..	2,288	2,548	2,434	2,634	2,475
Pensions and Retiring Allowances (a) ..	3,477	4,953	4,302	4,309	4,578
Rent, Repairs, etc. ..	21,918	22,800	26,964	15,465	28,072
Interest and Sinking Fund ..	77,754	73,868	88,862	91,550	127,632
Exchange ..	28,793	113,091	146,983	168,669	(c)
Total	1,954,853	2,254,799	2,580,704	2,497,783	2,755,085

EXPENDITURE : DEPARTMENT OF DEFENCE—continued.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Royal Australian Air Force—	£	£	£	£	£
Salaries, General Expenses, Services, etc.	426,671	472,892	677,073	983,008	1,303,577
Rent, Repairs, etc.	14,693	24,757	22,736	11,772	11,777
Interest and Sinking Fund	24,875	23,697	24,745	28,297	64,119
Exchange	18,366	25,321	219,444	262,093	(c)
Superannuation	607	4,504	4,673	4,803	5,498
Total	485,212	551,171	948,671	1,289,973	1,384,971
Grand Total	3,951,608	4,398,838	5,552,647	5,848,488	7,464,706

(a) Includes Superannuation charged to votes concerned.

(b) Includes Supply and Development. (d) Man-power Committee and National Register.

(c) Exchange

(i) *Supply and Development.* The following table shows particulars, for the last five years, of expenditure in connexion with Supply and Development :—

EXPENDITURE : DEPARTMENT OF SUPPLY AND DEVELOPMENT.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Salaries and General—					
Administrative	10,985	12,568	28,765	34,753	35,668
Munitions Factories	327,959	348,161	346,368	424,724	477,695
Rent, Repairs and Maintenance					354
Superannuation	(a)	235	282	484	393
Interest and Sinking Fund	58,808	53,718	61,551	63,589	82,513
Total	397,752	414,682	436,966	523,550	596,653

(a) Included under Defence—Military.

(j) *Civil Aviation.* Particulars of expenditure on Civil Aviation for the years 1934-35 to 1938-39 are as follows :—

EXPENDITURE : DEPARTMENT OF CIVIL AVIATION.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Civil Aviation—					
Salaries and General	32,395	40,686	53,320	71,862	89,946
Development of Civil Aviation	76,235	52,875	211,032	42,816	162,232
Rent, Repairs and Maintenance	2,273	3,573	5,948	6,570	8,428
Interest and Sinking Fund	3,270	5,137	5,263	5,868	11,625
Other				(a) 1,927	(a) 53,919
Total	114,083	102,271	275,563	129,043	328,150

(a) Empire Air Services.

(k) *Trade and Customs Department.* Under this head have been included the expenditure of all the sub-departments under the control of the Minister for Trade and

Customs, in addition to the amounts payable as bounties and the expenses in connexion therewith. Particulars for the five years 1934-35 to 1938-39 are given in the following table :—

EXPENDITURE : TRADE AND CUSTOMS DEPARTMENT.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Chief Office	58,692	64,745	79,706	88,755	88,016
Customs—Ordinary	485,833	520,036	553,310	589,475	621,425
Audit (Proportion)	10,425	11,610	11,086	12,000	11,786
Pensions and Superannuation ..	44,491	44,947	45,548	44,906	45,003
Rent, Repairs, etc.	9,918	11,493	10,872	9,655	6,386
Bounties	207,258	175,422	153,878	210,485	225,636
Interest and Sinking Fund ..	35,078	35,358	31,418	31,870	34,321
Miscellaneous	30,269	15,151	5,474	6,357	31,491
Total	881,964	878,762	891,292	993,503	1,064,124

(l) *Health Department.* This department came into existence in the financial year 1921-22. The Minister for Health also administers the Department of Repatriation, but the expenditure on Repatriation is included under War Services. Details of expenditure for the last five years are as follows :—

EXPENDITURE : HEALTH DEPARTMENT.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Central Administration ..	29,765	33,227	37,073	40,308	42,456
States—Salaries, Contingen- cies, etc.	74,513	79,368	83,621	88,414	93,050
Interest	18,348	18,816	19,235	19,289	20,547
Sinking Fund	2,512	2,681	2,825	2,966	3,114
Rent and repairs	8,628	9,914	13,380	11,356	12,919
Pensions and Superannuation	2,681	2,634	2,673	2,664	2,870
Subsidy, Cattle Tick Con- trol	45,100	54,450	48,350	69,450	69,450
Miscellaneous	9,134	(a) 67,831	34,286	(b) 167,556	(b)(c) 93,749
Total	190,681	268,921	241,443	402,003	338,155

(a) Includes grant, maternal and infant welfare, £50,000. (b) Includes National Health Campaign, £100,000, and Medical Research, £30,000, 1937-38; £5,000 and £30,000, 1938-39. (c) Includes reserve of essential drugs and medical equipment, £39,430.

Other items included in "Miscellaneous" are subsidies in connexion with the Aerial Medical Services, the Commonwealth X-ray and Radium Laboratory, the aftercare treatment of infantile paralysis cases, maternal and infant hygiene, and grants in aid of research, etc.

(m) *Department of Commerce.* The Department of Commerce was created in April, 1932, by the amalgamation of the Departments of Markets and of Transport. Commonwealth Railways, formerly administered by the Minister for Transport, were transferred to the control of the Minister for the Interior on the amalgamation in 1932.

Some details relating to the creation of the Departments of Markets and Transport are given in Official Year Book No. 25, pp. 295-6. Particulars of the expenditure of the Department of Commerce for the last five years are given below:—

EXPENDITURE : DEPARTMENT OF COMMERCE.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Salaries, Contingencies and Miscellaneous—	£	£	£	£	£
Administrative ..	29,797	41,918	45,042	49,916	58,218
Marine ..	201,539	206,199	206,199	206,966	208,129
Administration of Commerce Act ..	116,166	127,039	141,313	168,216	174,876
Oversea Trade Publicity ..	15,000	25,000	37,500	37,500	47,016
Commercial Intelligence Abroad ..	16,669	34,351	32,814	38,795	47,248
Wool Publicity and Research Assistance ..	..	..	64,541	77,921	73,816
Marketing Primary Produce ..	..	(b) 15,808	(b) 189	..	..
Assistance to Fruit Growers ..	(a) 135,000	..	..	..	..
Fruit Bounties ..	..	74,300	124,566	65,900	10,462
Rent, Repairs, Maintenance, etc. ..	5,934	6,189	6,782	8,348	13,081
Pensions and Retiring Allowances ..	9,695	10,544	10,778	11,714	12,959
Interest ..	180,534	170,583	191,926	191,637	198,599
Sinking Fund ..	201,892	211,989	222,589	233,718	245,404
All Other ..	52,012	55,017	38,003	58,880	(c) 119,119
Total ..	964,238	978,937	1,122,242	1,149,511	1,208,927

(a) Includes £10,000 relief for mandarin growers. (b) To citrus industry. (c) Includes representation New York World's Fair, £39,780, and San Francisco Exhibition, £21,335.

(n) *Postmaster-General's Department.* Details of the expenditure of this department for the last five years are given in the table hereunder:—

EXPENDITURE : POSTAL DEPARTMENT.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Salaries, Stores and Materials, Mails, etc. ..	£	£	£	£	£
Audit (proportion) ..	8,430,612	9,205,416	9,737,926	10,462,332	11,563,510
Pensions and retiring allowances ..	9,920	10,140	10,650	10,650	11,660
Superannuation ..	91,665	90,380	86,029	79,035	75,113
Rents, repairs, etc. ..	242,611	260,975	283,958	301,078	316,747
Interest ..	103,071	103,865	131,603	117,352	114,183
Sinking Fund ..	1,694,466	1,523,057	1,498,907	1,462,843	1,398,690
Exchange ..	920,899	971,566	1,023,673	1,075,248	1,128,933
Loan Redemption and Conversion Expenses ..	392,727	324,010	370,370	395,935	359,397
Miscellaneous ..	99,090	..	..	..	..
..	30,635	34,469	60,000	60,000	60,000
Total ..	12,015,696	12,523,878	13,203,176	13,964,473	15,028,233

(o) *Railways.* In 1928-29 the Commonwealth Railways were transferred from the Department of Works and Railways to the Department of Markets and Transport. In April, 1932, the administration was placed under the Department of the Interior. The expenditure on railways for the last five years is shown below as distinct from the expenditure of the other services controlled by the latter department.

EXPENDITURE : COMMONWEALTH RAILWAYS.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Working Expenses—	£	£	£	£	£
Trans-Australian	201,358	198,262	227,515	299,111	376,693
North Australian	42,334	40,908	39,518	40,281	55,186
Central Australian	134,050	138,234	132,859	161,251	214,374
Australian Capital Territory ..	5,859	5,885	5,809	5,754	7,365
Interest	434,263	427,094	434,916	385,195	392,194
Sinking Fund	67,326	71,494	76,450	71,648	75,230
Exchange	78,533	70,695	68,024	55,875	62,674
Contribution to South Australia (Port Augusta-Port Pirie Rail- way) .. ..	..	..	..	20,000	20,000
Sleeper Renewals, Trans-Australian Railway	154,430	49,995	65,000	82,293	116,770
Miscellaneous	42,669	14,401	25,986	18,907	30,555
Total	1,160,822	1,016,968	1,076,077	1,140,315	1,351,041

Additional details of the financial operations of the Commonwealth Railways are given in Chapter V. "Transport and Communication."

(p) *Territories.* The following table shows the expenditure on account of territorial services for the last five years. The internal territories are administered by the Department of the Interior, while the Prime Minister's Department controls the external territories. The expenditure has been grouped in one table for convenience:—

EXPENDITURE : TERRITORIES.

Details.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Internal—	£	£	£	£	£
Northern (a)	165,369	190,832	262,113	381,931	402,899
Australian Capital Terri- tory (a)	539,798	566,289	585,869	615,401	637,228
External—					
Papua	69,160	68,509	55,821	48,825	48,830
New Guinea	3,578	3,308	13,431	5,058	5,532
Norfolk Island	3,000	7,200	4,409	5,911	5,471
Total	780,905	836,138	921,643	1,057,126	1,099,960

(a) Exclusive of Railways.

(iii) *Miscellaneous.* (a) *New Works.* The expenditure on additions, new works, etc., during the last five years was as follows:—1934-35, £1,052,133 (exclusive of £4,160,000 provided from excess receipts for Defence equipment); 1935-36, £3,237,317; 1936-37, £4,319,562 (excluding £2,000,000 provided from excess receipts for Defence equipment); 1937-38, £3,551,776 (excluding £1,000,000 provided from excess receipts for Post Office works); and 1938-39, £6,565,268 (excluding £3,494,733 provided from excess receipts for Defence equipment).

(b) *War Services.* Full details concerning the expenditure from Consolidated Revenue upon War and Repatriation will be found in § 5.

Division IV.—Payments to or for the States.

1. **Introductory.**—In some previous issues of the Official Year Book particulars were given of the obligations imposed on the Commonwealth in the Constitution Act with reference to the payments to be made to the States, and the following statement briefly outlines the principal financial provisions of the Constitution in regard to the distribution of revenues received by the Commonwealth.

2. **Uniform Customs Duties.**—Prior to Federation, State revenues were largely derived from Customs and Excise duties and as the Commonwealth Constitution Act (Sections 86 and 90) transferred exclusively to the Commonwealth this source of revenue it was essential that the Constitution should provide adequate compensation for this loss to the States. Section 88 directed that uniform duties of customs must be imposed within two years after the establishment of the Commonwealth. This section was complied with on the 8th October, 1901, by the introduction of the first Customs Tariff Bill.

3. **Special Western Australian Tariff.**—Section 95 of the Constitution authorized the Western Australian Government for a period of five years after the imposition of the uniform customs duties to impose customs duties on goods passing into that State and not originally imported from beyond the limits of the Commonwealth, such duties to be collected by the Commonwealth.

Provision was also contained in this section for the regulation of the rates of duty.

4. **Distribution of Commonwealth Revenue.**—Broadly, the requirements of the Commonwealth Constitution in regard to the financial relationship between the Commonwealth and the States may be divided into three phases covering definite periods.

(a) 1901 to 1910. This period was covered by Section 87 (known as the "Braddon Clause") which provided that;

"During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on the debts of the several States taken over by the Commonwealth."

The scheme outlined in the Constitution for determining the amount to be paid to the several States is contained in Sections 89 and 93, the former of which relates to the period prior to the imposition of uniform duties of customs (as provided in Section 88), the latter to the first five years after the imposition of such duties and thereafter until Parliament otherwise provides. The principle involved was that of crediting each State with the Commonwealth revenue collected in respect of that State, and of debiting it with the expenditure incurred on its behalf in connexion with transferred departments, as well as its share on a "per capita" basis of the "new" expenditure of the Commonwealth. On this account the method of allocation provided by the Constitution has become very generally known as the "book-keeping system". As the imposition of uniform duties of customs and excise throughout the Commonwealth took place on 9th October, 1901, the five years provided for in section 93 expired on 8th October, 1906, and consequently the "book-keeping system" could then be changed at any time by the Commonwealth Parliament.

Section 93 provided that the duties of customs chargeable on goods imported into and duties of excise paid on goods produced or manufactured in one State and consumed in another should be credited to the consuming State. The balance in favour of any State was paid monthly by the Commonwealth.

The Surplus Revenue Act 1908 continued the "book-keeping system" but provided that any excess of receipts over expenditure should be distributed monthly to each State in proportion to their respective populations. This act more clearly defined "transferred" and "new" expenditure.

(b) 1911 to 1927 (Surplus Revenue Acts.) The provisions of Section 87 of the Constitution were terminated by the passing of the Surplus Revenue Act 1910 which provided for the following scheme of payments to operate from 1st July, 1910:—

- (i) The Commonwealth to pay by monthly instalments or apply to the payment of interest on debts of the States taken over by the Commonwealth an annual sum amounting to twenty-five shillings per head of the number of people of the State;
- (ii) In addition to the payments above all surplus revenue (if any) to be paid to the States in proportion to the number of people.
- (iii) A special payment to be made to Western Australia in monthly instalments of an annual sum of £250,000 in the first year, thereafter progressively diminishing by £10,000 each year. One half of the payments so made to be debited to all of the States (including Western Australia) on a population basis and the amount so debited to be deducted from the amount otherwise payable to each State.

After 1920 and until 1927 the provisions of the several Surplus Revenue Acts continued to govern the payments by the Commonwealth to the States.

(c) 1928 to date (Financial Agreement Act). An Amendment to the Constitution embodied in Section 105A gave effect to the powers conferred on the Commonwealth in Section 105. This amendment included provisions for:—

- (i) taking over the debts of the several States by the Commonwealth;
- (ii) the payment by the Commonwealth of a fixed annual sum in respect of the interest on such debts and for certain sinking fund contributions;
- (iii) the indemnification of the Commonwealth by the States in respect of debts taken over from the States;
- (iv) the borrowing of money by the States or by the Commonwealth or by the Commonwealth for the States; and
- (v) certain other matters connected with the management, consolidation, renewal, conversion and redemption of such debts.

5. Special Grants.—The Constitution provides in Section 96 for the granting of special financial assistance to the States. Reference has already been made herein to the special grant to Western Australia in the Surplus Revenue Act 1910. This State has continued to receive financial assistance each year since 1910-11. In 1912, a grant under similar conditions was made to Tasmania; the amount payable in the first year, 1912-13, was £95,000 which was to be progressively reduced by £10,000 in each successive

year. The Tasmania Grant Act 1913 provided for an addition to this grant bringing the amount payable to £85,000 per annum to the year 1921-22 after which annual grants of varying magnitude were made.

South Australia received £360,000 in 1929-30 and further grants in each successive year.

Other direct grants to the States from consolidated revenue include contributions towards the payment of interest and sinking fund on loans expended by Local Government authorities on public works, and for unemployment relief which covers *inter alia* metalliferous mining and forestry. Grants which have been made from time to time from loan fund are indicated in the statement of loan expenditure on page 858.

From the accumulated excess receipts since 1931-32, special assistance to the States was provided as follows:—

State.	1934-35.	1935-36.	1936-37.
	£	£	£
New South Wales	786,000	205,000	197,000
Victoria	550,000	140,000	137,000
Queensland	286,000	75,000	72,000
South Australia	176,000	45,000	44,000
Western Australia	133,000	35,000	33,000
Tasmania	69,000	..	17,000
Total	2,000,000	500,000	500,000

6. Commonwealth Grants Commission.—In 1933, the Commonwealth Government appointed the Commonwealth Grants Commission of three members to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto.

Applications were received from the States of South Australia, Western Australia and Tasmania during each year from 1933 and the recommendations of the Commission in respect of the years 1935-36 to 1939-40 were as follows:—

State.	Grant Recommended.				
	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£	£
South Australia	1,500,000	1,330,000	1,200,000	1,040,000	995,000
Western Australia	800,000	500,000	575,000	570,000	595,000
Tasmania	450,000	600,000	575,000	410,000	430,000

7. Grants for Road Construction.—(i) *Main Roads Development Acts.* Grants amounting in the aggregate to £1,750,000 were made to the States in 1922-23, 1924-25 and 1925-26 for the purpose of reconditioning certain main roads. £1,500,000 of this amount was on the basis of the expenditure by the States of an equivalent amount.

(ii) *Federal Aid Roads.* The Federal Aid Roads Act 1926 made provision for the construction and re-construction of roads in the several States out of moneys provided by the Commonwealth and States respectively. The original arrangement provided for a grant by the Commonwealth of £2,000,000 per annum for ten years from 1st July, 1926. The allocation to the States was based on three-fifths according to population and two-fifths according to area.

Expenditure was made in the proportion of 15s. by the States to £1 by the Commonwealth. The original agreement was varied in certain respects, the most important of which operated from 1st July, 1931, when in lieu of the £2,000,000 per annum, the Commonwealth agreed to contribute an amount equivalent to 2½d. per gallon customs duty, and 1½d. per gallon excise duty on petrol entered for home consumption during each year, and the States were not required to make any contribution as formerly agreed upon.

The 1926 agreement, which was originally intended to remain in operation for ten years, was continued until the 30th June, 1937, when a new agreement was entered into. The latter provided for the continuation of the Federal Aid Roads Agreement for a further period of ten years from 1st July, 1937, increased the amount payable to the States to 3d. a gallon Customs duty and 2d. a gallon excise (except benzol, on which the excise is only 1½d.) on petroleum and shale products, and stipulated that the proceeds of the extra ½d. per gallon should be expended on the construction, reconstruction, maintenance or repair of roads, or other works connected with transport. At the request of the Commonwealth Government the States will, up to a limit of one-twelfth of this additional amount, attend to the maintenance or repair of roads of approach to or adjoining Commonwealth properties. A further variation was the reduction from 3 to 2½ per cent. of the sinking fund contribution of the States on loan moneys provided by them between 1926 and 1931.

8. **Amounts Paid.**—(a) 1901 to 1939. The table following shows particulars of the amounts paid to each of the States since Federation, divided into the three periods referred to herein with separate details for Special and Roads Grants. Special Commonwealth grants for the relief of primary producers are not included in this table. Details of these grants will be found in Chapter XIX. "Agriculture."

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES TO 30th JUNE, 1939.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	All States.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1900-01 to 1909-10 (a) ..	27,606	19,815	8,895	6,148	8,727	2,602	73,793
1910-11 to 1926-27 (b) ..	41,634	31,341	15,184	9,925	6,899	4,367	109,350
1927-28 to 1938-39 (c) ..	40,788	28,518	15,136	10,239	7,219	3,597	105,497
Special Grants (d) ..	..	..	..	11,150	9,095	6,156	26,401
Grants for Road Construction, 1922-23 to 1938-39	9,534	6,148	6,491	3,896	6,603	1,720	34,392
Miscellaneous	640	713	285	196	249	108	2,191
Total	120,202	86,535	45,991	41,554	38,792	18,550	351,624
Special assistance 1934-35 to 1936-37 (e)	1,188	827	433	265	201	86	3,000
Grand Total	121,390	87,362	46,424	41,819	38,993	18,636	354,624

(a) Under Section 87 of the Commonwealth Constitution. (b) Under the several Surplus Revenue Acts. (c) Under Financial Agreement Act 1928. (d) Under various State Grants Acts. (e) Provided from excess receipts of the previous years from 1931-32.

(b) 1938-39. For the year ended 30th June, 1939, the payments made to or for each State are given below.

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES, 1938-39.(c)

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
Contributions towards							
Interest on State Debts ..	2,917,411	2,127,159	1,096,235	703,816	473,432	266,859	7,584,912
Sinking Fund on State Debts (a) ..	613,050	289,857	195,454	173,067	167,013	39,535	1,477,976
Special Grants ..	..	..	..	1,040,000	570,000	410,000	2,020,000
Federal Aid Roads (b) ..	1,198,902	746,647	814,912	473,588	819,179	213,328	4,266,556
Local Public Works ..	39,400	27,400	14,450	8,700	6,650	3,400	100,000
Contribution—Port Augusta—Port Pirie Railway Agreement ..	..	..	..	20,000	..	..	20,000
Youth Employment ..	79,000	55,000	25,000	19,000	14,000	8,000	200,000
Total ..	4,847,763	3,246,063	2,146,051	2,438,171	2,050,274	941,122	15,669,444

(a) Paid to National Debt Sinking Fund. (b) Paid to Trust Fund. (c) Excludes relief to primary producers. See Chapter XIX., § 18.

Payments made to States from excess receipts of previous years since 1931-32 are not included in the foregoing table.

§ 3. Trust Funds.

The Trust Fund balances on 30th June, 1939, amounted to £24,226,362, as compared with £25,609,787 for the corresponding date in the year 1938.

§ 4. Commonwealth Loan Funds and Public Debt.

1. **General.**—Although it was not until 1915 that the Commonwealth Government came into the loan market as a borrower, there had previously existed a Commonwealth Public Debt which included several items, such as the balance of the debt taken over from South Australia and the amount owing to the States for transferred properties. In view of the large expansion of the Public Debt, and its present importance in Commonwealth public finance, the different items are treated *seriatim* in the following paragraphs.

2. **Loans taken over from South Australia.**—The first portions of the debt were contracted at the beginning of 1911, when the Commonwealth assumed responsibility for the payment of interest on transferred properties (further dealt with in par. 4) and for the administration and the liabilities of the Northern Territory and the Port Augusta—Oodnadatta Railway. At 30th June, 1911, the debt on account of the former was £3,657,836, and on account of the latter, £2,274,486—a total of £5,932,322. As the securities fall due they are redeemed by the Commonwealth Government, the money required being provided from the National Debt Sinking Fund. At 30th June, 1939, the debt outstanding amounted to £35,243, of which £29,224 was on account of the Northern Territory, and £6,019 on account of the railway.

3. **Loan Fund for Public Works, Redemptions, etc.**—Up to the year 1911 the Commonwealth Government had met its public works expenditure out of revenue. In that year, however, in view of the heavy prospective cost of the Trans-Australian Railway and the Australian Capital Territory, a Loan Fund similar to those of the States was instituted. The initiation of this fund was greatly assisted by the fact that the Treasury at that time held a large quantity of gold, principally on behalf of the Australian Notes Account. Up to 30th June, 1914, the money required for loan expenditure was obtained mainly from this source at 3½ per cent., and inscribed stock of an equivalent value was created. Since the outbreak of war, the money required for the Loan Fund has been

mainly obtained by the issue of Treasury Bills and other securities issued in London and New York as well as in Australia.

COMMONWEALTH EXPENDITURE FROM LOAN FUND.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	Total to 30th June, 1939.
	£	£	£	£	£	£
Works, Buildings, Land, etc.—						
Shipbuilding Yards and Docks	..	..	..	..	..	733,711
Ship Construction	..	Cr. 120,138	..	..	Cr. 305,351	7,146,192
A.C.T. Works, Services and	..	..	..	..	..	..
Acquisition of Land	105,109	152,837	100,583	Cr. 5,514	Cr. 6,768	8,501,552
Northern Territory	7,618	32,025	19,127	Cr. 61	..	169,912
Drill Halls, Stores, Barracks, etc.	2,475	15,426	Cr. 2,877	339,316	97,788	1,017,030
Rifles and Ammunition Reserve	..	..	..	109,180	530,342	954,822
Other Military Services	..	..	..	..	..	101,959
Naval Bases, Depots, etc.	Cr. 13,765	2,833	Cr. 12,308	106,970	82,248	1,703,834
Fleet Construction	135,484	116,881	..	451,350	521,556	1,608,303
Air Services—						
R.A.A.F.	1,700	1,710	..	673,026	436,356	1,578,461
Civil Aviation	20,198	20,273	65	112,550	..	214,291
Buildings and Works, Munitions Production	4,857	11,211	8,530	273,945	243,994	1,729,539
Lighthouses and Lighthouse Services	..	600	Cr. 3,010	Cr. 1,000	Cr. 1,000	639,490
River Murray Waters Act	..	..	..	..	..	2,105,625
Telegraph and Telephone Construction	1,162,415	207,815	300,000	..	..	31,695,198
Post Office Buildings and Land	78,225	16,440	2,193	..	Cr. 1,290	3,493,871
Radio	..	..	..	451	..	56,236
Serum and Health Laboratories	605	4,462	460	..	..	80,149
Other Health Services	8,000	4,005	..	..	..	22,964
Repatriation Services	1,468	33,478	1,434	..	..	47,026
Railways—						
Trans-Australian	1,197	105,836	358,241	Cr. 938	Cr. 339	7,126,295
North Australian	..	..	..	..	..	1,597,559
Central Australian	104	2,639	..	..	..	2,480,596
Australian Capital Territory	..	..	..	..	..	28,755
Grafton—South Brisbane	..	..	..	..	..	2,446,005
Other Expenditure	..	Cr. 1,500	..	..	..	200,000
Papua—Railways, Wharves, Buildings, etc.	..	4,773	..	..	..	76,329
War Service Homes (b)	4,386	10,614	..	..	..	7,329,523
London Offices	..	..	..	..	..	880,190
Acquisition of Properties not elsewhere included	2	2,728	6,645	Cr. 263	..	137,648
Miscellaneous	2,582	18,923	..	..	..	21,505
Assistance to States for—						
Mining	75,000	144,750	64,000	..	..	283,750
Unemployment Relief	272,883	363,728	332,880	Cr. 8,895	Cr. 3,822	2,566,505
Forestry	64,000	223,000	35,000	..	..	322,000
Roads	..	..	..	..	..	249,686
Total, Works, etc.	1,934,633	1,375,349	1,210,963	2,049,215	1,593,714	89,346,511
Other purposes—						
Loans for Works to External Territories—						
Papua	..	..	..	..	..	53,420
New Guinea	..	..	..	..	..	40,496
Immigration (a)	..	..	..	..	..	1,680,834
Subscription to Capital of Commonwealth Oil Refinery	..	..	..	..	..	343,751
Subscription to Capital of Amalgamated Wireless Ltd.	..	..	..	..	..	300,000
Advances for Wire and Wire Netting	..	..	..	..	..	610,838
Wheat Bounty	..	43	..	..	..	3,429,571
Farmers' Debt Adjustment	..	317,000	1,500,000	2,500,000	2,000,000	6,317,000
Total Loan Expenditure	1,934,633	1,692,392	2,710,963	4,549,215	3,593,714	102,122,421

(a) Exclusive of Loans to States for Immigration purposes. (b) Prior to 1923-24, expenditure amounting to £13,045,408 was made from War Loan Fund. The total loan expenditure to 30th June, 1939, was £20,374,931.

4. **Properties Transferred from States.**—At the time of federation, when the Commonwealth took over the control of several departments previously administered by the States, a large amount of property was handed over to the Commonwealth Government, which paid interest to the States at the rate of $3\frac{1}{2}$ per cent. on the value of the properties so transferred. (Particulars of the valuation of the properties are given in Official Year Book No. 14, page 694). The temporary provisions of the Financial Agreement between the Commonwealth Government and the Governments of the several States provided *inter alia* that the Commonwealth Government would for the period of two years from 1st July, 1927 pay to each State interest at the rate of 5 per cent. per annum on the agreed value of transferred properties as follows:—New South Wales, £4,788,005; Victoria, £2,302,862; Queensland, £1,560,639; South Australia, £1,035,631; Western Australia, £736,432; and Tasmania, £500,754; a total of £10,924,323.

From 1st July, 1929, the Commonwealth Government assumed all liability for so much of the Public Debt of the States maturing in London bearing interest at the rate of 5 per cent. per annum as is equivalent to the agreed value of the transferred properties shown above. The Commonwealth Government received the freehold or equivalent title to the transferred properties consisting of land or interests in land, and all liability of the Commonwealth to the State in respect of transferred properties was extinguished from that date.

5. **War Loan from the Imperial Government.**—On the outbreak of the European war in 1914, the Commonwealth Government obtained a loan from the Imperial Government for the purpose of financing the prospective large military expenditure. At first, the arrangement was that the Imperial Government should advance the sum of £18,000,000. Subsequently further loans amounting to £31,500,000 were negotiated. In addition to this capital indebtedness of £49,500,000, a further sum of £42,696,500 was due to the British Government for the maintenance of Australian troops.

Early in 1921 an arrangement was concluded with the Imperial Government, by which almost the entire debt (upwards of £92,000,000) was consolidated. The Commonwealth Government undertook to extinguish the debt in about 35 years by annual payments representing 6 per cent. on the original debt, providing for interest at approximately £4 18s. 4d. per cent., and a sinking fund of approximately £1 1s. 8d. per cent. By a later arrangement with the British Government, however, principal and interest repayments have been suspended for 1931–32 and subsequent years. The principal outstanding on 30th June, 1939, was £79,724,221.

6. **Flotation of War Loans in Australia.**—In addition to the advances from the Imperial Government, the Commonwealth Government raised large amounts of money in Australia. Full details of the seven War Loans are given in Official Year Book No. 14.

7. **London Conversion Loans.**—Loans aggregating £22 millions were due for redemption in London in 1932–33, and in addition the Government had optional rights of redemption over a further £88 millions, all of which were carrying an interest burden of 5 per cent. or greater. These obligations, particularly the accumulation of loans with optional rights of redemption, presented some difficulty to the Government and led to the appointment of a Resident Minister in London, who, in conjunction with the Australian Loan Council, arranged for the conversion of Commonwealth and State securities amounting to £109,849,000 between October, 1932, and February, 1934. Particulars of these and subsequent conversions to June, 1939, are shown in the following table:—

DETAILS OF LOANS CONVERTED IN LONDON, 1932 to 1939.

When Converted.	Commonwealth or State.	Amount.	Old Loan.			New Loan.			Annual Saving.	
			Interest Rate (nominal).	Yield to Investor.	Interest Rate (nominal).	Price of Issue.	Yield to Investor.	Year of Maturity.	Interest. (a)	Exchange. (b)
		£'000.	%	£ s. d.	%	£	£ s. d.		£'000.	£'000.
1932— October ..	N.S.W.	12,361	5½	5 15 0	3½	97½	4 1 2	1936-37	222	56
1933— February ..	N.S.W.	9,622	4	3 19 8	4	100	4 0 0	1955-70	180	45
May ..	N.S.W.	6,427								
	S.A. ...	2,983								
	Tas. ...	2,000	6½	6 10 0	3½	99	3 14 10	1937-38	83	21
July ..	N.S.W.	9,527	6	6 8 4	4	99	4 1 10	1943-48	204	56
	Qld. ...	2,000								
	S.A. ...	2,978								
	W.A. ...	2,716								
September	C'wealth	15,000	6	6 9 6	3½	98	3 17 11	1948-53	360	92
	N.S.W.	4,901								
	W.A. ...	1,050								
December	N.S.W.	1,050	5½	5 16 10	3½	99	3 16 9	1946-49	97	25
	W.A. ...	2,981								
	N.S.W.	2,980								
	Vic. ...	3,907								
	S.A. ...	5,633	5	5 12 2	3	99	3 16 9	1946-49	73	19
	Tas. ...	1,146								
1934— February ..	N.S.W.	3,979	5	5 3 7	3½	97	3 13 8	1954-59	61	15
	Vic. ...	13,876								
	Qld. ...	3,782								
November	C'wealth	83	5½	5 2 0	3½	99	3 5 11	1964-74	97	25
	W.A. ...	574								
	S.A. ...	789								
	Tas. ...	3,078								
	W.A. ...	2,235	4	3 19 6	3½	99	3 5 11	1964-74	1	1
	W.A. ...	463								
	Tas. ...	2,497								
	S.A. ...	3,745	3½	3 13 9	3	100	3 5 0	1956-61	24	6
	Tas. ...	1,000								
1935— January ..	C'wealth.	17,355	4	3 19 6	3½	99	3 5 11	1964-74	4	1
	Vic. ...	807								
	Qld. ...	1,328								
	S.A. ...	799	3½	3 4 2	3	100	3 0 0	1939-41	4	1
	W.A. ...	1,805								
	Tas. ...	200	3	3 7 1	3	100	3 0 0	1939-41	8	2
July ..	N.S.W.	12,420								
	Vic. ...	1,050	5	5 0 0	3	100	3 0 0	1939-41	21	5
1936— January ..	N.S.W.	21,657								
June ..	C'wealth.	372	5	5 3 1	3	95½	3 5 9	1955-58	421	107
	N.S.W.	10,955								
	S.A. ...	1,996	3½	3 12 10	2½	99	2 18 6	1941-43	13	3
	W.A. ...	2,631								
	Tas. ...	597								
1937— June ..	N.S.W.	12,361	3½	3 10 0	4	100	4 0 0	1955-70	-1	..
November	N.S.W.	6,427								
	S.A. ...	2,983	3½	3 12 10	3	96½	3 16 2	1950-52	37	9
	Tas. ...	2,000								
1938— December	C'wealth	160	3½	3 1 7	3	97	3 15 1	1951-54	1	1
	S.A. ...	1,158								
	S.A. ...	1,200	4	3 11 8	3	97	3 15 1	1951-54	1	..
	Tas. ...	2,000								
Total(c)	..	224,802	4.87	5 1 10	..	98.3	3 11 10	..	3,287	834

(a) Interest savings have been calculated on the yield to the investor worked on the issue prices of the old and new loans respectively. (b) Calculated at 25½ per cent. (c) Averages approximate.

Particulars of the total amounts converted to June, 1939, and the annual savings on account of interest and exchange in respect of the Commonwealth and of each State are as follows:—

Commonwealth or State.	Amount Converted.	Annual Savings.		
		Interest.	Exchange.	Total.
	£	£	£	£
Commonwealth	33,542,925	682,186	173,104	855,290
New South Wales	113,618,171	1,493,065	379,124	1,872,189
Victoria	22,620,392	360,979	91,598	452,577
Queensland	7,109,469	161,157	40,894	202,051
South Australia	23,597,110	265,772	67,560	333,332
Western Australia	17,830,181	240,308	60,978	301,286
Tasmania	6,483,750	83,722	21,325	105,047
Total	224,801,998	3,287,189	834,583	4,121,772

8. Loan Raisings, 1937-38 and 1938-39.—Particulars of Loan raisings during the two years ended 1938-39 are given in the following table:—

LOAN RAISINGS, 1937-38 AND 1938-39.

Service.	Where Raised.	For—	Rate of Interest.	Year of Maturity.	Price.	Amount.
			%			£
1937-38—						
Conversion	London ..	Commonwealth	3½	1951-54	97	11,409,965
Works	Australia ..	Commonwealth States	3½	1951-52	99½	1,339,010
Defence	London ..	Commonwealth	3½	1952-56	99	2,000,000
Redemption of Treasury Bills						5,000,000
Defence and Works ..	Australia ..	Commonwealth States	3½	1952-54	99½	5,213,120
Conversion	Australia ..	States ..	3½	1952-54	99½	5,205,010
Works, Redemptions, etc. (a)	Australia ..	States ..	(b)	(b)	(b)	1,212,340
1938-39—						
Defence	Australia ..	Commonwealth States	3½	1952-54	100	4,089,131
Conversion						64,847,010
Conversion and Redemption	London ..	States ..	4	1955-70	100	90,589
Conversion	Australia ..	Commonwealth States	3½	1953-55	100	2,517,800
Works						1,339,260
Works	Australia ..	Commonwealth States	3½	1953-55	99	7,186,450
Defence	London ..	Commonwealth States	4	1961-64	98½	680,470
Works	Australia ..	States ..	3½	1943-44	100	4,071,000
Works Redemptions, etc. (a)	Australia ..	States ..	(b)	(b)	(b)	6,000,000
						3,000,000
						1,667,165

(a) "Over the Counter Sales" and Conversion at State Treasuries.

(b) Various.

Some detailed particulars of conversion loans in London are given in the preceding paragraph.

9. Public Debt for Commonwealth Purposes.—(i) *Total Debt.* Reference has already been made to the development of the Commonwealth Public Debt and the table appended shows the debt of the Commonwealth (excluding that of the States) at 30th June, 1939 :—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE, 1939.

Particulars.	Maturing in—			Total. (a)
	London.	New York.	Australia.	
	£ Stg.	£ (c)	£ Aust.	£
War Debt—				
Stock, Bonds, etc.	11,020,160	..	175,193,890	186,214,050
Indebtedness to United Kingdom Government	79,724,221	..	..	79,724,221
Total	90,744,381	..	175,193,890	265,938,271
Works and other Purposes—				
Short dated Treasury Bills and Debentures	4,220,160	..	..	4,220,160
Other Treasury Bills (d) . . . . .	..	..	10,692,248	10,692,248
Stock, Bonds, etc.	67,876,406	15,913,501	32,575,102	116,365,009
Balance of Loans taken over from South Australia—				
Northern Territory . . . . .	..	..	29,224	29,224
Port Augusta Railway . . . . .	..	..	6,019	6,019
Total, Works and other Purposes	72,096,566	15,913,501	43,302,593	131,312,660
Total Commonwealth Purposes	162,840,947	15,913,501	218,496,483	397,250,931

PER HEAD OF POPULATION. (b)

	(Stg.)	(c)	(Aust.)	£ s. d.
	£ s. d.	£ s. d.	£ s. d.	
War	13 0 9	..	25 3 4	38 4 1
Works and other Purposes	10 7 2	2 5 9	6 4 5	18 17 4
Total Commonwealth Purposes	23 7 11	2 5 9	31 7 9	57 1 5

(a) The total "face" or "book" value of the public debt without adjustment on account of currency changes since the loans were floated. (b) Based on population at 30th June, 1939. (c) Payable in terms of dollars. For the purposes of these tables dollars have been arbitrarily converted to £'s. at the rate of 4.8665 to £ Stg. (d) General Trust Fund investment.

(ii) *Place of Flotation.* The loans taken over from South Australia, which constituted the first portion of the Federal Public Debt, included both London and Australian securities. The presence in the Treasury of a large holding of gold and the moderate rate of interest ruling on gilt-edged securities made the conditions in 1911 and for some little time afterwards very favourable for the local flotation of loans.

London securities were redeemed as they fell due, and replaced by the 3½ per cent. stock of the Loan Fund. Consequently, up to 1914 the amount of the securities repayable in London fell steadily, and the amount repayable in Australia rose rapidly. In 1915 the military loan from the Imperial Government caused a sharp rise in the amount of the securities repayable in London, which was maintained in the following two years. This was, however, more than offset by the local flotation of war loans. In 1925-26 a loan of £15,411,487, of which £10,402,754 was for Commonwealth purposes and £5,008,733 for the States, was raised in New York. The appended table gives particulars of Commonwealth loans outstanding in each of the last five years which had been floated overseas and in Australia respectively.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES: PLACE OF FLOTATION.

Place of Flotation, etc.	At 30th June—				
	1935.	1936.	1937.	1938.	1939.
War Debt—					
London £ Stg.	90,744,381	90,744,381	90,744,380	90,744,381	90,744,381
Total Overseas (a) ..	90,744,381	90,744,381	90,744,380	90,744,381	90,744,381
Australia £ Aust.	187,716,301	186,361,597	183,063,205	179,058,853	175,193,890
Total War Debt (a) ..	278,460,682	277,105,978	273,807,585	269,803,234	265,938,271
Works and other purposes—					
London £ Stg.	66,488,759	65,540,946	65,034,247	67,619,246	72,096,566
New York £ (b)	16,526,641	16,351,176	16,201,952	16,080,972	15,913,501
Total Overseas (a) ..	83,015,400	81,892,122	81,236,199	83,700,218	88,010,067
Australia £ Aust.	32,674,988	32,041,501	31,866,557	37,341,609	43,302,593
Total Debt for Works, etc. (a)	115,690,388	113,933,623	113,102,756	121,041,827	131,312,660
Total Debt—					
London £ Stg.	157,233,140	156,285,327	155,778,627	158,363,627	162,840,947
New York £ (b)	16,526,641	16,351,176	16,201,952	16,080,972	15,913,501
Total Overseas (a) ..	173,759,781	172,636,503	171,980,579	174,444,599	178,754,448
Australia £ Aust.	220,391,289	218,403,098	214,929,762	216,400,462	218,496,483
Grand Total (a) ..	394,151,070	391,039,601	386,910,341	390,845,061	397,250,931

(a) The figures given represent the total "face" or "book" value of the public debt without any adjustment on account of currency changes since the loans were floated. (b) See note (c) to table on page 862.

The particulars given above for war debt maturing in Australia take into account the remissions by the Commonwealth on account of losses incurred by the States in connexion with Soldier Land Settlement, and differ on that account from the figures given in some earlier issues.

(iii) *Amount of Debt at Various Rates of Interest.*—The first debt taken over from South Australia consisted mainly of securities bearing interest varying from 3 per cent. to 4 per cent., the average rate of interest for the first year being £3 12s. 4d. For the

first three years the increase in the debt was due almost entirely to the expansion of the 3½ per cent. stock of the Loan Fund, consequently the average rate of interest fell steadily, until on 30th June, 1914, it stood at £3 11s. 10d. With the loans raised for war and repatriation purposes interest rates rose until the National Debt Conversion Loan (July-August, 1931) reduced interest rates on internal loans by 22½ per cent. Conversion loans in London referred to on page 859 have reduced the average rate of interest on debt maturing in London by nearly one per cent. from £4 18s. 11d. per cent. in 1931 to £4 1s. 11d. in 1939. The average rate of interest on internal loans at 30th June, 1939, was £3 16s. 5d. per cent. as compared with £5 9s. 10d. per cent. at 30th June, 1931. The average rate of interest payable on the total debt decreased from £5 4s. 11d. per cent. in 1931 to £3 18s. 11d. per cent. at 30th June, 1939.

The accompanying table gives particulars of rates of interest on the debt for Commonwealth purposes for the year ended 30th June, 1939.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES: RATES OF INTEREST.

Rates of Interest.				At 30th June, 1939—Debt Maturing in—			
				London.	New York.	Australia.	Total.
Per cent.				£ (Stg.)	£ (c)	£ (Aust.)	£ (a)
5.0	..	..	..	29,138,495	12,295,663 (b)	5,288	41,439,446
4.91667	..	..	..	(e)79,724,221	..	..	79,724,221
4.75	..	..	..	5,989,400	..	..	5,989,400
4.5	..	..	..	..	3,617,838	..	3,617,838
4.45625	..	..	..	..	..	84,650	84,650
4.2625	..	..	..	..	..	948,614	948,614
4.25	..	..	..	..	..	86,585	86,585
4.06875	..	..	..	..	..	3,109,440	3,109,440
4.0	..	..	..	6,000,000	..	f138,946,041	144,946,041
3.875	..	..	..	..	..	47,302,491	47,302,491
3.75	..	..	..	20,811,100	..	9,389,380	30,200,480
3.675	..	..	..	..	..	66,510	66,510
3.5	..	..	..	..	..	1,140,140	1,140,140
3.375	..	..	..	..	..	527,620	527,620
3.25	..	..	..	16,585,765	..	31,900	16,617,665
3.0	..	..	..	..	..	5,956,14	5,956,145
2.75	..	..	..	371,806	..	..	371,806
2.7125	..	..	..	..	..	2,008	2,008
2.25	..	..	..	3,220,160	..	..	3,220,160
2.0	..	..	..	1,000,000	..	..	1,000,000
1.75	..	..	..	..	..	10,692,248	10,692,248
Overdue	..	..	..	..	..	(d) 193,117	193,117
War Savings Stamps	..	..	..	..	..	14,306	14,306
Total	..	..	..	162,840,947	15,913,501	218,496,483	397,250,931
Average rate per cent.	..	..	..	£ s. d. 4 1 11	£ s. d. 4 17 9	£ s. d. 3 16 5	£ s. d. 3 18 11

(a) See note (a) to table on page 862. (b) War Savings Certificates. (c) See note (c) to table on page 862. (d) Includes War Gratuity Bonds, £13,078. (e) War Debt due to Government of the United Kingdom (see par. 5, page 859). (f) Includes unconverted securities, £6,840.

(iv) *Amount of Interest Payable.* The next table shows the interest payable in Australia and overseas on the Commonwealth Public Debt (excluding amounts raised on behalf of the several States and debts of the States taken over) at 30th June in the years 1935 to 1939 inclusive.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES: INTEREST PAYABLE.

Interest on and where payable.		At 30th June—				
		1935.	1936.	1937.	1938.	1939.
War Debt—						
London	£ Stg.	(c) 426,008	(c) 426,008	(c) 426,008	(c) 426,008	(c) 426,008
Australia	£ Aust.	7,501,517	7,443,363	7,310,325	7,149,993	6,949,706
Total War Debt	£ (a)	7,927,525	7,869,371	7,736,333	7,576,001	7,375,714
Average Rate	%	£3 19s. 9d.	£3 19s. 9d.	£3 19s. 9d.	£3 19s. 9d.	£3 19s. 3d.
Works and other Purposes—						
London	£ Stg.	2,682,387	2,651,593	2,614,254	2,775,291	2,977,546
New York	£ (b)	805,973	797,954	790,935	785,240	777,586
Total Overseas	£ (a)	3,488,360	3,449,547	3,405,189	3,560,531	3,755,132
Australia	£ Aust.	937,615	919,692	935,572	1,151,759	1,394,921
Total Debt for Works, etc.	£ (a)	4,425,975	4,369,239	4,340,761	4,712,290	5,150,053
Average Rate	%	£3 16s. 6d.	£3 16s. 9d.	£3 16s. 10d.	£3 17s. 10d.	£3 18s. 5d.
Total Debt—						
London	£ Stg.	3,108,395	3,077,601	3,040,262	3,201,290	3,403,554
New York	£ (b)	805,973	797,954	790,935	785,240	777,586
Total Overseas	£ (a)	3,914,368	3,875,555	3,831,197	3,986,539	4,181,140
Australia	£ Aust.	8,433,132	8,363,055	8,245,897	8,301,752	8,344,627
Grand Total	£ (a)	12,347,500	12,238,610	12,077,094	12,288,291	12,525,767
Average Rate	%	£3 18s. 7d.	£3 18s. 8d.	£3 18s. 8d.	£3 19s. 0d.	£3 18s. 11d.

(a) The totals shown represent the nominal amount of interest, taking no account of exchange.

(b) See note (c) to table on p. 862.

(c) Excludes suspended interest on War Debt owing to British Government.

(v) *Dates of Maturity.* The dates of maturity of the several portions of the Commonwealth debt are shown hereunder according to financial years. Prior to 1937-38 the Public Debt was shown classified according to the latest date of maturity only, but the particulars now include tables showing both the earliest and latest dates of maturity. The Commonwealth Government has refrained from issuing interminable stock, but, in respect of a small proportion of the debt, no definite date of maturity had been assigned on 30th June, 1939.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES, AT 30th JUNE, 1939.
(CLASSIFIED ACCORDING TO LATEST DATE OF MATURITY.)

Due Dates (year ended 30th June).	Maturing in—			Total.
	London.	New York.	Australia.	
	£ (Stg.)	£ (a)	£ (Aust.)	£ (b)
1940	4,220,160	..	11,130,686	15,359,846
1941 .. .. .	..	..	902,270	902,270
1942 .. .. .	..	..	30,466,260	30,466,260
1943	371,806	..	4,315,090	4,686,896
1944 .. .. .	..	..	1,140,140	1,140,140
1945 .. .. .	..	..	24,198,922	24,198,922
1948 .. .. .	..	..	21,541,527	21,541,527
1949 .. .. .	..	..	4,565,490	4,565,490
1950 .. .. .	..	..	207,450	207,450
1951 .. .. .	..	..	13,404,651	13,404,651
1952 .. .. .	..	..	2,077,150	2,077,150
1954	13,815,100	..	12,683,100	26,498,200
1955 .. .. .	..	..	41,753,599	41,753,599
1956 .. .. .	..	13,584,981	14,475,678	28,060,659
1957	6,996,000	..	..	6,996,000
1958 .. .. .	..	2,328,520	12,001,516	14,330,036
1960 .. .. .	..	..	11,879,612	11,879,612
1961	22,245,387	..	..	22,245,387
1962 .. .. .	..	..	11,125,735	11,125,735
1964	6,000,000	..	..	6,000,000
1975	329,778	..	..	329,778
1976	29,138,495	..	..	29,138,495
War Savings Stamps Unconverted .. .. .	..	..	14,306	14,306
Overdue .. .. .	..	..	6,840	6,840
Indefinite .. .. .	..	..	(c) 193,117	193,117
Annual repayments .. .. .	..	..	183,235	183,235
Half-yearly	79,724,221	..	..	79,724,221
	..	..	221,109	221,109
Total	162,840,947	15,913,501	218,496,483	397,250,931

(a) See note (c) to table on page 862.
War Gratuity Bonds, £13,078.

(b) See note (a) to table on page 862.

(c) Includes

PUBLIC DEBT FOR COMMONWEALTH PURPOSES, AT 30th JUNE, 1939.

(CLASSIFIED ACCORDING TO EARLIEST DATE OF MATURITY.)

Due Dates (year ended 30th June).	Maturing in—			Total.
	London.	New York.	Australia.	
	£ (Stg.)	£ (a)	£ (Aust.)	£ (b)
1940	4,220,160	..	11,139,686	15,359,846
1941	6,361,206	..	902,270	7,263,476
1942 .. .. .	..	..	30,466,260	30,466,260
1943 .. .. .	..	..	4,315,090	4,315,090
1944 .. .. .	..	..	1,140,140	1,140,140
1945 .. .. .	..	..	24,198,922	24,198,922
1946	29,138,495	..	..	29,138,495
1948 .. .. .	..	2,328,520	21,541,527	23,870,047
1949	13,815,100	..	4,505,490	18,380,590
1950 .. .. .	..	..	207,450	207,450
1951 .. .. .	..	..	13,404,651	13,404,651
1952 .. .. .	..	..	2,077,150	2,077,150
1953	6,996,000	9,967,143	41,753,599	58,716,742
1954 .. .. .	..	..	14,675,830	14,675,830
1955 .. .. .	..	..	..	..
1956	16,255,987	3,617,838	12,482,948	32,356,773
1958 .. .. .	..	..	12,001,516	12,001,516
1960 .. .. .	..	..	11,879,612	11,879,612
1961	6,000,000	..	..	6,000,000
1962 .. .. .	..	..	11,125,735	11,125,735
1965	329,778	..	..	329,778
War Savings Stamps Unconverted .. .. .	..	..	14,306	14,306
Overdue .. .. .	..	..	6,840	6,840
Indefinite .. .. .	..	..	193,117	193,117
Annual repayments .. .. .	..	..	183,235	183,235
Half-yearly	79,724,221	..	..	79,724,221
	..	..	221,109	221,109
Total	162,840,947	15,913,501	218,496,483	397,250,931

(a) See note (c) to table to page 862.
War Gratuity Bonds, £13,078.

(b) See note (a) to table on page 862.

(c) Includes

10. **Sinking Funds.**—Particulars relating to the creation of sinking funds are included in previous issues.

The old sinking funds were merged in the National Debt Sinking Fund on 11th August, 1923. Particulars of receipts and expenditure of the Commonwealth Account from the year 1934-35 are as follows :—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES : SINKING FUND.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	Total.
	£	£	£	£	£	£
Cr. Brought forward ..	881,700	1,571,603	1,780,186	1,937,295	1,252,784	..
Balance transferred to Fund on 11th August, 1923 ..	..	..	..	..	..	2,262,983
From Consolidated Revenue	3,031,774	3,244,970	3,434,219	3,681,741	3,917,825	43,088,092
Repayments of Sundry Loans	13,194	13,954	14,758	15,610	16,510	1,287,536
Purchase Money and Repayments under War Service Homes Act ..	458,211	515,896	550,158	607,435	628,950	9,919,599
Half Net Profit Commonwealth Bank ..	382,722	373,770	354,090	318,752	321,448	4,898,677
Reparation Moneys ..	755	623	154	147	148	5,574,104
Interest on Investments ..	23,781	29,202	38,797	40,478	32,381	795,339
Other Contributions ..	13,452	13,453	13,453	13,453	13,453	167,986
Total	4,805,589	5,763,471	6,185,815	6,614,911	6,183,499	67,994,316
Dr. Redemptions	3,233,986	3,983,285	4,248,520	5,362,127	5,052,336	66,863,153
Carried forward ..	1,571,603	1,780,186	1,937,295	1,252,784	1,131,163	1,131,163
Total	4,805,589	5,763,471	6,185,815	6,614,911	6,183,499	67,994,316

The Imperial Government loan comes in a different category from the others as described on page 859.

Information regarding the transactions of the States' Account of the National Debt Sinking Fund is published in the State Finance section of this issue, and, in greater detail, in the *Finance Bulletin* issued by this Bureau.

§ 5. Cost of War and Repatriation.

In view of the importance of the subject, a further reference is here made to the cost of the war of 1914-18. The general policy of the Commonwealth Government has been to pay from Consolidated Revenue all charges for interest, sinking fund, pensions and other recurring charges consequent upon the war, and part of the expense of repatriation. On the other hand, the whole direct cost of the war and the larger

proportion of the cost of repatriation have been paid from loans. Detailed particulars relating to Repatriation, War and Service Pensions will be found in Chapter XI. of this issue. The total cost from both sources to the 30th June, 1939, is set out in the following table :—

COST OF WAR SERVICES.

Year.	From Consolidated Revenue.			From War Loan.(b)
	War and Repatriation Services, including War Pensions.	Interest and Sinking Fund.	Total.	
	£	£	£	£
1914-15	896,190	115,145	1,011,335	14,100,000
1915-16	1,718,887	2,059,491	3,778,378	37,423,568
1916-17	2,439,271	5,988,058	8,427,329	53,114,237
1917-18	4,049,955	7,813,296	11,863,251	55,028,180
1918-19	6,536,927	14,718,174	21,255,101	59,547,080
1919-20	8,976,793	15,774,938	24,751,731	43,294,764
1920-21	13,672,345	19,613,888	33,286,233	24,148,501
1921-22	10,261,471	21,075,693	31,337,164	7,576,977
1922-23	9,114,925	20,801,912	29,916,837	1,762,694
1923-24	7,906,994	20,555,063	28,462,057	691,247
1924-25	8,229,628	20,155,426	28,385,054	Cr. 32,051
1925-26	8,473,659	20,539,123	29,012,782	Cr. 7,613
1926-27	8,770,295	20,300,101	29,070,396	23,938
1927-28	8,788,030	20,005,972	28,794,002	Cr. 23,741
1928-29	9,026,381	20,771,652	29,798,033	Cr. 12,972
1929-30	9,517,259	20,213,586	29,730,845	Cr. 2,669
1930-31	10,468,748	18,672,080	29,140,828	Cr. 2,206
1931-32	8,764,848	12,198,565	20,963,413	..
1932-33	7,928,817	11,193,150	19,121,967	..
1933-34	8,064,137	10,966,411	19,030,548	..
1934-35	8,433,372	10,584,489	19,017,861	..
1935-36	8,657,732	9,580,972	18,238,704	..
1936-37	9,101,353	9,622,600	18,723,953	..
1937-38	9,342,462	9,605,838	18,948,300	..
1938-39	9,512,882	9,556,818	19,069,700	..
Discounts and Flotation Expenses on Loans	802,151	..	802,151	5,999,094
Indebtedness to the Government of the United Kingdom for payments made, services rendered, and goods supplied during the war (a) .. .. .	..	..	..	43,398,098
War Gratuities paid in cash	452,295	..	452,295	27,060,912
Total to 30th June, 1939	199,907,807	352,482,441	552,390,248	373,088,038

(a) The total indebtedness to the Government of the United Kingdom involved in the Funding Arrangements Act 1921 was £92,480,157. At 30th June, 1939, the amount outstanding had been reduced to £79,724,221. (b) Excluding expenditure on War Service Homes from 1923-24. (See page 858.)

§ 6. Old-age and Invalid Pensions.

1. **General.**—In previous issues of the Year Book an account was given of the introduction of the old-age pension system in Australia, together with a detailed description of the Commonwealth Invalid and Old-age Pensions Act 1908, which became operative on 1st July, 1909, while invalid pensions were first paid from 15th December, 1910. (See Official Year Books, Nos. 3 to 8.) The following statement shows the rates of pension under the original Act and the rates as they have been varied from time to time:—

RATES OF PENSION PAYABLE.

Date from which Operative.	Pension Payable (Annual Rate.)			Pensioner's Annual Income including pension not to exceed—		
	£	s.	d.	£	s.	d.
1st July, 1909	26	0	0	52	0	0
12th October, 1916	32	10	0	58	10	0
1st January, 1920	39	0	0	65	0	0
13th September, 1923	45	10	0	78	0	0
8th October, 1925	52	0	0	84	10	0
23rd July, 1931	45	10	0	78	0	0
13th October, 1932	45	10	0 (a)	71	10	0
26th October, 1933	45	10	0	78	0	0
4th July, 1935	46	16	0	79	6	0
24th September, 1936	49	8	0	81	18	0
9th September, 1937	52	0	0	84	10	0

(a) Maximum amount of pension payable.

In 1916 an old-age pension of 2s. per week was first paid to pensioners who became inmates of Benevolent Asylums. This amount was increased to 3s. per week in 1923 and extended to pensioners entering hospitals. Further increments in these cases were granted in 1925 and 1928 raising the pension to 4s. and 5s. 6d. per week respectively. The amount was reduced to 5s. per week in 1931 and to 3s. 9d. per week in 1932, but was restored to 5s. per week in 1933, to 5s. 6d. per week in 1936 and to 6s. per week in 1937.

Asiatics, generally, are not eligible to receive an invalid or old-age pension, unless born in Australia, but, by an amending Act which came into operation from 7th October, 1926, pension rights were extended to Indians who were born in British India.

Invalid pensions were granted from 15th December, 1910. An applicant for an invalid pension must satisfy the Department that his or her disability is both total and permanent and became so in Australia. In 1920 special provision was made for a permanently blind person, by which the annual pension was at such a rate (not exceeding that shown in the table above) as would make his income plus that of his wife together with the pension equal to an amount not exceeding £221 per annum, or such other amount as is declared to be the basic wage of the State in which the pensioner resides. The maximum pension now payable to a blind person is £52 per annum and the limit of income is £227 10s. per annum.

The Financial Emergency Act 1932, which operated from 13th October, 1932, materially amended the conditions under which pensions were granted. The maximum rate of pension payable, viz., £45 10s. per annum, was not altered, but this rate was made to apply only to pensioners without other means. Where pensioners were in receipt of other income or were possessed of property (other than their own homes) valued at £60 or over the rates of pension were graduated. Payments to pensioner inmates of

Benevolent Asylums and Hospitals and to these institutions for pensioners' maintenance were reduced to 3s. 9d. and 11s. 3d. per week respectively. The Financial Relief Act 1933 restored from 26th October, 1933, the reductions imposed by the Financial Emergency Act 1932 and the rates and permissible income were placed on the level of those operating from July, 1931. Provision was also made for an annual review of the rate of pension, based on the cost of living index-number; the maximum rate of pension was fixed at £52 per annum and the minimum rate, £45 10s. The rate of payment to Benevolent Asylums and Hospitals for the maintenance of pensioner inmates was increased to 13s. per week from July, 1935.

In September, 1936, an amended scale of cost of living index-numbers was adopted providing for a maximum pension of not more than £52 per annum and not less than £46 16s. per annum. The rate of pension to pensioner inmates of Benevolent Asylums and Hospitals was increased to 5s. 6d. per week and the rate of payment for maintenance to 13s. 6d. per week. In September, 1937, the provision for an annual review of the rate of pension based on the cost of living index-number was repealed. At the same time the rate of pension to inmates of institutions was increased to 6s. per week and the payment for maintenance to 14s. per week.

Further explanation of pension rates and other matters incorporated in the act above referred to are given in the Invalid and Old-age Pensions Handbook issued by the Commissioner of Pensions.

2. **Old-age Pensions.**—(i) *Number in force.* At 30th June, 1938, there were 224,154 old-age pensions in force. During 1938-39, 27,832 pensions claims were granted, while 19,150 pensions expired through cancellations and deaths. The net increase for the year was 8,682, and the total in existence at 30th June, 1939, 232,836.

(ii) *Sexes of Pensioners.* Of the pensioners at 30th June, 1939, 97,139 (or 42 per cent.) were males, and 135,697 (or 58 per cent.) were females. Details for the several States are as follows:—

OLD-AGE PENSIONS : SEXES OF PENSIONERS AT 30th JUNE, 1939.

State.	Males.	Females.	Total.	Masculinity. (a)
New South Wales	37,633	49,792	87,425	75.58
Victoria	26,189	41,707	67,896	62.79
Queensland	13,204	16,399	29,603	80.52
South Australia	8,651	13,457	22,108	64.29
Western Australia	7,359	8,919	16,278	82.51
Tasmania	4,103	5,423	9,526	75.66
Total	97,139	135,697	232,836	71.59

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Condition of Pensioners.* The recorded ages of the 27,832 persons, 12,729 males and 15,103 females, to whom pensions were granted during the year 1938-39 varied considerably, ranging from 5,563 at age 60 to 1 at age 95. The

conjugal condition of these new pensioners was as follows :—Males—single, 2,360; married, 8,151; and widowed, 2,218. Females—single, 2,261; married, 7,664; and widowed, 5,178.

3. **Invalid Pensions.**—(i) *Number in force, 1938–39.* The number of invalid pensioners increased from 86,096 in 1937–38 to 88,812, in 1938–39, an increase of 2,716. In 1938–39, 10,860 claims were allowed and 8,144 became inoperative through cancellations or deaths.

(ii) *Sexes of Pensioners.* Of the 88,812 persons in receipt of invalid pensions on 30th June, 1939, 38,047, or 43 per cent. were males, and 50,765, or 57 per cent. were females. Details for the several States are as follows :—

INVALID PENSIONS : SEXES OF PENSIONERS AT 30th JUNE, 1939.

State.	Males.	Females.	Total.	Masculinity. (a)
New South Wales	17,630	24,257	41,887	72.68
Victoria	8,228	11,243	19,471	73.18
Queensland	5,628	6,442	12,070	87.36
South Australia	2,672	4,077	6,749	65.54
Western Australia	2,301	2,815	5,116	81.74
Tasmania	1,588	1,931	3,519	82.24
Total	38,047	50,765	88,812	74.95

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Conditions of Pensioners, 1938–39.* Whilst recorded ages of the 10,860 persons (5,334 males and 5,526 females) to whom invalid pensions were granted during 1938–39 varied from 16 to 90, 4,619 or 42.5 per cent. were in the 50–59 years age group.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows :—Males—single, 2,183; married, 2,814; and widowed, 337. Females—single, 2,076; married, 2,150; and widowed, 1,300.

4. **Cost of Administration.**—Under State control the cost of administration differed considerably in the several States, and for 1908–9 represented in New South Wales 4.17 per cent. of the amount actually paid in pensions. In Victoria for the same year the corresponding percentage was 0.70. The total cost to the Commonwealth of administering the Old-age and Invalid Pensions Department in 1938–39 was approximately £128,000, or about 0.80 per cent. of the amount paid to pensioners and to Benevolent Asylums and Hospitals. The corresponding cost in 1937–38 was approximately £124,000 or about 0.78 per cent. of the total payments.

The actual sum disbursed in old-age and invalid pensions in the financial year 1938–39, apart from the cost of administration and inclusive of the amount paid to asylums and hospitals for the maintenance of pensioners, was £15,991,782 (46s. 2d. per head) and in 1937–38, £15,798,687 (46s. per head).

5. **Summary.**—The following table gives details concerning the working of the Act for the last six years :—

OLD-AGE AND INVALID PENSIONS: SUMMARY, AUSTRALIA.

Year ended 30th June—	Number of Pensioners.				Amount Paid in Pensions.	Total Payment to Pensioners and to Asylums and Hospitals for Maintenance of Pensioners.	Cost of Administration.	Cost of Administration per £100 paid to Pensioners and to Asylums and Hospitals.	Average Fortnightly Pension on last day of Financial Year.
	Old-age.		Invalid.	Total.					
	No.	Est. No. per 1,000 of persons eligible on age qualification. (a)							
1934	187,453	337	73,212	260,665	10,836,263	10,963,090	105,308	19 3	33 8
1935	197,126	344	76,852	273,978	11,624,769	11,762,030	107,268	18 3	33 7
1936	206,748	352	80,487	287,235	12,634,706	12,797,726	115,257	18 0	34 8
1937	215,690	361	83,396	299,086	13,827,636	13,998,793	118,851	17 0	36 8
1938	224,154	372	86,096	310,250	15,615,428	15,798,687	124,000	15 8	38 6
1939	232,836	376	88,812	321,648	15,798,038	15,991,782	128,000	16 0	38 5

(a) Based on an estimate of the number of old-age pensioners per 1,000 of the aggregate of males aged 65 and over and females aged 60 and over at 30th June of each year. (b) Approximate. (c) A general increase of 1s. per fortnight occurred in July, 1935. (d) A general increase of 2s. per fortnight occurred in September, 1936. (e) A general increase of 2s. per fortnight occurred in September, 1937.

Separate particulars of the payments to Invalid and to Old-age pensioners are not available but the annual liability at 30th June, 1939, together with the total payments in 1938-39 are given hereunder:—

INVALID AND OLD-AGE PENSIONS: PAYMENTS AND ANNUAL LIABILITY.

State.	Payments Old-age and Invalid Pensions, 1938-39. (a)	Annual Liability at 30th June, 1939.		
		Old-age Pensions.	Invalid Pensions.	Total.
		£	£	£
New South Wales (b)	6,414,899	4,375,852	2,110,238	6,486,090
Victoria	4,361,747	3,389,750	983,216	4,372,966
Queensland	2,082,818	1,476,358	611,286	2,087,644
South Australia (c)	1,418,191	1,078,610	339,508	1,418,118
Western Australia	1,062,015	805,740	258,076	1,063,816
Tasmania	652,112	472,758	177,528	650,286
Total	15,991,782	11,599,068	4,479,852	16,078,920

(a) Including amounts paid to Benevolent Asylums and Hospitals for the maintenance of pensioners. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

§ 7. Maternity Allowance.

1. General.—During the session of 1912 the Federal Parliament passed an Act providing for the payment of maternity allowances. The scope and main provisions of the Act are given in Year Book No. 14, p. 1047. The most important conditions in the original Act were that the sum of five pounds was payable in the case of each confinement resulting in the birth of a viable child whether such child was born alive or dead. The mother must be a native of Australia or intend to settle permanently therein. No payment is made in the case of an aboriginal or an alien. The Financial Emergency Act 1931 reduced the allowance payable to £4 and limited the application of the original Act to those cases where the combined income of husband and wife did not exceed £260 (reduced to £208 by the Financial Emergency Act 1932) in the previous 12 months.

From 1st August, 1934, the limit of income was increased by £13 per annum in respect of each previous child of the claimant under the age of 14 years living at the date

of the birth, with a maximum income limit of £299. The amount of the allowance was also increased from £4 by 5s. in respect of each such child up to a maximum of £5.

On the 21st September, 1936, the limit of income was increased from £208 to £221 with an allowance of £13 per annum in respect of each previous surviving child under 14 years of age up to a maximum income of £312. The amount of maternity allowance was also increased to £4 10s. in cases where there was no previous surviving issue under 14 years of age and £5 where there was any such issue. In respect of births occurring on and after 1st January, 1938, the income limit is £247, with an additional £13 in respect of each previous living child under 14, the maximum being £338. The amount of the allowance is £4 10s. where there is no previous living child under 14, £5 where there are one or two previous living children under 14 and £7 10s. where there are three or more such children.

The following table gives a summary in connexion with the working of the Maternity Allowance Act for the years 1934-35 to 1938-39:—

MATERNITY ALLOWANCE : SUMMARY.

Year.	Claims Paid.	Claims Rejected.	Amount Paid.	Cost of Administration.	Cost per £100 of allowance paid.
	No.	No.	£	£	£ s. d.
1934-35 ..	76,442	5,866	329,321	(a) 12,000	(a) 3 12 11
1935-36 ..	76,953	5,459	335,552	(a) 12,200	(a) 3 12 9
1936-37 ..	79,254	5,843	370,150	(a) 12,150	(a) 3 5 8
1937-38 ..	79,000	5,931	400,004	(a) 15,671	(a) 3 18 4
1938-39 ..	80,916	6,272	436,614	(a) 16,959	(a) 3 17 8
Aggregate— 1912-13 to 1938-39 ..	3,116,542	60,828	15,250,857	(a) 372,705	(a) 2 8 11

(a) Approximate.

2. Claims paid in each State.—The following table shows the number of maternity allowance claims paid in each State during the last five years:—

MATERNITY ALLOWANCE : CLAIMS PAID IN EACH STATE.

Year ended 30th June.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1935	30,354	19,940	10,940	6,409	5,035	3,725	39	76,442
1936	30,463	19,672	11,640	6,613	4,850	3,689	26	76,953
1937	31,086	20,350	12,170	6,854	4,731	4,018	45	79,254
1938	30,440	20,160	12,660	6,656	5,026	4,029	29	79,000
1939	30,860	20,819	12,880	7,162	5,213	3,940	42	80,916
Total, 1912-13 to 1938-39 ..	1,239,246	814,284	460,852	270,920	197,831	132,381	1,028	3,116,542

§ 8. Commonwealth Public Service Superannuation Fund.

This Fund, which was inaugurated on the 20th November, 1922, is maintained by contributions of officers of Parliament, of employees of the Commonwealth Public Service and the Defence Department, and by payments from the Consolidated Revenue, the latter being made when the officers retire on pension. In September, 1937, legislation was passed extending superannuation rights to approximately 1,600 employees of the Repatriation Commission, the War Service Homes, the High Commissioner's Office, London, and the Council for Scientific and Industrial Research. Full particulars as to the benefits, etc., will be found in Official Year Book No. 18, page 383.

The number of contributors to the fund at 30th June, 1938, was 36,480, viz., 32,172 males and 4,308 females, and the average pension contributed for was 4.64 units or £120 2s. 10d. per annum.

During 1937-38 the receipts of the fund amounted to £755,053 of which officers' contributions represented £487,358 and interest on investments, £267,695. The payments from the fund for the year were £721,623 of which £471,489 was invested, bringing the total funds invested to £6,615,024 (at cost). The average rate of interest on investments at 30th June, 1938, was £4 6s. 3d. per cent.

Pensions in force on the 30th June, 1938, numbered 6,282, excluding commuted pensions, with a net annual liability of £568,905, of which £436,155 represented the share payable from the Consolidated Revenue Fund.

Contributions from the Commonwealth Consolidated Revenue to the fund were reduced by 20 per cent. from July, 1931 under the Financial Emergency Act 1931, and as the Government contribution in respect of any officer does not commence until he is superannuated, the reduced contribution affected all pensioners. The investments of the fund were subject to the interest reduction of approximately 22½ per cent., as provided in the above mentioned Act. The Financial Relief Act 1933 provided for the restoration of full pensions from the 21st October, 1933.

§ 9. Currency and Coinage.

1. **Australian Mints.**—Soon after the discovery of gold in Australia a branch of the Royal Mint was established in Sydney. The formal opening took place on the 14th May, 1855. The Melbourne branch was opened on the 12th June, 1872, and the Perth branch on the 20th June, 1899. The States of New South Wales, Victoria and Western Australia provided an annual endowment in return for which the mint receipts were paid into the respective State Treasuries, and it might be said until recently that, apart from expenditure on buildings, new machinery, etc., the amounts paid into the Treasuries fairly balanced the mint subsidies. Early in 1923, however, it was announced that owing to losses incurred in the operations of recent years, the British Treasury in consultation with the New South Wales Government had decided to close the Sydney branch at the end of 1923. This decision was, however, not carried out until the end of 1926.

2. **Standard Weight and Fineness of Coinage.**—In addition to coins minted at Melbourne and Perth mints, Imperial silver coins legally current in England and which were minted prior to 31st March, 1920, when the fineness was reduced from .925 to .500 are also legal tender in Australia where the fineness of silver coin is .925. The circulation of Imperial silver currency in Australia has practically ceased, as the ruling exchange rate has made it profitable to transfer to London all coins legally current there. Sovereigns coined at the Royal Mint, London, or at any of its branches throughout the Empire are legal tender in Australia. The provisions as to legal tender are—gold coins, legal tender to any amount, silver for an amount not exceeding forty shillings, and bronze up to one shilling. The standard weights of the sovereign and half-sovereign are respectively 123.27447 grains and 61.63723 grains, but these coins will pass current if they do not fall below 122.5 grains and 61.125 grains respectively. Gold coins have ceased to circulate in Australia and Commonwealth Bank Notes are legal tender to any amount.

3. **Gold Receipts and Issues.**—(i) *Receipts.* The receipts of gold during 1938 and the aggregate at each mint to the end of 1938 were as follows:—

AUSTRALIAN MINTS: RECEIPTS OF GOLD, 1938, AND TOTAL.

Mint.	Deposits during 1938.	Total to end of 1938.		
		Quantity.		Value.
		Gross.	Fine.	
	ozs.	ozs.	ozs.	£
Sydney ..	..	(a) 42,082,928	(a) 36,907,045	(a) 156,771,141
Melbourne ..	397,462	44,467,632	40,170,736	170,634,329
Perth ..	1,415,473	40,674,240	33,064,979	140,451,011
Total ..	1,812,935	127,224,800	110,142,760	467,856,481

(a) To end of 1926.

In cases of deposits containing over a certain minimum of silver, the excess is paid for at the rate fixed from time to time by the Deputy-Master of the branch mint concerned.

(ii) *Issues.* The Australian mints, besides issuing gold coin in the shape of sovereigns and half-sovereigns, also issue gold bullion, partly for the use of local manufacturers (jewellers and dentists), and partly for export. Since September, 1931, when the United Kingdom departed from the gold standard, the minting of gold coins by Australian mints has ceased. Australian exports of gold are mainly in the form of 400-oz. ingots, but in earlier years a considerable amount of gold was shipped in 10-oz. bars to India. During recent years the export was subject to regulation by the Commonwealth Government. The issues during 1938, and the total to the end of that year, are shown in the table below:—

AUSTRALIAN MINTS: ISSUES OF GOLD.

Mint.	Coin.			Bullion.	Total.
	Sovereigns.	Half-sovereigns.	Total.		
1938—	£	£	£	£	£
Melbourne ..	..	..	..	1,158,169	1,158,169
Perth ..	..	..	..	4,497,714	4,497,714
Total, 1938	..	..	..	5,655,883	5,655,883
Aggregate—					
Sydney ..	144,435,550	4,781,000	149,216,550	7,574,408	156,790,958
Melbourne ..	147,283,131	946,780	148,229,911	22,399,711	170,629,622
Perth ..	106,384,197	367,338	106,751,535	33,705,204	140,456,739
Total to end of 1938 ..	398,102,878	6,095,118	404,197,996	63,679,323	467,877,319

(iii) *Withdrawals of Worn Coin.* The mints receive light and worn coin for recoinage. The total withdrawals of worn gold coin to the end of 1938 were as follows:—Sydney (to 1926), £1,110,867; Melbourne, £882,304 (since and including 1890); and Perth, £1,401.

4. *Price of Gold.*—In consequence of Great Britain's departure from the gold standard on 21st September, 1931, the market value of gold immediately rose by about 17½ per cent. from £4 4s. 11d. to £4 19s. 7d. per ounce fine. Considerable fluctuations have since taken place, and the average value of gold based on the London open market price per ounce fine adjusted to the telegraphic transfer exchange rate (Australia on London) less a small percentage for shipping charges is given in the following table in £ Sterling and £ Australian for each year from 1931 to 1938 and for each month from January, 1936 to September, 1939. Particulars are also shown for the value of the sovereign.

PRICE OF GOLD: LONDON AND AUSTRALIA, 1931 to 1939.

Month.	London.				Australia.		
	Average price per ounce, fine.		Average value of Sovereign.		Average price per ounce, fine.		Average value of Sovereign.	Equivalent to a premium of—
Average for Year—	£s	s. d.	£s	s. d.	£A	s. d.	%
1931 ..	4 12	5	1 1	9	5 17	6	38.3
1932 ..	5 18	0	1 7	9	7 5	8	71.5
1933 ..	6 4	11	1 9	5	7 14	2	81.4
1934 ..	6 17	8	1 12	5	8 9	11	100.0
1935 ..	7 2	1	1 13	5	8 15	5	106.5
1936 ..	7 0	3	1 13	0	8 13	2	103.8
1937 ..	7 0	9	1 13	2	8 13	9	104.7
1938 ..	7 2	7	1 13	7	8 16	0	106.8
Average for Month—							
1936—							
January ..	7 0	11	1 13	2	8 13	11	104.7
February ..	7 0	11	1 13	2	8 13	11	104.7
March ..	7 1	0	1 13	2	8 14	0	104.8
April ..	7 0	10	1 13	2	8 13	10	104.6
May ..	7 0	1	1 13	0	8 12	11	103.5
June ..	6 18	8	1 12	8	8 11	2	101.5
July ..	6 18	11	1 12	8	8 11	5	101.8
August ..	6 18	4	1 12	7	8 10	9	101.0
September ..	6 18	0	1 12	6	8 10	4	100.5
October ..	7 1	11	1 13	5	8 15	2	106.2
November ..	7 2	3	1 13	6	8 15	7	106.7
December ..	7 1	8	1 13	4	8 14	11	105.9
1937—							
January ..	7 1	8	1 13	4	8 14	11	105.9
February ..	7 2	1	1 13	5	8 15	5	106.5
March ..	7 2	4	1 13	6	8 15	8	106.8
April ..	7 1	4	1 13	3	8 14	5	105.3
May ..	7 0	7	1 13	1	8 13	7	104.3
June ..	7 0	7	1 13	1	8 13	6	104.2
July ..	7 0	0	1 13	0	8 12	10	103.5
August ..	6 19	6	1 12	10	8 12	3	102.7
September ..	7 0	4	1 13	1	8 13	3	103.9
October ..	7 0	6	1 13	1	8 13	5	104.2
November ..	7 0	2	1 13	0	8 13	0	103.9
December ..	6 19	9	1 12	11	8 12	7	102.7
1938—							
January ..	6 19	8	1 12	10	8 12	4	102.7
February ..	6 19	9	1 12	11	8 12	6	102.7
March ..	6 19	11	1 12	11	8 12	8	103.5
April ..	6 19	9	1 12	11	8 12	6	102.7
May ..	7 0	1	1 13	0	8 12	11	103.5
June ..	7 0	9	1 13	2	8 13	8	104.3
July ..	7 1	3	1 13	3	8 14	4	104.8
August ..	7 2	6	1 13	6	8 15	10	106.8
September ..	7 4	5	1 14	0	8 18	4	110.0
October ..	7 5	9	1 14	4	8 19	11	111.7
November ..	7 7	8	1 14	9	9 2	3	114.6
December ..	7 8	11	1 15	1	9 3	9	116.3
1939—							
January ..	7 8	11	1 15	1	9 3	10	116.3
February ..	7 8	4	1 14	11	9 3	2	115.4
March ..	7 8	5	1 14	11	9 3	2	115.8
April ..	7 8	6	1 15	0	9 3	4	115.8
May ..	7 8	6	1 14	11	9 3	3	115.8
June ..	7 8	6	1 14	11	9 3	3	115.8
July ..	7 8	6	1 15	0	9 3	4	115.8
August ..	7 10	6	1 15	0	9 5	8	118.3
September ..	8 7	7	1 15	5	10 6	11	143.3

NOTE.—“£s” represents £s sterling while Australian £s are indicated by “£A”.

5. *Silver and Bronze Coinage.*—(i) *Prices of Silver.* The value of silver has greatly decreased since its demonetization and restricted coinage in almost the whole of Europe. A noticeable increase, however, took place for some years after 1915, the price of silver following the general trend of world prices. Its average price in the London market in recent years is shown in § 4 par. 5 of Chapter XVII. "Mineral Industry."

(ii) *Profits on Coinage of Silver.* As sixty-six shillings are coined out of one pound troy of standard silver (.925 fine), the silver required to produce £3 6s. of coin costs, at the average 1937 London market price of 1s. 8. rd. per ounce, approximately 20s. 1d. The difference nearly represents, therefore, the gross profit or seigniorage made on the coinage of every £3 6s. Negotiations for the coinage of silver and bronze coin in Australia extended over a number of years between the Imperial authorities and the Governments of New South Wales and Victoria, but no decision was arrived at. As section 51 of the Commonwealth Constitution makes legislation concerning "currency, coinage, and legal tender" a Commonwealth matter, the question remained in abeyance until 1907, when the matter was discussed at the Colonial Conference, London, with the result that in the latter part of 1908 the Commonwealth Treasurer announced his intention of initiating the coinage. Since 1916 silver and bronze coins have been minted in Australia on behalf of the Commonwealth Treasury. It is interesting to record that an issue of crowns was made in 1936-37 when coins of this denomination to the value of £200,000 were put into circulation. Further issues to the value of £50,000 in 1937-38, and £25,000 in 1938-39 have been minted. These coins have now practically disappeared from circulation.

(iii) *Silver and Bronze Issues.* The total issues of silver and bronze coinage on account of the Commonwealth since 1910, as obtained from returns furnished by the Treasury, are set out in the following table:—

AUSTRALIAN MINTS: SILVER AND BRONZE ISSUES BY TREASURY.

Year.	Silver.						Bronze.		
	5/-.	2/-.	1/-.	6d.	3d.	Total.	1d.	½d.	Total.
	£	£	£	£	£	£	£	£	£
1910 to 1931 ..	..	3,647,000	1,818,300	854,300	817,900	7,137,500	321,563	111,715	433,278
1931-32 ..	..	257,600	19,000	7,200	5,200	289,000	11,600	6,270	17,870
1932-33 ..	..	23,400	9,200	5,200	6,600	44,400	13,470	8,140	21,610
1933-34 ..	..	81,400	29,200	23,800	24,200	158,600	21,890	7,500	29,390
1934-35 ..	..	140,400	24,200	24,000	29,800	218,400	17,390	6,770	24,160
1935-36 ..	..	167,500	34,400	46,800	49,400	298,100	23,920	8,050	31,970
1936-37 ..	200,000	208,600	13,000	47,000	39,200	507,800	17,180	6,190	23,370
1937-38 ..	50,000	365,000	93,600	59,700	65,200	633,500	26,770	7,130	33,900
1938-39 ..	25,000	77,400	30,000	47,800	39,400	219,600	30,660	11,140	41,800
Total ..	275,000	4,968,300	2,070,900	1,115,800	1,076,900	9,506,900	484,443	172,905	657,348

(iv) *Withdrawals of Worn Silver Coin.* An examination of the wear on silver coins made by the London Mint Authorities in 1909 revealed that the average life of silver coins (then .925 fine) was:—2s. pieces, 45 years; 1s., 41 years; 6d., 28 years; and 3d., 32 years. The value of worn silver coins received during 1938 was as follows:—Melbourne, nil; Perth, nil. The total withdrawals of worn silver coin to 1938 were:—Melbourne, £1,747,409; Perth, £129,738; Sydney (to 1926), £1,248,672.

6. *Australian Note Issue.*—(i) *General.* Information in some detail regarding Australian Notes has been given in earlier issues of this work. In December, 1920, the assets and liabilities of the Treasurer under the Australian Notes Act 1910-1914 were transferred to the Note Issue Department of the Commonwealth Bank and control of the Australian Note Issue was placed under the Board of Directors of this Department. Under the Commonwealth Bank Act 1924 control of the Note Issue passed to the Board of Directors of the Commonwealth Bank.

(ii) *Reserve against Note Issue.* Prior to 19th June, 1931, the reserve held in gold against the note issue was fixed at 25 per cent. of the total notes in circulation. To permit further shipments of gold to meet short-term obligations in London, an Amending

Act reduced the statutory gold reserve to 15 per cent. with provision for the restoration by graduations to 25 per cent. within a period not exceeding five years. A further Amending Act provided that portion of the note issue reserve may be held in British sterling, which was defined as follows:—(a) Balances standing to the credit of the Bank at the Bank of England or at any other of its Bankers in London; (b) Bills of Exchange or advances secured thereby which will mature in not more than three months and which are payable in the United Kingdom in currency which is legal tender therein; and (c) Treasury Bills or other securities of the United Kingdom which will mature in not more than three months.

(iii) *Notes in Circulation.* Particulars of the average notes in circulation and of the gold reserve for the years 1914 and 1934 to 1938 are given in the following table:—

AUSTRALIAN NOTE ISSUE: PARTICULARS.

Particulars.	Average of monthly statements for year—					
	1914.	1934.	1935.	1936.	1937.	1938.
Notes held by—	£	£	£	£	£	£
Banks ..	(a)	21,198,854	20,119,208	18,465,121	17,194,775	16,700,228
Public ..	(a)	25,872,512	27,449,147	28,972,667	31,008,466	32,706,922
Total ..		11,944,848	47,071,366	47,568,355	47,437,788	48,203,241
Gold Reserve (b)	5,368,822	15,524,204	15,922,404	16,001,182	16,009,963	16,008,892
Percentage of Reserve on Total Issue ..	%	%	%	%	%	%
	44.9	33.0	33.5	33.7	33.2	32.4

(a) Not available. (b) Includes English sterling in 1934 and following years. (c) Average of published figures including values expressed in £'s gold, £'s sterling and £'s Australian. (d) £'s Australian.

Details of the average value of each of the several denominations of Australian Notes outstanding in 1914 and from 1934 to 1938 are given in *Finance Bulletin* No. 30 issued by this Bureau.

(iv) *Note Issue Department—Australian Notes Account at 30th June, 1939.* The following statement shows particulars of liabilities and assets of the Note Issue Department of the Commonwealth Bank as at 30th June, 1939.

AUSTRALIAN NOTES ACCOUNT: 30th JUNE, 1939.

Liabilities.		Assets.	
	£		£
Notes in circulation ..	47,525,215	Gold and English sterling ..	16,029,604
Reserve for Notes not presented ..	28,212	Debentures and other Securities ..	40,503,928
Special Reserve premium on gold ..	7,752,901	Other Assets (Commonwealth Government) ..	100,061
Other Liabilities ..	1,327,265		
Total Liabilities ..	56,633,593	Total Assets ..	56,633,593

7. **Legal Tender Extant.**—Accurate information regarding the amount of token money in circulation is not available, but the following table gives an estimate of the amount of legal tender extant about the middle of the years 1934 to 1938.

ESTIMATE LEGAL TENDER EXTANT: AUSTRALIA.

Particulars.	1934.	1935.	1936.	1937.	1938.
Australian Note Issue (a)—	£'000.	£'000.	£'000.	£'000.	£'000.
Held by Banks	21,284	20,202	18,253	17,537	17,630
Held by Public	25,017	26,848	28,792	29,502	31,404
Notes of Trading Banks outstanding (b)	174	169	167	167	167
Coin—Gold—Held by Banks (c) ..	20	23	51	62	48
Held by Public .. .. .	..	..	..	..	..
Silver—Held by Banks (c) ..	2,007	1,932	2,099	2,325	2,601
Held by Public	5,482	5,761	5,943	6,160	6,515
Bronze—Held by Banks (c) ..	109	106	113	118	117
Held by Public	389	420	441	460	499
Total	54,482	55,461	55,859	56,331	58,981

(a) Last Monday in June.

(b) Average for June quarter.

(c) At 30th June.

The figures given above for silver coin represent the total issues of Australian silver coin less the excess of exports of Australian coins to New Zealand and the Pacific Islands over the re-imports of Australian coins. The amount of English coin in circulation in Australia is negligible, and as it is not possible to ascertain accurately its volume, no allowance has been made therefor. The figures given for bronze coins refer to the total issues of Australian coin, the small amount of British coin in circulation being disregarded.

C.—STATE FINANCE.

§ 1. General.

1. **Functions of State Governments.**—In comparing the financial returns of the States, allowance must be made for the various functions discharged by the respective Governments, and for local conditions in each case. Direct comparisons of the revenue, expenditure and debt of the individual States are difficult, owing to the fact that functions which in one State are assumed by the Central Government are in another relegated to municipal or semi-governmental bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the Central Government. Care, therefore, is needed in instituting comparisons, and the particulars contained in this Chapter should be read with those contained in the Chapter dealing with Local Government. In many respects, moreover, the budgets of the Australian Governments differ materially from those of most European countries, owing to the inclusion therein of the revenue and expenditure of departments concerned in rendering public services, such for instance as railways, tramways, water supply, etc., which in other countries are often left to private enterprise.

2. **Accounts of State Governments.**—The various financial transactions of the States are in each case mainly concerned with one or other of three Funds—the “Consolidated Revenue Fund,” the “Trust Fund,” and the “Loan Fund.” All revenue (except certain taxation items paid into special funds) collected by the State is placed to the credit of its Consolidated Revenue Fund, from which payments are made under the authority of an Annual Appropriation Act passed by the Legislature, or by a permanent appropriation under a Special Act. In the previous issue, the tables relating to the Revenue and Expenditure of New South Wales and Victoria were prepared on a different basis from that used prior to 1936-37, when particulars were included of certain moneys not brought into the Consolidated Revenue Fund, viz. :—Railways, Tramways, Omnibuses,

Sydney Harbour Trust, Metropolitan Water Sewerage and Drainage Board, Hunter District Water Supply and Sewerage Board and Motor Taxation in the case of New South Wales; and Country Roads Board, Licensing, Police Superannuation, Assurance, Cattle Compensation, Swine Compensation, Metropolitan Roads and Milk Board Funds in the case of Victoria. Adjustments were made in respect of payments to the Railway Departments from Consolidated Revenue Fund on account of losses by the Railways on Country Development Railways in New South Wales and on account of non-paying lines and of reduced freight charges in Victoria. In this issue and the previous one the figures relating to New South Wales represent the Government transactions and Business Undertakings included in the Annual Budget Papers. In respect of 1936-37 and 1937-38 these latter were as follows:—Railways, Tramways and Omnibuses, Sydney Harbour Trust Section of the Maritime Services Board, Hunter District Water Supply and Sewerage Board, and Road Transport and Traffic Fund. From 1st July, 1938, the Hunter District Water Supply and Sewerage Board received financial autonomy. Consequently, figures relating to its operations are excluded from the tables for 1938-39. Particulars relating to Victoria are now restricted to the transactions of the Consolidated Revenue Fund. No adjustment has been made in respect of those transactions between the Consolidated Revenue Fund and Railways Departments referred to above, nor have alterations been made in the case of other States, the figures for which have always related to the Consolidated Revenue Fund. The Trust Fund comprises all moneys held in trust by the Government, and includes such items as savings banks funds, sinking funds, insurance companies' deposits, etc. The Loan Fund is debited with all loan moneys raised by the State, and credited with the expenditure therefrom on public works or other purposes.

3. *Inter-relation of Commonwealth and State Finances.*—In regard to the inter-relation of Commonwealth and State Finances, a statement in some detail, covering the period from the inception of Federation to the passing of the Financial Agreement Act 1928, was published in Official Year Book, No. 22, pages 379-80. On pages 853 and 854 of this issue details are given in regard to the constitutional and other requirements in the matter of the distribution of Commonwealth revenues.

§ 2. Consolidated Revenue Funds.

Division I.—Revenue.

1. *General.*—The principal sources of State revenue are:—

- (a) Taxation; (b) The business undertakings controlled by the State Governments; (c) Sale of and rental from Crown lands; (d) Payments by Commonwealth Government under the Financial Agreement and Special Grants Acts; (e) Interest on advances; and (f) Miscellaneous sources, comprising fines, fees, etc.

Of these sources, that yielding the largest revenue for the States as a whole is the group of Business Undertakings, the principal contributor being the Government Railways and Tramways. Next in magnitude comes Taxation, followed in order by the Commonwealth Payments and Interest Receipts.

The Queensland Income (Unemployment Relief) Tax Act, 1930 to 1935, which provided that taxes collected for unemployment relief should be paid into a special fund, was repealed by the Income (State Development) Tax Act of 1938, which came into operation on 1st January, 1939. Under the conditions of the new Act, taxes collected are paid into Consolidated Revenue Fund. The inclusion of these taxes is largely responsible for the increase of Queensland 1938-39 revenue figures over those for 1937-38. The expenditure of the amounts so collected is responsible for a similar increase in the expenditure figures.

2. Revenue Received.—The following table furnishes particulars of the total amounts and the amounts per head, of consolidated revenue received by the several States during the last five years :—

STATE CONSOLIDATED REVENUE.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL COLLECTIONS.							
	£	£	£	£	£	£	£
1934-35	43,561,341	25,311,036	15,280,022	11,001,578	9,331,430	2,872,148	107,357,555
1935-36	46,512,208	26,038,340	15,488,991	11,409,325	10,033,721	3,117,602	112,600,187
1936-37	49,959,085	27,221,267	16,535,038	11,739,306	10,185,433	3,488,524	119,128,653
1937-38	54,345,715	27,614,982	17,339,731	12,460,936	10,819,042	3,639,755	126,220,161
1938-39	52,509,735	26,985,548	19,330,369	12,303,597	10,949,660	3,614,764	125,693,673
PER HEAD OF POPULATION.(b)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35	16 10 9	13 15 8	15 18 1	18 16 8	21 1 2	12 10 8	16 1 10
1935-36	17 10 2	14 2 7	15 18 8	19 9 3	22 8 1	13 10 8	16 14 4
1936-37	18 12 9	14 13 11	16 16 0	19 19 1	22 10 10	15 0 6	17 10 11
1937-38	20 1 4	14 16 10	17 8 6	21 1 8	23 13 6	15 9 9	18 8 8
1938-39	19 4 2	14 7 10	19 4 0	20 14 0	23 13 4	15 5 2	18 3 10

(a) See C. § 1 par. 2 ante.
par. 1 above.

(b) Based on mean population of each financial year.

(c) See

3. Sources of Revenue.—(i) General. Classifying the revenue of the several States in the manner indicated in par. 1 ante, particulars for the year 1938-39 are as follows :—

STATE CONSOLIDATED REVENUE : SOURCES, 1938-39.

Particulars.	N.S.W. (a)	Victoria. (a)	Q'land. (f)	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL REVENUE.							
	£	£	£	£	£	£	£
Taxation (c) ..	17,500,241	10,085,042	6,573,168	4,116,086	2,897,422	1,778,718	42,950,677
Business Under-							
takings ..	26,087,673	11,648,592	7,642,108	4,957,289	5,632,863	511,000	56,479,525
Territorial ..	1,656,888	387,152	1,513,007	200,539	316,772	69,257	4,143,615
Commonwealth pay-							
ments (b) ..	3,012,671	2,127,159	1,096,235	1,623,816	1,043,432	676,859	9,580,172
Interest ..	470,420	1,881,290	1,002,390	905,863	422,506	356,120	5,038,589
Miscellaneous ..	3,781,842	856,313	1,503,461	500,004	636,665	222,810	7,501,095
Total ..	52,509,735	26,985,548	19,330,369	12,303,597	10,949,660	3,614,764	125,693,673
PER HEAD OF POPULATION.(e)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Taxation (c) ..	6 8 0	5 7 7	6 10 7	6 18 6	6 5 3	7 10 2	6 4 4
Business Under-							
takings ..	9 10 10	6 4 3	7 11 10	8 6 10	12 3 6	2 3 2	8 3 6
Territorial ..	0 12 1	0 4 2	1 10 1	0 6 9	0 13 8	0 6 0	0 12 0
Commonwealth pay-							
ments (b) ..	1 2 0	1 2 8	1 1 9	2 14 8	2 5 1	2 17 2	1 7 9
Interest ..	0 3 5	1 0 1	0 19 11	1 10 6	0 18 3	1 10 1	0 14 7
Miscellaneous ..	1 7 8	0 9 2	1 9 10	0 16 10	1 7 6	0 18 10	1 1 9
Total ..	19 4 2	14 7 10	19 4 0	20 14 0	23 13 4	15 5 2	18 3 10

(a) See C. § 1 par. 2 ante.

(b) Including special grants.

(c) In some States certain taxation

collections are not paid into Consolidated Revenue Fund. For total collections see next page.

(d) Includes £800,000 paid to Railways Commissioners from Consolidated Revenue in respect of losses on country developmental railways and £64,756 recoup of freights' craneage charges remitted under Coal Settlement Agreement.

(e) Based on mean population of the financial year.

(f) See C. § 2.

par. 1 ante.

In connexion with the item Business Undertakings, it should be borne in mind that services performed by the Government in one State may, in another, be carried out by a Board or Trust. For instance, in New South Wales and Western Australia the tramway systems are controlled by the Government, while in the other States ownership is largely vested in Trusts or private companies. Harbour and river services and water supply and sewerage are also controlled in some cases by the State and in others by Trusts.

The magnitude of the revenue per head from Business Undertakings in the case of Western Australia is mainly due to railways, the mileage of which is greater per head of population than in other States. In New South Wales and Western Australia the revenue from tramways is also included.

(ii) *Revenue from Taxation.*—(a) *General.* Owing to different methods of treating motor taxation in the respective Treasurers' Statements of Accounts, particulars of State taxation collections have not always been directly comparable. The following table shows for the year 1938-39 particulars of all State taxation collections irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason the particulars hereunder are different from those stated in the tables relating to the Consolidated Revenue Funds, but represent a comprehensive statement of all taxation collections in each State. In this and the succeeding statements of taxation the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under "Racing Taxation" instead of under "Stamp Duties" and "Licences" respectively :—

STATE REVENUE FROM TAXATION : TOTAL COLLECTIONS, 1938-39.

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total, All States.
TOTAL COLLECTIONS.							
	£	£	£	£	£	£	£
Probate and Succession Duties	2,364,124	1,374,355	677,037	366,526	123,798	94,669	5,000,509
Other Stamp Duties	1,286,124	959,727	610,110	249,729	274,995	84,832	3,465,517
Land	2,154	482,336	401,682	321,482	115,229	85,069	1,407,952
Income and Dividend	6,339,215	4,370,656	3,157,249	2,102,928	(f)880,300	429,623	17,279,971
Other taxes on Income—							
Unemployment Relief	(a)	1,879,852	91,118,603	(a)	(a)	(a)	2,998,455
Special Income and Wages	6,363,935	..	..	..	..	357,773	6,721,708
Financial Emergency	..	..	..	..	1,214,695	..	1,214,695
Other	(d) 5,584	..	11,332,751	..	(e) 264,072	..	1,602,407
Liquor	569,562	254,640	85,422	33,720	77,071	24,594	1,045,009
Lotteries	..	..	93,750	..	..	6 437,652	531,402
Racing	359,709	390,487	93,476	297,262	80,870	39,428	1,252,232
Motor	2,762,078	1,913,689	939,757	715,944	(c) 453,053	175,591	6,960,712
Entertainments	146,412	286,034	..	73,311	91,381	34,360	633,498
Licences, N.E.I.	72,422	90,719	136,616	28,470	16,902	15,127	415,325
Other	..	20,745	..	7,692	26,632	..	..
Total	20,262,919	12,023,240	8,646,453	4,199,064	3,618,998	1,778,718	50,529,392

(a) No special Unemployment Relief Tax collected. See par. (f) *Other taxes on Income* following.
 (b) Includes Income Tax on Lotteries, £286,875 (£1 4s. 3d. per head).
 (c) Includes amounts collected by local government bodies outside metropolitan area, £212,913 (qs. 2d. per head).
 (d) Family Endowment.
 (e) Hospital.
 (f) Includes Gold Mining Profits Tax, £135,740 (5s. 10d. per head).
 (g) See C. § 2. par. 1 *ante*. (h) State Development Tax.

The table hereunder shows the percentages of collections under individual taxes on the total taxation revenue for the year 1938-39 :—

STATE REVENUE FROM TAXATION: PERCENTAGES ON TOTAL, 1938-39.

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	%	%	%	%	%	%	%
Probate and Succession Duties	11.67	11.43	7.83	8.73	3.42	5.32	9.90
Other Stamp Duties	6.35	7.98	7.06	5.95	7.60	4.77	6.86
Land	0.01	4.01	4.65	7.65	3.18	4.78	2.79
Income and Dividend	31.28	36.36	36.51	50.08	24.33	24.16	34.20
Other taxes on Income—							
Unemployment Relief		15.64	12.94	..	..	..	5.93
Special Income and Wages	31.41	..	..	..	..	20.11	13.30
Financial Emergency	..	..	..	..	33.56	..	2.40
Other	0.03	..	15.41	..	7.30	..	3.17
Liquor	2.81	2.12	0.99	0.81	2.13	1.38	2.07
Lotteries	..	..	1.08	..	..	24.61	1.05
Racing	1.73	3.25	1.08	7.08	2.23	2.22	2.48
Motor	13.63	15.91	10.87	17.05	12.52	9.87	13.77
Entertainments	0.72	2.38	..	1.79	2.52	1.93	1.26
Licences, N.E.J.	0.36	0.75	1.58	0.68	0.47	0.85	..
Other	..	0.17	..	0.18	0.74	..	0.82
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Prior to Federation duties of Customs and Excise constituted the principal source of revenue from taxation. At present the most productive State taxes are the various Income Taxes, which include Unemployment Relief, Wages and Financial Emergency. Motor taxation, Probate and Succession and other Stamp duties rank next in importance. In addition to these, a State land tax and licence fees of various kinds are collected in all the States, and a dividend tax is levied in Western Australia and Tasmania.

The total amounts and the amounts per head raised from all sources of taxation by the several State Governments, including amounts not paid into the Consolidated Revenue Fund, during the five years ended 1938-39 are given in the following table:—

STATE REVENUE FROM TAXATION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
TOTAL							
	£	£	£	£	£	£	£
1934-35	13,990,771	8,993,718	6,546,263	3,267,099	2,436,076	1,227,328	36,461,255
1935-36	16,289,722	9,920,693	7,323,028	3,267,389	2,762,735	1,418,256	40,981,823
1936-37	18,726,370	10,818,800	7,730,782	3,610,431	3,085,944	1,484,808	45,457,135
1937-38	20,504,582	11,646,645	8,539,471	3,998,132	3,306,804	1,697,159	49,692,793
1938-39	20,262,919	12,023,240	8,646,453	4,199,064	3,618,998	1,778,718	50,529,392
PER HEAD OF POPULATION.(a)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35	5 6 2	4 17 11	6 16 3	5 11 10	5 9 11	5 7 1	5 9 0
1935-36	6 2 8	5 7 8	7 10 8	5 11 6	6 3 5	6 3 2	6 1 8
1936-37	6 19 8	5 16 10	7 17 1	6 2 9	6 16 7	6 7 11	6 13 11
1937-38	7 11 5	6 5 2	8 11 8	6 15 4	7 4 9	7 4 5	7 5 2
1938-39	7 8 3	6 8 3	8 11 9	7 1 3	7 16 5	7 10 2	7 6 3

(a) Based on mean population of each financial year.

(b) *Probate and Succession Duties.* Probate duties have been levied for many years in all the States, but the provisions of the Acts governing the payment of duty differ widely both in regard to the ordinary rates and those which apply to special beneficiaries. A table showing the values of the estates in which probates and letters of administration were granted is given earlier. (See Chapter XXVI. Section F.)

The duties collected for the last five financial years are as follows:—

STATE PROBATE AND SUCCESSION DUTIES: COLLECTIONS.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
New South Wales ..	1,693,966	1,673,805	2,081,548	2,233,144	2,304,124
Victoria ..	1,124,933	1,340,701	1,509,693	1,431,057	1,374,355
Queensland ..	448,901	528,412	583,741	636,207	677,037
South Australia ..	315,463	233,742	299,775	244,512	366,526
Western Australia ..	74,076	112,657	93,320	101,631	123,798
Tasmania ..	70,035	111,872	73,165	107,687	94,669
Total ..	3,727,374	4,001,189	4,641,242	4,754,238	5,000,509

(c) *Other Stamp Duties.* The revenue derived from Stamp duties (exclusive of probate and succession duties and stamp duties on betting tickets) for the last five years is shown in the accompanying table:—

OTHER STATE STAMP DUTIES: COLLECTIONS.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
New South Wales ..	1,084,044	1,141,305	1,264,646	1,368,919	1,286,124
Victoria ..	826,056	858,731	917,255	952,470	959,727
Queensland ..	501,910	545,167	548,732	632,329	610,110
South Australia ..	206,411	225,499	243,372	277,843	249,729
Western Australia ..	251,868	252,062	263,630	281,417	274,995
Tasmania ..	104,842	74,342	74,189	79,193	84,832
Total ..	2,975,131	3,097,106	3,311,824	3,592,171	3,465,517

(d) *Land Tax.* All the States impose a land tax, Queensland, the last State to fall into line, collecting its first levy in 1915-16. In the other States the impost is of long standing. In New South Wales the State land tax is levied on the unincorporated portion of the western division of the State only.

The following table shows the amounts collected by means of such taxes during the financial years 1934-35 to 1938-39:—

STATE LAND TAX: COLLECTIONS.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
New South Wales ..	2,461	2,034	2,221	2,237	2,154
Victoria ..	494,593	494,293	492,143	498,232	482,336
Queensland ..	412,459	411,598	402,308	405,070	401,682
South Australia ..	350,832	293,842	301,660	325,499	321,482
Western Australia ..	121,895	117,682	117,249	124,083	115,229
Tasmania ..	89,863	89,494	89,927	84,380	85,069
Total ..	1,472,103	1,408,943	1,405,508	1,439,501	1,407,952

(e) *Income Tax.* A tax on the incomes of persons, whether derived from personal exertion or from property, is also imposed in all the States. As might be expected, the rates, exemptions, etc., differ widely, but the general principles of the several Acts are similar.

The following table shows the total amounts collected in the several States during the years 1934-35 to 1938-39. In the cases of Western Australia and Tasmania the amounts of dividend duty collected are included. The tax levied on prizes in lotteries although coming within the Income Tax class has been excluded from the amounts given below.

STATE INCOME AND DIVIDEND TAXES: COLLECTIONS.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
New South Wales ..	3,146,495	4,088,164	5,186,972	6,367,046	6,339,215
Victoria ..	2,603,512	2,759,324	3,299,440	3,976,958	4,370,656
Queensland ..	1,800,477	2,295,004	2,565,278	2,868,864	3,157,249
South Australia ..	1,473,931	1,495,210	1,676,728	2,032,784	2,102,928
Western Australia(a) ..	551,800	634,351	709,909	764,338	880,300
Tasmania ..	217,876	235,714	269,524	388,437	429,623
Total ..	9,794,091	11,507,767	13,707,851	16,398,427	17,279,971

(a) Includes Gold Mining Profits Tax.

(f) *Other taxes on Income.* During 1930-31 a special unemployment relief tax was levied in New South Wales, Victoria and Queensland, but, in the case of New South Wales, this was discontinued and replaced by Special Income and Wages taxes, and in the case of Queensland by the State Development Tax (see C. § 2, par. 1 ante). In South Australia portion of the moneys for expenditure on unemployment relief was raised by an increment in the rate of income tax. In Western Australia Financial Emergency and Hospital taxes are levied and in Tasmania Special Income and Wages taxes provide the funds necessary for the relief of unemployment. Further references to unemployment relief taxation may be found in the *Labour Report*, Nos. 22 to 28.

(g) *Motor Taxation.* Motor taxation comprises tax and registration fees on motor vehicles, and licences of motor dealers, motor drivers and motor cycle riders, and public vehicles except when controlled by local government authorities. The following table shows the collections for the last five years:—

MOTOR TAXATION: COLLECTIONS.

State.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
New South Wales ..	1,934,665	2,164,068	2,354,549	2,586,811	2,762,678
Victoria ..	1,403,134	1,592,880	1,682,561	1,825,152	1,913,689
Queensland ..	633,059	724,119	761,147	818,665	939,757
South Australia ..	565,279	608,036	639,874	672,635	715,944
Western Australia (a) ..	318,681	342,163	410,378	429,030	453,953
Tasmania ..	110,586	123,584	133,003	147,864	175,591
Total ..	4,965,404	5,554,850	5,981,512	6,480,157	6,960,712

(a) Includes amounts collected by local governing authorities outside metropolitan area.

The proceeds of motor tax and motor registration fees are now paid into special roads funds and the amounts do not appear in the Consolidated Revenue Funds, except for the States of South Australia and Tasmania. In New South Wales a proportion of the collections is paid to Consolidated Revenue as an offset against administrative charges.

(iii) *Business Undertakings.* (a) 1938-39. A very large proportion of State gross revenues is made up of receipts from business undertakings under the control of the Governments. The principal of these are railways and tramways, harbour works, water supply and sewerage and electricity supply, while, in addition, State batteries for the treatment of auriferous ores are included for Western Australia, and various minor revenue-producing services are rendered by the Governments of all States. In this connexion see C. § 1, par. 2 *ante*. For the year 1938-39 the revenue from these sources was £56,479,525 or 45 per cent. of the revenue from all sources. Details of revenue are as follows:—

STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1938-39.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Railways ..	19,946,441	19,348,660	7,638,525	3,165,156	3,586,013	491,791	44,176,586
Tramways and Omnibuses ..	4,374,334	(c) 101,066	..	..	302,354	..	4,777,754
Harbour Services ..	1,155,627	(f) 221,913	..	665,583	313,782	..	2,350,905
Water Supply, Sewerage, Irrigation and Drainage ..	(g)	(b) 672,977	..	1,049,275	820,794	..	2,543,046
Electricity Supply ..	..	877,438	..	..	414,519	3,583	1,295,540
Other ..	(e) 611,271	(d) 426,538	3,583	77,275	195,401	15,626	1,329,694
Total ..	26,087,673	11,648,592	7,642,108	4,957,289	5,632,863	511,000	56,479,525

(a) Includes electric tramways operated by the Railways Department. (b) Country Water Supply and Sewerage only. (c) Statutory contribution to revenue by Melbourne and Metropolitan Tramways Board. (d) Mostly interest recouped from Business Undertakings outside Consolidated Revenue Fund. (e) Road Transport and Traffic Fund. (f) Includes Harbour Trust Fund contribution, £147,011. (g) Hunter District Water and Sewerage Board now excluded.

(b) 1934-35 to 1938-39. Particulars of the revenue from Business Undertakings for the last five years are given below:—

STATE REVENUE FROM BUSINESS UNDERTAKINGS.(a)

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Railways, Tramways and Omnibuses ..	43,646,824	45,036,042	47,052,803	49,439,562	48,954,340
Harbour Services ..	1,909,793	2,063,860	2,082,743	2,290,372	2,356,905
Water Supply, Sewerage, Irrigation and Drainage..	2,439,454	2,607,665	2,750,233	2,857,242	2,543,046
Other ..	2,480,362	2,509,845	2,474,013	2,594,231	2,625,234
Total ..	50,476,433	52,217,412	54,359,792	57,181,407	56,479,525

(a) See notes to previous table.

(iv) *Territorial.* The revenue from the sale and rental of Crown lands has, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and has been applied to meet ordinary expenses. Where the rentals received are for lands held for pastoral or residential purposes such application of the revenue would appear justifiable. On the other hand, where the rentals are for mineral and timber lands, and in all cases of sales of lands, the proceeding is essentially a disposal of capital to defray current expenses, and is, therefore, open to criticism. The following table gives the revenue from sales and rentals of Crown lands for the year 1938-39:—

STATE TERRITORIAL REVENUE, 1938-39.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Sales ..	109,594	74,098	..	15,646	6,403	1,734	207,475
Conditional Purchase ..	612,529	..	..	16,714	82,160	5,547	716,950
Rentals ..	760,369	134,322	1,084,804	168,177	76,183	27,302	2,251,157
Forestry ..	128,872	171,058	370,469	..	137,395	32,770	840,564
Other ..	45,524	7,674	57,734	2	14,631	1,904	127,469
Total ..	1,656,888	387,152	1,513,007	200,539	316,772	69,257	4,143,615

(v) *Commonwealth Payments.* The payments to the States (inclusive of special grants but excluding the contributions in respect of sinking fund on States' Debts and Federal Aid Roads grants which are paid by the Commonwealth into the National Debt Sinking Fund and Federal Aid Roads Trust Fund respectively and certain other grants paid into trust or special accounts) represent in each instance a considerable proportion of the States' revenue, and for the year 1938-39 aggregated £9,580,172, or 7.6 per cent. of the total revenue of the States.

(vi) *Interest and Miscellaneous.* In addition to the foregoing, there are in each State several miscellaneous sources of revenue, including such items as interest, fines, fees, etc. In 1938-39 interest, mainly from loans to local governing bodies and on public account balances, was responsible for £5,038,589, whilst "Miscellaneous" revenue which includes fines of the courts and fees for services amounted to £7,501,095.

Division II.—Expenditure.

1. **General.**—The principal heads of State expenditure from Consolidated Revenue Funds are :—

(a) Interest and sinking funds in connexion with public debt; (b) Working expenses of railways, tramways and other business and industrial undertakings; (c) Justice; (d) Police; (e) Penal establishments; (f) Education; (g) Health and charitable expenditure; and (h) All other expenditure, under which heading is included Public Works, Lands and Surveys, Agriculture and Forestry, Legislative and General Administration, Pensions and Miscellaneous.

In earlier years the working expenses of Railways and Tramways were the most important item in Governmental expenditure, but in recent years Public Debt charges represent the heaviest item, notwithstanding the reduction in interest as a result of the 1931 internal conversion loan and the more recent conversion operations in London. Prior to 1930-31 Railway working expenses represented about 30 to 35 per cent. of the total, but staff reductions and other economies effected in consequence of the industrial depression reduced the figure to 26 per cent. in 1933-34 and subsequent years. In the year 1938-39 the percentage rose to 30 again, as compared with 31 per cent. represented by Public Debt Charges; next in importance were Charitable, Public Health and Hospitals, 12 per cent.; Education, 10 per cent.; and Law and Order, 5 per cent.

2. **Total Expenditure.**—The total expenditure from Consolidated Revenue Funds in the several States and the expenditure per head of population during each of the last five years are given in the table hereunder :—

STATE EXPENDITURE : CONSOLIDATED REVENUE FUNDS.

Year.	N.S.W. (a)	Victoria. (a)	Q'land. (c)	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1934-35	46,011,127	25,462,233	15,844,633	10,965,352	9,498,525	2,991,349	110,773,219
1935-36	48,309,184	26,154,801	16,230,806	11,260,360	9,945,343	3,247,288	115,147,782
1936-37	49,884,775	27,192,344	16,815,228	11,600,138	10,556,638	3,443,618	119,492,741
1937-38	54,291,840	27,584,037	17,568,223	12,334,391	10,829,735	3,632,903	126,241,129
1938-39	54,963,064	27,772,790	19,316,323	12,700,921	11,170,102	3,640,748	129,563,948

PER HEAD OF POPULATION.(b)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35	17 9 4	13 17 4	16 9 10	18 15 5	21 8 8	13 1 1	16 11 3
1935-36	18 3 8	14 3 10	16 13 11	19 4 2	22 4 2	14 2 0	17 1 11
1936-37	18 12 2	14 13 8	17 1 9	19 14 4	23 7 3	14 16 7	17 12 0
1937-38	20 0 11	14 16 6	17 13 2	20 17 5	23 13 11	15 9 2	18 8 9
1938-39	20 2 1	14 16 3	19 3 8	21 7 4	24 2 10	15 7 4	18 15 0

(a) See C. § 1, par. 2 ante.
C. § 2, par. 1 ante.

(b) Based on mean population of each financial year.

(c) See

3. Details of Expenditure, 1938-39.—The following table shows the total expenditure and expenditure per head under each of the principal items:—

STATE EXPENDITURE : DETAILS, 1938-39.

Particulars.	N.S.W. (a)	Victoria. (a)	Q'land. (b)	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
Public debt (interest sinking fund, exchange, etc.) ..	14,552,613	8,229,626	6,649,227	5,130,411	4,352,728	1,243,074	40,157,679
Railways, Tramways and Omnibuses (working expenses)	18,251,807	7,693,973	6,023,318	2,703,907	3,154,683	707,199	38,534,887
Water Supply, Sewerage, Irrigation and Drainage ..	(c)	432,362	..	347,997	296,064	..	1,076,423
Justice ..	630,677	269,226	218,238	68,256	92,190	43,829	1,322,416
Police ..	1,052,061	815,733	586,914	303,446	255,673	119,016	3,732,843
Penal establishments	375,381	126,355	40,560	50,570	32,382	21,069	646,317
Education ..	5,438,425	3,123,444	1,768,600	1,055,736	862,694	390,599	12,039,498
Health and charitable	7,537,090	3,520,953	2,186,505	1,083,680	(d) 518,599	459,308	15,306,735
All other expenditure	6,524,410	3,567,118	1,842,961	1,956,918	1,605,089	656,654	16,147,150
Total ..	54,963,064	27,772,790	19,316,323	12,700,921	11,170,102	3,640,748	129,563,948

PER HEAD OF POPULATION.(e)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Public debt (interest sinking fund, etc.) ..	5 6 7	4 7 10	6 12 0	8 12 6	9 8 1	5 5 0	5 16 3
Railways, Tramways and Omnibuses (working expenses)	6 13 6	4 2 1	5 19 8	4 11 0	6 16 4	2 19 8	5 11 6
Water Supply, Sewerage, Irrigation and Drainage ..	(c)	0 4 7	..	0 11 9	0 12 10	..	0 3 1
Justice ..	0 4 7	0 2 10	0 4 4	0 2 4	0 4 0	0 3 8	0 3 10
Police ..	0 12 1	0 8 8	0 11 8	0 10 3	0 11 1	0 10 1	0 10 10
Penal establishments	0 2 9	0 1 4	0 0 10	0 1 8	0 1 4	0 1 9	0 1 10
Education ..	1 19 9	1 13 4	1 15 2	1 15 6	1 17 4	1 13 0	1 16 7
Health and charitable	2 15 2	1 17 7	2 3 5	1 16 6	1 2 5	1 18 9	2 4 4
All other expenditure	2 7 8	1 18 0	1 16 7	3 5 10	3 9 5	2 15 5	2 6 9
Total ..	20 2 1	14 16 3	19 3 8	21 7 4	24 2 10	15 7 4	18 15 0

(a) See C. § 1. par. 2 ante.

(b) See C. § 2. par. 1 ante.

(c) Hunter District Water and Sewerage Board now excluded.

(d) In addition £353,768 was expended from Hospital Fund.

(e) Based on mean population of financial year.

Division III.—Surplus Revenue.

The following table shows for each of the years 1934—35 to 1938—39 the amount and amount per head of the surplus or deficit of each State :—

STATE SURPLUS REVENUE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1934—35..	-2,449,786	-151,197	-564,611	36,226	-167,095	-119,201	-3,415,564
1935—36..	-1,796,976	-116,461	-741,815	148,965	88,378	-129,686	-2,547,395
1936—37..	74,310	28,923	-280,190	139,168	-371,205	44,906	-364,088
1937—38..	53,875	30,945	-228,492	126,545	-10,693	6,852	-20,968
1938—39..	-2,453,329	-787,242	14,046	-397,324	-220,442	-25,984	-3,870,275

PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934—35..	-0 18 7	-0 1 8	-0 11 9	0 1 3	-0 7 6	-0 10 5	-0 10 3
1935—36..	-0 13 6	-0 1 3	-0 15 3	0 5 1	0 3 11	-0 11 3	-0 7 7
1936—37..	0 0 7	0 0 4	-0 5 9	0 4 9	-0 16 5	0 3 10	-0 1 1
1937—38..	0 0 4	0 0 4	0 4 7	0 4 3	-0 0 6	0 0 7	-0 0 1
1938—39..	-0 17 11	-0 8 5	0 0 3	-0 13 4	-0 9 6	-0 2 2	-0 11 2

NOTE.—Minus sign (—) indicates deficit.

(a) Based on mean population of each financial year.

§ 3. State Trust Funds.

1. **Nature.**—In addition to the moneys received as revenue and paid to the credit of Consolidated Revenue Funds, considerable sums are held by the State Governments in trust for various purposes. Municipal sinking funds placed in the hands of the Governments are paid to the credit of the appropriate Trust Fund. In all the States except New South Wales, where the practice is confined to those companies transacting workers' compensation insurance, life assurance companies operating are required to deposit a substantial sum in cash or approved securities with the Government, and these deposits help to swell the trust funds. Various other deposit accounts, superannuation funds, suspense accounts, etc., also find a place.

2. **Extent.**—The amounts of trust funds held on the 30th June, 1939, were as follows :—

STATE TRUST FUNDS, 30th JUNE, 1939.

Particulars.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Amount of trust funds	15,683,890	8,188,960	3,061,421	1,448,191	3,743,900	530,306	32,656,668

(a) Includes Colonial Treasurer's Supreme Court Accounts.

§ 4. State Loan Funds.

Division I.—Loan Expenditure.

1. **General.**—As far back as the year 1842 revenue collections were supplemented with borrowed moneys, the earliest loan being by New South Wales for the purpose of assisting immigration, at rates of interest varying from 2½d. to 5½d. per £100 per diem, or approximately from 4½ per cent. to 8 per cent. per annum. Australian public

borrowing, however, is mainly due to the fact that the State Governments, in addition to ordinary administrative duties, undertake functions which in other countries are usually entrusted to local authorities or left to private enterprise. Foremost amongst these are the construction and control of the railway systems, but loan moneys have been largely used for improvements to harbours and rivers, and for the construction of roads, water supply and sewerage works. The State loan expenditure and public debt thus differ very materially from those of most European countries, and from those of the Commonwealth, where such expenditure was very largely incurred for purposes of defence, or in the prosecution of war. As shown above, the State debts consist chiefly of moneys raised and expended with the object of assisting the development of the resources of the country, and are to a very large extent represented by tangible assets.

Statements relating to Loan Expenditure are given below for both "gross" and "net" expenditure. The gross expenditure represents the amounts disbursed during each year whereas the net expenditure represents the gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc. It might be mentioned that such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

2. Loan Expenditure, 1938-39.—(a) *Gross Loan Expenditure, 1938-39.* Particulars of the gross loan expenditure on Works, Services, etc. for the year 1938-39 are given in the following table:—

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1938-39.

Heads of Expenditure.(f)	New South Wales.(d)	Victoria.(a)	Queensland.	South Australia.	Western Australia.(d)	Tasmania.	Total.
	£	£	£	£	£	£	£
Public Works and Services—							
Railways	2,310,000	354,259	510,086	292,057	67,398	484,194	4,154,919
Tramways and Omnibuses	28,883			6100,000	8,042		
Roads	1,953,801	58,026	275,877	200,000	..	..	..
Bridges							
Harbours and Rivers	955,947	..	28,478	154,069	14,446	90,903	3,731,547
Lights and Lighthouses .. .. .	..	..	..	..	..	..	..
Water Supply	850,728	6582,327	260,000	378,049	148,899	..	2,400,634
Sewerage							
Electricity Supply	217,983	..	..	69,203	111,428	..	..
Public Buildings	1,186,856	200,886	367,505	264,214	17,919	294,586	530,488
Loans and Grants to Local Bodies	386,614	..	1,157,747	..	114,954	188,772	2,323,187
Unemployment Relief .. .. .	..	..	..	..	..	..	1,544,361
Works	59,893	1,308,719	..	..	1,136,753	93,355	2,598,720
Advances for Housing	35,300	150,000	96,850	211,502	9,000	108,259	610,917
Other Public Works, etc. .. .. .	..	3,127	..	59,321	2,065	236,048	300,561
Primary Production—							
Soldier Settlement	(e) 222	15,395	4,288	18,217	540	155,166	402,111
Land for Settlement							
Advances to Settlers .. .. .	..	134,715	149,601	4,007	11,985	42,690	638,987
Water Conservation	654,314	..	..	328,750	..	..	..
Irrigation and Drainage							
Rabbit-proof Fencing .. .. .	..	..	33,656	98,267	..	..	839,647
Agriculture .. .. .	..	15,235	19,557	4,474	..	..	39,266
Agricultural Bank	148,063	..	..	..	10,348	..	158,411
Forestry .. .. .	..	45,842	260,383	..	..	..	260,383
Mines and Mineral Resources .. .. .	..	..	121,488	182,633	..	..	349,963
Other .. .. .	..	..	26,422	..	51,296	..	77,718
Other Purposes .. .. .	..	350,000	56,126	27	7,049	..	413,202
Other Purposes .. .. .	..	..	4,723	150,000	32,464	..	187,187
Total Public Works, Services, &c., Expenditure	8,788,604	3,218,531	3,392,641	2,529,562	1,783,224	1,849,647	21,562,209
Per Head of Population	£3 4 4	£1 14 4	£3 7 5	£4 5 11	£3 17 1	£7 16 2	£3 2 5

(a) Expenditure from Loan and on account of Loan; includes expenditure from Public Account Advances Account, from Treasurer's Advance Account, and from State Loans Repayment Fund. (b) Loans to Local Bodies for Tramways. (c) Country Towns. (d) Includes expenditure from Loan Suspense Account. (e) Includes rabbit-proof fencing advances. (f) The reclassification of items has in some cases rendered the figures concerned not entirely comparable with those of previous years.

(b) Net Loan Expenditure, 1938-39. For the year ended 30th June, 1939, State net loan expenditure on Works, Services, etc., was as follows:—

STATE NET LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1938-39.

Heads of Expenditure.(g)	New South Wales.(d)	Victoria.(a)	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
Public Works and Services—							
Railways	2,002,287	353,634	489,603	261,006	64,444	34,558	3,193,662
Tramways and Omnibuses	Cr. 101,703			682,005	7,828		
Roads	1,850,486	Cr. 19,633	237,017	199,900	Cr. 351		
Bridges		Cr. 2,869				84,945	3,448,118
Harbours and Rivers	932,891	Cr. 6,137	28,137				
Lights and Lighthouses				129,570	14,168		
Water Supply		652,755	260,000	310,398	141,322		488,264
Sewerage	Cr. 876,193	Cr. 1,136		44,192	81,926		
Electricity Supply	199,325				17,705	77,657	294,687
Public Buildings	1,127,073	199,954	355,069	253,004	114,788		2,235,114
Loans and Grants to Local Bodies	381,094	Cr. 3,464	712,953	Cr. 1,670	Cr. 724	Cr. 14,029	1,074,160
Unemployment Relief							
Works	Cr. 274,116	1,149,592			1,136,753	76,491	2,088,720
Advances for Housing	24,226	150,000	Cr. 255,343	30,451	5,696	70,288	25,318
Other	Cr. 260,000	3,127		12,327	2,065	218,560	Cr. 23,921
Primary Production—							
Soldier Settlement			Cr. 49,973	Cr. 44,925	Cr. 63,457	2,397	Cr. 671,227
Land for Settlement	Cr. 70,294	Cr. 560,026	117,781	Cr. 18,174	9,215	6,229	
Advances to Settlers		129,527	6,911	Cr. 274,721		Cr. 2,695	Cr. 140,978
Water Conservation			13,405	97,366	Cr. 372		627,097
Irrigation and Drainage	468,944			9,208	38,546		
Rabbit-proof Fencing		Cr. 14,220	Cr. 616	Cr. 4,355			Cr. 19,191
Agriculture	3,860		Cr. 37,319		8,921		Cr. 24,838
Agricultural Bank			59,220				59,220
Forestry		45,842	116,727	81,321			243,890
Mines and Mineral Resources	Cr. 18	Cr. 9,148	21,538		43,766		56,138
Other		347,737	Cr. 37,564	Cr. 5,596	7,049		311,626
Other Purposes		Cr. 1,000	4,042	64,789	7,196		75,027
Total Public Works, Services, &c. Expenditure	5,407,856	2,289,535	2,041,588	1,226,096	1,636,184	739,627	13,340,886
Per Head of Population	£1 19 7	£1 4 5	£2 0 7	£2 1 3	£3 10 9	£3 2 5	£1 18 7

(a) Expenditure from Loan and on account of Loan: includes expenditure from Public Account Advances Account, from Treasurer's Advance Account, and from State Loans Repayment Fund. (b) Loans to Local Bodies for Tramways. (c) Country towns. (d) Includes expenditure from Loan Suspense Account. (e) Includes Rabbit-proof Fencing advances. (f) Credits arising from the cancellation of securities redeemed from Sinking Fund not allowed for. (g) See Note (f) to previous table.

3. Net Loan Expenditure on Works, Services, etc. 1934-35 to 1938-39.—The following table gives the works net loan expenditure during each of the years 1934-35 to 1938-39:—

STATE NET LOAN EXPENDITURE ON WORKS, SERVICES, ETC.

Year.	N.S.W.	Victoria.(f)	Q'land.(a)	S. Aust.(c)	W. Aust.(e)	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1934-35	9,724,762	1,786,860	3,169,072	495,479	2,538,213	361,495	18,539,881
1935-36	67,978,820	3,115,982	3,006,370	1,632,400	2,451,707	660,876	18,846,155
1936-37	6,336,078	2,616,660	2,573,593	1,245,222	2,032,224	814,951	15,618,728
1937-38	5,100,865	2,345,460	2,224,934	1,133,054	2,160,480	850,305	13,815,098
1938-39	5,407,856	2,289,535	2,041,588	1,226,096	1,636,184	739,627	13,340,886
PER HEAD OF POPULATION.							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1934-35	3 13 10	0 19 6	3 5 11	1 12 10	5 14 6	1 11 7	2 15 11
1935-36	3 0 1	1 13 10	3 1 10	2 15 8	5 9 6	2 17 4	2 15 5
1936-37	2 7 3	1 8 3	2 12 4	2 2 4	4 9 11	3 10 2	2 6 0
1937-38	1 17 8	1 5 3	2 4 9	1 18 4	4 14 7	3 12 4	2 0 4
1938-39	1 19 7	1 4 5	2 0 7	2 1 3	3 10 9	3 2 5	1 18 7

(a) Figures for each year are exclusive of £100,000 portion of repayments transferred to Consolidated Revenue and applied to Sinking Fund contributions. (b) Credits on accounts of amounts written off indebtedness in respect of Soldier Land Settlement advances (£934,722) and transfers from Special Deposits account (£321,661) not allowed for. (c) Credits arising from the cancellation of securities redeemed from Sinking Fund not allowed for. (d) Amounts of £804,988 written off Public Debt and £88,782 adjustment of interest pursuant to Soldier Settlement Agreement not allowed for. (e) See Note (d) to previous table. (f) Expenditure from Loan and on account of Loan. See Note (a) to previous table.

The loan expenditure per head of population, which varies in the different States and in different years, reached its highest point for the five years under review in 1935-36 with £2 15s. 1rd. per head, and its lowest in 1938-39 with £1 18s. 7d. per head.

4. Total Net Loan Expenditure to 30th June, 1939.—The total net loan expenditure inclusive of revenue deficits, etc., of the States from the initiation of borrowing to the 30th June, 1939, amounted to £995,832,362. The purposes for which this sum was expended are shown in the following table:—

TOTAL STATE NET LOAN EXPENDITURE TO 30th JUNE, 1939.

Heads of Expenditure.	New South Wales.	Victoria.(j)	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
Public Works and Services—							
Railways ..	151,076,256	75,988,437	65,096,856	34,758,727	25,484,118	7,306,998	373,817,169
Tramways and Omnibuses ..	9,135,343	12,431,083		4,306,315	63,730,951	1,239,483	
Roads and Bridges ..	19,805,962	..	..	3,768,145	2,934,895	..	91,488,438
Harbours, Rivers, Lighthouses ..	21,342,872	1,404,535	2,760,424	8,306,835	7,336,093	7,091,279	
Water Supply ..	40,534,802	39,406,174	610,741	15,203,562	9,823,601	..	104,076,010
Sewerage ..	..	d 217,784	..	3,446,745	3,832,601	..	
Electricity Supply ..	1,786,103	17,839,227	..	..	1,840,757	5,801,428	27,267,515
Public Buildings ..	15,497,997	6,886,183	5,976,639	3,989,740	2,202,899	2,415,840	36,969,298
Loans and Grants to Local Bodies ..	1,130,805	1,827,664	17,488,310	34,849	89,414	684,440	21,255,482
Unemployment Relief Works ..	15,953,600	10,868,401	..	..	(h)	375,933	27,107,934
Advances—Housing ..	1,931,623	670,000	3,944,287	5,629,543	792,188	308,450	13,276,091
Commonwealth Services ..	3,965,937	149,323	524,388	1,283,387	332,293	500,754	6,756,082
Other Public Works and Services(c) ..	3,776,398	766,554	2,773,123	804,590	1,838,825	1,851,544	11,811,034
Primary Production—							
Closer Settlement ..	8,309,074	41,569,549	3,015,741	1,592,148	8,506,825	434,400	86,996,270
Land for Settlement ..	(e)			1,248,405	8,532,003	7,036,956		2,506,788
Soldier Settlement ..	3,919,719	2,381,247	295,181	2,363,333	2,061,956	364,513	7,465,966
Advances to Settlers ..	..	..	..	4,248,608	1,267,213	..	31,966,793
Water Conservation ..	17,602,384	..	2,108,935	4,893,535	1,846,118	..	
Irrigation and Drainage ..	..	..	..	..	..	..	1,760,217
Rabbit Proof Fencing ..	(f)	861,247	333,807	223,398	341,765	..	
Agricultural Bank ..	..	1,674,785	..	..	5,878,695	..	7,553,480
Agriculture ..	(a) 7,140,894	150,682	73,470	..	3,509,089	..	10,944,135
Mines and Mineral Resources ..	580,687	520,421	2,012,629	..	2,791,444	..	5,905,181
Forestry ..	..	781,811	1,019,955	1,124,840	83,025	..	3,764,631
Other ..	..	1,762,262	3,802,658	778,765	69,542	..	6,413,227
Other Purposes ..	..	132,540	812,871	(i) 3,867,811	3,310,024	101,063	8,224,309
Total Public Works, Services, &c., Expenditure ..	323,490,456	207,615,124	119,879,520	108,581,515	95,599,217	29,743,430	884,909,262
Other than Works, &c.—							
Exchange on Remittances ..	17,577,479	..	..	..	..	..	34,100,176
Discounts and Flotation Expenses ..		5,735,581	5,526,411	1,196,466	4,764,239	(g)	
Revenue and General Cash Deficits ..	40,861,289	4,863,682	5,826,271	8,608,592	11,970,574	835,366	72,965,774
Treasury Bills Returned ..	..	..	2,857,150	..	..	..	2,857,150
Other ..	..	..	1,000,000	..	..	..	1,000,000
Grand Total ..	381,929,224	218,214,387	135,089,352	118,386,573	111,634,030	30,578,796	995,832,362

(a) Includes Grain Elevators. (b) Loans to Local Bodies for Tramways. (c) Includes Industrial Undertakings and Immigration. The latter was previously included under Other Purposes. (d) Country sewerage. (e) Includes Advances for Rabbit Proof Fencing. (f) Included with Soldier Settlement, etc. (g) Included with Other Public Works. (h) Not available separately. Distributed under various particular headings. (i) Includes State Bank. (j) Aggregate Gross Loan Expenditure

The figures in the foregoing table show the amounts actually spent, and differ from those given later in the statements relating to the public debt, which represent the amount of loans still unpaid. The statement above includes all expenditure, whether the loans have been repaid or are still in existence. As in the earlier tables on net loan expenditure, allowance has been made, however, for credits on account of repayments of advances to local governing bodies, settlers, etc. In the public debt statement, on the other hand, loans repaid are not included, and in the case of loans still outstanding, each is shown according to the amount repayable at maturity, and not according to the amount originally available for expenditure.

5. Total Loan Expenditure, 1934-35 to 1938-39.—The following table gives particulars, in summary form, of the total loan expenditure in each State during each of the years 1934-35 to 1938-39:—

STATE LOAN EXPENDITURE, SUMMARY, 1934-35 TO 1938-39.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
1934-35.							
Works and Services—							
Gross Expenditure (a) ..	£10,607,075	2,538,521	4,797,715	2,247,668	2,688,720	786,177	23,665,876
Net Expenditure (b) ..	9,724,762	1,780,860	3,169,072	959,479	2,538,213	361,495	18,539,881
Repayments (b) ..	882,313	751,661	1,628,643	1,288,189	150,507	424,682	5,125,995
Other than Works—(d)							
Gross Expenditure ..	161,958	210,573	703,596	923,418	449,239	..	2,448,784
Net Expenditure ..	Cr. 656,183	210,573	703,596	923,418	449,239	..	1,630,643
Repayments ..	(c)818,141	..	..	..	..	..	818,141
Total Loan Expenditure—							
Gross ..	10,769,033	2,749,094	5,501,311	3,171,086	3,137,959	786,177	26,114,660
Net ..	9,068,579	1,997,433	3,872,668	1,882,897	2,987,452	361,495	20,170,524
Repayments ..	1,700,454	751,661	1,628,643	1,288,189	150,507	424,682	5,944,136
1935-36.							
Works and Services—							
Gross Expenditure (a) ..	9,491,108	3,841,452	4,228,148	2,698,638	2,559,614	1,519,369	24,338,329
Net Expenditure (b) ..	7,978,820	3,115,082	3,006,370	1,632,200	2,451,707	660,876	18,846,155
Repayments (b) ..	1,512,288	725,470	1,221,778	1,066,238	107,907	858,493	5,492,174
Other than Works—(d)							
Gross Expenditure ..	£4,445,750	109,619	882,540	36,133	31,357	339,094	5,844,493
Net Expenditure ..	£4,445,750	109,619	882,540	29,195	Cr. 57,021	339,094	5,749,177
Repayments ..	..	..	..	6,938	88,378	..	95,316
Total Loan Expenditure—							
Gross ..	13,936,858	3,951,071	5,110,688	2,734,771	2,590,971	1,858,463	30,182,822
Net ..	12,424,570	3,225,601	3,888,910	1,661,595	2,394,686	999,970	24,595,532
Repayments ..	1,512,288	725,470	1,221,778	1,073,176	196,285	858,493	5,587,490
1936-37.							
Works and Services—							
Gross Expenditure (a) ..	7,182,523	3,303,501	3,760,113	2,966,499	2,155,199	1,997,930	21,365,765
Net Expenditure (b) ..	6,336,078	2,616,660	2,573,593	1,245,222	2,032,224	814,951	15,618,728
Repayments (b) ..	846,445	686,841	1,186,520	1,721,277	122,975	1,182,979	5,747,037
Other than Works—(d)							
Gross Expenditure ..	£1,160,868	66,350	446,320	43,935	522,757	..	2,245,230
Net Expenditure ..	£1,115,863	66,350	446,320	39,595	522,757	..	2,190,890
Repayments ..	45,000	..	..	9,340	..	..	54,340
Total Loan Expenditure—							
Gross ..	8,343,391	3,369,851	4,206,433	3,015,434	2,677,956	1,997,930	23,610,995
Net ..	7,451,946	2,683,010	3,019,913	1,284,817	2,554,981	814,951	17,809,618
Repayments ..	891,445	686,841	1,186,520	1,730,617	122,975	1,182,979	5,801,377

STATE LOAN EXPENDITURE, SUMMARY, 1934-35 TO 1938-39—continued.

Particulars.	New South Wales.	Victoria.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
1937-38.							
Works and Services—							
Gross Expenditure (a) ..	8,110,740	3,239,451	3,521,487	2,839,184	2,294,942	1,892,279	21,889,083
Net Expenditure (b) ..	5,100,865	2,345,460	2,224,934	1,133,054	2,160,480	850,305	13,815,098
Repayments (b) ..	3,009,875	884,991	1,296,553	1,706,130	134,462	1,041,974	8,073,985
Other than Works—(d)							
Gross Expenditure ..	1,279,698	30,836	349,346	127,250	32,234	..	1,819,364
Net Expenditure ..	1,279,698	30,836	349,346	126,306	32,234	..	1,818,420
Repayments ..	..	..	..	944	..	..	944
Total Loan Expenditure—							
Gross ..	9,390,438	3,261,287	3,870,833	2,966,434	2,327,176	1,892,279	23,708,447
Net ..	6,380,563	2,376,296	2,574,280	1,259,360	2,192,714	850,305	15,633,518
Repayments ..	3,009,875	884,991	1,296,553	1,707,074	134,462	1,041,974	8,074,929
1938-39.							
Works and Services—							
Gross Expenditure (a) ..	8,788,604	3,218,531	3,392,641	2,529,562	1,783,224	1,849,647	21,562,209
Net Expenditure (b) ..	5,407,856	2,289,535	2,041,588	1,226,096	1,636,184	739,627	13,340,886
Repayments (b) ..	3,380,748	928,996	1,351,053	1,303,466	147,040	1,110,020	8,221,323
Other than Works—(d)							
Gross Expenditure—							
Discounts and Flotation Expenses ..	141,362	72,362	55,442	70,594	33,306	..	373,066
Revenue and General Cash Deficits ..	43,751,691	780,000	..	..	220,442	..	4,752,133
Other ..	..	..	100,000	..	..	..	100,000
Total ..	3,893,053	852,362	155,442	70,594	253,748	..	5,225,199
Net Expenditure—							
Discounts and Flotation Expenses ..	141,362	72,362	55,442	70,594	33,306	..	373,066
Revenue and General Cash Deficits ..	43,751,691	780,000	..	..	220,442	..	4,752,133
Other ..	..	..	100,000	..	..	..	100,000
Total ..	3,893,053	852,362	155,442	70,594	253,748	..	5,225,199
Repayments ..	..	..	..	..	..	..	..
Total Loan Expenditure—							
Gross ..	12,681,657	4,070,893	3,548,083	2,600,156	2,036,972	1,849,647	26,787,408
Net ..	9,300,909	3,141,897	2,197,030	1,296,690	1,889,932	739,627	18,566,085
Repayments ..	3,380,748	928,996	1,351,053	1,303,466	147,040	1,110,020	8,221,323

(a) See Notes to previous tables on Gross Expenditure. (b) See Notes to previous tables on Net Expenditure. (c) Credits on account of amounts utilized towards funding general cash deficits and amounts transferred to Consolidated Revenue to fund deficits. (d) Includes exchange, discounts and flotation expenses, revenue and general cash deficits. (e) Includes £570,482 available towards funding deficits. (f) Omitting £120,050 on account of Advance to Settlers Inscribed Stock. (g) Includes £703,481 available towards funding deficits. (h) Includes £1,110,000 short-term loans for general cash deficit and £1,691,000 available towards funding deficits.

Division II.—State Public Debts.

1. **General.**—The first government loan raised in Australia was obtained by New South Wales in 1842. This and nine other loans prior to 1855 were all procured locally. In the last-mentioned year New South Wales approached the London market for the first instalment of a 5 per cent. loan for £683,300. Victoria first appeared as a borrower in 1854, and made its first appearance on the London market in 1859. The first public loans were raised by the other States in the following years :—Queensland 1861, South Australia 1856, Western Australia 1845, and Tasmania 1867.

2. **State Debts, 1935 to 1939.**—The table hereunder shows the State public debts and the amounts owing per head of population at the 30th June in each year from 1935 to 1939 inclusive.

As provided in the Financial Agreement (particulars of which are given on page 911), the Commonwealth Government on 1st July, 1929, assumed the liabilities of the States to bondholders in respect of the debts of the States existing at 1st July, 1929, and taken over by the Commonwealth. Reference is made in Chap. IV. of this volume to certain remissions which the Commonwealth Government made to the States on account of losses sustained by the States in connexion with soldier land settlement; the States' debts were so reduced by £5,000,000 as from 1st October, 1925, and by a further £2,597,783 as from 30th June, 1927. The following figures represent the total "face" or "book" values of the debts of the States leaving out of account currency changes since the loans were floated :—

STATE PUBLIC DEBTS.

Date.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
30th June, 1935	£ 337,101,269	£ 174,160,663	£ 118,846,753	£ 105,349,536	£ 88,590,176	£ 23,915,354	£ 847,963,751
" 1936	346,576,294	175,058,285	122,647,234	105,698,481	90,344,055	24,418,156	864,742,505
" 1937	359,291,499	176,597,010	124,898,475	106,594,164	92,332,855	23,247,540	875,961,543
" 1938	354,167,254	177,228,496	125,781,564	107,450,639	93,711,942	25,840,807	884,180,702
" 1939	359,843,990	179,698,118	127,503,251	108,887,092	95,472,600	26,366,990	897,772,041

PER HEAD OF POPULATION. (a)

	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.			
30th June, 1935	127	9	2	94	15	2	122	15	8	180	2	10	198	15	5	104	11	2	126	7	6
" 1936	130	0	6	94	15	11	125	0	1	179	19	6	200	13	2	106	5	10	127	18	4
" 1937	130	1	10	95	3	9	125	17	11	181	1	6	203	5	5	108	10	0	128	10	5
" 1938	130	3	3	95	0	7	125	6	10	181	10	1	203	14	5	109	19	3	128	11	7
" 1939	131	0	0	95	10	3	125	8	8	182	15	4	205	2	7	111	8	4	129	6	3

(a) Based on population at 30th June in each year.

The public debt of the whole of the States increased during the period under review by nearly £50 million or at the average rate of nearly £13 million per annum. The debt per head of population increased during the period by £2 18s. 9d. to £129 6s. 3d. per head or more than 2.5 per cent. In some States certain public functions such as Tramways, Water Supply and Sewerage, and Harbour Services, etc., are controlled by Boards or Trusts which, in addition to receiving advances from the Central Government, raise loans by public borrowing on their own behalf, while in other States these services are controlled by the Central Governments. Comparisons of the debts of the States are therefore difficult, but on page 911 figures showing the aggregate debts of the States including these local and semi-governmental bodies are given for the years 1936-37 and 1937-38.

3. **Place of Flotation of Loans.**—As pointed out previously, the early loans, usually for comparatively small amounts, were raised locally, but, with the increasing demand for loan funds and the more favourable terms offering in the London market, the practice of raising loans in London came into vogue, and for many years local flotations, except for short terms or small amounts, were comparatively infrequent. In more recent years, however, the accumulating stocks of money in Australia seeking investment have led to the placing of various redemption and other loans locally, with very satisfactory results. Moreover, loans have been placed in New York on account of all States. The following table gives particulars of loans outstanding on the 30th June, 1939, which had been floated abroad and in Australia respectively :—

STATE PUBLIC DEBTS, 30th JUNE, 1939 : PLACE OF FLOTATION OF LOANS.

State.	Floated Abroad.			Floated in Australia.	Grand Total.
	London.	New York.	Total Overseas.		
	£ Stg.	£ (b)	£ (a)	£ Aust.	£ (a)
New South Wales	158,751,952	12,713,038	171,464,990	188,379,000	359,843,990
Victoria ..	62,497,955	4,498,878	66,996,833	112,701,285	179,698,118
Queensland ..	62,816,521	7,075,835	69,892,356	57,610,895	127,503,251
South Australia..	42,915,657	1,733,468	44,649,125	64,237,967	108,887,092
Western Australia	43,982,761	2,015,436	45,998,197	49,474,403	95,472,600
Tasmania ..	13,362,987	227,796	13,590,783	12,776,207	26,366,990
Total ..	384,327,833	28,264,451	412,592,284	485,179,757	897,772,041

PER HEAD OF POPULATION.

	£ s. d. (Stg.)	£ s. d. (b)	£ s. d. (a)	£ s. d. (Aust.)	£ s. d. (a)
New South Wales	57 15 10	4 12 7	62 8 5	68 11 7	131 0 0
Victoria ..	33 4 4	2 7 10	35 12 2	59 18 1	95 10 3
Queensland ..	61 15 11	6 19 3	68 15 2	56 13 6	125 8 8
South Australia ..	72 0 8	2 18 2	74 18 10	107 16 6	182 15 4
Western Australia	94 10 0	4 6 7	98 16 7	106 6 0	205 2 7
Tasmania ..	56 9 4	0 19 3	57 8 7	53 19 9	111 8 4
Total ..	55 7 2	4 1 5	59 8 7	69 17 8	129 6 3

(a) Total "face" or "book" value of the debt of each State without adjustment on account of currency changes since the loans were floated. (b) Payable in terms of dollars. For the purposes of these tables dollars have been arbitrarily converted to £'s. at the rate of 4.8665 to £ stg.

Particulars of the aggregate debts of the States for the last five years showing the amounts which will mature overseas and in Australia respectively will be found on page 905.

4. **Rates of Interest.**—(i) *At 30th June, 1939.* As mentioned previously, the highest rate of interest paid for the earliest State loans was 5½d. per £100 per diem, or, approximately, 8 per cent. per annum. At present the rates vary from 7 per cent. to 1¼ per cent., thirty-six separate rates being involved. The average rate payable on the aggregate indebtedness is about £3 15s. per cent. For the separate States the average varies, being lowest for New South Wales and highest for Queensland. The following table gives particulars of the amount of debt at each rate of interest payable, together with the amount and the average rate of interest payable at 30th June, 1939, with separate information for London, New York and Australian maturities. The units of currency in this table are—for debts maturing and interest payable—

in Australia .. £ Australian.
in London .. £ Sterling.
in New York .. Payable in terms of dollars. See note (b) above.

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The totals given represent the total "face" or "book" values of the debts of the States without adjustment on account of currency changes since the loans were floated, and the nominal amount (and average rate) of interest payable, taking no account of exchange:—

STATE PUBLIC DEBTS: RATES OF INTEREST PAYABLE AT 30th JUNE, 1939.

Rate of Interest.	Place of Maturity.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total, All States.
		£	£	£	£	£	£	£
7.0 ..	New York	..	..	1,804,891	..	..	..	1,804,891
6.0 ..	New York	..	..	2,054,865	..	..	..	2,054,865
5.25 ..	London	17,870,500	..	..	..	..	..	17,870,500
5.0375 ..	Australia	3,035	..	..	8,000	250,000	261,240	522,275
5.0 ..	London	17,028,816	14,438,131	37,821,688	13,888,787	12,976,463	1,228,987	97,382,872
4.75 ..	New York	8,820,405	3,738,942	2,190,973	1,733,468	2,015,436	227,796	18,726,120
4.65 ..	Australia	432,910	5,920,700	..	..	..	..	5,920,700
4.5 ..	New York	3,892,633	760,836	1,025,106	..	755,000	200,000	1,389,110
4.2625 ..	Australia	2,124,060	93,200	..	166,149	62,797	..	5,678,575
4.06875 ..	Australia	11,246,140	6,570	..	350,000	..	..	2,446,197
4.0 ..	Australia	57,821,298	45,091,887	12,938,192	31,487,131	14,747,557	5,843,880	12,097,710
3.96667 ..	Australia	29,088,932	2,905,216	7,956,300	8,208,611	7,587,484	2,798,000	167,929,945
3.95417 ..	Australia	..	5,685,910	..	..	..	..	58,544,543
3.89167 ..	Australia	..	1,875,750	..	..	..	..	5,685,910
3.875 ..	Australia	18,314,040	17,006,054	7,729,714	..	..	..	1,875,750
3.8125 ..	Australia	..	..	..	1,035,000	..	..	1,035,000
3.79167 ..	Australia	..	6,370,000	..	11,526,645	6,433,114	2,513,820	63,523,387
3.75 ..	Australia	29,415,970	10,900,355	12,538,581	6,445,000	9,533,352	2,016,770	200,000
3.72917 ..	London	7,607,632	6,869,649	1,958,800	5,418,300	1,780,601	1,076,000	6,370,000
3.625 ..	Australia	..	..	..	350,000	..	..	70,850,982
3.5 ..	Australia	..	107,000	..	..	277,930	27,200	412,130
3.4875 ..	Australia	6,858,150	2,927,690	1,574,841	1,828,450	2,049,162	152,850	350,000
3.42083 ..	London	33,494,133	19,609,345	9,585,650	2,742,520	4,842,820	6,063,250	15,391,143
3.375 ..	Australia	48,600	500	6,122,198	73,400	417,268	139,912	6,063,250
3.25 ..	Australia	..	1,130,950	..	..	..	..	6,801,878
3.125 ..	Australia	7,405,310	1,523,180	768,740	1,533,050	1,909,620	155,290	1,130,950
3.1 ..	Australia	4,205,190	8,845,275	1,288,880	750,000	1,688,741	167,720	13,295,190
3.02083 ..	London	..	650,075	1,237,770	4,411,899	10,568,718	1,257,450	16,945,806
3.0 ..	Australia	2,000	1,000	70,000	325,230	..	..	18,125,912
2.90625 ..	Australia	479,811	342,549	5,169,108	..	1,566,000	183,266	398,230
2.75 ..	Australia	..	2,482,000	..	..	..	..	7,740,734
2.7125 ..	Australia	17,255,322	3,161,486	6,534,866	2,752,278	3,128,862	979,259	2,482,000
2.7 ..	London	32,733,613	6,220,014	4,256,313	2,433,499	..	448,300	33,812,073
2.625 ..	Australia	..	220,000	5,100	..	..	..	46,091,739
2.6 ..	London	10,954,600	..	..	1,996,335	3,228,661	..	225,100
2.5 ..	Australia	291,421	446,845	352,915	197,992	..	..	16,179,596
2.325 ..	Australia	645,653	778,084	54,750	373,451	..	..	1,289,173
2.25 ..	London	9,965,276	5,884,825	..	2,815,726	2,998,014	..	1,851,938
2.0 ..	London	..	..	..	1,000,000	..	..	21,663,841
1.75 ..	Australia	31,830,000	3,705,000	2,463,000	4,690,000	6,305,000	135,000	1,491,000
Overdue and unconverted	Australia	90	..	(b) 10	..	..	..	491,000
	London	8,450	..	..	..	..	..	100
								8,450
Total Debt	Australia	188,379,000	112,701,285	57,610,895	64,237,967	49,474,403	12,776,207	485,179,757
	London	158,751,952	62,497,955	62,816,521	42,915,657	43,982,761	13,362,987	384,327,833
	New York	12,713,038	4,498,878	7,075,835	1,733,468	2,015,436	227,796	28,264,451
	Total ..	359,843,990	179,698,118	127,503,251	108,887,092	95,472,600	26,366,990	897,772,041
Total Interest Payable	Australia	6,434,886	4,182,748	2,036,289	2,367,997	1,729,733	488,585	17,240,238
	London(a)	5,918,262	2,403,422	2,786,207	1,676,601	1,688,322	490,068	14,962,882
	New York	616,188	221,140	405,313	86,674	100,771	11,390	1,441,476
	Total ..	12,969,336	6,807,310	5,227,809	4,131,272	3,518,826	990,043	33,644,596
Average Rates of Interest Payable	Australia	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
	London	3 8 4	3 14 3	3 10 8	3 13 9	3 9 11	3 16 6	3 11 1
	New York	3 14 7	3 16 11	4 8 9	3 18 2	3 16 9	3 13 4	3 17 10
	Total ..	3 12 1	3 15 9	4 2 0	3 15 11	3 13 9	3 15 1	3 11 11

(a) Includes contributions payable by Commonwealth and British Governments towards interest on Migration Loans. (b) Excludes £230 unconverted 4 per cent.

The average rate for debt maturing in Australia has been reduced from £5 4s. 11d. per cent. in 1931 to £3 11s. 1d. per cent. in 1939. For debt maturing in London the average rate increased from £4 12s. 7d. per cent. in 1931 to £4 13s. 3d. in 1932, but, as a result of the conversions effected in London, fell to £3 17s. 10d., while for New York loans it decreased from £5 2s. 6d. per cent. in 1931 to £5 2s. in 1939.

(ii) *Variations from 1901 to 1939.*—The variations in the rates of interest payable on the public debts of the States are shown in the following table which gives the percentages of the total debts in various interest groups during the years specified, and the average rate of interest in each year:—

STATE PUBLIC DEBTS : PERCENTAGES, ETC., IN VARIOUS INTEREST GROUPS.

Interest Rates.	Percentage of Total Debt at 30th June -						
	1901.	1911.	1921.	1931.	1937.	1938.	1939.
	%	%	%	%	%	%	%
Not exceeding 3 per cent. . .	18.0	17.9	10.2	5.3	19.9	19.6	19.1
Exceeding 3 per cent. but not exceeding 4 per cent. . .	78.5	81.9	45.4	17.2	60.1	61.3	62.4
Exceeding 4 per cent. but not exceeding 5 per cent. . .	3.1	0.1	15.6	36.8	17.5	16.6	16.0
Exceeding 5 per cent. but not exceeding 6 per cent. . .	0.4	0.1	23.5	38.4	2.3	2.3	2.3
Exceeding 6 per cent. . .	..	..	5.3	2.3	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average Rate of Interest Payable	3.7	3.6	4.4	4.9	3.8	3.8	3.7

5. *Dates of Maturity.*—Securities like the British Consols are interminable, but Australian debts have in most cases a fixed date for repayment, there being a few exceptions which are included in the following table under the headings "interminable," "Treasurer's option," and "not fixed." Those terminable at "Treasurer's option" include amounts which are payable by the respective Governments after giving a specified notice, and those "not fixed" consist of certain amounts owing to the Commonwealth Government. Generally, renewal is effected at date of maturity in respect of the greater portion of the loan. In order to avoid application to the market at an unfavourable time, several States adopted the practice of specifying a period prior to the date of maturity within which the Government, on giving twelve, or in some cases six months' notice, has the option of redeeming the loan. The Government can, therefore, take advantage of opportunities that may offer during the period for favourable renewals. Particulars concerning the due dates of latest maturity of the State loans outstanding on the 30th June, 1939, are given in the following table, the various maturities being grouped according to years ending 30th June.

STATE PUBLIC DEBTS.

STATE PUBLIC DEBTS, 30th JUNE, 1939: LATEST DATES OF MATURITY.

Year of Maturity.	Place of Maturity.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total, All States.
		£	£	£	£	£	£	£
1939-40	Australia	37,193,980	12,234,812	2,463,000	6,978,992	7,480,429	170,300	66,521,513
	London	9,965,276	5,884,825	..	3,815,726	2,998,014	5,095,800	27,759,641
1940-41	Australia	1,261,845	3,612,200	2,635,932	992,100	599,888	201,830	9,303,795
	London	30,736,090	19,683,687	2,719,530	10,532,264	4,364,249	1,134,585	69,170,405
1941-42	London	12,420,113	1,049,868	..	..	..	..	13,469,981
	New York	..	..	1,804,891	..	..	..	1,804,891
1942-43	Australia	14,836,270	4,446,045	1,934,220	4,966,815	3,440,377	461,190	30,084,917
	London	10,954,600	..	..	1,996,335	3,228,661	..	16,179,596
1943-44	Australia	6,159,650	10,873,040	548,840	2,168,550	2,587,920	152,850	22,490,850
1944-45	Australia	6,826,412	6,196,237	5,508,942	5,245,887	1,768,354	794,321	26,340,153
	London	..	..	3,958,800	..	..	..	3,958,800
1945-46	Australia	1,100	15,400	..	..	..	..	16,500
	London	..	..	1,037,928	200,000	..	250,000	1,487,928
1946-47	London	..	..	4,256,313	..	1,417,800	..	5,674,113
	New York	..	..	2,054,865	..	..	..	2,054,865
1947-48	Australia	4,782,067	4,493,865	1,909,985	2,929,463	1,854,959	614,390	16,584,729
	London	14,380,520	5,033,790	2,893,451	919,470	4,204,165	852,180	28,345,576
1948-49	London	12,268,490	12,039,795	2,000,000	8,390,100	2,716,302	1,076,000	38,496,687
	Australia	11,237,240	3,526,783	4,984,537	1,495,100	3,060,700	484,150	24,788,420
1949-50	London	..	6,953,545	..	..	..	..	6,953,545
	Australia	4,679,805	4,165,198	2,480,617	2,759,897	1,347,198	553,632	15,986,347
1950-51	London	11,712,278	..	5,956,300	..	..	2,798,000	20,466,578
	Australia	9,953,620	3,802,870	4,483,946	2,533,950	3,952,210	1,041,320	25,767,076
1951-52	London	7,000	..	484,718	..	..	..	491,718
	Australia	11,800,990	..	..	..	..	..	11,800,990
1952-53	London	4,519,235	4,072,763	1,812,427	2,611,238	1,265,824	709,300	14,990,787
	Australia	11,018,047	..	..	2,742,500	903,193	1,906,750	16,570,490
1953-54	London	12,967,810	8,927,560	7,482,768	6,879,990	3,828,530	1,759,760	41,864,118
	Australia	..	..	..	..	3,205,104	..	3,205,104
1954-55	Australia	9,147,061	6,230,713	2,727,892	4,340,182	2,578,958	1,139,800	26,164,606
	New York	3,892,633	2,624,319	1,723,705	732,631	1,498,444	..	10,471,732
1955-56	Australia	..	..	346,684	..	..	..	346,684
	New York	4,394,225	..	..	..	..	..	4,394,225
1956-57	Australia	4,433,964	3,883,488	1,530,090	2,561,866	1,331,155	551,906	14,292,469
	London	38,184,000	..	..	..	..	..	38,184,000
1957-58	New York	4,426,180	1,874,559	1,492,374	1,000,837	516,992	227,796	9,538,738
	Australia	..	..	384,082	..	164,145	..	548,227
1958-59	London	3,829,050	13,553,800	3,706,200	..	..	..	21,089,050
	Australia	4,449,704	3,912,186	2,137,958	2,511,868	1,484,618	697,499	15,193,833
1959-60	London	..	2,905,216	..	877,408	..	..	3,782,624
	Australia	..	..	717,535	..	424,446	..	1,141,981
1960-61	London	..	6,570,775	21,305,370	3,657,347	1,739,527	176,700	33,449,719
	Australia	4,262,102	3,971,328	1,363,575	2,511,034	1,453,983	678,217	14,240,239
1961-62	London	..	..	..	..	4,871,182	..	4,871,182
	Australia	106,804	..	458,106	..	153,523	..	718,433
1962-63	London	10,288,396	..	..	..	..	..	10,288,396
	Australia	..	..	619,017	..	1,753,133	42,000	2,414,200
1963-64	London	14,065,000	..	..	..	..	..	14,065,000
	London	..	..	1,920,650	..	..	..	1,920,650
1970-71	London	9,273,446	..	..	2,291,776	..	..	11,565,222
	London	..	..	..	3,693,587	8,829,191	1,080,750	13,603,528
1974-75	Australia	..	..	50,064	..	..	..	50,064
	London	2,962,816	14,438,131	19,712,888	19,888,787	12,976,463	1,228,987	65,208,072
Overdue and unconverted	London	90	..	240	..	..	..	330
	Australia	8,450	..	..	..	..	..	8,450
Interminable	London	363,707	..	..	98,382	..	..	462,089
	Australia	1,000	..	..	..	..	..	1,000
Treasurer's Option	London	6,070,924	..	..	497,309	..	..	6,568,233
	Australia	..	..	3,894,811	2,433,499	..	..	2,433,499
Half-yearly drawings	London	..	..	..	..	315,589	486,977	4,697,377
	Australia	..	..	..	..	219,916	..	219,916
Not fixed	London	..	..	..	..	..	..	..
	Australia	..	3,619,320	..	503,700	..	..	4,123,020
Total	Australia	188,379,000	112,701,285	57,610,895	64,237,967	49,474,403	12,776,207	485,179,757
	London	158,751,952	62,497,955	62,816,521	42,915,657	43,982,761	13,362,987	384,327,833
	New York	12,713,038	4,498,878	7,075,835	1,733,468	2,015,436	227,796	28,264,451
Total	..	359,843,990	179,698,118	127,503,251	108,887,092	95,472,600	26,366,990	897,772,041

Particulars of the State Public Debts according to the year of earliest maturity are shown hereunder :—

STATE PUBLIC DEBTS, 30TH JUNE, 1939 : EARLIEST DATES OF MATURITY.

Year of Maturity.	Place of Maturity.	New South Wales.	Victoria.	Queens-land.	South Australia.	Western Australia.	Tasmania.	Total, All States.
		£	£	£	£	£	£	£
Before 1939-40	Australia	503,267	..	340,200	..	..	..	843,467
	London	11,712,278	..	4,256,313	..	4,622,904	4,604,800	25,196,295
	New York	3,892,633	..	1,025,106	..	..	..	4,917,739
1939-40	Australia	37,191,080	12,242,796	2,463,000	6,978,992	7,480,429	170,300	66,526,597
	London	22,385,389	9,839,909	..	3,815,726	3,875,422	491,000	40,407,446
1940-41	Australia	824,800	3,612,200	2,635,932	992,100	599,888	201,830	8,866,750
	London	10,954,600	5,920,700	26,023,900	4,935,370	3,228,661	2,798,000	53,861,231
1941-42	Australia	30,731,190	19,683,687	2,719,530	10,532,264	4,364,249	1,134,585	69,165,505
	London	..	..	..	..	4,871,182	..	4,871,182
1942-43	New York	8,820,405	..	1,804,891	..	..	..	10,625,296
	Australia	14,924,324	4,446,045	1,934,220	4,966,815	3,440,377	461,190	30,172,971
1943-44	London	10,288,396	..	..	..	..	..	10,288,396
	Australia	6,156,350	10,873,040	548,840	2,168,550	2,587,920	152,850	22,487,550
1944-45	London	9,527,090	..	2,000,000	2,977,800	2,716,302	..	17,221,192
	Australia	6,823,512	6,196,237	5,508,942	5,245,887	1,768,354	794,321	26,337,253
1945-46	London	..	..	3,958,800	..	..	..	3,958,800
	Australia	800	15,400	..	..	..	..	16,200
1946-47	London	19,769,216	21,307,780	19,712,888	19,307,087	12,976,463	2,304,987	95,378,421
	Australia	..	..	1,037,928	200,000	..	250,000	1,487,928
1947-48	New York	..	..	2,054,865	..	..	..	2,054,865
	Australia	4,773,967	4,493,865	1,909,985	2,929,463	1,854,959	614,390	16,576,629
1948-49	London	17,870,500	..	..	..	..	..	17,870,500
	New York	..	..	1,492,374	1,000,837	516,992	227,795	3,237,999
1949-50	Australia	14,379,220	5,033,790	2,893,451	919,470	4,264,165	852,180	28,342,276
	London	4,866,232	5,170,146	..	..	903,193	..	10,939,571
1950-51	Australia	11,234,540	3,526,783	4,984,537	1,495,010	3,060,700	484,150	24,785,720
	London	..	6,055,545	1,920,650	..	..	..	7,976,195
1951-52	Australia	26,865,059	23,797,013	8,208,818	15,570,705	7,502,675	2,759,918	84,704,188
	London	17,952,805	..	..	2,742,500	..	1,906,750	22,602,055
1952-53	Australia	9,953,620	3,802,870	4,483,946	2,633,950	3,952,210	1,041,320	25,767,916
	London	12,965,110	8,927,560	7,192,108	6,879,990	3,828,530	1,759,760	41,553,058
1953-54	New York	..	3,738,042	698,599	732,631	1,498,444	..	6,667,716
	Australia	4,617,440	2,430,679	1,860,908	1,725,380	1,322,345	715,530	12,672,282
1954-55	London	3,829,050	13,553,800	3,706,200	..	..	..	21,089,050
	Australia	..	..	775,378	..	..	..	775,378
1955-56	London	20,313,500	..	..	..	..	..	20,313,500
	Australia	..	..	305,869	..	..	..	305,869
1956-57	London	9,273,446	650,075	1,237,770	3,010,088	1,739,527	176,700	16,087,606
	New York	..	760,836	..	..	..	..	760,836
1957-58	Australia	..	..	346,684	..	..	..	346,684
	London	..	..	284,069	..	142,896	551,906	978,871
1958-59	Australia	..	..	384,082	..	164,145	..	548,227
	London	..	..	886,858	..	311,563	165,000	1,363,421
1959-60	Australia	..	..	717,535	..	424,446	..	1,141,981
	London	..	..	165,837	..	182,257	138,000	486,094
1960-61	Australia	..	..	458,106	..	153,523	..	611,629
	London	..	..	619,017	..	1,753,183	42,000	2,414,200
1961-62	Australia	..	..	..	3,693,587	8,829,191	1,080,750	13,603,528
	London	..	..	50,064	..	..	..	50,064
Overdue and unconverted	Australia	90	..	240	..	..	..	330
	London	8,450	..	..	..	..	..	8,450
Interminable	Australia	363,707	..	..	98,382	..	..	462,089
	London	1,000	..	..	..	..	..	1,000
Treasurer's Option	Australia	6,070,924	..	..	497,309	..	..	6,568,233
	London	..	..	..	2,433,499	..	..	2,433,499
Half-yearly drawings	Australia	..	..	3,894,811	..	315,589	486,977	4,697,377
	London	..	..	..	..	219,916	..	219,916
Indefinite	Australia	..	3,619,320	..	593,700	..	..	4,123,020
	London	..	..	..	..	..	..	..
Total	Australia	188,379,000	112,701,285	57,610,805	64,237,967	49,474,403	12,776,207	485,179,757
	London	158,751,952	62,497,955	62,816,521	42,915,657	43,982,761	13,362,987	384,327,833
	New York	12,713,038	4,498,878	7,075,835	1,733,468	2,015,436	227,796	28,764,451
Total ..		359,843,990	179,698,118	127,503,251	108,887,092	95,472,600	26,366,990	897,772,741

5. **Sinking Funds.**—Prior to the passing of the Financial Agreement Act 1928, the practice of providing sinking funds by the States had been consistently followed in Western Australia only. This State had established sinking funds in connexion with each of its loans the contributions to which varied from 1 per cent. to 3 per cent. per annum of the nominal amount of the loan. The funds are placed with trustees in London, by whom they are invested in securities, and applied from time to time to the redemption of loans falling due. In the other States the sinking fund provision varies, consisting in certain instances of the revenues from specified sources, in others of the Consolidated Revenue Fund surplus, and in others again of fixed annual amounts. The Financial Agreement Act 1928 contains provisions for the establishment of a sinking fund on States' debts (see p. 914). Some particulars of the transactions of the National Debt Sinking Fund (States' Account) for 1938-39 are shown below, and further details are given in *Finance Bulletin* No. 30 issued by this Bureau.

STATE PUBLIC DEBTS, 30th JUNE, 1939 : SINKING FUNDS.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
Total Receipts, 1938-39	2,385,938	1,165,074	878,563	691,056	647,722	173,477	5,944,830
Total Receipts, to 30th June, 1939 ..	19,271,430	10,357,853	7,534,749	6,268,440	5,563,709	1,507,797	50,503,978
Total Funds applied to Redemptions, 1938-39	2,513,219	1,014,231	781,290	927,752	595,277	185,193	6,016,962
Total Funds applied to Redemptions, to 30th June, 1939 ..	19,215,042	9,854,093	7,368,503	6,151,420	6,158,448	1,498,470	50,245,976
Total Funds applied to Investments, less amount received on Investments realized to 30th June, 1939 ..	..	..	Cr. 123,058	..	Cr. 954,395	..	Cr. 1,077,453
Total Expenditure to 30th June, 1939	19,215,042	9,854,093	7,245,445	6,151,420	5,204,053	1,498,470	49,168,523
Balance at 30th June, 1939, not permanently invested ..	56,388	503,760	289,304	117,020	359,656	9,327	1,335,455
Investments at 30th June, 1939 .. .. .	..	..	528,244	..	..	..	528,244
Total Balance at 30th June, 1939	56,388	503,760	817,548	117,020	359,656	9,327	1,863,609

D.—COMMONWEALTH AND STATE FINANCE.

1. **Revenue and Expenditure.**—The following tables show the aggregate revenue and expenditure of the Commonwealth and States for each of the five years to 1938-39, allowance having been made in cases of duplication:—

COMMONWEALTH AND STATES : REVENUE.

Year ended 30th June—	Revenue collected by Commonwealth Government.(a)	Revenue collected by State Governments.(b)(c)	Total.
	£	£	£
1935	75,956,678	97,372,643	173,329,321
1936	81,923,489	102,227,546	184,151,035
1937	82,775,120	109,075,492	191,850,612
1938	89,416,077	116,193,354	205,609,431
1939	95,001,628	115,993,501	210,995,129

(a) Excludes Balance of Interest on States' Debts, Interest on Loans to States for Soldier Land Settlement, etc., and other miscellaneous receipts from States. (b) Excludes Payments by Commonwealth Government under "Surplus Revenue", "Special Grants", "Financial Agreement", and "Federal Aid Roads" Acts. (c) See C. § 1, par. 2, *ante*.

COMMONWEALTH AND STATES : EXPENDITURE.

Year ended 30th June—	Expenditure by Commonwealth Government.(a)	Expenditure by State Governments.(b)	• Total.
	£	£	
1935	65,260,561	110,773,219	176,033,780
1936	67,983,128	115,147,782	183,130,910
1937	71,445,401	119,492,741	190,938,142
1938	75,894,537	126,241,120	202,135,656
1939	84,674,147	129,563,948	214,238,095

(a) Excludes Payments to States, Balance of Interest on States' Debts, Interest on Loans to States for Soldier Land Settlement, etc., and other miscellaneous receipts from States. Payments to States by Commonwealth for relief of Wheat-growers and other Primary Producers not deducted. (b) See C. § 1. par. 2. ante.

2. Taxation.—The table hereunder shows the combined Commonwealth and State taxation for each of the years 1934-35 to 1938-39, as well as the amount per head of population. Certain taxation collections by the State Governments which are not paid into the Consolidated Revenue Fund have been included :—

TOTAL COMMONWEALTH AND STATE TAXATION.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£
Commonwealth—					
Customs and Excise ..	37,869,486	41,437,717	42,993,032	48,383,005	47,632,365
Sales Tax	8,554,076	9,432,468	8,008,427	8,023,886	9,308,334
Flour Tax	798,354	1,150,738	Dr. 12,193	3,025	1,808,972
Other	11,532,608	11,596,383	11,784,186	12,638,569	15,287,228
Total	58,754,524	63,617,306	62,773,452	69,048,485	74,036,899
State	36,461,255	40,981,823	45,457,135	49,692,793	50,529,392
Grand Total	95,215,779	104,599,129	108,230,587	118,741,278	124,566,291
Taxation per head (a)—					
Commonwealth—					
Customs and Excise ..	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Sales Tax	5 13 0	6 2 9	6 6 4	7 1 0	6 17 7
Flour Tax	1 5 6	1 7 11	1 3 6	1 3 4	1 6 9
Other	0 2 5	0 3 5	..	..	0 5 3
Total	1 14 5	1 14 5	1 14 8	1 16 10	2 4 2
State					
Total	8 15 4	9 8 6	9 4 6	10 1 2	10 13 9
Grand Total	14 4 1	15 9 11	15 18 1	17 6 0	17 19 7

(a) That for Commonwealth based on mean population of each financial year; that for States, on the aggregate mean population of the six States.

3. Public Debt.—(i) *General.* The table hereunder shows the public debt of the Commonwealth and of the States at the 30th June in each of the years 1935 to 1939. In this table all moneys borrowed by the Commonwealth on behalf of the States have been included with State debts only, and similarly, the debts taken over by the Commonwealth from South Australia on account of the Northern Territory and of the Port Augusta—Oodnadatta Railway have been included with the Commonwealth Debt :—

COMMONWEALTH AND STATE PUBLIC DEBTS.

Particulars.	Where Redeemable.	At 30th June—				
		1935.	1936.	1937.	1938.	1939.
		£ (a)	£ (a)	£ (a)	£ (a)	£ (a)
Commonwealth	Aust. . .	220,280,163	218,291,973	214,818,637	216,400,462	218,496,483
	London	157,233,141	156,285,327	155,778,627	158,363,627	162,849,947
	New York	16,526,641	16,351,176	16,201,952	16,080,972	15,913,501
	Total (b)	394,039,945	390,928,476	386,799,216	390,845,061	397,250,931
States	Aust. . .	429,701,893	447,258,509	459,579,899	469,742,248	485,179,757
	London	389,223,822	388,575,335	387,633,735	385,888,993	384,327,833
	New York	29,038,036	28,908,661	28,747,909	28,549,461	28,264,451
	Total (b)	847,963,751	864,742,505	875,961,543	884,180,702	897,772,041
Total, Commonwealth and States	Aust. . .	649,982,056	665,550,482	674,398,536	686,142,710	703,676,240
	London	546,456,963	544,860,662	543,412,362	544,252,620	547,168,780
	New York	45,564,677	45,259,837	44,949,861	44,630,433	44,177,952
	Grand Total (b)	1,242,003,696	1,255,670,981	1,262,760,759	1,275,025,763	1,295,022,972

(a) The units of currency are—

For debt maturing in Australia	..	..	..	£ (Aust.)
For debt maturing in London	..	..	..	£ (Stg.)
For debt maturing in New York	..	..	..	*

* Payable in terms of dollars. See note (c) on next page.

(b) The "face" or "book" value of the debts without adjustment on account of currency change since the loans were floated.

(ii) *Dates of Maturity.* The particulars given in the appended table show as at 30th June, 1939, the amounts of Commonwealth and State securities maturing in Australia and overseas according to the latest year of maturity, together with the amount of interest payable yearly thereon.

COMMONWEALTH AND STATE PUBLIC DEBTS, 30th JUNE, 1939 : LATEST DATES OF MATURITY.

Year of Maturity.	Commonwealth and State Debts.				Annual Interest Payable at 30th June, 1939, in respect of Commonwealth and State Debts maturing in the Years stated.			
	Maturing in—				Interest Payable.			
	Australia.	London.	New York.	Total.	In Australia.	In London.	In New York.	Total.
	£	£ (Stg.)	£ (c)	£ (a)	£	£ (Stg.)	£ (c)	£ (b)
1939-40 ..	77,661,199	31,979,801	..	109,641,000	1,619,024	768,637	..	2,387,661
1940-41 ..	10,206,065	..	..	10,206,065	355,211	..	..	355,211
1941-42 ..	99,636,665	13,469,981	1,804,891	114,911,537	3,983,105	104,099	126,342	4,513,546
1942-43 ..	34,400,007	16,551,402	..	50,951,409	1,313,586	455,164	..	1,768,750
1943-44 ..	23,630,990	..	..	23,630,990	866,285	..	..	866,285
1944-45 ..	50,539,075	3,958,800	..	54,497,875	1,936,327	138,558	..	2,074,885
1945-46 ..	16,500	..	..	16,500	453	..	..	453
1946-47 ..	1,487,928	5,674,113	2,054,865	9,216,906	56,792	177,312	123,292	357,396
1947-48 ..	38,126,256	..	..	38,126,256	1,512,664	..	..	1,512,664
1948-49 ..	32,911,066	38,496,687	..	71,407,753	1,088,054	1,447,903	..	2,535,957
1949-50 ..	24,995,870	6,055,545	..	31,051,415	887,748	211,944	..	1,099,692
1950-51 ..	29,390,998	20,466,578	..	49,857,576	1,168,378	760,102	..	1,928,480
1951-52 ..	27,845,066	..	..	27,845,066	1,042,735	..	..	1,042,735
1952-53 ..	491,718	11,800,990	..	12,292,708	17,149	413,035	..	430,184
1953-54 ..	27,673,887	30,385,590	..	58,059,477	1,103,230	1,112,457	..	2,215,687
1954-55 ..	83,600,917	3,205,104	..	86,805,121	3,223,565	112,179	..	3,335,744
1955-56 ..	40,640,284	..	24,056,713	64,696,997	1,607,992	..	1,156,354	2,764,346
1956-57 ..	346,684	6,996,000	4,394,225	11,736,909	13,867	262,350	219,711	495,928
1957-58 ..	26,293,985	38,184,000	11,867,258	76,345,243	1,050,601	1,547,606	593,363	3,191,570
1958-59 ..	548,227	21,080,050	..	21,637,277	19,188	738,117	..	757,305
1959-60 ..	27,073,445	3,782,624	..	30,856,069	1,071,507	149,111	..	1,220,618
1960-61 ..	1,141,981	55,695,106	..	56,837,087	34,259	2,337,483	..	2,371,742
1961-62 ..	25,365,974	4,871,182	..	30,237,156	1,009,778	194,847	..	1,204,625
1962-63 ..	718,433	10,288,390	..	11,006,829	21,660	411,536	..	433,196
1963-64 ..	2,414,200	6,000,000	..	8,414,200	73,992	240,000	..	313,992
1964-65 ..	..	..	..	..	..	..	..	..
1965-66 ..	..	14,065,000	..	14,065,000	..	703,250	..	703,250
1966-67 ..	..	..	..	..	..	..	..	..
1967-68 ..	..	..	..	..	..	..	..	..
1968-69 ..	..	..	..	..	..	..	..	..
1969-70 ..	..	1,920,650	..	1,920,650	..	67,223	..	67,223
1970-71 ..	..	11,565,222	..	11,565,222	..	462,609	..	462,609
1971-72 ..	..	..	..	..	..	..	..	..
1972-73 ..	..	..	..	..	..	..	..	..
1973-74 ..	..	..	..	..	..	..	..	..
1974-75 ..	..	13,933,306	..	13,933,306	..	452,833	..	452,833
1975-76 ..	50,064	94,346,567	..	94,396,631	1,552	4,717,329	..	4,718,881
Overdue and Unconverted ..	(d) 200,287	8,450	..	208,737	283	..	..	283
Interminable ..	462,089	1,000	..	463,089	15,217	50	..	15,267
Treasurers' Option ..	6,568,233	2,433,499	..	9,001,732	189,346	73,005	..	262,351
Half-yearly Drawings ..	4,918,486	219,916	..	5,138,402	161,592	7,697	..	169,289
Annual Repayments ..	..	79,724,221	..	79,724,221	..	..	..	..
Indefinite ..	4,320,561	..	..	4,320,561	139,725	..	..	139,725
Total ..	703,676,240	547,168,780	44,177,952	1,295,022,972	25,584,865	18,366,436	2,219,062	46,170,363

(a) The total "face" or "book" value of the Public Debt, leaving out of account currency changes since the loans were floated. (b) Nominal amount of interest payable takes no account of exchange.

(c) Payable in terms of dollars. For the purposes of this table, dollars have been arbitrarily converted at the rate of 84.8665 to £1. (d) Includes £7,070 unconverted. (e) Capital and interest payments suspended by arrangement with British Government.

The following table gives particulars of Commonwealth and State Public Debt as at the 30th June, 1939, according to the earliest year of maturity, together with the amount of interest payable yearly :—

COMMONWEALTH AND STATE PUBLIC DEBTS. 30th JUNE, 1939 : EARLIEST DATES OF MATURITY.

Year of Maturity.	Commonwealth and State Debts.				Annual Interest Payable at 30th June, 1939, in respect of Commonwealth and State Debts maturing in the Years stated.			
	Maturing in.				Interest Payable.			
	Australia.	London.	New York.	Total.	In Australia.	In London.	In New York.	Total.
	£	£ (Stg.)	£ (c)	£ (a)	£	£ (Stg.)	£ (c)	£ (b)
Before 1939-40 ..	843,467	23,196,295	4,917,739	30,957,501	33,999	858,347	221,298	1,113,644
1939-40 ..	77,666,283	44,627,606	..	123,293,889	1,619,170	1,162,922	..	2,782,092
1940-41 ..	9,769,020	60,222,437	..	69,991,457	334,886	2,467,522	..	2,802,408
1941-42 ..	99,631,765	4,871,182	10,625,296	115,128,243	3,982,915	194,847	567,362	4,745,124
1942-43 ..	34,488,061	10,288,396	..	44,776,457	1,316,202	411,536	..	1,727,738
1943-44 ..	23,627,690	17,221,192	..	40,848,882	866,170	688,848	..	1,555,018
1944-45 ..	50,536,175	3,958,800	..	54,494,975	1,936,226	138,558	..	2,074,784
1945-46 ..	16,200	124,516,916	..	124,533,116	443	6,024,529	..	6,024,972
1946-47 ..	1,487,928	..	2,054,865	3,542,793	56,792	..	123,292	180,084
1947-48 ..	38,118,156	17,870,500	5,566,519	61,555,175	1,512,351	938,201	278,326	2,728,908
1948-49 ..	32,907,766	24,754,671	..	57,662,437	1,087,939	889,524	..	1,977,463
1949-50 ..	24,993,170	7,976,195	..	32,969,365	887,653	279,167	..	1,166,820
1950-51 ..	98,168,839	22,602,055	..	120,770,894	3,919,427	791,072	..	4,710,499
1951-52 ..	27,845,066	..	..	27,845,066	1,042,735	..	..	1,042,735
1952-53 ..	83,306,657	6,996,060	16,634,859	106,937,516	3,210,330	262,350	831,743	4,304,423
1953-54 ..	27,348,112	21,089,050	..	48,437,162	1,072,978	738,117	..	1,811,095
1954-55 ..	775,378	20,313,500	..	21,088,878	30,046	609,405	..	639,451
1955-56 ..	12,788,817	32,343,593	4,378,674	49,511,084	511,171	1,137,906	197,041	1,846,118
1956-57 ..	..	..	..	346,684	13,867	..	..	13,867
1957-58 ..	12,980,387	..	..	12,980,387	518,058	..	..	518,058
1958-59 ..	548,227	..	..	548,227	19,188	..	..	19,188
1959-60 ..	13,243,033	..	..	13,243,033	518,362	..	..	518,362
1960-61 ..	1,141,981	6,000,000	..	7,141,981	34,259	240,000	..	274,259
1961-62 ..	11,611,829	..	..	11,611,829	459,612	..	..	459,612
1962-63 ..	611,629	..	..	611,629	18,349	..	..	18,349
1963-64 ..	2,414,200	..	..	2,414,200	73,992	..	..	73,992
1964-65 ..	..	13,933,306	..	13,933,306	..	452,833	..	452,833
1965-66 ..	..	..	..	..	..	..	..	..
1966-67 ..	..	..	..	..	..	..	..	..
1967-68 ..	..	..	..	..	..	..	..	..
1968-69 ..	..	..	..	..	..	..	..	..
1969-70 ..	..	..	..	..	..	..	..	..
1970-71 ..	..	..	..	..	..	..	..	..
1971-72 ..	..	..	..	..	..	..	..	..
1972-73 ..	..	..	..	..	..	..	..	..
1973-74 ..	..	..	..	..	..	..	..	..
1974-75 ..	..	..	..	..	..	..	..	..
1975-76 ..	50,064	..	..	50,064	1,552	..	..	1,552
Overdue and Un- converted ..	(d) 200,287	8,450	..	208,737	283	..	..	283
Interminable ..	462,089	1,000	..	463,089	15,217	50	..	15,267
Treasurers' Option ..	6,568,233	2,433,499	..	9,001,732	189,346	73,005	..	262,351
Half-yearly Drawings ..	4,918,486	219,916	..	5,138,402	161,592	7,697	..	169,289
Annual Repayments ..	..	279,724,221	..	279,724,221	..	..	..	..
Indefinite ..	4,320,561	..	..	4,320,561	139,725	..	..	139,725
Total ..	703,676,240	547,168,780	44,177,952	1,295,022,972	25,584,865	18,366,436	2,219,062	46,170,363

(a) The total "face" or "book" value of the Public Debt, leaving out of account currency changes since the loans were floated. (b) Nominal amount of interest payable takes no account of exchange. (c) Payable in terms of dollars. For the purposes of this table, dollars have been arbitrarily converted at the rate of \$4.8665 to £1. (d) Includes £7,070 unconverted. (e) Capital and interest payments suspended by arrangement with British Government.

(iii) *Rates of Interest, 30th June, 1939.* The amount of Commonwealth and State Public Debt at each rate of interest (internal and external debt shown separately) is given in the following table:—

COMMONWEALTH AND STATE PUBLIC DEBTS, 30th JUNE, 1939 : AMOUNT AT EACH RATE OF INTEREST.

Rate of Interest.	Commonwealth and State Debt maturing—			
	In Australia. £ (Aust.)	In London. £ (Stg.)	In New York. £ (c)	Total. £ (b)
7.0	1,804,891	1,804,891
6.0	2,054,865	2,054,865
5.25	..	17,870,500	..	17,870,500
5.0375	..	522,275	..	522,275
5.0	(a) 5,288	126,521,367	31,021,783	157,548,438
4.91667	..	79,724,221	..	79,724,221
4.75	..	11,910,100	..	11,910,100
4.65	..	1,389,110	..	1,389,110
4.5	9,296,413	9,296,413
4.45025	..	84,650	..	84,650
4.2625	..	3,394,811	..	3,394,811
4.25	..	86,585	..	86,585
4.06875	..	15,207,150	..	15,207,150
4.0	(d) 306,875,986	64,544,543	..	371,420,529
3.96667	..	5,685,910	..	5,685,910
3.95417	..	1,875,750	..	1,875,750
3.89167	..	1,035,000	..	1,035,000
3.875	..	110,825,878	..	110,825,878
3.8125	..	200,000	..	200,000
3.79167	..	6,370,000	..	6,370,000
3.75	..	80,239,408	45,522,082	125,761,490
3.72917	..	350,000	..	350,000
3.675	..	66,510	..	66,510
3.625	..	412,130	..	412,130
3.5	..	16,531,283	76,337,698	92,868,981
3.4875	..	6,801,878	..	6,801,878
3.42083	..	1,130,950	..	1,130,950
3.375	..	13,822,810	..	13,822,810
3.25	..	16,977,706	34,711,677	51,689,383
3.125	..	398,230	..	398,230
3.1	..	7,740,734	..	7,740,734
3.02083	..	2,482,000	..	2,482,000
3.0	..	39,768,218	46,091,739	85,859,957
2.90625	..	225,100	..	225,100
2.75	16,551,402	16,551,402
2.7125	..	1,291,181	..	1,291,181
2.325	..	1,851,938	..	1,851,938
2.25	24,884,001	24,884,001
2.0	2,491,000	2,491,000
1.75	..	59,820,248	..	59,820,248
Overdue	..	193,217	8,450	201,667
War Savings Stamps	..	14,306	..	14,306
Total	703,676,240	547,168,780	44,177,952	1,295,022,972
Average Rate of Interest	£ s. d. 3 12 9	£ s. d. 3 18 7	£ s. d. 5 0 6	£ s. d. 3 16 0

(a) War Savings Certificates. (b) Total "face" or "book" value of the Public Debt without adjustment on account of currency changes since the loans were floated. (c) See note (c) on previous page. (d) Includes unconverted securities, £7,070.

(iv) *Interest Payable.* The table hereunder shows the interest payable on the public debt of the Commonwealth and of the States at the 30th June in each of the years 1935 to 1939:—

COMMONWEALTH AND STATE PUBLIC DEBTS : INTEREST PAYABLE.

Particulars.	Where Payable.	At 30th June.				
		1935.	1936.	1937.	1938.	1939.
		£ (a)	£ (a)	£ (a)	£ (a)	£ (a)
Commonwealth	Australia ..	8,433,132	8,363,055	8,245,897	8,301,752	8,344,627
	London (d) ..	3,108,395	3,077,601	3,040,262	3,201,299	3,493,554
	New York ..	805,973	797,954	790,935	785,240	777,586
	Total (b) ..	12,347,500	12,238,610	12,077,094	12,288,291	12,525,767
	States	Australia ..	15,297,503	15,841,783	16,333,969	16,715,028	17,240,238
	London (c) ..	15,883,742	15,407,943	15,070,888	15,010,049	14,962,882
	New York ..	1,480,500	1,474,208	1,466,264	1,456,415	1,441,476
	Total (b)	32,661,545	32,723,934	32,871,121	33,181,492	33,644,596
Total Commonwealth and States	Australia ..	23,730,435	24,204,838	24,579,866	25,016,780	25,584,865
	London (d) ..	18,992,137	18,485,544	18,111,150	18,211,348	18,366,436
	New York ..	2,286,473	2,272,162	2,257,199	2,241,655	2,219,062
	Total (b) ..	45,009,045	44,962,544	44,948,215	45,469,783	46,170,363
	Average Rate per cent.	Australia ..	£ s. d. 3 13 0	£ s. d. 3 12 9	£ s. d. 3 12 11	£ s. d. 3 12 11	£ s. d. 3 12 9
	London ..	4 1 5	3 19 6	3 18 7	3 18 5	3 18 7
	New York ..	5 0 4	5 0 5	5 0 5	5 0 5	5 0 6
	Total (b) ..	3 17 5	3 16 6	3 16 0	3 16 1	3 16 0

(a) The units of currency are—

For interest payable in Australia	.. .. .	£ (Aust.)
For interest payable in London	.. .. .	£ (Stg.)
For interest payable in New York	.. .. .	*

* Payable in terms of dollars, see note (c) on page 907.

(b) The nominal amount and average rate of interest payable taking no account of exchange.

(c) Includes contributions payable by Commonwealth and British Governments towards interest on Migration Loans.

(d) Excludes suspended interest on War Debt due to the Government of the United Kingdom.

(v) *Short-term Debt. (a) Amount.* Particulars of the short-term debt (Treasury Bills and Debentures) of the Commonwealth and States in London and in Australia at intervals from 30th June, 1932, to 30th June, 1939, are given in the following table :—

COMMONWEALTH AND STATES : SHORT TERM DEBT.(a)

Date.	Maturing in London.			Maturing in Australia.		
	Commonwealth.	States.	Total.	Commonwealth.	States.	Total.
	£'000 Stg.	£'000 Stg.	£'000 Stg.	£'000 Aust.	£'000 Aust.	£'000 Aust.
30th June, 1932 ..	10,220	27,105	37,325	6,330	38,660	44,990
30th June, 1933 ..	10,220	23,905	34,125	3,500	45,375	48,875
30th June, 1934 ..	10,220	23,405	33,625	..	48,469	48,469
30th June, 1935 ..	10,220	23,405	33,625	..	45,124	45,124
30th September, 1935 ..	10,220	23,155	33,375	..	47,800	47,800
31st December, 1935 ..	10,220	23,155	33,375	..	51,080	51,080
31st March, 1936 ..	10,220	23,155	33,375	..	48,750	48,750
30th June, 1936 ..	10,220	23,155	33,375	..	47,013	47,013
30th September, 1936 ..	10,220	23,155	33,375	..	48,778	48,778
31st December, 1936 ..	9,720	23,155	32,875	..	53,584	53,584
31st March, 1937 ..	9,720	23,155	32,875	..	52,854	52,854
30th June, 1937 ..	9,720	23,155	32,875	..	46,408	46,408
30th September, 1937 ..	9,720	23,155	32,875	..	50,023	50,023
31st December, 1937 ..	9,470	23,155	32,625	..	54,808	54,808
31st March, 1938 ..	10,120	23,155	33,275	..	52,968	52,968
30th June, 1938 ..	5,495	23,155	28,650	..	46,598	46,598
30th September, 1938 ..	4,470	23,155	27,625	..	52,008	52,008
31st December, 1938 ..	4,220	23,155	27,375	..	59,573	59,573
31st March, 1939 ..	4,220	23,155	27,375	..	56,923	56,923
30th June, 1939 ..	4,220	23,155	27,375	..	50,228	50,228

(a) Exclusive of overdrafts.

(b) *Interest Rates. (i) London.* The rates of interest payable on Treasury Bills and Debentures in London during the period 1931-32 to 1938-39 were as follows :—

Year.		Minimum Rate.	Maximum Rate.
1931-32 .. .. .	.. .. .	3%	6½%
1932-33 .. .. .	.. .. .	2	4½
1933-34 .. .. .	.. .. .	2	3
1934-35 .. .. .	.. .. .	2	3
1935-36 .. .. .	.. .. .	2	2½
1936-37 .. .. .	.. .. .	2	2½
1937-38 .. .. .	.. .. .	2	2½
1938-39 .. .. .	.. .. .	2	2½

(ii) *Australia.* The Treasury Bills rates in Australia were as follows :—

- 5½ per cent from 10th October, 1929.
- 6 per cent. from 1st October, 1930.
- 4 per cent. from 31st July, 1931.
- 3½ per cent. from 27th October, 1932.
- 3¼ per cent. from 21st January, 1933.
- 2¾ per cent. from 18th February, 1933.
- 2½ per cent. from 1st June, 1933.
- 2¼ per cent. from 1st April, 1934.
- 2 per cent. from 15th October, 1934.
- 1¾ per cent. from 1st January, 1935.

(vi) *Debts of States and Municipal and Semi-Governmental Bodies.* For the reasons indicated in par. 2, Division II. § 4 (page 897) direct comparisons of the debts of the several States should be made with caution. The table following shows for 1937-38 particulars of the debts of the States and the debts due to the Public Creditor by Municipal and Semi-Governmental bodies in each State. This affords a more reliable comparison, but as complete records are not available over a long period, particulars showing comparisons of the growth of the debt cannot be made. For further particulars relating to the Debt of Local and Semi-Governmental Authorities see *Finance Bulletin* No. 30.

**PUBLIC DEBT: STATES, MUNICIPAL AND SEMI-GOVERNMENTAL BODIES,
1936-37 and 1937-38.**

State.	Debts of the States. (a)	Due to Public Creditor.(b)		Grand Total.
		Municipal.	Semi-Governmental Bodies,	
	£'000.	£'000.	£'000.	£'000.
New South Wales	354,168	34,549	48,317	437,034
Victoria	177,228	12,105	39,144	228,477
Queensland	125,782	18,289	2,605	146,676
South Australia	107,450	846	810	109,106
Western Australia	93,712	3,141	104	96,957
Tasmania	25,841	2,852	487	29,180
Total, All States { 1937-38 ..	884,181	71,782	91,467	1,047,430
{ 1936-37 ..	875,962	66,549	86,912	1,029,423

DEBT PER HEAD OF POPULATION.(c)

	£	£	£	£
New South Wales	130.2	12.7	17.8	160.7
Victoria	95.0	6.5	20.9	122.4
Queensland	125.3	18.3	2.6	146.2
South Australia	181.5	1.4	1.3	184.2
Western Australia	203.7	6.8	0.2	210.7
Tasmania	110.3	12.2	2.1	124.6
Total, All States { 1937-38 ..	128.6	10.4	13.3	152.3
{ 1936-37 ..	128.5	9.8	12.7	151.0

(a) Includes amounts due by Municipal and Semi-Governmental bodies. (b) Excluding overdrafts and debts due to Central Government. (c) At 30th June, 1937 and 1938.

4. **The Financial Agreement between the Commonwealth and the States.**—The original Financial Agreement between the Commonwealth and the States was made on the 12th December, 1927. It was later affected by the following agreements made under the powers conferred by Section 105A of the Constitution :—

Debt Conversion Agreement—Made 21st July, 1931.

Debt Conversion Agreement (No. 2)—Made 22nd October, 1931.

Agreement relating to Soldier Settlement Loans—Made 3rd July, 1934.

A further Agreement was made between the Commonwealth and Tasmania only on the 1st July, 1928. This was not an amendment, but was made under the authority of Part III., Clause 3 (l) of the original Agreement.

At the meeting of the Loan Council in June, 1939, a Gentlemen's Agreement was made whereby the borrowing programmes of semi-governmental and local governmental authorities in each State should be submitted to the Loan Council for approval.

A summary of the original Agreement as affected by the subsequent Agreements is given below.

(i) *Australian Loan Council.* Under the Agreement, an Australian Loan Council was set up to co-ordinate the public borrowings of the Commonwealth and the States. It consists of the Prime Minister of the Commonwealth, and the Premier of each State, or in their absences Ministers nominated by them in writing.

Each of the Governments submits annually to the Loan Council a programme setting forth the amount it desires to raise by loans for the next financial year for purposes other than the conversion, renewal or redemption of existing loans or temporary purposes. Any revenue deficit to be funded must be included in the loan programme. The loan programme of the Commonwealth does not include loans for Defence purposes, which are not subject to the Agreement.

If the Loan Council decides that the total amount of the loan programmes cannot be borrowed at reasonable rates and conditions, it then decides the amount which shall be borrowed and may, by unanimous decision, allocate that amount between the Commonwealth and the States. In default of a unanimous decision, the Commonwealth is then entitled to one-fifth of the total amount to be borrowed and each State to a proportion of the remainder equal to the ratio of its net loan expenditure in the preceding five years to the net loan expenditure of all States during the same period.

Questions other than the apportionment of loans are decided by a majority vote of the Council members, the member representing the Commonwealth having two votes and a casting vote and each member representing a State having one vote.

(ii) *Borrowings of the Commonwealth and the States.* (a) Subject to the decisions of the Loan Council, the Commonwealth arranges for all borrowings for or on behalf of the Commonwealth or any State, and for all conversions, renewals, redemptions, and consolidations of the Public Debts of the Commonwealth and of the States.

(b) If the Loan Council unanimously decides, however, a State may borrow outside Australia in the name of the State, and may issue securities for the amount so borrowed. The Commonwealth then guarantees that the State will fulfil all its obligations to bondholders in respect of the money so borrowed and the money is deemed to be borrowed by the Commonwealth for and on behalf of the State.

(c) Subject to any maximum limits decided upon by the Loan Council for interest, brokerage, discount and other charges, the Commonwealth or any State may—

- (i) Borrow within its own territory, for any purpose, money from any authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice.
- (ii) Borrow from the public by means of counter sales of securities.
- (iii) Use any available public moneys.

However, any securities issued for money so borrowed or used must be Commonwealth securities on terms approved by the Loan Council.

(d) Where such borrowings are not solely for temporary purposes, they are treated as loans under the Agreement and, if their amount together with the amount of loan money raised for the Government concerned by the Loan Council exceeds the limit (if any) of the amount to be raised for or by that Government, the excess is deemed to be money received by the Government in the following year on account of its loan programme for that year.

(e) Any Government may use for temporary purposes any available public money and may, subject to terms approved by the Loan Council, borrow money for temporary purposes by way of overdraft, or fixed, special or other deposit. The conditions as to sinking fund, etc., do not apply to such temporary borrowing.

(iii) *Taking over of State Public Debts.* Subject to the provision of the Financial Agreement, the Commonwealth took over on 1st July, 1929—

(i) the balance then unpaid of the gross public debt of each State existing on 30th June, 1927; and

(ii) all other debts of each State existing on 1st July, 1929, for money borrowed by that State deemed by the Agreement to be money borrowed by the Commonwealth for and on behalf of the State—

and in respect of these debts assumed, as between the Commonwealth and the States, the liabilities of the States to bondholders.

The net public debt of each State existing on 30th June, 1927, was as follows:—

	£
New South Wales	234,088,501
Victoria	136,949,942
Queensland	101,977,855
South Australia	84,834,364
Western Australia	61,060,675
Tasmania	22,434,060
Total	641,345,397

These amounts have been varied in accordance with the terms of the " Agreement relating to Soldier Settlement Loans " made on 3rd July, 1934. The amended figures are—

	£
New South Wales	233,153,779
Victoria	136,348,982
Queensland	101,840,622
South Australia	84,029,376
Western Australia	61,060,675
Tasmania	22,314,180
Total	638,747,180

These amounts represent the gross debt less—

(i) the values of properties transferred by the States to the Commonwealth as shown below.

(ii) The balances of the State sinking funds at 30th June, 1927.

(iv) *Transferred Properties.* In respect of State properties transferred to the Commonwealth under Section 85 of the Constitution, the States, as from 1st July, 1929, are discharged from any liability in respect of principal, interest or sinking fund on so much of the debts bearing interest at 5 per centum per annum taken over by the Commonwealth as amounts to the agreed value of these properties, namely £10,924,323, apportioned to the several States as follows:—

	£
New South Wales	4,788,005
Victoria	2,302,862
Queensland	1,560,639
South Australia	1,035,631
Western Australia	730,432
Tasmania	500,754
Total	10,924,323

(v) *Payment of Interest.* The Commonwealth will, in each year during a period of 58 years from 1st July, 1927, contribute the sum of £7,584,912 towards the interest payable on the State debts, the States paying the balance to the Commonwealth. After that period, the States will pay to the Commonwealth the whole of the interest due.

The distribution among the States of the contribution of the Commonwealth is as follows :—

	£
New South Wales	2,917,411
Victoria	2,127,159
Queensland	1,096,235
South Australia	703,816
Western Australia	473,432
Tasmania	266,859
Total	7,584,912

These amounts are equal to the sums paid by the Commonwealth to each State in the year 1926-27 at the rate of 25s. per head of population, the rate at which the Commonwealth had contributed annually to the States since 1st July, 1910, as compensation for the States relinquishing, after Federation, the right to levy customs and excise duties.

(vi) *Sinking Funds.* (a) A sinking fund at the rate of 7s. 6d. per annum for each £100 of the net public debts of the States existing on 30th June, 1927, and conversions thereof, was established under the terms of the Agreement. The Commonwealth contributes from revenue 2s. 6d. per cent. and each State 5s. per cent. on all State debts existing at 30th June, 1927. The payments of the Commonwealth and of all States except New South Wales will continue for a period of 58 years commencing on 1st July, 1927 and those of New South Wales for a similar period commencing on 1st July, 1928.

(b) On new borrowings after 1st July, 1927 (except those for redemptions or conversions, or funding a State deficit) a sinking fund at the rate of 10s. per cent. per annum is established and the State and the Commonwealth contribute equal shares for a period of 53 years from the date of raising. (New South Wales did not commence sinking fund contributions in respect of new loans raised in the financial year 1927-28 until 1st July, 1928).

(c) Any State may increase its contribution in respect of loan funds expended on wasting assets in order to redeem a loan within a shorter period than 53 years. When this shorter period has expired, the State contributions cease but the Commonwealth contributions continue until the full period of 53 years has elapsed. State contributions in respect of other loans are reduced by the amount of these Commonwealth contributions during the period remaining.

(d) Where loan moneys have been advanced by a State under terms providing for their repayment, the State may credit such repayments either to the loan account or to the sinking fund and, in addition, it must provide from revenue its sinking fund contributions in respect of the loan from which the money so advanced was provided. However, advances repaid to the State from the revenue of Public or Local Authorities may be used by the State to meet sinking fund contributions in respect of the loans concerned.

(e) In respect of any loan raised after 30th June, 1927 by a State to meet a revenue deficit accruing after that date, no contribution is made by the Commonwealth but the State makes a sinking fund contribution at the rate of not less than 4 per cent. per annum of the loan for a period sufficient to provide for the redemption of the loan, the contributions being deemed to accumulate at the rate of $4\frac{1}{2}$ per cent. per annum compound interest.

(f) The sinking funds established are controlled by the National Debt Commission which may arrange with any State to act as its agent in connexion with payments due to bondholders. Except where the conditions relating to sinking funds, redemption funds, and funds of a like nature held by a State on 30th June, 1929 precluded such transfer, all such funds were transferred to the National Debt Commission.

(g) Sinking fund contributions made in respect of the debts of a State and funds of that State transferred to the National Debt Commission are not accumulated but must be applied, wherever expedient, to the redemption and repurchase of loan securities. When such a loan security is repurchased or redeemed by the National Debt Commission, it is cancelled, and the State, in addition to sinking fund contributions otherwise payable, pays a further annual sinking fund contribution at the rate of $4\frac{1}{2}$ per cent. on the face value of the cancelled security.

(Note re Validity of Act :—Consequent on the failure of the State of New South Wales to provide certain interest payments on its public debts in accordance with the Financial Agreement, the Commonwealth Parliament passed a Financial Agreement Enforcement Act (No. 3 of 1932). The State of New South Wales attacked the validity of this Act as being *ultra vires* the Commonwealth Parliament and an infringement of public moneys for specific services. The High Court by a majority decision of four to two held that this was a valid law and dismissed the action, subsequently refusing leave to appeal to the Privy Council).

CHAPTER XXVIII.

MISCELLANEOUS.

§ 1. Patents, Trade Marks and Designs.

1. *Patents.*—(i) *General.* The granting of patents is regulated by the Commonwealth Patents Act 1903–1935, which, in regard to principle and practice, has the same general foundation as the Imperial Statutes, modified to suit Australian conditions. The Act is administered by a Commissioner of Patents. Fees totalling £10 are sufficient to obtain letters patent for the Commonwealth of Australia and the Territories of Papua, New Guinea and Norfolk Island. A renewal fee of £5 is payable before the expiration of the seventh year of the patent on all patents granted on applications lodged prior to 2nd February, 1931. On patents granted on applications made on or after the 2nd February, 1931, renewal fees are payable as follows:—£1 before the expiration of the fifth year and an amount progressively increasing by ten shillings before the expiration of each subsequent year up to the fifteenth, when the fee becomes £6. If a renewal fee is not paid when it becomes due, an extension of time up to twelve months may be granted on grounds specified in the Act, and subject to the payment of prescribed fees.

(ii) *Summary.* The number of separate inventions in respect of which applications were filed during the years 1934 to 1938 is given in the following table, which also shows the number of letters patent sealed in each year:—

PATENTS : AUSTRALIA.

Particulars.	1934.	1935.	1936.	1937.	1938.
No. of applications	4,984	5,110	5,484	5,585	5,764
No. of applications accompanied by provisional specifications	3,286	3,238	2,384	3,094	3,067
Letters patent sealed during each year	2,063	2,129	2,429	2,642	2,973

(iii) *Revenue.* The revenue of the Commonwealth Patent Office during the years 1934 to 1938 is shown hereunder:—

PATENTS : REVENUE, AUSTRALIA.

Particulars.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Fees collected under Patents Act	33,488	35,980	37,515	42,614	44,400
Receipts from publications	1,359	1,532	1,569	1,870	1,870
Total	34,847	37,512	39,084	44,484	46,270

2. *Trade Marks and Designs.*—(i) *Trade Marks.* Under the Trade Marks Act 1905 the Commissioner of Patents is also Registrar of Trade Marks. This Act has been amended from time to time, the last amendment having been made in 1936. Special provisions for the registration of a “ Commonwealth Trade Mark ” are contained in the

Act of 1905, and are applicable to all goods included in or specified by a resolution passed by both Houses of Parliament that the conditions as to remuneration of labour in connexion with the manufacture of such goods are fair and reasonable.

(ii) *Designs.* The Designs Act 1906, as amended by the Patents, Designs and Trade Marks Act 1910 and the Designs Acts 1912, 1932, 1933 and 1934, is now cited as the Designs Act 1906-1934. Under this Act a Commonwealth Designs Office has been established, and the Commissioner of Patents appointed "Registrar of Designs."

(iii) *Summary.* The following table shows the applications for trade marks and designs received and registered during the years 1934 to 1938:—

TRADE MARKS AND DESIGNS: AUSTRALIA.

Applications.	1934.	1935.	1936.	1937.	1938.
RECEIVED.					
Trade Marks	2,087	2,071	2,215	2,189	2,212
Designs	1,670	2,319	1,494	1,190	1,498
REGISTERED.					
Trade Marks	1,268	1,349	1,664	1,372	1,740
Designs	1,465	2,085	1,546	971	1,404

(iv) *Revenue.* The revenue of the Trade Marks and Designs Office during the years 1934 to 1938 is given hereunder:—

TRADE MARKS AND DESIGNS: REVENUE, AUSTRALIA.

Particulars.	1934.			1935.			1936.			1937.			1938.		
	Trade Marks.	Designs.	Publications.												
Fees collected under Commonwealth Acts ..	£ 20,469	£ 1,052	£ 17	£ 15,580	£ 1,053	£ 13	£ 16,434	£ 1,110	£ 19	£ 16,580	£ 1,006	£ 18	£ 17,194	£ 1,295	£ 21

No fees in respect of Trade Marks have been collected under State Acts since the year 1922.

§ 2. Copyright.

1. *Legislation.*—Copyright is regulated by the Commonwealth Copyright Act 1912-1935 wherein, subject to modifications relating to procedure and remedies, the British Copyright Act of 1911 has been adopted and scheduled to the Australian law.

Reciprocal protection of unpublished works' was extended in 1918 to citizens of Australia and of the United States of America under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The Commonwealth Government promulgated a further Order in Council which came into operation on the 1st February, 1923, and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

2. **Applications and Registrations.**—The following table shows under the various headings the number of applications for copyright received and registered, and the total revenue obtained for the years 1934 to 1938 :—

COPYRIGHT : AUSTRALIA.

Particulars.	1934.	1935.	1936.	1937.	1938.
Applications received—					
Literary	1,611	1,408	1,463	1,442	1,560
Artistic	108	78	86	92	53
International	3	2	3	2	3
Applications registered—					
Literary	1,514	1,346	1,389	1,367	1,422
Artistic	91	69	78	74	31
International .. .. .	..	..	1	1	4
Revenue	£ 433	378	388	384	397

§ 3. Local Option and Reduction of Licences.

Local option concerning the sale of fermented and spirituous liquors is in force in the States of South Australia and Tasmania. In Victoria, Queensland and Western Australia State-wide polls have superseded the local polls, while in New South Wales the taking of local option polls has been suspended since 1913, though a special State-wide referendum was taken in 1928 on the question of State-wide prohibition with compensation. At the poll held in Victoria on 8th October, 1938, the voting was as follows :—

For abolition of licences	368,676
Against abolition of licences	721,704
Informal	7,648

The percentage of electors who voted was 95.38.

In all States other than South Australia a maximum number is established above which licences shall not be increased except under certain specified conditions (the principal case being the greater demand for service of a considerably increased population). Licences Reduction Boards are in operation in New South Wales and Victoria and in all other States machinery exists for the reduction of licences where it seems desirable or where there is a local option vote in favour of the reduction of licences.

In earlier issues of the Year Book (see No. 22, pp. 1005–1008), details, by States, were published of polls taken and of the operations of the Licences Reduction Boards.

§ 4. Lord Howe Island.

Lord Howe Island is situated in latitude 31° 30' south, longitude 159° 5' east, about 436 miles north-east of Sydney, and has an area of 3,220 acres. The climate is mild and the rainfall abundant, but on account of the rocky formation of its surface only about 300 acres are suitable for cultivation, most of which are devoted to the production of Kentia Palm Seed. The land belongs to the Crown and is occupied rent-free on sufferance.

Discovered in 1788 the Island was first settled by a small party of Maoris in 1853; afterwards a colony was settled from Sydney. Constitutionally the Island is a dependency of New South Wales and is included in King, one of the electorates of Sydney. A Board of Control at Sydney manages the affairs of the Island and supervises the palm seed industry. At the Census of 30th June, 1933, the population was 161.

§ 5. Commonwealth Council for Scientific and Industrial Research.

1. **General.**—By the Science and Industry Research Act 1920–39, the previously existing Commonwealth Institute of Science and Industry was reorganized under the title of the Council for Scientific and Industrial Research. An account of the organization and work of the former Institute was given in earlier issues of the Official Year Book. (See No. 18, p. 1062.)

2. **Science and Industry Research Act 1920-39.**—This Act provides for a Council, consisting of—

- (a) Three members nominated by the Commonwealth Government;
- (b) the Chairman of each State Committee constituted under the Act; and
- (c) such other members as the Council, with the consent of the Minister, co-opt by reason of their scientific knowledge.

The three Commonwealth nominees form an Executive Committee which may exercise, between meetings of the Council, all the powers and functions of the Council, of which the principal are as follows:—(a) To initiate and carry out scientific researches in connexion with primary or secondary industries in the Commonwealth; (b) to train research workers and to establish industrial research studentships and fellowships; (c) to make grants in aid of pure scientific research; (d) to establish industrial research associations in any industries; (e) to test and standardize scientific apparatus and instruments; (f) to establish a Bureau of Information; and (g) to act as a means of liaison between the Commonwealth and other countries in matters of scientific research.

State Committees, whose main function is to advise the Council as to matters that may affect their respective States, have been constituted in accordance with prescribed regulations.

3. **Science and Industry Endowment Act 1926.**—Under this Act, the Government has established a fund of £100,000, the income from which is to be used to provide assistance (a) to persons engaged in scientific research, and (b) in the training of students in scientific research. Provision is made for gifts or bequests to be made to the fund, which is controlled by a trust consisting of the three Commonwealth nominees on the Council. In accordance with the Act, arrangements have been made to send a number of qualified graduates abroad for training in special fields of work.

4. **Work of the Council.**—The full Council held its first meeting in June, 1926, and thereafter at about half-yearly intervals. It has adopted a policy of placing each of its major fields of related researches under the direction of an officer having a standing at least as high as, if not higher than, that of a University Professor.

The main branches of work of the Council at present are (i) plant problems, (ii) soil problems, (iii) entomological problems, (iv) animal health and nutrition problems, (v) forest products, (vi) food preservation and transport, (vii) radio research, (viii) ore-dressing (gold) and mineragraphic investigations, and (ix) fisheries investigations. Successful results have been obtained in a number of directions, particularly in regard to bitter pit in apples, spotted wilt in tomatoes, water blister of pineapples, blue mould of tobacco, the cultivation and drying of vine fruits, the cultivation of citrus fruits, contagious pleuro-pneumonia of cattle, the feeding of sheep for increased wool production, black disease, infectious entero-toxæmia, pulpy kidney and caseous lymphadenitis of sheep, internal parasites, coast disease of sheep, soil surveys, paper making from Australian timbers, timber seasoning and preservation, and the preservation and transport of bananas, oranges, chilled beef and other food-stuffs. The work of the Council has in the past been directed almost exclusively to the solution of problems affecting primary industries. The Commonwealth Government has decided to extend the activities of the Council so as to enable it to enter the field of secondary industrial research. Action is accordingly being taken for the crection of a National Standards Laboratory in Sydney, and an Aeronautical Research Laboratory in Melbourne. The nucleus of an Information Section has already been established at the Council's head offices, Melbourne, and plans are being developed for the initiation of research into problems affecting secondary industries. More detailed information concerning the work of the Council may be found in Year Book No. 22, p. 1009.

§ 6. Australian Institute of Anatomy.

1. **Foundation of Institute.**—The Australian Institute of Anatomy, situated in Canberra, occupies a monumental building erected by the Federal Government under the Zoological Museum Agreement Act of 1924. Prior to the passing of this Act, the

Federal Government had expressed regret that the Australian Nation possessed neither a collection of specimens of the unique and fast disappearing fauna of Australia, nor a Museum in which such specimens could be preserved for future generations. Comparative anatomy is the basis of medical science, and while the importance of a study of Australian animals in the solution of various medical problems had for years been recognized by other countries and steps taken by them to procure specimens for their museums, national effort in this direction was neglected in Australia. The late Sir Colin MacKenzie, the first Director of the Institute of Anatomy, however, very kindly presented to the Federal Government his entire private collection, and this magnificent gift was acquired and provision was made for its proper housing under special legislation by the Federal Government. In 1931 the Institute became an integral part of the Commonwealth Department of Health.

2. **Additions to Original Collection.**—In addition to the original collection, which has been greatly augmented, the following free gifts have been made to the Australian Nation, and are on view in the Institute :—

- (1) *Horne-Bowie Collection.*—Dealing with the life of Central Australian aborigines, and throwing valuable light on the psychology of this Stone Age people.
- (2) *Burrell Collection.*—This deals with the life history of the platypus, and is unique in the world. The platypus is the most primitive mammal known to science, and is the link between the bird, the reptile and the mammal.
- (3) *Milne Collection.*—This is an anthropological and ethnological collection dealing with the aborigines of New South Wales, and contains many valuable and now unobtainable native weapons and implements.
- (4) *Murray Black Collection* of anatomical material representative of the aborigines of Southern Victoria and the River Murray.
- (5) *Nankivell Collection*, illustrating the anatomy of the aborigines of the Murray Valley.
- (6) *Harvard University Collection.*—This includes a collection of specimens from the Harvard University, U.S.A., representing a carefully worked out epitome of archaeology of the United States, and, together with two rare skeletons of primitive North American Indians, was a goodwill gift from the University to the Institute of Anatomy.
- (7) *The Sir Hubert Murray Collection.*—The ethnological and osteological collection of Sir Hubert Murray, Lieutenant-Governor of Papua. This deals especially with the anthropology of Papua.
- (8) *The Rabaul Ethnological Collection.*—This concerns chiefly the Ethnology of the Mandated Territory of New Guinea.
- (9) *The Basedow Collection.*—This collection has been recently purchased by the Commonwealth Government. It deals especially with the anthropology of Central and Northern Australia and was assembled, after many years of research, by the late Dr. Herbert Basedow of Adelaide, who was formerly Protector of Aborigines.
- (10) Many hundreds of specimens and books received from numerous interested scientists, the most outstanding being those from Mr. E. Hill, of Nagambie, Victoria; Mrs. Harry Burrell, New South Wales; and medical books for the Library from the estates of the late Drs. Molloy, David Grant and Robert Stirling.

3. **Endowments for Orations and Lectures.**—In addition to the aforementioned donations of material, there have been several endowments for Orations and Lectures as follows :—

- (1) *The Halford Oration.*—Endowed with a gift of £1,000 by the family of the late Professor G. B. Halford, founder of the first medical school in the Southern Hemisphere. The interest on this amount is given to a prominent scientist to deliver an oration on a subject suggested by the life and work of the late G. B. Halford.

- (2) *The Anne MacKenzie Oration*.—Founded with a gift of £1,000 by the late Sir Colin MacKenzie, in memory of his mother. The orator receives the annual interest for delivering an oration on any phase of "Preventive Medicine".
- (3) *The Dr. G. E. Morrison Memorial Lecture on Ethnology*.—Founded by Chinese residents in Australia, in memory of a great Australian who rendered important services to China.
- (4) *The Kendall Lecture in Veterinary Science*.—Endowed by the sons of the late Dr. W. T. Kendall, who was the founder of the first Veterinary School in the Southern Hemisphere.
- (5) *The Charles Mackay Lecture on Medical History*.—Endowed by Miss C. MacKenzie with a gift of £607 as a memorial to her grandfather, an educationalist, who arrived in Melbourne in 1852 and died at Kilmore, Victoria.
- (6) *The Cilento Medal*.—This bronze medal has been endowed in perpetuity by Sir Raphael Cilento, Director-General of Health for Queensland, to be awarded annually to the scientist deemed to have accomplished the best practical work for the furtherance of Tropical Hygiene and Native Welfare in Australia.

4. **The Scope of the Institute.**—The building occupies portion of the site which has been reserved for the National University of Australia.

The Institute consists of two separate and distinct entities. Portion of the original collection of anatomical specimens assembled by the late Sir Colin MacKenzie is arranged in two large museums which are open to the general public. The material in these museums has been arranged so as to present simple lessons in human hygiene as well as to display the anatomical features and especially the peculiarities of Australian fauna.

The remainder of the building is devoted to research work where scientific investigations have been carried out in many branches of science. The large collections of bony anatomical material donated by Murray Black have provided most interesting and valuable data on aboriginal diseases. These have been studied in some detail.

In order to provide a reservoir of koalas upon which observations might be made of their peculiar food habits, a small reservation has been acquired, and fenced, about 40 miles from Canberra. In this area abounds the peculiar gum tree on which the Victorian koala feeds. This reservation has already been stocked with koalas from Victoria. Later other animals will be added.

In 1938, following upon the retirement due to ill-health of Sir Colin MacKenzie, the activities of the Institute were extended to interpret more fully the ideas of the founder. In the later years of his life Sir Colin had been keenly interested in the relationship of nutrition to the development of the child. When a section for the study of child growth and development was established by the Commonwealth Department of Health in 1938 the head-quarters were transferred to the Institute.

§ 7. The Commonwealth Solar Observatory.

1. **Reasons for Foundation.**—The Commonwealth Solar Observatory was established for the study of solar phenomena, for allied stellar and spectroscopic research, and for the investigation of associated terrestrial phenomena. It is so situated to complete the chain of existing astrophysical observatories round the globe separated by 90 degrees of longitude. In addition to advancing the knowledge of the universe and the mode of its development, it is hoped that the eventual discovery of the true relation between solar and terrestrial phenomena may lead to results which will prove of direct value to the country.

2. **History of Inauguration.**—A short account of the steps leading up to the establishment of the Observatory will be found in Official Year Book No. 19, p. 979.

3. **Site of the Observatory.**—The site selected for the observatory is on Mount Stromlo, a ridge of hills about 7 miles west of Canberra. The highest point is 2,560 feet above sea level, or about 700 feet above the general level of the Australian Capital City.

4. **Equipment.**—The bulk of the telescopic equipment is due to the generosity of supporters of the movement in England and Australia. The gifts include a 6-in. Grubb refracting telescope presented by the late W. E. Wilson, F.R.S., and Sir Howard Grubb, F.R.S., trustees of the late Lord Farnham; a 9-in. Grubb refractor with a 6-in. Dallmeyer lens presented by the late Mr. James Oddie, of Ballarat; while Mr. J. H. Reynolds of Birmingham presented a large reflecting telescope with a mirror 30 inches in diameter. A sun telescope including an 18-in. cœlostast has been installed, and further additions include a spectroheliograph, cosmic ray apparatus, radio research equipment and spectroscopes for the examination of spectra in the infra-red, violet and ultra-violet regions. Donations amounting to over £2,500 have been received, and form the nucleus of a Foundation and Endowment Fund.

5. **Observational Work.**—The observational work embraces the following:—(a) solar research; (b) stellar research; (c) spectroscopic researches; (d) atmospheric electricity; (e) cosmic radiation; (f) radio research; (g) ozone content of the atmosphere; (h) luminosity of the night sky; and (i) meteorological observations. A more detailed account of the observational work cannot, owing to limits of space, be published in this issue, but may be found in earlier issues (see No. 22, p. 1011).

§ 8. Standards Association of Australia.

This Association was established under the aegis of the Commonwealth and State Governments for the promotion of standardization and simplified practice.

In addition to the Council and Standing and Organization Committees, the following Sectional Committees have been appointed to formulate Australian standard specifications and codes:—A.—*Safety Codes Group*—(1) Boiler Regulations (including Gas Cylinders); (2) Concrete and Reinforced Concrete Structures; (3) Cranes and Hoists; (4) Electrical Wiring Rules; (5) Lift Installations; (6) Pump Tests; (7) Refrigeration; (8) Steel Frame Structures; (9) Welding; (10) Fire Protection; (11) Building By-laws; (12) Electrical Service Rules; (13) Handling and Use of Explosives; (14) Work in Compressed Air; (15) Street Lighting; (16) X-ray Installations; (17) Interior Illumination of Buildings. B.—*General Technical Standard Group*—(1) Bore Casing; (2) Building Materials; (3) Calcium Carbide; (4) Cement; (5) Coal—Sampling and Analysis; (6) Colliery Equipment; (7) Electrical Approval Standards; (8) Electrical; (9) Firebricks; (10) Locomotive and Railway Rolling-stock; (11) Lubricants; (12) Machine Belting; (13) Machine Parts; (14) Non-ferrous Metals; (15) Paint and Varnish; (16) Pipes and Plumbing; (17) Railway Permanent Way Materials; (18) Roadmaking Materials; (19) Structural Steel; (20) Testing, Weighing and Gauging; (21) Timber; (22) Tramway Rails; (23) Typography; (24) Galvanizing and Galvanized Products; (25) Roadmaking Machinery; (26) Sugar Mill Machinery; (27) Creosote; (28) Safety Glass for Automobiles; (29) Agricultural Implement Parts; (30) Metal Windows; (31) Asbestos Cement Pressure Pipes. C.—*Co-ordinating Committees*—(1) Concrete Products; (2) Ferrous Metals; (3) Non-ferrous Metals; (4) Steel Pipes. D.—*Commercial Standards Division Committees*—(1) Building Materials Classification; (2) Three-ply Wood Panels for Use in Stock Door Manufacture; (3) Institutional Supplies and Co-ordinated Purchasing (Hospitals, Asylums and other Public Institutions); (4) General Conditions of Contract; (5) Purified Feathers; (6) Commercial Paper Sizes; (7) Road Gully Gratings; (8) Street Name Plates and Building Number Plates; (9) Sheet Metal Guttering, Ridging and Downpiping; (10) Laminated Steel Springs for Motor Cars; (11) Shellgrit for Poultry; (12) Road Signs and Traffic Signals; (13) Fibrous Plaster Sheets; (14) Dusting Sulphur.

A Power Survey Committee to deal with the collection of data and the framing of recommendations for assistance in the development and co-ordination of power schemes has also been appointed.

The association administers the Australian National Committees of the International Electro-technical Commission, the World Power Conference and the International Commission on Large Dams.

The objects of the Association include the following :—To prepare and promote the general adoption of standards in connexion with structures, materials, etc. ; to co-ordinate the efforts of producers and users for the improvement of materials, processes and methods ; and to procure the recognition of the Association in any foreign country.

The sole executive authority of the Association is vested in the Council, which undertakes the whole of the organization of the movement, the raising of the necessary funds, the controlling of the expenditure, the arranging of the subjects to be dealt with by the various sectional and sub-committees, and the authority for the issue of all the reports and specifications.

The Association was established in July, 1929, by amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice.

§ 9. Valuation of Australian Production.

1. Value of Production.—(i) *Net Values*. The annual value of production was defined by the Conference of Statisticians in 1924 as the sum available each year for distribution among those concerned in industry, i.e., workers, proprietors (including landlords) and providers of capital. In the past the want of complete uniformity in the methods of compilation and presentation of statistics of recorded production rendered it very difficult to make a satisfactory valuation of the various elements of production in accordance with the definition above. At the conference of 1924 and those subsequently held the method of determining the gross value, marketing costs and production costs was laid down into a definite procedure. This arrangement enabled the State Statisticians to compile the various elements of costs on a uniform basis which permitted the aggregation of the figures for each State to obtain a total for Australia.

The figures shown in the following table have been compiled by the Statisticians of the several States and, to a large extent, are based upon actual records. Where these have not been possible careful estimates have been made from the best available data. Complete uniformity has not yet been attained, but the few remaining differences of procedure are not of great importance. This matter is referred to in the note at the head of the table.

Attention is directed to the fact that the value shown in the table refers only to recorded production and excludes the building and construction industry, those industrial establishments not classified as factories, and agricultural and farmyard produce obtained from areas of less than one acre.

The following is a brief explanation of the terms used in the table :—

- (a) "Gross value" is the value placed on gross production at the wholesale price realized in the principal markets. (In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.)
- (b) "Local value" is the gross production valued at the place of production and is ascertained by deducting marketing costs from the gross value. (Marketing costs include freight, cost of containers, commission and other charges incidental thereto.)
- (c) "Net value" represents the net return to the producer after deducting from the gross value costs of marketing and of materials used in the process of production. Materials used in the process of production include seed, fodder consumed by farm stock, manures, dips, sprays and other costs. No deduction has been made for depreciation and maintenance costs. This matter is more fully dealt with in *Production Bulletin*, No. 32, Part II., issued by this Bureau.

It should be noted that maintenance costs of farm buildings and fences have not been deducted from the value of production of rural industries, as particulars are not available for all States. In Queensland the costs for the pastoral industry are now compiled from actual records ; previously, the figures were largely estimated. The value shown for Mines and Quarries in Tasmania is understated owing to the omission

of Quarries. This understatement, however, is more or less offset by the inclusion of production costs in Mining. As explained in the note (a) below production costs are not available for all States in respect of Fisheries, and Local Values have been used for this industry with consequent overstatement.

GROSS, LOCAL AND NET VALUE OF RECORDED PRODUCTION: AUSTRALIA, 1937-38.

Industry.	Gross Production valued at Principal Markets.	Local Value—Gross Production valued at place of Production.	Net Value of Production (without deduction of depreciation or maintenance).
	£	£	£
Agriculture	93,122,757	78,923,148	58,840,558
Pastoral	90,524,251	82,201,161	78,166,742
Dairying	41,070,630	38,547,112	31,589,335
Poultry	11,878,748	10,744,793	6,456,688
Bee-Farming	186,280	160,605	160,605
Total Rural (c)	236,782,666	210,576,819	175,213,928
Trapping	2,677,321	2,407,643	2,407,643
Forestry	8,910,413	8,017,129	7,996,280
Fisheries	1,884,562	1,594,959	(a) 1,594,959
Mines and Quarries.. .. .	32,668,859	32,223,924	27,153,327
Total Non-rural	46,141,155	44,243,655	39,152,209
Total All Primary	282,923,821	254,820,474	214,366,137
Factories	(b) 196,487,933	(b) 196,487,933	196,487,933
Total All Industries	479,411,754	451,308,407	410,854,070

(a) Local value. Production costs not available for all States. (b) Net value. (c) The term "Rural" is used to cover those industries ordinarily considered to be farm industries.

The net value of production in each State is shown hereunder:—

NET (a) VALUE OF RECORDED PRODUCTION IN STATES, 1937-38.

Industry.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Agriculture	14,829	14,963	11,264	9,159	6,143	2,482	58,840
Pastoral	33,939	18,533	15,364	4,857	4,003	1,471	78,167
Dairying	10,181	10,495	7,443	1,801	825	754	31,589
Poultry	2,248	2,902	362	327	251	367	6,457
Bee-Farming	51	60	5	21	19	5	161
Total Rural (net)	61,248	46,953	34,438	16,255	11,241	5,079	175,214
Trapping	1,126	849	56	100	84	193	2,408
Forestry	2,179	1,029	2,514	570	1,273	431	7,996
Fisheries (local)	548	168	296	209	287	87	1,595
Mines and Quarries	10,416	1,727	3,043	2,470	7,170	2,327	27,153
Total Non-rural (local and net)	14,269	3,773	5,909	3,349	8,814	3,038	39,152
Total All Primary	75,517	50,726	40,347	19,604	20,055	8,117	214,366
Factories	85,168	64,889	18,603	13,820	8,562	5,446	196,488
Total All Industries	160,685	115,615	58,950	33,424	28,617	13,563	410,854

(a) See letterpress at head of previous table.

NET (a) VALUE OF RECORDED PRODUCTION PER HEAD OF MEAN POPULATION, 1937-38.

Industry.	New South Wales.			Victoria.			Q'land.			South Australia.			Western Australia.			Tasmania.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Agriculture ..	5	9	6	8	0	10	11	6	4	15	10	2	13	8	9	10	8	7	8	11	5
Pastoral ..	12	10	7	9	19	2	15	8	9	8	4	5	8	15	1	6	3	7	11	7	9
Dairying ..	3	15	2	5	12	9	7	9	7	3	4	0	1	16	1	3	3	4	4	12	0
Poultry ..	0	16	7	1	11	2	0	7	3	0	11	1	0	11	0	1	10	10	0	18	10
Bee-Farming ..	0	0	5	0	0	8	0	0	1	0	0	8	0	0	10	0	0	5	0	0	6
Total Rural (net)	22	12	3	25	4	7	34	12	0	27	10	4	24	11	9	21	6	9	25	10	6
Trapping ..	0	8	4	0	9	1	0	1	2	0	3	4	0	3	8	0	16	2	0	7	0
Forestry ..	0	16	1	0	11	1	2	10	6	0	19	4	2	15	8	1	16	3	1	3	4
Fisheries (local) ..	0	4	0	0	1	10	0	5	11	0	7	1	0	12	6	0	7	4	0	4	8
Mining (net) ..	3	16	11	0	18	6	3	1	2	4	3	8	15	13	8	9	15	6	3	19	1
Total Non-rural (local and net)	5	5	4	2	0	6	5	18	9	5	13	5	19	5	6	12	15	3	5	14	1
Total All Primary (local and net) ..	27	17	7	27	5	1	40	10	9	33	3	9	43	17	3	34	2	0	31	4	7
Factories ..	31	8	10	34	17	4	18	13	9	23	7	11	18	14	7	22	17	6	28	12	6
Total All Industries ..	59	6	5	62	2	5	59	4	6	56	11	8	62	11	0	56	19	6	59	17	1

(a) See letterpress at head of previous table.

(ii) *Gross Values.* The estimated gross value of production shown in the following table is a continuation of the method previously used by this Bureau. It cannot be compared with the gross values shown in the table above on account of the difference in the methods used and the change in the computing authority. It is proposed to discontinue the publication of this table when the net values have been computed for a series of years.

ESTIMATED GROSS VALUE OF PRODUCTION : AUSTRALIA.

Year.	Agriculture.	Pastoral.	Dairy, Poultry, and Bee-farming.	Forestry.	Fisheries.	Mining.	Manufacturing (a)	Total.
1927-28 ..	84,328	124,554	59,261	10,339	1,842	23,015	158,562	452,901
1928-29 ..	89,440	116,733	59,717	9,449	2,168	19,539	159,759	447,805
1929-30 ..	77,109	84,563	49,398	9,103	2,268	17,912	149,184	389,537
1930-31 ..	70,500	69,499	43,067	6,488	1,825	15,361	112,966	319,706
1931-32 ..	74,489	61,540	41,478	6,033	1,670	13,352	106,456	305,018
1932-33 ..	75,562	64,851	39,622	6,791	1,679	15,583	114,136	318,224
1933-34 ..	79,731	95,613	40,306	7,985	1,620	17,608	123,355	357,218
1934-35 ..	68,587	74,556	44,763	9,221	1,635	19,949	137,638	356,349
1935-36 ..	75,388	91,286	47,533	9,737	1,687	23,248	155,891	404,770
1936-37 ..	91,403	105,499	49,886	9,760	2,005	27,381	170,811	456,745
1937-38 ..	93,229	100,794	57,641	12,801	1,954	32,434	188,061	486,914

(a) Net Values. These amounts differ from those given in the previous two tables and in Chapter XXIII. "Manufacturing Industry", which include certain products included under Dairy Farming and Forestry in this table.

2. **Productive Activity.**—In previous issues an attempt was made to measure the quantity of material production by means of production price index-numbers. It was found, however, that these were not satisfactory in their application to factory production. In the absence of a satisfactory measure of the *quantity* of production, the retail price index-numbers have been applied to the value of production, in the same manner as they have been applied to nominal wages, to measure their relative purchasing power. The results may be taken to indicate the purchasing power in retail prices of the things produced, and for convenience will hereafter be called *real* production.

Two tables are given :—The first shows *real* production per head of population, but any deductions therefrom must take into account the following considerations. The production considered is material production only, and takes no account of services. As civilization advances, material production becomes less important relatively to services, and a smaller proportion of the population is engaged in such production. For example, the use of the motor car, the cinema and wireless is comparatively recent, and these employ a much larger number of people in services than in material production. Hence, material production per head of population will not measure accurately the progress of productive efficiency, but will tend to give too low a value. Unemployment, of course, will also depress it.

A better measure is afforded by *real* production per person engaged in material production. The second table attempts to give this. The result affords a better measure of productive efficiency, but does not take into account the effect of unemployment, though the index may be somewhat depressed by short time and rationing.

The two tables tell different stories. Before unemployment became severe in 1930 *real* production per head (as shown in the last two columns of the first table) had remained substantially steady with minor fluctuations since 1906. Whatever gain had been made in productive efficiency had been off-set by the gradual transfer of labour from production of goods to production of services. Coincident with the heavy increase in unemployment between the years 1930 and 1933, the maximum being reached in 1932, the index-numbers fell sharply from their normal level of about 100 to 76 ("A" Series) and 78 ("C" Series) in 1930-31. This would imply a fall in average *real* income of nearly one-fourth from the normal level, taking unemployment into account. Apart from a slight recession in 1934-35 due to a drop in wool values the index-numbers rose continuously from 1931-32 onwards; the pre-depression level was reached in 1935-36 and the peak of 1924-25 was exceeded in 1937-38.

The index-numbers of *real* production per person engaged as given in the last two columns of the second table show, on the other hand, an appreciable upward tendency. They rose steeply during the war, as might have been expected, fell somewhat after the war and recovered again. In 1929-30 they fell substantially, due partly to the lag in the fall of retail prices. They increased during the next four years to 125 and 126 only to fall again in 1934-35 to 115 and 117 with the fall in wool prices during that year. Recovering most of this loss in 1935-36 they advanced to new records of 128 and 134 in 1936-37. Although prices fell during 1937-38 the increase in quantity production was sufficient to maintain the record figures of the previous year. This high figure for *real* production per person engaged implies a high *real* wage for those in employment

and is consistent with available information concerning rates of *effective* or *real* wages, which more than maintained in recent years the high level reached in the years 1927 to 1929.

The data for the second table are not complete. The numbers engaged in timber-getting are not accurately known, so that the value of production on this account, and the corresponding persons engaged, are both left out of account. Further, the information concerning women engaged in primary production is unsatisfactory, and only males are counted in primary industries. In manufacturing, the numbers are converted into equivalent male workers on the basis of relative wages for male and female workers. The column headed "numbers engaged" is, therefore, rather an index than the absolute number of individuals occupied in material production, but, as an index, it should be accurate enough to give a satisfactory measure of production per person engaged.

PRODUCTION PER HEAD OF POPULATION: AUSTRALIA.

Year.	Gross Value of Material Production.			Retail Price Index-numbers. 1911 = 1,000.		Real Production per head of population (1911 = 100) measured in purchasing power over regimen of—	
	Total.	Per head of population.		"A" Series.	"C" Series.	"A" Series.	"C" Series.
		Actual.	Index- Number. 1911 = 100.				
	£'000.	£					
1906 ..	147,043	35.9	87	902	..	97	..
1911 ..	188,359	41.2	100	1,000	(1,000)	100	100
1913 ..	220,884	45.1	110	1,104	..	99	..
1914 ..	213,552	43.0	104	1,140	1,140	92	92
1916 ..	261,996	53.3	129	1,324	1,319	98	98
1917 ..	279,418	56.1	136	1,318	1,406	103	97
1918 ..	291,875	57.5	140	1,362	1,501	102	93
1919-20 ..	343,697	64.9	158	1,624	1,695	97	93
1920-21 ..	390,644	72.2	175	1,821	1,935	96	91
1921-22 ..	344,426	62.5	152	1,600	1,680	95	90
1922-23 ..	379,445	67.4	163	1,642	1,619	100	101
1923-24 ..	400,276	69.6	169	1,714	1,664	99	102
1924-25 ..	454,580	77.3	188	1,690	1,637	111	115
1925-26 ..	431,670	72.0	175	1,766	1,673	99	104
1926-27 ..	447,354	73.1	178	1,763	1,663	101	107
1927-28 ..	452,901	72.5	176	1,776	1,676	99	105
1928-29 ..	447,805	70.5	171	1,785	1,693	96	101
1929-30 ..	389,537	60.6	147	1,783	1,688	83	87
1930-31 ..	319,706	49.2	120	1,574	1,528	76	78
1931-32 ..	305,018	46.5	113	1,432	1,406	79	80
1932-33 ..	318,224	48.2	117	1,358	1,344	86	87
1933-34 ..	357,218	53.7	130	1,365	1,344	96	97
1934-35 ..	356,349	53.2	129	1,399	1,366	92	95
1935-36 ..	404,770	60.0	146	1,437	1,392	101	105
1936-37 ..	456,745	67.1	163	1,489	1,431	110	114
1937-38 ..	486,914	70.9	172	1,530	1,467	113	117

PRODUCTION PER PERSON ENGAGED : AUSTRALIA.

Year.	Number engaged in Material Production.(a)	Value of Material Production per person engaged in production. (a)		" Real " Production per person engaged (1911 = 100) measured in retail purchasing power over regimen of—	
		Actual.	Index-number. 1911 = 100.	" A " Series.	" C " Series.
	('000)	£			
1906	659	223	87	96	..
1911	728	257	100	100	100
1913	756	290	113	102	..
1914	733	289	113	99	99
1916	685	381	148	112	112
1917	683	408	159	120	113
1918	685	424	165	121	110
1919-20 ..	743	460	179	110	106
1920-21 ..	760	510	199	109	103
1921-22 ..	775	441	172	107	102
1922-23 ..	793	475	185	113	114
1923-24 ..	810	491	191	111	115
1924-25 ..	826	547	213	126	130
1925-26 ..	831	515	201	114	120
1926-27 ..	841	527	205	116	123
1927-28 ..	838	536	209	118	125
1928-29 ..	830	536	209	117	123
1929-30 ..	803	482	187	105	110
1930-31 ..	728	431	168	108	112
1931-32 ..	741	411	160	112	114
1932-33 ..	781	407	158	117	118
1933-34 ..	815	437	170	125	126
1934-35 ..	862	412	160	115	117
1935-36 ..	901	448	174	121	125
1936-37 ..	930	491	191	128	134
1937-38 ..	961	504	196	128	134

(a) See explanatory remarks above tables.

§ 10. Consumption of Commodities.

1. *Australia.*—The movement in the consumption of commodities is of special interest, indicating, as it does, the presence or absence of a number of important factors in the communal life of Australia. These factors include such items as changes in diet, variations in supply and demand, in purchasing power and in population. It is not possible to measure the influence of each of these changes, but their net effect on consumption is revealed in the figures given.

Increases in the actual quantities consumed, while indicating a greater consumptive capacity for Australia as a whole, do not indicate the trends in consumption. These are recorded in the *per capita* figures. The most pronounced changes over a series of years have taken place in motor spirit, butter, meat, biscuits, maize, potatoes, tea, beer and spirits. With the development of motor transport the consumption of motor spirit has risen from 2 to 34 gallons between 1913 and 1936. Butter has been consumed in larger quantities during each of the periods shown in the table. The consumption of meat has increased since the war years of 1914-18, largely as the result of increases in mutton, lamb and pork.

Commodities showing trends in the opposite direction were : biscuits, maize, potatoes, tea, beer and spirits. It should be remembered, however, that the figures for the latest five-yearly period were seriously affected by the economic depression and the consequent rise in unemployment.

The following tables furnish a comparison over a long series of years of the average annual total and *per capita* quantities available for consumption in Australia. The data have been compiled by adding to production the excess of imports or subtracting the excess of exports as the case may be. Allowance should be made for stocks at the commencement and at the end of each period, but this was possible only in respect of wheat and flour. In consequence, the figures given for the remaining commodities are somewhat incomplete, but any discrepancy occasioned by this omission is minimized by ranging the consumption over periods of five to ten years.

A few brief notes on some features of the more important commodities are given below :—

Cereals.—The quantities shown for cereals represent the amounts available for human consumption as such or in some other consumable form. In addition, they include those quantities consumed by live stock, of which separate details are not available. These quantities, together with the amount required for seed purposes, give the total requirements of Australia.

Root Crops.—In arriving at the total quantity available for consumption the output of holdings of less than one acre has been excluded.

Dairy Produce.—The quantities of fresh milk consumed by the people of Australia cannot be determined accurately, and the figures are no more than estimates obtained from the best available sources. The quantities of butter and cheese consumed include those produced on farms.

Meats.—The accuracy of the figures of meat consumption depends upon the reliability of the average weights applied to the dressed carcasses. These are most difficult to obtain for the whole of Australia and the figures have been compiled from the most reliable estimates available.

Drink and Tobacco.—The quantities used in these compilations were those on which excise was paid and those cleared from bond.

Other Foodstuffs—(i) *Sugar*.—In determining the consumption of sugar, allowance has been made for the estimated sugar contents of goods exported; these include canned fruit, condensed milk, jam, etc. The quantities shown, therefore, represent those actually available for consumption in Australia.

(ii) *Flour*.—The quantities of flour available for consumption include the amounts consumed in bread, cakes, pastry and biscuits; the quantities used by factories in other manufacturing processes are also included.

**CONSUMPTION OF COMMODITIES: ESTIMATE OF ANNUAL REQUIREMENTS,
AUSTRALIA.**

Commodity.	Unit of Quantity.	Ten years ended 1913.	Seven years ended 1920-21.	Five years ended—		
				1925-26.	1930-31.	1935-36.
Cereals—						
Barley	1,000 bush.	2,385	3,132	3,364	4,343	4,351
Barley, seed requirements	" "	170	336	410	499	644
Maize	" "	9,544	8,324	9,741	8,645	6,961
Maize, seed requirements	" "	84	89	90	89	86
Oats	" "	10,845	9,271	10,772	9,526	10,927
Oats, seed requirements	" "	2,472	3,311	4,217	4,471	5,536
Rice (Paddy)	1,000 cwt.	284	245	343	335	298
Rice (Paddy), seed requirements .. .. .	" "	..	..	..	9	12
Wheat	1,000 bush.	22,883	31,903	34,258	39,767	37,222
Wheat, seed requirements	" "	7,226	10,387	11,752	16,158	14,210
Root Crops—						
Onions	ton	29,852	32,058	30,928	42,067	38,729
Potatoes	" "	327,633	283,644	311,866	314,236	292,129
Potatoes, seed requirements	" "	47,924	45,936	48,045	49,451	48,153
Other Crops—						
Dried Grapes—						
Raisins	" "	9,587	7,039	9,282	11,363	12,307
Currants	" "		4,096	4,195	4,308	4,137
Sugar, raw	" "	231,495	266,242	303,010	345,942	338,471
Sugar, refined	" "	221,078	254,261	289,375	330,375	323,240
Dairy Produce—						
Butter	1,000 lb.	88,816	126,484	161,750	187,372	203,188
Cheese	" "	14,464	17,855	21,320	25,192	25,375
Milk	1,000 gal.	(a)	100,162	128,754	140,645	150,212
Meats—						
Beef	1,000 lb.	545,286	558,487	769,638	742,577	746,162
Mutton	" "	352,907	353,727	359,198	389,989	443,342
Lamb	" "		(a)	20,911	30,006	41,247	54,574
Pork	" "	40,161	52,483	64,652	75,449	69,885
Bacon and Ham	" "	(a)	985,608	1,223,494	1,317,464	1,406,903
Drink and Tobacco—						
Beer	1,000 gal.	50,085	63,196	64,823	66,358	51,646
Spirits (Potable)	" "	3,438	2,752	2,361	2,168	1,275
Tobacco	1,000 lb.	11,438	14,957	18,699	20,230	18,933
Other Foodstuffs—						
Biscuits	" "	(a)	87,311	76,291	69,951	53,882
Coffee	" "	2,201	2,671	3,197	3,301	3,834
Fish preserved in tins	" "	20,394	15,695	22,588	23,957	20,176
Flour, Wheaten	ton	447,017	559,442	604,239	641,968	673,800
Jam	1,000 lb.	73,203	71,451	61,264	76,687	76,405
Oatmeal	1,000 cwt.	(a)	(a)	(c) 296	301	270
Sago and Tapioca	1,000 lb.	(a)	9,047	9,961	8,070	8,347
Tea	" "	31,220	40,323	44,608	47,593	45,427
Other Commodities—						
Soap	1,000 cwt.	(a)	689	781	915	868
Kerosene	1,000 gal.	18,130	20,489	25,873	50,525	41,361
Motor Spirit	" "	(b) 10,071	20,929	75,357	206,196	225,688
Cement—Portland	ton	(a)	(a)	(c) 520,622	651,618	437,309

(a) Not available.
ended 1925-26.

(b) Average for three years ended 1913.

(c) Average for four years

CONSUMPTION OF COMMODITIES : ESTIMATE OF ANNUAL REQUIREMENTS PER HEAD OF POPULATION, AUSTRALIA.

Commodity.	Ten years ended 1913.	Seven years ended 1920-21.	Five Years ended—		
			1925-26.	1930-31.	1935-36.
	lb.	lb.	lb.	lb.	lb.
Barley	27.79	30.76	29.25	34.28	32.50
Barley, seed requirements	1.98	3.29	3.56	3.94	5.00
Maize	124.56	91.55	94.84	76.43	58.80
Maize, seed requirements ..	1.09	0.98	0.88	0.79	0.56
Oats	101.49	72.83	74.92	60.16	65.60
Oats, seed requirements ..	23.04	20.01	29.33	28.23	33.20
Rice (Clean)	7.42	5.44	6.68	5.93	5.02
Rice (Paddy), seed requirements	..	..	..	0.17	0.21
Wheat	319.99	375.93	357.00	376.80	335.40
Wheat, seed requirements	101.05	122.39	122.40	153.00	128.40
Onions	14.55	14.13	12.04	14.88	13.04
Potatoes	171.05	124.78	121.46	111.13	98.35
Potatoes, seed requirements	25.05	20.25	18.95	17.49	16.21
Dried Grapes—Raisins ..	4.68	3.09	3.61	4.02	4.14
Currants		1.80	1.64	1.52	1.39
Sugar, raw	120.86	117.13	118.01	122.34	113.96
Sugar, refined	115.42	111.86	112.70	116.84	108.83
Butter	20.70	24.84	28.12	29.58	30.54
Cheese	3.37	3.51	3.71	3.98	3.81
Beef	127.08	109.68	133.81	117.24	112.15
Mutton	82.25	69.47	62.45	61.57	66.64
Lamb				10.77	13.97
Pork				(a)	4.11	5.22	6.50	8.20
Bacon and Ham	9.36	10.31	11.24	11.91	10.50
Total Meats	(a)	103.57	212.72	207.99	211.46
Tobacco	2.67	2.94	3.25	3.19	2.84
Biscuits	(a)	17.15	13.26	11.04	8.10
Coffee	0.51	0.52	0.56	0.52	0.58
Fish—preserved in tins ..	4.75	3.08	3.93	3.78	3.03
Flour—Wheaten	208.37	219.74	210.11	202.70	202.55
Jam	17.06	14.03	10.66	12.11	11.48
Oatmeal	(a)	(a)	(c) 4.49	5.32	4.55
Sago and Tapioca	(a)	1.78	1.73	1.27	1.25
Tea	7.28	7.92	7.76	7.51	6.83
Soap	(a)	15.16	15.20	16.18	14.62
Portland Cement	(a)	(a)	(c) 196.61	230.44	147.23
	gal.	gal.	gal.	gal.	gal.
Milk	(a)	19.67	22.39	22.20	22.58
Beer	11.67	12.41	11.27	10.48	8.23
Spirits (Potable)	0.80	0.54	0.41	0.34	0.19
Kerosene	4.22	4.02	4.50	7.98	6.22
Motor Spirit	(b) 2.13	4.11	13.10	32.55	33.92

(a) Not available. (b) Average for three years ended 1913. (c) Average for four years ended 1925-26.

2. International Comparison.—The difficulties associated with the compilation of statistics of consumption in Australia have already been mentioned, and the absence of corresponding figures for other countries suggests a similar experience abroad. Some details are published in other countries, but these are restricted to a few commodities, and an extensive comparison on an international basis is not possible.

In the absence of complete details of the methods used in their computation, it is not possible to say whether the figures given are comparable in all respects with those shown for Australia. It is known that in some instances the figures relate to a single year, while those for Australia refer to the average over five years. In the following table the figures for Australia are below the normal, as the period taken included some years of the economic depression.

The details given in the following table have been taken from official or other authoritative sources and are the best available. They do not afford a comparison of the standards of living in the various countries, but are intended to present a comparison of more than usual interest.

CONSUMPTION PER HEAD OF POPULATION IN VARIOUS COUNTRIES.

Commodity.	Unit of Quantity.	Average annual consumption per head of population.				
		Australia.	New Zealand.	Canada.	United Kingdom.	United States of America.
Wheat (excluding seed)	bush.	5.6	5.7	5.5	5.8	4.7
Flour, Wheaten	lb.	203	180	166	200	160
Sugar, Refined .. ..	..	109	115	96	102	105
Milk, Whole	gal.	22.5	22.5	37.0	21.0	(a)
Butter	lb.	30.5	40.0	31.8	24.8	16.7
Cheese .. ..	..	3.8	8.0	3.6	8.6	5.4
Eggs	doz.	(a)	20.0	20.8	13.0	(a)
Beef	lb.	112	140	62	69	63
Mutton and Lamb .. ..	..	81	88	6	30	7
Pig Meat .. ..	..	19	21	57	42	55
Total Meat .. ..	..	212	249	125	141	125
Wine	gal.	0.3	0.2	0.3	0.3	0.4
Beer .. ..	..	8.2	8.6	6.0	33.1	13.0
Spirits (Potable) .. ..	..	0.2	0.3	0.3	0.2	0.9
Tobacco	lb.	2.8	3.5	3.9	3.9	6.6
Tea .. ..	..	6.8	6.7	3.6	9.2	0.7
Coffee .. ..	..	0.6	(a)	3.4	0.7	13.3
Raisins and Currants .. ..	..	5.5	8.4	3.8	5.7	(a)
Rice .. ..	..	5.0	5.3	7.3	5.2	(a)
Onions .. ..	..	13	12	(a)	(a)	(a)
Potatoes .. ..	..	98 ^a	108	(a)	241	(a)

(a) Not available.

§ 11. Film Censorship.

1. **Legislation.**—The censorship of imported films derives its authority from section 52 (g) of the Customs Act, which gives power to prohibit the importation of goods. Under this section regulations have been issued prohibiting the importation of films except under certain conditions and with the consent of the Minister. The regulations provide, *inter alia*, that no film shall be registered which in the opinion of the Censor is (a) blasphemous, indecent or obscene; (b) likely to be injurious to morality, or to encourage or incite to crime; (c) likely to be offensive to the people of any friendly nation; (d) likely to be offensive to the people of the British Empire; or (e) depicts any matter the exhibition of which is undesirable in the public interest.

The regulations governing the exportation of Australian-made films are similar, with the addition that no film may be exported which in the opinion of the Censorship is likely to prove detrimental or prejudicial to the Commonwealth of Australia.

The Censorship consists of a Censorship Board of three persons and an Appeal Censor, the head-quarters being in Sydney. There is also a right of appeal to the Minister.

In addition to the censorship of moving pictures, the Censorship may refuse to admit into Australia any advertising matter proposed to be used in connexion with the exhibition of any film. Such control does not, however, extend to locally-produced publicity.

2. **Imports of Films.**—Imported films dealt with by the Censorship for the year 1938 were as follows:—1,615 films of 3,954,547 feet passed without eliminations, 102 films of 368,137 feet passed after eliminations, and 17 films of 111,503 feet rejected in first instance, making a total of 1,734 films of 4,434,187 feet (one copy). The countries of origin were as follows:—United States of America, 1,223 films of 3,632,887 feet; United Kingdom, 428 films of 666,065 feet; and 83 films of 135,235 feet from other countries.

The foregoing figures relate to standard size films (35 millimetres). There were also imported during 1938, 1,925 miniature films (16, 9.5 and 8 millimetres) of 598,898 feet.

3. **Exports of Films.**—The number of films exported for the year 1938 was 1,186 of 1,516,834 feet (one copy), of which 968 films of 1,370,609 feet were sent to places in the British Empire including Mandated Territories.

§ 12. Marketing of Australian Commodities.

1. **Introduction.**—Particulars in respect of the various Commonwealth Acts and Regulations together with the operations of the Boards or Councils appointed to assist or control the marketing of Australian commodities are set out below. It should be noted that the particulars refer to the marketing of Australian commodities in the normal times of peace, and that no reference has been made to changes induced by the outbreak of war. A brief summary of the war-time arrangements for the marketing and sale of Australian commodities is included in the Appendix.

2. **Dairy Produce.**—(i) *The Dairy Produce Export Control Act 1924-1938.* Introduced at the request of the dairying industry this Act was passed by the Commonwealth Parliament with the object of organizing the oversea marketing of Australian dairy produce. A Dairy Produce Control Board was appointed and was in existence from 1924 to 1935. It dealt with matters relating to the organization and supervision of oversea marketing of dairy produce. In the course of its functions the Board regulated shipments to ensure regularity of supply in the London market, controlled forward selling, obtained reductions in oversea freights and insurance rates, and participated in an advertising campaign in the United Kingdom.

Prior to the appointment of the Dairy Produce Control Board a voluntary body—the Australian Dairy Council—was established to advise and make recommendations to the Governments on problems connected with the production, manufacture and quality of dairy produce, pasture improvement and diseases of dairy cattle.

Following a recommendation by the Australian Agricultural Council the functions of these bodies were combined by an Amending Act of 1935 under the Australian Dairy Produce Board and provision was made for the allocation of money from the Board's funds for research and investigation into pastures, diseases of dairy cattle and the quality of butter.

(ii) *The Dairy Produce Export Charges Act 1924-1937.* This Act provides for the imposition of a levy on all butter and cheese exported from the Commonwealth to cover the administrative expenses of the Board and for advertising and other purposes. The rate of the levy is fixed by regulation.

(iii) *The Dairy Produce Act 1933-1935.* In § 1 par. 3 of Chapter XX. reference is made to the voluntary and compulsory plans introduced for the purpose of stabilizing the prices of dairy produce in Australia. Under State legislation regulating authorities fixed the proportion of the States' output to be sold within the respective States, and the Dairy Produce Act was passed by the Commonwealth Parliament to protect these

“quotas” from the effects of interstate competition. A decision of the Privy Council in 1936, however, held that the Commonwealth had no power under its Constitution to control interstate trade and the Commonwealth legislation is therefore inoperative. The industry is now carrying on its stabilization plan on a purely voluntary basis.

3. **Dried Fruits.**—(i) *The Dried Fruits Export Control Act 1924–1938.* This Act was passed by the Commonwealth Parliament at the request of the dried fruits industry to organize the oversea marketing of Australian dried vine fruits. The Dried Fruits Control Board, consisting of eight members—including five growers’ representatives, two members with commercial experience and one Government nominee—was appointed to control the export, and the sale and distribution after export, of Australian sultanas, currants and lexias. In conjunction with its London agency, the Board has improved the marketing of Australian dried fruits overseas, and has increased the demand for the product. Its system of appraisalment has resulted in more satisfactory realizations. Its methods of ensuring continuity of supply and regulating shipments and its participation in the advertising campaign of the Australian Overseas Trade Publicity Committee have benefited the industry considerably. No dried fruits may be exported excepting by means of a licence, which is issued subject to conditions recommended by the Board.

(ii) *Dried Fruits Export Charges Act 1924–1929.* This Act provides for the imposition of a levy on all sultanas, currants and lexias exported from the Commonwealth for the purpose of defraying the administrative expenses of the Board and the cost of advertising, etc. The rate of the levy is fixed by regulation. Under an amendment made in 1927 provision was made for the exemption of sultanas, currants and lexias from the levy upon recommendation by the Board.

(iii) *The Dried Fruits Act 1928–1935.* In previous issues of the Year Book reference has been made to the Dried Fruits Act and its provisions outlined (see page 894 of Official Year Book, No. 28). This legislation is in a similar position to that for dairy produce referred to in par. 2 (iii) above.

4. **Canned Fruits.**—(i) *The Canned Fruits Export Control Act 1926–1938.* This legislation was introduced at the request of canners and representative organizations of fruit growers with the object of organizing the oversea marketing of canned fruit. The original Act referred to canned apricots, peaches and pears only, but canned pineapples and canned fruit salads consisting of not less than 75 per cent. of specified fruits were subsequently brought within the scope of the Board’s operations. The personnel of the Australian Canned Fruits Board consists of one representative each from proprietary and privately owned canneries, co-operative canneries, State-controlled canneries, pineapple interests and the Commonwealth Government. No canned fruits to which the Act applies are permitted to be exported except under a licence issued in accordance with conditions recommended by the Board. The system of marketing adopted by the Board, including the fixation of minimum selling prices overseas, the appointment of a London agency and the engaging in oversea trade publicity, has resulted in the satisfactory disposal of the annual exportable surplus of canned fruits. The distribution of canned fruits has been widened and the exporting side of the industry placed on a sounder basis through the Board’s operations.

(ii) *The Canned Fruits Export Charges Act 1926–1938.* This Act provides for the imposition of a levy on the export of canned fruits to meet the administrative and other commitments of the Board. The rate of the levy is fixed by regulation from time to time. An amendment in 1929 provided for certain exemptions from payment of the levy when recommended accordingly by the Board.

5. **Wine.**—(i) *The Wine Overseas Marketing Act 1929–1936.* This Act was introduced at the request of the viticultural interests in Australia with the object of placing the oversea marketing of Australia’s surplus wine on an orderly basis. The Wine Overseas Marketing Board was appointed to supervise the exports, and the sale and distribution after export of Australian wine.

The name of the Board was changed to the Australian Wine Board in 1936. No wine may be exported except by means of a licence, which is issued under conditions recommended to the Minister by the Board; these include the withholding of shipments as directed by the Board. The Board has a London agency which advises on marketing conditions. The methods of marketing adopted by the Board, including its participation in the advertising campaign of the Australian Overseas Trade Publicity Committee, have resulted in the widening of the distribution of Australian wines overseas.

(ii) *The Wine Grapes Charges Act 1929-1937*. This Act provides for the imposition of a levy on all grapes used in the Commonwealth for the manufacture of wine, or spirit used for fortifying wine. The proceeds of the levy are used to defray the administrative and other expenses of the Board, and provision is made for such exemptions from the levy as the Board may recommend.

6. *Meat*.—(i) *The Meat Export Control Act 1935-1938*. This Act was introduced following a decision of a conference of Commonwealth and State Ministers with members of the Commonwealth Meat Advisory Committee, held in October, 1935, to set up a Meat Board with defined statutory powers. The Australian Meat Board, which was appointed under the Act in January, 1936, consists of eighteen members, representative of producers, processors, exporters and the Commonwealth Government. Provision is made for the appointment from within the Board of an Executive Committee and a Beef Committee. Export of meat is controlled by licence. The Board has power to regulate shipments of meat and to arrange contracts in respect of freights and insurances; to promote oversea sales by advertising and to foster research into meat problems; and to supervise the issue of export licences. The Board also has power to appoint a London representative.

(ii) *The Meat Export Charges Act 1935*. By means of a levy collected on all meats exported from the Commonwealth, funds are provided for the purpose of defraying the expenses and charges incurred by the Australian Meat Board in the course of its business. The customary provision is made for exemption from the levy when recommended by the Board.

7. *Apples and Pears*.—(i) *The Apple and Pear Organization Act 1938*. This Act, which was passed by the Commonwealth Parliament at the request of the Apple and Pear industry, provides for the establishment of an Australian Apple and Pear Board for the purpose of organizing and controlling the export trade in fresh apples and pears.

The Board consists of one member to represent the Commonwealth Government; eleven members to represent the growers of apples and pears on the basis of four from the State of Tasmania, two each from Victoria and Western Australia, and one each from New South Wales, Queensland and South Australia; and four members to represent exporters of apples and pears on the basis of one from each of the States of Victoria, South Australia, Western Australia and Tasmania.

The Board has power to regulate the shipment of apples and pears from Australia by licensing exporters and issuing permits to export. Power is also given to determine export quotas, and to allocate the consignments from each State. The Board may appoint persons to represent it overseas.

(ii) *The Apple and Pear Export Charges Act 1938*. This Act provides for the imposition of a levy on all apples and pears exported from the Commonwealth for the purpose of providing the funds necessary to meet the administrative and other expenses of the Board.

(iii) *The Apple and Pear Publicity and Research Act 1938*. Under this Act, the Australian Apple and Pear Board is empowered to expend moneys, specifically collected and appropriated, for the purpose of increasing and extending the consumption of apples and pears throughout Australia by publicity, research or any other means.

The fund for this purpose is to be created from the proceeds of a tax levied on all apples and pears sold for consumption in Australia as fresh fruit. Apples and pears exported or to be exported, or processed or to be processed, are exempt from the tax.

The related taxing measures are:—The Apple and Pear Tax Act 1938 and the Apple and Pear Tax Assessment Act 1938.

8. **Wheat Industry Assistance Act 1938.**—This legislation, which came into operation in December, 1938, supplements legislation of a uniform type passed by all the State Parliaments, and is designed to enable the operation of a home consumption price scheme for the wheat industry on a Commonwealth basis.

The legislation is based on a home consumption price of 5s. 2d. a bushel, free on rail, Williamstown, equivalent to 4s. 8d. at country sidings. When the price of wheat falls below that level the returns of growers will be supplemented by payments from a fund established from the proceeds of a flour tax which varies inversely with the price of wheat. When the export price rises above that level provision is made for a tax on wheat sold, the proceeds of which are to be applied to ensure that the cost of wheat gristed for home consumption shall not exceed 5s. 2d. per bushel.

Out of the general fund a sum not exceeding £500,000 per year will be reserved during the first five years for special purposes including the transfer of producers growing wheat on marginal lands to other areas where they will be able to engage in mixed farming or to enable them to increase the size of their holdings to make wheat growing worth while.

A Wheat Stabilization Advisory Committee has been established to determine the appropriate times for a variation in the rate of tax which will be fixed on the basis of a rigid formula.

The State legislation undertakes to ensure that prices charged to consumers are reasonable and the Commonwealth legislation contains provision that no State shall be entitled to receive payments where that undertaking is not carried out.

9. **Export Guarantee Act.**—For a considerable time this Act has not been invoked directly to provide for assistance in the marketing of primary products. The Dried Fruits Advances Act, disbursements under which were made for the appropriation pursuant to the Export Guarantee Act, has ceased to operate. The Board of Trade, which was formed to advise and recommend on expenditure proposed under the Act, has not functioned for some years. The only recent expenditure under the Act has been in respect of special overseas trade publicity, but since 1st July, 1934, expenditure under that heading has been made the subject of a separate appropriation. The total assistance granted under the Act during its period of operation amounted to £670,574 which included substantial payments on account of both the Dried Fruits Advances Act and overseas trade publicity. Although the Export Guarantee Act has not been repealed, it is not proposed that any further payments shall be made under it.

10. **Australian Agricultural Council.**—Particulars of the formation, personnel and functions of the Australian Agricultural Council are given in Chapter XIX., "Agricultural Production".

§ 13. The National Safety Council of Australia.

The National Safety Council of Australia was founded in Melbourne in 1927 for the purpose of developing mainly by means of education safety on the road, at work and in the home, and its activities have developed in other directions wherever the need for reducing the toll of accidents has been shown. In various States it issues by courtesy of the Traffic Authorities a booklet with every motor driver's licence, and conducts continuous propaganda through the press and other sources. It also forms Junior Safety Councils in the schools for developing a safety conscience among children. The children themselves are officers of these Councils and patrol the roads in the neighbourhood of the schools and conduct the scholars across in safety. Posters are available to schools at cost in connexion with Health and Safety lessons in the schools. Small films specially taken are available for children's and home safety instruction.

A "Safe Driving" campaign for individual motor drivers is conducted as well as a "Freedom from Accidents" competition among employee drivers, those completing a year free from any accident for which they are responsible being given a certificate to that effect. A Factories' Service of four posters per month, together with slips for

pay envelopes, constitutes a regular service for the dissemination of safety advice, and was supplied to over 50,000 workers in factories last year. Committees deal with specific problems regarding traffic, films, safety in industry, air safety and home dangers. The Air Safety Committee has issued a 32-page booklet "Air Sense" for distribution with "A" pilots' licences through the Civil Aviation Department.

The Council is supported by public subscription and sales of service, and is a non-profit organization. Numerous lectures are given throughout the year on the work of the Council, and on various aspects of safety, and lectures are always available for any organization which makes application to the Secretary.

§ 14. League of Nations.

Australia was one of the original signatories of the Treaty of Versailles of 28th June, 1919, under which the League of Nations was established, and thus became a Member of the League and its kindred organizations—the International Labour Organization and later the Permanent Court of International Justice. On 2nd October, 1933, Australia was elected a non-permanent member of the Council of the League of Nations for a period of three years, and was succeeded by New Zealand in September, 1936. South Africa was elected in the place of New Zealand in December, 1939. There are now only two permanent members of the Council, namely, Great Britain and France, as Italy's notice of withdrawal from membership of the League of Nations became effective on 11th December, 1939, while on 14th December, 1939, the Council, after consideration of the dispute between Finland and the Soviet Union, declared that the Soviet Union was no longer a member of the League of Nations. There are also eleven non-permanent members, namely, Belgium, Bolivia, China, the Dominican Republic, Egypt, Finland, Greece, Iran, Peru, South Africa and Yugoslavia. The term of the non-permanent members is three years.

Australia has been represented at each Assembly of the League from its inauguration in 1920, and at nearly all of the conferences of the International Labour Organization. The contribution of Australia towards defraying the expenditure of the League of Nations and its kindred organizations is on the basis of 23 of 817 units, and for the year 1939 the cost to Australia was £45,647. The precise amount payable is, of course, dependent upon the fluctuations in the rate of exchange. Australia holds a mandate, issued through the League of Nations, for the former German territory of New Guinea, and, by agreement with Great Britain and New Zealand, administers the Mandated Territory of Nauru, for which a mandate was issued to the British Empire.

§ 15. War Service Homes.

The operations of the War Service Homes Commission at 30th June, 1939, may be briefly set out as follows:—Total applications approved, 44,002; expenditure on provision of homes, purchase of land for future use, etc., £29,716,020; 21,334 houses had been completed; and 34 homes had been enlarged.

In addition, the Commission had purchased on behalf of eligible applicants, 12,987 already existing properties, and had taken over mortgages existing on 2,967 dwelling-houses. Dual assistance had been approved in respect of 38 applications, making the total number of homes provided under the War Service Homes Act, 37,360. Homes are insured under a comprehensive policy, the total insurances in force including cover notes amounting to £20,582,187. The total receipts of the Commission to 30th June, 1939, were £26,406,386, of which £9,919,599 was paid to the National Debt Sinking Fund. Arrears of instalments outstanding at the close of the year equalled £715,012, or 3.14 per cent. of the total instalments due.

CHAPTER XXIX. STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

§ 1. General.

Development of Australian Statistics.—(i) *General.* An outline of the history and development of statistics in Australia was published in Year Book No. 19 (see p. 988) and previous issues, particular reference being made to the Crown Colony Blue Books, Statistical Registers, Prominent State Statisticians, Statistical Conferences, the Foundation of the Federal Bureau, and Uniformity of Statistical Control. It is not proposed to repeat this information in this issue.

(ii) *Present Organization.* The organization in respect of the collection, tabulation, etc., of statistical data as between the State and Federal Statistical Bureaux, and State and Federal Government Departments, was described in Official Year Book No. 19, p. 990. Limits of space preclude its repetition in this issue.

§ 2. Statistical Publications of Australia.

1. **General.**—The official statistical publications of Australia may be divided bibliographically into two main divisions, namely:—(1) Commonwealth publications dealing both individually and collectively with the several States of the Commonwealth; and (2) State publications dealing with individual States only. Besides these there are many other reports, etc., issued regularly which, though not wholly statistical, necessarily contain a considerable amount of statistical information.

2. **Commonwealth Publications.**—Commonwealth publications may be grouped under two heads, viz.:—(i) Publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers.

(i) *Publications issued by the Commonwealth Statistician.* The following is a list of the principal statistical publications issued from the Commonwealth Bureau of Census and Statistics since its inauguration to December, 1939:—

Australian Life Tables, 1901-1910. Australian Joint Life Tables, 1901-1910.

Australian Life Tables, 1920-1922.

Australian Primary Industries.—Report prepared for the Empire Producers Conference, Sydney, March, 1938.

Census (1911) Results.—Bulletins. Vols. I., II., and III., with Appendix “Mathematical Theory of Population.”

Census (1921) Results.—Bulletins, Nos. 1 to 26. Parts I. to XVI., forming Vol. I., and Parts XVII. to XXIX., forming, with the Statistician’s Report, Vol. II.

NOTE.—PART XXVII., Life Tables.

Census (1933) Results.—Bulletins, Nos. 1 to 25. Parts I. to XIV., forming Vol. I., Parts XV. to XXVIII. forming Vol. II., and Parts XXIX. to XXXVII.

Australian Life Tables, 1932-1934, Australian Joint Life Tables, 1932-1934.

Dairying Summary, Monthly.—First issue, September, 1937.

Finance—Bulletins, 1907 to 1916-17 annually; 1917-18 and 1918-19 (one vol.); 1919-20 and 1920-21 (one vol.); 1922-23 to 1938-39 annually.

Labour and Industrial Statistics.—Memoranda and Reports, various, to 1913.

Labour Report, annually, 1913 to 1938.

Local Government in Australia.—July, 1919.

Monthly Review of Business Statistics.—First issue, October, 1937.

Official Year Book of the Commonwealth of Australia—Annually, 1907 to present issue (1939).

Oversea Trade, annually, 1906 to 1938-39.

Pocket Compendium of Australian Statistics (formerly *Statistical Digest*), 1913, 1914, 1916, and 1918 to 1939 annually.

Population and Vital Statistics.—Bulletins and Reports, various. Commonwealth Demography, 1911 to 1938 annually.

Production.—Bulletins, annually, 1906 to 1935–36. In 1936–37 and 1937–38 issued in two parts. Part I, Secondary Industries. Part II, Primary Industries and Total Recorded Production.

Professional Papers.—Various. A full list will be found in Official Year Book No. 13, p. 3.

Quarterly Summary of Australian Statistics.—first issue, No. 70, December, 1917, replacing *Monthly Summary of Australian Statistics* (Bulletins 1 to 69).

Social Insurance.—Report to the Hon. the Minister of Trade and Customs, 1910.

Social Statistics.—Bulletins, 1907 to 1915 annually, and 1918.

Superannuation for the Commonwealth Public Service.—Report to the Hon. the Minister for Home Affairs, 1910.

Transport and Communication.—Bulletins, 1906, 1908 to 1916 annually; 1919 to 1930 annually, and 1932 to 1938 annually.

Wages and Prices.—January, 1932.

Wealth.—The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.

Wheat Summary, Monthly.—First issue, July, 1936.

(ii) *Commonwealth Parliamentary and Departmental Reports and Papers*. Lists of the principal official reports and other documents containing statistical information issued from the inauguration of the Commonwealth were given in the Official Year Books up to No. 15, but limits of space preclude the incorporation of this information in the present volume.

3. **State Publications**.—The chief statistical publications of each State are set out hereunder. Limits of space preclude a further enumeration of the various Departmental Reports, statements of accounts, etc., issued by officials, boards, local government bodies, etc., in each State.

(a) New South Wales—Statistical Register (annual); Official Year Book of New South Wales (annual); Statesman's (Pocket) Year Book (annual); Statistical Bulletin (monthly to December, 1919, thereafter quarterly); Monthly Summary of Business Statistics.

(b) Victoria—Statistical Register (annual to 1916, then discontinued); Victorian Year Book (annual); Statistical Abstracts (quarterly to 1917).

(c) Queensland—Statistical Register (annual); Official Year Book, 1901; A.B.C. of Queensland Statistics (annual to 1936 then discontinued); The Queensland Year Book (annual, first issue 1937).

(d) South Australia—Statistical Register (annual); Official Year Book, 1912 and 1913; Statesman's Pocket Year Book (annual); Quarterly Summary of Statistics.

(e) Western Australia—Statistical Register (annual); Statistical Abstracts (quarterly, previously issued monthly to July, 1917); Pocket Year Book of Western Australia (annual).

(f) Tasmania—Statistical Register (annual); Pocket Year Book (annual).

§ 3. Select List of Representative Works Dealing with Australia.

(Compiled by the Librarian of the Commonwealth National Library.)

Under each heading a list is first given of the principal standard books which are still in print. This is followed by lists of selected books published during the current year and of official publications, excluding annual reports, of the same period. In the present list the period covered is 1st October, 1938, to 30th September, 1939. A few books which, though published earlier, were received after the compilation of the last issue are also included.

Technical works on Law, Medicine and the pure sciences are excluded.

The retail price in the country of publication is shown.

A copy of each of the works mentioned is preserved in the Library and access thereto may be had by any Commonwealth official or other authorized persons.

The Library also publishes an annual catalogue of Australian publications, official papers and books on Australia published overseas. Copies of this are obtainable from the Government Printer at a price of 2s.

General and Descriptive.

- AUSTRALIAN ENCYCLOPAEDIA, THE: *editors*, A. W. Jose, H. J. Carter and T. G. Tucker. 2 vols. (Angus & Robertson, 55s.) 3rd edition, Sydney, 1926-27.
 HATFIELD, W. 1 and Australia. (Oxford University Press, 7s. 6d.). London, 1937.
 MADIGAN, C. T. Central Australia. (Oxford University Press, 7s. 6d.). London, 1936.
 OFFICIAL YEAR BOOK OF THE COMMONWEALTH OF AUSTRALIA, Nos. 1 to date. (Government Printer, 5s. *per issue*). Canberra, 1908 to date.
 RATCLIFFE, F. N. Flying fox and drifting sand: the adventures of a biologist in Australia. (Chatto & Windus, 7s. 6d.). London, 1938.
 TAYLOR, T. G. Australia—a geography reader. (Rand, McNally, 8s. 50). New York, 1931.
 WALKABOUT: Australia and the South Seas. (Australian National Travel Association, 12s. *per annum*). Melbourne, 1934 to date.
 WOOD, T. Cobbers: A Personal Record of a Journey from Essex, in England, to Australia. (Oxford University Press, 7s. 6d and 3s. 6d.). London, 1934.

RECENT PUBLICATIONS.

- CLUNE, F. P. Free and easy land. (Angus & Robertson, 10s. 6d.). Sydney, 1938.
 KEVIN, J. C. G., *editor*. Some Australians take stock: by W. E. H. Stanner and others. (Longmans, 8s. 6d.). London, 1939.
 MCGUIRE, P. Australian journey. (Heinemann, 12s. 6d.). London, 1939.

Territories Outside Australia.

- EGGLESTON, F. W., *editor*. The Australian Mandate for New Guinea. (Melbourne University Press 5s.). Melbourne, 1928.
 OFFICIAL HANDBOOK OF NEW GUINEA. (Government Printer, 5s.). Canberra, 1937.
 PACIFIC ISLANDS YEAR BOOK, THE: 3rd edition, *edited by* R. W. Robson. (Pacific Publications, 8s. 6d.). Sydney, 1939.

See also the annual reports of the Administrators of the various Territories.

RECENT PUBLICATIONS.

- MARSHALL, A. J. The men and birds of paradise: journeys through equatorial New Guinea. (Heinemann, 8s. 6d.). London, 1938.

OFFICIAL PUBLICATIONS.

- AUSTRALIA.—*Committee appointed to investigate new site for the administrative headquarters of the Territory of New Guinea*. Report, 27th April, 1938. (Government Printer, 2s.). Canberra, 1939. (PP. 98 of 1937-38).

History.

- CAMBRIDGE HISTORY OF THE BRITISH EMPIRE, vol. 7, pt. 1: Australia. (Cambridge University Press, 30s.). Cambridge, 1933.
 DAKIN, W. J. Whalemen adventurers: the story of whaling in Australian waters and other southern seas related thereto, from the days of sail to modern times: 2nd edition. (Angus & Robertson, 12s. 6d.). Sydney, 1938.
 HARRIS, H. L. Australia in the making. (Angus & Robertson, 3s. 9d.). Sydney, 1936.
 HISTORICAL RECORDS OF AUSTRALIA: *editor*, J. F. Watson (in progress). (Commonwealth Parliament Library Committee, Canberra, 12s. 6d. *per vol.*) Sydney, 1914 to date.
 (34 vols. have so far appeared. Publication has been suspended since 1925.)
 MADGWICK, R. B. Immigration into Eastern Australia, 1788-1851. (Longmans, 12s. 6d.). London, 1937.
 O'BRIEN, Rev. E. M. The foundation of Australia (1786-1800): a study in English criminal practice and penal colonization in the eighteenth century. Sheed & Ward, 12s. 6d.). London, 1937.
 WOOD, G. A. The Discovery of Australia. (Macmillan, 25s.). London, 1922.

RECENT PUBLICATIONS.

- FITZPATRICK, B. C. British imperialism and Australia, 1783-1833: an economic history of Australasia. (Allen & Unwin, 18s.). London, 1939.
 LOTTING, H. J. F. "Bail up": Ned Kelly, bushranger. (New Century Press, 4s. 6d.). Sydney, 1939.

European War, 1914-18.

- OFFICIAL HISTORY OF AUSTRALIA IN THE WAR OF 1914-18: C. E. W. Bean, *editor* (in progress). (Angus & Robertson, 21s. *per vol.* Vols. 8, 10, 11; 18s.) Sydney, 1921 to date.
 (Vols. 1-5, 7-12 have so far appeared.)

RECENT PUBLICATIONS.

- ALEXANDER, R. The cruise of the raider *Wolf*. (Angus & Robertson, 7s. 6d.). Sydney, 1939.

Biography.

- BIOGRAPHICAL HANDBOOK AND RECORD OF ELECTIONS FOR THE PARLIAMENT OF THE COMMONWEALTH, (Commonwealth Parliament Library Committee, 10s. 6d.). Canberra, 1938.
 (A new issue is produced for each Federal Parliament.)
 JOHNS, F. An Australian Biographical Dictionary. (Macmillan, 21s.). Melbourne, 1934.
 WHO'S WHO IN AUSTRALIA: 10th edition: *edited by* J. A. Alexander. (Herald Press, 15s.). Melbourne, 1938. (New edition in preparation.)

RECENT PUBLICATIONS.—

- BOYD, M. a'B. A single flame: [autobiography]. (Dent, 8s. 6d.). London, 1939.
 CROLL, R. H. I recall: collections and recollections. (Robertson & Mullens, 7s. 6d.). Melbourne, 1939.
 GRAHAM, A. D. The life of Sir Samuel Walker Griffith. (Law Book Co., 5s.). Brisbane, 1939.
 MORAN, H. M. Viewless winds: being the recollections and digressions of an Australian surgeon. (Davies, 10s. 6d.). London, 1939.

Constitution and Administration.*

- AUSTRALIA: *Law: Statutes*. The acts of the Parliament of the Commonwealth of Australia passed from 1901 to 1935 and in force on 1st January, 1936: to which is prefixed the Commonwealth of Australia Constitution Act. 4 vols. and supplements. (Government Printer, £6 6s.). Canberra, 1936.
- AUSTRALIA:—*Royal Commission on the Constitution of the Commonwealth*. Report. (Government Printer, 16s. 9d.). Canberra, 1929.
- AUSTRALIAN DIGEST, THE, 1825-1933: Being a Digest of the Reported Decisions of the Australian Courts and of Australian Appeals to the Privy Council; *editors*, B. Sugerman and others: vols. 1-19. (Law Book Co., 60s. *per vol.*). Sydney, 1934 to date. (To be completed in about 22 vols.).
- KERR, D. The law of the Australian Constitution. (Law Book Co., £2). Sydney, 1925.
- KNOWLES, G. S. The Commonwealth of Australia Constitution Act (as altered to 1st July, 1936), and the acts altering the constitution: with notes, tables, indexes and appendices. (Government Printer, 15s.). Canberra, 1937.
- WOOD, F. L. The Constitutional Development of Australia. (Harrap, 10s. 6d.). Sydney, 1933.
- WYNES, W. A. Legislative and executive powers in Australia: being a treatise on the legislative and executive powers of the Commonwealth and States of Australia under the Commonwealth of Australia Constitution Act. (Law Book Co., 32s. 6d.). Sydney, 1936.

RECENT PUBLICATIONS.

- ISAACS, SIR I. A. Australian democracy and our constitutional system. (Robertson & Mullens, 1s.). Melbourne, 1939.
- MCNAMARA, D. L. Constitution of the Commonwealth: proposals for amendment. (Australian Labor Party, Victorian Executive, 1s.). Melbourne, 1938.

OFFICIAL PUBLICATIONS.

- AUSTRALIA:—*Taxation Department*. The sales tax law, 1930-1938. (Government Printer, 30s.). Canberra, 1939.
- BLAND, F. A. *editor*. Government in Australia: selected readings. 4 vols. (Government Printer, 15s.). Sydney. (Processed.)

Political History and International Relations.

- AUSTRAL-ASIATIC BULLETIN: a two-monthly review. (Australian Institute of International Affairs Victorian division, 6s. *per annum*). Melbourne, 1937 to date.
- AUSTRALIAN QUARTERLY, THE: A Quarterly Review of Australian Affairs. (2s. *per issue*). Sydney, 1929 to date.
- CURRENT NOTES ON INTERNATIONAL AFFAIRS: [fortnightly]. (Department of External Affairs). Canberra, 1936 to date.
- DUNCAN, W. G. K., and JANES, C. V., *editors*. The future of immigration into Australia and New Zealand. (Angus & Robertson, 6s.). Sydney, 1937.
- SMITH, A. N. Thirty Years: The Commonwealth of Australia, 1901-1931. (Brown, Prior, 12s. 6d.). Melbourne, 1933.

RECENT PUBLICATIONS.

- AUSTRALIAN INSTITUTE OF INTERNATIONAL AFFAIRS. Australian supplementary papers. *Series A*. Australian population. *Series B*. Australian economic policies. *Series C*. Australia in the British Commonwealth. *Series D*. Australian policies, political and strategic. *Series E*. Australia and the Pacific. (The Institute, 2s. *per series*). Sydney, 1938.
- LANE, E. H. Dawn to dusk: reminiscences of a rebel. (William Brooks, 6s.). Brisbane, 1939.

Economic and Social Conditions.

- BRIGDEN, J. B. and others. The Australian Tariff: An Economic Enquiry. (Melbourne University Press, 3s. 6d.). Melbourne, 1929.
- CLARK, C. G. and CRAWFORD, J. G. The national income of Australia. (Angus & Robertson, 3s. 6d.). Sydney, 1938.
- ECONOMIC RECORD, THE: The Journal of the Economic Society of Australia and New Zealand. (Melbourne University Press, 10s. *per annum*). Melbourne, 1925 to date.
- HARRIS, H. L. Australia's national interests and national policy. (Melbourne University Press, 5s.). Melbourne, 1938.
- SHANN, E. O. G. An Economic History of Australia. (Cambridge University Press, 18s.). Cambridge, 1930. *2nd impression*, 1938.
- MACLAURIN, W. R. Economic planning in Australia, 1929-1936. (P. S. King, 15s.). London, 1937.

RECENT PUBLICATIONS.

- AUSTRALIAN STANDARDS OF LIVING: studies by F. W. Eggleston and others. (Melbourne University Press, 10s.). Melbourne, 1939.
- ECONOMIC THEORY AND MONETARY POLICY: with special reference to Australia and New Zealand: [supplement to the Economic Record]. (Melbourne University Press, 15s.). Melbourne, 1939.

OFFICIAL PUBLICATIONS.

- AUSTRALIA:—*Census and Statistics, Commonwealth bureau of*. Census of the Commonwealth of Australia: 30th June, 1933: Australian joint life tables, 1932-1934. (Government Printer, 2s. 6d.). Canberra, 1939.
- Census of the Commonwealth of Australia: 30th June, 1933: detailed tables. 2 vols. (Government Printer, £2.). Canberra, 1939.
- SOUTH AUSTRALIA:—*Parliament: House of assembly: Select committee on unemployment relief works*. Report. (Government Printer). Adelaide, 1939. No. 34 of 1939.

* It should be noted that several important books on this subject are out of print, and have therefore not been included.

Industrial Organization.

- FOENANDER, O. de R. Towards industrial peace in Australia: a series of essays in the history of the Commonwealth Court of conciliation and arbitration. (Melbourne University Press, 21s.) Melbourne, 1937.
- SUTCLIFFE, J. T. History of Trade Unionism in Australia. (Macmillan, 6s.) Melbourne, 1921.

OFFICIAL PUBLICATIONS.

- NEW SOUTH WALES:—*Royal commission appointed to inquire into and report upon the safety and health of workers in coal mines.* Report . . . together with appendices and schedules; (Government Printer, 15s.) Sydney, 1939. (No. 240a of 1938-39.)
- VICTORIA:—*Labour, Department of.* The law relating to factories and shops and other industrial matters in Victoria: complete to 31st March, 1939. (Government Printer, 2s.) Melbourne, 1939.

Industries, Resources and Trade.

- AUSTRALIA TO-DAY: Special Number of the Australian Traveller. (United Commercial Travellers' Association of Australia, 2s. per issue). Melbourne, 1905 to date.
- AUSTRALIA:—*Royal Commission on the wheat, flour and bread industries.* Second to fifth reports. (Government Printer, 28s. 4d.). Canberra, 1935-6.
- COPELAND, D. B., and JAMES, C. V., editors. Australian marketing problems: a book of documents, 1932-1937. (Angus & Robertson, 10s. 6d.). Sydney, 1938.

RECENT PUBLICATIONS.

- WADHAM, S. M. and WOOD, G. L. Land utilization in Australia. (Melbourne University Press, 21s.) Melbourne, 1939.

OFFICIAL PUBLICATIONS.

- AUSTRALIA:—*Commerce, Department of.* Report on Australia's trade with eastern countries during 1937-38. (Government Printer). Canberra, 1939.
- NEW SOUTH WALES:—*Industrial Commission.* Chain stores: report . . . upon matters relating to the management, control and operations of general chain stores in New South Wales. (Government Printer, 5s. 9d.). Sydney, 1939. (PP. 266a of 1938-39.)
- QUEENSLAND:—*Royal Commission [on] sugar peaks and cognate matters.* Report. (Government Printer). Brisbane, 1939.
- SOUTH AUSTRALIA:—*Soil Conservation Committee.* Report . . . together with maps and appendices: [illustrated]. (Government Printer). Adelaide, 1938. ([PP.] 40-1938).
- VICTORIA:—*Royal Commission . . . [on] . . . causes of and measures taken to prevent bush fires of January, 1939 . . . and the measures to be taken to prevent bush fires in Victoria and to protect life and property in the event of future bush fires.* Report. (Government Printer, 1s. 3d.). Melbourne, 1939. (PP. 2 of 1939.)
- VICTORIA:—*Soil Erosion Committee.* Report . . . [on] erosion in Victoria. (Government Printer). Melbourne, 1938.
- WILSON, M. S. Report on Tasmanian transport problems. (Government Printer). Hobart, 1938. ([PP.] 34-1938.)

Natural History.

- AUDAS, J. W. The Trees of Australia. (Whitcombe & Tombs, 21s.). Melbourne, 1934.
- CAYLEY, N. W. What Bird is That? A Guide to the Birds of Australia. (Angus & Robertson, 12s. 6d.). Sydney, 1931.
- DAVID, Sir T. W. E. Explanatory Notes to accompany a New Geological Map of the Commonwealth of Australia. (Angus & Robertson, 20s.). Sydney, 1932.
- EWART, A. J. Flora of Victoria. (Melbourne University Press, 30s.). Melbourne, 1930.
- GRINWADE, W. R. Anthography of the Eucalypts. (Angus & Robertson, 42s.). 2nd edition. Sydney, 1930.
- TILLYARD, R. J. Insects of Australia and New Zealand. (Angus & Robertson, 21s.). Sydney, 1926.

RECENT PUBLICATIONS.

- D'OMBRAIN, A. W. A gallery of gum trees. (Australasian Medical Publishing Co., 12s. 6d.). Sydney, 1938.
- HARRIS, T. Y. Wild flowers of Australia. (Angus & Robertson, 7s. 6d.). Sydney, 1938.
- LEACH, J. A. An Australian bird book: 8th edition. (Whitcombe & Tombs, 8s. 6d.). Melbourne, 1939.

OFFICIAL PUBLICATIONS.

- CARN, K. G. Control of weeds. (Government Printer). Sydney, 1939.
- GOODACRE, W. A. The honey and pollen flora of New South Wales. (Government Printer, 5s.). Sydney, 1938.

Aborigines.

- BASEDOW, H. *The Australian Aboriginal*. (F. W. Preece & Son, 21s.). Adelaide, 1925.
 ELKIN, Rev. A. P. *The Australian aborigines*. (Angus & Robertson, 8s. 6d.). Sydney, 1938.
 MCCARTHY, F. D. *Australian aboriginal decorative art*. (Australian Museum, 2s. 6d.). Sydney, 1938.
 NEEDHAM, Rev. J. S. *White and Black in Australia*. (S.P.C.K., 3s. 6d.). London, 1935.
 OCEANIA: a journal devoted to the study of the native peoples of Australia, New Guinea and the islands of the Pacific Ocean. [Quarterly]. (Australian National Research Council, 20s. per annum). Sydney, 1932 to date.
 SPENCER, Sir. W. B. *Wanderings in Wild Australia*. 2 vols. (Macmillan, 42s.). London, 1928.
 SPENCER, Sir. W. B., and GILLEN, F. J. *The Arunta*. 2 vols. (Macmillan, 36s.). London, 1927.
 WARNER, W. L. *A black civilization: a social study of an Australian tribe*. (Harper, \$5). New York, 1937.

See also the Annual Reports of the Administrator of the Northern Territory and of the Aboriginal Departments in Queensland, South Australia and Western Australia.

RECENT PUBLICATIONS.

- BATES, Daisy, Mrs. *The passing of the aborigines*. (John Murray, 10s. 6d.). London, 1938.
 ELKIN, A. P., editor. *Studies in Australian linguistics*. (Australian National Research Council, 7s. 6d.). Sydney, 1938.
 FRAZER, Sir J. G. *Anthologia anthropologica: [vol. 2]. The native races of Australasia, including Australia, New Zealand, Oceania, New Guinea and Indonesia*. (Lund Humphries, 30s.). London, 1939.

Education.

- BROWNE, G. S. *Education in Australia: A comparative Study of the Educational Systems of the Six Australian States*. (Macmillan, 21s.). London, 1927.
 COLE, P. R., editor. *The Education of the Adolescent in Australia*. (Melbourne University Press, 10s.). Melbourne, 1935.
The Primary School Curriculum in Australia. (Melbourne University Press, 10s.). Melbourne, 1932.
The Rural School in Australia. (Melbourne University Press, 10s.). Melbourne, 1937.
 MUNN, R., and PITT, E. R. *Australian Libraries: A Survey of Conditions and Suggestions for their Improvement*. (Australian Council for Educational Research, 3s.). Melbourne, 1935.
 PORTUS, Rev. G. V. *Free, compulsory and secular: a critical estimate of Australian education: being three Joseph Payne lectures for 1936-37*. (Oxford University Press, 2s.). London, 1937.

For records of specialized research, see the various publications of the Australian Council for Educational Research, Melbourne.

RECENT PUBLICATIONS.

- MILES, J. A., editor. *Brave young singers: an anthology of child verse compiled from the work of pupils of the correspondence classes of Western Australia*. (Melbourne University Press, 4s. and 2s. 6d.). Melbourne, 1938.
 NEW EDUCATION FELLOWSHIP CONFERENCE, eighth, *Australia, August 1 to September 20, 1937*. Education for complete living: the . . . challenge of to-day: the proceedings of the . . . conference: edited by K. S. Cunningham, assisted by W. C. Radford. (Melbourne University Press, 10s.). Melbourne, 1938.
 RANKIN, D. H. *The history of the development of education in Victoria, 1836-1936*. (Arrow Printery, 10s. 6d.). Melbourne, 1939.
 REVIEW OF EDUCATION IN AUSTRALIA, 1938: by K. S. Cunningham, G. A. McIntyre and W. C. Radford. (Melbourne University Press, 8s. 6d.). Melbourne, 1939.

OFFICIAL PUBLICATIONS.

- NEW SOUTH WALES:—*Libraries Advisory Committee*. Report [on] public library services. (Government Printer). Sydney, 1939.

Literature.*

CRITICAL AND ANTHOLOGIES.

- ANNUAL CATALOGUE OF AUSTRALIAN PUBLICATIONS. (Commonwealth National Library, 2s. per issue). Canberra, 1936 to date.
 COWLING, S. H., and MAURICE, F. (i.e., F. I. T. WILMOT), compilers. *Australian essays*. (Melbourne University Press, 4s. 6d.). Melbourne, 1935.
 ELDERSHAW, M. Barnard. *Essays in Australian fiction*. (Melbourne University Press, 6s.). Melbourne, 1938.
 GREEN, H. M. *Outline of Australian Literature*. (Whitecombe & Tombs, 5s.). Sydney, 1930.
 MACKANESS, G., compiler. *Australian Short Stories*. (Dent, 3s. 6d.). 2nd edition. London, 1932.
 MACKANESS, J. S., and MACKANESS, G., compilers. *The Wide Brown Land: A New Anthology of Australian Verse*. (Angus & Robertson, 4s. 6d. and 2s. 9d.). Sydney, 1934.
 SERLE, P., compiler. *Bibliography of Australasian Poetry and Verse*. (Melbourne University Press, 36s.). Melbourne, 1925.

RECENT PUBLICATIONS.

- GREEN, H. M. *Christopher Brennan*. (Angus & Robertson, 5s.). Sydney, 1939.
 JINDYWORAK anthology: edited by Rex Ingamells, 1938. (F. W. Preece, Ltd., 3s. 6d.). Adelaide, 1938.

* The works of individual authors have not been included in the first section of this list. References to them will be found in Green and Serle.

Poetry.**RECENT PUBLICATIONS.**

- FITZGERALD, R. D. Moonlight acre. (Melbourne University Press, 4s. 6d.). Melbourne, 1938.
 GILMORE, M. J. Battlefields. (Angus & Robertson, 5s.). Sydney, 1939.
 MCCRAE, H. R. Poems. (Angus & Robertson, 6s.). Sydney, 1939.
 MOORE, T. I. Adagio in blue. (Angus & Robertson, 6s.). Sydney, 1938.

Drama.**RECENT PUBLICATIONS.**

- BROCKMAN, H. Drake. Men without wives; a play in three acts. (Pattersons Printing Press, 2s.). Perth, 1938.

Essays.**RECENT PUBLICATIONS.**

- MURDOCH, W. L. F. Collected essays. (Angus & Robertson, 8s. 6d.). Sydney, 1938.

Fiction.**RECENT PUBLICATIONS.**

- LOWE, E. Salute to freedom. (Collins, 10s. 6d.). London, 1938.
 TENNANT, K. Foveaux. (Gollancz, 8s. 6d.). London, 1939.
 MANN, L. Mountain flat. (Cape, 7s. 6d.). London, 1939.

Art.*

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* Books on the work of particular artists have been excluded from the list, though many of these, e.g., those published by Art in Australia, are indispensable for the study of Australian Art.

DIARY OF PRINCIPAL ECONOMIC EVENTS.

1931.

The events of 1931 and the years immediately following were mainly attempts to meet the extraordinary position created by the economic depression which began in 1929-30.

22nd January.—The Commonwealth Court of Arbitration after a protracted hearing made a comprehensive survey of the economic position (see *The Crisis*, pp. 102-145), and awarded a 10 per cent. reduction in all railway wages which were the subject of the case, operative from the 1st February, 1931. This judgment was followed by others, making the same reduction in practically all wages and salaries which were determined by Federal award. This reduction of 10 per cent. was in addition to the "automatic" adjustment to falling prices, and made the total reduction over 20 per cent. on the wage rates of 1929. Wages under State jurisdiction were gradually brought into line, except in New South Wales where no adjustment was made in State awards for some time.

January 10 February.—*Premiers' Conference, Canberra and Melbourne.*—A committee of Treasury officers presented a report analysing the financial and economic position. The report preserved much of the deflationary tone of an earlier statement by Sir Otto Niemeyer of the Bank of England, and commented adversely on the high exchange rate. Curtailment of Government expenditure was strongly urged, but no definite reductions were proposed. This report was signed by four of the State Under-Treasurers only.

Mr. Lang (Premier of New South Wales) proposed as an alternative the reduction of internal interest on Government bonds to 3 per cent., the cessation of oversea interest payments pending agreement for a similar reduction, and the substitution for the gold standard of "currency based on the wealth of Australia".

The Conference rejected Mr. Lang's motion and resolved to aim at budget equilibrium in three years, reducing salaries and wages on a cost of living basis, taxing interest on Government bonds at the source and putting on the banks the responsibility of reducing interest rates.

January.—*The Unpegging of the Exchange.*—Australian exchange with sterling had been held by the banks at 8½ per cent. discount since 9th October, 1930. On 5th January, 1931, on the initiative of the Bank of New South Wales, the rate was allowed to move up until it reached 30 per cent. on 29th January, 1931, and it was held at that figure notwithstanding some competition at higher rates by "outside" dealers.

2nd April.—Letter from the Commonwealth Bank to the Chairman of the Loan Council, stating that it was unable to finance Governments beyond the outstanding £25,000,000 in London, and a limit of £25,000,000 in Australia. This limit in Australia was bound to be, and was, in fact, reached within three months.

25th May to 11th June.—*Premiers' Conference, Melbourne.*—The Conference had before it a report of a Committee of economists and Treasury officers, of which Professor D. R. Copland was Chairman. This report proposed a definite scheme of reduction of expenditure of all kinds, including wages, salaries, pensions and interest. The reduction aimed at was from 20 to 25 per cent. below the 1928-29 level, based on the actual reduction in wage rates in Federal awards of something over 20 per cent. The aim of the proposals was to reduce total Government deficits in 1931-32 from a prospective £40,000,000 to some figure not much above £10,000,000. This report formed the basis of the "Premiers' Plan," and was adopted on the 10th June, 1931.

19th June.—*Gold Position.*—The minimum proportion of gold to be held against notes was reduced from 25 per cent. to 15 per cent., with provision for gradual restoration over a term not exceeding five years to 25 per cent. This amendment of the Commonwealth Bank Act was put through by general consent to permit further shipments of gold to meet short-term debt in London.

26th June.—Reduction of Bank Deposit and Advance Rates.—The Commonwealth Bank and the trading banks reduced by 1 per cent. the rates on new fixed deposits or renewals.

1st July.—The Commonwealth Bank reduced rates for advances by 1 per cent. The other trading banks by successive small steps fell into line.

The Commonwealth and State Savings Banks reduced interest rates by 1 per cent., except in Victoria where successive reductions of one-half, one-quarter, and again one-quarter of 1 per cent. were made by the State Savings Bank.

July-August.—Conversion Loan.—A conversion loan was launched to reduce the rate of interest on all internal Government debt by approximately 2½ per cent.

The results of the conversion plan will be best understood by consideration of the following figures:—

Total Internal public debt at 31st July, 1931	£
	557,998,904
Conversion applications notified	510,331,153
Dissents notified	16,655,769
Conversion effected automatically (in absence of notification of either conversion or dissent)	31,011,982
	557,998,904

The amount held by dissentients was thus a little less than 3 per cent. of the total outstanding public debts.

The annual savings in interest to all the Governments for a full year in consequence of the conversions effected were calculated to be about £6,500,000, but some part of this relief was to be passed on to settlers and others debtors to the State Governments.

31st July.—A reduction in the rate of interest on Treasury Bills from 6 per cent. to 4 per cent. was announced.

10th to 14th August, and 1st to 12th September.—Premiers' Conference, Melbourne.—The several Governments reported their attempts to adjust their budgets to the "Premiers' Plan." After some allowance had been made for unforeseen contingencies, the new budgets appeared on the whole to be in fair conformity with the "Plan," though for some of the State Governments there was an appreciable gap. Measures were agreed upon for applying compulsion to the small amount of Debt which had not been converted, and provision was made for the redemption from the National Debt Sinking Fund of securities held by persons in necessitous circumstances.

21st September.—Great Britain ceased payment in gold, and sterling depreciated over 20 per cent. in terms thereof, thus making a corresponding reduction in the real burden of interest payments by Australian Governments, which are for the most part fixed on sterling. Australian exchange was kept for the time at the old discount of 30 per cent. with sterling, so that no direct relief to Australian budgets ensued.

30th October.—The Commonwealth Government made provision for the payment of a bounty of 4½d. per bushel on wheat produced in the 1931-32 season.

27th November.—Further reduction in bank deposit rates of one-half and one-quarter of 1 per cent. on short and long-term deposits respectively.

3rd December.—Exchange.—Commonwealth Bank Board resolved to take responsibility for the regulation of sterling exchange and to announce rates for the coming week every Friday. The rate was fixed at £125 for £100 sterling, in place of £130, which had been the official bank rate since 29th January. It may be noted that sterling in the preceding week had depreciated from about 20 per cent. discount on gold to about 30 per cent. For some weeks the banks had been rationing their purchases of exchange, with the result that the "open market" rate had fallen considerably below the "carded" rates.

1932.

January.—Letter from the Commonwealth Bank to the Chairman of the Loan Council calling attention to the growth of the floating debt, and suggesting that "national finance" might be refused.

28th January to 5th February.—*Premiers' Conference, Melbourne.*—A serious drift in State finances was revealed. After receiving assurances that further economies would be sought, the Commonwealth Bank agreed to provide further assistance for the small States. During the meetings, New South Wales announced its default on interest payments due in London, New York and Australia. The payments were met, after a short delay, by the Commonwealth Government.

February.—A beginning was made in the revision of the tariff and the removal of prohibitions on imports.

5th March.—Further reductions in bank deposit rates of one-half per cent. on 3 months' deposits and one-quarter of 1 per cent. on six and twelve months' deposits.

12th March.—The Financial Agreements (Commonwealth Liability) Act resolved all doubts as to the liability of the Commonwealth for debts taken over in pursuance of the Financial Agreement.

March to May.—The Financial Agreements Enforcement legislation was enacted, giving the Commonwealth drastic powers to attach State revenues and other moneys in the event of failure by a State to pay to the Commonwealth moneys due under the Financial Agreement. The High Court decided in favour of the Commonwealth on a writ for recovery of interest paid on behalf of New South Wales. The New South Wales Government then contested the validity of the Enforcement Acts, which were upheld by the High Court, leave to appeal being refused.

13th April.—A Committee of Experts appointed by the Commonwealth Government to make a "Preliminary Survey of the Economic Problem" issued its report, recommending the restoration of economic balance by a combination of reduced costs and a high exchange rate, the former to be secured in part by the general application by State wage-fixing authorities of the 10 per cent. "cut" in real wages. The chief measures of more immediate alleviation recommended were (i) systematic revision of the customs tariff; (ii) construction of public works when the reductions in costs of construction made it possible for such works to earn interest; (iii) advances on debentures to large-scale enterprises for which three-quarters of the needed capital had been privately subscribed; and (iv) the settlement of married recipients of sustenance as cottagers on established farms.

14th to 21st April.—*Premiers' Conference, Melbourne.*—It was decided to raise a loan of £2,400,000 for expenditure on unemployment relief works.

May.—The trade union unemployment percentage reached the peak of 30 per cent. Mr. Lang was dismissed by the Governor of New South Wales, and the Victorian Labour Government was defeated at the elections. A widespread agitation for a higher exchange rate commenced, and lasted for some months.

11th June.—The State Labour Party was defeated in the New South Wales elections, while in Queensland the Labour Party was victorious.

16th and 17th June.—The New South Wales Industrial Commission was reconstituted. The Commonwealth Court of Arbitration refused an application for restoration of the special 10 per cent. reduction in wages.

21st June.—The Commonwealth Bank Act was amended to allow part of the note reserve to be held in English sterling. Subsequently, £G10,000,528 of gold was shipped overseas from the gold reserve of the Australian Notes Fund.

May-June.—Further reductions in bank deposit rates of one-quarter and one-half of 1 per cent. on twelve and 24 months' deposits, respectively.

30th June.—*Balance of Payments.*—The balance on current account, excluding the movement of monetary gold, was estimated to be in Australia's favour by approximately £7,492,000 sterling in 1931-32, as against a debit balance in 1930-31 of approximately £17,974,000 sterling.

28th June to 8th July.—*Premiers' Conference, Canberra and Sydney.*—The Conference unanimously affirmed its adherence to the "Premiers' Plan" of 1931. The estimated deficits for 1931-32 were reported to the Conference, and, with the notable exceptions of New South Wales and Queensland, they disclosed a satisfactory conformity with the "planned" deficits. The Conference agreed to reduce the total deficits in 1932-33 to £9,000,000 (inclusive of £6.45 millions for sinking funds), and arranged for a three-year unemployment relief works plan involving the ultimate expenditure of £15,000,000. Of this amount, £7,000,000 was to be spent in 1932-33, in addition to the ordinary works programme of £6,000,000.

1st July.—The Commonwealth Bank reduced its rate for advances by a further one-half of 1 per cent., bringing the rate to 5 per cent. The average reduction by the trading banks, since 1st October, 1931, was stated to be 1 per cent. Further reductions were anticipated by prominent bankers.

21st July to 19th August.—Imperial Economic Conference at Ottawa.

26th August.—The New South Wales Industrial Commission reduced the basic wage for adult males from £4 2s. 6d. to £3 10s., and for adult females from £2 4s. 6d. to £1 18s.

1st September.—The Commonwealth Budget provided *inter alia* for a further reduction of pensions and salaries, decreased customs duties, the final removal of import prohibitions, exemptions from Sales Tax and primage, and suspension of the gold bounty, which had been introduced on 1st January, 1931.

September to November.—Wool prices showed some improvement; share prices advanced substantially; the value of imports and Commonwealth customs revenues increased steadily. Early in October all the 4 per cent. Commonwealth bonds reached par, after allowing for accrued interest.

4th October.—A conversion loan was issued in London at 3½ per cent., issue price £97½, maturing 1936-37, to replace £12,360,000 of 5½ per cent. N.S.W. stock maturing in October, 1932.

14th October.—Revision of the Customs Tariff to validate the Ottawa Agreement. The margin of preference under the British Preferential Tariff was considerably widened, mainly by means of increased duties on a wide range of foreign manufactures.

24th to 29th October.—*Premiers' Conference, Melbourne.*—It was decided to place on the Australian market a loan of £8,000,000 at 3½ per cent., maturing in 1942, for Unemployment Relief and the funding of Treasury Bills. A reduction in the rate of interest on Treasury Bills from 4 per cent. to 3½ per cent. was announced.

1st November.—Further reductions in bank deposit rates of one-quarter of 1 per cent. for all terms, bringing the rates down to 2½, 2¾, 3 and 3¼ per cent. on 3, 6, 12 and 24 months' deposits respectively.

5th December.—In view of the improved revenue position, the Commonwealth Government made substantial reductions in land and income (property) taxes, further exemptions from sales tax, increased the payments to certain Invalid and Old-age pensioners, and provided from revenue £2,000,000 for assistance to wheat-growers and £250,000 for assistance to other primary producers.

1933.

January.—Considerable improvement in the unemployment situation was shown in the trade union percentages for the last quarter of 1932. This improvement has continued.

20th January.—A reduction in the rate of interest on Treasury Bills from 3½ per cent. to 3¼ per cent. was announced.

4th February.—The Loan Council agreed with the Commonwealth Bank that future requirements for loan programmes should be raised on the open market.

7th February.—Further reductions in bank deposit rates of one-quarter of 1 per cent. for all terms, bringing the rates down to 2, 2½, 2¾ and 3 per cent. on 3, 6, 12 and 24 months' deposits respectively.

17th February.—Further reduction in the Treasury Bill rate from $3\frac{1}{2}$ per cent. to $2\frac{1}{2}$ per cent.

23rd February.—A conversion loan was issued in London at 4 per cent., issue price par, maturing 1955-70, to replace £9,621,000 of 4 per cent. stock maturing in July, 1933.

30th May.—Appointment of Commonwealth Grants Commission to inquire into matters relating to grants of financial assistance to the States.

A conversion loan was issued in London at $3\frac{1}{2}$ per cent., issue price £99, maturing in 1937-38, to replace £11,400,000 of $6\frac{1}{2}$ per cent. stock with optional rights of redemption.

31st May.—Lists closed for internal loan of £5,000,000 for State public works, issued at $3\frac{1}{2}$ per cent. at par, maturing in 1942, with subscriptions amounting to £8.4 millions.

1st June.—A further reduction in the Treasury Bill rate from $2\frac{1}{2}$ per cent. to $2\frac{1}{2}$ per cent. was announced.

8th to 14th June.—Premiers' Conference, Melbourne.—By arrangement with the Loan Council, the Commonwealth Bank agreed to finance revenue deficits in 1933-34 by short-term loans to the amount of £8.5 millions, subject to reduction to the extent of any relief obtained by the States from conversion of oversea loans.

30th June.—The Commonwealth Court of Arbitration ordered the restitution of the 10 per cent. reduction in real wages in the Glass Industry; subsequently extending the restitution to the Paper and Pulp, Jam and Fruit Preserving, and certain other industries.

13th July.—A conversion loan was issued in London at 4 per cent., issue price £99, maturing in 1943-48, to replace £17,221,000 of 6 per cent. stock with optional rights of redemption.

14th September.—A conversion loan was issued in London at $3\frac{1}{2}$ per cent., issue price £98, maturing in 1948-53, to replace £20,951,000 of 6 per cent. and $5\frac{1}{2}$ per cent. stock with optional rights of redemption.

4th October.—The Commonwealth Budget provided *inter alia* for substantial remissions of direct and indirect taxation, including further exemptions from Sales Tax and reduction of the rate of tax from 6 to 5 per cent., reduction of special tax on income from property from 10 to 5 per cent., reductions in the income taxation on Life Assurance and other companies, and partial restoration of Financial Emergency reductions in Invalid, Old-age and War Pensions, Public Service salaries and contributions to the Public Service Superannuation Fund. The total relief of taxation was estimated to be at the rate of £7.5 millions annually. At the same time the Government signified its intention of giving effect to that part of the report of the Tariff Board on the protective incidence of primage and exchange which applied to protected goods entitled to admission under the British Preferential Tariff.

16th November.—An internal loan of £10,000,000 was issued at $3\frac{1}{2}$ per cent., issue price £99, maturing in 1943, half for State public works and half for the purpose of retiring Treasury Bills.

30th November.—The price of wool, which had been advancing rapidly for some months, reached nearly 15d. per lb. (greasy merino, standard average). Wheat prices continued to fluctuate at very low levels. Export prices as a whole, in Australian currency, had recovered to 72 per cent. of their 1927-28 level.

4th December.—Flour Tax of £4 5s. per ton imposed to provide portion of revenue required to assist necessitous farmers.

5th December.—A conversion loan was issued in London at $3\frac{1}{2}$ per cent., issue price £99, maturing in 1946-49, to replace £16,647,000 of $5\frac{1}{2}$ per cent. and 5 per cent. stock with optional rights of redemption.

The Commonwealth Government provided £3,000,000 for assistance to wheat-growers to be financed partly from a temporary sales tax on flour of £4 5s. a ton, and in part from other sources. The special tax on incomes from property was raised from 5 to 6 per cent. and the customs duty on imported tobacco raised by 6d. a lb.

1934.

January.—During 1933, Unemployment statistics disclosed by Trade Union returns showed steady progressive improvement. Percentage unemployed in December quarter—23 per cent.—lowest level since August, 1930.

2nd January.—Wool realized increased prices at first of 1934 sales. The average prices realized were the highest since September, 1928.

22nd February.—Conversion in London of £21,636,550, 5½ and 5 per cent. loans. New issue 3½ per cent. at £97, maturing 1954–59.

1st April.—Treasury Bill rate reduced from 2½ per cent. to 2¼ per cent.

12th April.—Bank deposit rates further reduced to 2¼, 2½ and 2¾ per cent. for 6, 12 and 24 months respectively.

31st May.—Provisions of 1933 Flour Tax Act ceased to operate.

5th June.—Internal Loan of £12,234,000, 3¼ per cent. at £98 10s., repayable at par in fourteen years, raised for Commonwealth and State public works and funding of Treasury Bills. The terms of this flotation were the lowest ever offered for a Commonwealth loan.

19th June.—Commonwealth Bank Board agreed to finance Revenue Deficits for 1934–35 to a limit of £5,880,000, subject to the funding of an equivalent amount of Treasury Bills during the year. This amount was subject to reduction by any additional special grants from the Commonwealth over the 1933–34 basis.

25th June.—The Commonwealth Bank Board announced its withdrawal of the guarantee of payment and the undertaking that treasury bills would be rediscounted before maturity at the fixed rate in regard to new issues and re-issues after 30th June. Rediscounting will still be possible but at the rate fixed by the Commonwealth Bank at the time of the transaction.

24th July.—Commonwealth Budget for 1934–35 provided *inter alia* for further remissions in indirect taxation including additional exemptions from Sales Tax and reductions in primage, concessions in wireless licence fees and telephone charges; further restoration in part of public service salaries; more liberal war pensions, repatriation, old-age and invalid pensions, and maternity allowance benefits; assistance to primary producers in the form of a fertilizer subsidy; assistance to fruit-growers and other primary producers; and a special non-recurring grant of £2,000,000 to the States.

8th August.—Bank deposit rates for three months terms reduced from 2 per cent. to 1½ per cent.

11th October.—Further reduction in Bank deposit rates of one-quarter of 1 per cent. to 2, 2¼ and 2½ per cent. respectively for 6, 12 and 24 months' terms.

15th October.—Treasury Bill rate reduced from 2¼ to 2 per cent.

8th November.—Conversion loan of £14,601,806 issued in London at £99, maturing in 1964–74, interest at 3¼ per cent.

20th November.—An internal loan of £15,000,000 raised for Public Works and funding of Treasury Bills issued at 3 per cent. at £99 15s., maturing in fourteen years.

8th December.—Commonwealth 5 per cent. stocks in New York reached par.

13th December.—Flour tax re-imposed. Rate of tax £2 12s. 6d. per ton.

17th December.—Further reduction of Bank Deposit rates—three and six months terms reduced to 1 and 1½ per cent. respectively. Treasury Bill rate on new issues and re-issues to be reduced to 1¾ per cent. from 1st January, 1935.

1935.

January.—Evidence of improved financial conditions was given in the increase in bank clearings and the decrease in unemployment during 1934. The total of bank clearings (including Treasury Bills) amounted to £2,095,000,000, and was 8.4 per cent. higher than the corresponding figure for 1933. Unemployment statistics disclosed by the Trade Union returns continued to show progressive improvement. Percentage unemployed in December quarter, 18.8 per cent., lowest level since May, 1930.

7th January.—Flour Tax commenced to operate. Rate of tax, £2 12s. 6d. per ton.

18th January.—Conversion loan of £22,384,000 issued in London at par, interest at 3¼ per cent., repayable 1956–61. Largest single conversion operation.

2nd February.—Commonwealth Government announced £12,000,000 grant to States over three years for the purpose of adjusting farmers' debts by means of composition arrangements.

6th March.—The price of gold in Australian currency reached the new high level of £9 4s. 4d. per fine ounce.

13th March.—The Wheat Commission reported that production should be adjusted to find a new economic equilibrium at the existing world parity, as no permanent rise in price could logically be expected. The Commission further recommended that the wheat industry should be assisted through the application of a home consumption price, that a Commonwealth Board should be appointed to supervise oversea sales, and that a plan of debt adjustment should be undertaken over a period of seven years.

30th March.—New tariff schedule announced. Reduction in duties on apparel and stockings, farm and engineering machinery, and certain classes of motor body panels made in Great Britain.

20th May.—The Commonwealth Bank Board agreed to finance Revenue Deficits in 1935-36 to the limit of £4,730,000, subject to the funding of an equivalent amount of Treasury Bills during the year.

11th June.—Internal loan of £12,500,000, 3½ per cent. at £99 10s. repayable at par in 1949. Raised for Commonwealth and State public works and funding of Treasury Bills.

30th June.—Public Debt of Commonwealth and States (including short-term debt) totalled £1,242,115,000—Commonwealth, £394,151,000, and States, £847,964,000. Net increase in 1934-35, £19,556,000, or 1.6 per cent.

24th July.—Conversion loan of £13,470,000 issued in London at 3 per cent. at par repayable 1939-41. Annual saving in interest and exchange of £26,000 per annum.

23rd September.—Commonwealth Budget for 1935-36 provided *inter alia* for reduction from 6 per cent. to 5 per cent. of super tax on property income; extension of the list of commodities exempted from Sales Tax; some remission of primage duty and a reduction in excise on tobacco of local origin; further restoration in part of public service salaries; extension of eligibility for war pensions and repatriation benefits; some expansion of the Defence programme; a contribution to interest and sinking fund payments on Municipal loans; and the provision of a bounty on oranges exported during the 1935 season.

24th September.—Report of Commonwealth Grants Commission recommended increased special grants for 1935-36, viz., South Australia, £1,500,000; Western Australia, £800,000; Tasmania, £450,000.

4th to 7th October.—Conference of Federal and State Ministers and Experts on the Wheat Industry. The conference approved in theory the application of a home consumption price for wheat, the scheme to be superintended by the Commonwealth.

15th November.—Commonwealth Government appointed Royal Commission to inquire into and report upon the banking and monetary systems of the Commonwealth.

26th November.—Internal loan of £7,500,000, 3½ per cent. at £99 15s., repayable at par in 1949, raised for Commonwealth and State public works and the funding of Treasury Bills. The optional privilege of tendering the Bonds at their par value for Commonwealth Probate purposes was withdrawn.

5th December.—An Act was passed to continue the operation of the Flour Tax in 1936 to contribute towards a bounty on the 1935-36 harvest.

31st December.—Trade Union unemployment percentage showed further reduction to 13.7 per cent. for fourth quarter.

. 1936.

7th January.—Conversion Loan in London of £21,657,000. New South Wales 5 per cent. stocks converted to 3 per cent., issued at £95 10s., maturing 1955-58.

17th January.—Internal conversion loan £2,393,000, Queensland £5 os. 9d. per cent., converted at 3½ per cent. at par.

28th February.—Commonwealth Bank announced a public issue of £1,000,000 Treasury Bills at a discount rate of $1\frac{3}{4}$ per cent. The issue was unsuccessful, only £315,000 being subscribed.

2nd March.—Bank of New South Wales increased interest rates on fixed deposits to 2 per cent. for three months, $2\frac{1}{2}$ per cent. for six months, $2\frac{3}{4}$ per cent. for twelve months, and 3 per cent. for 24 months. Bank of Adelaide made similar increases on the following day.

24th March.—Commonwealth Bank and the other Trading Banks increased rates on fixed deposits to conform to the rates offered by the Bank of New South Wales from 2nd March.

2nd June.—Internal loan of £9,000,000, $3\frac{3}{4}$ per cent., issued at £98 10s., repayable 1951-52, undersubscribed by £1,800,000.

8th June.—Conversion loan in London of £16,551,000, at $2\frac{3}{4}$ per cent., issued at £99, repayable 1941-43. The stocks converted were 3 per cent. Western Australia, $3\frac{1}{2}$ per cent. Commonwealth and South Australian, and $4\frac{1}{2}$ per cent. New South Wales and Western Australia. The loan was over subscribed.

25th June.—Import restrictions placed by the Government of Japan on imports from Australia, on the grounds that Australia had applied "unreasonable restrictive measures in respect of the importation of goods produced or manufactured in Japan".

4th August.—Excess of exports over imports for year 1935-36 was £ stg. 22,597,000.

Wheat prices rose to a new six-year peak of 5s. per bushel for city parcels in Melbourne.

10th September.—Commonwealth Budget for 1936-37 introduced, providing for taxation remissions equal to £5,275,000 in a full year (£3,868,000 for remainder of current year); increased grants on account of Federal Aid Roads; restoration of public service salaries; increases in certain classes of war pensions; increased old-age and invalid pension rates, and liberalized conditions for maternity allowances. A surplus of £45,000 was anticipated for 1936-37.

11th September.—Commonwealth Grants Commission recommended the following grants for 1936-37: South Australia £1,330,000, Western Australia £500,000, and Tasmania £600,000. Sales Tax reduced from 5 per cent. to 4 per cent. and further exemptions granted.

18th September.—Further exemptions from primage duties promulgated.

26th September.—Remissions of sales tax, estimated at £1,000,000, on a wide range of goods.

28th September.—Price of gold rose by about 3s. to £A8 13s. 9d. per fine ounce.

7th November.—Australian Loan Council decided to grant extra £1,000,000 to Western Australia because of drought conditions in that State; loan programme for year increased by £750,000 to £22,450,000.

26th November.—Internal loan of £7,500,000, $3\frac{3}{4}$ per cent., at £97 10s., maturing on 15th November, 1951.

27th December.—Settlement of trade dispute with Japan.

1937.

3rd January.—Japan resumed buying at Sydney wool sales; prices advanced from 10 to 15 per cent.

13th January.—The percentage of unemployment amongst trade unionists declined to 10.7 in the last quarter of 1936.

28th January.—Life assurance sold during 1936 was a record for Australia.

6th April.—Wheat prices for city parcels touched 6s. a bushel in Melbourne.

27th April.—Internal loan of £7,500,000, $3\frac{3}{4}$ per cent., at £99 5s., maturing on 15th October, 1948.

10th May.—Export quota of 400,000 tons allotted to Australia under International Sugar Agreement.

9th June.—Conversion loan in London. £12,360,958 New South Wales stocks converted to 3½ per cent., issued at £96 10s., maturing in 1950–52.

23rd June.—Commonwealth Arbitration Court increased the Federal basic wage by an average of 5s. for males and 2s. 6d. for females.

30th June.—Deposits in the trading banks reached record total of £320,540,000 in the quarter ended June, 1937. Increase for the year was £22,460,000. Savings bank deposits were also a record at £230,851,000.

3rd August.—Australia's favourable balance for 1936–37 was £stg. 35,470,000 compared with £stg. 22,376,000 in 1935–36 and £stg. 15,583,000 in 1934–35.

24th August.—Presentation of Report of the Royal Commission on Banking.

Fourth Report of the Commonwealth Grants Commission recommended the following State grants: South Australia, £1,200,000; Western Australia, £575,000; Tasmania, £575,000.

27th August.—Commonwealth Budget presented. Provision of £11,531,000 for defence. Invalid and old-age pensions raised from 19s. to £1. No taxation reductions. Estimated surplus, £30,000.

19th October.—Australian Butter (salted) touched new seven-year high level of 135s. to 136s. a cwt. on London market.

23rd October.—Federal elections held.

18th November.—Conversion loan in London of £11,409,965 Commonwealth Government stocks converted to 3½ per cent., issued at £97, and maturing in 1951–54.

30th November.—Internal loan of £8,194,760, 3½ per cent., issued at £99 15s., repayable 1951.

16th December.—Radio licences in Australia reached 1,000,000 on 30th November. Eighty homes out of every 100 in metropolitan areas had a wireless set and 44 out of every 100 in country areas.

1938.

13th January.—Prime Minister announced that it was hoped to resume assisted British migration by the end of 1938.

20th January.—In the last quarter of 1937 unemployment among trade unionists had fallen to 8.2 per cent., the lowest point since August, 1927.

24th January.—Gold produced in Australia during 1937 was 1,381,135 fine ounces, valued at £A11,984,088, the greatest output since 1917.

14th March.—Modification of existing Trade Agreement between Australia and New Zealand.

24th March.—Australian Defence Programme involving expenditure of £43,000,000 over three years announced. This programme was subsequently expanded.

31st March.—British Empire Producers' Conference opened at Sydney.

9th April.—Substantial reductions in cable and wireless messages between Empire countries.

5th May.—Commonwealth loan in London of £stg. 7,000,000, 3½ per cent., issued at £99, maturing in 1952–56; £2,000,000 for Defence purposes and the balance for conversion of portion of Australian Treasury Bills held by Commonwealth Bank in London.

19th May.—Internal loan of £10,418,130, 3½ per cent., issued at £99 10s., maturing in 1952–54.

17th June.—Internal conversion loan of £2,186,120, 3½ per cent., issued at £99 10s., maturing in 1952–54.

30th June.—National Insurance Bill passed by Federal Parliament.

2nd July.—New Trade Treaty between Japan and Australia signed.

5th July.—Factory employees in 1936-37 were 523,824, the highest ever recorded.

13th July.—Australia's favourable oversea trade balance for 1937-38 was £stg.11,863,000, the lowest since the depression years.

26th August.—Premiers of all States agreed upon plan for home-consumption price for wheat.

31st August.—Taxation in Australia during 1937-38 was £17 6s. per head of population.

9th September.—General coal strike commenced in all States except Western Australia.

20th September.—Fifth Report of the Commonwealth Grants Commission recommended the following State grants: South Australia, £1,040,000; Western Australia, £570,000; and Tasmania, £410,000.

21st September.—Commonwealth Budget presented. Provision of £16,796,000 for Defence. Substantial increases in taxation. Estimated surplus, £26,000.

29th September.—Sales tax raised from 4 to 5 per cent.; estimated increased yield, £1,300,000. Income tax raised by 15 per cent.; estimated increased yield, £1,400,000.

21st October.—Meeting of Loan Council at Canberra. Commonwealth and State Governments discussed urgent Defence works.

9th November.—Internal conversion and redemption loan of £69,026,730 and new loan of £4,089,131; 3½ per cent., issued at par, maturing in 1952-54.

22nd November.—Savings Banks deposits attained new record total of £243,220,000 in October, 1938, an increase of £9,000,000 on total for October, 1937.

2nd December.—Flour tax of £5 15s. per ton applied under Commonwealth Government's wheat legislation. The tax was reduced to £5 7s. 6d. per ton from 16th December.

6th December.—Revised three-year Defence programme estimated to cost £63,000,000.

8th December.—Conversion loan in London of £2,517,800, 4 per cent., issued at par, maturing in 1955-70.

17th December.—In announcing a subscription of £6,000,000 to the conversion and defence loan the Chairman of the Commonwealth Bank stated that the Bank considered it should make adequate funds available to minimize any possible deflationary consequences of reduced income from exports and diversion of money to defence works.

1939.

2nd January.—Owing to the refusal of waterside workers to load pig iron for Japan 4,000 steel workers at Port Kembla were thrown out of employment.

29th January.—Arrival of technical members of British Air Mission to investigate possibilities of further development of aircraft manufacture in Australia. Subsequently one of the members stated that he was surprised at the potential capacity of Australian factories for the manufacture of aircraft.

6th February.—The net increase of population by migration during 1938 was 9,137, compared with 5,203 in 1937.

7th February.—Internal loan of £8,525,710, 3½ per cent., issued at par, maturing in 1953-55, for public works and other purposes.

8th February.—Employees in factories during 1937-38 increased by 35,000 to 559,160 and the value of production rose from £178,000,000 in 1936-37 to £196,000,000 in 1937-38.

17th March.—Council for Scientific and Industrial Research directed to make comprehensive survey of the raw materials of industry; to ascertain what imports were vital to continuance of national effort; and to devise means of coping with the non-arrival of vital raw materials from overseas.

24th March.—Prime Minister announced that British and Commonwealth Government had adopted the general recommendations of the British Air Mission regarding the manufacture of military aircraft in Australia; plant and equipment to start the industry estimated to cost £1,000,000.

27th March.—Test flight of Wirraway No. 1, the first modern service aircraft built in Australia.

29th March.—Revising its earlier decision, the Government decided to introduce immediately a compulsory register of man-power.

4th May.—The proposed new industry for the manufacture of tinplate in Australia would probably be established by Broken Hill Pty. Co. Ltd. at Whyalla (South Australia) at a cost of £2,500,000 and would give employment to 1,000 men.

9th May.—First cargo of steel—8,200 tons—ever sent from Australia to England left Newcastle.

24th May.—The Minister for Supply announced decision to proceed immediately with a compulsory register of productive capacity and resources of industries of defence significance.

30th May.—Internal loan of £4,751,470, 3½ per cent., issued at £99, maturing in 1953-55, for public works and other purposes.

7th June.—Commonwealth loan in London of £6,000,000, 4 per cent., issued at £98 10s., maturing in 1961-64, for defence purposes.

8th June.—Government accepted amendment to National Register Bill to provide for register of private wealth. All persons possessing assets of £500 or more to be required to answer comprehensive range of questions.

10th June.—Parramatta, the new 1,400-ton sloop for the Royal Australian Navy, launched at Cockatoo Dock.

22nd June.—Loan Council agrees to loans of £41,000,000 for Commonwealth and States.

27th June.—Internal loan by Commonwealth Bank of £3,000,000, 3½ per cent., issued at par, maturing 15th August, 1943, for public works and other purposes.

1st July.—Public debt at 30th June, 1939, was £1,295,022,973 or £186 os. 10d. per head of population.

2nd July.—It was reported that more than twenty ships had been chartered to carry to Britain cargoes of Australian steel totalling between 150,000 and 170,000 tons.

7th July.—Commonwealth Government surplus for 1938-39 was £627,309; the aggregate State deficit was £3,870,275.

1st August.—Savings Bank deposits reached record total of £245,586,736 at 30th June, 1939, equal to £35 5s. 7d. per head of population.

15th August.—Federal Arbitration Court decided that in general the standard working week for Australian industry should be 44 hours.

26th August.—Commonwealth Government assumes wide powers to safeguard national interests.

28th August.—Commonwealth control of oversea exchange transactions and export of money.

29th August.—Commonwealth takes over a number of Australian ships.

3rd September.—Australia declares war on Germany.

4th September.—Board set up for the control of shipping. Captain G. D. Williams appointed Controller of Shipping.

5th September.—Britain buys Australia's wool clip and surplus food products.

7th to 8th September.—Action taken for the control of prices to prevent profiteering. Professor D. B. Copland appointed Controller of Prices with the assistance of two assessors. Proclamation issued enumerating eighteen groups of commodities immediately subject to price control at rates obtaining on 31st August; list to be extended later as required.

Temporary budget presented. Provides for increases in Income Tax, Sales Tax, Customs and Excise duties, including spirits, beer and petrol, to raise £5,910,000. Expenditure for 1939-40 estimated at £101,916,000 and revenue £101,940,000.

13th September.—Status of official representative in Canada raised to that of High Commissioner. Simultaneously Canada intends to appoint a High Commissioner in Australia.

Australian wheat crop during war period purchased by Commonwealth Government and marketed through a compulsory Federal Wheat Pool with Mr. Clive McPherson as Chairman.

15th September.—Special Volunteer Force of 20,000 to be enlisted for service within or without Australia.

21st September.—Australia offers the British Government six Australian Air Squadrons for service overseas.

23rd September.—Commonwealth control of exports.

29th September.—Regulations issued to create War-time Price-Fixing Organization, conferring virtually unlimited powers on Commissioner of Prices, who is enabled to compel sale of any goods in trade in Australia in the reasonable and ordinary course of trade.

3rd October.—Under the agreement with the British Government, Australian growers will receive 13.437d. per lb. for current wool clip and also one-half of profit on resales by Britain.

5th October.—Federal Emergency Planning and Organization Regulations gazetted, under which sixteen separate classes of industries engaged in manufacture of wide range of commodities are to furnish returns of their manufacturing operations.

Commonwealth Government assumed wide powers for marshalling of oversea credit of Australia for national purposes.

9th October.—Australian Air Expeditionary Force to be built up to about 3,200 men.

25th October.—Compulsory military training for home defence to be introduced from January, 1940.

27th October.—Federal and State taxation for 1938-39 was £124,565,180 or at the rate of £17 19s. 7d. per head of population.

30th October.—Great Britain's purchases from Australia during war period are estimated at £100,000,000 annually.

31st October.—Plans for the Australian Air Expeditionary Force recast in view of unprecedented Empire Air Scheme.

1st November.—Further National Security Regulations issued empowering Commonwealth Government virtually to commandeer services of Australian factories.

17th November.—It was announced that between 8,000 and 10,000 men will probably be engaged in the manufacture of military aircraft in Australia during 1941.

29th November.—Prime Minister announced that Australian troops would embark for abroad early in New Year.

30th November.—Revised Federal Budget for 1939-40 increased defence expenditure from £33,137,000 to £62,014,000. No increase in taxation.

1st December.—Internal loan arranged by the Commonwealth Bank in conjunction with the trading banks of £12,000,000, 3½ per cent., issued at par, £4,000,000 repayable in each of the years 1942-44, for purposes of defence and public works.

6th December.—Commonwealth Government decided to provide subsidy up to £1,500,000 to encourage the production of complete motor cars in Australia.

8th December.—Conversion loan in London of £4,604,800, 3½ per cent., issued at £99, maturing in 1942-44.

15th December.—Prime Minister stated that first objective of Australia's contribution to the Empire Air Scheme would be the training of 26,000 men, including 10,400 pilots, at an estimated cost of £A50,000,000.

22nd December.—Company with nominal capital of £1,000,000 to be formed by Australian Consolidated Industries Ltd. to manufacture motor engines and chassis in Australia.

30th December.—Plans announced for a new £1,000,000 factory in Sydney for the manufacture of aeroplane engines.

APPENDIX.

(Recent information and returns which have come to hand since the various chapters were sent to press are given hereunder.)

CHAPTER III.—GENERAL GOVERNMENT.**§ 3. Administration and Legislation, p. 64.**

2. Governor-General and Ministry—

Governor-General: His Excellency General the Rt. Hon. Alexander Gore Arkwright, Baron Gowrie, V.C., P.C., G.C.M.G., C.B., D.S.O.

Commonwealth Ministry: The Commonwealth Ministry was reconstructed on 14th March, 1940, and is now constituted as follows:—

Prime Minister, Minister for Defence Co-ordination and Minister for Information	Rt. Hon. R. G. Menzies, K.C.
Minister for Commerce and Minister for the Navy	Hon. A. G. Cameron.
Attorney-General and Minister for Industry	Rt. Hon. W. M. Hughes, K.C.
Minister for the Army and Minister for Repatriation	Hon. G. A. Street, M.C.
Vice-President of the Executive Council	Hon. Sir Henry Gullett, K.C.M.G.
Minister for Supply and Develop- ment and Minister for Social Services	Hon. Sir Frederick Stewart.
Postmaster-General and Minister for Health	Hon. H. V. C. Thorby.
Treasurer	Hon. P. C. Spender, K.C.
Minister for Trade and Customs ..	Senator the Hon. G. McLeay.
Minister for External Affairs ..	Hon. J. McEwen.
Minister for the Interior	Senator the Hon. H. S. Foll.
Minister for Air and Minister for Civil Aviation	Hon. J. V. Fairbairn.
Assistant Ministers	Senator the Hon. P. A. M. McBride. Hon. A. W. Fadden. Senator the Hon. H. B. Collett, C.M.G., D.S.O., V.D. Hon. H. K. Nock.

CHAPTER V.—TRANSPORT AND COMMUNICATION.**A. SHIPPING.****§ 2. Oversea Shipping.**

3. Shipping Communication with various Countries, p. 100.—The following table gives the net tonnages of oversea vessels entered and cleared from Australian ports during 1938–39 according to direction:—

OVERSEA SHIPPING, AUSTRALIA.—DIRECTION, 1938–39.

Country.	Net Tonnage Entered.	Net Tonnage Cleared.
United Kingdom and European Countries ..	1,996,533	2,791,230
New Zealand	1,009,946	938,221
Asiatic Countries and Islands in the Pacific	2,461,393	2,429,058
Africa	169,146	177,917
North and Central America	1,058,637	485,907
South America	15,344	12,380
Total	6,710,999	6,834,713

4. Nationality of Oversea Shipping, p. 101.—Particulars of the nationality of oversea shipping during 1938-39 are as follows :—

OVERSEA SHIPPING, AUSTRALIA.—NATIONALITY OF VESSELS ENTERED,
1938-39.

Nationality.		Net Tonnage.
British—		
Australian		330,590
United Kingdom		3,744,224
Canadian		19,901
New Zealand		563,405
Other British		228,951
Total		4,887,071
Foreign—		
Danish		55,441
Dutch		290,605
French		108,120
German		140,954
Italian		68,256
Japanese		329,884
Norwegian		324,649
Swedish		123,737
United States		175,126
Other		207,156.
Total		1,823,928
Grand Total		6,710,999

§ 5. Interstate Shipping.

2. Vessels and Net Tonnage Entered, p. 106.—(*Interstate Direct*).—Particulars of the net tonnage of vessels recorded as having entered each State from any other State during 1938-39 are as follows :—

INTERSTATE SHIPPING.—NET TONNAGE OF VESSELS ENTERED, 1938-39.

State or Territory.	Net Tonnage. (a)
New South Wales	6,204,907
Victoria	4,751,032
Queensland	1,730,478
South Australia	3,322,512
Western Australia	2,019,125
Tasmania	1,769,829
Northern Territory	102,910
Total	19,900,793

(a) Includes oversea vessels on interstate voyages.

§ 6. Tonnage of Cargo.

1. Oversea and Interstate Cargo.—(ii) *Principal Ports*, p. 109.—The following table shows the tonnage of oversea and interstate cargo discharged and shipped during 1938-39 :—

TONNAGE OF CARGO DISCHARGED AND SHIPPED, STATES, 1938-39.

State.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
New South Wales ..	2,291,495	3,842,422	6,133,917	2,037,615	3,408,381	5,445,996
Victoria ..	2,074,343	2,534,179	4,608,522	858,786	1,123,431	1,982,217
Queensland ..	515,322	720,874	1,236,196	928,056	469,417	1,397,473
South Australia ..	680,608	1,076,229	1,756,837	1,262,298	2,889,250	4,151,548
Western Australia ..	740,710	332,847	1,073,557	943,436	119,522	1,062,958
Tasmania ..	92,018	543,898	635,916	200,785	938,202	1,138,987
Northern Territory ..	4,964	26,424	31,388	182	3,484	3,666
Total, Australia..	6,399,460	9,076,873	15,476,333	6,231,158	8,951,687	15,182,845

B. RAILWAYS.

§ 1. General.

9. Summary of Operations, 1938-39, p. 116.—A summary of the working of all Government railways open for general traffic during 1938-39 is given hereunder :—

GOVERNMENT RAILWAYS, AUSTRALIA, 1938-39.

Particulars.	C'wealth.	N.S.W.	Vic.	Q'land. (b)	S. Aust. (c)	W. Aust.	Tas.	Total.
Miles Open ..	2,201	6,114	4,759	6,497	2,558	4,378	658	27,165
Revenue—								
(a) Coaching ..	£ 194	7,834	4,286	2,253	759	699	152	16,177
(a) Goods ..	£ 224	10,357	4,276	5,404	2,153	2,753	318	25,485
(a) Miscellaneous ..	£ 129	(d) 956	720	(e)	221	147	17	2,190
(a) Total Revenue ..	£ 547	(f) 19,147	9,282	7,657	3,133	3,599	487	43,852
(a) Expenditure ..	£ 642	14,543	8,060	6,080	2,943	2,911	(g) 588	35,767
(a) Train Miles Run ..	902	30,106	17,890	13,822	6,177	(h) 6,722	(i) 1,914	77,533
Earnings per train mile ..	12s. 1d.	12s. 9d.	10s. 5d.	11s. 1d.	10s. 2d.	10s. 9d.	5s. 1d.	11s. 4d.
Expenditure per train mile ..	14s. 3d.	9s. 8d.	9s. 0d.	8s. 10d.	9s. 6d.	8s. 8d.	6s. 2d.	9s. 3d.
Expenditure per cent. on Earnings ..	117.43	75.96	86.82	79.40	93.93	80.90	120.74	81.56
(a) Passenger Journeys ..	118	186,720	142,124	24,549	17,528	11,415	2,297	384,751
(a) Coal, Coke and Shale carried ..	22	7,633	200	735	129	298	477	9,494
(a) Other Minerals ..	1	1,464	(j)	518	669	(k) 244	(l)	2,896
(a) Live Stock ..	65	739	727	528	194	116	30	2,399
(a) Other Goods ..	97	5,582	5,050	3,400	1,670	2,201	336	18,336
(a) Total Freight ..	185	15,418	5,977	5,181	2,662	2,859	843	33,125

(a) 000 omitted. (b) Exclusive of Uniform Gauge Railway. (c) Including Road Motors.
 (d) From sale of electrical energy only, other miscellaneous included with Coaching. (e) Included with Coaching.
 (f) Excluding Governmental contributions towards losses on non-paying developmental lines. (g) Excluding depreciation. (h) Including Assistant and Light Miles.
 (i) Including Assistant, Light and Rail Motor Miles. (j) Included with Other Goods.
 (k) Miscellaneous—includes Ores and Minerals. (l) Included with Coal, Coke and Shale.

[NOTE.—The figures in the above table, taken from quarterly statements, are preliminary only, and do not entirely agree with the final particulars in the Annual Railways Reports of the several States.]

D. MOTOR VEHICLES.

5. Motor Vehicles on the Register, p. 133.—Motor vehicles registered at 30th June, 1939, were as follows :—

MOTOR VEHICLES REGISTERED AT 30th JUNE, 1939.

State or Territory.	Motor Cars.	Commercial Vehicles.	Motor Cycles.	All Vehicles.	
				No.	Per 1,000 of Population.
New South Wales ..	217,361	77,503	24,151	319,015	116.7
Victoria	153,391	81,766	26,698	261,855	139.7
Queensland	76,654	43,341	8,168	128,163	127.3
South Australia ..	56,983	24,554	9,219	90,756	152.7
Western Australia ..	38,039	24,441	7,199	69,679	150.6
Tasmania	17,668	5,036	3,656	26,360	111.3
Northern Territory ..	404	966	56	1,426	243.9
Australian Capital Territory	1,771	418	90	2,279	194.7
Australia	562,271	258,025	79,237	899,533	129.9

6. New Vehicles Registered, p. 134.—New vehicles registered in the various States during the year 1938-39 were as follows :—

REGISTRATIONS OF NEW VEHICLES DURING THE YEAR ENDED JUNE, 1939.

Vehicles.	N.S.W.	Vic.	Q'land.	S.A.(a)	W.A.(b)	Tas.	A.C.T.	Total.
Motor Cars	20,493	15,090	7,604	5,152	2,306	2,010	242	52,897
Commercial Vehicles, etc. . . .	7,845	6,831	5,330	2,222	652	700	66	23,646
Motor Cycles	2,196	2,349	1,090	769	291	350	19	7,064
Total	30,534	24,270	14,024	8,143	3,249	3,060	327	83,607

(a) Exclusive of Northern Territory.

(b) Metropolitan Area only.

F. AVIATION.

12. Statistical Summary, p. 149.—The subjoined table gives a summary of operations in 1938-39 :—

CIVIL AVIATION, 1938-39.

Registered Aircraft Owners. (a)	Registered Aircraft. (a)	Licensed Pilots. (a)		Flights Carried Out.	Hours Flown.	Approx. Mileage.	Passengers Carried.	Weight of Goods Carried.	Weight of Mails Carried.
		Private.	Commercial.						
No.	No.	No.	No.	No.	No.	Miles.	No.	lb	lb.
AUSTRALIA.									
149	296	1,096	346	159,704	121,935	14,098,615	147,919	1,734,644	6740,375
NEW GUINEA.									
10	47	13	23	15,235	15,626	1,456,154	14,478	127,063,912	162,608

(a) At 30th June, 1939.

(b) Includes gross weight of Oversea Mails.

G. POSTS, TELEGRAPHS AND TELEPHONES.

§ 6. Radio Telegraphy and Telephony.

2. Wireless Licences, 1938-39, p. 170.—The following table shows the number of each class of licence issued in each State, etc., during 1938-39:—

WIRELESS LICENCES IN FORCE AT 30th JUNE, 1939.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Coast ..	2	1	6	1	5	3	1	..	19
Ship ..	93	96	16	10	5	1	1	..	222
Aircraft ..	14	13	7	4	3	2	1	..	44
Land (a) ..	14	3	52	27	72	9	43	..	220
Broadcasting (b)	35	18	19	8	8	8	..	1	97
Broadcast Listeners ..	431,159	327,579	133,217	117,091	79,262	39,392	216	1,870	1,129,786
Experimental ..	774	580	260	212	142	68	1	10	2,047
Portable ..	11	4	5	4	5	1	8	..	38
Special ..	74	24	18	1	8	..	..	..	125
Total ..	432,176	328,318	133,600	117,358	79,510	39,484	271	1,881	1,132,598

(a) In addition to the licensed stations there are two operated by the Postmaster-General's Department, viz., Camooweal (Q.) and Wave Hill (N.T.). (b) There are also 26 stations operated by the National Broadcasting Service, including a short-wave station (VLR, Lyndhurst, Vic.).

CHAPTER XIV.—POPULATION.

§ 4. Distribution and Fluctuation of Population.

2. Growth and Distribution, p. 350.—The population of Australia at 30th June, 1939, was estimated at 6,960,890 persons distributed amongst the States and Territories as follows:—

ESTIMATED POPULATION AT 30th JUNE, 1939.

State or Territory.	Males.	Females.	Total.
New South Wales	1,383,938	1,362,933	2,746,871
Victoria	929,076	952,357	1,881,433
Queensland	531,828	484,670	1,016,498
South Australia	297,890	297,880	595,770
Western Australia	244,705	220,724	465,429
Tasmania	120,409	116,237	236,646
Northern Territory	4,234	1,955	6,189
Australian Capital Territory ..	6,575	5,479	12,054
Total	3,518,655	3,442,235	6,960,890

CHAPTER XV. LABOUR, WAGES AND PRICES.

D.—EMPLOYMENT.

§ 2. Fluctuations in Employment.

2. Unemployment, p. 456.—The following are the percentages of unemployment in each State for the four quarters of 1939 :—

UNEMPLOYMENT.—PERCENTAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1939—							
March Quarter ..	11.0	10.8	6.1	9.3	7.3	7.6	9.8
June ..	11.1	10.4	5.7	9.5	6.2	9.4	9.7
September ..	12.1	11.2	5.8	9.4	8.2	8.3	10.4
December ..	11.6	9.0	5.8	9.1	6.6	7.1	9.5

CHAPTER XVII.

MINERAL INDUSTRY.

§ 1. The Mineral Wealth of Australia.

3. Value of Production, p. 542.—The following table gives the value of Australian mineral production for the year 1938 :—

MINERAL PRODUCTION.—VALUE, 1938.

Mineral.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total
	£	£	£	£	£	£	£	£
Coal ..	5,603,842	188,101	958,884	..	375,083	61,991	..	7,187,901
Coal—Brown ..	..	351,721	..	..	..	..	..	351,721
Copper ..	87,905	..	203,967	15,333	1,275	580,238	4,362	893,080
Gold ..	780,958	1,273,351	1,334,788	46,922	10,286,349	195,079	109,168	14,026,615
Ironstone ..	43	..	3,365	2,582,171	..	..	..	2,585,579
Lead ..	(a)	..	628,025	19	..	163,102	..	(b) 791,146
Silver ..	(a) 7,357	647	298,589	51	28,852	104,671	..	(b) 440,167
Silver-lead Ores, Concentrates, etc.	3,513,108	..	..	..	625	..	..	3,513,733
Tin and Tin Ores	286,768	28,650	141,547	..	7,421	244,037	3,205	711,628
Zinc and Concen- trates ..	230,989	..	329,464	..	..	356,452	..	916,905
Other Minerals ..	220,421	41,545	67,490	287,977	144,864	184,234	97,989	1,044,520
Total ..	10,731,391	1,884,015	3,966,119	2,932,473	10,844,469	1,889,804	214,724	32,462,995

(a) The bulk of the silver and lead is contained in the concentrates, etc., dispatched from the Broken Hill field and treated outside this State.

(b) Incomplete see Note (a).

CHAPTER XXVIII.

MISCELLANEOUS.

WAR-TIME MARKETING OF PRIMARY PRODUCTS.

Before the European War commenced an understanding had been reached by the Governments of the United Kingdom and the Commonwealth which enabled exports from Australia to proceed normally even before any contracts for the sale of commodities had been concluded.

On the outbreak of hostilities, the existence of Statutory Boards for the meat, dairy produce and fruit industries facilitated war-time organization. The experience already gained in marketing control enabled the Commonwealth Government to proceed quickly with the formation of committees and/or boards in those industries where Statutory Boards or organizations had not been established previously, namely, the Central Wool Committee, the Australian Wheat Board, the Australian Barley Board, the Apple and Pear Marketing Committee, the Australian Hide and Leather Industries Board, and a Committee to supervise the export of eggs.

In addition to the organizations established in respect of these commodities, a shipping Control Board was set up to control coastal shipping should the need arise for close supervision and control of cargo movements in interstate trade. At a later stage, a Shipping Committee was established to control and supervise oversea shipping to and from Australia in conjunction with the Ministry of Shipping in the United Kingdom.

Prior to the outbreak of war, a survey was made of refrigerated and cold storage space in Australia. Thus the handling of refrigerated produce up to the time of shipment was not only facilitated, but the survey was also of material assistance in connexion with the arrangements made subsequently for the transport of commodities to the United Kingdom.

A. CONTRACTS WITH THE GOVERNMENT OF THE UNITED KINGDOM.

Contracts have been entered into with the Government of the United Kingdom in respect of the following commodities :—

Wool.—The Government of the United Kingdom agreed to purchase for the duration of the war, plus one full clip after the cessation of hostilities, the whole Australian wool clip, i.e., wool, wool tops, noils and waste at 10½d. sterling per lb., plus 50 per cent. of the profits derived from the sale of the wool for use outside the United Kingdom. Transactions covering the sale of wool to British Dominions, Allied and Neutral countries are on account of the United Kingdom Government. On appraisalment in Australia, funds are made available to the Central Wool Committee which arranges for payment to growers within fourteen days of appraisalment. An amount of 10 per cent. is retained by the Central Wool Committee to adjust growers' returns at the end of the season. The agreement provides that sufficient quantities of wool shall be retained in Australia for domestic use. Arrangements have been made for an annual consultation between the Governments of the United Kingdom and Australia to consider whether conditions have so altered as to justify a review of the price.

Meat.—From the 1st October, 1939 to 30th September, 1940, the United Kingdom Government agreed to purchase f.o.b. 240,000 tons of beef, mutton, lamb, veal and pork and to use its best endeavours to lift any additional quantities available for export. The contract embodies a long range of prices for various cuts, pieces and offals. The returns to Australian producers are satisfactory and are higher than those received during the previous season. Under the contract 90 per cent. is paid on shipment and 10 per cent. within 28 days of arrival, or in the case of a steamer being lost, the estimated due date of arrival.

Butter.—The quantity of butter to be sold under this contract, between the 13th November, 1939 and the 30th June, 1940, is 75,500 tons, which is on the basis of 94,500 tons per annum. The contract prices per cwt. in Australian currency are : Choicest 137s. 2½d. ; First Grade 135s. 7½d. ; Second Grade 131s. 1½d. ; and Pastry 127s. 6d. On shipment, 90 per cent. is paid, and the balance within 28 days after arrival.

Cheese.—Since the outbreak of war and until the 30th June, 1940, the United Kingdom Government has contracted to take 13,000 tons of cheese, which is on the basis of 16,500 tons per annum. The prices in Australian currency, f.o.b. Australian port, are per cwt. : Choicest and First Grade 76s. 6½d. ; Second Grade 74s. 0½d. ; and Third Grade 71s. 6½d. Payment is made on the same terms as for butter.

Eggs.—This contract was for the one season and covered all eggs packed for export up to 31st December, 1939. The quantity mentioned in the agreement was 900,000 long hundreds, but subject to freight being available, the United Kingdom Government agreed to accept any additional quantity available for export on the same terms as those

specified in the agreement. The prices in Australian currency, f.o.b. Australian port, were: 13½-lb. and 14-lb. packs 9s. 10.83d.; 15-lb. and 16-lb. packs 12s. 2.87d.; and 17-lb. and 18-lb. packs 12s. 4.25d. On shipment, 85 per cent. was paid, and 15 per cent. within 28 days after arrival.

Sugar.—Arrangements were concluded by the Queensland Government for the sale to the British Sugar Control Board of the balance of Australia's surplus production of raw sugar *ex* the 1939 crop. The quantity of raw sugar involved was approximately 332,500 tons and the price 7s. 6d. per cwt. sterling c.i.f. United Kingdom ports, basis 96 degrees polarization, plus the existing British tariff preference of £3 15s. on Dominion sugar. The arrangement involves an increase of 79,500 tons in the anticipated exports from the 1939 crop.

Lead.—This contract was arranged between the Minister of Supply and the Broken Hill Associated Smelters Pty. Ltd. for a period of twelve months. The quantity was 13,330 tons per month up to a total of 160,000 tons at a contract price of £15 1s. 3d. sterling or £18 16s. 7d. Australian currency per ton.

Zinc.—A contract was also entered into by the Ministry of Supply with the Electrolytic Zinc Company of Australasia Ltd. with regard to zinc. The period of contract was for twelve months and the quantity 3,000 tons per month up to a total of 36,000 tons. The contract price was £18 sterling per ton or £22 10s. Australian currency.

Canned and Dried Fruits.—Negotiations are proceeding with the Government of the United Kingdom for the purchase of the exportable surplus of canned and dried fruits.

B. OTHER COMMODITIES.

In addition to the foregoing contracts, the Commonwealth Government established Committees and/or Boards for the following commodities, but no undertaking was given by the United Kingdom Government to purchase the whole of the export surplus:—

Wheat and Flour.—The Commonwealth Government negotiated with the United Kingdom Government immediately on the outbreak of war for the purchase and transport of the old season's wheat, of which there was estimated to be about 20,000,000 bushels on hand. All old wheat in Western Australia and South Australia, approximately 7,500,000 bushels, was sold to the United Kingdom Government and a contract was also secured for 50,000 tons of flour.

These arrangements were administered by the Australian Wheat Board, which had been established to receive, care for and market wheat acquired by the Commonwealth Government. The 1940 harvest will be pooled in No. 2 Pool and payments of advances at the rate of 2s. 10½d. per bushel for bagged wheat, less rail freight, and 2s. 8½d. per bushel, less rail freight, for bulk wheat, are being made by the Wheat Board to wheat-growers on delivery of their wheat at sidings to agents appointed by the Board as licensed receivers. These advances are guaranteed by the Commonwealth Government.

The Australian Wheat Board has been entrusted with the task of marketing and storing wheat. The price of wheat for local requirements is determined by the Board. Free movement of wheat within the Commonwealth has been stopped and deliveries of wheat must be made to licensed receivers who are the receiving and distributing agents of the Board and by whom sales are made to the usual retailers. The Board has an Australian Selling Committee in London which negotiates sales of wheat and flour in the United Kingdom, Europe and certain other markets. Sales of appreciable quantities of wheat and flour from this year's harvest have been negotiated by the Board to several countries.

The Commonwealth Government has negotiated with the United Kingdom Government with a view to ensuring possible sales of wheat and flour for consumption in the United Kingdom. In this regard a sale was negotiated in January, 1940, with the United Kingdom for 1,500,000 tons of wheat and 150,000 tons of flour.

Barley.—The outbreak of war came a few weeks prior to the commencement of harvesting operations for the new barley crop, the estimates for which indicated that production would be on a higher scale than in former years.

An Australian Barley Board, representative of the industry, was formed with head-quarters at Adelaide, and the Commonwealth Government acceded to its request to acquire the entire barley crop, which is now under the control of the Board. A pool has been established from which proceeds will be distributed with appropriate margins for different grades of barley.

The Board has made arrangements for the payment of advances guaranteed by the Commonwealth Government as a first payment to growers. The rates approved are 1s. 3d. per bushel for No. 1 Malting Barley, with 1s. and 9d. per bushel for lower grades. Further payments to growers will be dependent upon receipts from sales both locally and overseas. The Board is responsible for the marketing and storage of barley, and, like the Australian Wheat Board, has appointed its licensed receivers in all States to receive grain on its behalf and to act as agents for all local and oversea sales.

Hides and Leather.—Owing to the added importance of these commodities in war-time, some measure of control became necessary in Australia. Within three weeks of the outbreak of war, the domestic price of leather in Australia was pegged at the 31st August level and the exportation of hides and leather from the Commonwealth was prohibited except with the consent of the Minister for Trade and Customs. It was decided that sufficient supplies of leather must be available in Australia at reasonable prices for manufacturing purposes and that hide producers and leather manufacturers should be treated reasonably, having regard to prices which similar products were bringing overseas. With these factors in mind, a conference was convened by the Commonwealth Government and an Australian Hide and Leather Industries Board was appointed to implement a control scheme set out in Regulations under the National Security Act.

An integral part of the scheme is the acquisition at appraised prices by the Board, acting on behalf of the Commonwealth Government, of cattle hides and yearling and calf skins produced in Australia. As in the case of wool, a Table of Limits has been laid down by the Board and the State Appraisal Committees work strictly to that Table in their determinations of hide and skins values. The prices shown in the Table of Limits are in conformity with the prices fixed by the Commonwealth Prices Commissioner, namely, in the case of hides, 20 per cent. above 31st August levels; and in the case of yearling and calf skins, 15 per cent. above 31st August levels. Before any sales of hides and skins for export take place, Australian tanners are given the opportunity to purchase at appraised prices sufficient supplies for their reasonable requirements. The balance is then submitted by auction at export sales at which tanners and exporters may buy in competition. An exporter may not ship leather overseas unless he is in possession of a licence issued by the Board. Australian tanners and leather merchants are thereby prevented from selling to oversea buyers at export parity prices leather manufactured from hides purchased at fixed Australian prices.

Apples and Pears.—Following upon a Conference, convened by the Minister for Commerce, of the Australian Apple and Pear Board and representatives of the State Governments, to review the difficulties confronting apple and pear growers, it was decided that the Commonwealth Government acquire the 1940 crop of apples and pears and appoint the Australian Apple and Pear Board as the authority to arrange for the marketing and disposal of the crop and return of the net proceeds to growers.

A Marketing Committee and State Committees have been appointed to market the crop which will be acquired as from the 1st March, 1940. All growers have been registered and have submitted particulars of plantings, their production of commercial fruit over the past three seasons, and an estimate of their 1940 crops together with the probable dates of picking. These estimates will be checked by officers of the State Departments of Agriculture and will be the basis for advances to be made by the Apple and Pear Board at the rates of 2s. per bushel for apples, and 3s. per bushel for pears. The advances will be guaranteed by the Commonwealth Government. It is proposed by the Board to market substantially increased quantities of apples and pears locally. The Board will, however, give the closest attention to possible alternative outlets for fruit, particularly to oversea markets when shipping space is available.

GENERAL INDEX.*

Note.—This index is followed by a list of maps, graphs and diagrams, also a list of special articles, etc., in previous issues of the Official Year Book. Area, population, etc., of particular localities are indexed under the locality concerned. Where the subject matter extends continuously over more than one page the first page only is indexed.

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ROLAND WILSON, Commonwealth Statistician.