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Prepared under Instructions from
The Honorable the Treasurer,

BY

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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-fourth 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 the years 1939 to 1941 is inserted after the last chapter.

The censorship provisions preclude the publication of certain statistics during the war period. In the present volume Chapters V. "Transport and Communication," XV. "Mineral Industry" and XXIII. "Trade" are chiefly affected. The "Defence" Chapter has been omitted but the data may be made available in future issues.

Later information which has come to hand since the various Chapters were sent to press has been incorporated in the Appendix (p. 922).

The material in the Year Book has been carefully checked throughout, but I shall be grateful to those who will be kind enough to point out defects or make suggestions.

My 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 Official 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.

An expression of keen appreciation is due in respect of the valuable work performed by Mr. J. P. Dwyer, Editor of the Official 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.

The present volume has been produced under stress of war conditions, which have entailed some delays owing to the pre-occupation of a large part of the staff of this Bureau and of the Government Printing Office with urgent war work.

S. R. CARVER,
Acting Commonwealth Statistician.

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,
Canberra, 15th September, 1942.

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STATISTICAL SUMMARY.

STATISTICAL SUMMARY, AUSTRALIA.

Heading.		Year.						
		1881.	1891.	1901.	1911.	1921.	1931.	1941.
Population(a)	Males	1,247,059	1,736,617	2,004,836	2,382,232	2,799,462	3,332,577	3,597,444
	Females	1,059,677	1,504,368	1,820,077	2,191,554	2,711,532	3,220,029	3,539,777
	Persons	2,306,736	3,240,985	3,824,913	4,573,786	5,510,994	6,552,606	7,137,221
Births	No.	80,004	110,187	102,945	122,193	136,198	118,509	134,525
	Rate	35.26	34.47	27.16	27.21	24.95	18.16	19.22
Deaths	No.	33,327	47,430	46,330	47,869	54,076	56,560	71,176
	Rate	14.69	14.84	12.22	10.66	9.91	8.67	10.17
Marriages	No.	17,244	23,862	27,753	39,482	46,869	38,882	75,148
	Rate	7.60	7.47	7.32	8.79	8.59	5.96	10.74
		1881-82.	1891-92.	1901-02.	1911-12.	1921-22.	1931-32.	1940-41.
Agriculture—								
Wheat	Area, acs.	2,995,814	3,334,957	5,115,965	7,427,834	9,719,042	14,741,313	12,644,646
	Yld., bshl.	21,443,862	25,675,265	38,561,619	71,636,347	129,088,806	190,612,188	82,233,324
	Av., "	7.16	7.70	7.54	9.04	13.28	12.93	6.50
Oats	Area, acs.	194,816	246,129	461,430	616,794	733,406	1,085,489	1,722,902
	Yld., bshl.	4,795,897	5,726,256	9,789,854	9,561,833	12,147,433	15,194,680	10,199,218
	Av., "	24.62	23.27	21.22	15.50	16.56	14.00	5.92
Barley	Area, acs.	75,864	68,068	74,511	116,466	298,910	342,396	757,447
	Yld., bshl.	1,353,380	1,178,560	1,519,819	2,056,830	6,085,685	6,290,672	7,133,620
	Av., "	17.84	17.31	20.40	17.66	20.36	18.37	9.42
Maize	Area, acs.	165,777	284,428	294,849	340,065	305,186	269,448	362,861
	Yld., bshl.	5,726,266	9,261,922	7,034,786	8,939,855	7,840,438	7,062,383	9,192,744
	Av., "	34.54	32.36	23.86	26.29	25.69	26.21	25.33
Hay	Area, acs.	768,388	942,166	1,688,402	2,181,351	2,994,519	2,634,680	2,353,506
	Yld., tons	767,194	1,067,255	2,024,608	2,867,973	3,902,189	3,167,459	2,177,470
	Av., "	1.00	1.13	1.20	1.14	1.30	1.20	0.93
Potatoes(b)	Area, acs.	76,265	112,884	109,685	130,463	149,144	145,111	122,390
	Yld., tons	243,216	380,477	322,524	301,489	388,091	397,102	454,384
	Av., "	3.19	3.37	2.94	2.31	2.60	2.74	3.69
Sugar-cane	Area, acs.	19,708	45,444	86,950	101,010	128,356	241,576	273,491
(c)	Yld., tons	349,627	737,573	1,367,802	1,682,250	2,436,890	4,213,453	5,523,416
	Av., "	17.74	16.23	15.73	16.65	18.99	17.44	20.20
Vineyards	Area, acs.	14,569	48,882	63,677	60,602	92,414	112,961	130,006
	Wine, gal.	1,438,060	3,437,598	5,262,447	4,975,147	8,542,573	14,190,522	15,981,526
Total gross value all agri- cultural production	£	15,519,000	16,988,000	23,835,000	38,774,000	81,890,000	74,489,000	(h) 95,369,000
Pastoral, dairying, etc.—								
Live Stock	Sheep No.	65,092,719	106,421,068	72,040,211	96,886,234	86,119,068	110,618,893	122,693,601
	Cattle "	8,010,991	11,112,112	8,491,428	11,828,954	14,441,309	12,260,955	13,255,841
(a)	Horses "	1,088,029	1,584,737	1,620,420	2,278,226	2,438,182	1,775,550	1,665,616
	Pigs "	703,188	845,888	931,309	1,110,721	960,385	1,167,845	1,797,821
Wool prod. lb. (d)		319,649,000	634,046,000	539,395,000	798,391,000	723,059,000	1,007,456,000	1,141,775,000
Butter production	lb.	(e)	42,314,585	103,747,295	212,073,745	267,071,340	390,654,070	432,082,922
Cheese production	(f)	(e)	10,130,945	11,845,153	15,886,712	32,653,003	31,422,973	60,004,440
Bacon and ham	"	(e)	16,771,886	34,020,629	53,335,092	58,626,469	71,121,740	88,773,119
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	(h) 167,042,000
		1881.	1891.	1901.	1911.	1921.	1931.	1940.
Mineral production—								
Gold	£	5,194,390	5,281,861	14,017,538	10,551,624	4,018,685	3,563,519	17,519,950
Silver and lead	£	45,622	3,736,352	2,248,598	3,022,177	1,539,992	1,443,807	(g) 4,745,046
Copper	£	714,003	367,373	2,215,431	2,564,278	803,957	567,558	(g) 893,080
Tin	£	1,145,889	560,502	448,234	1,209,973	418,418	216,205	(g) 711,628
Zinc	£	200	2,979	4,067	1,415,169	283,455	512,795	(g) 916,905
Coal	£	637,865	1,912,353	2,602,733	3,927,360	11,014,831	6,355,246	8,327,341
Total value of all mineral production	£	7,820,290	12,074,106	21,816,772	23,302,878	20,029,107	13,352,316	40,002,669
Forestry production—								
Quantity of local timber sawn or hewn—						1921-22.	1931-32.	1940-41.
	'000 sup. ft.	(e)	(e)	452,131	604,794	590,495	236,707	825,634

(a) At 31st December. (b) Partly estimated for 1881. (c) Area of productive cane. (d) In terms of greasy. (e) Information not available. (f) Years ended December, except for last two columns which refer to years ended June. (g) Year 1938, later figures not available for publication. (h) Year 1939-40.

STATISTICAL SUMMARY AUSTRALIA—continued.

Heading.	Year.						
	1881.	1891.	1901.	1911.	1921-22.	1931-32.	1940-41.
Factories—							
No. of factories				14,455	18,023	21,657	27,300
Persons engaged (a) No.				311,710	378,540	336,658	650,073
Wages paid £				27,528,377	68,050,861	55,931,818	137,919,068
Value of production £				51,259,004	121,674,119	110,981,830	257,914,349
Total value of output £				133,022,090	320,340,765	281,645,458	644,794,908
Shipping—							
Oversea vessels f No.	3,284	3,778	4,028	4,174	3,111	3,057 (c)	3,814
ent. & cleared } tons	2,549,364	4,726,307	6,541,991	9,984,801	9,081,278	11,395,784 (c)	13,545,712
Commerce—							
Imports, oversea £	29,067,000	37,711,000	42,434,000	66,967,488	103,066,436	44,712,868	d 108,650,056
" per head	12/16/2	11/16/0	11/3/11	14/18/2	18/14/1	6/16/6	15/9/11
Exports oversea £	27,528,000	36,043,000	49,696,000	79,482,258	127,846,535 (e)	85,842,887	d 107,574,912
" per head	12/2/8	11/5/6	13/2/2	17/13/0	23/4/1	13/1/11	15/6/10
Total oversea trade £	56,595,000	73,754,000	92,130,000	146,449,746	230,912,971	130,555,755	d 216,224,968
" per head	24/18/10	23/1/6	24/6/1	32/12/0	41/18/2	19/18/5	30/16/9
Customs and Excise duties £	4,809,326	7,440,869	8,656,530	13,515,005	27,565,199	28,524,996	53,776,400
" per head £	2/2/5	2/6/7	2/5/8	2/19/2	5/0/1	4/7/1	7/13/5
Principal Oversea Exports (f) £							
Wool lb. (g)	328,369,200	619,259,800	518,018,100	720,364,900	927,833,700	893,644,000	(h)
Wheat cental	13,173,026	19,940,029	15,237,454	26,071,193	47,977,044	32,102,246	39,645,396
Flour tons	3,218,792	5,876,753	12,156,035	33,088,704	59,968,334	76,440,603	(h)
Butter lb.	1,189,762	1,938,804	2,774,643	9,641,608	28,644,155	19,220,203	9,247,836
Skins and hides £	49,549	33,363	66,814	175,891	359,734	610,858	(h)
Tallow £	519,635	328,443	589,604	1,391,529	5,519,881	3,833,237	7,427,132
Meats £	1,298,800	4,239,500	34,607,400	101,722,100	127,347,400	201,639,400	(h)
Timber (undressed) £	39,383	206,868	1,451,168	4,637,362	7,968,078	10,250,002	11,973,485
Gold £	316,878	873,695	1,250,938	3,227,236	3,136,810	2,315,594	4,098,016
Silver and lead £	644,149	571,069	677,745	1,935,836	1,441,795	831,475	561,660
Copper £	362,965	460,894	2,611,244	4,393,159	5,542,102	6,370,012	15,815,920
Coal £	118,117	38,448	731,301	1,023,960	1,158,166	432,595	429,199
Govt. Railways—							
Lgh. of line open, mls.	3,832	9,541	12,579	16,078	23,502	26,959	27,234
Capital cost £	42,741,350	99,704,090	123,223,779	152,104,603	244,353,233	323,365,450	321,235,071
Gross revenue £	3,910,122	8,654,085	11,038,468	17,847,837	38,194,630	37,579,965	52,325,223
Working expenses £	2,141,735	5,630,182	7,133,617	10,945,727	29,817,970	28,141,984	40,313,294
Per cent. of working expenses on earnings %	54.77	65.06	64.63	61.33	78.07	74.88	77.04
Postal—							
Letters and postcards dealt with No.	67,640,000	157,297,000	220,853,000	453,063,000	561,973,000	i 731,135,000	i 898,688,000
" per head	29.61	49.07	58.26	100.90	102.01	111.62	128.18
Newspapers dealt with No.	38,063,000	85,280,000	102,727,000	141,638,000	140,477,000	139,502,000	160,593,000
" per head	16.66	26.61	27.10	31.54	25.50	21.30	22.91
Cheque-paying Banks (j) £							
Note circulation £	3,978,711	4,417,269	3,399,462	3,718,458 (k)	213,868	197,121 (l)	166,667
Coin & bullion held £	9,108,243	16,712,923	19,780,528	33,470,770	21,626,832	2,882,026 (l)	4,479,215
Advances £	57,732,824	129,741,583	86,352,832	108,578,771	193,435,760	n 260,917,515	m 323,850,498
Deposits (m) £	53,849,455	98,345,338	91,487,148	143,446,910	273,866,737	n 319,241,333	m 482,722,133
Savings Banks (o)—							
Total deposits £	7,854,480	15,536,592	30,882,645	59,393,682	154,396,051	197,966,308	p 273,711,130
Aver. per head of population	3/10/5	4/18/7	8/3/0	13/8/5	28/0/4	30/1/11 (p)	38/2/8
State Schools—							
Number of Schools	4,494	6,231	7,012	8,060	9,445	10,097	9,828
Teachers No.	9,028	12,564	14,500	16,971	26,120	33,762	31,479
Enrolment	432,320	561,153	638,478	638,850	819,042	936,901	903,481
Aver. attendance	255,143	350,773	450,246	463,799	666,498	817,262	741,496

(a) Including working proprietors. (b) Owing to variation in classification and lack of information, effective comparison is impossible. (c) 1938-39 figures. (d) Merchandise only. (e) British currency values. The recorded values were—Exports, 1931-32, £A109,034,065; and 1940-41, £A134,737,577. (f) Australian produce, except gold, which includes re-exports. (g) In terms of greasy. (h) Not available for publication. (i) Includes packets. (j) Figures for the first three years are averages for the December quarter; the remainder for the June quarter. (k) Decrease due to prohibition of re-issue. (l) Quarter ended June, 1942. (m) Includes Commonwealth Savings Bank Deposits in year 1921-22. (n) Government "Set-off" accounts, Interstate (Commonwealth Bank) excluded. (o) First three years at 31st December; remainder 30th June. (p) At 30th June, 1942.

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 payments 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 gold-fields 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.
- 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.

Year.

- 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 trans-continental 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.
- 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.

Year.

- 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 Inter-
national 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 26th January.
- 1887 N.S.W.—Disaster at Bulli coal-mine (81 lives lost). S.A.—International Exhibi-
tion 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.
- 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.

Year.

- 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 Australian 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.
- 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.

Year.

- 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, Moquet 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 Commission created.
- 1919 Messrs. Hughes and 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.
- 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 Commonwealth Government from Melbourne to Canberra. New Parliament House opened by H.R.H. the Duke of York. Beam Wireless established.

Year.

- 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 reserve. 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, subsequently gold was shipped 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.
- 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. 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 H.M. 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.

Year.

- 1936 Death of H.M. 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 H.M. King Edward VIII.
- 1937 Referendum on Commonwealth control of aviation and marketing defeated on both counts. Coronation of H.M. 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. British Empire Games in Sydney.
- 1939 Death of the Rt. Hon. J. A. Lyons, Prime Minister of Australia. National Register and Wealth Census. 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.
- 1940 Exchange of Ministers between Australia and United States of America. Appointment of Australian Minister to Japan. Exchange of High Commissioners between Australia and Canada. Population of Australia reached 7,000,000. Australian Forces embark for overseas service. Naval Dock commenced at Sydney. Air crash at Canberra, resulting in death of three Cabinet Ministers—the Hon. G. A. Street, the Hon. J. V. Fairbairn, and the Hon. Sir Henry Gullett, and the Chief of General Staff, Sir Brudenell White. Petrol rationing introduced. Commonwealth elections held.
- 1941 Appointment of Japanese Minister to Australia. Prime Minister's visit to London. Appointment of Sir T. Blamey as Deputy Commander-in-Chief of British Forces in the Middle East. Establishment of Child Endowment Scheme. Cessation of commercial relations between Australia and Japan. Exchange of Ministers between Australia and China. United States Congress passed Lend-lease Bill. Atlantic Charter signed by Mr. Roosevelt and Mr. Churchill. Hon. A. Fadden succeeded Rt. Hon. R. G. Menzies as Prime Minister. Fadden Government defeated on Budget. Hon. J. Curtin formed Labour Ministry. Japanese attack on Pearl Harbour. Outbreak of war with Japan.

OFFICIAL YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA, 1941.

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 Official Year Book No. 1 (pp. 45-51), 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 unreal 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 or 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 *Zeeuwolf* found land in latitude $20^{\circ} 15'$ 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 *Pera* 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 *Cygnet*, 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 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 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 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 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 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 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 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 26th January, 1788. It was on this last date that Captain Phillip's commission, first issued to him on 12th October, 1786, and amplified on 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 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 5th February, the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21st May, British sovereignty over the islands of New Zealand was explicitly proclaimed. From that date until 3rd May, 1841, New Zealand was a dependency of New South Wales.

3. Extension of New South Wales Westward, 1825.—On 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 20th September, 1824, of the coast from the 135th to the 129th degree of east longitude. On 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 9th November, 1826, landed at the Sound on 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 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 1,584,380 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 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 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 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 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 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 16th November of that year, constituted a separate colony under the powers of the Act 3 and 4 Vic., cap. 62, of 7th August, 1840. Proclamation of the separation was made on 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 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 6th June, 1859, although separation from New South Wales was not consummated until 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 13th March, 1861, forwarded by the Colonial Secretary to the Governor of Queensland on 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 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"—except 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 911 square miles, and 28 square miles at Jervis Bay. See par. 3 below.

2. **Transfer of the Northern Territory to the Commonwealth.**—On 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 14th May, 1908), and by the Commonwealth Parliament under the Northern Territory Acceptance Act 1910 (assented to on 16th November, 1910). The Territory was formally transferred to the Commonwealth on 1st January, 1911, and became the Northern Territory of Australia.

3. **Transfer of the Australian Capital Territory to the Commonwealth.**—On 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 911 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 5th December, 1910, a proclamation was issued vesting the Territory in the Commonwealth on and from 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 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 dated 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 Official Year Book No. 2 (pp. 20-39), 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* in previous issues of the Official Year Book (see No. 33, pp. 8-25).

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 $113^{\circ} 9'$ E. and $153^{\circ} 39'$ E., while its northern and southern limits are the parallels of latitude $10^{\circ} 41'$ S. and $39^{\circ} 8'$ S., or, including Tasmania, $43^{\circ} 39'$ 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 $23^{\circ} 30'$ S. (its mean value for 1940 was $23^{\circ} 26' 49.52''$), 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.
Within Tropical Zone sq. miles	359,000	364,000	426,320	1,149,320
“ 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
“ 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-thirteenths of the whole of Australia (0.386).

2. Area of Australia compared with Areas of other Countries.—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 1939.

Country.	Area.	Country.	Area.
	Sq. miles.		Sq. miles.
Continental Divisions—		AFRICA—continued.	
Europe	4,409,000	Italian East Africa ..	666,000
Asia	16,216,000	Angola	488,000
Africa	11,710,000	Union of South Africa ..	472,000
North and Central America		Egypt	386,000
and West Indies ..	8,665,000	Tanganyika Territory ..	374,000
South America	6,934,000	Nigeria and Protectorate..	373,000
Oceania, etc.	3,301,000	South-West Africa	322,000
Total, excluding Arctic		Mozambique	298,000
and Antarctic Conts.	51,235,000	Northern Rhodesia	290,000
Europe—		Bechuanaland Protectorate	275,000
U.S.S.R. (Russia) ..	2,316,000	Madagascar	229,000
Germany (a)	225,000	Kenya Colony and Protec-	
France	213,000	torate	225,000
Spain (inc. possessions) ..	194,000	Other	1,126,000
Sweden	173,000	Total	11,710,000
Poland	150,000	North and Central America—	
Finland	148,000	Canada	3,695,000
Italy (b)	131,000	United States of America..	3,027,000
Norway	125,000	Mexico	760,000
Rumania	114,000	Alaska	586,000
Yugoslavia	96,000	Newfoundland and Labra-	
United Kingdom	94,000	dor	163,000
Other	430,000	Honduras	59,000
Total	4,409,000	Nicaragua	49,000
Asia—		Other	326,000
U.S.S.R. (Russia) ..	5,860,000	Total	8,665,000
China and Dependencies..	4,287,000	South America—	
British India	863,000	Brazil	3,286,000
Arabia	1,004,000	Argentine Republic	1,078,000
Feudatory Indian States..	712,000	Bolivia	421,000
Iran	634,000	Peru	482,000
Netherlands Indies (c) ..	735,000	Colombia (exc. of Panama)	440,000
Turkey	287,000	Venezuela	352,000
French Indo-China	286,000	Chile	287,000
Japan and Dependencies..	262,000	Paraguay	151,000
Afghanistan	251,000	Ecuador	176,000
Burma	234,000	Other	261,000
Thailand	200,000	Total	6,934,000
Other	601,000	Oceania, etc.—	
Total	16,216,000	Commonwealth of Australia	2,975,000
Africa—		New Zealand and Depen-	
French West Africa	1,816,000	dencies	104,000
Anglo-Egyptian Sudan ..	969,000	Territory of New Guinea..	93,000
French Equatorial Africa..	960,000	Papua	91,000
Belgian Congo	910,000	Other	38,000
Algeria	851,000	Total	3,301,000
Libya	680,000	British Empire	13,354,000

(a) Including Austria and part of Czechoslovakia.
Dutch New Guinea.

(b) Including Albania.

(c) Including

The countries and areas given in the table are those obtaining before the 1939 War and 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	309,433	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 ..	939	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 Official Year Book No. 1, an enumeration is given of the features of the coast-line of Australia (see pp. 60-68).

(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 per Mile of Coast-line.	State.	Coast-line.	Area per Mile of Coast-line.
	Miles.	Sq. miles.		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, namely, 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 the Official Year Book fairly complete information has been given concerning some special geographical element. The nature of this information and its position in the various issues can be readily ascertained on reference to the special index following the index to maps and graphs at the end of this issue.

6. **Fauna, Flora, Geology and Seismology of Australia.**—Special articles dealing with these features have appeared in previous issues of the Official Year Book, but limits of space naturally preclude their repetition in each volume. As pointed out in par. 5, 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 Official Year Book No. 3, pp. 79 and 80, some account is given of the history of Australian meteorology, including a reference to the development of magnetic observations. In Official 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 appears in Official Year Book No. 22, pp. 40 and 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, "Foreshadowing 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 Nos. 24 and 25, "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"; a volume of "Results of Rainfall Observations made in Victoria" (Supplementary volume to 1936); a volume of "Mean Diurnal Variations of Corrected Mean Sea Level Pressures in 1-1,000 inches"; Bulletin No. 26, "Ice Accretion on Aircraft in Australia"; Bulletin No. 27, "Discussion of Eight Years of Aerological Observations obtained by means of Aeroplanes near Melbourne"; "Climatological Atlas of Australia"; "Average Annual Rainfall Map of Australia" (revised to 1938); "Rainfall Observations made in Queensland (supplementary volume, 1940); "Rainfall Observations made in each Division of the State of Queensland" (1940); and "Rainfall Observations made in Papua, New Guinea and Pacific Islands" (1940).

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.* Data concerning wind have been obtained either by "Robinson" cup anemometer, "Dines" pressure tube anemometer or by "Machin" cup anemometer.

* Prepared from data supplied by the Director, Commonwealth Bureau of Meteorology.

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 Queensland, 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 whether in marine gulfs or in important mountains, 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.

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 here 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. S.	Longitude. E.	Locality.	Height above Sea Level.	Latitude. S.	Longitude. E.
	Fect.	deg. min.	deg. min.		Fect.	deg. min.	deg. min.
Perth ..	197	31 57	115 50	Canberra ..	1,837	35 20	149 15
Adelaide ..	140	34 56	138 35	Darwin ..	97	12 28	130 51
Brisbane ..	137	27 28	153 2	Alice Springs	1,901	23 38	133 37
Sydney ..	138	33 52	151 12	Dubbo ..	870	32 18	148 35
Melbourne ..	114	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 of America 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 afterwards, however, 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 8.4° , 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 length of the interval between these two heavy curves shows the average difference between the highest and the lowest temperatures of the twenty-four hours.

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 humidity of the air has been graphically represented by its vapour pressure (i.e., the partial pressure of the water vapour measured in inches of mercury). The humidity has also been expressed by the relative humidity which is the quotient of the vapour pressure divided by the saturation vapour pressure and multiplied by one hundred. The mean 9 a.m. relative humidity, as well as its highest and lowest recorded mean values at 9 a.m., have been given in the tables of climatological data for the capital cities included herein. The mean monthly vapour pressure has also been added to these tables.

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, Hobart, Brisbane, 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 physiological features.

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 occur on the north coast of Queensland (up to over 160 inches) and in Western Tasmania (up to 140 inches), while from 50 to over 60 inches is received on parts of the eastern seaboard from Jervis Bay (New South Wales) to the northern part of Cape York Peninsula, also around Darwin (Northern Territory), on the West Kimberley coast, near Cape Leeuwin (Western Australia), about the Australian Alps in eastern Victoria and New South Wales, and on the north-eastern highlands in 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.

^{*} In Australia, artificial storage ponds or reservoirs are called “tanks.”

(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 Deeral on the north coast-line has an average annual rainfall of 185.99 inches and Tully on the Tully River 178.89 inches. In addition, three stations situated on, or adjacent to, the Johnstone and Russell Rivers have an average annual rainfall of between 143 and 169 inches. The maximum and minimum falls there are:—Deeral, 257.58 in 1939 and 143.72 inches in 1937, or a range of 113.86 inches; Tully, 234.37 in 1936 and 133.23 inches in 1938, or a range of 101.14 inches; 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 54 years.

Both Tully and Harvey Creek, in the shorter periods of 14 and 30 years respectively, have four times exceeded 200 inches. At Tully 234.37 inches were recorded during 1936 and at Harvey Creek the total for 1921 was 254.77 inches. At the South Johnstone Sugar Experiment Station 202.52 inches were recorded in 1921.

In Tasmania the wettest part is in the West Coast region, the average annual rainfall at Lake Margaret being 144 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 proportions of the total area of each State and of Australia as a whole 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.	Queens- land.	South Australia.	Western Australia.	Tas- mania. (b)	Northern Territory	Total. (b)
	%	%	%	%	%	%	%	%
Under 10 inches	19.7	Nil	13.0	82.8	58.0	Nil	24.7	37.6
10—15 "	23.5	22.4	14.4	9.4	22.4	Nil	32.4	19.9
15—20 "	17.5	15.2	19.7	4.5	6.8	0.7	9.7	10.9
20—25 "	14.2	17.9	18.8	2.2	3.7	11.0	6.6	9.1
25—30 "	9.1	18.0	11.6	0.8	3.7	11.4	9.3	7.3
30—40 "	9.9	16.1	11.1	0.3	3.3	20.4	4.7	6.6
Over 40 "	6.1	10.4	11.4	Nil	2.1	56.5	12.6	8.6
Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Including Australian Capital Territory.

(b) Over an area of 2,777 square miles no records are available.

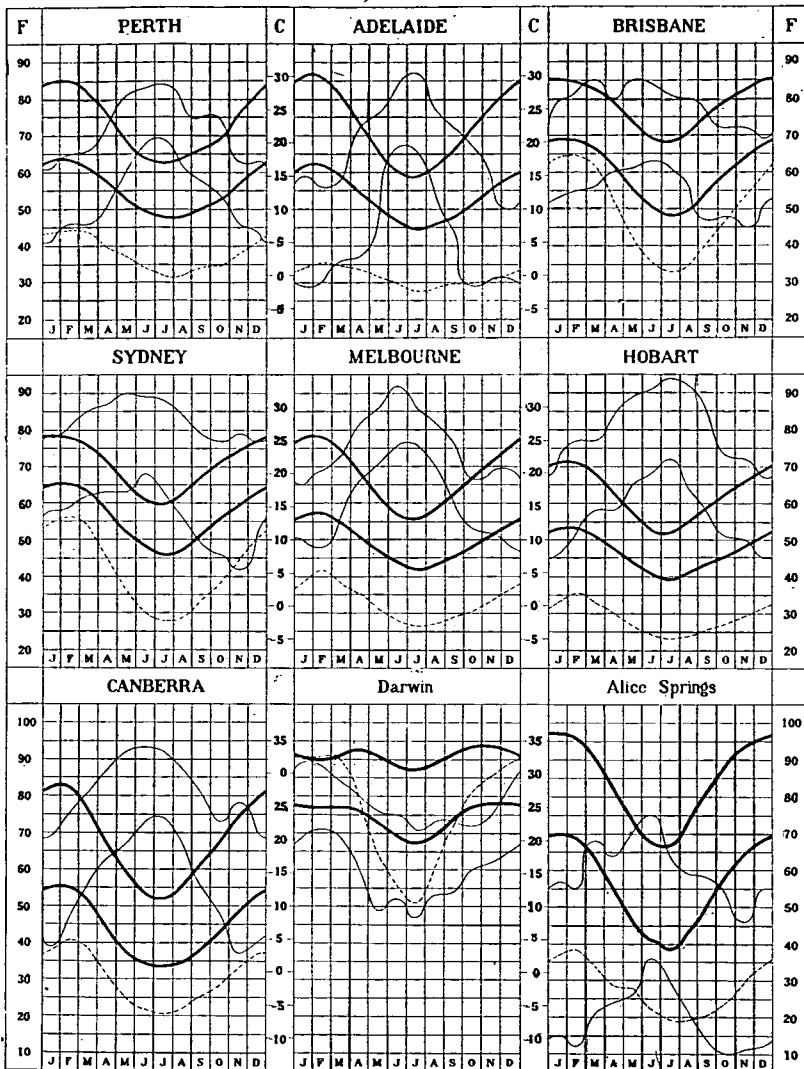
Referring first to the capital cities the records of which are given in the next table, it will be seen that Sydney, with a normal rainfall of 46.81 inches, occupies the chief place: Brisbane, Perth, Melbourne, Hobart. Canberra and Adelaide follow in that order, Adelaide with 21.12 inches being the driest. 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, average figures for the various climatological districts have been selected. (See map on p. 22.) The figures for Northern Rivers, District 14, 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 the Central Coast, District 9, are the reverse for while the summer months are dry, the winter ones are very wet. In the districts containing Melbourne and Hobart the rain is fairly well distributed throughout the twelve months, with a maximum in October for both districts. 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 half of the year is the wettest, with heaviest falls 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.

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 ϕ a.m. vapour pressures for which the figures in the outer "F" columns represent hundredths of an inch of barometric pressure.

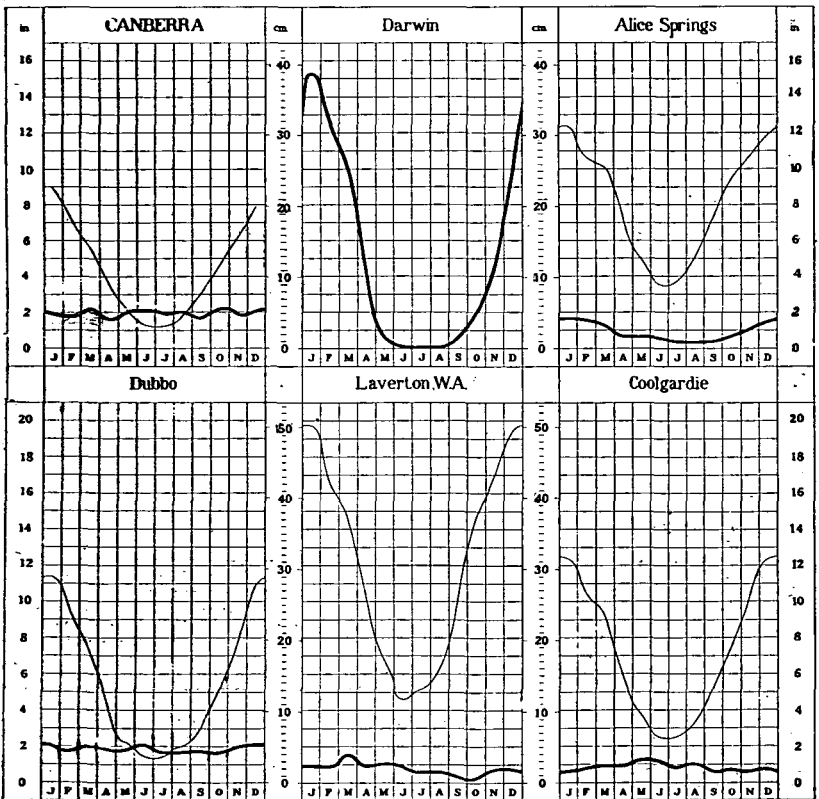
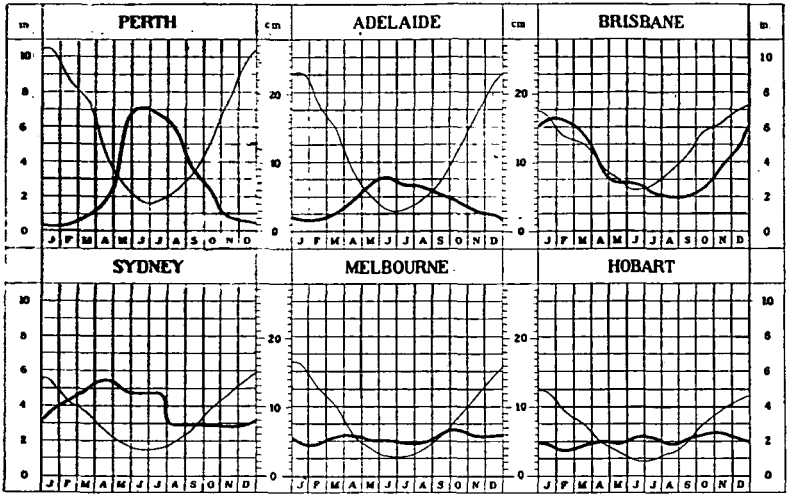
The upper and lower line lines join the greatest and the least monthly means of relative humidity respectively, the figures under the outer columns "F" indicating percentage values.

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.

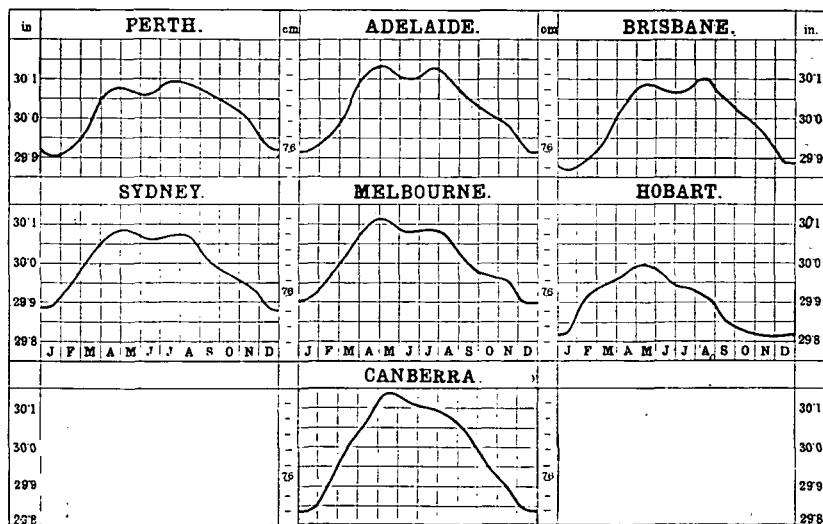
The distance for any date from the zero line to the curve represents the average number of inches, reckoned as per month, of rainfall at that date. Thus, taking the curve for Adelaide in the middle of January, the rain falls on the average at the rate of about three-fourths of an inch per month or, say, 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 11½ inches per month about the middle of January, and only about 1½ 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 ..	34.90	66.17	Canberra ..	23.30	53.42
Adelaide ..	21.17	55.65	Darwin ..	58.84	—
Brisbane ..	44.91	56.15	Alice Springs ..	10.57	97.21
Sydney ..	46.90	39.86	Dubbo ..	21.85	66.37
Melbourne ..	25.61	39.11	Laverton, W.A.	0.10	145.17
Hobart ..	24.08	31.32	Coolgardie ..	10.22	85.37

MEAN BAROMETRIC PRESSURE.—CAPITAL CITIES.



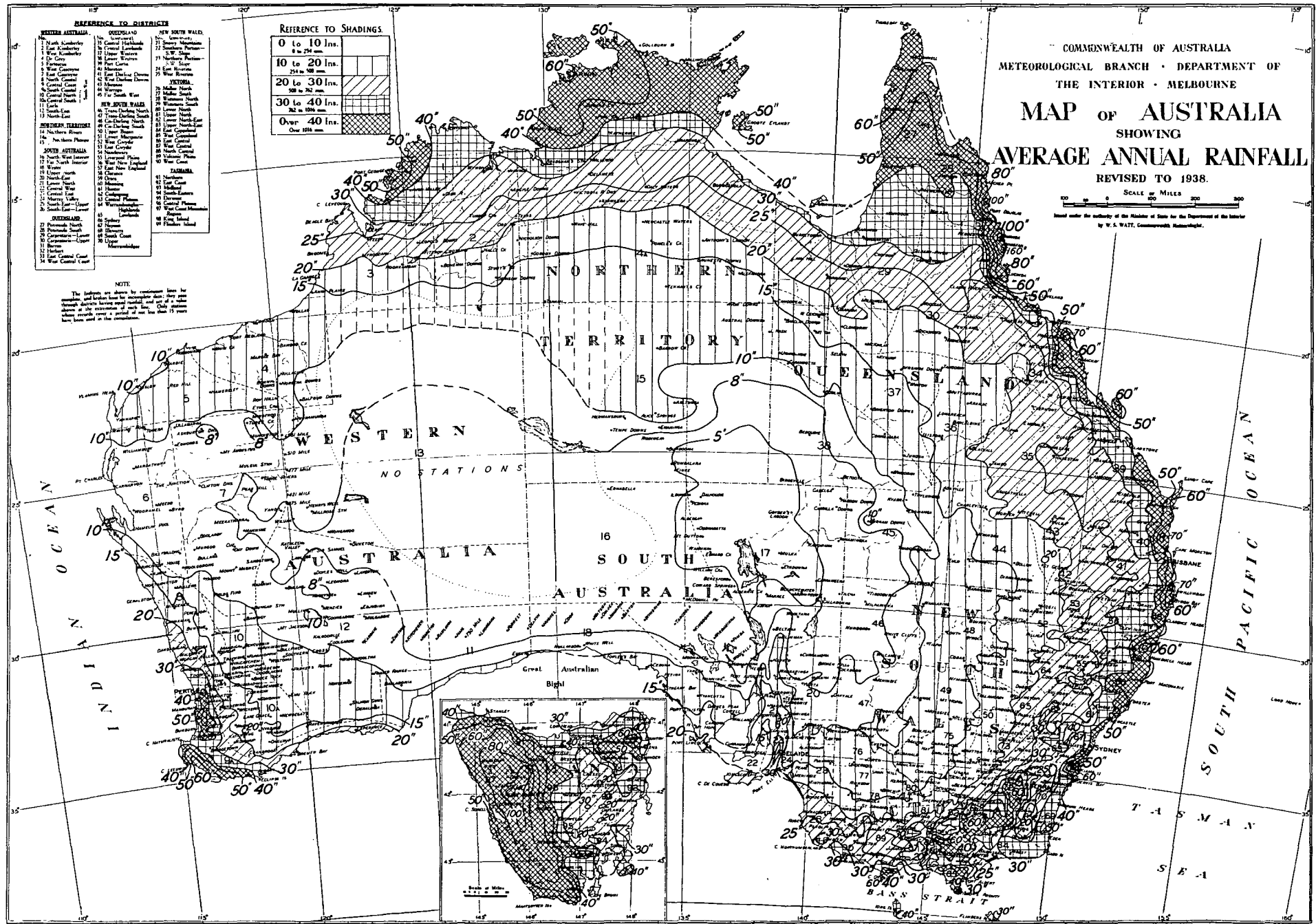
EXPLANATION.—The lines representing the yearly fluctuations of barometric pressure at the State capital cities are means for long periods, and are plotted from the Climatological Tables herein. The pressures are shown in inches on about 2½ times the natural scale, and the corresponding pressures in centimetres 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.



GREATEST NUMBER OF CONSECUTIVE DAYS ON WHICH THE SHADE
 TEMPERATURE WAS 100°F OR OVER AT THE PLACES INDICATED.

Place	Number of Days
Old Market N.T. 1888	168
Boulevard N.T. 1914-15	168
W.M. 1900	168
Nellacree	168
Mills Creek W.M. 1931-32	168
Boulevard N.T. 1938-39	168
Charmelle Q. 1926	168
Orlando W.M. 1923-24	168
Emmeline W.M. 1927	168
Bruma W.M. 1928-29	168
Widge Springs N.T. 1888	168
Que W.M. 1911-1912	168
Durand N.S.W. 1906	168
Wilcann M.S.W. 1930	168
Dorchester M.S.W. 1890	168
Westport N.S.W. 1888, 1939	168
Conestoga W.M. 1893	168
Buckhorn Q. 1924-25	168
Acclad S.M. 1929-1932	168
Abby Augusta S.M. 1898-1908	168
Cassidy M.T. 1939	168
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COMMONWEALTH OF AUSTRALIA.
BUREAU OF METEOROLOGY MELBOURNE.
MONTHLY DISTRIBUTION OF RAINFALL
OVER AUSTRALIA.

REVISED TO END OF 1939.

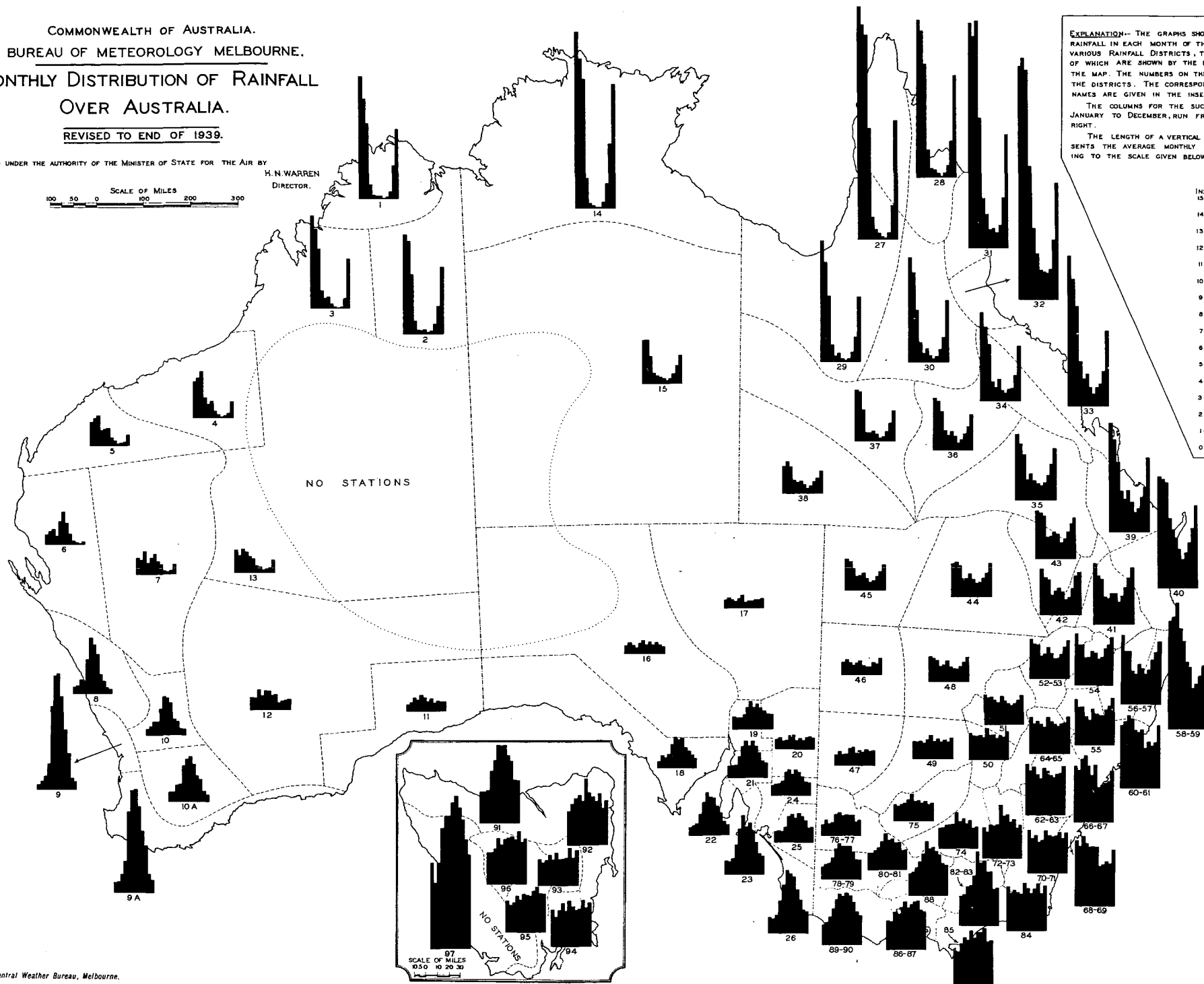
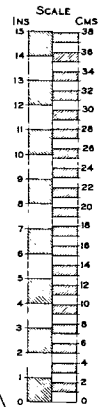
ISSUED UNDER THE AUTHORITY OF THE MINISTER OF STATE FOR THE AIR BY

H. N. WARREN
DIRECTOR.

SCALE OF MILES
100 50 0 100 200 300

EXPLANATION:- THE GRAPHS SHOW THE AVERAGE RAINFALL IN EACH MONTH OF THE YEAR IN THE VARIOUS RAINFALL DISTRICTS, THE BOUNDARIES OF WHICH ARE SHOWN BY THE BROKEN LINES ON THE MAP. THE NUMBERS ON THE MAP REFER TO THE DISTRICTS. THE CORRESPONDING DISTRICT NAMES ARE GIVEN IN THE INSERT ON PAGE 21.
THE COLUMNS FOR THE SUCCESSIVE MONTHS, JANUARY TO DECEMBER, RUN FROM LEFT TO RIGHT.

THE LENGTH OF A VERTICAL COLUMN REPRESENTS THE AVERAGE MONTHLY RAINFALL ACCORDING TO THE SCALE GIVEN BELOW.



(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. in.	No. of Days.	Amount. in.	No. of Days.	Amount. in.	No. of Days.	Amount. in.	No. of Days.	Amount. in.	No. of Days.	Amount. in.	No. of Days.	Amount. in.	No. of Days.
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	45.05	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	150	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	17.51	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	179
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	34.79	117	20.95	167	20.91	198
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	45.04	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	93	58.71	152	24.89	141	22.48	150
20 ..	29.30	107	40.35	124	26.70	119	39.72	122	43.42	159	23.27	162	18.00	152
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	22.67	170
26 ..	20.53	97	49.22	167	22.20	116	30.82	111	37.07	127	20.51	149	25.79	187
27 ..	21.40	83	36.59	133	16.92	101	62.08	130	48.56	138	17.98	135	20.13	185
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	132	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	145	66.72	136	49.22	153	28.63	164	27.17	179
32 ..	19.13	107	39.40	121	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	182
34 ..	35.89	118	40.61	120	20.24	125	54.26	117	64.91	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 ..	29.49	121	30.64	118	19.34	121	21.77	101	30.22	130	24.30	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	160
38 ..	20.15	85	29.64	111	19.26	119	43.49	110	39.17	132	17.63	131	31.32	169
39 ..	26.95	128	45.70	123	25.29	139	41.43	122	33.67	127	33.11	166	27.23	188
40 ..	17.38	64	20.00	98	16.16	116	42.37	93	39.34	125	19.83	126	17.17	135
Average	23.08	94	34.67	121	21.12	123	44.83	115	46.81	154	25.57	140	24.01	152
No. of Years	26	26	65	65	102	102	80	80	82	82	85	85	98	98

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

10. *Remarkable Falls of Rain.*—The following are the most remarkable falls of rain in the various States and Territories 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. 60–64, No. 22, pp. 46–48 and No. 29, pp. 43, 44 and 51:—

HEAVY RAINFALLS : NEW SOUTH WALES, UP TO 1940, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt. in.	Name of Town or Locality.	Date.	Amnt. 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 1940, 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
Crohanhurst			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 Mill ..	12 Feb., 1927	23.86
Harvey Creek ..	3 ,, 1911	27.75	Woodlands (Yepp'n)	3 Jan., 1893	23.07
Kuranda (Cairns) ..	2 Apr., 1911	28.80	Yarrahah ..	2 Apr., 1911	30.65

(a) 37½ hours.

HEAVY RAINFALLS : WESTERN AUSTRALIA, UP TO 1940, INCLUSIVE.

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

HEAVY RAINFALLS : NORTHERN TERRITORY, UP TO 1940, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Bathurst Island			Cape Don ..	13 Jan., 1934	13.58
Mission ..	7 Apr., 1925	11.85	Darwin ..	7 Dec., 1915	11.67
Birimbah ..	6 Mar., 1935	16.50	Groote Eylandt ..	25 Mar., 1940	11.75
Borroloola ..	14 ,, 1899	14.00			
Brook's Creek ..	24 Dec., 1915	14.33			

HEAVY RAINFALLS : SOUTH AUSTRALIA, UP TO 1940, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Coober Pedy ..	19 Feb., 1938	6.50	Nunjikompita ..	21 Feb., 1938	6.50
Lobethal ..	18 Apr., 1938	6.44	Wilmington ..	1 Mar., 1921	7.12

HEAVY RAINFALLS : VICTORIA, UP TO 1940, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Cann River ..	16 Mar., 1938	9.94	Mt. Buffalo ..	6 June, 1917	8.53
Cunninghame ..	26 Dec., 1935	8.50	Murrungowar ..	16 Mar., 1938	8.36
Hazel Park ..	1 Dec., 1934	10.50	Olinda ..	1 Dec., 1934	9.10
Kalorama ..	1 ,, "	10.05	Tambo Crossing ..	13 July, 1925	8.89
Korumburra ..	1 ,, "	8.51	Tonghi Creek ..	27 Feb., 1919	9.90

HEAVY RAINFALLS : TASMANIA, UP TO 1940, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Oullenswood ..	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 ,, "	18.10	Triabunna ..	5 June, 1923	10.20
Mathinna ..	5 Apr., 1929	13.25			

HEAVY RAINFALLS : AUSTRALIAN CAPITAL TERRITORY, UP TO 1940, 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 altitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds 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 Mt. 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 28th July, 1901) and have fallen as low as 27.55 inches. This lowest record was registered at Mackay during a tropical hurricane on 21st January, 1918. An almost equally abnormal reading of 27.88 inches was recorded at Innisfail during a similar storm on 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 trade and the prevailing westerly 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 prevailing westerly 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 March to October the prevailing direction in the morning is westerly, and for the remaining four months north-easterly to easterly. In the afternoons the prevailing direction is mainly from the east-north-east, except during June and July, when it is westerly.

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 recurving 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, appear in previous issues of the Official Year Book (see No. 6, pp. 84-86).

A special article dealing with "Australian Hurricanes and Related Storms" appears 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, 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 highlands now flows unchecked and untempered down the sides of the hills to the valleys and lower lands.

(ii) *Influence of Forest 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 of America, 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.
	Ft.	In.	In.	In.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.
Amsterdam (Gar- dens) ..	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	114.39	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	22.3	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	53.7
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
Christiana (Oslo) ..	82	25.39	30.18	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	66.0	31.8
Dresden ..	115	24.22	34.42	11.73	64.6	33.2	93.4	-15.3	60.4	31.6
Dublin (City) ..	54	27.66	35.51	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	57.7	38.7
Geneva ..	1,332	32.13	47.60	18.73	64.0	46.8	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	61.0	39.5	84.9	4.0	63.3	39.3
Greenwich ..	149	23.50	35.54	16.38	61.7	40.4	100.0	0.6	58.3	35.3
Hong Kong ..	109	85.61	119.72	45.84	81.5	60.5	97.0	32.0	82.0	58.8
Johannesburg ..	1,079	31.63	50.00	21.66	65.4	54.4	93.6	20.8	68.2	48.0
Leipzig ..	394	24.59	31.37	17.10	63.9	46.4	96.4	-16.6	64.8	30.0
Leningrad ..	16	21.30	29.52	13.75	61.1	17.4	89.6	-30.3	63.7	15.2
Lisbon ..	313	26.07	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	62.3	39.1
Madras ..	22	40.85	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	18.04	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 (Pare-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 (Mf.) ..	420	29.23	38.48	21.17	65.5	9.7	92.3	-22.2	69.4	3.6
Washington ..	112	43.50	61.33	30.85	74.7	34.5	106.0	-15.0	76.8	32.9
Wellington ..	10	39.86	67.68	27.83	61.9	48.7	88.0	-28.6	62.6	48.8
Zürich ..	1,542	45.15	78.27	29.02	63.3	31.3	94.1	-0.8	65.1	29.5

AUSTRALIAN CAPITAL.

Canberra ..	1,837	23.08	35.89	16.31	68.1	43.9	109.0	14.0	69.0	42.7
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STATE CAPITALS.

Perth ..	197	34.67	49.22	20.00	73.2	56.1	112.2	34.2	74.2	55.3
Adelaide ..	140	21.12	30.87	11.39	72.9	53.1	117.7	32.0	73.9	51.9
Brisbane ..	137	44.88	88.26	16.17	76.7	59.8	109.8	36.1	77.3	58.6
Sydney ..	138	46.81	82.76	23.01	71.0	54.4	113.6	35.7	71.6	53.8
Melbourne ..	114	25.57	38.04	15.61	66.6	50.0	114.1	27.0	67.6	48.8
Hobart ..	177	24.01	43.30	13.43	61.4	47.0	105.2	27.0	62.2	45.9

(a) Mean of the three hottest months.

(b) Mean of the three coldest months.

18. Climatological Tables.—The averages and extremes for a number of climatological elements have been determined from long series of observations at the Australian capitals up to and including the year 1940. 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. 1,837 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.	No. of Clear Days.
		Highest Mean Speed in One Day (miles per hour).	Mean Speed (miles per hour).	Prevailing Direction.					
				9 a.m.	3 p.m.				
No. of yrs. over which observations extend.	23	12	12	24	24	12	13	22	15
January	29.830	14.9 23/33	5.8	E	W	9.053	3	4.5	9
February	29.898	15.3 24/33	5.0	E	W	7.213	4	4.6	8
March	30.007	14.6 22/31	4.4	E	E	5.766	4	4.6	8
April	30.063	13.6 29/29	4.2	E & SE	W	3.377	3	4.7	7
May	30.145	12.6 3/30	3.3	E	N	2.083	1	4.9	8
June	30.121	16.1 2/30	4.1	N	NW	1.282	1	5.1	6
July	30.121	23.4 7/31	3.7	E	W	1.293	0	5.1	7
August	30.072	15.7 25/36	4.7	N	N & W	1.850	1	4.9	7
September	30.041	17.4 28/34	5.2	E	N	3.075	2	4.2	9
October	29.960	12.4 27/40	4.9	E	NW & W	4.793	2	4.9	7
November	29.902	16.7 14/30	5.3	E	W	6.309	4	4.9	8
December	29.843	16.1 11/38	5.5	E	NW	7.921	6	5.0	6
Year { Totals	—	—	—	—	—	54.015	31	—	90
Averages	30.000	—	4.7	E	W	—	—	4.8	—
Extremes	—	23.4 7/7/31	—	—	—	—	—	—	—

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 observations extend.	24	24	24	24	24	24	(a)	22	17
January	82.4	55.5	69.0	109.0 11/39	38.2 8/38	70.8	—	33.2 17/33	247.6
February	82.2	55.2	68.7	102.6 16/19	33.0 21/33	69.6	—	26.8 21/33	210.7
March	76.4	51.2	63.8	99.2 6/38	31.0 24/35	68.2	—	25.5 24/17	222.6
April	66.9	44.1	55.5	91.0 6/38	26.5 29/17	64.5	—	17.5 29/17	194.4
May	59.6	37.2	48.4	74.7 9/19	19.0 30/24	55.7	—	12.0 28/20	160.1
June	53.2	34.3	43.7	66.2 5/17	17.8 20/35	48.4	—	9.9 20/35	127.7
July	52.1	33.2	42.7	65.0 8/19	14.0 19/24	51.0	—	10.0 24/35	147.3
August	55.6	31.9	45.3	73.0 (b)	18.0 5/19	55.0	—	11.8 5/19	176.9
September	61.4	38.2	49.8	83.2 27/19	24.0 12/39	59.2	—	15.5 5/40	212.5
October	68.2	43.1	55.6	93.8 31/19	27.0 2/18	66.8	—	20.0 13/23	238.0
November	74.6	48.3	61.5	97.7 29/36	28.1 24/15	69.6	—	22.4 11/36	234.9
December	79.7	53.2	66.5	103.4 27/38	32.0 3/24	71.4	—	30.2 2/39	247.3
Year { Averages	67.7	44.0	55.9	—	—	—	—	—	2,420.0(c)
Extremes	—	—	—	109.0 11/1/39	14.0 19/7/24	95.0	—	9.9 20/6/35	—

(a) No record.

(b) 28/1923 and 23/1924.

(c) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).					Dew. Mean No. of Days Dew.
		Mean.	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.	22	22	22	22	26	26	26	26	26	8
January	0.379	56	69	39	1.91	6	5.18 1936	0.07 { 1910 1932	2.92 6/27	3
February	0.399	61	75	47	1.67	6	4.07 1936	0.00 1933	2.75 23/16	4
March	0.381	68	81	48	2.10	7	5.81 1914	0.01 1940	1.86 7/20	8
April	0.311	75	87	63	1.86	7	7.37 1940	0.20 1925	1.94 8/21	9
May	0.246	81	92	67	1.80	7	13.37 1925	0.06 1934	6.84 27/25	9
June	0.216	85	93	73	2.05	9	5.86 1931	0.44 1935	3.95 22/25	9
July	0.204	85	92	74	1.76	9	4.15 1933	0.25 1913	2.40 13/33	6
August	0.219	80	87	67	2.17	10	4.67 1939	0.01 1914	1.90 18/25	6
September	0.249	71	81	55	1.67	8	5.26 1915	0.36 1928	2.18 20/15	6
October	0.288	63	73	48	2.18	9	7.50 1934	0.34 1940	2.74 25/34	6
November	0.328	58	78	37	1.87	8	6.95 1924	0.09 1918	2.38 5/23	4
December	0.366	56	70	40	2.04	8	4.49 1919	0.11 1925	2.10 28/29	3
Year { Totals	—	—	—	—	23.08	94	—	—	—	73
Averages	0.286	70	—	—	—	—	—	—	—	—
Extremes	—	—	93	37	—	—	13.37 5/1925	0.00 2/1933	6.84 27/7/25	—

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 32° F. Mm. Sea Level and Stan- dard 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.
		Highest Mean Speed in One Day (miles per hour).	Mean Speed (miles per hour).	Prevailing Direction.					
				9 a.m.	3 p.m.				
No. of yrs. over which observations extend.	56	43	43	43	43	42	43	33	44
January	29.904	33.2 27/98	14.7	LSE	SSW	10.37	1.9	2.9	14.2
February	29.923	27.1 6/08	14.0	ESE	SSW	8.65	1.4	3.0	12.3
March	29.983	27.1 6/13	13.1	ESE	SSW	7.55	1.6	3.5	12.3
April	30.072	39.8 25/00	11.1	LNE	SSW	4.72	1.5	4.2	8.6
May	30.069	34.4 29/32	10.7	NE	SW	2.73	2.4	5.5	5.5
June	30.063	38.1 17/27	10.9	NNE	WNW	1.77	2.3	5.8	4.1
July	30.092	42.3 20/26	11.3	NNE	W	1.73	2.0	5.6	5.1
August	30.085	40.3 15/03	11.9	NNE	WSW	2.36	1.6	5.5	5.5
September ..	30.067	36.0 11/05	12.2	NE	WSW	3.41	1.2	4.9	6.5
October	30.032	33.7 6/16	12.9	SSE	SW	5.34	1.0	4.8	6.6
November ..	29.992	32.4 18/97	13.7	SE	SW	7.66	1.4	3.6	8.5
December ..	29.927	32.3 6/22	14.3	SE	SSW	9.78	1.9	3.2	12.7
Year { Totals	—	—	—	—	—	66.07	20.2	—	101.9
Year { Averages	30.017	—	12.6	E	SW	—	—	4.4	—
Year { Extremes	—	42.3 20/7/26	—	—	—	—	—	—	—

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.	44	44	44	44	44	44	42	42	43
January	84.5	63.2	73.9	110.2 12/34	48.6 20/25	61.6	177.3 22/14	39.5 20/25	323.5
February	85.0	63.4	74.2	112.2 8/33	47.7 1/02	64.5	173.7 4/34	39.8 1/13	275.2
March	81.5	61.3	71.4	106.4 14/22	45.8 8/03	60.6	167.0 19/18	36.7 8/03	270.5
April	76.2	57.2	66.7	99.7 9/10	39.3 20/14	60.4	157.0 8/16	31.0 20/14	220.7
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	176.8
June	64.1	49.6	56.9	81.7 2/14	35.0 30/20	46.7	135.5 9/14	26.3 11/37	145.4
July	62.8	47.8	55.3	76.4 21/21	34.2 7/16	42.2	133.2 13/15	25.1 30/20	165.8
August	63.9	48.4	56.1	81.0 12/14	35.4 31/08	45.6	145.1 29/21	26.7 24/35	186.8
September ..	60.0	50.3	58.5	90.9 30/18	38.8 18/00	52.1	153.6 29/16	29.2 21/16	210.7
October	69.3	52.6	60.9	95.3 30/22	40.0 16/31	55.3	157.5 31/36	29.8 16/31	245.0
November ..	76.0	56.9	66.5	104.6 24/13	42.0 1/04	62.6	167.0 30/15	35.4 6/10	289.4
December ..	81.2	60.9	71.1	107.9 20/04	48.0 2/10	59.9	168.8 11/27	39.0 (a)	325.7
Year { Averages	73.3	55.4	64.3	—	—	—	—	—	2835.56
Year { Extremes	—	—	—	112.2 8/2/33	34.2 7/7/16	78.0	177.3 22/1/14	25.1 30/7/20	—

(a) 2/1910 and 12/1920.

(b) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pres- sure (inches).	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).						Dew.
		Mean. 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Mean No. of Days Dry.	
No. of yrs. over which observations extend.	44	44	44	44	65	65	65	65	65	44	
January	0.438	52	61	41	0.34	3	2.17 1879	0.00	(a)	1.74 27/79	2.9
February	0.440	53	65	43	0.40	3	2.98 1915	0.00	(a)	1.63 26/15	4.1
March	0.436	58	66	46	0.81	4	5.71 1934	0.00	(a)	3.03 9/34	6.8
April	0.393	62	73	51	1.69	7	5.85 1926	0.00	1920	2.62 30/04	10.6
May	0.368	72	81	61	5.09	14	12.13 1879	0.98	1903	2.80 20/79	13.1
June	0.338	76	83	68	7.07	17	12.80 1923	2.16	1877	3.90 6/20	13.0
July	0.319	77	84	69	6.69	18	12.28 1926	2.42	1876	3.00 4/81	13.4
August	0.320	73	79	62	5.74	18	12.21 1928	0.46	1902	2.79 7/03	11.9
September ..	0.340	67	75	58	3.35	15	7.84 1923	0.34	1916	1.82 4/31	10.8
October	0.347	61	75	54	2.18	12	7.87 1890	0.49	1892	1.73 3/33	6.4
November ..	0.374	54	63	41	0.76	6	2.78 1916	0.00	1891	1.11 30/03	3.7
December ..	0.409	50	63	44	0.55	4	3.05 1888	0.00	1886 1924	1.72 1/88	2.7
Year { Totals	—	—	—	—	34.67	121	—	—	—	—	99.4
Year { Averages	0.371	63	—	—	—	—	—	—	—	—	—
Year { Extremes	—	—	84	41	—	—	12.80 6/1923	0.00	(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.
		Highest Mean Speed in One Day (miles per hour).	Mean Speed (miles per hour).	Prevailing Direction.					
				9 a.m.	3 p.m.				
No. of yrs. over which observations extend.	84	63	63	63	63	71	69	73	59
January	29.914	31.6 19/99	10.5	SW	SW	9.11	2.3	3.6	8.7
February	29.952	28.8 22/96	9.7	NE	SW	7.44	2.0	3.5	7.8
March	30.038	26.2 9/12	8.8	S	SW	6.05	2.0	4.0	7.5
April	30.118	32.2 10/96	8.5	NE	SW	3.57	1.6	5.0	4.6
May	30.126	31.7 9/80	8.3	NE	NW	2.10	1.6	5.8	2.4
June	30.104	31.3 12/78	8.9	NE	N	1.29	1.8	6.2	1.8
July	30.125	28.1 25/82	8.9	NE	NW	1.31	1.6	5.9	1.9
August	30.094	32.2 31/97	9.6	NE	SW	1.91	2.1	5.6	2.7
September	30.045	30.0 2/87	10.0	NNE	SW	2.92	2.2	5.2	3.5
October	29.999	32.0 28/98	10.4	NNE	SW	4.86	3.2	5.1	4.0
November	29.979	28.2 2/04	10.4	SW	SW	6.69	3.2	4.6	5.4
December	29.921	28.1 12/91	10.5	SW	SW	8.55	2.5	4.0	6.9
Year { Totals	—	—	—	—	—	55.80	26.1	—	57.2
Averages ..	30.035	—	9.5	NE	SW	—	—	4.9	—
Extremes ..	—	32.2 (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.	84	84	84	84	84	84	55	80	59
January ..	86.0	61.5	73.7	117.7 12/39	45.1 21/84	72.6	180.0 18/82	36.5 14/79	307.5
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	262.9
March ..	81.0	59.0	70.0	110.5 9/34	43.9 21/33	66.6	174.0 17/83	32.1 21/33	241.1
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	179.6
May ..	65.9	50.3	58.1	89.5 4/21	36.9 (a)	52.6	148.2 12/79	25.6 19/28	149.5
June ..	60.4	46.6	53.5	76.0 23/65	32.5 27/76	43.5	138.8 18/79	22.9 12/13	123.3
July ..	59.1	44.7	51.9	74.0 11/06	32.0 24/08	42.0	134.5 26/90	22.1 30/29	135.8
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	163.9
September ..	66.4	47.9	57.2	90.7 23/82	32.7 4/58	58.0	160.5 23/82	25.0 25/27	185.3
October ..	72.5	51.4	62.0	102.9 21/22	36.0 —/57	66.9	162.0 30/21	27.8 (c)	226.2
November ..	78.6	55.3	66.9	113.5 21/65	40.8 2/09	72.7	166.9 20/78	31.5 2/09	261.9
December ..	83.1	58.9	71.0	114.6 29/31	43.0 (b)	71.6	175.7 7/90	32.5 4/84	298.2
Year { Averages ..	72.8	53.2	63.0	—	—	—	—	—	2535.2
Extremes ..	—	—	—	117.7 12/1/39	32.0 24/7/08	85.7	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 Pres- sure (inches).	Rel. Hum. (%) at 9 a.m.				Rainfall (inches).					Dew.
		Mean 9 a.m.	Mean.	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.	73	73	73	73	102	102	102	102	102	69	
January ..	0.339	38	59	29	0.75	5	4.00 1850	0.00 (a)	2.30 2/89	3.5	
February ..	0.355	41	56	30	0.74	4	6.09 1925	0.00 (a)	5.57 7/25	5.6	
March ..	0.344	46	58	29	1.01	6	4.60 1878	0.00 (a)	3.50 5/78	10.4	
April ..	0.334	55	72	37	1.77	10	6.78 1853	0.03 1923	3.15 5/60	13.9	
May ..	0.317	67	76	49	2.69	13	7.75 1875	0.10 1934	2.75 1/53	16.3	
June ..	0.297	76	84	67	3.05	16	8.58 1916	0.42 1886	2.11 1/20	16.3	
July ..	0.277	76	87	66	2.62	16	5.38 1865	0.37 1899	1.75 10/65	17.5	
August ..	0.286	69	78	54	2.55	16	6.24 1852	0.35 1914	2.23 19/51	16.9	
September ..	0.296	60	72	44	2.05	14	5.83 1923	0.45 1896	1.59 20/23	15.8	
October ..	0.297	50	67	29	1.70	10	3.83 1870	0.17 1914	2.24 16/08	12.8	
November ..	0.307	42	57	31	1.16	8	4.10 1934	0.04 1885	2.08 7/34	6.5	
December ..	0.323	39	50	31	1.03	6	3.98 1861	0.00 1904	2.42 23/13	4.3	
Year { Totals ..	—	—	—	—	21.12	124	—	—	—	139.8	
Averages ..	0.309	53	—	—	—	—	8.58 6/16	0.00 (b)	5.57 7/2/25	—	
Extremes ..	—	—	87	29	—	—	—	—	—	—	

(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.	No. of yrs. over which observations extend.	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.
			Highest Mean Speed in One Day (miles per hour).	Mean Speed (miles per hour).	Prevailing Direction.					
					9 a.m.	3 p.m.				
		54	30	26	54	54	32	54	49	32
January	29.865	15.0 1/22	7.0	SE	E & NE	6.702	7.3	5.7	3.5
February	29.902	21.0 5/31	7.0	S & SE	NE & E	5.467	5.7	5.7	2.5
March	29.966	20.3 1/29	6.7	S	SE & E	5.031	4.5	5.3	5.1
April	30.040	16.7 3/25	6.1	S	SE & E	3.979	3.9	4.5	7.7
May	30.087	17.9 17/26	5.9	S	SE	3.073	3.2	4.3	8.2
June	30.075	19.0 14/28	5.8	SW & S	S & W	2.411	2.3	4.2	9.2
July	30.078	15.0 2/23	5.7	S & SW	SW	2.672	2.5	3.8	12.3
August	30.096	14.8 4/35	5.9	S & SW	SW & NE	3.445	3.6	3.4	12.8
September	30.049	13.7 4/31	6.0	S & SW	NE & E	4.451	3.6	3.4	12.7
October	30.008	14.8 14/36	6.4	S	NE	5.703	6.8	4.1	8.5
November	29.959	15.5 10/28	6.8	SE & NE	NE	6.279	8.6	4.9	5.8
December	29.889	19.5 15/26	7.1	SE	NE	7.015	9.4	5.3	3.7
Year { Totals	—	—	—	—	—	56.288	63.4	—	92.0
Year { Averages	30.001	—	6.4	S	NE	—	—	4.6	—
Year { Extremes	—	21.0 5/2/31	—	—	—	—	—	—	—

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 observations extend.	54	54	54	54	54	54	54	54	32
January ..	85.5	69.0	77.3	109.8 26/40	58.8 4/93	51.0	169.0 2/37	49.9 4/93	234.9
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	209.3
March ..	82.2	66.4	74.3	99.4 5/19	52.4 29/13	47.0	161.7 4/25	45.4 29/13	214.6
April ..	78.9	61.5	70.2	95.2 (a)	44.4 25/25	50.8	153.8 11/16	36.7 24/25	212.7
May ..	73.6	55.5	64.6	90.3 21/23	41.3 24/99	49.0	142.0 1/10	29.8 8/97	203.7
June ..	69.3	51.1	60.2	88.9 19/18	36.3 29/08	52.6	136.0 3/18	25.4 23/88	186.1
July ..	68.4	48.7	58.6	83.4 28/98	36.1 (b)	47.3	146.1 20/15	23.9 11/90	210.6
August ..	71.2	50.0	60.6	88.5 25/28	37.4 6/87	51.1	141.9 20/17	27.1 9/99	239.3
September ..	75.5	54.7	65.2	95.2 16/12	40.7 1/96	54.5	155.5 26/03	30.4 1/89	245.0
October ..	79.5	60.1	69.8	101.4 18/93	43.3 3/99	58.1	157.4 31/18	34.9 8/89	258.4
November ..	82.4	64.3	73.4	106.1 18/13	48.5 2/05	57.6	162.3 7/89	38.8 1/05	244.2
December ..	84.8	67.4	76.2	105.9 26/93	50.4 13/12	49.5	162.1 26/37	49.1 3/94	254.5
Year { Averages ..	78.0	59.8	68.9	—	—	—	—	—	2713.3d
Year { Extremes ..	—	—	—	109.8 26/1/40	36.1 (c)	73.7	169.0 2/1/37	23.9 11/7/90	—

(a) 9/1896 and 5/1903.

(b) 12/1894 and 2/1896.

(c) 12/7/94 and 2/7/96.

(d) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pres- sure (inches).	Rel. Hum. (%).			Rainfall (inches).							Dew.
		At 9 a.m.										
		Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Mean No. of Days.	
No. of yrs. over which observations extend.	54	54	54	54	89	54	89	89	89	89	54	
January	0.640	66	79	53	6.36	13	27.72 1895	0.32 1919	18.31 21/87	9.3		
February .. .	0.646	69	82	55	6.30	13	40.39 1893	0.58 1849	10.61 6/31	9.4		
March	0.614	72	85	56	5.79	15	34.04 1870	0.00 1849	11.18 14/08	12.6		
April	0.520	71	80	60	3.72	11	15.28 1867	0.05 1897	5.46 5/33	15.1		
May	0.425	73	85	61	2.80	10	13.85 1876	0.00 1846	5.62 9/79	16.3		
June	0.357	73	84	63	2.64	8	14.03 1873	0.00 1847	6.01 9/93	14.6		
July	0.328	72	81	61	2.19	8	8.46 1889	0.00 1841	3.54 (c)	15.8		
August	0.347	69	80	56	1.93	7	14.67 1879	0.00 (a)	4.89 12/87	15.0		
September ..	0.406	64	76	47	1.96	8	5.43 1886	0.10 1907	2.46 2/94	14.3		
October	0.472	60	72	48	2.55	9	9.99 1882	0.14 1900	3.75 3/27	12.9		
November ..	0.535	60	72	45	3.78	11	12.40 1917	0.00 1842	4.46 16/86	9.0		
December ..	0.596	62	69	51	4.86	12	13.97 1910	0.35 1865	6.60 28/71	8.7		
Year { Totals ..	—	—	—	—	44.88	125	—	—	—	153.0		
Year { Averages ..	0.491	68	—	—	—	—	—	—	—	—		
Year { Extremes ..	—	—	85	45	—	—	40.39 2/93	0.00 (b)	18.31 21/1/87	—		

(a) 1862, 1869, 1880.

(b) Various months in various years.

(c) 15/1876 and 16/1889.

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. Min. 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.	No. of Clear Days.
		Highest Mean Speed in One Day (miles per hour).	Mean Speed (miles per hour).	Prevailing Direction.					
				9 a.m.	3 p.m.				
No. of yrs. over which observations extend.	31	74	74	74	74	61	81	79	30
January	29.875	26.1 3/93	9.3	NE	ENE	5.439	5.0	5.7	4.8
February	29.943	29.0 12/69	8.8	NE	ENE	4.329	4.3	5.5	5.5
March	30.011	31.4 20/70	7.8	W	ENE	3.703	4.1	5.2	5.8
April	30.065	26.7 6/82	7.3	W	ENE	2.677	3.7	5.0	7.0
May	30.098	28.4 6/98	7.2	W	NE	1.875	2.9	4.9	7.4
June	30.078	26.7 13/08	8.0	W	W	1.482	2.1	4.8	8.3
July	30.066	31.0 17/79	8.0	W	W	1.556	2.2	4.5	10.1
August	30.063	27.0 22/72	7.8	W	NE	2.007	3.1	3.9	11.1
September	30.021	32.1 6/74	8.4	W	NE	2.785	3.8	4.3	10.0
October	29.976	30.9 4/72	8.8	W	ENE	3.930	4.8	4.9	7.4
November	29.936	24.3 12/87	9.0	ENE	ENE	4.726	5.4	5.5	5.7
December	29.876	31.3 3/84	9.3	E	ENE	5.505	5.8	5.7	4.8
Year { Totals	—	—	—	—	—	40.014	47.2	—	87.9
Averages	30.001	—	8.3	W	ENE	—	—	5.0	—
Extremes	—	32.1 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.	82	82	82	82	82	82	78	82	20
January	78.4	64.9	71.6	113.6 14/39	51.2 14/65	62.4	164.3 26/15	43.7 6/25	228.4
February	77.7	65.0	71.3	107.8 8/26	49.3 28/63	58.5	168.3 14/39	42.8 22/33	206.4
March	75.8	63.1	69.4	102.6 3/69	48.8 14/86	53.8	158.3 10/26	39.9 17/13	200.7
April	71.4	58.0	64.7	91.4 1/36	44.6 27/64	46.8	144.1 10/77	33.3 24/09	181.9
May	65.7	52.1	58.9	86.0 1/19	40.2 22/59	45.8	129.7 1/96	29.3 25/17	176.6
June	61.3	48.2	54.8	80.4 11/31	35.7 22/32	44.7	125.5 2/23	28.0 22/32	162.1
July	59.9	45.9	52.9	78.3 22/26	35.9 12/90	42.4	124.7 19/77	24.0 4/93	187.9
August	63.0	47.6	55.3	82.0 31/84	36.8 3/72	45.2	149.0 30/78	26.1 4/09	218.2
September	67.1	51.3	59.2	92.3 27/19	40.8 18/64	51.5	142.2 12/78	30.1 17/05	220.2
October	71.3	55.8	63.6	98.9 19/98	42.2 6/27	56.7	152.2 20/33	32.7 9/05	232.9
November	74.3	59.6	67.0	102.7 21/78	43.2 7/39	59.5	158.5 28/99	36.0 6/06	232.4
December	77.1	62.9	70.0	107.5 31/04	48.4 3/24	59.1	164.5 27/89	41.4 3/24	230.9
Year { Averages	70.3	56.2	63.2	—	—	—	—	—	2478.6a
Extremes	—	—	—	113.6 14/1/39	35.7 22/6/32	77.9	168.3 14/2/39	24.0 4/7/97	—

(a) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%) 9 a.m.				Rainfall (inches).				Dew.
		Mean.	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.	65	65	65	65	82	82	82	82	82	81
January	0.546	67	78	58	3.60	14	15.26 1911	0.25 1932	7.08 13/11	1.7
February	0.562	70	81	60	4.13	13	18.56 1873	0.12 1939	8.90 25/73	3.0
March	0.532	73	85	62	4.88	14	18.70 1870	0.42 1876	6.52 9/13	5.0
April	0.442	76	87	63	5.41	14	24.49 1861	0.60 1868	7.52 29/60	7.0
May	0.360	78	90	63	5.00	14	23.03 1919	0.18 1860	8.36 28/89	8.2
June	0.299	77	89	68	4.69	13	16.30 1885	0.19 1904	5.17 16/84	7.0
July	0.278	76	88	63	4.72	12	13.21 1900	0.12 1862	7.80 7/31	7.8
August	0.290	70	84	56	2.93	11	14.89 1899	0.04 1885	5.33 2/60	7.1
September	0.330	65	79	49	2.85	12	14.04 1879	0.08 1882	5.69 10/79	4.9
October	0.382	62	77	46	2.84	12	11.14 1916	0.21 1867	6.37 13/02	3.4
November	0.444	63	79	42	2.79	12	9.88 1865	0.07 1915	4.23 19/00	2.4
December	0.503	65	77	51	2.97	13	15.82 1920	0.19 1939	4.75 13/10	1.9
Year { Totals	—	—	—	—	46.81	154	—	—	—	59.4
Averages	0.402	70	—	—	—	—	—	—	—	—
Extremes	—	90	42	—	—	—	24.49 4/1861	0.04 8/1885	8.00 25/2/73	—

CLIMATOLOGICAL DATA : MELBOURNE, VICTORIA.

LAT. 37° 49' S., LONG. 144° 58' E. HEIGHT ABOVE M.S.L. 114 FT.

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

Month.	Bar. corrected to 32° F. Mm. Sea Level and Stan- dard Gravity from hourly 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.
		Highest Mean Speed in One day (miles per hour).	Mean Speed miles per hour.	Prevailing Direction.						
				9 a.m.	3 p.m.					
No. of yrs. over which observations extend.	83	67	67	22	22	68	33	83	33	
January	29.906	24.3 10/97	9.2	S & SW	S	6.421	1.7	5.1	6.9	
February .. .	29.956	23.6 8/68	8.7	N & S	S	5.042	2.2	4.9	6.7	
March	30.033	28.2 9/81	7.9	N	S	4.039	1.7	5.4	5.5	
April	30.098	24.9 7/68	7.4	N	S	2.424	1.2	5.9	4.6	
May	30.109	28.9 12/65	7.3	N	N	1.508	0.5	6.4	3.2	
June	30.084	31.7 13/76	8.0	N	N	1.139	0.4	6.6	2.5	
July	30.090	31.5 8/74	7.9	N	N	1.008	0.4	6.3	2.9	
August	30.060	26.5 14/75	8.5	N	N	1.500	1.0	6.3	2.9	
September ..	30.001	25.7 11/72	8.9	N	N & S	2.333	1.2	6.1	3.2	
October	29.968	37.5 5/66	9.1	N	S	3.377	1.8	6.0	3.9	
November ..	29.952	30.6 13/66	9.1	S & SW	S	4.544	2.5	5.9	3.7	
December ..	29.899	27.3 1/75	9.3	S & SW	S	5.759	2.0	5.5	4.4	
Year { Totals	—	—	—	—	—	39.184	16.6	—	50.4	
Averages ..	30.013	—	8.4	N	S	—	—	5.9	—	
Extremes ..	—	37.5 5/10/66	—	—	—	—	—	—	—	

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.	85	85	85	85	85	85	80	81	59
January ..	78.1	56.7	67.4	114.1 13/39	42.0 28/85	72.1	178.5 14/62	30.2 28/85	256.5
February ..	78.1	57.1	67.6	109.5 7/01	40.2 24/24	69.3	167.5 15/70	30.9 6/91	234.9
March ..	74.7	54.8	64.7	107.0 11/40	37.1 17/84	69.9	164.5 1/68	28.9 (a)	206.5
April ..	68.2	50.7	59.4	94.8 5/38	34.8 24/88	60.0	152.0 8/61	25.0 23/97	158.7
May ..	61.6	46.8	54.2	83.7 7/05	29.9 29/16	53.8	142.6 2/59	21.1 26/16	136.8
June ..	56.8	43.9	50.3	72.2 1/07	28.0 11/66	44.2	129.0 11/61	19.9 30/29	108.6
July ..	55.7	41.9	48.8	69.3 22/26	27.0 21/69	42.3	125.8 27/80	20.5 12/03	127.9
August ..	58.7	43.4	51.0	77.0 20/85	28.3 11/63	48.7	137.4 29/69	21.3 14/02	150.3
September ..	62.7	45.6	54.2	88.6 28/28	31.0 3/40	57.6	142.1 20/67	22.8 8/18	170.2
October ..	67.3	48.3	57.8	98.4 24/14	32.1 3/71	66.3	154.3 28/68	24.8 22/18	199.2
November ..	71.4	51.3	61.4	105.7 27/94	36.5 2/96	69.2	159.6 29/65	24.6 2/96	228.0
December ..	75.4	54.4	64.9	110.7 15/76	40.0 4/70	70.7	170.3 20/69	33.2 1/04	244.7
Year { Averages ..	67.4	49.6	58.5	—	—	—	—	—	222.34
Extremes ..	—	—	—	114.1 13/1/30	27.0 21/7/69	87.1	178.5 14/1/62	19.9 30/6/20	—

(a) 17/1884 and 20/1897.

(b) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%).			Rainfall (inches).					Dew.
		9 a.m.			Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
		Mean.	Highest Mean.	Lowest Mean.						
No. of yrs. over which observations extend.	33	33	33	33	85	85	85	85	82	33
January	0.384	58	65	50	1.88	8	5.68 1904	0.01 1932	2.97 9/97	2.7
February	0.413	62	69	48	1.80	7	7.72 1939	0.03 1870	3.42 26/39	4.1
March	0.382	64	73	50	2.15	9	7.50 1911	0.14 1934	3.55 5/19	7.5
April	0.346	72	82	66	2.33	11	6.71 1901	0.00 1923	2.28 22/01	9.0
May	0.308	79	86	71	2.07	13	4.31 1862	0.14 1934	1.85 7/91	10.1
June	0.276	83	92	75	2.03	14	4.51 1859	0.73 1877	1.74 21/04	8.1
July	0.262	82	86	76	1.88	15	7.02 1891	0.57 1902	2.71 12/01	7.9
August	0.268	76	82	70	1.89	15	4.35 1939	0.48 1903	1.94 26/24	7.3
September .. .	0.288	68	76	60	2.29	14	7.93 1916	0.52 1907	2.62 12/80	6.3
October	0.306	62	67	52	2.65	13	7.61 1869	0.29 1914	3.00 17/69	5.8
November .. .	0.333	60	69	52	2.25	11	6.71 1916	0.25 1895	2.57 16/76	2.3
December .. .	0.364	59	69	48	2.30	10	7.18 1863	0.11 1904	3.20 1/34	1.7
Year { Totals .. .	—	—	—	—	25.57	140	—	—	—	72.8
Averages ..	0.322	69	—	—	—	—	—	—	—	—
Extremes ..	—	—	02	48	—	—	7.03 9/1916	0.00 4/1923	3.55 5/3/19	—

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.	No. of yrs. over which observations extend.	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.	No. of Clear Days.
			Highest Mean Speed in One Day (miles per hour).	Mean Speed (miles per hour).	Prevailing Direction.					
					9 a.m.	3 p.m.				
	56	30	30	35	35	30	33	78	34	
January	29.822	20.8 30/16	8.0	N to NW	SE	4.846	0.9	6.0	2.3	
February	29.912	25.2 4/27	7.2	N to NW	SE	3.716	1.0	6.0	2.3	
March	29.951	21.4 13/38	6.7	N to NNW	SE	3.998	1.2	5.9	2.4	
April	29.973	22.2 21/26	6.7	N to NW	SE & NNW	1.950	0.7	6.2	1.7	
May	29.999	20.2 20/36	6.3	N to NW	NW	1.371	0.4	6.0	2.4	
June	29.969	23.7 27/20	6.2	NNW to NW	N to NNW	0.919	0.4	6.1	2.4	
July	29.940	20.8 19/35	6.5	NNW to NW	N to NNW	0.935	0.4	5.9	2.1	
August	29.916	25.5 19/26	6.9	N to NW	NW	1.283	0.4	5.9	2.1	
September	29.854	21.5 26/15	7.9	N to NNW	NW	1.974	0.7	6.1	1.6	
October	29.832	19.2 8/12	8.2	N to NW	SE & NW	3.048	0.5	6.4	1.1	
November	29.815	21.2 18/15	7.9	N to NW	SE	3.798	0.7	6.4	1.5	
December	29.814	23.4 1/34	7.6	N to NW	SE	4.374	0.7	6.4	1.2	
Year { Totals	—	—	—	—	—	32.212	8.0	—	23.1	—
Year { Averages	29.900	—	7.2	N to NW	NNW & SE	—	—	6.1	—	—
Year { Extremes	—	25.5 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.	
	70	70	70	94	94		51	73	20(a)
No. of yrs. over which observations extend.	70	70	70	94	94	94	51	73	20(a)
January	71.0	52.0	61.8	105.0 (b)	40.0 3/12	65.0	160.0 (c)	30.6 19/27	236.5
February	71.1	53.3	62.2	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 —/87	198.3
March	67.9	50.9	59.4	99.1 13/40	35.2 31/26	63.9	150.0 3/05	27.5 30/02	199.3
April	62.5	47.7	55.1	90.0 1/56	30.0 25/56	60.0	142.0 18/93	25.0 —/86	143.7
May	57.5	43.9	50.7	77.8 5/21	29.2 20/02	48.6	128.0 (d)	20.0 19/02	141.2
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	118.0
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	130.3
August	55.1	41.2	48.1	77.0 3/76	30.0 10/73	47.0	129.0 —/87	20.1 7/09	158.4
September	58.8	43.2	51.0	81.7 23/26	30.0 12/41	51.7	138.0 23/93	18.3 16/26	172.6
October	62.6	45.6	54.1	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (e)	192.2
November	65.9	48.2	57.1	98.3 26/37	35.2 5/13	63.1	154.0 19/92	26.0 1/08	218.8
December	69.0	51.2	60.1	105.2 30/97	38.0 13/06	67.2	161.5 10/39	27.2 —/86	218.0
Year { Averages	62.4	46.5	54.4	—	—	—	—	—	212.7 (f)
Year { Extremes	—	—	—	105.2 30/12/97	27.0 18/7/66	78.2	165.0 24/2/98	18.3 16/9/26	—

(a) Early records discarded owing to faulty instrument. (b) 27/49 and 1/00. (c) 5/86 and 13/05.
(d) —/89 and —/93. (e) 1/86 and —/99. (f) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (Inches).	Rel. Hum. (%) at 9 a.m.				Rainfall (Inches).					Dew.
		Mean.	Highest.	Mean.	Lowest.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
No. of yrs. over which observations extend.	54	54	54	54	98	97	98	98	74	31	
January	0.328	59	72	46	1.84	10	5.91 1893	0.03 1841	2.96 30/16	0.6	
February	0.354	63	77	48	1.53	9	9.15 1854	0.07 1847	4.50 27/54a	1.5	
March	0.328	66	77	52	1.75	10	7.60 1854	0.02 1843	3.27 11/32	5.0	
April	0.299	72	81	58	1.95	12	8.50 1935	0.07 1904	5.02 20/09	8.8	
May	0.264	77	89	65	1.83	13	6.37 1905	0.10 1843	3.22 14/58	12.7	
June	0.240	80	91	68	2.24	14	8.15 1889	0.22 1852	4.11 13/89	8.8	
July	0.230	79	94	72	2.13	14	6.02 1922	0.30 1850	2.51 18/22	8.7	
August	0.237	75	92	61	1.83	14	10.16 1858	0.23 1854	4.35 12/58	8.0	
September ..	0.252	67	85	58	2.07	16	7.14 1844	0.39 1847	2.75 18/44	5.1	
October	0.269	63	73	51	2.31	15	6.67 1906	0.26 1850	2.58 4/06	2.8	
November ..	0.292	59	72	50	2.44	14	8.94 1849	0.16 1868	3.97 7/49	1.1	
December ..	0.314	58	67	45	2.09	12	9.00 1875	0.11 1842	2.82 21/29	0.8	
Year { Totals	—	—	—	—	24.01	153	—	—	—	63.9	
Year { Averages	0.284	68	—	—	—	—	—	—	—	—	
Year { Extremes	—	—	94	45	—	—	10.16 8/1858	0.02 3/1843	5.02 20/4/09	—	

(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, namely, 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 (namely, $1\frac{1}{2}$ 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. 927–951, 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 appears in preceding issues of the Official Year Book (see No. 18, pp. 78–80).

3. **Governor-General and State Governors.**—The present Governor-General is 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 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 CHARLES MALCOLM BARGLAY-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 and in the States of Victoria and Tasmania, however, 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 Official 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 following table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in January, 1942 :—

AUSTRALIAN PARLIAMENTS : MINISTERS IN UPPER OR LOWER HOUSES, JANUARY, 1942.

Ministers with Seats in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
The Upper House ..	5	2	4	(a)	2	2	2	16
The Lower House ..	14	13	8	10	4	7	7	63
Total ..	19	15	12	10	6	9	9	79

(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 January, 1942, 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 January, 1942 :—

MEMBERS OF COMMONWEALTH AND STATE PARLIAMENTS, AND ANNUAL SALARIES, JANUARY, 1942.

Members in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
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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 statement above, 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 Official 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 1941, 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 the 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 numbers 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, 1941, 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 of the Official Year Book.

3. **Commonwealth Elections.**—There have been fifteen complete Parliaments since the inauguration of Federation. The fifth Parliament, which was opened on 9th July, 1913, was dissolved on 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 9th May, 1927. The first session of the sixteenth Parliament opened on 20th November, 1940. Particulars regarding Commonwealth elections since 1928 will be found in the following table:—

COMMONWEALTH ELECTIONS.

Date.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
THE SENATE.									
17.11.1928	1,723,552	1,721,214	3,444,766	1,617,752	1,606,748	3,224,500	93.86	93.35	93.61
12.10.1929	1,773,014	1,769,936	3,542,950				..	..	..
19.12.1931	1,827,079	1,822,875	3,649,954	1,741,163	1,727,140	3,468,303	95.30	94.75	95.02
15.9.1934	1,954,339	1,948,338	3,902,677	1,862,749	1,845,829	3,708,578	95.31	94.74	95.03
23.10.1937	2,043,212	2,036,826	4,080,038	1,963,979	1,957,358	3,921,337	96.12	96.10	96.11
21.9.1940	2,113,169	2,126,177	4,239,346	1,989,381	2,027,422	4,016,803	94.14	95.36	94.75

* No election.

THE HOUSE OF REPRESENTATIVES.

(CONTESTED ELECTORATES.)

17.11.1928	1,450,202	1,463,951	2,914,153	1,362,675	1,366,137	2,728,812	93.96	93.32	93.64
12.10.1929	1,557,525	1,560,505	3,118,030	1,479,100	1,478,447	2,957,547	94.96	94.74	94.85
19.12.1931	1,724,730	1,733,343	3,458,073	1,643,604	1,642,870	3,286,474	95.30	94.78	95.04
15.9.1934	1,930,418	1,934,021	3,864,439	1,843,949	1,833,774	3,677,723	95.52	94.82	95.17
23.10.1937	1,928,786	1,919,234	3,848,020	1,854,770	1,844,499	3,699,269	96.16	96.11	96.13
21.9.1940	2,087,003	2,109,443	4,196,446	1,966,744	2,012,265	3,979,009	94.24	95.39	94.82

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. This high percentage has been exceeded appreciably at subsequent elections.

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 Official 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 a 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-two complete Parliaments, the first of which opened on 22nd May, 1856, and was dissolved on 19th December, 1857, while the thirty-second was dissolved on 18th April, 1941. The thirty-third Parliament opened on 28th May, 1941. 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 1927 to 1941 are given below :—

NEW SOUTH WALES LEGISLATIVE ASSEMBLY ELECTIONS.

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.
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
1941	834,752	850,029	1,684,781	698,100	727,652	1,425,752	90.99	94.03	92.52

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, but declined to 93 in 1941.

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; for the latter House, however, it is still possible for an elector to be enrolled for more than one province, and such elector may select the province for which he desires to record his vote. A preferential system of voting (see Official Year Book No. 6, p. 1182) was adopted for the first time in Victoria at the election held in November, 1911. Compulsory voting was first observed at elections for the Legislative Assembly, 1927, and for the Legislative Council, 1937.

(ii) *Particulars of Elections.* Since the introduction of responsible government in Victoria there have been thirty-three complete Parliaments, the first of which opened on 21st November, 1856, and closed on 9th August, 1859, while the thirty-third was

dissolved on 13th February, 1940. The thirty-fourth Parliament was opened on 1st May, 1940. Particulars of voting at elections during the years 1925 to 1940 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.
1925	..	..	399,510	172,875	56,933	32.41
1928	..	..	444,278	268,164	85,372	31.84
1931	..	..	470,349	239,975	93,244	38.86
1934	..	..	469,395	160,980	47,375	29.43
1937	..	..	447,694	265,194	208,925	78.78
1940	..	..	471,843	235,784	178,666	75.78

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.
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
1940	565,002	597,965	1,162,967	377,644	408,715	786,359	93.65	93.19	93.41

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 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 1st October, 1931, provided that from and after the end of the twenty-fifth Parliament (dissolved on 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 Official Year Book No. 6, p. 1183.)

(ii) *Particulars of Elections.* Since the establishment of responsible government in Queensland there have been twenty-eight complete Parliaments, the last of which was dissolved on 26th February, 1941. 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 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 1941 elections, 90.29 per cent. went to the polls. Statistics regarding elections during the years 1926 to 1941 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.
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
1941	331,285	303,631	634,916	269,849	259,398	529,247	88.68	92.03	90.29

The election of 1907 was the first State election in Queensland at which women voted, the right 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. For the Legislative Council the State is divided into five districts, which return four members each, two of whom retire alternately. Thirty-nine districts return one member each to the House of Assembly; 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-nine complete Parliaments, the first of which was opened on 22nd April, 1857. The twenty-ninth Parliament was opened on 19th May, 1938, and was dissolved on 18th February, 1941. The thirtieth Parliament was opened on 3rd July, 1941. The duration of the twenty-eighth Parliament was extended from three to five years by the provisions of the Constitution (Quinquennial Parliament) Act 1933, but this Act was repealed by the Constitution Act Amendment Act (No. 2) 1939, and the three-year term was reverted to. 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.									
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
1941	(a)	(a)	115,952	(a)	(a)	70,660	(a)	(a)	60.94

(a) Not available.

SOUTH AUSTRALIAN ELECTIONS—*continued.*

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
HOUSE OF ASSEMBLY.									
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
1941	(a)	(a)	378,265	(a)	(a)	171,978	(a)	(a)	50.69

(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 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 30th December, 1890, and the seventeenth Parliament was elected on 18th March, 1939. The preferential system of voting in use in Western Australia is described in Official 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.

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
1940	62,745	23,598	86,343	24,904	8,013	32,917	41.96	35.29	40.11

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 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 Official 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-six 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 HOUSE OF 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.
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
1941	69,058	70,176	139,234	61,480	65,554	127,034	89.03	93.41	91.24

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 1941 :—Number of electors on the roll, 4,504; number of votes recorded, 3,616; percentage of persons who voted to the number on the roll, 80.28.

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.

1. **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 9th May.

1901, 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	27th August, 1940
Sixteenth	20th November, 1940	

(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 inception :—

(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 NORTHOTE, 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.
 General the Rt. Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE, V.O., 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.

(b) MINISTRIES—*continued*.

- (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.
- (xx) MENZIES MINISTRY, 26th April, 1939, to 14th March, 1940.
- (xxi) MENZIES MINISTRY, 14th March, 1940, to 29th August, 1941.
- (xxii) FADDEN MINISTRY, 29th August, 1941, to 7th October, 1941.
- (xxiii) CURTIN MINISTRY, 7th October, 1941.

(c) CURTIN GOVERNMENT, from 7th October, 1941.

DEPARTMENTS.	MINISTERS.
• Prime Minister and Minister for Defence†	The Rt. Hon. JOHN CURTIN.
• Minister for the Army	The Hon. FRANCIS MICHAEL FORDE.
• Treasurer	The Hon. JOSEPH BENEDICT CHIFLEY.
• Attorney-General and Minister for External Affairs ..	The Rt. Hon. HERBERT VERE EVATT, LL.D., K.C.
• Minister for Supply and Development	The Hon. JOHN ALBERT BEASLEY.
• Minister for the Interior	Senator the Hon. JOSEPH SILVER COLLINGS.
• Minister for the Navy and Minister for Munitions ..	The Hon. NORMAN JOHN OSWALD MAKIN.
• Minister for Social Services and Minister for Health ..	The Hon. EDWARD JAMES HOLLOWAY.
• Minister for Trade and Customs and Vice-President of the Executive Council	Senator the Hon. RICHARD VALENTINE KEANE.
• Minister for Air and Minister for Civil Aviation ..	The Hon. ARTHUR SAMUEL DRAKEFORD.
• Minister for Commerce	The Hon. WILLIAM JAMES SCULLY.
• Postmaster-General and Minister for Information ..	Senator the Hon. WILLIAM PATRICK ASHLEY.
• Minister for Labour and National Service	The Hon. EDWARD JOHN WARD.
• Minister for Repatriation and Minister in Charge of War Service Homes	The Hon. CHARLES WILLIAM FROST.
• Minister for War Organization of Industry and Minister in Charge of the Council for Scientific and Industrial Research	The Hon. JOHN JOHNSTONE DEDMAN.
• Minister for Home Security and Minister assisting the Treasurer	The Hon. HUBERT PETER LAZZARINI.
• Minister for External Territories and Minister assisting the Minister for Commerce	Senator the Hon. JAMES MACKINTOSH FRASER.
• Minister for Aircraft Production and Minister assisting the Minister for Munitions	Senator the Hon. DONALD CAMERON.
• Minister for Transport and Minister assisting the Post- master-General	The Hon. GEORGE LAWSON.
• War Cabinet.	
† Designation changed on 14th April, 1942, from Minister for Defence Co-ordination.	

3. State Ministries.—The names of the members of the Ministries in each State in January, 1942, are shown in the following statement. The date on which each Ministry was sworn in is stated in parenthesis :—

STATE MINISTERS, 1941.

NEW SOUTH WALES (16th May, 1941).

<i>Premier and Colonial Treasurer—</i> THE HON. W. J. MCKELL.	<i>Minister of Justice and Vice-President of the Executive Council—</i> THE HON. R. R. DOWNING, M.L.C.
<i>Deputy Premier, Colonial Secretary and Minister for Mines—</i> THE HON. J. M. BADDELEY.	<i>Secretary for Public Works—</i> THE HON. J. J. CAHILL.
<i>Minister for National Emergency Services—</i> THE HON. R. J. HEFFRON.	<i>Minister for Health—</i> THE HON. C. A. KELLY.
<i>Attorney-General—</i> THE HON. C. E. MARTIN.	<i>Minister for Local Government and Housing—</i> THE HON. J. MCGIRR.
<i>Minister for Agriculture and Forests—</i> THE HON. W. F. DUNN.	<i>Secretary for Lands—</i> THE HON. J. M. TULLY.
<i>Minister for Education—</i> THE HON. C. R. EVATT, K.C.	<i>Minister for Transport—</i> THE HON. M. O'SULLIVAN.
<i>Minister for Labour and Industry, and Social Services—</i> THE HON. HAMILTON KNIGHT.	<i>Assistant Ministers—</i> THE HON. C. C. LAZZARINI. THE HON. W. E. DICKSON, M.L.C.

STATE MINISTERS—*continued.*

VICTORIA (2nd April, 1935).

Premier, Treasurer, and Solicitor-General—
THE HON. A. A. DUNSTAN.

*President of the Board of Land and Works,
and Commissioner of Crown Lands and
Survey—*

HON. G. J. TUCKETT, M.L.C.

*Minister of Public Instruction and Minister
of Forests—*

THE HON. A. E. LIND.

*Minister of Water Supply, and Minister-in-
Charge of Electrical Undertakings—*

THE HON. F. E. OLD.

*Minister of Agriculture, Minister of Mines,
and a Vice-President of the Board of Land
and Works—*

THE HON. E. J. HOGAN.

Chief Secretary and Attorney-General—
THE HON. H. S. BAILEY.

*Minister of Labour and Minister of Public
Health—*

THE HON. E. J. MACKBELL.

*Minister of Transport, and a Vice-President
of the Board of Land and Works—*

THE HON. H. J. T. HYLAND.

*Commissioner of Public Works, Minister-in-
Charge of Immigration, and a Vice-
President of the Board of Land and
Works—*

THE HON. SIR GEORGE GOUDIE,
M.L.C.

Ministers without Portfolios—

THE HON. L. R. RODDA, M.L.C.

THE HON. H. PYE, M.L.C.

THE HON. N. A. MARTIN.

QUEENSLAND (17th June, 1932).

Premier and Chief Secretary—

THE HON. W. FORGAN SMITH.

Treasurer—

THE HON. F. A. COOPER.

Secretary for Health and Home Affairs—

THE HON. E. M. HANLON.

Secretary for Agriculture and Stock—

THE HON. F. W. BULOOCK.

*Secretary for Public Works and Secretary
for Public Instruction—*

THE HON. H. A. BRUCE.

Secretary for Labour and Industry

THE HON. T. A. FOLEY.

Minister for Transport—

THE HON. J. LARCOMBE.

Secretary for Mines—

THE HON. D. A. GLEDSON.

Secretary for Public Lands—

THE HON. E. J. WALSH.

Attorney-General—

THE HON. J. O'KEEFE.

SOUTH AUSTRALIA (5th November, 1938).

*Premier, Treasurer, and Minister of
Immigration—*

THE HON. T. PLAYFORD.

*Chief Secretary, Minister of Mines, and
Minister of Health—*

THE HON. A. L. MCEWIN, M.L.C.

*Attorney-General, Minister of Education,
and Minister of Industry and
Employment—*

THE HON. S. W. JEFFRIES.

*Commissioner of Crown Lands, Minister of
Repatriation, and Minister of Irrigation—*

THE HON. R. J. RUDALL.

*Commissioner of Public Works, Minister of
Railways, Minister of Marine, and
Minister of Local Government—*

THE HON. M. MCINTOSH.

*Minister of Agriculture and Minister of
Afforestation—*

THE HON. A. P. BLESING, M.L.C.

STATE MINISTERS—continued.

WESTERN AUSTRALIA (18th April, 1939).

Premier, Treasurer, and Minister for Forests—

THE HON. J. C. WILLCOCK.

Minister for Works, Water Supplies, and Employment—

THE HON. H. MILLINGTON.

Minister for Lands and Agriculture—

THE HON. F. J. S. WISE.

Minister for Labour and Industrial Development—

THE HON. A. R. G. HAWKE.

Minister for Mines and Health—

THE HON. A. H. PANTON.

Chief Secretary and Minister for Education—

THE HON. W. H. KITSON, M.L.C.

Minister for Justice and Railways—

THE HON. E. NULSEN.

Minister for the North-west—

THE HON. A. A. M. COVERLEY.

Honorary Minister—

THE HON. E. H. GRAY, M.L.C.

TASMANIA (18th December, 1939).

Premier and Minister for Education—

THE HON. R. COSGROVE.

Treasurer—

THE HON. E. DWYER-GRAY.

Attorney-General and Assistant Minister for Education—

THE HON. J. McDONALD, M.L.C.

Minister for Lands, Works, and Mines—

THE HON. T. H. DAVIES, D.S.O., M.C.

Minister for Agriculture, Forestry, and Agricultural Bank—

THE HON. T. G. de L. D'ALTON.

Chief Secretary and Minister for Transport—

THE HON. E. BROOKER.

*Honorary Ministers—*THE HON. J. F. GAHA, M.L.C.
(Minister for Health).

THE HON. J. L. MADDEN.

THE HON. C. E. CULLEY.

4. *The Course of Legislation.*—The actual legislation by the Commonwealth Parliament up to the end of 1941 is indicated in alphabetical order in "Vol. XXXIX. of the Acts of the Parliament of the Commonwealth of Australia, passed during 1941, with Tables, Appendix and Indexes." A "Chronological Table of Acts passed from 1901 to 1941, 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. 76-84.

§ 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, 1940. 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 interest, and carried out at the request of the Government.

COST OF PARLIAMENTARY GOVERNMENT, 1939-40.

Particulars.	C'wlth.	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	3,000	5,000	(u) 2,000	3,000	33,000
Other salaries ..	1,916	3,781	762	1,815	1,563	866	658	11,361
Other expenses, including maintenance of house and grounds ..	67,079	3,353	6,458	3,128	1,597	3,164	2,897	87,676
Total ..	78,995	12,134	12,220	7,943	8,160	6,030	6,555	132,037
2. <i>Executive Council—</i>								
Salaries of Officers ..	(e)	427	617	30	..	250	(d)	1,324
Other expenses ..	(e)	58	75	59	..	5	(d)	197
Total ..	(e)	485	692	89	..	255	(d)	1,521
3. <i>Ministry—</i>								
Salaries of Ministers ..	19,941	23,420	11,250	11,800	7,750	8,200	6,500	88,861
Travelling expenses ..	3,697	..	(e)	..	..	2,944	2,129	8,770
Other ..	585	1,689	(e)	..	..	..	391	2,665
Total ..	24,223	25,109	11,250	11,800	7,750	11,144	9,020	100,296
4. <i>Parliament—</i>								
A. <i>Upper House :</i>								
President and Chairman of Committees ..	2,000	2,038	1,277	..	800	1,800	300	8,215
Allowance to members ..	36,200	..	6,006	..	6,742	16,700	7,770	73,418
Railway passes ..	5,760	12,176	(f) 9,000	..	1,226	4,121	1,100	33,383
Postage for members ..	1,873	..	224	..	55	140	(e)	2,292
B. <i>Lower House :</i>								
Speaker and Chairman of Committees ..	2,000	2,790	(g) 2,420	1,854	1,400	1,780	350	12,594
Allowance to members ..	75,211	69,319	27,961	34,571	13,377	28,238	11,805	260,482
Railway passes ..	12,000	19,276	(h)	12,341	2,390	7,475	1,650	55,132
Postage for members ..	3,903	2,692	1,172	2,555	320	350	(e)	10,992
O. <i>Both Houses :</i>								
Standing Committee on Public Works—								
Expenses of members ..	..	..	1,219	..	1,900	..	423	3,542
Salaries of staff and contingencies ..	..	702	784	..	1,014	..	75	2,575
Printing—								
<i>Hansard</i> ..	10,500	5,526	3,504	3,057	2,792	2,620	..	27,999
Other ..	12,315	13,136	5,296	1,565	7,781	1,307	2,760	44,160
Reporting staff—								
Salaries ..	11,735	8,631	6,413	3,103	6,441	5,195	..	41,518
Contingencies ..	131	120	80	..	342	95	..	768
Library—								
Salaries ..	6,673	3,185	2,091	1,152	999	50	..	14,150
Contingencies ..	2,670	980	750	691	416	262	90	5,859
Salaries of other officers ..	34,867	27,502	12,360	8,040	7,119	6,845	3,268	100,001
Other ..	22,785	816	..	..	603	309	..	24,513
D. <i>Miscellaneous :</i>								
Fuel, light, heat, power, and water ..	3,098	1,677	1,577	807	2,254	113	..	14,150
Posts, telegraphs, telephones ..	2,812	4,169	..	828	1,196	262	683	35,260
Furniture, stores, and stationery ..	5,269	1,426	1,007	426	7,297	359	..	24,513
Other ..	64,994	4,083	136	2,944	4,566	2,548	209	79,480
Total ..	316,796	180,244	83,277	73,934	71,030	80,569	30,483	836,333

(a) Salary of Lieut.-Governor.
new works, buildings, etc., £48,208.

(b) Including interest and sinking fund on loans, £4,662; and
(c) Included under Governor-General. (d) Duties performed
by Chief Secretary's Department.

(e) Not available separately. (f) Both Houses.
(g) Includes Leader of the Opposition and Leader of the Labour Party. (h) Included with Upper House.
(i) Includes interest and sinking fund, Parliament House, Canberra, £38,016; and maintenance of members' rooms in capital cities, £10,909.

COST OF PARLIAMENTARY GOVERNMENT—*continued.*

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£	£	£	£	£	£	£	£
5. <i>Electoral—</i>								
Salaries	81,529	2,463	1,102	3,148	2,713	4,571	(d)	95,526
Cost of elections, contingencies, etc.	35,679	8,340	34,577	6,909	3,584	5,710	1,762	96,561
Total	117,208	10,803	35,679	10,057	6,297	10,281	1,762	192,087
6. <i>Royal Commissions, Select Committees, etc.</i>	2,251	6,579	657	204	2,280	1,042	649	13,662
Total	2,251	6,579	657	204	2,280	1,042	649	13,662
GRAND TOTAL	539,473	235,354	143,775	104,027	95,517	109,321	48,469	1,275,936
Cost per head of population	1s. 7d.	1s. 8d.	1s. 6d.	2s. 1d.	3s. 2d.	4s. 8d.	4s. 1d.	3s. 8d.

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'wealth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
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TOTAL.

	£	£	£	£	£	£	£	£
1935-36	443,844	189,903	108,448	98,407	78,394	113,083	40,358	1,072,437
1936-37	553,537	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
1938-39	516,455	232,709	114,497	106,942	97,383	113,793	49,270	1,231,049
1939-40	539,473	235,354	143,775	104,027	95,517	109,321	48,469	1,275,936

PER HEAD OF POPULATION.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
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
1938-39	1 6	1 8	1 3	2 1	3 3	4 11	4 2	3 7
1939-40	1 7	1 8	1 6	2 1	3 2	4 8	4 1	3 8

§ 5. Government Employees.

1. Australia, 1939 to 1941.—The following table shows at June in each of the three years 1939, 1940 and 1941, the number of employees of Commonwealth, State and Semi-Government, and Local Government authorities. These include not only administrative employees but also employees in business undertakings, public utilities operated by Governments, and persons engaged on construction of public works, as well as employees in Commonwealth munition factories and in factories connected with Government undertakings and utilities. The particulars include part-time employees except relief and sustenance workers and persons operating non-official post offices :—

GOVERNMENT EMPLOYEES—AUSTRALIA.

15th June—	Commonwealth Government.			State Govt. and Semi- Government Bodies.			Local Government Authorities.(a)			Total.		
	M.	F.	Persons.	M.	F.	Persons.	M.	F.	Persons.	M.	F.	Persons.
1939 ..	56,177	12,335	68,512	245,415	40,920	286,335	60,708	2,786	63,494	362,300	56,041	418,341
1940 ..	66,166	15,358	81,524	240,831	40,757	281,588	53,891	2,763	56,654	360,888	58,878	419,766
1941 ..	82,452	23,686	106,138	247,777	42,755	290,532	49,340	2,804	52,144	379,569	69,245	448,814

(a) Partly estimated.

The figures in all cases exclude personnel of defence forces but include some of the employees of the various instrumentalities who are absent on leave for war service. The increase in number of employees of the Commonwealth is mainly due to establishment of Government munition factories. The diminution in number of employees of State and Semi-Government authorities in 1939-40 was due to a curtailment of peace-time work (mainly construction work) and the expansion in 1940-41 is largely the result of war activities undertaken on behalf of the Commonwealth.

2. Commonwealth and States, etc., June, 1941.—The number of employees of the Commonwealth Government and of the State Governments, Semi-Government and Local Government authorities in each State as at 15th June, 1941, are shown in the following table :—

GOVERNMENT EMPLOYEES AT 15th JUNE, 1941.

Employed by—				Males.	Females.	Persons.
Commonwealth	..	..	..	82,452	23,686	106,138
New South Wales	..	..	..	118,177	16,121	134,298
Victoria	..	..	..	75,041	13,661	88,702
Queensland	..	..	..	45,667	5,752	51,419
South Australia	..	..	..	28,827	4,663	33,490
Western Australia	..	..	..	20,724	3,564	24,288
Tasmania	..	..	..	8,681	1,798	10,479
Total	..	..	..	379,569	69,245	448,814

§ 6. Consular Representatives of Foreign Countries in Australia.

The following tabular statement shows the number of consular representatives of foreign countries in each State at 1st January, 1942 :—

CONSULAR REPRESENTATIVES IN AUSTRALIA AT 1st JANUARY, 1942.

Country.	Number of Consular Representatives in—							Total, Aust.
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.		
Argentine Republic	1	1	..	..	..	..	2
Belgium	3	1	1	1	1	1	8	
Bolivia .. ..	..	..	1	..	..	..	1
Brazil	1	1	..	..	..	..	2
Chile	2	1	..	..	..	..	3
China	4	..	..	..	..	..	4
Colombia .. ..	..	1	..	..	..	..	1
Costa Rica	1	..	..	..	..	..	1
Czechoslovakia	1	1	1	1	1	..	5	
Denmark	2	2	3	1	2	1	11	
Dominican Republic .. ..	..	..	..	1	..	..	1
Ecuador	2	..	1	..	..	..	3
France.. ..	3	..	..	1	1	1	6
Greece	2	2	1	1	2	..	8	
Honduras	2	..	..	..	..	..	2
Latvia	1	1	1	1	..	..	4
Liberia .. ..	..	..	..	1	..	..	1
Netherlands	3	1	4	1	1	1	11	
Nicaragua	1	..	..	..	..	..	1
Norway	3	2	4	3	3	2	17	
Panama	1	1	..	..	..	..	2
Paraguay	1	..	..	..	1	..	2
Peru	1	1	..	1	..	..	3
Poland	2	1	..	..	..	..	3
Portugal	1	1	1	1	1	..	5	
Salvador .. ..	..	1	..	..	..	..	1
Spain .. ..	..	1	..	..	1	..	2
Sweden	4	1	3	3	1	1	13	
Switzerland	1	1	1	..	..	..	3
Thailand	1	..	..	..	..	..	1
United States of America	9	3	1	1	1	..	15	
Venezuela	1	..	..	..	..	..	1
Yugoslavia	1	1	..	..	1	..	3
Total	55	26	23	18	17	7	146	

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

Countries having Consuls-General in Sydney are Argentine Republic, Belgium, Brazil, Chile, China, Costa Rica, Czechoslovakia, Denmark, Ecuador, Greece, Honduras, Netherlands, Nicaragua, Norway, Paraguay, Poland, Sweden, Thailand and United States of America.

The Consuls-General in London for Latvia, Mexico 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 in Australia."

CHAPTER IV. LAND TENURE AND SETTLEMENT.

§ 1. Introduction.

1. **General.**—A comprehensive description of the land tenure systems of the several States is given in Official Year Book No. 4 (pp. 235-333), while later alterations are 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 is given of the various tenures under which Crown lands may be taken up. (See Official 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 1913-1938: Western Lands Act 1901-1937: Prickly Pear Act 1924-1934.	Land Acts 1928-1935: Land (Crown Leases Adjustment) Act 1936: Land (Residence Area) Act 1939.	Land Acts 1910-1937: Upper Burnett and Callide Land Settlement Acts 1923-1932: Prickly Pear Land Acts 1923- 1936: Sugar Workers' Selec- tions Acts 1923-1936: Stock Routes Improvement and Animal and Vegetable Pests Destruction Acts 1936-1938.
CLOSER SETTLEMENT ACTS.		
Closer Settlement Act 1904-1938.	Closer Settlement Act 1938.	Closer Settlement Acts 1906- 1934.
MINING ACTS.		
Mining Act 1906-1935: Mining Leases (Validation) Act 1935.	Mines Acts 1928-1937: Mines (Petroleum) Act 1935: Mines Act 1937.	Mining Acts 1898-1940: Mining for Coal and Mineral Oil Acts 1912-1940: Petroleum Acts 1923-1939: Miners' Home- stead Leases Act 1913-1939: Coal Mining Acts 1925-1940.
SOLDIERS' SETTLEMENT ACTS.		
Returned Soldiers' Settlement Act 1916-1938.	..	Discharged Soldiers' Settlement Acts 1917-1938.
ADVANCES TO SETTLERS ACTS.		
Government Savings Bank Act 1906-1932: Returned Soldiers' Settlement Act 1916-1938: Rural Bank Agency Act 1934: Farmers' Relief Act 1932- 1939: Rural Reconstruction Act 1939: Farmers' Relief (Amendment) Act 1940.	State Savings Bank Acts 1915- 1922: Primary Products Ad- vances Acts 1919-1922: Fruit and Vegetable Act 1928: Farmers Advances Acts and Drought Relief Act 1940.	State Advances Acts 1916-1934: Rural Development Co- ordination of Advances Act 1938: Farmers' Assistance (Debts Adjustment) Acts 1935- 1938: Income (State Develop- ment) Tax Act 1938-1939: Wire and Wire-netting Ad- vances Act 1927: Wire and Wire-netting Advances Act 1933: Marsupial Proof Fencing Acts 1898-1913.

STATE LAND LEGISLATION—*continued.*

South Australia.	Western Australia.	Tasmania.
CROWN LANDS ACTS.		
Crown Lands Act 1929-1940: Pastoral Act 1936-1939.	Land Act 1933-1939.	Crown Lands Act 1935.
CLOSER SETTLEMENT ACTS.		
Crown Lands Act 1929-1940.	Closer Settlement Act 1927.	Closer Settlement Act 1929-1939.
MINING ACTS.		
Mining Act 1930-1931.	Mining Act 1904-1937: Sluicing and Dredging for Gold Act 1899: Petroleum Act 1936-1940: Mines Regulation Act 1906: Mining Development Act 1902-1924: Inspection of Machinery Act 1921: Gold Buyers Act 1921: Coal Mines Regulation Act 1902-1926: Miners' Phthisis Act 1922: Mine Workers Relief Act 1932.	Mining Act 1929: Aid to Mining Act 1927: Mines and Works Regulation Act 1915.
SOLDIERS' SETTLEMENT ACTS.		
Discharged Soldiers' Settlement Act 1934-1940.	Discharged Soldiers' Settlement Act 1918.	Closer Settlement Act 1929-1939.
AGRICULTURAL GRADUATES SETTLEMENT ACTS.		
Agricultural Graduates Act 1922-1938.	..	..
ADVANCES TO SETTLERS ACTS.		
Irrigation Act 1930-1936: Discharged Soldiers' Settlement Act 1934-1940: State Bank Act 1925-1936: Advances to Settlers Act 1930: Agricultural Graduates Act 1922-1938: Loans for Fencing and Water Piping Act 1938-1940: Vermin Act 1931-1939.	Agricultural Bank Act 1934: Rural Relief Fund Act 1935.	State Advances Act 1935: Closer Settlement Act 1929: Unemployed (Assistance to Primary Producers) Relief Act 1930-1934: Farmers' Debt Adjustment Act 1936.

3. **Northern Territory Land Legislation.**—In the Northern Territory of Australia the legislation relating to Crown lands is embodied in the Crown Lands Ordinance 1931-1939: that relating to mining in the Mining Ordinance 1939-1940, the Gold Dredging Act 1899, the Mineral Oil and Coal Ordinance 1922-1923, the Mining Development Ordinance 1939-1940, and the Mines Regulation Ordinance 1939: 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 Ordinance 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 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, which 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 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.
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LEASES AND LICENCES UNDER LAND ACTS.

<p>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.</p>	<p>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).</p>	<p>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.</p>
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CLOSER SETTLEMENT

<p>Sales by Auction and Tender: After-auction Sales and Tenders: Settlement Purchases.</p>	<p>Sales of Land: Conditional Purchase Leases: Conditional Purchase Leases in Mountainous Areas.</p>	<p>Perpetual Lease Selections: Settlement Farm Leases: Perpetual Town, Suburban and Country Leases.</p>
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LEASES AND LICENCES UNDER MINING ACTS.

<p>Holdings under Miners' Rights: Gold-mining Leases: Mineral Leases: Coal and Oil-mining Leases: Business Licences: Residence Areas.</p>	<p>Holdings under Miners' Rights: Gold-mining Leases: Mineral Leases.</p>	<p>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.</p>
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SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.

<p>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.</p>	<p>(Same Tenures as under the Land and Closer Settlement Acts.)</p>	<p>Perpetual Lease Selections: Perpetual Town and Suburban Leases.</p>
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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 and Town of Whyalla: 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: Residence 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 1939-40 the total area for which free grants were prepared was 89 acres. During the same period 15,640 acres were dedicated and permanently reserved, the number of separate dedications being 53.

At 30th June, 1940, the total area reserved, including temporary reserves, was 16,988,304 acres, of which 5,220,414 acres were for travelling stock, 3,743,483 acres pending classification and survey, 2,142,400 acres for forest reserves, 847,915 acres for water and camping, 1,232,311 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 1939, 434 acres were granted without purchase, and reservations of both a permanent and temporary nature, comprising a net area of 2,799 acres, were made. At the end of 1939, the total area reserved was 8,259,898 acres, consisting of roads, 1,794,218 acres; water reserves, 313,237 acres; agricultural colleges, etc., 88,587 acres; permanent forests and timber reserves under Forests Acts, 4,121,871 acres and 723,953 acres respectively; forests and timber reserves under Land Acts, 330,027 acres; reserves in the Mallee, 410,000 acres; and other reserves, 478,005 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 1939 the area granted in fee-simple without payment was 75 acres, the area set apart as reserves 225,479 acres, and reserves cancelled 235,514 acres. The total area reserved including roads at the end of 1939 was 21,039,746 acres, made up as follows:—Timber reserves, 3,192,980 acres; State forests and national parks, 3,545,268 acres; for use of aborigines, 5,595,735 acres; streets, surveyed roads and surveyed stock routes, 2,945,564 acres; and general, 5,760,199 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 1939-40 free grants were issued for an area of 232 acres, and reserves comprising 613,929 acres were proclaimed. At 30th June, 1940, the total area of surveyed roads, railways and other reserves was 19,833,158 acres, including 16,726,400 acres in the north-west of the State set apart as an aboriginal reserve in 1921, and 595,200 acres at Ooldea, adjoining the transcontinental railway, reserved for a similar purpose in 1940.

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 by the Governor for periods up to 10 years. 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, 1940, a few small areas of land were granted in fee-simple, and approximately 665,930 acres were reserved for various purposes. At 30th June, 1940, the total area reserved was 49,107,358 acres, comprising State forests, 3,311,000 acres, timber reserves, 1,768,000 acres, and other reserves, 44,028,358 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 1939 was 1,650,000 acres, excluding 18,100 acres of land occupied by Commonwealth and State Departments.

7. *Northern Territory.*—(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 30th June, 1940, was 69,243 square miles, comprising aboriginal native, 67,244 square miles; and other reserves, 1,999 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 £3, £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 ten 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 $\frac{1}{2}$ 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, 1940, the total area sold was 4,887 acres, of which 115 acres were sold by auction and 94 acres as after-auction purchases, while 51 acres were sold as improvement purchases and 4,627 acres as special purchases including unnecessary alienated roads, 4,275 acres. The amount realized for the sale of the whole area was £75,280.

2. *Victoria.*—(i) *General.* Lands, not exceeding 100,000 acres in any one year, specially classed for sale by auction may be sold by auction in fee-simple 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 150 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 1939, a total of 1,238 acres was disposed of under this tenure, 412 acres being country lands, while 826 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 1939, five unconditional selections comprising 3,234 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 two 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 six years without the consent of the Commissioner. If the Commissioner of Crown Lands so determines, town lands may also be offered at auction on terms that the buyer may at his option purchase the lands for cash or on agreement for sale and purchase.

(ii) *Areas Sold, etc.* During the year ended 30th June, 1940, the area of town lands and special blocks sold by auction was 44 acres. In addition, 14,925 acres were sold at fixed prices, and the purchases of 51,554 acres on credit were completed, making a total of 66,523 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 two years, and no Crown grant may be issued until the land is fenced.

(ii) *Areas Sold.* During the year ended 30th June, 1940, the area of town and suburban allotments sold by auction was 800 acres in 253 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 30th June, 1940, the total number of conditional purchases in existence was 46,658, covering an area of 15,515,643 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, 1940, 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.
		Acres.		Acres.	Acres.	Acres.
1940	72	17,336	58	9,224	946,646	29,256,702

(a) Excluding 437 conversions from other tenures comprising 94,743 acres.

3. **Victoria.**—Exclusive of selection in the Mallee country, the total area purchased conditionally in 1939 was 46,333 acres, comprising 46,063 acres with residence and 270 acres without residence. The number of selectors was 215. The total area of Mallee country purchased conditionally in the same year was 2,228 acres, all with residence, the number of selectors being 6.

In addition the final payments were made during the year on conditional purchases comprising 75 acres in country other than Mallee and 372 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 1st December, 1932, precludes land being made available under any freehold tenure.

(ii) *Areas Sold, etc.* The following selections were made freehold during 1939.—Agricultural Farms, 289,625 acres; Agricultural Homesteads, 1,839 acres; and Prickly Pear Selections, 22,367 acres.

5. **South Australia.**—The land allotted under agreements to purchase during 1939-40 was 22,478 acres, comprising Eyre's Peninsula Railway lands 71 acres, Murray Railway lands 112 acres, Pinnaroo Railway lands, 2,180 acres, closer settlement lands 11,750 acres, soldiers' acquired lands 5,569 acres, surplus lands 1,753 acres, and other Crown lands 1,043 acres.

6. **Western Australia.**—During the year ended 30th June, 1940, the number of holdings conditionally alienated was 533, the total area involved being 304,413 acres, comprising conditional purchases by deferred payments with residence and without residence of 281,686 and 2,658 acres respectively, and free homestead farms 20,069 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 15,187 acres and conditional purchases 371,383 acres.

7. **Tasmania.**—During 1939, conditional purchases of 16,640 acres were completed. The total area sold conditionally was 12,988 acres, comprising selections for purchase 12,714 acres, and town and suburban allotments 274 acres. The numbers of applications received and confirmed during the year were 142 and 65 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. 149-63).

2. **New South Wales.**—On 30th June, 1940, 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 111,221,891 acres of Crown lands, compared with 111,347,567 acres at the close of the previous year.

The following table shows the areas which were granted under lease or licence during 1939-40, 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, 1939-40.(a)

Particulars.	Area taken up during the year.	Area occupied at end of the year.
<i>Areas taken up under Crown Lands Act.</i>	<i>Acres.</i>	<i>Acres.</i>
Occupation licences—ordinary .. .. .	..	962,929
preferential .. .. .	..	491,282
Conditional leases	10,302	11,661,970
Conditional purchase leases	720	175,619
Settlement leases .. .. .	..	2,808,237
Improvement leases .. .. .	..	100,925
Annual leases	23,768	534,130
Scrub leases	24,620	116,096
Snow leases	3,430	439,767
Special leases	113,454	1,028,182
Inferior land leases .. .. .	..	25,513
Residential leases (on gold and mineral fields)	214	3,547
Church and school lands .. .. .	..	11
Permissive occupancies	129,790	1,764,538
Prickly pear leases	7,720	179,573
Crown leases	116,978	7,188,885
Homestead farms	14,712	4,502,923
Homestead selections and grants	363	1,667,198
Suburban holdings	618	53,843
Week-end leases	17	211
Leases of town lands	1	60
Returned soldiers' special holdings .. .. .	..	15,146
Irrigation areas .. .. .	..	260,396
<i>Leases and Permissive Occupancies under Western Lands Act.</i>		
Leases being issued .. .. .	..	80,319
Perpetual leases	171,028	45,948,087
Other long-term leases		31,018,520
Permissive occupancies		193,984
Total	750,258	111,221,891

(a) Excluding mining leases and forest leases and occupation permits.

3. **Victoria.**—During 1939 Crown lands taken up under leases and licences comprised 80 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 1939 was 8,116,729 acres (an increase of 14,441 acres compared with the previous year) comprising grazing licences (exclusive of Mallee) 5,969,243 acres, Mallee lands 2,046,723 acres, auriferous lands (licences) 21,988 acres, swamp lands (leases) 3,911 acres, perpetual leases (other than Mallee) 4,977 acres and perpetual leases (Mallee) under Land Act 1928, 69,887 acres.

4. **Queensland.**—The total area taken up under lease or licence during 1939, including land in the Dawson Valley Irrigation Area, was 14,192,044 acres, made up as follows :—Pastoral leases 11,187,880 acres; occupation licences 805,200 acres; grazing farms (all classes), 601,081 acres; grazing homesteads (all classes), 1,215,536 acres, perpetual lease selections 42,061 acres; perpetual lease prickly pear selections 1,796 acres; perpetual lease prickly pear development selections 30,594 acres; auction perpetual leases—town 114 acres, suburban 83 acres, and country 352 acres; special leases 36,071 acres; leases of reserves 28,556 acres; and forest grazing leases 242,720 acres.

The total area of 14,192,044 acres taken up in 1939 includes 1,023,161 acres under grazing homestead tenure, surrendered and re-opened under a scheme for the relief of north-western grazing selectors.

The gross area held at the end of 1939 under pastoral tenure was 393,512 square miles.

The total areas occupied under lease or licence will be found in § 11 below.

5. **South Australia.**—The total area leased during 1939-40 under the different forms of lease tenure was 1,610,896 acres, made up as follows:—Perpetual leases—irrigation and reclaimed lands 1,328 acres, surplus lands 3,719 acres, town lands (Whyalla) 7 acres, and other Crown lands 130,792 acres; pastoral leases 1,210,880 acres; and miscellaneous leases—grazing and cultivation 264,170 acres.

The total areas held under lease are given in § 11 below.

6. **Western Australia.**—The number of leases issued by the Lands Department during the year ended 30th June, 1940, was 875 and the total area of leases issued 5,065,878 acres, comprising pastoral leases 4,926,450 acres, special leases (including leases under Section 116 of the Land Act 1933-1939 for grazing purposes) 36,392 acres, leases of reserves 102,236 acres, and residential leases 800 acres.

The total areas leased are given in § 11 below.

7. **Tasmania.**—The area of pastoral leases issued during 1939 was 136,200 acres.

The total areas leased are given in § 11 below.

8. **Northern Territory.**—The total area held under lease, licence and permit at 30th June, 1940, was 209,686 square miles, comprising pastoral leases 160,934 square miles, pastoral permits 696 square miles, grazing licences 45,060 square miles, agricultural leases 118 square miles, mission leases, 2,816 square miles, and miscellaneous leases 62 square miles.

9. **Australian Capital Territory.**—The number of leases granted under the City Area Leases Ordinance 1936-1938 to 30th June, 1940 (excluding leases surrendered and determined), was 495, representing a capital value of £222,568. During the year 67 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 1939-40:—

AREAS TAKEN UP UNDER MINING ACTS: NEW SOUTH WALES, 1939-40.

Purposes for which Issued or Occupied.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining	3,160	18,355
Mining for other minerals	12,124	177,716
Authorities to prospect	12,704	15,532
Other purposes	332	7,507
Total	28,320	219,110

The area of land held under lease only at 30th June, 1940, was 189,086 acres.

3. **Victoria.**—During 1939, 250 leases, licences, etc. (including 133 for gold-mining) were issued covering an area of 171,622 acres, the rent, fees, etc., for which amounted to £1,703. The area occupied at the end of the year was 351,715 acres, comprising 62,201 acres for gold, 272,602 acres for oil, 12,511 acres for coal (including State Coal-mine area of 7,575 acres and State Electricity Commission area of 2,800 acres) and 4,401 acres for miscellaneous purposes.

4. **Queensland.**—During 1939, the number of miners' rights issued was 5,066, and of business licences 7. The following table gives particulars regarding the areas of lands taken up under lease or licence and the total areas occupied for 1939. In addition, an area estimated at 25,000 acres was at the end of 1939 held under miners' rights and dredging claims.

AREAS TAKEN UP UNDER MINING ACTS : QUEENSLAND, 1939.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining	1,098	5,603
Mining for other minerals	2,141	22,904
Miners' homestead leases	6,370	388,526
Petroleum-prospecting permits	20,000	48,435
Mineral oil prospecting areas	3,805	4,265
Total	33,414	469,733

The area of land held under lease only at 31st December, 1939, was 417,033 acres.

5. **South Australia.**—The following table gives particulars of operations for 1939—40.

AREAS TAKEN UP UNDER MINING ACTS : SOUTH AUSTRALIA, 1939—40.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining leases	95	931
Mineral and miscellaneous leases	3,864	57,606
Claims	8,434	12,894
Search licences	7,040	7,040
Occupation licences	1	46
Total	19,434	78,517

6. **Western Australia.**—The following table gives particulars of operations for 1939, the figures being exclusive of holdings under miners' rights and mineral oil licences. Of the areas shown as taken up in 1939, the area under lease was 5,112 acres for gold-mining, 141 for mining for other minerals, 213 for miners' homesteads, and 197 for miscellaneous—a total of 5,663 acres. The balance was taken up under licences.

AREAS TAKEN UP UNDER MINING ACTS : WESTERN AUSTRALIA, 1939.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining	46,763	56,538
Mining for other minerals	10,599	48,975
Other purposes	496	38,822
Total	57,858	144,335

7. **Tasmania.**—During 1939, the number of leases issued was 157, of which 17 were for gold-mining, covering 338 acres; and 52 for tin-mining, covering 581 acres. The following table gives particulars for 1939 :—

AREAS TAKEN UP UNDER MINING ACTS : TASMANIA, 1939.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining	556	1,851
Mining for other minerals	2,017	19,218
Licences to search for coal or oil .. .. .	..	1,180
Mining for coal	65	5,793
Other purposes	592	3,305
Total	3,230	31,347

8. **Northern Territory.**—At 30th June, 1940, there existed 15 mineral leases comprising 272 acres, and 25 gold-mining leases, comprising 892 acres. There were also 236 gold-mining lease applications for 6,451 acres, 145 mineral-mining lease applications for 3,834 acres, 4 dredging lease applications for 660 acres, 65 gold claims for 778 acres, 38 mineral claims for 554 acres, 11 machinery and tailings areas for 33 acres, and other areas held under mining lease amounted to 672 acres, including mineral-prospecting areas, 400 acres, and gold-prospecting areas, 120 acres.

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 1937 to 1939 :—

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	1,793,028f	196,521	47,975	23,910	3,013,855
1937 ..	25,295	299,112	108,319	(a) 25,613	67,947	8,154	534,440
1938 ..	26,246	102,129	39,199	(a) 27,176	64,380	5,325	264,455
1939 ..	28,320	171,622	33,414	(a) 19,434	57,838	3,230	313,858

TOTAL AREAS OCCUPIED AT END OF YEAR.

1923 ..	299,688	47,361	444,586	653,899	127,829	77,627	1,650,990
1928 ..	310,497	39,904	2,810,262	242,688	132,536	54,362	3,590,249
1937 ..	207,287	426,583	524,089	(a) 84,770	155,169	44,271	1,442,169
1938 ..	217,036	275,909	541,485	(a) 100,745	155,252	34,893	1,325,320
1939 ..	219,110	351,715	469,733	(a) 78,517	144,335	31,347	1,294,757

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

§ 7. Closer Settlement.

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

2. New South Wales.—Since the inception of closer settlement in 1905, 1,854 estates totalling 4,145,032 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, 1940, 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.	£	£	£
1940 ..	4,145,032	205,541	4,350,573	15,107,573	355,637	15,463,210

(a) Including 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 30th June, 1940 :—

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.	£	£
1940	9,039	4,178,016	14,139,354	12,492,376

3. Victoria.—The Closer Settlement Commission was abolished as from 31st December, 1938, and land settlement was placed under the control of the Department of Lands and Survey. On 31st March, 1939, all Closer Settlement and Discharged Soldiers' accounts were amalgamated, the settlers' accounts adjusted and the new debt made payable over an extended period. As separate details are not now available, the following statement shows the operations under the provisions of the Closer Settlement Acts to 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.						Number of Farms, etc.	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.					
	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	14,297,432	4,779,268	1,006	

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

(b) Including all land sold other than under

In the foregoing 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 30th June, 1940 :—

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.				
1940 ..	Acres. 830,758	Acres. 468,810	Acres. 233	Acres. 1,256	Acres. 69,468	Acres. 15,068	Acres. 252,044	Acres. 23,879

The total area re-purchased at 30th June, 1940, was 925,301 acres at a cost of £2,887,638. 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, 806,879 acres have been allotted to 2,778 persons, the average area to each being 290 acres.

6. **Western Australia.**—The total area acquired for closer settlement up to 30th June, 1940, was 905,713 acres, costing £1,180,443. Of this area, 21,088 acres have been set aside for roads, reserves, etc., leaving a balance of 884,625 acres available for selection. Particulars of operations under the Act for the year ended 30th June, 1940, are as follows :—Area selected during the year 14,609 acres; number of farms, etc., allotted to date 1,643; total area occupied to date 754,013 acres; balance available for selection 130,612 acres; and total revenue £972,446.

7. **Tasmania.**—Up to 30th June, 1940, 37 areas had been opened up for closer settlement. The total purchase-money paid by the Government was £368,210 and the total area acquired amounted to 102,335 acres, including 12,053 acres of Crown Lands. The number of farms occupied at 30th June, 1940, was 275.

§ 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. 1016-23, and No. 18, pp. 187-9). 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 following paragraphs.

2. **New South Wales.**—At 30th June, 1940, 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 30th June, 1940, was 9,704. Five thousand and eighty-two soldiers have either transferred or abandoned their farms, leaving 4,622 in occupation of 6,849,914 acres, of which 5,495,379 acres were Crown lands (including 3,241,576 acres in the Western Division taken up under the Western Lands Act), 1,271,960 acres acquired lands, and 82,575 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 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 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 30th June, 1938, was 8,426 (including 1,001 originally purchased for closer settlement) containing 1,734,379 acres. Later particulars cannot be given, as separate details are not available.

4. **Queensland.**—At 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 30th June, 1940, 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 30th June, 1940, was 4,185, and the area of farms, etc. (including mortgages discharged), on which assistance had been granted was 2,746,744 acres. At 30th June, 1940, farms, etc., occupied numbered 1,705 containing 1,129,480 acres.

6. **Western Australia.**—At 30th June, 1940, 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 30th June, 1940, assistance had been given to 5,213 returned soldiers, and the Agricultural Bank held 3,117 properties as security for advances. The area held, including pastoral leases, was approximately 25,830,000 acres, and advances approved amounted to £6,737,693. The number of farms, etc., occupied by returned soldiers at 30th June, 1940, was 1,704.

7. **Tasmania.**—At 30th June, 1940, the area acquired or set apart for soldier settlement was 342,405 acres, of which 273,040 acres comprised private land purchased at a cost of £2,072,298. Up to 30th June, 1940, the number of settlers to whom farms, etc., had been allotted was 2,380, and the number of farms, etc., allotted was 1,479 containing 338,336 acres. The number of farms, etc., occupied at 30th June, 1940, was 1,579 containing 229,490 acres.

8. **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 $3\frac{1}{2}$ per cent. in the first year, increasing by $\frac{1}{2}$ 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, namely, a rebate of interest equal to $2\frac{1}{2}$ 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). All tenure of land by aliens is now subject to the following regulations:—National Security (Land Transfer) Regulations 1940; National Security (Economic Organization) Regulations, 1942.

§ 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 appears 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, 1940 :—

ADVANCES TO SETTLERS : NEW SOUTH WALES.

Advances.	Advances made during 1939-40.	Total Advances at 30th June, 1940.	Amount outstanding at 30th June, 1940.	
			Number of Loans Current.	£
Department of Lands—	£	£		
Closer and Soldier Land Settlement	18,072	15,112,345	8,569	12,033,416
Soldier Settlers	285	43,195,874	2,111	957,261
Wire Netting	6,825	1,429,830	3,751	382,042
Prickly Pear	7,947	133,038	496	19,185
Rural Bank—				
Rural Bank Department	1,037,453	35,153,194	15,649	15,549,833
Government Agency Department—				
Necessitous Farmers	183,164	6,125,625	3,019	1,036,156
Unemployment Relief and Dairy Promotion	34,418	1,311,145	4,068	803,421
Rural Reconstruction (b)	686,229	4,734,077	4,109	1,523,270
Shallow Boring	30,652	818,704	1,112	266,045
Irrigation Areas	97,046	(c)	(c)	1,652,349
Government Guarantee Agency ..	4,588	27,867	12	6,631
Closer Settlement Agency	146,140	154,215	115	153,014
Total	2,252,819	68,195,914	(d) 43,011	34,382,623

(a) In addition, the sum of £1,915,423 has been expended on developmental works on soldiers' settlements. (b) Including Debt Adjustment Advances (Commonwealth Moneys); amount outstanding, £1,730,093. (c) Not available. (d) Incomplete.

3. **Victoria.**—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1940 :—

ADVANCES TO SETTLERS : VICTORIA.

Advances.	Advances made during 1939-40.	Total Advances at 30th June, 1940.	Amount outstanding at 30th June, 1940.	
			Number of Persons.	£
Credit Foncier—	£	£		
Civilians	153,185	11,010,505	4,319	4,089,160
Discharged Soldiers	1,420	843,370	382	349,783
Treasurer—				
Cool Stores, Canneries, etc. .. ..	..	617,282	(a) 17	297,287
Department of Lands and Survey—				
Closer Settlement Settlers and Soldier Settlers	1,140	46,904,610e	10,110	13,444,678
Cultivators of Land	34,688	1,826,044	1,649	331,008
Wire Netting	12,334	563,375	(d)	211,709
Total	202,767	61,765,186	(e) 16,477	18,723,625

(a) Companies and Co-operative Societies. (b) Including arrears of principal and interest, but excluding amounts written off debts and adjustments for revaluations. (c) Represents consolidated debts of settlers (Section 30, Act 4091). (d) Not available. (e) Incomplete.

4. **Queensland.**—The following table gives particulars of advances to 30th June, 1940. The figures are exclusive of transactions in land.

ADVANCES TO SETTLERS : QUEENSLAND.

Advances.	Advances made during 1939-40.	Total Advances at 30th June, 1940.	Amount outstanding at 30th June, 1940.	
			Number of Persons.	£
	£	£		
Bureau of Rural Development ..	255,546	8,307,852	4,590	1,710,467
Discharged Soldiers' Settlement (a) ..	2,581	2,454,769	1,468	487,550
Water Facilities .. .. .	..	58,079	249	31,761
Wire Netting, etc.	11,535	1,016,518	3,276	440,503
Seed Wheat	915	(b) 118,714	(c)	13,269
Drought Relief .. .. .	..	294,458	(c)	76,141
Income (Unemployment Relief and State Development) Tax Acts (d) ..	73,276	978,013	4,766	600,119
Irrigation .. .. .	..	54,914	163	29,092
Other .. .. .	..	1,843	42	683
Total	343,853	13,285,160	(e) 14,554	3,389,585

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

5. **South Australia.**—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1940 :—

ADVANCES TO SETTLERS : SOUTH AUSTRALIA.

Advances.	Advances made during 1939-40.	Total Advances at 30th June, 1940.	Amount outstanding at 30th June, 1940.		Arrears of Interest at 30th June, 1940.
			Number of Persons.	£	
Department of Lands—	£	£			£
Advances to soldier settlers ..	43,548	4,616,702	958	2,741,878	449,691
Advances to blockholders ..	..	41,451	4	13	..
Advances for sheds and tanks ..	..	75,693	284	39,841	12,007
Advances under Closer Settlement Acts	40,208	2,476,154	1,356	1,378,674	77,629
Advances under Agricultural Graduates Settlement Act ..	4,830	61,030	35	57,502	1,544
Farmers Assistance Board—					
Advances in drought-affected areas	136	2,045,348	832	485,606	93,320
Advances under Farmers Relief Acts	167,938	4,112,536	1,258	502,224	8,584
Irrigation Branch—					
Advances to civilians	1,957	273,574	401	109,943	45,084
Advances to soldier settlers ..	1,345	1,062,749	747	919,672	222,307
State Bank of South Australia (C. F. Department)	62,425	5,076,935	1,725	891,085	19,936
Advances to Primary Producers ..	93,564	978,315	381	917,989	1,857
Advances to settlers for improvements	12,773	911,136	3,141	265,493	75,079
Advances under Vermin and Pencing Acts	4,800	1,369,618	3,409	403,631	50,133
Advances under Loans to Producers Act	12,110	337,445	332	256,932	8,112
Total	445,634	23,438,686	14,863	8,973,483	1,065,283

6. Western Australia.—The following table gives particulars respecting advances etc., under State Authorities to 30th June, 1940 :—

ADVANCES TO SETTLERS : WESTERN AUSTRALIA.

Advances.	Advances made during 1939-40.	Total Advances at 30th June, 1940.	Amount outstanding at 30th June, 1940.	
			Number of Persons.	£
	£	£		
Development loans	(a) 122,833	10,289,009	6,362	5,407,792
Soldier settlement loans	9,465	66,089,723	3,117	3,929,302
Cropping advances	(c) 112,017	13,667,562	1,163	319,826
Group Settlement Advances	6,383	6,271,992	1,651	1,325,684
Repurchased Estates—				
Under A.L.P. Act 1909 .. ..	..	575,368	294	50,767
Soldier Settlement .. .. .	..	605,076	682	97,947
Wire and Wire-netting Advances ..	872	511,648	2,504	451,261
Total	251,570	38,010,378	15,773	11,582,579

(a) Including £70,929 transferred capital to Agricultural Bank from Industries Assistance Board.
 (b) Including capitalization of interest to principal. (c) Including all advances made under Drought Relief Assistance and losses incurred.

7. Tasmania.—The following table gives particulars respecting advances under State Authorities to 30th June, 1940. 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 1939-40.	Total Advances at 30th June, 1940.	Amount outstanding at 30th June, 1940.	
			Number of Persons.	£
	£	£		
Agricultural Bank—				
State Advances Act and Rural Credits	102,199	1,013,051	1,341	351,648
Orchardists' Relief, 1926 .. ..	..	46,832	49	1,830
Unemployed (Assistance to Primary Producers) Relief Act 1930-1934 ..	..	114,302	767	48,149
Bush Fire Relief Act 1934 .. ..	..	14,855	213	5,285
Flood Sufferers' Relief Act 1929 ..	..	35,523	84	6,244
Crop Losses, 1934-35 .. .. .	..	10,086	160	3,094
Minister for Agriculture—				
Soldier Settlers—				
Advances	18,165	825,719	1,156	79,795
Purchase of Estates, etc. (a) ..	27,551	2,450,699	(b) 1,426	1,310,998
Closer Settlers—				
Advances	12,415	84,045	207	44,182
Purchase of Estates, etc. (a) ..	2,959	476,719	(b) 306	378,277
Total	163,289	5,071,831	5,714	2,229,502

(a) Not regarded as an outstanding by the State. (b) Number of leaseholders including those to whom advances have been made.

8. **Northern Territory.**—During the financial year 1939-40 the amount of £2 was advanced, the total amount advanced to 30th June, 1940, being £24,969 (approximately). The balance outstanding from 36 settlers, at 30th June, 1940, including interest, was £6,210.

9. **Summary of Advances.**—The following table gives a summary for each State and the Northern Territory to the 30th June, 1940. 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 1939-40.	Total Advances at 30th June, 1940.	Amount outstanding at 30th June, 1940.	
			Number of Persons.	£
	£	£		
New South Wales	2,252,819	68,195,914	43,011	34,382,623
Victoria	202,767	61,765,186	16,477	18,723,625
Queensland	343,853	13,285,160	14,554	3,389,585
South Australia	435,634	23,438,686	14,863	8,973,483
Western Australia	251,570	38,010,378	15,773	11,582,579
Tasmania	163,289	5,071,831	5,714	2,229,502
Northern Territory	2	24,969	36	6,210
Total	3,649,934	209,792,124	110,428	79,287,607

§ 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 1929 onward appear in *Production Bulletin*, No. 34, Part II., 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, 24.9 per cent. had been alienated at 30th June, 1940, 9.6 per cent. was in process of alienation, 57.4 per cent. was held under leases and licences, and the remaining 8.1 per cent. was unoccupied or held by the Crown.

The following table gives particulars for the year ended 30th June, 1940 :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : NEW SOUTH WALES,
30th JUNE, 1940.**

Particulars.	Acres.	Particulars.	Acres.
1. Alienated.			
Granted and sold prior to 1862 ..	7,145,579		
Sold by auction and other sales, 1862 to date ..	15,114,205		
Conditionally sold, 1862 to date	29,256,702		
Granted under Volunteer Land Regulations, 1867 to date ..	172,198		
Granted for public and religious purposes ..	261,442		
	51,951,126		
Less lands resumed or reverted to Crown ..	2,687,616		
Total ..	49,263,510		
2. In Process of Alienation.			
Conditional purchases ..	15,515,643		
Closer settlement purchases ..	2,923,291		
Soldiers' group purchases ..	410,345		
Other forms of sale ..	136,924		
Total ..	18,986,203		
		3. Held under Leases and Licences.	
		Homestead selections and grants ..	1,667,198
		Alienable leases, long-term and perpetual ..	26,566,008
		Other long-term leases ..	78,500,773
		Short-term leases and temporary tenures ..	4,487,912
		Forest leases and occupation permits ..	2,215,924
		Mining leases and permits ..	189,086
		Total ..	113,626,901
		4. Unoccupied (a). Particulars of Lord Howe Island not being available the area, 3,220 acres, is included under unoccupied, (Approximate) ..	16,160,486

Area of State—198,037,100 acres.

(a) Of this area only 3,023,614 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 Victoria is 56,245,800 acres, of which 49.4 per cent. had been alienated up to the end of 1939; 9.6 per cent. was in process of alienation under deferred payments and closer settlement schemes; 15.0 per cent. was occupied under leases and licences; and 26.0 per cent. was unoccupied or held by the Crown.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : VICTORIA,
31st DECEMBER, 1939.**

Particulars.	Acres.	Particulars.	Acres.
1. Alienated ..	27,762,315		
2. In Process of Alienation—		3. Leases and Licences held—	
Exclusive of Mallee and Closer Settlement Lands ..	1,085,681	Under Lands Department—	
Mallee Lands (exclusive of Closer Settlement Lands) ..	3,729,578	Perpetual Leases ..	74,864
Closer Settlement Lands ..	564,632	Other Leases and Licences	25,899
Village Settlements ..	37	Temporary (Yearly) Grazing Licences ..	8,015,966
		Under Mines Department ..	351,715
Total ..	5,379,928	Total ..	8,468,444
		4. Occupied by the Crown or Unoccupied (a) ..	14,635,113

Total area of State—56,245,800 acres.

(a) These Crown lands comprise reservations for roads and for various public purposes, 7,695,269 acres; water frontages, beds of rivers, lakes, etc., and unsold land in cities, towns and boroughs 4,199,694 acres; and other lands (unoccupied) 2,740,150 acres.

4. **Queensland.**—The total area of this State is 429,120,000 acres, of which, on 31st December, 1939, 4.8 per cent. was alienated; 1.7 per cent. was in process of alienation; and 79.7 per cent. was occupied under leases and licences. The remainder, 13.8 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, 1939.**

Particulars.	Acres.	Particulars.	Acres.
1. Alienated—		3. Occupied under Leases and Licences—	
By Purchase	20,606,342	Pastoral Leases	242,583,160
Without Payment	92,003	Occupation Licences	7,737,200
		Grazing Selections and Settlement Farm Leases	82,432,179
		Leases—Special Purposes	1,105,284
		Under Mines Department	425,366
		Perpetual Lease Selections	
		Perpetual Lease Prickly	
		Pear Selections and Irriga-	
		tion Leases	6,225,174
		Auction Perpetual Leases, etc.	27,384
		Prickly Pear Leases	23,960
		Forest Grazing Leases (or	
		Reserves)	1,503,360
Total	20,698,345	Total	342,063,067
2. In Process of Alienation	7,154,214	4. Reserves, Surveyed Roads and Surveyed Stock Routes	18,921,503
		5. Unoccupied	40,282,871

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

5. **South Australia.**—The area of South Australia is 243,244,800 acres and at 30th June, 1940, 5.2 per cent. was alienated; 0.9 per cent. in process of alienation; 51.6 per cent. occupied under leases and licences; and 42.3 per cent. unoccupied or occupied by the Crown.

The subjoined table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : SOUTH AUSTRALIA,
30th JUNE, 1940.**

Particulars.	Acres.	Particulars.	Acres.
1. Alienated—		3. Held under Lease and Licence—	
Sold	12,354,869	Right of Purchase Leases	727,338
Granted for Public Purposes	184,164	Perpetual Leases, including	
		Irrigation Leases	16,581,166
		Pastoral Leases	105,912,780
		Other Leases and Licences	2,272,295
		Mining Leases and Licences	78,517
Total	12,539,033	Total	125,572,096
2. In process of Alienation	2,249,513	4. Area Unoccupied (a)	102,884,158

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

(a) Including surveyed roads, railways and other reserves, 19,883,158 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 30th June, 1940, 2.9 per cent. was alienated; 2.3 per cent. was in process of alienation; and 33.5 per cent. was occupied under leases and licences issued either by the Lands or the Mines Departments. The balance of 61.3 per cent. was unoccupied.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS : WESTERN AUSTRALIA
30th JUNE, 1940.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i>	18,244,428	3. <i>Leases and Licences in Force</i> —	
2. <i>In process of Alienation</i> —		(i) Issued by Lands Department—	
Midland Railway Concessions ..	54,800	Pastoral Leases ..	204,950,557
Free Homestead Farms ..	582,388	Special Leases ..	710,229
Conditional Purchases ..	5,532,686	Leases of Reserves ..	1,292,645
Selections from the late W. A. Company ..	5,297	Residential Lots ..	5,250
Selections under the Agricultural Lands Purchase Act ..	438,368	(ii) Issued by Mines Department—	
Homestead or Grazing Leases ..	7,559,822	Gold-mining Leases ..	24,379
Poison Land Leases or Licences ..	16,089	Mineral Leases ..	38,517
Town and Suburban Lots ..	3,216	Miners' Homestead Leases ..	30,813
		(iii) Issued by Forests Department—	
		Timber Permits ..	2,327,371
		Total	209,379,761
Total	14,192,666	4. <i>Area Unoccupied (a)</i> ..	382,771,945

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

(a) Including reservations for roads and for various public purposes, 49,166,973 acres.

7. *Tasmania*.—At the end of 1939, 35.1 per cent. of the total area had been alienated ; 2.6 per cent was in process of alienation ; 15.9 per cent was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement ; the remainder (46.4 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, 1939.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i>	5,892,564	3. <i>Leases and Licences</i> —continued.	
2. <i>In Process of Alienation</i> ..	433,325	(i) Issued by Lands Department—continued.	
3. <i>Leases and Licences</i> —		Soldier Settlement ..	106,000
(i) Issued by Lands Department—		Short-Term Leases ..	131,000
Islands ..	104,894	Other ..	21,460
Ordinary Leased Land ..	1,888,740	(ii) Issued by Mines Department	31,347
Land Leased for Timber ..	297,481		
Closer Settlement ..	80,000	Total	2,660,922
		4. <i>Area Occupied by the Crown or Unoccupied (a)</i>	7,791,189

Total area of State—16,778,000 acres.

(a) Including 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 30th June, 1940, only 0.1 per cent. was alienated ; 40.1 per cent. was held under leases and licences ; 13.3 per cent. was reserved for aboriginal, defence and public requirements ; and the remaining 46.5 per cent. was unoccupied.

The following shows the mode of occupancy of areas at 30th June, 1940 :—

**ALIENATION AND OCCUPATION OF CROWN LANDS : NORTHERN TERRITORY,
30th JUNE, 1940.**

Particulars.						Acres.
1. Alienated	..	..	..	..	..	477,584
2. Leased—						
Pastoral Leases	..	..	..	..	..	102,997,920
Other leases, licences and mission stations	..	..	..	..	..	31,201,414
Total	..	..	..	..	..	134,199,334
3. Reserves—						
Aboriginal, defence and public requirements	..	..	..	..	..	44,315,482
4. Unoccupied and Unreserved	..	..	..	..	..	156,124,400
5. 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 1939 are as follows :— Alienated 54,009 acres; in process of alienation 52,109 acres; leased 319,460 acres; and unoccupied 157,213 acres. The area of acquired lands was 213,854 acres. The total area of the Territory (exclusive of Jervis Bay area, 18,000 acres) is approximately 582,800 acres.

Alienated land at the end of 1939 comprised 9.0 per cent. of the total area, land in process of alienation 8.7 per cent., land held under lease 53.2 per cent., and unoccupied land 29.1 per cent. of the total area.

10. **Summary.**—The following table gives a summary for each State and Territory of the alienation and occupation of Crown lands :—

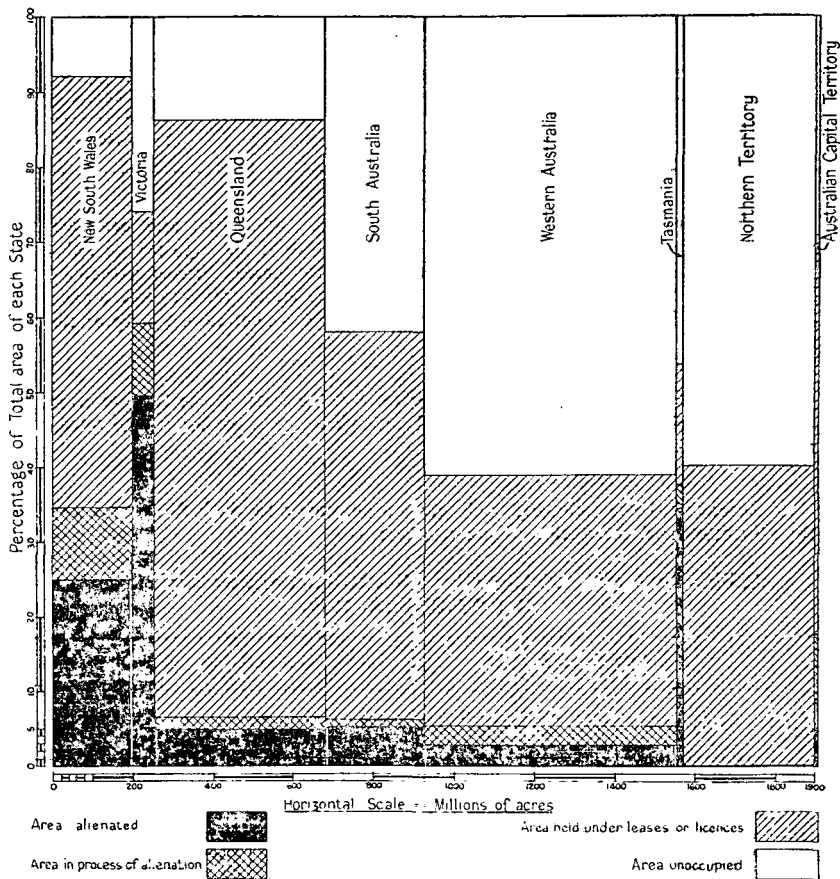
**ALIENATION AND OCCUPATION OF CROWN LANDS : AUSTRALIA,
31st DECEMBER, 1939.**

State or Territory.	Private Lands.				Crown Lands.				Total Area.
	Alienated.		In Process of Alienation.		Leased or Licensed.		Other.		
	Acres.	%	Acres.	%	Acres.	%	Acres.	%	Acres.
N.S.W. (a)	49,263,510	24.87	18,986,203	9.59	113,626,901	57.38	16,160,486	8.16	198,037,100
Vic. ..	27,762,315	49.36	5,379,928	9.57	8,468,444	15.05	14,635,113	26.02	56,245,800
Qld. ..	20,698,345	4.82	7,154,214	1.67	342,063,067	79.71	59,204,374	13.80	429,120,000
S. Aust. (a)	12,539,033	5.16	2,249,513	0.92	125,572,096	51.62	102,884,158	42.30	243,244,800
W. Aust. (a)	18,244,428	2.92	14,192,666	2.27	209,379,761	33.52	382,771,945	61.29	624,588,800
Tas. ..	5,892,564	35.12	433,325	2.58	2,660,922	15.86	7,791,189	46.44	16,778,000
N.T. (a) ..	477,584	0.14	..	..	134,199,334	40.05	200,439,882	59.81	335,116,800
A.C.T. ..	54,009	8.99	52,109	8.67	319,469	53.18	175,213	29.16	600,800
Aust. ..	134,931,788	7.09	48,447,958	2.54	936,289,994	49.18	784,062,360	41.19	1,903,732,100

(a) At 30th June, 1940.

11. **Diagram showing Condition of Public Estate.**—The following diagram shows the condition of the public estate at 31st December, 1939. 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 shaped areas as described in the reference given below the diagram, and the areas unoccupied are left unshaded.

TENURE OF LAND



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 this Bureau. Similar documents furnish information regarding oversea migration and interstate migration by sea. This arrangement has been in operation since 1st July, 1924.

From 1st July, 1914, the Trade and Shipping of Australia have been recorded for the fiscal years ending 30th June.

In the following tables, commencing with 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.

Owing to the censorship of Statistics particulars later than the years 1938 and 1938-39 are not available for publication.

§ 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 1928-29 to 1938-39:—

OVERSEA SHIPPING : VESSELS ENTERED, AUSTRALIA.

Year.	Steam.		Sailing.		Total.	
	Vessels.	Net Tons.	Vessels.	Net Tons.	Vessels.	Net Tons.
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
1938-39	1,725	6,684,031	151	26,968	1,876	6,710,999

(a) See last paragraph, § 1, above.

Later details are not available for publication.

The average tonnage per vessel entered rose from 3,509 tons per vessel in 1928–29 to 3,577 tons in 1938–39.

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 by States.**—The following table gives the numbers and net tonnages of vessels which entered and cleared the various States direct from and to oversea countries during 1938–39 :—

**SHIPPING ENTERED FROM AND CLEARED TO OVERSEA COUNTRIES DIRECT,
1938–39.**

State or Territory.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ..	622	2,309,151	590	2,060,010
Victoria ..	188	686,021	195	756,745
Queensland ..	292	945,827	291	1,008,882
South Australia ..	133	464,065	163	612,051
Western Australia ..	493	2,097,664	556	2,278,467
Tasmania ..	27	130,480	10	39,106
Northern Territory ..	121	77,791	133	79,452
Total ..	1,876	6,710,999	1,938	6,834,713

Later details are not available for publication.

3. **Shipping Communication with various Countries.**—Records of the number and tonnage of vessels arriving from and departing to particular countries, as they are invariably made, 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.	1935-36.	1936-37.	1937-38.	1938-39.
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NET TONNAGE ENTERED.

United Kingdom and European Countries	Cargo	1,812,263	1,679,282	1,791,963	1,877,700
	Ballast	281,157	232,995	361,870	118,833
New Zealand	Cargo	557,091	732,104	774,280	767,492
	Ballast	134,200	169,170	204,025	242,454
Asiatic Countries and Islands in the Pacific	Cargo	1,721,540	1,832,771	2,051,105	2,205,542
	Ballast	353,102	230,813	280,938	255,851
Africa	Cargo	34,983	59,136	55,213	44,688
	Ballast	172,302	194,360	290,795	124,458
North and Central America	Cargo	1,161,903	1,134,797	1,233,213	1,058,600
	Ballast	6,240	5,941	55,975	37
South America	Cargo	2,895	2,821	5,372	10,017
	Ballast	..	..	23,655	5,327
	Cargo	5,290,675	5,440,911	5,911,146	5,964,039
	Ballast	947,001	833,279	1,217,258	746,960
Total .. ..	..	6,237,676	6,274,190	7,128,404	6,710,999

NET TONNAGE CLEARED.

United Kingdom and European Countries	Cargo	2,719,463	2,735,452	3,003,968	2,777,790
	Ballast	16,709	3,170	27,338	13,440
New Zealand	Cargo	537,359	832,200	918,096	901,142
	Ballast	73,948	39,789	37,522	37,079
Asiatic Countries and Islands in the Pacific	Cargo	1,695,483	1,473,801	1,543,996	1,686,804
	Ballast	526,048	587,925	818,775	742,254
Africa	Cargo	50,108	43,172	112,057	171,881
	Ballast	344	2,880	50,070	6,036
North and Central America	Cargo	591,144	519,017	498,384	439,524
	Ballast	87,944	91,991	80,854	46,383
South America	Cargo	4,719	8,184	1,998	12,380
	Ballast	3,615	..	..	..
	Cargo	5,598,276	5,611,826	6,078,499	5,989,521
	Ballast	708,608	725,755	1,014,559	845,192
Total .. ..	..	6,306,884	6,337,581	7,093,058	6,834,713

Later particulars are not available for publication.

4. Nationality of Oversea Shipping.—The greater part of the shipping visiting Australia is of British nationality. The proportion of British tonnage increased slightly during 1938-39, while the percentage of vessels arriving with cargo increased by nearly 6 per cent.

Particulars of the nationality of oversea shipping for the five years ended 30th June, 1939, are given in the following table :—

OVERSEA SHIPPING : NATIONALITY OF VESSELS ENTERED, AUSTRALIA.

Nationality.	Net Tonnage.				
	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
BRITISH—					
Australian	310,186	314,439	326,652	363,086	330,590
United Kingdom	3,137,192	3,334,332	3,447,244	4,021,272	3,744,224
Canadian	76,101	95,889	41,694	30,910	19,901
New Zealand	321,481	322,296	523,436	505,976	563,405
Other British	215,597	276,162	242,843	236,907	228,951
Cargo	3,323,552	3,732,921	3,944,272	4,297,122	4,378,589
Ballast	737,005	610,197	637,597	861,029	508,482
Total British	4,060,557	4,343,118	4,581,869	5,158,151	4,887,071
Per cent. on total	67.74	69.63	73.03	72.36	72.82
FOREIGN—					
Danish	48,613	54,689	53,233	55,753	55,441
Dutch	176,424	150,012	173,011	199,913	290,605
French	137,142	102,031	82,636	102,952	108,120
German	134,231	126,500	152,506	180,314	140,954
Italian	62,205	39,465	43,222	70,451	68,256
Japanese	461,400	464,311	344,304	318,499	329,884
Norwegian	426,539	462,884	439,845	482,470	324,649
Swedish	141,265	134,502	104,281	116,036	123,737
American, U.S.	240,474	233,047	199,794	216,083	175,126
Other Foreign	105,400	127,117	99,489	227,782	207,156
Cargo	1,522,508	1,557,754	1,496,639	1,614,024	1,585,450
Ballast	411,185	336,804	195,682	356,229	238,478
Total Foreign	1,933,693	1,894,558	1,692,321	1,970,253	1,823,928
Per cent. on total	32.26	30.37	26.97	27.64	27.18
Cargo	4,846,060	5,290,675	5,440,911	5,911,146	5,964,039
Per cent. on total	80.85	84.82	86.72	82.92	88.87
Ballast	1,148,190	947,001	833,279	1,217,258	746,960
Per cent. on total	19.15	15.18	13.28	17.08	11.13
Grand Total.. ..	5,994,250	6,237,676	6,274,190	7,128,404	6,710,999

Later particulars are not available for publication.

The Australian tonnage which entered Australia from overseas during 1938-39 represented 4.93 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 1938-39, together with similar information

in regard to some of the ports of New Zealand and of the United Kingdom for 1938, will be found in the following 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.) ..	11,650,317	London ..	30,776,918
Melbourne (Vic.) ..	8,646,893	Liverpool (including Birkenhead) ..	17,627,805
Adelaide (S.A.) ..	5,524,403	Southampton ..	13,468,875
Newcastle (N.S.W.) ..	5,099,481	Tyne Ports ..	9,130,122
Brisbane (Qld.) ..	4,916,463	Cowes (including coast of Isle of Wight) ..	7,812,746
Fremantle (W.A.) ..	4,012,219	Cardiff ..	7,319,932
Townsville (Qld.) ..	1,473,008	Hull ..	6,279,805
Kembla (N.S.W.) ..	1,225,258	Plymouth ..	6,018,318
Hobart (Tas.) ..	1,153,143	Dover ..	3,983,753
Whyalla (S.A.) ..	1,036,798	Bristol ..	3,931,515
Geelong (Vic.) ..	837,878	Manchester (including Runcorn) ..	3,857,452
Pirie (S.A.) ..	814,862	Swansea ..	3,377,269
Cairns (Qld.) ..	789,636	Sunderland ..	3,038,837
Burnie (Tas.) ..	784,873	Middlebrough ..	2,984,012
Rockhampton (Qld.) ..	596,226	Harwich ..	2,790,985
Mackay (Qld.) ..	545,650	Blyth ..	2,665,141
Gladstone (Qld.) ..	526,492	Portsmouth ..	2,610,865
Albany (W.A.) ..	510,807	Newport ..	2,330,773
Launceston (Tas.) ..	507,531	SCOTLAND—	
Lincoln (S.A.) ..	492,868	Glasgow ..	6,573,762
Devonport (Tas.) ..	476,071	Greenock (including Port Glasgow) ..	3,435,708
Bowen (Qld.) ..	336,175	Leith ..	2,217,628
Thursday Island (Qld.) ..	303,369	NORTHERN IRELAND—	
NEW ZEALAND—		Belfast ..	7,561,260
Wellington ..	3,961,790		
Auckland ..	3,212,383		
Lyttleton ..	2,181,290		
Dunedin ..	1,189,924		

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*, 1938, and those relating to New Zealand from the *New Zealand Official Year Book*, 1940.

§ 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.			
	No.	Tonnage.		No.	Tonnage.		No.	Tonnage.		No.	Tonnage.		No.	Tonnage.		No.
		Gross.	Net.		Gross.	Net.		Gross.	Net.		Gross.	Net.		Gross.	Net.	
1934	21	642	389	5	92	91	26	734	480				
1935	16	425	302	2	25	23	18	450	325				
1936 ..	2	719	192	16	600	407	2	15	13	20	1,334	612				
1937	9	210	158	1	2	2	10	212	160				
1938	11	721	394	..	..	..	11	721	394				

(a) Including vessels with auxiliary motors.

Later particulars are not available for publication.

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 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

Later particulars are not available for publication.

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, 1939.

Country Where Owned.	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 ..	6,722	'000.	287	'000.	7,009	'000.	%	%
Australia and New Zealand ..	524	670	10	4	534	674	1.7	1.0
Canada (a) ..	792	1,224	79	81	871	1,305	2.8	1.9
Other British ..	939	1,217	135	35	1,074	1,252	3.4	1.8
Total, British Empire ..	8,977	21,002	511	213	9,488	21,215	30.4	30.6
Belgium ..	200	408	..	..	200	408	0.7	0.6
Denmark ..	705	1,175	4	1	709	1,176	2.3	1.7
France ..	1,231	2,934	51	19	1,282	2,953	4.1	4.2
Germany ..	2,459	4,483	7	10	2,466	4,493	7.9	6.5
Greece ..	607	1,781	..	..	607	1,781	1.9	2.5
Holland ..	1,523	2,970	9	3	1,532	2,973	4.9	4.3
Italy ..	1,227	3,425	108	24	1,335	3,449	4.3	4.9
Japan ..	2,337	5,630	..	..	2,337	5,630	7.5	8.1
Norway ..	1,987	4,834	3	1	1,990	4,835	6.4	7.0
Russia ..	699	1,306	17	10	716	1,316	2.3	1.9
Spain ..	777	902	47	12	824	914	2.6	1.3
Sweden ..	1,231	1,577	7	5	1,238	1,582	4.0	2.3
United States of America (b) ..	2,958	11,490	417	513	3,375	12,003	10.8	17.3
Other Foreign Countries ..	2,845	4,592	242	119	3,087	4,711	9.9	6.8
Total, Foreign Countries ..	20,786	47,507	912	717	21,698	48,224	69.6	69.4
Grand Total ..	29,763	68,509	1,423	930	31,186	69,439	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 oversea vessels (b) some explanation is necessary. Each State desires that its shipping statistics (which are prepared in this Bureau) should 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 oversea 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 again recorded for the statistics of the third State 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 “Oversea *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* South Australia and Victoria. From the terminal port the vessel will commence the outward voyage, and retrace its inward track.

ITINERARY OF AN OVERSEA VESSEL ON AUSTRALIAN COAST.

Particulars.	Recorded as—	
	For the State and for Australia.	For the States.
Inward Voyage—		
Enters Fremantle from United Kingdom	Oversea direct	
Clears Fremantle for Adelaide .. ..	.. ..	Interstate direct
Enters Adelaide from United Kingdom	.. ..	.. .. Oversea <i>via</i> States
<i>via</i> Fremantle .. ..	.. ..	Interstate direct
Clears Adelaide for Melbourne .. ..	.. ..	.. .. Oversea <i>via</i> States
Enters Melbourne from United Kingdom	.. ..	Interstate direct
<i>via</i> Adelaide .. ..	.. ..	.. .. Oversea <i>via</i> States
Clears Melbourne for Sydney .. ..	.. ..	Interstate direct
Enters Sydney from United Kingdom	.. ..	.. .. Oversea <i>via</i> States
<i>via</i> Melbourne .. ..	.. ..	.. .. Oversea <i>via</i> States
Outward Voyage—		
Clears Sydney for United Kingdom <i>via</i>		
Melbourne .. ..	.. ..	.. .. Oversea <i>via</i> States
Enters Melbourne from Sydney .. ..	.. ..	Interstate direct
Clears Melbourne for United Kingdom <i>via</i>		
Adelaide .. ..	.. ..	.. .. Oversea <i>via</i> States
Enters Adelaide from Melbourne .. ..	.. ..	Interstate direct
Clears Adelaide for United Kingdom <i>via</i>		
Fremantle .. ..	.. ..	.. .. Oversea <i>via</i> States
Enters Fremantle from Adelaide .. ..	.. ..	Interstate direct
Clears Fremantle for United Kingdom ..	Oversea 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 1934-35 to 1938-39. The shipping of the Murray River, between the States of New South Wales, Victoria and South Australia, is excluded :—

INTERSTATE SHIPPING : NUMBER AND TONNAGE OF VESSELS ENTERED.

State or Territory.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
NUMBER.					
New South Wales	1,945	1,862	2,076	2,179	2,183
Victoria	1,908	1,966	2,146	2,255	2,243
Queensland	587	567	599	652	639
South Australia	842	865	924	988	1,036
Western Australia	347	358	366	383	382
Tasmania	1,035	1,065	1,216	1,261	1,301
Northern Territory	27	22	29	25	39
Total	6,691	6,705	7,356	7,743	7,823

NET TONNAGE.					
New South Wales	5,334,778	5,105,740	5,693,751	5,977,315	6,204,907
Victoria	4,062,750	4,361,171	4,640,688	4,743,317	4,751,032
Queensland	1,410,487	1,495,200	1,616,188	1,674,662	1,730,478
South Australia	2,761,195	2,898,358	3,043,302	3,176,924	3,322,512
Western Australia	1,855,563	1,916,546	1,869,071	1,978,260	2,019,125
Tasmania	1,101,544	1,335,725	1,559,603	1,562,790	1,769,829
Northern Territory	59,011	66,710	71,057	72,996	102,910
Total	16,585,328	17,179,450	18,493,660	19,186,264	19,900,793

Later particulars are not available for publication.

3. **Oversea Vessels Moving Interstate.**—(*Oversea via States.*) To ascertain the aggregate movement of shipping between the States during 1938-39 including the total interstate movements of overseas 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 preceding table :—

SHIPPING ENTERED AND CLEARED FROM AND TO OVERSEA COUNTRIES VIA OTHER AUSTRALIAN STATES, 1938-39.

State or Territory.	Entered.		Cleared.		Total.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ..	514	2,727,784	522	2,869,826	1,036	5,597,610
Victoria ..	548	3,100,032	495	2,885,923	1,043	5,985,955
Queensland ..	287	1,807,393	279	1,651,147	566	3,458,540
South Australia ..	333	1,974,741	316	1,934,301	649	3,909,042
Western Australia ..	41	134,579	11	38,226	52	172,805
Tasmania ..	56	330,278	133	831,284	189	1,161,562
Northern Territory ..	1	1,260	..	..	1	1,260
Total ..	1,780	10,076,067	1,756	10,210,707	3,536	20,286,774

Later particulars for these tables are not available for publication.

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 1934-35 to 1938-39 :—

TOTAL INTERSTATE MOVEMENT OF SHIPPING : AUSTRALIA.

Year.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
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
1938-39	9,603	29,976,860	9,669	30,000,369

(ii) *States*. The following table shows the number and tonnage of vessels which entered and cleared each State from and for other States during 1938-39, including the interstate movements of oversea vessels :—

INTERSTATE SHIPPING OF EACH STATE, 1938-39.

State or Territory.	Entered.		Cleared.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales	2,697	8,932,691	2,744	9,172,226
Victoria	2,791	7,851,064	2,794	7,723,250
Queensland	926	3,537,871	936	3,454,685
South Australia	1,369	5,297,253	1,393	5,264,516
Western Australia	423	2,153,704	374	2,048,062
Tasmania	1,357	2,100,107	1,389	2,237,660
Northern Territory	40	104,170	39	99,970
Total	9,603	29,976,860	9,669	30,000,369

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 1938-39 —

VESSELS SOLELY IN INTERSTATE TRADE : NUMBER AND TONNAGE OF VESSELS ENTERED, 1938-39.

State or Territory.	Vessels Entered.	
	No.	Net Tonnage.
New South Wales	1,716	3,746,563
Victoria	1,887	2,801,494
Queensland	471	1,065,840
South Australia	784	1,831,039
Western Australia	118	430,062
Tasmania	1,183	1,072,697
Northern Territory	17	35,114
Total	6,176	10,982,809

Later particulars for these tables are not available for publication.

The figures in the table above have been compiled direct from the shipping returns, and are comparable with those published since 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 following 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
“ „ 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 { 2nd class and steer- for which { age	1,755	1,920	1,695	1,801	1,719
licensed(a) { Masters and officers	505	513	547	545	557
Complement { Engineers	419	548	579	585	606
of Crew { Crew	4,045	4,264	4,458	4,515	4,663

(a) Excluding 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 1934-35 to 1938-39. 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 Tons—		Shipped Tons—		Shipped Tons—	
	Weight.	Meas.	Weight.	Meas.	Weight.	Meas.
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
1938-39 ..	4,208,109	2,191,351	5,138,471	1,092,687	7,221,040	1,730,647

Later particulars are not available for publication.

(ii) *Principal Ports.* The following table shows the tonnage of oversea and interstate cargo discharged and shipped at principal ports, 1938-39:—

TONNAGE OF CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1938-39.

Port.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sydney	2,020,945	1,169,400	3,190,345	1,345,609	870,397	2,216,006
Newcastle	205,770	1,744,625	1,950,395	482,113	2,255,620	2,737,733
Kembla	64,780	928,397	993,177	180,775	269,258	450,033
Other .. ..	..	..	..	29,118	13,106	42,224
Total, New South Wales	2,291,495	3,842,422	6,133,917	2,037,615	3,408,381	5,445,996
Melbourne	1,835,592	2,365,227	4,200,819	754,876	1,044,425	1,799,301
Geelong	221,705	162,509	384,214	95,771	75,723	171,494
Other	17,046	6,443	23,489	8,139	3,283	11,422
Total, Victoria	2,074,343	2,534,179	4,608,522	858,786	1,123,431	1,982,217
Brisbane	411,000	520,075	931,075	315,681	208,868	524,549
Cairns	15,538	47,656	63,194	139,806	100,489	240,295
Townsville	64,699	75,852	140,551	202,073	58,546	260,619
Other	24,085	77,291	101,376	270,496	101,514	372,010
Total, Queensland	515,322	720,874	1,236,196	928,056	469,417	1,397,473
Adelaide	532,134	823,321	1,355,455	395,607	371,416	767,023
Pirie	85,437	244,724	330,161	407,958	157,019	564,977
Walleroo	36,038	1,708	37,746	127,167	17,739	144,906
Whyalla .. ..	..	..	..	125,079	2,325,442	2,450,521
Other	26,999	6,476	33,475	206,487	17,634	224,121
Total, South Australia	680,608	1,076,229	1,756,837	1,262,298	2,889,250	4,151,548
Fremantle	593,618	314,304	907,922	555,852	78,902	634,754
Bunbury	47,944	945	48,889	190,648	26,023	216,671
Geraldton	69,169	3,833	73,002	101,997	30	102,027
Other	29,979	13,765	43,744	94,939	14,567	109,506
Total, Western Australia	740,710	332,847	1,073,557	943,436	119,522	1,062,958
Hobart	86,818	308,076	394,894	160,528	228,861	389,389
Launceston	2,191	123,734	125,925	22,094	114,521	136,615
Devonport	537	31,273	31,810	..	385,391	385,391
Other	2,472	80,815	83,287	18,163	209,429	227,592
Total, Tasmania	92,018	543,898	635,916	200,785	938,202	1,138,987
Darwin (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

Later particulars are not available for publication.

2. *Nationality.*—The following table shows the total tonnage of oversea cargo discharged and shipped according to the nationality of the vessels carrying during the years 1934-35 to 1938-39:—

TONNAGE(a) OF OVERSEA CARGO DISCHARGED AND SHIPPED.

Vessels Registered at Ports in—	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
British—	Tons.	Tons.	Tons.	Tons.	Tons.
Australia	307,440	329,208	329,990	437,346	416,335
United Kingdom	5,813,352	6,181,120	6,831,581	8,033,271	7,730,546
Canada	127,379	154,914	81,313	65,146	52,472
New Zealand	323,630	398,238	390,892	456,505	503,166
Other British	392,606	534,585	451,409	488,828	445,977
Total British	6,964,407	7,598,065	8,085,185	9,481,096	9,148,496
Per cent. on Total	64.66	65.57	69.46	70.41	72.43
Foreign—					
Denmark	154,172	160,285	159,640	209,716	184,404
France	169,802	140,435	113,584	150,424	188,692
Germany	297,020	346,544	392,269	462,246	370,014
Italy	66,319	33,520	58,491	109,570	83,779
Japan	913,552	914,856	542,761	378,065	260,174
Netherlands(b)	308,187	228,726	315,640	350,136	572,776
Norway	1,023,612	1,207,673	1,164,105	1,218,807	833,981
Sweden	408,462	390,080	310,934	316,300	354,368
United States of America	240,271	300,974	261,746	258,969	158,530
Other Foreign	225,328	266,892	236,481	529,510	475,404
Total Foreign	3,806,725	3,989,985	3,555,651	3,983,743	3,482,122
Per cent. on Total	35.34	34.43	30.54	29.59	27.57
Grand Total	10,771,132	11,588,050	11,640,836	13,464,839	12,630,618

(a) Tons weight and tons measurement combined.

(b) Including Netherlands East Indies.

Later particulars are not available for publication.

§ 7. Miscellaneous.

1. *Lighthouses.*—*Transport and Communication Bulletin* No. 14, published by this Bureau, contains 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 is 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 December, 1941, show that the rate for general merchandise from Australia to United Kingdom and Continent was 107s. per ton measurement, while the rates for wheat (parcels) and wool (greasy) were respectively 135s. 6d. per ton weight and 1 11/16d. per lb. The rates for general merchandise and wool are subject to a "war-time risk" surcharge of 15 per cent.

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, 1941, is included in *Transport and Communication Bulletin* No. 31.

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 1939 are shown in *Transport and Communication Bulletin* No. 31. 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 is contained in Official Year Book No. 17 (pp. 1053-5).

(ii) *Recent legislation.* Under the provisions of the Navigation Act the coasting trade of Australia 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. Such a permit, however, could only be granted when it was shown that the tourist traffic was being injured or retarded. By a further amendment in 1935, this concession was revised to permit 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 intermediate port. On arriving at the port of destination the passenger may be taken on to the next port of call of the ship, which may be his first port of embarkation, or a further port not connected 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.

(iii). *War-time Shipping Control.* In January, 1941, the National Security (Shipping Control) Regulations were issued, creating a Board for the purpose of more effectively using Australian shipping in connexion with the war, and to require that ships shall be subject to direction, requisition and governmental control. Requisitioning of the interstate fleet (with a few exceptions) was approved on 14th July, 1941, and practically all such ships are now under government control.

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 30th June, 1940, only 722 route miles of the 27,973 open for general traffic in Australia were privately owned. Those owned by the State Governments amounted to 25,050 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. 31, issued by this Bureau, and also in *Official Year Book* No. 31, p. 125 *et seq.*

2. *Improvement of Railway Statistics.*—Earlier issues of the *Official Year Book* contain a summary 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 *Official 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 Railways 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 railway statistics from and including the year 1935-36; consequently the figures for the last five 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 *Official 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 *Official Year Book* No. 22, pp. 259-61.

4. Government Railways. Lines under Construction and Lines Authorized, 1940.—

(i) *Lines under Construction.* In spite of the great extensions of State railways since 1875 and also the construction of various railways by the Commonwealth Government, there are still, in some 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, construction work continued during 1940 on the Sandy Hollow to Maryvale line (approximately 147 miles) and 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 Euston to Lette (30.25 miles) railway in New South Wales territory is under construction. Traffic is being conducted as far as Kaorkee (14.25 miles), but beyond this point construction has been suspended.

(c) *Queensland.* In previous issues of the *Official Year Book* details are given of the scheme of railway construction under the provisions of the North Coast Railway Act 1910 (see *Official Year Book* No. 15, p. 551). At 30th June, 1940, no railway construction work was in progress. The following lines are partially constructed, but work thereon is temporarily suspended:—Morganville to Kalliwa Creek (12 miles); Yaraka to Powell's Creek (27 miles); Dajarra to Moonah Creek (41 miles); Lawgi to Monto (54 miles); and Winton to 37-Mile (37 miles): a total of 171 miles.

(d) *Other.* At 30th June, 1940, no railway construction work was in progress in South Australia, Western Australia, Tasmania, nor for the Commonwealth Government.

(ii) *Lines Authorized for Construction.* (a) *New South Wales.* At 30th June, 1940, 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); Gwabegar to Pilliga (18.50 miles); Eastern Suburbs to Bondi (7.75 miles); and Western Suburbs to Western Road (5.55 miles); a total distance of 217.08 miles.

(b) *Victoria*. The following lines were authorized, but construction had not been commenced up to the end of June, 1940 :—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 Mildura to Gol Gol (22 miles) line has been authorized for construction in New South Wales.

(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), Dobbryn to Myally Creek (50 miles); and Perramon 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 30th June, 1940 :—Yarramony to Merredin (85 miles); Brookton to Dale River (28 miles); Boyup Brook to Cranbrook (95.23 miles); Manjimup to Mount Barker (10 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) *Other*. There were no new railways authorized in Tasmania nor for the Commonwealth Government at 30th June, 1940.

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, 1940, the capital cost of construction and equipment was £4,362,500, the interest charge for the year 1939-40 being £218,125. During the same period, the working of the line, which is the responsibility of the New South Wales and Queensland Railway Commissioners, resulted in a loss of £20,304 being shown on the New South Wales section while a profit of £34,367 was shown 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 operations, etc., of the line are incorporated as far as possible with those for New South Wales and Queensland in the tables which follow. Further particulars of the construction of the line will be found in Official Year Book, No. 31, p. 122.

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 passenger 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 following 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 1935-36 to 1939-40 :—

GOVERNMENT AND PRIVATE RAILWAYS : MILEAGE OPEN.

State or Territory.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	6,204.64	6,214.42	6,204.02	6,210.72	6,210.30
Victoria ..	4,745.71	4,745.71	4,745.71	4,783.91	4,783.83
Queensland ..	6,812.80	6,795.17	6,779.04	6,750.04	6,750.04
South Australia ..	3,775.90	3,776.29	3,860.67	3,860.67	3,860.67
Western Australia ..	5,089.33	5,088.04	5,106.82	5,108.73	5,112.29
Tasmania ..	776.46	782.57	782.55	789.55	760.76
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 ..	27,899.51	27,896.87	27,973.48	27,998.29	27,972.56

In previous issues of the Official Year Book particulars of mileage open are 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, 1939-40.

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 ..	6,141.20	..	69.10	6,210.30
Victoria ..	4,758.89	..	24.94	4,783.83
Queensland ..	6,566.65	..	183.39	6,750.04
South Australia ..	2,557.38	1,252.39	50.90	3,860.67
Western Australia ..	4,381.30	453.99	277.00	5,112.29
Tasmania ..	644.42	..	116.34	760.76
Northern Territory ..	..	489.73	..	489.73
Aust. Cap. Territory ..	..	4.94	..	4.94
Australia ..	25,049.84	2,201.05	721.67	27,972.56

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 following statement in relation to both population and area at 30th June, 1940 :—

GOVERNMENT AND PRIVATE RAILWAYS : COMPARISON OF FACILITIES, 1939-40.

Particulars.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Mileage of Railway—									
Per 1,000 of population ..	2.24	2.51	6.58	6.45	10.93	3.18	61.95	0.39	3.98
Per 1,000 sq. miles of Territory ..	20.07	54.43	10.07	10.16	5.24	29.02	0.94	5.26	9.40

8. Classification of Lines according to Gauge, 1939-40.—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 30th June, 1940, and of private railways open for general traffic to 31st December, 1940, as nearly as possible.

GOVERNMENT AND PRIVATE RAILWAYS : GAUGES, 1939-40.

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 ..	..	6,141.20	..	..	..	6,141.20
Victoria ..	4,637.12	..	..	121.77	..	4,758.89
Queensland ..	..	68.82	6,467.57	..	30.26	6,566.65
South Australia ..	1,480.49	..	1,076.89	..	..	2,557.38
Western Australia ..	..	..	4,381.30	..	..	4,381.30
Tasmania ..	..	..	644.42	..	..	644.42
Total ..	6,117.61	6,210.02	12,570.18	121.77	30.26	25,049.84
PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.						
New South Wales ..	..	32.37	36.73	..	..	69.10
Victoria ..	13.94	..	(a) 11.00	..	..	24.94
Queensland ..	..	..	80.87	..	102.52	183.39
South Australia ..	..	..	50.90	..	..	50.90
Western Australia ..	..	..	277.00	..	..	277.00
Tasmania ..	..	..	109.84	..	6.50	116.34
Total ..	13.94	32.37	566.34	..	109.02	721.67
ALL RAILWAYS OPEN FOR GENERAL TRAFFIC.						
New South Wales ..	..	6,173.57	36.73	..	..	6,210.30
Victoria ..	4,651.06	..	(a) 11.00	121.77	..	4,783.83
Queensland ..	..	68.82	6,548.44	..	132.78	6,750.04
South Australia ..	1,480.49	654.21	1,725.97	..	..	3,860.67
Western Australia ..	..	453.99	4,658.30	..	..	5,112.29
Tasmania ..	..	..	754.26	..	6.50	760.76
Northern Territory ..	..	..	489.73	..	..	489.73
Aust. Cap. Territory	..	4.94	..	..	..	4.94
GRAND TOTAL	6,131.55	7,355.53	14,224.43	121.77	139.28	27,972.56

(a) 3 ft. 0 in. gauge.

9. Summary of Operations, 1939-40.—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, 1940 :—

GOVERNMENT AND PRIVATE RAILWAYS : SUMMARY OF OPERATIONS, 1939-40.

Particulars.	Common-wealth Railways.	State Railways.	Private Railways. (a)	Total for Australia.
Mileage open (route) 30th June, 1940 miles	2,201.05	25,049.84	721.67	27,972.56
Capital cost £	17,191.356	302,425,497	4,725 547	324,342,400
Cost per mile £	7,811	12,073	6,548	11,595
Gross revenue £	621 805	45,966,331	691,182	47,279,318
„ „ per train-mile d.	155.84	147.49	139.44	147.47
Working expenses £	841,630	35,526,459	449,333	36,817,422
„ „ per train-mile d.	210.93	114.00	90.65	114.84
Net revenue £	-219,825	10,439,872	241,849	10,461,896
„ „ per train-mile d.	-55.09	33.49	48.79	32 63
Train-miles run miles	957,605	74,795,384	1,189,604	76,942,593
Passenger-journeys No.	129,685	379,200,448	1,038,226	380,368,359
Tons of goods, etc., carried tons	199,087	32,491,745	3,875,595	36,566,427
Average number of employees No. (b)	2,138	(b) 101,887	(c) 1,048	105,073
„ wage £	254	263	272	263

(a) Approximate. Complete particulars not available for all items.
Staff.

(b) Excluding Construction

(c) Employees at 31st December, 1940.

§ 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 (£319,616,853) 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, 1940.

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	6,141.20	8,199.39	149,203,908	24,296	53.76	2.21
Victoria (a) ..	4,758.89	6,141.99	52,037,722	10,935	27.34	2.50
Queensland (a) ..	6,566.65	7,421.00	38,369,254	5,843	37.39	6.40
South Australia ..	2,557.38	3,092.65	30,109,220	11,773	50.32	4.27
Western Australia	4,381.30	4,928.05	26,187 632	5,977	55.97	9.36
Tasmania (a) ..	644.42	(b)	2,155,261	3,344	9.01	2.69
Commonwealth ..	2,201.05	2,317.56	17,191,356	7,811	..	..
Australia (a) ..	27,250.89	632,100.64	£319,616,853	11,729	45.46	3.88

(a) See below. (b) Not available. (c) Excluding Tasmania. (d) Including 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, £24,399; Victoria, £16,332; Queensland, £10,214; South Australia, £11,773; Western Australia, £5,977; Tasmania, £10,138; Commonwealth, £7,811; and for all Government railways in Australia, £13,610. The lowest average cost is in Western Australia, and 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, £53.76; Victoria, £40.83; Queensland, £64.67; South Australia, £50.32; Western Australia, £55.97; Tasmania, £27.30; all Government railways in Australia, £53.72.

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 FROM LOANS.

System.	Expenditure from Revenue to 30th June, 1940.	Net Loan Expenditure.			
		1937-38.	1938-39.	1939-40.	Total to 30th June, 1940.
	£	£	£	£	£
New South Wales ..	666,864	2,343,455	2,002,287	1,546,461	152,622,716
Victoria ..	5,786,729	(a) 492,208	(a) 354,259	(a) 865,500	a 76,853,937
Queensland ..	..	630,053	489,603	500,995	65,597,851
South Australia ..	..	112,537	261,006	176,084	34,934,811
Western Australia ..	633,338	(b) 346,373	(b) 195,111	(b) 99,180	b 25,583,298
Tasmania ..	18,121	59,660	34,558	29,866	(c) 7,336,865
Commonwealth ..	2,475,859	Cr. 938	Cr. 339	Cr. 286	11,432,919
Australia ..	9,580,911	3,983,348	3,336,485	3,217,800	d 376,808,402

(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.
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
1938-39 ..	19,946	9,284	7,798	3,119	3,599	487	547	44,780
1939-40 ..	20,755	9,861	8,090	3,168	3,556	536	622	46,588

(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, 1935-36, £163,859; 1936-37, £230,574 (includes £19,113 guarantees in respect of losses); in 1937-38 and 1938-39, £10,000 guarantees in respect of losses on certain lines; and in 1939-40, £42,000 recoup of loss resulting from reduction in suburban fares.

GOVERNMENT RAILWAYS: GROSS REVENUE—*continued*.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia.
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GROSS REVENUE PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£	£
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
1938-39 ..	3,263	1,953	1,188	1,220	822	740	248	1,645
1939-40 ..	3,392	2,072	1,232	1,239	812	832	283	1,711

GROSS REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.	d.
1935-36 ..	153.82	141.88	129.78	126.46	135.70	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
1938-39 ..	159.01	124.54	134.38	121.19	131.38	61.30	145.42	138.70
1939-40 ..	169.02	139.16	136.83	128.24	139.13	62.33	155.84	147.60

(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 following table shows the gross revenue from 1935-36 to 1939-40, 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.

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
1938-39 ..	6,877	4,286	2,057	754	704	152	194	15,024
1939-40 ..	7,175	4,450	2,098	784	725	156	229	15,617

GOODS AND LIVE STOCK TRAFFIC RECEIPTS.

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
1938-39 ..	10,356	4,276	5,474	2,144	2,807	318	224	25,599
1939-40 ..	10,851	4,637	5,716	2,167	2,745	362	247	26,725

MISCELLANEOUS RECEIPTS.

	(a)	(b)						
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
1938-39 ..	2,713	722	266	222	(c) 88	17	129	4,157
1939-40 ..	2,729	775	276	217	86	18	145	4,246

(a) See note (a) to Gross Revenue table above. (b) See note (b) to Gross Revenue table above.
(c) Several items previously included in "Miscellaneous" now included in "Coaching" and "Goods."

(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.	1938-39.			1939-40.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
	%	%	%	%	%	%
New South Wales ..	34.48	51.92	13.60	34.55	52.29	13.15
Victoria ..	46.17	46.06	7.77	45.13	47.02	7.85
Queensland ..	26.38	70.20	3.42	25.94	70.65	3.47
South Australia ..	24.17	68.73	7.10	24.76	68.39	6.85
Western Australia ..	19.57	78.00	2.43	20.40	77.19	2.41
Tasmania ..	31.11	65.35	3.54	29.03	67.58	3.39
Commonwealth ..	35.43	40.90	23.67	36.91	39.78	23.31
 Australia ..	 33.55	 57.17	 9.28	 33.52	 57.36	 9.12

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 1935-36 to 1939-40 :—

GOVERNMENT RAILWAYS : WORKING EXPENSES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
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TOTAL WORKING EXPENSES.

	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
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
1938-39 ..	14,543	8,060	6,193	2,931	2,911	678	642	35,958
1939-40 ..	14,647	8,058	6,368	2,937	2,828	688	842	36,368

PERCENTAGE ON GROSS REVENUE.

	%	%	%	%	%	%	%	%
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
1938-39 ..	72.91	86.82	79.42	93.97	80.90	139.18	117.43	80.30
1939-40 ..	70.57	81.72	78.72	92.72	79.54	128.22	135.35	78.06

GOVERNMENT RAILWAYS: WORKING EXPENSES—*continued*.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
PER AVERAGE MILE WORKED.								
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
1938-39 ..	2,378	1,695	943	1,146	665	1,030	292	1,321
1939-40 ..	2,394	1,693	970	1,148	646	1,067	382	1,336

PER TRAIN-MILE RUN.

1935-36 ..	d. 102.65	d. 100.39	d. 101.01	d. 106.06	d. 97.97	d. 81.15	d. 159.76	d. 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
1938-39 ..	115.93	108.13	106.72	113.88	106.28	85.31	170.77	111.38
1939-40 ..	119.28	113.71	107.71	118.90	110.66	79.92	210.93	115.22

(ii) *Distribution.* The following table shows the distribution of working expenses under four chief heads of expenditure for the years 1935-36 to 1939-40:

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.								
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
1938-39 ..	2,972	1,514	1,602	503	667	129	245	7,632
1939-40 ..	2,835	1,724	1,610	501	635	120	386	7,811

ROLLING STOCK.

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
1938-39 ..	5,622	2,801	2,695	1,389	1,321	279	251	14,358
1939-40 ..	5,744	2,879	2,799	1,382	1,306	289	275	14,674

TRANSPORTATION AND TRAFFIC.

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
1938-39 ..	3,502	2,254	1,533	682	779	151	101	9,002
1939-40 ..	3,484	2,222	1,580	690	736	149	129	8,990

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES
—continued.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.

OTHER CHARGES.

						(a)		
1935-36 ..	1,919	1,208	314	289	131	112	34	4,007
1936-37 ..	2,048	1,265	326	304	136	115	40	4,234
1937-38 ..	2,259	1,044	348	351	137	117	42	4,298
1938-39 ..	2,448	1,491	363	357	144	118	45	4,966
1939-40 ..	2,584	1,234	379	365	150	129	52	4,893

(a) Includes £94,000 in 1935-36 to 1938-39, and £100,000, in 1939-40, 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.
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NET REVENUE.

	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
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
1938-39 ..	5,403	1,224	1,605	188	688	— 191	— 95	8,822
1939-40 ..	6,108	1,803	1,722	231	727	— 151	— 220	10,220

NET REVENUE PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£	£
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
1938-39 ..	884	257	244	74	157	— 290	— 43	324
1939-40 ..	998	379	262	90	166	— 235	— 100	375

NET REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.	d.
1935-36 ..	51.17	41.49	28.77	20.40	37.73	—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
1938-39 ..	43.08	16.42	27.66	7.31	25.10	—24.01	—25.35	27.33
1939-40 ..	49.74	25.44	29.12	9.34	28.47	—17.59	—55.09	32.38

† In the graphs accompanying this Chapter the gross and net revenue and working expenses are shown from 1870 to 1940.

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, 1940, was as follows :—

GOVERNMENT RAILWAYS : INTEREST ON RAILWAY LOAN EXPENDITURE.

AMOUNT OF INTEREST PAYABLE.

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.
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
1938-39 ..	5,300	1,860	1,642	1,074	1,001	94	395	11,545
1939-40 ..	5,350	1,880	1,659	1,092	1,028	94	387	11,609

(a) Including interest charges on the Grafton-South Brisbane line, which for 1939-40 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. 95. (b) Capital indebtedness reduced by legislation in these three States. See par. 1, p. 98.

The interest payable on the cost of construction and equipment, after the expenditure from Consolidated Revenue (£9,580,911) for that purpose had been deducted, was at the rate of 3.76 per cent. in 1939-40.

Exchange on interest payments abroad and loan management and flotation expenses are not included in the table above. 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 1939-40 were :—New South Wales, £690,000; Victoria, £196,792; and South Australia, £123,611.

7. **Profit or Loss.**—The following table shows, for the last five years, the actual profit or loss after deducting working expenses, and interest, but excluding exchange, from the gross revenue :—

GOVERNMENT RAILWAYS : PROFIT OR LOSS.

PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES AND INTEREST.

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.
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
1938-39 ..	43	— 636	— 37	— 886	— 313	— 285	— 490	— 2,723
1939-40 ..	758	— 77	63	— 862	— 300	— 245	— 607	— 1,389

(a) See note (a), par. 6, above.

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 competition from the air has become an important factor.

The following table gives particulars for the years 1935-36 to 1939-40 :—

GOVERNMENT RAILWAYS : TRAFFIC.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
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NUMBER OF PASSENGER-JOURNEYS.

	'000.	'000.	'000.	'000.	'000.	'000.	'000.	'000.
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
1938-39 ..	186,720	142,123	24,639	17,529	11,416	2,297	117	384,841
1939-40 ..	179,066	144,649	24,638	17,642	10,793	2,412	130	379,330

PER AVERAGE MILE OF LINE WORKED.

	No.	No.	No.	No.	No.	No.	No.	No.
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
1938-39 ..	30,541	29,896	3,752	6,854	2,608	3,490	53	14,134
1939-40 ..	29,269	30,395	3,752	6,899	2,464	3,746	59	13,928

TONNAGE OF GOODS AND LIVE STOCK CARRIED.

	'000.	'000.	'000.	'000.	'000.	'000.	'000.	'000.
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
1938-39 ..	15,417	5,976	5,234	2,640	2,859	844	186	33,156
1939-40 ..	14,620	6,187	5,472	2,675	2,659	879	199	32,691

PER AVERAGE MILE OF LINE WORKED.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
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
1938-39 ..	2,522	1,257	797	1,032	653	1,282	84	1,218
1939-40 ..	2,390	1,300	833	1,046	607	1,365	90	1,193

(ii) *Metropolitan and Country Passenger Traffic and Revenue 1939-40.* 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, 1939-40.**

System.	Passenger-Journeys.			Revenue.		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
	No.	No.	No.	£	£	£
N.S.W. ..	167,596,675	11,469,630	179,066,305	3,152,001	3,195,203	6,347,204
Victoria ..	137,691,735	6,957,340	144,649,075	2,353,557	1,678,334	4,031,891
Queensland ..	19,828,753	4,808,846	24,637,599	328,363	1,304,307	1,632,670
S. Australia ..	16,278,455	1,363,311	17,641,766	230,857	398,883	629,740
W. Australia ..	9,551,502	1,241,894	10,793,396	117,818	422,499	540,317
Tasmania ..	(a)	(a)	2,412,307	(a)	(a)	133,413
Common-wealth ..	..	129,685	129,685	..	180,416	180,416
Australia	350,947,120 (b)	25,970,706 (b)	379,330,133	6,182,596 (b)	7,179,642 (b)	13,495,651

(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 1939-40 :—

GOVERNMENT RAILWAYS : CLASSIFICATION OF COMMODITIES CARRIED, 1939-40.

'000 TONS CARRIED.

System.	Coal, Coke and Shale.	Other Minerals.	Grain and Flour.	Hay, Straw and Chaff.	Wool.	Live Stock.	All other Com- modities.	Total.
N.S.W. ..	(a) 6,888	1,351	2,026	(b)	207	808	3,340	14,620
Victoria ..	190	159	1,191	125	96	640	3,786	6,187
Q'land ..	706	481	332	(b)	93	512	3,348	5,472
S. Aust. ..	126	595	722	12	45	189	986	2,675
W. Aust. ..	267	252	831	39	32	110	1,128	2,659
Tas. ..	454	(c)	(d) 51	16	6	31	321	879
C'wealth ..	7	7	(b)	(b)	6	65	114	199
Australia	8,638	2,845	5,153	192	485	2,355	13,023	32,691

(a) Including 127,494 tons of coal on which way leave charges only were collected.
with "All Other Commodities."

(c) Included with "Coal, Coke and Shale."

(b) Included
(d) Includes
other agricultural produce.

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1939-40 :—

GOVERNMENT RAILWAYS : REVENUE FROM GOODS AND LIVE STOCK, 1939-40.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
General mer- chandise ..	6,786	3,774	3,748	1,395	2,283	232	144	18,362
Wool ..	843	206	499	89	86	8	14	1,745
Live-stock ..	1,421	540	770	207	131	26	83	3,178
Minerals— Coal and coke ..	1,458	61	352	31	158	(a)	1	2,061
Other ..	343	56	347	445	87	96	5	1,379
Total ..	10,851	4,637	5,716	2,167	2,745	362	247	26,725

(a) Included with "Other."

(iv) *Passenger-Mileage.* The following table gives particulars of passenger-mileage in respect of the Government railways in Australia for the years 1937-38 to 1939-40.

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.	Per Passenger Train-Mile.	
	'000.	'000.	No.	Miles.	£'000.	£	d.	d.	No.
NEW SOUTH WALES.									
1938	18,742	2,132,966	114	11.26	5,995	980	0.67	76.76	348,878
1939	19,173	2,149,154	112	11.51	6,024	985	0.67	75.41	351,526
1940	18,388	2,199,564	120	12.28	6,347	1,038	0.69	82.84	359,523
VICTORIA.									
1938	12,088	1,203,812	100	8.73	3,684	780	0.73	73.15	255,003
1939	12,434	1,292,843	104	9.10	3,855	811	0.72	74.40	271,948
1940	11,843	1,367,596	115	9.45	4,032	847	0.71	81.71	287,375
QUEENSLAND.(a)									
1938	5,696	(b)	(b)	(b)	1,494	228	(b)	62.97	(b)
1939	5,750	(b)	(b)	(b)	1,523	232	(b)	63.55	(b)
1940	5,916	(b)	(b)	(b)	1,574	240	(b)	63.84	(b)
SOUTH AUSTRALIA.									
1938	3,679	200,144	54	11.35	571	223	0.68	37.23	78,319
1939	3,747	212,982	57	12.15	600	235	0.68	38.45	83,281
1940	3,615	220,037	61	12.47	630	246	0.69	41.81	86,040
WESTERN AUSTRALIA.									
1938	2,544	(b)	(b)	(b)	533	122	(b)	50.25	(b)
1939	2,795	(b)	(b)	(b)	514	117	(b)	44.12	(b)
1940	2,678	(b)	(b)	(b)	540	123	(b)	48.42	(b)
TASMANIA.									
1938	1,045	32,917	32	14.52	116	179	0.85	26.72	50,563
1939	1,027	35,193	34	15.32	129	196	0.88	30.15	53,485
1940	1,161	37,269	32	15.45	133	207	0.86	26.72	57,871
COMMONWEALTH.(c)									
1938	385	25,965	67	257.92	121	55	1.12	75.30	11,817
1939	388	34,085	88	290.98	146	66	1.03	90.21	15,486
1940	423	41,245	98	318.04	180	82	1.05	102.37	18,739

(a) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line.
 available.

(c) Railways controlled by Commonwealth Government.

(b) Not

(v) *Ton-Mileage.* Particulars regarding total "ton-miles" are given in the following table for each of the years 1937-38 to 1939-40 :—

GOVERNMENT RAILWAYS : SUMMARY OF "TON-MILES."

Year ended 30th June—	Goods-Train-Mileage.	Total "Ton-miles."	Average Freight Paying Load per Ton.	Average Haul per Ton.	Goods and Live Stock Earnings.				Density of Traffic per Average Mile worked.
					Gross.	Per Average Mile Worked.	Per "Ton-Mile."	Per Goods-Train-Mile.	
	'000.	'000.	Tons.	Miles.	£'000.	£	d.	d.	Tons.
NEW SOUTH WALES.									
1938	11,461	1,854,936	162	114.05	10,831	1,772	1.40	226.80	303,402
1939	10,933	1,760,534	161	115.95	10,356	1,694	1.41	227.34	287,961
1940	11,082	1,827,662	165	126.11	10,851	1,774	1.42	225.98	298,735
VICTORIA.									
1938	5,829	927,444	159	127.78	4,945	1,047	1.28	203.61	196,460
1939	5,455	760,485	139	127.26	4,276	899	1.35	188.11	159,967
1940	5,165	818,637	159	132.32	4,637	974	1.36	218.48	172,021
QUEENSLAND.(a)									
		(b)	(c)	(b)			(b)	(b)	
1938	7,847	715,917	91	146.98	5,056	770	1.68	154.63	113,579
1939	8,073	745,351	92	147.57	5,404	823	1.73	160.67	118,248
1940	8,175	766,635	94	144.72	5,646	860	1.76	165.76	121,625
SOUTH AUSTRALIA.									
1938	2,432	365,012	150	126.80	2,353	921	1.55	232.20	142,834
1939	2,430	348,553	143	132.01	2,144	838	1.48	211.72	136,293
1940	2,313	336,885	146	125.93	2,167	847	1.54	220.48	131,730
WESTERN AUSTRALIA.									
1938	(d)3,828	390,913	102	127.67	2,769	633	1.70	173.62	89,372
1939	(d)3,779	378,089	100	132.24	2,807	641	1.78	178.26	86,393
1940	(d)3,456	361,690	105	136.03	2,745	626	1.82	190.61	82,570
TASMANIA.(e)									
1938	(d) 887	37,916	43	45.76	289	443	1.83	78.07	58,243
1939	(d) 880	38,088	43	46.80	296	450	1.87	80.76	57,885
1940	(d) 904	42,265	47	49.83	336	522	1.91	89.20	65,630
COMMONWEALTH.(f)									
1938	374	28,526	76	216.02	190	86	1.60	121.90	12,983
1939	514	34,801	68	187.28	224	102	1.54	104.38	15,811
1940	535	37,904	71	190.39	248	112	1.57	111.18	17,221

(a) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line.
 (b) Exclusive of Cooktown and Normanton Railways and Innisfail and Mourilyan Tramways.
 (c) Approximate. (d) Estimated. (e) Exclusive of particulars of live stock carried.
 (f) Railways controlled by the Commonwealth Government.

9. **Rolling Stock.**—The following table shows the number of rolling stock in use at 30th June for each of the years 1938 to 1940. Further details may be found in *Transport and Communication Bulletin* No. 31.

GOVERNMENT RAILWAYS : ROLLING STOCK.

System.	1937-38.			1938-39.			1939-40.		
	Locos.	Coach- ing Stock.	Other Stock.	Locos.	Coach- ing Stock.	Other Stock.	Locos.	Coach- ing Stock.	Other Stock.
New South Wales ..	1,310	2,790	23,704	1,284	2,808	24,257	1,254	2,836	24,165
Victoria ..	574	2,458	21,029	581	2,439	20,993	582	2,420	20,802
Queensland ..	748	1,398	18,704	752	1,413	18,733	758	1,438	18,840
South Australia ..	329	606	8,013	335	594	7,966	330	593	7,866
Western Australia ..	420	477	11,097	427	475	11,110	421	445	11,249
Tasmania ..	94	233	2,073	95	225	2,120	95	234	2,161
Commonwealth ..	113	89	1,383	113	89	1,359	113	90	1,378
Australia ..	3,588	8,051	86,003	3,587	8,043	86,538	3,553	8,056	86,461

10. **Accidents.**—The following table gives particulars of the number 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 1937-38, 1938-39 and 1939-40:—

GOVERNMENT RAILWAYS : ACCIDENTS.

System.	1937-38.		1938-39.		1939-40.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales ..	66	593	57	625	56	501
Victoria ..	48	442	48	466	36	373.
Queensland ..	25	166	23	132	25	162
South Australia ..	21	182	9	187	16	159
Western Australia ..	14	190	14	142	17	148
Tasmania ..	6	66	7	62	8	50
Commonwealth ..	..	38	1	20	2	42
Australia ..	180	1,677	159	1,634	160	1,435

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. 31.

11. **Consumption of Oil and Fuel.**—The following table shows the quantities and values of oil and fuel consumed by the various Government Railway Departments during 1939-40:—

GOVERNMENT RAILWAYS : CONSUMPTION AND VALUE OF OIL AND FUEL, 1939-40.

System.	Oil.				Coal.	
	Lubricating.		Fuel and Light.			
	Gallons.	£	Gallons.	£	Tons.	£
New South Wales ..	413,342	54,475	1,409,860	55,936	1,466,868	1,220,996
Victoria ..	175,889	22,982	1,377,792	59,711	489,983	567,592
Queensland..	242,596	29,840	482,648	32,673	455,780	440,185
South Australia ..	87,319	10,980	1,163,960	67,310	190,436	280,494
Western Australia ..	102,993	12,695	415,389	17,139	316,293	249,441
Tasmania ..	44,334	4,869	469,637	14,919	47,749	62,659
Commonwealth ..	27,570	3,208	149,307	6,652	28,724	47,606
Australia ..	1,094,043	139,049	5,468,593	254,340	2,995,833	2,868,973

12. **Staff Employed.**—The following table gives details of the average staff employed by the Government railways of Australia during 1939–40. Further details may be found in *Transport and Communication Bulletin* No. 31.

GOVERNMENT RAILWAYS : AVERAGE STAFF EMPLOYED, 1939–40.

System.	Operating Staff.		Construction Staff.		All Employees—Staff.	
	Salaried.	Wages.	Salaried.	Wages.	Salaried.	Wages.
	No.	No.	No.	No.	No.	No.
New South Wales(a)	7,048	33,657	44	1,242	7,092	34,899
Victoria ..	3,621	20,417	(b)	(b)	3,621	20,417
Queensland ..	3,223	15,349	7	107	3,230	15,456
South Australia ..	1,384	6,957	..	32	1,384	6,989
Western Australia ..	1,281	6,963	3	138	1,284	7,101
Tasmania(a) ..	208	1,779	(c)	(c)	208	1,779
Commonwealth ..	185	1,953	..	33	185	1,986
Australia ..	16,950	87,075	54	1,552	17,004	88,627

(a) Includes members of staff serving with Defence Services. (b) In Victoria, railway construction work is not under the control of the Railways Commissioners. (c) 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, 1939–40.**—The bulk of the private railways in Australia have been laid down for the purpose of hauling timber, firewood, sugar-cane, coal and other minerals, and they are not generally used for the conveyance of passengers or for public goods 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 1939–40 :—

PRIVATE RAILWAYS : SUMMARY OF OPERATIONS, 1939–40.

State.	Route-Miles Open.	Capital Cost.	Gross Revenue.	Working Expenses.	Train-Miles Run.	Passenger-Journeys.	Goods, etc., Carried.	Em- ployees.
	Miles.	£'000.	£	£	'000.	'000.	'000. Tons.	No.
N.S.W.(a)	69.10	1,214	348,264	205,042	481	970	731	422
Vic. ..	24.94	82	5,483	7,319	17	4	17	17
Q'land(a)	183.39	247	30,849	27,606	100	4	196	48
S.A.(a) ..	50.90	(b)	(b)	(b)	109	..	2,584	(b)
W.A. ..	277.00	2,258	156,230	82,756	266	22	127	279
Tas.(a) ..	116.34	925	150,356	126,610	217	38	221	282
Australia(a)	721.67	4,726	691,182	449,333	1,190	1,038	3,876	1,048

(a) Incomplete.

(b) Not available.

Some of the particulars given in the table are incomplete in respect 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 details relating to goods carried for the general public are not recorded separately.

C. TRAMWAYS.

1. **Systems in Operation.**—(i) *General.* Tramway systems are in operation in all the Capital cities and in a number of the larger towns of Australia. The systems are operated mainly by governmental and municipal authorities, and are now practically all electric.

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 1939-40, classified (a) according to the controlling authority, (b) according to the motive-power used, and (c) according to gauge:—

TRAMWAYS : ROUTE MILEAGE OPEN, 1939-40.

Particulars—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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ACCORDING TO CONTROLLING AUTHORITY.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Government ..	162.20	173.58	..	..	58.84	..	394.62
Municipal ..	..	..	61.59	77.47	11.90	29.44	180.40
Private ..	3.50	..	..	..	9.40	..	12.90
Total ..	165.70	173.58	61.59	77.47	80.14	29.44	587.92

ACCORDING TO MOTIVE-POWER.

Electric ..	162.20	165.68	61.59	77.47	71.19	29.44	567.57
Steam or Petrol ..	3.50	..	..	..	8.95	..	12.45
Cable ..	..	7.90	..	..	..	..	7.90
Total ..	165.70	173.58	61.59	77.47	80.14	29.44	587.92

ACCORDING TO GAUGE.

Gauge—							
5 ft. 3 in. ..	..	5.18	..	..	..	..	5.18
4 ft. 8½ in. ..	165.70	168.40	61.59	77.47	..	..	473.16
3 ft. 6 in. ..	..	..	..	..	80.14	29.44	109.58
Total ..	165.70	173.58	61.59	77.47	80.14	29.44	587.92

Further details may be obtained from *Transport and Communication Bulletin No. 31.*

(iii) *Cost of Construction and Equipment.* The table hereunder shows the total cost of construction and equipment of all tramways to 30th June, 1940, classified according to the nature of the motive-power. Further details relating to controlling authorities are available in *Transport and Communication Bulletin* No. 31.

TRAMWAYS : COST OF CONSTRUCTION AND EQUIPMENT, 1939-40.

Nature of Motive-power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
Electric..	£ 8,935,612	£ 8,123,638	£ 2,443,242	£ 4,435,930	£ 1,755,826	£ 671,879	£ 26,366,127
Steam or Petrol	(a) 20,000	..	..	..	86,273	..	106,273
Cable ..	..	461,842	..	..	..	..	461,842
Total ..	8,955,612	8,585,480	2,443,242	4,435,930	1,842,099	671,879	26,934,242

(a) Estimated.

(iv) *Summary of Operations, 1935-36 to 1939-40.* The following table gives a summary of the working of all tramway systems in Australia for the years 1935-36 to 1939-40 :—

TRAMWAYS : SUMMARY OF OPERATIONS.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Mileage open for traffic .. miles	611.90	613.02	607.66	606.49	587.92
Cost of construction and equipment .. £'000	26,654	26,949	26,959	26,888	26,934
Cost per mile £	43,559	43,961	44,366	44,334	45,813
Gross revenue £'000	7,567	7,735	7,835	7,866	7,865
Working expenses „	5,464	5,609	5,975	6,264	6,213
Net earnings „	2,103	2,126	1,860	1,602	1,652
Interest „	1,135	1,102	1,117	1,094	1,101
Percentage of working expenses on gross revenue %	72.20	72.51	76.26	79.63	78.99
Percentage of net earnings on capital cost %	7.89	7.89	6.90	5.96	6.13
Tram-miles run '000 miles	81,481	82,295	83,806	83,838	80,343
Gross revenue per tram-mile .. d.	22.29	22.56	22.44	22.52	23.49
Working expenses per tram-mile .. „	16.09	16.36	17.11	17.93	18.56
Net earnings per tram-mile .. „	6.20	6.20	5.33	4.59	4.93
Passenger-journeys '000	688,123	701,941	754,957	716,351	712,772
„ „ per tram-mile No.	8.45	8.53	8.49	8.54	8.87
Average revenue per passenger-journey d.	2.64	2.64	2.64	2.64	2.65
Persons employed at end of year No.	17,712	17,864	18,073	17,695	17,450

2. *Electric Tramways.*—(i) *Financial Operations.* The following table gives the capital cost and the financial result of electric tramways for each State during 1939-40, 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, 1940.	Capital Cost.	Gross Revenue.	Working Expenses.	Net Revenue.	Interest.	Employees at 30th June, 1940.
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STATES, 1939-40.

	Miles.	£'000.	£'000.	£'000.	£'000.	£'000.	No.
New South Wales ..	162.20	8,935	3,331	2,973	358	389	7,813
Victoria ..	165.68	8,124	2,191	1,449	742	250	4,388
Queensland ..	61.59	2,443	869	641	228	126	1,937
South Australia ..	77.47	4,436	730	513	218	249	1,739
Western Australia ..	71.19	1,756	372	339	33	45	771
Tasmania ..	29.44	672	186	147	38	39	335
Australia ..	567.57	26,366	7,679	6,062	1,617	1,098	16,983

AUSTRALIA, 1935-36 TO 1939-40.

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
1938-39 ..	586.14	26,275	7,649	6,089	1,560	1,092	17,207
1939-40 ..	567.57	26,366	7,679	6,062	1,617	1,098	16,983

(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 1939-40, 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, 1939-40.

	Miles.	Miles.	'000.	'000.	No.	No.	No.
New South Wales	162.20	308.81	31,498	311,539	9.89	31	1,597
Victoria ..	165.68	306.63	22,905	181,634	7.93	32	375
Queensland ..	60.75	107.85	8,164	93,431	11.44	2	608
South Australia ..	77.47	145.95	8,876	53,933	6.08	9	103
Western Australia	71.19	109.03	4,669	38,386	8.22	4	220
Tasmania ..	29.44	44.33	2,095	16,034	7.65	..	22
Australia ..	566.73	1,022.60	78,207	694,957	8.89	78	2,925

AUSTRALIA, 1935-36 TO 1939-40.

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
1938-39 ..	585.37	1,045.59	81,361	695,476	8.55	61	2,750
1939-40 ..	566.73	1,022.60	78,207	694,957	8.89	78	2,925

D. MOTOR VEHICLES.

1. The Motor Car and Motor Industry.—(i) *Evolution of the Motor Car.* In Official Year Book No. 20, p. 319, a short history is given of the evolution of the motor car.

(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 four years ended 1938–39. The number of motor bodies built in 1939–40 was 71,637 valued at £5,583,316.

MOTOR VEHICLES, ETC. : LOCAL MANUFACTURE AND IMPORTS.

Particulars.	Unit.	1935–36.	1936–37.	1937–38.	1938–39.
Motor bodies built ..	No.	67,337	77,191	92,061	79,017
	£	6,043,735	6,461,314	7,400,497	6,379,955
Imports—					
Motor bodies	No.	1,699	786	646	532
	£	149,593	81,380	63,810	56,641
Chassis	No.	75,652	69,915	89,632	76,094
	£	5,507,957	5,458,640	7,355,586	6,416,949
Crude petroleum ..	Mill. gal.	65	60	70	54
	£	539,693	520,517	603,216	448,880
Petroleum spirit, etc. ..	Mill. gal.	255	282	333	345
	£	3,792,950	4,525,939	5,503,085	5,209,650
Pneumatic tyres and tubes	lb.	225,087	342,651	341,178	322,764
	£	18,826	27,032	30,968	28,094

Later particulars of imports are not available for publication.

Although precise figures are not available, the value of motor tyres and tubes produced in Australia during 1939–40 was approximately £4,500,000, 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 are referred to in Official Year Book No. 16, pp. 337–40, 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 with 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 Hobart City Council.

5. Motor Vehicles on the Register, etc.—(i) Year 1939-40. Particulars of the registration of motor vehicles, licences issued and revenue received for 1939-40 are contained in the following table :—

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, 1939-40.

(Excluding Defence Service Vehicles.)

State or Territory.	Motor Vehicles Registered at 30th June, 1940.(a)					Drivers' and Riders' Licences in force at 30th June, 1940.	Gross Revenue derived from—			
	Motor Cars.(b)	Commercial Vehicles (c)	Motor Cycles.	Total.	Per 1,000 of Population at 30th June, 1940.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
	No.	No.	No.	No.	No.	No.	£	£	£	£
N. South Wales	210,808	75,887	21,542	308,237	111.08	472,595	2,538,903	243,502	106,472	2,888,877
Victoria ..	156,337	484,575	25,705	666,617	140.09	370,838	1,844,901	93,126	43,655	1,981,682
Queensland ..	77,037	44,689	8,031	129,757	126.44	163,864	921,782	64,923	59,109	1,045,874
South Australia	56,510	23,966	8,825	89,301	149.25	129,950	628,378	58,468	12,540	699,386
Western Aust.	38,930	23,135	6,791	70,856	151.45	86,986	403,215	27,067	25,786	456,068
Tasmania ..	17,598	5,235	3,351	26,184	109.42	31,148	175,675	15,574	23,588	214,837
Northern Terr.	459	1,061	100	1,620	194.88	2,029	2,777	815	..	3,592
Aust. Cap. Terr.	1,854	446	91	2,391	187.94	3,371	14,062	1,908	99	16,069
Australia ..	559,533	260,994	74,496	895,023	127.29	1,260,781	6,529,693	505,383	271,309	7,306,385

(a) Excluding Trailers (20,418), Road Tractors, etc. (2,196), and Dealers' Plates (3,309).

(b) Including Taxis and Hire Cars. (c) Including Lorries, Vans, Buses and Utility Trucks.

(d) Including 49,549 vehicles registered as primary producers'.

Particulars relating to the number of motor vehicles registered at 30th June, 1941, will be found in the Appendix to this volume.

(ii) *Quinquennium* 1935-36 to 1939-40. The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1935-36 to 1939-40. :—

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, AUSTRALIA.

(Excluding Defence Service Vehicles.)

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.
	No.	No. (a)	No.	No.	No.	No.	£	£	£	£
1935-36	484,832	180,567	77,467	742,866	109.64	979,343	5,017,888	386,322	215,949	5,620,159
1936-37	499,289	214,296	77,912	791,497	115.86	1,092,973	5,413,282	448,914	218,671	6,080,867
1937-38	534,963	241,751	80,114	856,828	124.30	1,175,786	5,884,847	470,053	234,161	6,589,061
1938-39	562,271	258,025	79,237	899,533	129.23	1,238,497	6,318,435	508,387	244,722	7,071,544
1939-40	559,533	260,994	74,496	895,023	127.29	1,260,781	6,529,693	505,383	271,309	7,306,385

(a) Including 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 31st December, 1921, and at 30th June for each of the years 1936 to 1940 :—

MOTOR VEHICLES (EXCLUSIVE OF MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.
(Excluding Defence Service Vehicles.)

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
31st Dec., 1921 ..	15	16	8	24	12	13	(a)	..	15
30th June, 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
„ 1939 ..	107	125	118	137	134	96	221	182	118
„ 1940 ..	103	127	119	135	137	95	192	181	117

(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 1935-36 to 1939-40. 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales ..	7 14 2	7 16 0	7 17 11	7 19 10	8 11 5
Victoria ..	7 5 11	7 5 10	7 7 8	7 7 9	7 8 8
Queensland ..	6 0 8	6 3 0	6 5 10	6 16 3	7 7 0
South Australia ..	8 8 6	7 14 0	7 4 7	7 9 10	7 6 11
Western Australia ..	5 16 11	6 11 5	6 5 2	6 6 0	6 2 6
Tasmania ..	5 14 3	5 13 0	5 17 6	6 13 3	7 6 7
Northern Territory ..	1 5 0	1 7 0	1 8 1	1 11 0	1 15 2
Aust. Cap. Territory	5 12 2	6 6 0	5 18 7	5 15 2	5 16 11
Australia ..	7 4 0	7 4 9	7 5 2	7 8 3	7 13 10

(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.

6. *New Vehicles Registered.*—(i) *Year 1939-40.* The following table gives the number of new vehicles registered in each State during 1939-40 :—

NEW MOTOR VEHICLES REGISTERED, 1939-40.
(Excluding Defence Service Vehicles.)

State or Territory.	Motor Cars.	Commercial Vehicles, etc.	Motor Cycles.	Total.
	No.	No.	No.	No.
New South Wales ..	14,255	6,117	1,385	21,757
Victoria ..	11,613	(a) 5,773	1,370	18,756
Queensland ..	5,786	4,037	721	10,544
South Australia(b) ..	4,028	1,623	535	6,186
Western Australia(c) ..	1,744	450	170	2,364
Tasmania ..	1,400	540	176	2,116
Australian Capital Territory ..	154	18	6	178
Total ..	38,980	18,558	4,363	61,901

(a) Including vehicles registered as primary producers'.

(b) Excluding Northern Territory.

(c) Metropolitan area only.

Particulars of the number of new vehicles registered during 1940-41 will be found in the Appendix to this volume.

(ii) *Quinquennium* 1935-36 to 1939-40. Particulars of the number of new vehicles registered in Australia during the years 1935-36 to 1939-40 appear in the following table :—

NEW MOTOR VEHICLES REGISTERED : AUSTRALIA.(a)
(Excluding Defence Service Vehicles.)

Year.	Motor Cars.	Commercial Vehicles, etc.	Motor Cycles.	Total.
	No.	No.	No.	No.
1935-36	50,427	19,851	6,673	76,951
1936-37	48,587	(b) 24,191	7,479	80,257
1937-38	55,125	(b) 27,402	8,323	90,850
1938-39	52,897	(b) 23,646	7,064	83,607
1939-40	38,980	(b) 18,558	4,363	61,901

(a) Excluding Northern Territory and extra-Metropolitan area of Western Australia. (b) Including vehicles registered as primary producers' vehicles, Victoria.

7. *World Motor Vehicle Statistics, 1941.*—The result of the 1941 World Motor Census, conducted by the *American Automobile*, from which the following particulars have been extracted, shows that there were 45,790,140 motor cars, trucks, and buses registered in various countries of the world at 1st January, 1941. This shows an increase of 2.9 per cent. on the figure for the previous year, 44,515,137, and is the highest figure yet obtained.

The following table shows the number of motor vehicles registered in each continent at 1st January, 1941 :—

MOTOR VEHICLES : WORLD REGISTRATIONS AT 1st JANUARY, 1941.

Continent.	Total Automobiles.(a)	Motor Cars.(a)	Motor Trucks and Buses.(a)	Motor Cycles.(a)
	No.	No.	No.	No.
Africa (b)	692,974	543,740	145,840	52,293
America (exclusive of U.S.A.) ..	2,435,374	1,876,431	558,943	12,426
United States of America	31,468,887	26,915,836	4,553,051	122,761
Asia	595,111	310,284	184,827	40,409
Europe (b)	9,436,293	6,704,286	2,662,007	2,771,112
Oceania	1,161,501	862,604	298,397	91,765
Total	45,790,140	37,213,181	8,403,065	3,090,766

(a) Not complete for all territories.

(b) 1st January, 1940.

The next table gives the number 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, 1941.

Country.	Approximate Population in Millions.	Motor Cars, Trucks and Buses.	Motor Cycles.
		No.	No.
Australia	7	808,500	73,000
Argentine Republic	13	397,935	..
Canada	11	1,468,883	..
France (a)	42	2,268,985	..
Germany (a)	79	1,951,789	1,860,722
United Kingdom (a)	48	2,608,501	411,593
India	366	123,400	5,100
Italy (a)	44	475,000	200,000
Japan	104	100,000	..
New Zealand	2	276,057	17,014
Union of South Africa	2	394,698	25,080
United States of America	130	31,468,887	122,761

(a) 1st January, 1940.

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.

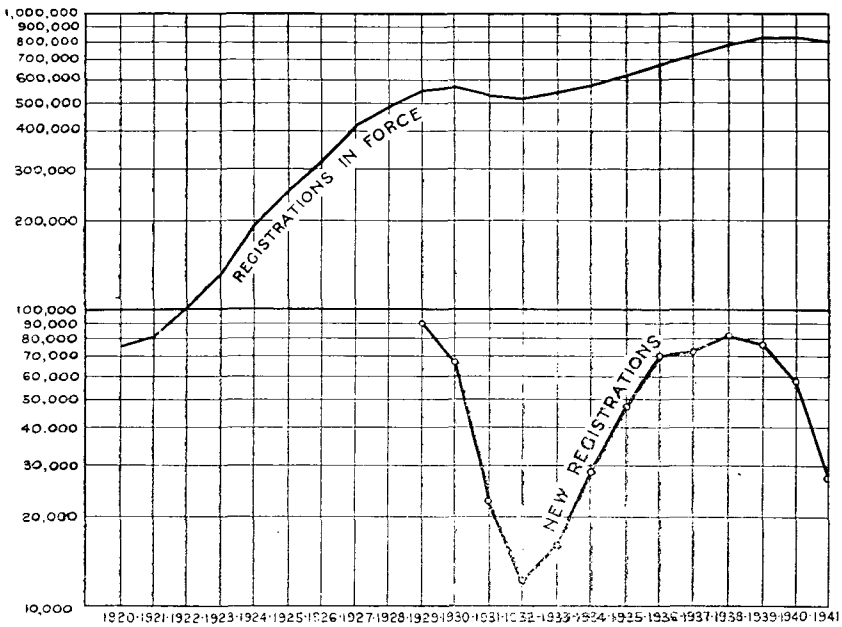
1. *General.*—The practice of reporting accidents occurring in public thoroughfares is not uniform throughout Australia. In New South Wales the reporting of minor accidents has not been enforced, while all other States require that all accidents be reported. Hence the figures for New South Wales are not comparable with those for other States 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 1939-40.* 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 1939-40 :—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : PERSONS KILLED AND INJURED, 1939-40.

State or Territory.	Accidents.	Persons Killed.			Persons Injured.		
		Number.	Per 1,000 of Mean Population.	Per 100 Motor Vehicles Registered.	Number.	Per 1,000 of Mean Population.	Per 100 Motor Vehicles Registered.
New South Wales	11,200	545	0.20	0.18	8,398	3.04	2.73
Victoria ..	20,120	515	0.27	0.19	8,723	4.62	3.27
Queensland ..	9,904	187	0.18	0.14	3,844	3.78	2.96
South Australia ..	12,314	126	0.21	0.14	3,128	5.24	3.50
Western Australia	5,314	123	0.26	0.17	998	2.14	1.41
Tasmania ..	4,768	55	0.23	0.21	1,009	4.23	3.85
Aus. Cap. Territory	81	7	0.56	0.29	42	3.37	1.76
Total ..	63,701	1,558	0.22	0.17	26,142	3.74	2.92

MOTOR VEHICLE REGISTRATION—AUSTRALIA, 1920 TO 1941.

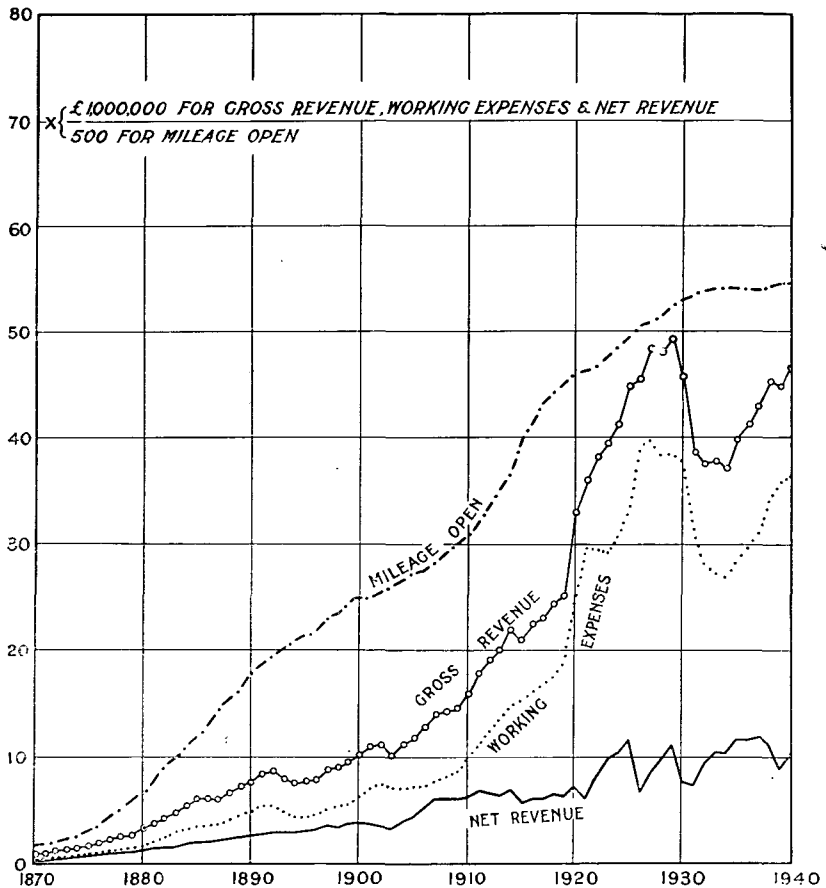


(See page 115.)

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, 1873 TO 1940.



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 curves for (i) gross revenue; (ii) working expenses; and (iii) net revenue, the vertical side of each square represents £10,000,000. The mileage open is shown by a broken line, the vertical side of each square representing 5,000 miles.

The ages of the persons killed or injured are given below :—

AGES OF PERSONS KILLED OR INJURED, 1939-40.

State or Territory.	Under 10 years.		10 to 59 years.		60 years and over.		Age not known.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New S. Wales	40	573	383	7,207	122	618	..	..	545	8,398
Victoria ..	31	614	373	6,978	107	783	4	348	515	8,723
Queensland ..	(a) 19	(a) 547	(b) 142	b 2,974	26	311	..	12	187	3,844
South Aust. ..	4	147	97	2,764	25	217	..	..	126	3,128
Western Aust.	(c) 21	(c) 120	(d) 83	(d) 827	19	51	..	..	123	998
Tasmania ..	..	76	47	869	8	64	..	..	55	1,009
Aus. Cap. Terr.	(a)	(a)	(b)	(b)	..	..	..	..	7	42
Total ..	(e) 115	(e) 2,083	(e) 1,132	(e) 21,655	307	2,044	4	360	1,558	26,142

(a) Under 15. (b) Fifteen and under 60. (c) Under 16. (d) Sixteen and under 60.
(e) Approximate.

(ii) *Years 1931-32 to 1939-40.* Approximate figures relating to the persons killed and injured in traffic accidents in Australia during the years 1931-32 to 1939-40 are given hereunder :—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : PERSONS KILLED AND INJURED, AUSTRALIA.(a)

Particulars.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Persons killed ..	818	914	952	1,100	1,350	1,387	1,483	1,426	1,558
„ injured ..	13,728	15,073	18,039	19,189	22,131	22,940	25,097	25,653	26,142

(a) Prior to 1935 figures were compiled by three States for the calendar year, and by one State for the years 1935 and 1936.

3. *Accidents Involving Casualties.*—Owing to limitation of space the table showing detailed causes of accidents for 1938-39 and 1939-40 has been omitted, but may be found in the *Transport and Communication Bulletin* No. 31.

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 appears in *Official Year Book* No. 16, pp. 334-5.

2. *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 responsible to the Minister for Defence and continued to function as a unit of the Defence Department organization until November, 1938. In January, 1939, the Civil Aviation Board was abolished 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 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.

In addition to the air services operating solely within Australia, the following overseas services operate :—Sydney-Singapore, there connecting with British Overseas Airways Service to Cairo and Durban ; the Sydney-Rabaul Service ; and the Sydney-Auckland Service. A notable development during 1940 was the inauguration by

Pan-American Airways of the San Francisco-Auckland Service to a fortnightly schedule. This service provides connexion at Auckland with the Auckland-Sydney Service, giving "through" air conveyance for passengers, mails and freight from Sydney to America. A Dutch (K.N.I.L.M.) Service operates weekly between Sydney and Batavia (Netherlands East Indies).

In January, 1941, the Government considered the renewal of the contracts of those services whose contracts expired on 26th January, 1941, and approved that new contracts be entered into with Airline Operators for a further period of twelve months from the 26th January, 1941.

Owing to the Censorship provisions the detailed paragraphs previously shown dealing with the services have been omitted.

4. **Statistical Summary.**—The collection and compilation of aircraft statistics were undertaken by this Bureau on 1st July, 1922. The following table gives a summary of operations for the five years ended 30th June, 1940:—

CIVIL AVIATION IN AUSTRALIA : SUMMARY.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Registered aircraft owners					
(a) No.	124	102	139	149	137
Registered aircraft(a) ..	228	214	286	296	288
Licensed pilots—(a)					
Private	714	744	937	1,096	(b) 1,225
Commercial	236	265	323	346	(b) 324
Licensed navigators(a) ..	22	29	47	59	(b) 85
Licensed aircraft radio telegraph operators(a) No.	8	9	23	75	(b) 92
Licensed ground engineers (a) No.	295	346	437	525	(b) 651
Aerodromes—(a)					
Government	63	72	74	71	73
Public	171	183	197	213	224
Government emergency grounds No.	148	151	153	147	141
Hours flown	62,479	84,010	113,647	121,935	120,133
Approx. mileage miles	5,819,751	8,731,612	12,291,570	14,098,615	12,822,751
Passengers carried—					
Paying No.	60,476	85,574	133,408	123,566	121,700
Non-paying	14,643	16,590	25,495	24,353	21,097
Total No.	75,119	102,164	158,903	147,919	142,797
Goods, weight carried lb.	442,407	822,724	1,169,207	1,734,644	1,770,738
Mails,	121,187	167,601	228,581	(c) 740,375	(c) 416,996
Accidents—					
Persons—killed No.	20	19	10	38	11
injured	6	14	4	15	6

(a) At 30th June.
of oversea mail.

(b) Includes licences issued for New Guinea.

(c) Including gross weight

Separate particulars of flying over the Darwin-Singapore Section of the Imperial Airways route, included in the table above, are shown below:—

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Hours flown No.	2,159	3,767	3,788	4,903	3,593
Miles flown	290,542	494,105	488,417	718,288	522,664
Passengers carried	177	351	522	1,112	1,504
Goods, weight carried lb.	8,564	17,582	28,080	103,948	79,190
Mails,	69,436	89,647	113,117	(a) 576,188	(a) 259,518

(a) Gross weight.

Preliminary figures relating to the operations of civil aircraft in Australia during 1940-41 will be found in the Appendix to this volume.

5. **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 New Guinea. 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.

All types of mining and dredging machinery, motor cars, trucks, horses, cattle, building and other heavy materials, and all the requirements of the European population of the gold-fields and of the native indentured labourers 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 1939-40 the average weight of cargo and mails carried per day was 29 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., K. Parer, Ray Parer and Madang Aerial Transport Co. W. R. Carpenter & Co. Ltd. operate a weekly service from Sydney to Port Moresby, Salamaua and 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, Madang, Wewak and intermediate centres.

The following table gives a summary of operations for the five years ended 30th June, 1940.

CIVIL AVIATION IN TERRITORY OF NEW GUINEA : SUMMARY.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Registered aircraft owners					
(a) No.	12	9	10	10	9
Registered aircraft(a) ..	38	34	40	47	43
Licensed pilots—(a)					
Private	5	4	12	13	(b)
Commercial	27	22	24	23	(b)
Licensed navigators(a) ..	1	..	2	3	(b)
Licensed ground engineers					
(a) No.	41	36	37	46	(b)
Aerodromes—(a)					
Government	15	18	21	24	30
Public	15	19	19	19	23
Government emergency landing grounds No.	6	8	6	11	13
Hours flown	18,114	16,371	15,445	15,626	13,814
Approximate mileage miles	1,486,983	1,466,355	1,560,179	1,456,154	1,253,632
Passengers carried—					
Paying No.	15,943	11,718	12,247	12,909	15,433
Non-paying	616	1,382	1,017	1,569	1,551
Total	16,559	13,100	13,264	14,478	16,984
Goods, weight carried lb.	21,883,413	24,441,860	25,574,028	27,063,912	23,499,629
Mails,	128,982	122,063	166,643	162,608	146,998
Accidents—					
Persons—killed No.	1	..	1	..	8
injured .. .. .	..	..	1	1	1

(a) At 30th June.

(b) Not available.

Preliminary figures relating to the operations of civil aircraft in New Guinea during 1940-41 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 Official Year Book some account is given of the procedure in connexion with the transfer to the Commonwealth Government of the postal, telegraph and telephone facilities of the separate States. (See Official 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 the Postmaster-General, being a responsible Minister. 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 of Posts and Telegraphs.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The following 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 30th June, 1940. 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, and 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, 1940.

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Number of post offices (a) ..	2,525	2,583	1,233	787	615	508	8,251
Number of square miles of territory to each office in State ..	123	34	544	1,148	1,587	52	361
Number of inhabitants to each office	1,104	737	832	770	761	471	852
Number of inhabitants per 100 square miles	898	2,166	153	67	48	913	236

(a) Including "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 1910, 1920, 1930, and 1940 :—

NUMBER OF POST OFFICES.

State.	At 31st December—		At 30th June—					
	1910.		1920.		1930.		1940.	
	Official and Semi-Official.	Non-Official. (a)	Official and Semi-Official.	Non-Official. (a)	Official and Semi-Official.	Non-Official. (a)	Official and Semi-Official.	Non-Official. (a)
New South Wales ..	483	1,954	464	2,129	445	2,231	440	2,085
Victoria ..	294	2,126	269	2,267	282	2,450	282	2,301
Queensland ..	200	1,180	199	1,073	207	1,046	196	1,037
South Australia ..	171	567	137	655	147	658	143	644
Western Australia ..	153	277	126	485	126	497	129	486
Tasmania ..	56	373	46	442	43	475	44	464
Australia ..	1,357	6,477	1,241	7,051	1,250	7,357	1,234	7,017

(a) Including 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 following table :—

POSTAL EMPLOYEES AND MAIL CONTRACTORS.

State.	At 31st December—		At 30th June—					
	1910.		1920.		1930.		1940.	
	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.	Em- ployees.	Mail Con- tractors.
Central Office ..	(a)	..	83	..	205	..	356	..
New South Wales ..	8,622	1,602	11,334	1,912	14,383	1,952	17,281	2,577
Victoria ..	7,043	848	7,962	1,089	10,709	1,175	13,605	1,645
Queensland ..	3,247	720	4,778	723	5,179	814	6,577	1,568
South Australia ..	1,905	268	2,679	427	3,954	414	4,013	333
Western Australia..	1,894	233	2,110	286	2,902	398	3,469	389
Tasmania ..	969	189	1,156	227	1,517	270	1,716	222
Australia ..	23,680	3,860	30,102	4,664	38,849	5,023	47,017	6,734

(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 :—

POSTMASTER-GENERAL'S DEPARTMENT : GROSS REVENUE.

Branch and Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Postal—							
1935-36 ..	2,705	1,850	959	503	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
1938-39 ..	3,048	2,042	1,067	552	502	211	7,422
1939-40 ..	3,025	2,082	1,078	564	489	207	7,445
Telegraph—							
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
1938-39 ..	502	341	234	118	139	38	1,372
1939-40 ..	511	367	236	117	136	34	1,401
Wireless—							
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
1938-39 ..	198	152	59	53	36	18	516
1939-40 ..	207	161	67	56	39	19	549
Telephone—							
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
1938-39 ..	3,261	2,352	1,098	696	431	202	8,040
1939-40 ..	3,443	2,487	1,137	740	453	223	8,483
All Branches—							
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
1938-39 ..	7,009	4,887	2,458	1,419	1,108	469	17,350
1939-40 ..	7,186	5,097	2,518	1,477	1,117	483	17,878
Total revenue per capita—	£	£	£	£	£	£	£
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
1938-39 ..	2.55	2.61	2.44	2.36	2.40	1.98	2.50
1939-40 ..	2.59	2.70	2.47	2.45	2.40	2.02	2.56

Compared with the corresponding figures for the previous year, an increase of 3.0 per cent. is shown in the gross revenue earned. Increases in the several branches were as follows :—Postal 0.3 per cent., Telegraph 2.1 per cent., Wireless 6.3 per cent., and Telephone 5.5 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, 1940. 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.

POSTMASTER-GENERAL'S DEPT. : DISTRIBUTION OF EXPENDITURE, 1939-40.

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 ..	66,013	2,220,760	1,594,464	831,148	537,527	419,301	207,048	5,578,262
General expenses ..	11,694	190,749	133,470	43,543	38,252	26,204	11,885	455,803
Stores and material ..	2,804	77,147	51,942	26,085	9,505	13,104	6,500	187,087
Mail services ..	4,377,443	423,405	269,599	223,867	78,688	80,191	38,500	1,497,713
Engineering services (other than New Works) ..	78,109	1,357,033	949,018	462,122	314,723	263,870	144,041	3,568,916
Other services ..	59,559	..	..	..	..	..	..	59,559
Total ..	597,622	4,269,094	2,998,499	1,587,685	978,695	808,670	407,975	11,648,240
Pensions and retiring allowances ..	..	20,751	23,168	..	..	23,222	..	67,141
Rent, repairs, maintenance, fittings, etc. ..	..	28,421	32,902	14,900	13,182	7,623	3,278	100,306
Proportion of audit expenses ..	..	4,764	3,240	1,740	1,032	792	432	12,000
New Works—								
Telegraph, telephone and wireless ..	10,750	1,329,092	885,694	334,000	170,275	146,706	70,949	2,947,466
New Buildings, etc. ..	..	153,253	16,592	54,932	8,710	4,306	4,837	242,630
Other expenditure not allocated to States ..	3,458,022	..	..	..	..	..	..	3,458,022
	(b)							
Grand Total ..	4,066,394	5,805,375	3,960,095	1,993,257	1,171,894	991,319	487,471	18,475,805
	(c)							

(a) Orient Steam Navigation Company's Oversea Mail Contract and expenditure on air-mail services.
 (b) Particulars of apportionment to States not available. (c) Including expenditure not apportioned to States.

(ii) *Total, 1935-36 to 1939-40.* The next table gives the actual payments made, as shown by records kept for Treasury purposes in respect of the Postmaster-General's Department, for each of the last five years :—

POSTMASTER-GENERAL'S DEPARTMENT : EXPENDITURE.

	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£	£
Total Expenditure ..	14,424,388	15,622,255	17,135,560	18,873,934	18,475,805

The total expenditure decreased by 2.1 per cent. during 1939-40.

5. **Profit or Loss, Postmaster-General's Department.**—(i) *States, 1939-40.* The foregoing statement 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 :—

POSTMASTER-GENERAL'S DEPARTMENT : PROFIT OR LOSS, 1939-40.

Branch.	Profit or Loss.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
Postal ..	{ Profit Loss	802,552 ..	652,642 ..	308,840 ..	136,085 ..	74,904 ..	23,122 ..	1,998,145 ..
Telegraph ..	{ Profit Loss	27,286 ..	55,311 ..	8,496 ..	6,685 ..	6,779 ..	4,326 ..	108,283 ..
Wireless ..	{ Profit Loss	19,194 ..	16,785 ..	.. 7,906	12,964 ..	.. 18,835	.. 8,946	13,256 ..
Telephone ..	{ Profit Loss	822,377 ..	521,175 ..	247,609 ..	61,558 ..	3,075 ..	.. 16,913	1,638,881 ..
All Branches ..	{ Profit Loss	1,671,409 ..	1,245,913 ..	557,039 ..	216,692 ..	65,923 ..	1,589 ..	3,758,565 ..

After providing for depreciation, pensions and retiring allowances and interest on capital, the year 1939-40 closed with a surplus of £3,758,565. For the preceding year a profit of £3,625,371 was shown.

(ii) *Branches, 1935-36 to 1939-40.* The following statement gives particulars of the operating results of each branch for the period 1935-36 to 1939-40 :—

POSTMASTER-GENERAL'S DEPARTMENT : PROFIT OR LOSS, BRANCHES.

Year.	Branch Profits—				
	Postal.	Telegraph.	Wireless.	Telephone.	All Branches.
	£	£	£	£	£
1935-36..	1,948,385	64,993	86,184	884,423	2,983,985
1936-37..	2,055,963	79,791	87,718	1,117,458	3,340,930
1937-38..	2,024,561	73,020	82,211	1,283,684	3,533,476
1938-39..	2,105,208	51,617	76,054	1,392,492	3,625,371
1939-40..	1,998,145	108,283	13,256	1,638,881	3,758,565

6. **Capital Account.**—The appended statement shows particulars of the fixed assets of the Postmaster-General's Department at 30th June, 1940 :—

POSTMASTER-GENERAL'S DEPARTMENT : FIXED ASSETS, 30th JUNE, 1940.

Particulars.	Net Value, 1st July, 1939.	Capital Expenditure, 1939-40.	Gross Value, 30th June, 1940.	Less Deprecia- tion, &c. 1939-40. (a)	Net Value, 30th June, 1940.
	£	£	£	£	£
Telephone service plant (ex- clusive of trunk lines) ..	40,919,903	3,449,602	44,369,505	866,655	43,502,850
Trunk and telegraph service plant (aerial wires) ..	10,907,702	212,603	11,120,305	75,750	11,044,555
Telegraph service plant ..	726,032	30,919	756,951	7,110	749,841
Postal service plant ..	436,758	13,055	449,813	4,642	445,171
Wireless plant ..	562,576	40,505	603,081	11,417	591,664
Sites, buildings, furniture and office equipment ..	10,613,577	299,415	10,912,992	41,889	10,871,103
Miscellaneous plant ..	956,422	88,542	1,044,964	45,904	999,060
Total	65,122,970	4,134,641	69,257,611	1,053,367	68,204,244

(a) Including dismantled assets, depreciation written off, and assets transferred.

During the past quinquennium the value of the fixed assets has increased by 24.9 per cent., the net value at 30th June, 1935, being £54,627,080.

§ 2. Posts.

1. **Postal Matters Dealt With.**—(i) *Australia.* The following table gives a summary of the postal matter dealt with in Australia during the five years 1935-36 to 1939-40. Although mail matter posted in Australia for delivery therein is necessarily handled at least twice, only the number 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 Popu- lation.	Number (‘000 omitted).	Per 1,000 of Popu- lation.
POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.								
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
1938-39 ..	836,243	120,717	139,635	20,157	9,056	1,307	7,474	1,079
1939-40 ..	834,113	119,295	138,900	19,866	9,065	1,296	7,780	1,113
TOTAL POSTAL MATTER DEALT WITH.								
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
1938-39 ..	903,090	130,367	165,362	23,871	9,585	1,384	8,371	1,208
1939-40 ..	881,910	126,131	157,677	22,551	9,484	1,356	8,512	1,218

(ii) *States.* The next table shows the postal matter dealt with in each State during the year 1939-40.

POSTAL MATTER DEALT WITH : STATES 1939-40.(a)

State.	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 FOR DELIVERY WITHIN AUSTRALIA.								
New South Wales	326,986	117,812	66,873	24,094	3,798	1,368	2,875	1,034
Victoria ..	245,264	129,798	28,713	15,195	1,843	975	2,219	1,174
Queensland ..	109,257	107,324	23,501	23,085	1,873	1,840	1,183	1,162
South Australia ..	62,694	103,784	7,819	12,944	753	1,247	637	1,054
Western Australia	57,835	124,044	6,779	14,540	673	1,443	561	1,203
Tasmania ..	32,077	134,424	5,215	21,854	125	524	305	1,278
Australia ..	834,113	119,295	138,900	19,866	9,065	1,296	7,780	1,113

POSTED FOR DELIVERY OVERSEAS.

New South Wales	9,497	3,422	2,097	756	106	38	180	65
Victoria ..	6,866	3,634	2,830	1,498	52	28	85	45
Queensland ..	1,908	1,874	523	514	13	13	36	35
South Australia ..	2,180	3,609	326	540	8	13	19	31
Western Australia	2,581	5,536	392	841	12	26	30	64
Tasmania ..	1,209	5,067	97	406	3	13	4	17
Australia ..	24,241	3,467	6,265	896	194	28	354	51

RECEIVED FROM OVERSEAS.

New South Wales	12,059	4,345	7,567	2,726	109	39	202	73
Victoria ..	5,817	3,078	1,838	973	67	35	99	52
Queensland ..	1,996	1,961	1,146	1,126	17	17	27	27
South Australia ..	1,149	1,902	677	1,121	11	18	14	23
Western Australia	1,946	4,174	1,071	2,297	17	36	32	69
Tasmania ..	589	2,468	213	893	4	17	4	17
Australia ..	23,556	3,369	12,512	1,789	225	32	378	54

(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 1935-36 to 1939-40:—

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.
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
1938-39 ..	332,419	36,000	175,376	20,596	67,852	849	633,092
1939-40 ..	346,327	60,417	180,215	22,697	68,883	670	679,209
VALUE COLLECTED.							
	£	£	£	£	£	£	£
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
1938-39 ..	405,844	50,224	226,409	22,962	76,323	1,143	782,905
1939-40 ..	417,046	88,225	232,873	27,844	72,250	831	839,069

REVENUE INCLUDING POSTAGE, COMMISSION ON VALUE, REGISTRATION AND MONEY ORDER COMMISSION.

	£	£	£	£	£	£	£
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
1938-39 ..	45,097	4,867	24,881	2,587	8,207	102	85,741
1939-40 ..	45,702	8,566	24,741	2,792	7,382	76	89,259

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 have been included, but owing to the restrictions of space the insertion of this information terminated with Official Year Book No. 22.

(ii) *Amounts of Subsidies Paid.* The following table shows the amounts of subsidies paid by the Postal Department for ocean and coastal mail services during the year ended 30th June, 1940:—

MAIL SUBSIDIES: OCEAN AND COASTAL SERVICES, 1939-40.

Service.	Orient S.N. Co.	Queens- land Ports.	South Australian Ports.	Western Australian Ports.	Tas- manian Ports.
	£ Stg.	£	£	£	£
Annual subsidy ..	137,913	975	3,800	5,500	54,379

4. **Total Cost of Carriage of Mails.**—During 1939–40 the total amount paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, was £1,454,021. Details appear hereunder :—

CARRIAGE OF MAILS : TOTAL COST, 1939–40.

Inland Mails.		Non-Contract Vessels.	Overland and Sea Transit.	Coastwise Mails.	Mails to Europe. (a)	Air Mails.	Tasmanian Subsidy.	Total.
By Road.	By Railway.							
£	£	£	£	£	£	£	£	£
553,652	461,730	35,529	3,586	10,886	119,106	239,532	30,000	1,454,021

(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 1939–40, and the methods adopted in the disposal thereof :—

DEAD LETTER OFFICES : TRANSACTIONS, 1939–40.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
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LETTERS, POSTCARDS AND LETTER-CARDS.

	No.	No.	No.	No.	No.	No.	No.
Returned to writers or delivered ..	518,445	262,846	164,267	87,870	116,539	58,032	1,207,999
Destroyed in accordance with Act ..	75,400	30,682	13,104	8,874	3,958	2,580	134,598
Returned to other States or Countries as unclaimed ..	52,076	12,239	3,169	2,535	5,100	984	76,103
Total ..	645,921	305,767	180,540	99,279	125,597	61,596	1,418,700

PACKETS AND CIRCULARS.

Returned to writers or delivered ..	199,893	136,691	260,369	11,887	12,289	43,914	665,043
Destroyed in accordance with Act ..	23,041	22,087	11,856	663	2,138	1,488	61,273
Returned to other States or Countries as unclaimed ..	11,614	4,827	115	1,881	224	342	19,003
Total ..	234,548	163,605	272,340	14,431	14,651	45,744	745,319
Grand Total (letters, packets, etc.) ..	880,469	469,372	452,880	113,710	140,248	107,340	2,164,019

During 1939–40 money and valuables to the amount of £93,486 were found in postal articles sent to the Dead Letter Office.

6. **Money Orders and Postal Notes.**—(i) *General.* The issue of money orders and postal notes is regulated by Sections 74–79 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, 1939-40.* Particulars regarding the business transactions in each State for 1939-40 are given hereunder :—

MONEY ORDERS AND POSTAL NOTES : TRANSACTIONS, 1939-40.

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 ..	8,964,202	9,092,460	44,713	3,489,945	79,390
Victoria ..	3,636,028	3,892,846	21,224	2,232,187	54,016
Queensland ..	2,876,188	2,702,204	19,483	940,426	21,452
South Australia ..	1,168,065	1,092,054	6,039	536,293	12,757
Western Australia ..	1,534,201	1,440,178	9,191	488,473	10,823
Tasmania ..	686,153	638,548	3,683	208,652	4,390
Australia ..	18,864,837	18,858,290	104,333	7,895,976	182,828

(iii) *Australia, 1935-36 to 1939-40.* The next table shows the number and value of money orders and postal notes issued and paid in Australia from 1935-36 to 1939-40 :—

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.
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
1938-39 ..	3,239	18,349	3,254	18,548	21,942	7,926	21,966	7,934
1939-40 ..	3,325	18,865	3,247	18,858	21,724	7,896	21,688	7,888

(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 1939-40, classified according to the country where payable :—

MONEY ORDERS ISSUED : COUNTRY WHERE PAYABLE, 1939-40.

Where Issued.	Where Payable.				Total.
	In Australia.	In New Zealand.	In United Kingdom.	In Other Countries.	
NUMBER.					
Australia	3,169,344	18,596	89,598	47,716	3,325,254
VALUE.					
Australia	£ 18,544,943	£ 38,405	£ 156,050	£ 125,439	£ 18,864,837

(b) *Money Orders Paid.* The number and value of money orders paid during 1939-40, classified according to the country where issued, are given hereunder:—

MONEY ORDERS PAID : COUNTRY OF ISSUE, 1939-40.

Where Paid.	Where Issued.				Total.
	In Australia.	In New Zealand.	In United Kingdom.	In Other Countries.	
NUMBER.					
Australia	3,141,550	47,369	30,742	27,009	3,246,670
VALUE.					
Australia	£ 18,525,465	£ 125,424	£ 117,415	£ 89,986	£ 18,858,290

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 following table shows the number and value of postal notes paid in each State during 1939-40. Particulars regarding the 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, 1939-40.

Issued in—	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
NUMBER.							
Same State ..	'000. 7,785	'000. 3,899	'000. 2,000	'000. 899	'000. 1,055	'000. 429	'000. 16,067
Other States ..	825	621	801	117	450	2,807	5,621
Total ..	8,610	4,520	2,801	1,016	1,505	3,236	21,688
VALUE.							
Same State ..	£'000. 2,976	£'000. 1,481	£'000. 760	£'000. 345	£'000. 406	£'000. 152	£'000. 6,120
Other States ..	307	242	261	47	78	833	1,768
Total ..	3,283	1,723	1,021	392	484	985	7,888

The number and value of postal notes paid in Australia during the year showed decreases of 1.3 per cent. and 0.6 per cent. respectively on the corresponding figures for 1938-39.

§ 3. Telegraphs.

1. *General.*—(i) *Development of System.* A review of the development of the Telegraph Services in Australia appears in Official 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 four repeating centres, nineteen centres having been abolished.

(iii) *Supra-acoustic 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 Telegraph Carrier 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 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. This system has now been extended to the following routes:—Sydney-Canberra, Sydney-Wagga Wagga, Perth-Kalgoorlie, Brisbane-Townsville and Adelaide-Port Augusta. 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; Brisbane-Thursday Island, 1,775 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. These provide 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, Perth and Kalgoorlie, and Adelaide and Darwin, 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 year ended 30th June, 1940, was 3,234,093 or 18.3 per cent. of the total lodgments, and the popularity of this service 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 Australia 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 wireless transceiver stations have been established at various centres throughout the Commonwealth, enabling telegrams to be exchanged with departmental telegraph offices. These 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, Port Lincoln and Alice Springs. The radiogram rates of 1½d. per word with a minimum charge of two shillings apply to telegrams exchanged with these stations.

(x) *Picturegram Service.* During the year ended 30th June, 1941, 351 picturegrams were transmitted between Sydney and Melbourne, the revenue being £862. Any kind of picture of 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) *Oversea Phototelegram Service.* An oversea 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 tariff for this service was reduced on 1st January, 1940, and the charges are now calculated at the rate of one shilling and four pence per square centimetre with a minimum charge of £10 as for 150 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 1940, 453,886 Greeting Telegrams were sent, an increase of 214.9 per cent. on the number (144,102) sent in 1929, the year of inception of the service.

During 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 84,713 in 1941. 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 23,062 in 1941. 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 Teleprinter 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 teleprinter service. This may be briefly defined as typewriting over electrical circuits, teleprinters 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.

One hundred and twelve private wire services employing 185 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 separate machines installed in the offices of city stock-brokers.

(xiv) *Telegraph Tariffs.* Important modifications of the telegraph tariff structure were introduced on 10th June, 1940. Under the amending Post and Telegraph Rates Act of 1940 ordinary telegrams between offices not more than 15 miles apart are subject to a minimum charge of 9d. for 14 words and 1d. for each additional word, irrespective of whether the telegraph offices of origin and destination are in the same State. Ordinary telegrams between offices which are more than 15 miles apart are subject to a uniform charge of 1s. as for 14 words and 1d. for each additional word, irrespective of State boundaries. Double rates are applicable to urgent telegrams. Ordinary charges, instead of double rates as previously, are applied to ordinary telegrams lodged for transmission on Sundays, Christmas Day, Good Friday or after certain hours on other days. The prescribed press rates have also been extended to telegrams containing news intended for broadcasting.

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 30th June, 1940 :—

TELEGRAPH OFFICES AND LINES : STATES, 30th JUNE, 1940.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Number of offices ..	3,072	2,474	1,590	839	931	544	9,450
Length of wire (miles)—							
Telegraph purposes only	12,237	7,615	14,774	6,377	8,485	641	50,129
Telegraph and telephone purposes ..	63,223	19,121	37,072	13,057	10,071	1,448	143,992
Length of line (miles)—							
Conductors in Morse cable	2,792	1,417	490	..	181	24	4,904
Conductors in submarine cable (statute miles) ..	4,937	422	339	226	193	624	6,741
Pole routes (miles) ..	33,708	19,185	14,779	14,740	12,040	3,516	97,968

A total length of 194,121 miles of wire is available for telegraph purposes, of which 143,992 miles are also used for telephone purposes. Compared with those for the previous year, the figures show an increase of 2,203 miles (1.1 per cent.) in the total length and an increase of 2,632 miles (1.8 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 1936 to 1940 :—

TELEGRAPH OFFICES AND LINES : AUSTRALIA, AT 30th JUNE.

Particulars.	1936.	1937.	1938.	1939.	1940.
Number of offices	9,252	9,320	9,359	9,389	9,450
Length of wire (miles)—					
Telegraph purposes only ..	56,292	55,196	51,027	50,558	50,129
Telegraph and telephone purposes ..	113,277	121,788	134,974	141,360	143,992
Length of line (miles)—					
Conductors in Morse cable ..	4,815	4,863	4,813	4,816	4,904
Conductors in submarine cable (statute miles) ..	5,193	5,421	5,693	5,747	6,741
Pole routes (miles)	97,850	96,917	97,120	97,311	97,968

3. Number of Telegrams Dispatched.—(i) *States*. The following table shows the number of telegrams dispatched in each State during 1939-40 according to the class of message transmitted :—

TELEGRAMS DISPATCHED(a) : STATES, 1939-40.

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 ..	5,160,761	3,577,639	2,740,563	1,055,544	1,604,143	306,182	14,444,832
Urgent ..	202,148	75,491	82,281	39,418	37,902	9,672	446,912
Press ..	177,934	82,925	69,828	27,709	38,542	31,564	428,502
Lettergram ..	61,615	37,688	39,749	25,951	70,200	15,405	250,608
Radiogram ..	21,874	1,921	18,765	8,564	14,541	2,588	68,253
Total ..	5,624,332	3,775,664	2,951,186	1,157,186	1,765,328	365,411	15,639,107
Unpaid—							
Service ..	198,074	110,968	88,303	37,145	54,774	21,712	510,976
Shipping ..	4,547	23,617	2,958	1,225	3,514	901	36,762
Meteorological ..	371,484	172,291	331,492	273,797	227,291	82,764	1,459,119
Total ..	574,105	306,876	422,753	312,167	285,579	105,377	2,006,857
Grand Total ..	6,198,437	4,082,540	3,373,939	1,469,353	2,050,907	470,788	17,645,964

(a) Including radiogram traffic with islands adjacent to Australia 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, 1935-36 TO 1939-40.

Telegrams.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number(a) ..	15,508,843	16,268,416	16,965,336	17,251,759	17,645,964

(a) See Note (a) above.

The increase in the volume of telegraph business has averaged 427,424 messages in 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. *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 2.6 messages annually per head of population. The United

States of America has the second highest average of 1.6, 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 Messages per Head of Population.
Australia	2.9	2.6
Belgium	1.8	0.7
Canada	0.5	1.1
Denmark	0.2	0.4
Finland	0.3	0.2
France	2.8	0.6
Germany	0.6	0.3
United Kingdom	2.6	1.3
Hungary	1.3	0.3
Japan	1.3	0.9
Netherlands	0.8	0.4
Norway	1.2	1.2
Poland	0.7	0.1
Sweden	0.4	0.7
Switzerland	0.6	0.4
Union of South Africa	2.2	0.7
United States of America	0.7	1.6

§ 4. Oversea Cable and Radio Communication.

1. *First Cable Communication with the Old World.*—In earlier issues of the Official 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 Official Year Book No. 22, pp. 335–6.

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. *Oversea Cable and Radio Traffic.*—(i) *States.* The number of telegrams received from and dispatched overseas in each State during 1939–40 is given hereunder :—

INTERNATIONAL TELEGRAMS : STATES, 1939–40.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number received ..	396,440	223,992	25,793	28,200	28,160	7,837	710,422
„ dispatched	360,670	238,334	27,920	30,981	43,166	8,551	709,622
Total ..	757,110	462,326	53,713	59,181	71,326	16,388	1,420,044

(ii) *Australia*. The following table shows the number of international telegrams received from and dispatched overseas in Australia during 1938-39 and 1939-40:—

INTERNATIONAL TELEGRAMS.—AUSTRALIA.

Messages.	Number Received.		Number Dispatched.		Total Number Received and Dispatched.	
	1938-39.	1939-40.	1938-39.	1939-40.	1938-39.	1939-40.
Number ..	716,007	710,422	745,754	709,622	1,461,761	1,420,044

5. *Cable and Beam Wireless Rates.*—(i) *Ordinary Messages*. As from 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.; (minimum 5 words); 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 of America 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) *Oversea 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 Sudan. In all cases where the reduced rate applies the deferred press service has been abolished.

(vi) *Social Greetings Telegram Service*. As from 1st May, 1939, a social greeting service was introduced between Australia and Empire points. 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 text of such telegrams are restricted to messages of a social and greeting character. This service replaces the special Christmas, Easter and Jewish New Year greeting telegram service previously available to Empire points. These facilities are also available, on payment of the prescribed rates, to foreign countries which admit the service.

(vii) *De-Luxe Telegram Service.* A de-luxe telegram service has been established between Australia and certain of the more important oversea 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 1937 to 1940:—

TELEPHONE LINES : AUSTRALIA AT 30th JUNE.

Particulars.	1937.	1938.	1939.	1940.
Ordinary Lines—				
Conduits duct miles	8,546	9,664	10,817	11,919
“ route “	5,869	6,942	8,082	9,179
Conductors in aerial and underground cables miles	892,795	941,816	983,756	1,053,242
Working conductors in cables for junction circuits, not included above				
loop mileage	77,889	84,437	102,649	108,649
Open conductors single wire “	425,857	428,106	434,932	433,605
Trunk Lines—				
Telephone trunk lines only .. miles	224,447	218,146	220,687	219,880
Telegraph and telephone purposes ..	121,788	134,974	141,360	143,992

(ii) *Comparison with Other Countries.* During 1939–40 the total number of telephones added to the Post office system was 29,092 compared with 31,821 in 1938–39. The rate of progress was satisfactory bearing in mind the abnormal conditions which have prevailed. With an average of 98 telephones per 1,000 of population, Australia continues to hold seventh place amongst the countries of the world in respect of telephone density. The average length of wire per instrument in Australia is $4\frac{1}{2}$ miles.

(iii) *Trunk Line System.* Good progress is being made with the laying of an underground trunk line cable from Sydney to Newcastle and Maitland, a distance of 124 miles, in order to meet the continually increasing development of this important route. The provision of a similar cable between Melbourne and Seymour (61 miles) is also proceeding, this being a section of the Sydney–Melbourne route. Both cables are of special design and will provide several communication channels over each circuit within the cable.

Many additional trunk lines, including 35 carrier-wave systems were brought into use during the year. One hundred and sixty-nine carrier wave systems are now in operation, yielding 316 channels of an aggregate length of 78,518 miles.

Despite the installation of the Sydney–Melbourne route of the special 12-channel system, referred to in the previous issue of the Official Year Book, thus increasing the total channels in this group to 30, additional circuits will be required in the near future to cater for the rapidly increasing public demand for telephone communication between those cities. Plans are being formulated covering not only this route but also other main interstate routes, including the submarine cable between the Mainland and Tasmania, where the business is growing at a high rate.

The new semi-auto positions at the Main Trunk Exchange, Melbourne, on which channels connecting other capital cities are terminated, have been brought into service. The additional facilities and operating aids incorporated in the equipment have already demonstrated their value in disposing of the ever-increasing volume of interstate telephone business. The installation of the remaining positions is proceeding satisfactorily.

(iv) *Automatic Exchanges.* The plan to convert the metropolitan network to automatic working was advanced appreciably during 1939-40 when 14 new exchanges of this type were installed. At 30th June, 1940, there were 96 automatic exchanges in the metropolitan areas and 105 in country districts to which 368,755 telephones were connected, representing 53 per cent. of the number in use in Australia.

(v) *Rural Automatic Exchanges.* The establishment of automatic switching units which have been designed to meet the special needs of rural communities is advancing steadily. Twenty-three new exchanges were provided during the year and at 30th June, 1940, 101 of these units were in service. Work is proceeding to enable a further 55 exchanges to be established.

(vi) *Summary for States.* Particulars relating to the telephone service in each State for the years ended 30th June, 1938 to 1940, 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.	Aust.
Exchanges ..	1938	2,004	1,682	1,029	569	652	355	6,291
	1939	2,010	1,680	1,053	579	653	358	6,333
	1940	2,016	1,685	1,075	584	645	357	6,362
Telephone Offices (in- cluding Exchanges)	1938	3,036	2,356	1,519	820	903	510	9,144
	1939	3,040	2,358	1,517	829	907	509	9,160
	1940	3,043	2,379	1,541	833	910	511	9,217
Lines connected ..	1938	181,458	143,657	58,626	43,307	24,968	13,482	465,498
	1939	189,915	150,570	61,650	45,224	26,032	14,144	487,535
	1940	197,046	157,081	64,120	46,767	26,903	14,695	506,612
Instruments con- nected	1938	244,590	198,761	77,929	57,630	34,210	17,055	630,175
	1939	257,246	208,230	82,226	60,451	35,830	18,013	661,996
	1940	268,216	218,128	85,847	62,788	37,227	18,882	691,088
(a) Subscribers' in- struments	1938	238,283	194,451	75,122	55,874	32,807	16,170	612,707
	1939	250,511	203,668	79,293	58,512	34,380	17,098	643,462
	1940	261,185	213,395	82,790	60,801	35,717	17,998	671,886
(b) Public tele- phones	1938	3,941	2,506	1,726	906	904	549	10,532
	1939	4,223	2,573	1,775	1,017	926	562	11,076
	1940	4,303	2,620	1,831	995	935	559	11,243
(c) Other local in- struments	1938	2,366	1,804	1,081	850	499	336	6,936
	1939	2,512	1,989	1,158	922	524	353	7,458
	1940	2,728	2,113	1,226	992	575	325	7,959
Instruments per 100 of population	1938	8.96	10.65	7.77	9.63	7.43	7.28	9.14
	1939	9.32	11.07	8.09	10.04	7.70	7.61	9.51
	1940	9.59	11.46	8.41	10.38	7.97	7.94	9.83
Earnings ..		£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
	1938	3,194	2,250	1,063	685	425	194	7,811
	1939	3,371	2,409	1,136	709	450	209	8,284
	1940	3,581	2,602	1,176	758	467	226	8,810
Working expenses ..	1938	1,936	1,361	652	516	326	192	4,983
	1939	2,119	1,488	691	543	365	204	5,410
	1940	2,154	1,635	713	537	367	197	5,603
Percentage of working expenses on earn- ings	1938	%	%	%	%	%	%	%
	1939	60.63	60.47	61.36	75.31	76.57	99.01	63.78
	1940	62.87	61.75	60.80	76.58	81.13	97.94	65.31
		60.15	62.86	60.65	70.90	78.63	86.91	63.61

Of the total telephones (691,088) in service on 30th June, 1940, 260,865, or 38 per cent. were connected to exchanges situated beyond the limits of the metropolitan telephone networks. The number of telephone offices, including exchanges, opened during the year was 57, bringing the total in Australia to 9,217.

Handset telephones installed during the year totalled 54,335. At 30th June, 1940, there were 313,466 handset instruments in service, or 45.36 per cent. of the total telephones connected.

(vii) *Systems in Use.* Of the total telephone subscribers' lines in service in Australia 53 per cent. are connected to automatic exchanges, 41 per cent. to magneto exchanges and 6 per cent. to common battery exchanges. Details for each State are shown in *Transport and Communication Bulletin No. 31* issued by this Bureau.

(viii) *Subscribers' Lines and Calling-rates.* The next table gives the number of subscribers' lines and daily calling-rate at central, suburban and rural telephone exchanges in the several States for 1939-40 :—

TELEPHONES: SUBSCRIBERS' LINES AND DAILY CALLING-RATE, 1939-40.

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 ..	20,213	13.60	102,156	4.37	69,560	2.39	191,929	4.62
Victoria ..	12,396	11.13	88,144	4.49	52,154	1.99	152,694	4.18
Queensland ..	8,653	10.63	18,651	3.65	33,250	2.81	60,554	4.19
South Australia ..	6,247	10.05	19,569	3.30	18,456	1.83	44,272	3.64
Western Australia ..	7,398	7.45	8,436	3.62	10,599	1.85	26,433	3.98
Tasmania ..	3,531	5.16	1,894	2.74	8,684	2.39	14,109	3.13
Australia ..	58,438	10.97	238,850	4.23	192,703	2.27	489,991	4.26

A comparison of the average daily calling-rates for each class of exchange shows that New South Wales registered the greatest number of calls per line at central, Victoria at suburban exchanges and Queensland at rural exchanges.

For Australia the average number of calls per line at central exchanges was approximately two and a half times greater than 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, 1939 and 1940 appear hereunder :—

TELEPHONES: NUMBER OF EFFECTIVE PAID LOCAL CALLS.

State.	Subscribers' Calls.		Calls from Public Telephones.		Total Calls.	
	1938-39.	1939-40.	1938-39.	1939-40.	1938-39.	1939-40.
	'000.	'000.	'000.	'000.	'000.	'000.
New South Wales ..	236,372	258,356	22,768	24,227	259,140	282,583
Victoria ..	166,529	173,987	10,857	11,549	177,386	185,536
Queensland ..	65,654	68,236	5,002	5,584	70,656	73,820
South Australia ..	43,232	46,319	3,676	3,954	46,908	50,273
Western Australia ..	28,821	30,625	1,533	1,687	30,354	32,312
Tasmania ..	10,903	11,932	847	928	11,750	12,860
Australia ..	551,511	589,455	44,683	47,929	596,194	637,384

(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 1937-38 to 1939-40:—

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.
1937-38 ..	14,217	11,007	6,851	4,211	2,222	1,727	40,235
1938-39 ..	14,401	11,198	7,306	4,166	2,311	1,770	41,152
1939-40 ..	14,688	11,853	7,485	4,265	2,282	1,930	42,503
Total Revenue—	£	£	£	£	£	£	£
1937-38 ..	711,872	518,212	387,431	194,909	122,915	68,114	2,003,453
1938-39 ..	739,472	529,190	412,811	196,780	126,141	73,634	2,078,028
1939-40 ..	786,200	577,312	418,800	200,639	127,124	79,543	2,189,618
Average Revenue per Call—	d.	d.	d.	d.	d.	d.	d.
1937-38 ..	12.02	11.30	13.57	11.11	13.27	9.47	11.95
1938-39 ..	12.32	11.34	13.56	11.34	13.09	9.98	12.12
1939-40 ..	12.85	11.69	13.43	11.29	13.37	9.89	12.36

The number of trunk line calls during 1939-40 increased by nearly one and a half million, or 3.28 per cent., compared with the figures for the previous year, whilst the average revenue per call rose by 0.24d.

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 appears 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 1912-1935 require that all ships registered in Australia and engaged in international or 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 issue of Experimental Licences has been suspended for the duration of the war.

The following table shows the number of each class of licence in force in each State and Territory as at 30th June, 1940 :—

WIRELESS LICENCES : 30th JUNE, 1940.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Coast ..	1	1	6	1	5	3	1	..	18
Ship ..	82	94	14	10	3	1	1	..	205
Aircraft ..	9	10	5	5	3	2	1	..	35
Land(a) ..	19	4	61	35	77	9	50	1	256
Broadcasting(b) ..	35	19	19	8	9	8	..	1	99
Broadcast Listeners' ..	456,012	348,158	151,109	124,585	87,764	42,182	306	2,143	1,212,259
Experimental ..	101	106	42	37	26	9	..	..	321
Portable ..	13	2	8	4	6	..	6	2	41
Special ..	72	28	21	3	12	1	..	..	137
Total Issued	456,344	348,422	151,285	124,688	87,905	42,215	365	2,147	1,213,371

(a) In addition to the licensed stations there were two operated by the Postmaster-General's Department, namely, Wave Hill (N.T.) and Camooweal (Q.). (b) There were also twenty-nine stations operated by the National Broadcasting Service, including three short-wave stations (VLR Lyndhurst, Vic., VLLQ, Sydney, N.S.W., and VLIW, Perth, W.A.).

Similar particulars to the above in relation to the year 1940-41 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 30th June, 1925, 1930, and for each year from 1933 to 1940 :—

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
1930 ..	111,080	139,887	23,263	25,671	5,715	6,032	311,648
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
1939 ..	433,029	327,579	133,217	117,307	79,262	39,392	1,129,786
1940 ..	458,155	348,158	151,110	124,891	87,764	42,182	1,212,260

(a) Including Australian Capital Territory.

(b) Including Papua.

(c) Including 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 programme 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 20s. per annum for a receiver situated approximately within 250 miles from a station of the National Service, and 14s. per annum in the area beyond. Licences are issued free to blind persons. The Commission receives 10s. from each fee, the Department retaining the balance.

The National Broadcasting System of Australia comprises 29 transmitting stations as follows :—

Medium-wave Stations—

2FC and 2BL Sydney.	4QN Townsville.
2NC Newcastle.	4RK Rockhampton.
2CO Corowa.	4QS Dalby.
2NR Lawrence.	5CL and 5AN Adelaide.
2CR Cummoek.	5CK Crystal Brook.
2CY Canberra.	6WF and 6WN Perth.
3LO and 3AR Melbourne.	6WA Minding.
3GI Sale.	6GF Kalgoorlie.
3WV Dooen.	7ZL and 7ZR Hobart.
4QG and 4QR Brisbane.	7NT Kelso.

Short-wave Stations—

VLR and VLG Lyndhurst, Victoria.	VLW Perth, Western Australia.
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With the exception of the short-wave stations, all transmitters operate in the broadcast frequency band 550 to 1,500 kilocycles per second. From the short-wave stations, using the band of frequencies 6 to 20 megacycles per second, service is given to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, Northern Territory, and Northern and Central Queensland. The short-wave stations are also used for the oversea service of the Department of Information. It is proposed to install higher-powered transmitters of world range to increase the efficiency of this service.

Programmes for country regional stations are normally relayed from the central studio of the nearest capital city. A high-quality programme transmission network connects the studio to the station. A number of programme channels are utilized to link national broadcasting stations in the capital cities of Australia, and frequently this system is extended to connect both the national and commercial broadcasting stations. Recent chain broadcasts have involved 125 broadcasting stations in Australia, 26,000 miles of trunk-line channels and the attendance of 150 technicians.

Oversea programmes have increased considerably in importance, especially since the outbreak of war, and they are broadcast regularly over the national stations. Short-wave reception centres are established at Mont Park near Melbourne, Liverpool near Sydney, and at Byford, near Perth.

(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 June, 1941, was 96, and there are other 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 electrical machinery and appliances. During the year, the Department received 7,067 complaints of interfering noises, which, in all but a few instances, were remedied.

(iv) *Prosecutions under the Wireless Telegraphy Act.* During the year 2,601 persons were convicted for using unlicensed broadcasting receiving equipment. The total fines amounted to £6,338.

(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 RADIO LICENCE DISTRIBUTION, 31st DECEMBER, 1939.

Country.	Listeners' Licences.	
	Total.	Per 100 of Population.
Sweden	1,358,000	21.52
United States of America	(a) 28,000,000	21.49
Denmark	820,100	21.47
New Zealand	337,090	20.83
United Kingdom	9,200,000	19.33
Australia	1,172,323	16.79
Netherlands	1,437,596	16.47
Germany	11,593,019	14.52
Norway	423,470	14.50
Switzerland	593,400	14.10
Belgium	1,148,659	13.70
France	5,000,000	11.91
Union of South Africa	249,200	11.87
Canada	(c) 1,213,723	10.78
Argentine Republic	1,180,000	9.11
Finland	332,450	9.09
Eire	(b) 148,811	5.07
Hungary	496,311	4.90
Japan	4,666,058	4.47
Mexico	(b) 875,000	4.46
Poland	(b) 1,016,473	2.90
Italy	(b) 995,500	2.24
Union of Soviet Socialist Republics	(d) 3,760,400	2.21

(a) Listeners are not licensed and the totals shown are estimates only of the number of receiving sets in operation. (b) December, 1938, figures. (c) At 31st March, 1939. (d) December, 1936, figures.

Australia ranks sixth amongst countries of the world in relation to radio licences per 100 of population.

4. *Overseas 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, Oversea Cable and Radio Communication. Particulars of international traffic via "Beam" are given in par. (iii) (a) following.

(ii) *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 intercommunication. 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). 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).

(iii) *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, 1940 :—

RADIO TRAFFIC : INTERNATIONAL, 1939-40.

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) ..	615,023	282,333	897,356	547,927	71,621	619,548
Deferred ordinary ..	2,019,464	945,507	2,964,971	1,859,082	244,140	2,103,222
Government (a) ..	74,419	32,021	106,440	13,366	2,363	15,729
Press (including deferred press) ..	125,606	54,774	180,380	3,730,970	296,585	4,027,555
Daily letter and greeting telegrams ..	2,206,034	1,323,397	3,529,431	1,757,765	602,687	2,360,452
Total ..	5,040,546	2,638,032	7,678,578	7,909,110	1,217,396	9,126,506

(a) Including code telegrams.

(b) *Coast Stations.* Particulars of the traffic handled by the several coast stations during 1939-40 are as follows :—

RADIO TRAFFIC : COAST STATIONS, 1939-40.

State or Territory.	Particulars.				
	Total Paying Words.	Messages.			
		Paying.	Service.	Weather.	Total.
	No.	No.	No.	No.	No.
New South Wales ..	1,403,336	57,828	10,006	10,930	78,764
Victoria ..	29,640	2,527	5	868	3,400
Queensland ..	159,779	9,633	1,900	11,768	23,301
South Australia ..	15,126	1,385	198	312	1,895
Western Australia ..	44,899	2,844	876	2,759	6,479
Tasmania ..	73,854	4,113	824	3,221	8,158
Northern Territory ..	67,799	3,331	858	2,511	6,700
Australia ..	1,794,433	81,661	14,667	32,369	128,697
Papua ..	724,991	34,357	2,272	8,798	45,427
Grand Total ..	2,519,424	116,018	16,939	41,167	174,124

(c) *Island Stations.* Particulars of the island radio traffic dealt with during 1939-40 are given in the following table :—

RADIO TRAFFIC : ISLAND STATIONS, 1939-40.

Particulars.	To Australia.	From Australia.	Inter- Island.	Ship.	Total.
	No.	No.	No.	No.	No.
Messages	16,981	14,807	21,516	482	53,786
Words	364,801	263,923	346,608	6,174	981,506

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, 1941, 362 Operators' Certificates of Proficiency were awarded. The number of each class were :—Commercial—First Class, 125 ; Second Class, 108 ; Third Class, 12 ; Aircraft—First Class, 1 ; Second Class, 2 ; Third Class, 12 ; Broadcast Station, 75 , and Amateur, 27.

CHAPTER VI. EDUCATION.

§ 1. Evolution of Educational Systems in Australia.

1. **Educational Systems of the States.**—As the first settlement in Australia was in New South Wales, it was but natural that Australian education should have had its beginning in that State, and consequently the mother State has played a leading part in the evolution of educational method and system in Australia. The subject is dealt with in some detail in the first two issues of the *Official Year Book*, which also contain a more or less detailed account of the origin and development of the educational systems of the other States.

2. **Later Development in State Educational Systems.**—Issues of the *Official Year Book* up to No. 22 contain an outline of later developments of the educational systems of the various States. The educational systems of the States may now be considered as more or less homogeneous entities, the various stages succeeding one another by logical gradation from kindergarten to university.

3. **School Age.**—The statutory school age for children in each State, set out briefly, is as follows :—New South Wales, 6 to 14 years; Victoria, 6 to 14 years; Queensland, 6 to 14 years; South Australia, 6 to 14 years; Western Australia, 6 to 14 years; and Tasmania, 7 to 14 years. In December, 1939, the statutory period was extended in New South Wales to include children at age 6 years. It is being extended further by four months in each year 1941 to 1943 and the period will be 6 to 15 years in 1943.

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 at present financed almost entirely by the Carnegie Corporation of New York. 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 1940, 60 numbers had appeared. Under the title *Review of Education in Australia* the Council produces a Year Book of Australian education. Since its inception the Council has granted 164 applications for assistance to persons who wish to carry out investigations, apart from requests for the publication of manuscript previously completed. The Council also initiates investigations. At the present time, for example, it is making a survey of the teaching profession in Australia. Authorized expenditure on grants to the end of June, 1940, amounted to £17,506. 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 Messrs. Ralph Munn and E. R. Pitt. As a result of their report there are strong movements in several States to rectify the serious deficiencies revealed in existing library services in Australia. The Council provides technical services and advice to private and to official inquiries. In particular, there has been a demand for the tests of intelligence and of scholastic attainment which have been standardized to meet Australian conditions. During the past twelve months over 195,000 copies have been supplied to schools. The Council is represented on the Conference on Employment of Youth convened by the Commonwealth Government. It is recognized by the Institute of Intellectual Co-operation,

Paris, as the National Centre for Educational Information in Australia, and also acts as the Australian representative of the Institute of International Education, New York. The head-quarters of the Council are situated at 147 Collins-street, Melbourne.

§ 2. Census Records.

1. **Persons Receiving Instruction.**—The Census and Statistics Act 1905-1938 specifies "Education" as a subject for inquiry at a Census, but does not indicate the nature or range of the information to be furnished. At earlier Censuses an inquiry regarding the degree of education was restricted to a question as to ability to read and write, but under the system of compulsory education the number of persons in Australia who reach maturity without being able to read and write is very small, and this question was omitted at the 1933 Census. The only question asked concerning those receiving instruction at the time of the 1933 Census was to state the nature of the school they were attending. The tabulation of these details for each of the last three Censuses resulted as follows :—

PERSONS RECEIVING INSTRUCTION AT THE DATE OF THE CENSUS, 1911 TO 1933.

Receiving Instruction at—	Number.			Percentage.		
	1911.	1921.	1933.	1911.	1921.	1933.
				%	%	%
Government School ..	593,059	791,724	904,383	76.49	77.36	77.23
Private School ..	156,106	193,774	224,994	20.13	18.93	19.21
University ..	2,465	7,252	8,525	0.32	0.71	0.73
Home ..	23,760	30,712	33,126	3.06	3.00	2.83
Total ..	775,390	1,023,462	1,171,028	100.00	100.00	100.00

2. **Ages of Scholars.**—In the next table the number of scholars at specified ages in 1933 are shown together with the total number of persons recorded for those ages :—

SCHOOLING OF AUSTRALIAN POPULATION (SEXES COMBINED), 30th JUNE, 1933.

Age Last Birthday. Years.	Number Receiving Instruction at—				Number not stated and not at School.	Total.
	Government School.	Private School.	Home.	University.		
4	6,287	3,528	2,916	..	(a) 556,234	(a) 568,965
5	49,051	12,037	3,475	..	60,348	124,911
6	83,816	18,269	3,169	..	17,385	122,639
7	95,811	20,172	3,091	..	7,221	126,295
8	98,769	20,642	2,809	..	5,798	128,018
9	97,616	20,414	2,467	..	5,020	125,517
10	100,676	21,264	2,309	..	5,189	129,438
11	101,047	21,318	2,190	..	4,939	129,494
12	102,087	21,712	2,108	..	5,224	131,131
13	88,375	20,392	2,114	..	9,127	120,008
14	40,868	15,643	1,804	..	56,836	115,151
15	20,149	12,261	1,347	..	86,197	119,954
16	9,784	8,361	869	101	103,265	122,380
17	4,799	4,521	611	494	110,208	120,633
18	2,480	2,087	565	1,224	120,434	126,790
19	1,257	893	403	1,463	121,637	125,653
20 and over ..	1,511	1,480	879	5,243	4,183,749	4,192,862
Total ..	904,383	224,994	33,126	8,525	5,458,811	6,629,839

(a) Including those aged 0 to 3 years.

3. **Percentage of Persons not Receiving Instruction.**—The compulsory school age in the various States ranges from 6 to 14 years. From the foregoing table it will be seen that the proportion of children aged last birthday from 6 to 13 years receiving instruction was 94.1 per cent. Conversely 5.9 per cent. of the children within the compulsory range were not indicated as receiving instruction at the date of the Census. The corresponding ratio in 1921 was 6.7 per cent.

As the minimum compulsory school age in New South Wales and Tasmania at the date of the Census was 7 years, and as exemptions from further attendance for special reasons on attaining age 13 obtain throughout the States, a more reliable estimate of the percentage of children not receiving instruction may be obtained by ignoring the extreme ages of the compulsory range. The elimination of these ages reduces the percentage from 5.9 to 4.3 per cent. Attendance at school was known to be affected by the severe economic conditions prevailing at the time of the Census, and this latter figure was consequently in excess of the corresponding percentage of 3.7 in 1921. The effect of accessibility to schools may be seen in the further reduction of the percentages of these ages not receiving instruction in the metropolitan areas to 3.5 in 1933 and to 2.9 in 1921.

4. **Religions of Scholars.**—The following table shows the class of school at which the young adherents to the principal religious denominations were being educated at the date of the Census :—

**ADHERENTS RECEIVING INSTRUCTION AT DIFFERENT KINDS OF SCHOOLS,
30th JUNE, 1933.**

Denomination.	Government School.	Private School.	University.	Home.	Total Specified.
Baptist	17,473	998	166	304	18,941
Catholic, Roman(a) ..	84,763	146,197	1,339	6,263	238,562
Church of Christ	10,822	479	86	214	11,601
Church of England	397,717	37,442	3,263	14,612	453,034
Congregational	9,274	1,112	202	224	10,812
Lutheran	8,257	910	45	217	9,429
Methodist	116,305	5,926	1,023	2,723	126,037
Presbyterian	108,870	9,836	1,302	3,814	123,822
No Reply	119,130	18,415	646	3,805	141,996
Other	31,712	3,679	453	950	36,794
Total	904,383	224,994	8,525	33,126	1,171,028

(a) Including Catholic, Undefined.

The most prominent feature of the results given above is the relatively small proportion of Roman Catholics attending State schools. Of the Roman Catholics reported as receiving instruction, 34.66 per cent. were attending State schools compared with 86.84 per cent. for the rest of the community, the proportion for the whole being 77.23 per cent.

§ 3. 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 § 7. 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. 3 (iv) following.

2 Returns for Year 1939.—(i) *General.* The following table shows the number of State Schools, together with the teachers employed and the number of individual children in attendance during 1939:—

STATE SCHOOLS, 1939.

State or Territory.	Schools.	Teachers Employed.	Teachers in Training.	Net Enrolment.
New South Wales(a)	3,251	11,660	1,387	379,025
Victoria	2,682	8,485	418	232,858
Queensland	1,692	4,292	342	141,354
South Australia	1,037	3,051	290	77,204
Western Australia	820	2,419	150	(b) 61,680
Tasmania	448	1,264	110	34,365
Northern Territory(c)	10	28	..	720
Australia	9,940	31,199	2,697	927,206

(a) Including Australian Capital Territory.

(b) Estimated.

(c) Year ended 30th June, 1939.

(ii) *Average Enrolment and Attendance.* The methods of calculating enrolment are not identical throughout the States. The unit in South Australia is the daily enrolment while New South Wales, Victoria, Western Australia and Tasmania employ the weekly enrolment. In Queensland no average enrolment is compiled, and the mean of the four quarterly gross enrolments is the only figure available.

As with enrolments there is not complete uniformity in arriving at the average attendance, but most of the States aggregate the attendances for the year and divide by the number of school sessions. New South Wales and Western Australia, however, employ averages of term averages. The matter of securing uniformity in these respects has been under consideration for some time, and the Council for Educational Research, already referred to in § 1, par. 4, is devoting attention to the question of securing greater uniformity in methods of collection and presentation of educational data generally. The average enrolment and attendance in each State during 1939 are shown below:—

STATE SCHOOLS : AVERAGE ENROLMENT AND ATTENDANCE, 1939.

State or Territory.	Average Weekly Enrolment.	Average Daily Attendance.	Percentage of Attendance on Enrolment.
			%
New South Wales	341,605	294,628	86.25
Victoria	218,683	189,617	(a) 86.71
Queensland	135,244	113,779	84.13
South Australia	74,076	66,112	(a) 89.25
Western Australia	58,511	51,162	87.44
Tasmania	30,865	28,189	91.33
Northern Territory(b)	679	608	89.54
Australia	859,663	744,095	86.56

(a) Excluding correspondence students.

(b) Year ended 30th June, 1939.

The percentage of attendance on enrolment is lowest in Queensland, but this figure is not comparable with those of the other States, as no average enrolment is available for Queensland.

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 average attendance at the State Schools in Australia is shown below for the year 1891 and at varying intervals to 1939 :—

STATE SCHOOLS : AVERAGE ATTENDANCE, AUSTRALIA.

Year.	Total Population.	Average Attendance.	Year.	Total Population.	Average Attendance.
	(a)			(a)	
1891	3,421	350,773	1934	6,706	792,892
1901	3,825	450,246	1935	6,753	790,186
1911	4,574	463,799	1936	6,807	792,148
1921	5,511	666,498	1937	6,867	761,848
1931	6,553	817,262	1938	6,930	757,669
1933	6,657	805,334	1939	6,997	744,095

(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.

(iii) *Schools in the Australian Capital Territory.* During 1939 fourteen State Schools were in operation in the Australian Capital Territory. The individual pupils enrolled numbered 1,615 and the average attendance 1,419. Cost of upkeep amounted to £26,422. 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. A reference to the Canberra University College will be found in § 6, par. 8.

3. 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. 430-1).

(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 prevented from attending school through physical ailment. Approximately 20,832 children received instruction in this way during 1939, the respective numbers in each State being: New South Wales, 9,277; Victoria, 982; Queensland, 6,000; South Australia 1,933; Western Australia, 2,206; and Tasmania, 413. In the Northern Territory, 21 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 considerable attention in Australia. It is recognized that a single adequately staffed and well equipped central institution can give more efficient teaching than a number 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 1939 a sum of £24,869 was expended in boarding allowances and conveyance to central schools. Cost of conveyance to State Schools in Victoria during 1939-40 amounted to £19,567. In Queensland during 1939-40 the cost of transport by rail, road and boat, amounted to £24,760. In South Australia the sum of £5,760 was disbursed in travelling expenses of school children in 1939, while £16,469 was spent in Western Australia during 1938-39, and £18,088 in Tasmania in 1939.

(iii) *Education of Backward and Defective Children.* This subject was referred 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 34 Evening Continuation Schools had an average weekly enrolment in 1939 of 3,484 and an average attendance of 2,673. The schools are divided into three groups, junior technical, domestic science, and commercial. Attendances at the schools for boys numbered 2,132, and at those for girls 541. 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).

4. *Training Colleges.*—The development of the training systems of the various States is referred to at some length in earlier issues of the Official Year Book (see No. 22, pp. 437-9).

5. *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 1939 are shown in the following table. The figures do not include expenditure on buildings, which is given separately in a subsequent table. In all expenditure tables the figures for Victoria and Western Australia and for Queensland the last two years relate to the financial year ended six months later than the stated calendar year.

STATE SCHOOLS : EXPENDITURE ON MAINTENANCE.

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Ncr. Terr.	Total.
TOTAL (INCLUDING SECONDARY SCHOOLS).								
	£	£	£	£	£	£	£	£
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
1938	4,525,546	2,621,297	1,458,366	821,935	712,012	307,543	6,307	9,453,006
1939	4,598,376	2,667,094	1,483,589	854,037	730,500	320,616	6,802	9,661,014

PER HEAD OF AVERAGE ATTENDANCE.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
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	
1938	15 0 11	14 6 11	12 6 2	11 15 11	13 2 4	11 0 8	13 14 3	13 18 11	
1939	15 12 2	14 1 4	13 0 9	12 18 4	14 5 7	11 7 6	11 3 9	14 6 7	

(a) Gross figures, receipts not being available.

Prior to the depression the maximum expenditure on State Schools was £10,087,570 in 1929. Economies were effected during the depression years, but since 1935 the expenditure has risen rapidly to a new high level of £10,661,014 in 1939.

(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, 1939.

State.					Cost.	Cost Per Head of Population.
					£	s. d.
New South Wales	..	..	..	..	816,125	5 11
Victoria	..	..	..	..	469,239	5 0
Queensland	..	..	..	..	162,584	3 2
South Australia	..	..	..	..	134,847	4 6
Western Australia	..	..	..	..	(a) 156,920	6 9
Tasmania	..	..	..	..	38,128	3 2

(a) Year 1938-39.

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 £123,679. For Queensland, the figure quoted does not include the cost of the Agricultural High School and College, which amounted in 1939 to £24,811. For Western Australia the total includes £95,280 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. Terr.	Total.
	£	£	£	£	£	£	£	£
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	44,344	62,117	786	1,141,339
1938	479,703	170,061	208,750	94,584	72,658	70,962	786	1,097,504
1939	411,720	206,481	174,725	85,539	56,994	60,011	539	996,009

The totals for the various States in 1939 include the following amounts expended from loan and unemployment relief funds :—New South Wales, £170,006; Victoria, £125,513; Queensland, £53,349; South Australia, £41,633; Western Australia, £39,008; and Tasmania, £44,489.

(iv) *Total.* The net total cost during 1939 was as follows :—

STATE SCHOOLS : NET TOTAL COST, 1939.

Item.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total.
	£	£	£	£	£	£	£	£
Net cost of education, including buildings ..	5,010,096	2,873,575	1,658,314	924,081	787,494	380,627	7,341	11,641,528

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 1939 to £15 12s. 11d., as compared with £4 9s. 3d. in 1901.

6. *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 Australia. Particulars for each State and Territory at 30th June, 1940, were as follows :—

SCHOOL SAVINGS BANKS AT 30th JUNE, 1940.

State or Territory.	Agencies.	Depositors.	Amount on Deposit.	Average per Depositor.
	No.	No.	£	£ s. d.
New South Wales	2,844	178,209	287,813	1 12 4
Victoria(a)	2,884	208,012	286,905	1 7 7
Queensland	1,444	63,825	166,989	2 12 4
South Australia	1,155	77,765	158,529	2 0 9
Western Australia	768	38,816	89,414	2 6 1
Tasmania(a)	493	31,565	51,113	1 12 5
Northern Territory	6	346	1,119	3 4 8
Australian Capital Territory	12	1,168	2,199	1 17 8
Australia	9,606	599,706	1,044,141	1 14 10

(a) Including inoperative accounts.

§ 4. Private Schools.*

1. *Returns for 1939.*—The following table shows the number of private schools, together with the teachers engaged therein, and the enrolment and average attendance in 1939 :—

PRIVATE SCHOOLS, 1939.

State or Territory.	Schools.	Teachers.	Enrolment.	Average Attendance.
New South Wales	735	5,296	99,646	83,842
Victoria	514	2,719	80,655	(a) 75,398
Queensland	228	1,600	35,538	29,972
South Australia	166	892	13,455	11,692
Western Australia	155	650	14,390	12,795
Tasmania	63	330	7,003	5,324
Northern Territory(b)	2	9	173	148
Total	1,863	11,496	250,860	219,171

(a) Net enrolment.

(b) Year ended 30th June, 1939.

The Roman Catholic schools comprise the largest group of private schools in Australia. On the basis of the figures available, approximately 200,000 children, or 80 per cent. of the total in private schools, are educated in Roman Catholic schools.

* Private schools include all schools not wholly under State control. The term "private" though popularly applied, is, of course, a misnomer.

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 1,210 boys and 620 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 1939 amounted to £11,600. In addition, a sum of £13,266 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.

2. **Growth of Private Schools.**—The enrolment and average attendance at private schools in 1891 and at varying intervals to 1939 were as follows :—

PRIVATE SCHOOLS : ENROLMENT AND ATTENDANCE.

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891	124,485	99,588	1935	229,525	200,539
1901	148,659	120,742	1936	234,278	206,026
1911	160,794	132,588	1937	235,815	210,101
1921	198,688	164,073	1938	249,497	218,510
1931	221,387	189,665	1939	250,860	219,171

3. **Registration of Private Schools.**—Conditions in regard to the registration of private schools were referred to in previous Official Year Books (see No. 18, p. 451).

§ 5. 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, 1940.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistants.
New South Wales	17	910	49	67	80
Victoria	31	1,345	73	76	197
Queensland	6	380	8	20	6
South Australia	12	397	27	34	20
Western Australia	7	333	18	10	6
Tasmania	5	205	10	..	7
Total	78	3,570	185	207	316

The kindergartens in the foregoing 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 return and two centres at Launceston included in the Tasmanian return. The average attendance at these schools in 1940 was 130 and 80 children respectively. In each capital city there is a training college and the number of students in training during 1940 was 67 in Sydney, 64 in Melbourne 20 in Brisbane, 34 in Adelaide, and 10 in Perth.

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.

§ 6. 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).

The statistical officers of the Australian Universities met in conference at Melbourne in August, 1939, and drew up forms for the collection of university statistics which were subsequently approved by the vice-chancellors' committee and will be further discussed at a meeting to be held early in 1942.

2. **Teaching Staff.**—The following table shows the number of professors, lecturers, demonstrators, tutors, etc., on the teaching staffs of the Universities during 1939:—

UNIVERSITIES : TEACHING STAFF, 1939.

University.	Professors.	Lecturers.	Demonstrators, and Tutors.	Others.	Total.
	No.	No.	No.	No.	No.
Sydney	54	212	30	88	384
Melbourne	37	192	86	3	318
Queensland (Brisbane) .. .	21	122	43	37	223
Adelaide	23	125	63	4	215
Western Australia (Perth) ..	19	51	6	3	79
Tasmania (Hobart) .. .	9	21	6	..	36
New England University College .. .. .	..	12	..	..	12
Canberra University College ..	..	17	..	..	17
	163	752	234	135	1,284

The Conservatorium in Sydney is attached to the Education Department, and is not under the control of the University.

3. **Students.**—The number of students enrolled for courses at the Universities during 1939 is shown in the following table:—

UNIVERSITIES : STUDENTS ENROLLED, 1939.

University.	Degree Courses.	Diploma Courses.		Certificate Courses.	Miscellaneous.	Total.
		Post-Graduate.	Sub-Graduate.			
	No.	No.	No.	No.	No.	No.
Sydney	3,206	58	273	..	234	3,771
Melbourne	3,387	5	544	119	414	4,469
Queensland (Brisbane) .. .	1,319	..	141	30	220	1,710
Adelaide	1,238	79	479	..	831	2,627
Western Australia (Perth) ..	775	49	78	88	..	990
Tasmania (Hobart) .. .	329	..	28	..	100	457
New England University College	58	..	1	..	6	65
Canberra University College ..	42	..	46	..	59	147
Total	10,354	191	1,590	237	1,864	14,236

Of the total students 10,294 were males and 3,942 females. Included in those enrolled for degrees, 43 in Queensland, 35 in Victoria, 2 in New England College and one in Tasmania were enrolled for higher degree courses.

4. **University Receipts.**—The receipts of the Universities are derived principally from Government grants, students' fees, and income from private foundations. The receipts for the general University functions from all sources other than new bequests during 1939 are shown in the table below. In South Australia Government grants and income from private foundations include amounts in respect of the Waite Agricultural Research Institute.

UNIVERSITIES : RECEIPTS, GENERAL ACTIVITIES, 1939.

University.	Government Grants.	Students' Fees.	Interest, Rent Dividends and Donations.	Other.	Total
	£	£	£	£	£
Sydney	104,597	93,128	56,119	9,724	263,568
Melbourne	67,100	82,610	21,575	21,987	193,272
Queensland (Brisbane) ..	32,295	26,533	15,986	7,290	82,104
Adelaide	66,600	24,592	18,193	6,230	115,615
Western Australia (Perth)	34,500	1,660	6,593	7,194	49,947
Tasmania (Hobart) .. .	14,525	3,212	1,272	959	19,968
New England University College	10,933	3,616	464	289	15,302
Canberra University College	4,563	1,342	18	94	6,017
Total	335,113	236,693	120,220	53,767	745,793

The figures in the foregoing table do not include the value of new foundations received during 1939, which amounted to £3,391 in New South Wales, £13,167 in Victoria, £1,556 in Queensland, £2,353 in South Australia, and £1,000 in Western Australia.

In preceding issues of the Official Year Book information is 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.

The endowments to the Sydney University include the Challis Fund, £376,466; the G. H. Bosch Fund, £257,961; the P. N. Russell Fund, £100,758; and the Fisher Estate, £42,613. 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 £1,169,571 at 31st December, 1939. 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. David Edward Lewis in 1941 bequeathed approximately £700,000 to the Melbourne University to provide university scholarships for boys from elementary and secondary schools. This bequest is the largest made in Australia for educational purposes.

Mr. Sidney Myer's gifts 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. The estate of the late Miss Helen Mackie provided £40,000 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 £25,000 for medical research.

Queensland University, to 30th April, 1941, had received £199,083 from the McCaughey estate, and £36,468 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.

5. *University Expenditure.*—The principal item of disbursements under the general University activities consists of the salaries of teaching staff or 70.1 per cent. of the total. In the following table is given the expenditure incurred during 1939. excluding capital expenditure on buildings:—

UNIVERSITIES : EXPENDITURE, GENERAL ACTIVITIES, 1939.

University.	Admin- istration.	Maintenance of—			Other.	Total.
		Teachers' Department.	Premises.	Libraries.		
	£	£	£	£	£	£
Sydney	19,866	189,948	22,689	8,129	16,944	257,576
Melbourne	15,105	130,318	20,618	7,315	21,360	194,716
Queensland (Brisbane) ..	6,209	63,042	4,588	3,505	9,998	87,342
Adelaide	4,942	87,441	8,836	7,743	10,152	119,114
Western Australia (Perth)	5,029	32,883	5,031	2,590	5,301	50,834
Tasmania (Hobart) ..	2,569	12,512	921	1,065	2,407	19,474
New England University College	1,808	5,459	2,124	835	4,731	14,957
Canberra University College	431	3,807	118	86	1,138	5,580
Total	55,959	525,410	64,925	31,268	72,031	749,593

6. *Extra-University Activities.*—(i) *General.* The tables shown in paragraphs 4 and 5 relate to the general University activities while the following tables show the financial position of all extra-university activities. The heterogeneous character of the items in the statements for these activities varies to the extent between the Universities that comparisons of the totals are misleading, but they include all items excluded from the general statement and give useful information within limits.

(ii) *Receipts, Extra-University Activities.* The following table shows the main receipts for the year 1939.

UNIVERSITIES : RECEIPTS, EXTRA ACTIVITIES, 1939.

University.	Government Grants.	Interest, Rent, and Dividends.	Candidates' Fees, Public Examination.	Research Grants.	Other.	Total.
	£	£	£	£	£	£
Sydney .. ..	..	13,660	..	14,164	8,667	36,491
Melbourne	6,500	21,876	32,981	9,914	(a) 48,674	119,945
Queensland (Brisbane)	1,650	583	12,162	4,755	1,048	20,198
Adelaide	8,500	8,961	8,977	10,406	990	37,834
Western Australia (Perth) .. ..	..	10,002	6,987	3,150	4,215	24,354
Tasmania (Hobart) ..	1,070	..	1,702	2,400	..	5,172
New England University College ..	..	..	..	..	..	..
Canberra University College .. ..	..	4	..	..	..	4
Total	17,720	55,086	62,809	44,789	63,594	243,998

(a) Includes receipt, Superannuation Fund £14,067, and University Press, £7,968.

(iii) *Expenditure, Extra-University Activities.* The following table shows the main items of expenditure for the year 1939.

UNIVERSITIES : EXPENDITURE, EXTRA ACTIVITIES, 1939.

University.	Salaries, Fees, etc.	Public Examina- tion Expenses.	Adult Education.	Special Research Expenses.	Other.	Total.
	£	£	£	£	£	£
Sydney	2,858	..	5,862	14,436	9,015	32,171
Melbourne	12,300	13,682	4,590	17,553	(a) 71,527	119,652
Queensland (Brisbane)	645	11,337	2,326	4,597	539	19,444
Adelaide	3,970	5,064	2,367	10,198	4,560	26,159
Western Australia (Perth) .. ..	..	6,133	899	3,703	11,654	22,389
Tasmania (Hobart) ..	..	1,661	1,018	2,303	..	4,982
New England Uni- versity College ..	..	..	..	..	..	..
Canberra University College .. ..	..	..	..	..	4	4
Total	19,773	37,877	17,062	52,970	97,299	224,801

(a) Includes apparatus, equipment £20,548.

7. *University Extension.*—Some account of the initiation and progress of university extension is given in preceding Official Year Books (see No. 22, p. 446).

8. *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 1929-1940. By virtue of a temporary regulation of the University of Melbourne, which expires on 31st December in the year following that in which the present war terminates, 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. In 1939 and 1940 the students numbered 147 and 173 respectively. The staff now consists of three full-time and fifteen part-time lecturers.

9. *New England University College.*—New England University College, comprising a Faculty of Arts and Economics and a Faculty of Science, is governed by the University of Sydney. It is situated at Armidale, on the Northern Tablelands of New South Wales. The present main university building stands in 183 acres of land and was presented to the University College by T. R. Forster, Esq., in 1937. The Government of New South Wales bore the expense of converting it to its present use. Lectures began at the College on 14th March, 1938. Students wishing to proceed to degrees in Economics, Veterinary Science and Agriculture may take the earlier courses at the College. In 1940 there were 12 lecturers, including one part-time, 101 students taking courses leading to degrees. In addition Extension Board courses were conducted, and short schools were open to the general public in vacation periods.

10. *Workers' Educational Associations.*—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 and Queensland. The particulars of grants for classes in 1940 were as follows :—New South Wales, £6,000, 57 classes, 68 discussion groups and 9 study circles ; Victoria, £3,120, 34 tutorial classes, 10 study circles and extension work ; Tasmania, £1,500, 8 classes : South Australia, £2,250, 7 tutorial classes, 18 lecture classes, 3 study circles, 2 discussion groups and extension lectures at country centres. In addition, the New South Wales and South Australian Associations each receive a Government grant for general organizing purposes of £770 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. The Universities in New South Wales, Victoria and South Australia co-operate 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 are promoted, and an extensive book service is spreading educational literature throughout Australia.

§ 7. Technical Education.

1. *General.*—Although provision has been made in all of the States for many forms of technical education, the total expenditure figures still indicate a lack of proportion in comparison with the total educational votes. The rapid expansion of manufacturing industries in recent years, however, is increasing the demand for technically-trained personnel, and the provision of facilities for such instruction is demanding and will need greatly increased expenditure.

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. *Schools, Teachers and Students.*—The number of schools, teachers and enrolments of individual students during 1939 are given in the following table :—

TECHNICAL EDUCATION : SCHOOLS, TEACHERS AND ENROLMENTS, 1939.

State.	Schools or Colleges.	Teachers.			Individual Students Enrolled.	
		Full-time.	Part-time.	Total.	Male.	Female.
New South Wales ..	24	894	301	1,195	27,403	9,861
Victoria(a) ..	30	817	456	1,273	30,182	8,833
Queensland ..	13	94	108	202	5,987	1,596
South Australia ..	17	(b)	(b)	316	6,390	3,331
Western Australia ..	5	36	119	155	3,843	1,830
Tasmania(a) ..	5	41	94	135	1,482	417
Total ..	94	..	..	3,276	75,287	25,868

(a) Includes junior enrolments, 9,024 males and 1,147 females in Victoria, and 546 males and 37 females in Tasmania, as teaching staff and expenditure cover both senior and junior sections.

(b) Not available.

The number of individual scholars enrolled during the last five years are given below. In order to make the figures comparable enrolments at Junior Technical Schools are omitted from the Victorian and Tasmanian totals.

TECHNICAL EDUCATION : INDIVIDUAL STUDENTS, 1935 TO 1939.

State.	1935.	1936.	1937.	1938.	1939.
New South Wales ..	19,959	21,364	26,188	30,865	37,264
Victoria ..	20,008	22,345	24,130	26,859	28,844
Queensland ..	13,492	15,189	15,652	16,388	7,583
South Australia ..	8,339	8,654	9,247	9,610	9,721
Western Australia ..	4,542	5,224	5,232	5,382	5,673
Tasmania ..	1,037	1,073	1,253	1,316	1,316
Total ..	67,377	73,849	81,702	90,420	90,401

3. Expenditure.—The expenditure on technical education in each State for 1939 is shown below :—

TECHNICAL EDUCATION : EXPENDITURE, 1939.

State.	Salaries and main-tenance.	Equipment.	Buildings.	Total.	Receipts—Fees, etc.	Net Expendi-ture.
	£	£		£		£
New South Wales	287,073	90,975	226,927	607,517	82,885	524,632
Victoria(a) ..	369,697	7,866	65,486	459,683	90,308	..
Queensland..	76,156	16,069	21,438	114,552	19,372	95,180
South Australia ..	67,434	8,015	9,343	85,029	15,743	69,286
Western Australia ..	26,443	2,497	20,747	49,687	2,748	46,939
Tasmania(a) ..	25,889	5,352	10,362	43,332	3,627	39,705
Total ..	852,692	130,774	354,303	1,359,800	214,683	..

(a) Includes the expenditure on Junior Technical Schools.

Fees and other receipts are paid into Consolidated Revenue in all States except Victoria, where they are retained and spent by the Technical School Committee. The expenditure on buildings is largely financed from loan moneys ; the sums provided from this source in 1939 were :—New South Wales, £205,852 ; Victoria, £55,626 ; Queensland, £19,246 ; South Australia, £8,539 ; Western Australia, £20,532 ; and Tasmania, £9,891.

The expenditure on maintenance for technical education in Australia in 1939 amounted to 2s. 6s. per head of population, as compared with 3os. 7d. per head expended on maintenance for primary and secondary education.

§ 8. 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., 1939.

State.	Schools.	Teachers.	Average Attendance of Students.	
			Males.	Females.
New South Wales	54	331	(a) 2,147	4,966
Victoria	22	172	2,970	3,209
Queensland	13	50	334	1,016
South Australia	15	80	(b) 1,185	(b) 1,677
Western Australia	14	74	(a) 4,844	(a) 1,566
Tasmania	4	20	121	302
Total	122	727	11,601	12,736

(a) Average weekly enrolment; attendance figures not available. (b) Individual students enrolled.

In addition to those shown above for South Australia there were 3,054 males and 83 females receiving instruction from interstate schools by correspondence. Particulars regarding fees received in 1939 are available for Western Australia and Tasmania only, the respective figures being £40,738 and £3,376.

§ 9. 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, 1940.(a)

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
Year of origin	1,866	1,854	1,884	1,880	1,913	1,843
Number of members ..	311	194	214	143	152	245
Vols. of transactions issued	73	81	52	64	26	74
Number of books in library	36,900	18,000	7,100	8,000	4,950	20,000
Societies on exchange list ..	262	340	230	270	178	278
Income £	1,479	688	201	715	294	347
Expenditure £	1,036	777	247	745	278	319

(a) The Royal Society of Australia, with head-quarters at Canberra, was founded on 25th July, 1930 and received permission to use its title on 14th January, 1931. The members, including associates numbered 111 in 1940. Income and expenditure for the year amounted to £11 and £12 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 was to have been held at Adelaide in August, 1940, but has been postponed indefinitely owing to the war.

(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 £85,000. The Society maintains a research bacteriologist and offers annually 4 research fellowships in various branches of natural history. Four fellowships were awarded in 1940. The library comprises some 15,000 volumes, valued at about £7,500. Sixty-five volumes of proceedings have been issued, and the Society exchanges with about 240 kindred institutions. The ordinary membership at the end of 1940 was 178.

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 when 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 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, together with the purchase of the Cook manuscripts, persuaded the Library Committee in 1923 that the title "Commonwealth National Library" should be adopted. Consequent upon the transfer of the Library to Canberra in 1927 the policy of dividing the Library into two sections was adopted—the Parliamentary reference collection to be housed in Parliament House and the National and Public section in a separate building, both to remain under the one general administration. The erection of the first wing of the permanent National Library building was completed in 1935, and 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 1936 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. Gratten 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 Australian 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.

In 1940, Gregory M. Mathews, C.B.E., presented to the Library his collection of Australian ornithological works comprising approximately 5,000 items.

The number of volumes in the National and Parliamentary collections was, at the end of June, 1940, 155,640 books, 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)—five issues.

(b) *Patent Office Library.* The free library attached to the Commonwealth Patent Office, Canberra, contains over 53,000 volumes. Patent specifications of inventions are received from the principal countries of the world, together with official publications dealing with Patents, Trade Marks and Designs. 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 30th June, 1940:—

METROPOLITAN PUBLIC LIBRARIES, 1939-40.

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Canberra(a)	155,640	..	(b) ..	..
Sydney	(c) 422,895	(d) ..	92,459	515,354
Melbourne(e)	486,090	85,593	17,593	589,276
Brisbane	42,106	..	..	42,106
Adelaide	200,556	(f) ..	(g) 10,713	211,269
Perth	157,874	..	(h) 28,166	186,040
Hobart(e)	38,944	(i) 10,567	..	49,511
Darwin	294	(j) 6,304	..	6,598

(a) Includes Parliamentary section. (b) Books are lent to libraries or students throughout Australia whenever necessary for research work. (c) Including 138,308 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, 1939, the books numbered 54,091. (e) Year ended 31st December, 1939. (f) The Adelaide Circulating Library at 30th June, 1940, contained 89,402 books. (g) Including 4,523 volumes in Children's Branch. (h) Includes 8,008 volumes in the School Libraries Branch. (i) Includes 2,354 volumes in the Children's Branch. (j) Includes 157 volumes in 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 1939-40, about 66,000 books were lent to small State schools, 15,102 to Schools of Arts, 7,056 to branches of the Teachers' Federation and 1,728 to Agricultural Bureaux, while 59,720 reference works were lent to individual country students.

A special research staff attached to the Sydney 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 16,546 volumes were added in 1939-40 to the library, which now contains 324,339 references.

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 138,308 volumes in the library in addition to valuable manuscripts, collections of Australian postage and fiscal stamps, and various pictures, coins, etc.

Other important libraries in New South Wales are the Australian Museum, 29,957 volumes; Teachers' Colleges, 59,021, Technical Colleges, 28,543; Public Schools, 559,149; Railways' Institute, 129,684; 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 30th June, 1940, the Parliamentary Library contained 87,115 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. During 1939 the volumes added to the reference branch by purchase, donation, etc., numbered 6,657, additions to the lending branch numbered 4,545.

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. As 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 of America 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 30th June, 1939, the collection numbered 309,642 documents, 17,138 views and 1,389 maps.

For the year ended 30th June, 1940, accessions to the Public Library at Perth numbered 3,193 volumes.

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 44,926 volumes. Books added to the Public Libraries at Hobart and Launceston during the year 1939 numbered 1,951 and 1,000 respectively.

Statistics in regard to other libraries are not available for all States, and the information supplied is not in all cases complete. Returns for Victoria in 1939 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 487,000 volumes. Queensland returned a total of 193 libraries with 554,627 books in 1939-40, although libraries other than the State Public Library do not receive Government aid. Although 260 suburban and country institutions were recorded in South Australia during 1939 statistics were collected from only 247 which returned 725,997 volumes, and in Tasmania 84,000 volumes were distributed between 27 libraries other than the Hobart and Launceston public libraries.

(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. The number of current periodicals refers to those subscribed to. The war has prevented the receipt of a number for which subscriptions have been paid. During 1940 the Queensland University Library received several large gifts.

UNIVERSITY LIBRARIES, 1940.

University.	Number of Volumes.	Yearly Accessions.	Number of Current Periodicals.
Sydney	261,050	7,150	3,424
Melbourne	115,662	4,715	1,547
Queensland	53,932	11,340	900
Adelaide	127,500	5,050	2,274
Western Australia	62,288	2,310	465
Tasmania	43,134	1,911	250
New England University College	6,107	2,357	..
Canberra University College	1,534	104	..

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 and a fine reading room in which since the beginning of 1941 about 18,000 volumes of the collection have been made available on open access shelves. In addition members of the teaching staff, and certain classes of undergraduates, are admitted to the bookstacks; all readers 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 were 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. The Library is administered from the centrally-situated general library; there is a large medical branch library specially rich in periodicals, and smaller branch libraries are accommodated in some of the science departments.

The Library of the University of Queensland began 27 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 this 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. Borrowing facilities are available to all matriculated students, to country students and to graduates. There are medical and law departmental libraries. The medical library has on permanent loan the collection of the Institute of Medical and Veterinary Science, and also incorporates the library of the British Medical Association (South Australian Branch).

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 were 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 information 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 1939–40 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, 1939–40.

State.	Expenditure from—				Receipts.	Net Expenditure.
	Revenue.	Loan.	Other Funds.	Total.		
	£	£	£	£	£	£
New South Wales	5,443,948	482,143	8,792	5,934,883	132,151	5,802,732
Victoria ..	3,202,343	168,566	18,267	3,389,176	66,495	3,322,681
Queensland ..	1,888,441	211,652 (b)	53,349	2,153,442	24,440	2,128,996
South Australia ..	1,131,127	46,660	..	1,177,787	38,223	1,139,564
Western Australia	876,491	59,955	..	936,446	33,084	903,362
Tasmania ..	401,463	61,861	..	463,324	954	462,370
	12,943,813	1,030,837	80,408	14,055,058	295,353	13,759,705

(a) In addition, fees in respect of technical education amounting to £90,308 were received and spent by the School Councils.

(b) Mainly from Special Employment Works Fund.

CHAPTER VII.

PUBLIC JUSTICE.

§ 1. 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 population of the States, 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, which appeared in preceding issues of the Official Year Book (See No. 33, p. 18).

2. **Powers of the Magistrates.**—Preceding issues of the Official Year Book contain a brief statement of the powers of the magistrates in the various States (see No. 22, p. 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 1935 to 1939:—

CASES TRIED AT MAGISTRATES' COURTS.

State or Territory.	1935.	1936.	1937.	1938.	1939.
New South Wales ..	134,900	144,707	125,791	115,521	144,848
Victoria ..	65,973	82,118	74,222	79,056	82,858
Queensland(a) ..	31,909	34,359	33,467	35,434	32,501
South Australia ..	17,299	17,213	19,543	20,729	22,776
Western Australia ..	19,255	22,611	24,430	24,822	24,111
Tasmania ..	8,345	8,948	8,388	9,236	9,498
Northern Territory(a) ..	308	370	461	591	1,494
Australian Capital Territory	135	165	216	308	284
Total ..	278,124	310,491	286,518	285,697	318,370

(a) Year ended 30th June following.

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 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.**—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. A classification of convictions in connexion with the persons who appeared before the lower courts in each State during 1939 is given in the following table :—

CONVICTIONS AT MAGISTRATES' COURTS, 1939.

Offence.	N.S.W.	Vic.	Qld.(a)	S.A.	W.A.	Tas.	N.T.(a)	A.C.T.	Aust.
Against the Person ..	1,667	618	241	111	206	145	13	8	3,009
Against Property ..	10,968	5,109	2,158	1,112	2,406	805	31	51	22,640
Forgery and Offences against the Currency ..	89	..	3	1	2	9	..	..	104
Against Good Order ..	46,693	17,178	13,285	4,361	4,176	1,053	905	133	87,784
Other Miscellaneous ..	66,936	49,281	13,233	14,844	15,749	6,710	445	68	167,266
Total ..	126,353	72,186	28,920	20,429	22,539	8,722	1,394	260	280,803

(a) Year ended 30th June, 1940.

The following table shows the number of convictions in each year from 1935 to 1939 :—

CONVICTIONS AT MAGISTRATES' COURTS.

State or Territory.	1935.	1936.	1937.	1938.	1939.
New South Wales ..	110,135	117,490	103,272	96,933	126,353
Victoria ..	54,666	70,752	64,772	68,841	72,186
Queensland(a) ..	29,527	31,575	29,893	32,047	28,920
South Australia ..	14,838	14,920	17,297	18,341	20,429
Western Australia ..	17,966	21,120	22,777	23,134	22,539
Tasmania ..	7,658	8,347	7,927	8,605	8,722
Northern Territory(a)	262	316	397	518	1,394
Australian Capital Territory	125	155	195	283	260
Total ..	235,177	264,675	246,530	248,702	280,803

(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. Owing to the smallness of the population, the rates for the Northern Territory are subject to considerable variation.

CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS.

State or Territory.	1935.	1936.	1937.	1938.	1939.
NUMBER.					
New South Wales ..	12,069	13,220	12,468	11,651	12,724
Victoria ..	4,955	5,240	5,289	6,064	5,727
Queensland(a) ..	2,311	2,400	2,278	2,467	2,402
South Australia ..	1,382	1,121	1,246	1,287	1,224
Western Australia ..	1,691	1,741	2,011	2,127	2,614
Tasmania ..	936	963	1,007	960	959
Northern Territory(a) ..	15	32	26	62	44
Australian Capital Territory ..	11	21	25	55	59
Total ..	23,370	24,738	24,350	24,673	25,753

PER 10,000 OF THE POPULATION.

New South Wales ..	45.62	49.55	45.99	42.82	46.28
Victoria ..	26.94	28.36	28.44	32.47	30.43
Queensland(a) ..	23.77	24.39	22.71	24.50	23.60
South Australia ..	23.62	19.08	21.08	21.72	20.53
Western Australia ..	37.97	38.69	43.99	46.24	56.21
Tasmania ..	40.76	41.68	42.14	40.73	40.29
Northern Territory(a) ..	29.41	61.97	45.07	106.04	62.59
Australian Capital Territory ..	11.72	21.51	24.40	49.44	49.21
Total ..	34.75	36.50	35.41	35.78	36.99

(a) Year ended 30th June following.

6. Rate of Convictions, 1881 to 1939.—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 :
AUSTRALIA, 1881 TO 1939.**

Year.							Convictions per 10,000 Persons
1881 .. .. .	..	..	..	..	..	..	69.3
1891 .. .. .	..	..	..	..	..	..	44.8
1901 .. .. .	..	..	..	..	..	..	29.1
1911 .. .. .	..	..	..	..	..	..	24.6
1921 .. .. .	..	..	..	..	..	..	29.2
1931 .. .. .	..	..	..	..	..	..	37.1
1939 .. .. .	..	..	..	..	..	..	37.0

7. *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, inasmuch as 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 allowances must be made for the want of uniformity in jurisdiction. A classification of the offences for which persons appearing in the lower courts were committed to higher courts in each State in 1939 is given below :—

COMMITTALS TO SUPERIOR COURTS, 1939.

Offence.	N.S.W.	Vic.	Qld.(a)	S.A.	W.A.	Tas	N.T.(a)	A.C.T.	Aust.
Against the Person ..	529	171	106	57	36	20	8	6	933
Against Property ..	1,608	1,451	197	168	76	57	4	12	3,573
Forgery and Offences against the Currency ..	92	100	4	17	9	3	..	..	225
Against Good Order ..	17	2	45	1	..	..	..	..	65
Other Miscellaneous ..	42	53	7	16	8	2	..	..	128
Total	2,288	1,777	359	259	129	82	12	18	4,924

(a) Year ended 30th June, 1940.

The table below gives the number of committals in each year from 1935 to 1939, with the rate of such committals per 10,000 of the population :—

COMMITTALS TO SUPERIOR COURTS.

State or Territory.	1935.	1936.	1937.	1938.	1939.
NUMBER.					
New South Wales ..	1,748	1,620	1,771	2,048	2,288
Victoria	1,587	1,482	1,545	2,016	1,777
Queensland (a) ..	209	238	251	282	359
South Australia ..	269	237	230	220	259
Western Australia ..	102	113	181	206	129
Tasmania	79	71	91	66	82
Northern Territory (a) ..	8	10	16	2	12
Australian Capital Territory	1	4	3	4	18
Total	4,003	3,775	4,088	4,844	4,924

(a) Year ended 30th June following.

COMMITTALS TO SUPERIOR COURTS—*continued*.

State or Territory.	1935.	1936.	1937.	1938.	1939.
PER 10,000 OF THE POPULATION.					
New South Wales ..	6.6	6.1	6.5	7.5	8.3
Victoria	8.6	8.0	8.3	10.8	9.4
Queensland (a) ..	2.1	2.4	2.5	2.8	3.5
South Australia ..	4.6	4.0	3.9	3.7	4.3
Western Australia ..	2.3	2.5	4.0	4.5	2.8
Tasmania	3.4	3.1	3.8	2.8	3.4
Northern Territory (a) ..	15.7	19.4	27.7	3.4	17.1
Australian Capital Territory	1.1	4.1	2.9	3.6	15.0
Total	6.0	5.6	5.9	7.0	7.1

(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 TO SUPERIOR COURTS : AUSTRALIA, 1881 TO 1939.

Year	1881.	1891.	1901.	1911.	1921.	1931.	1939.
Committals per 10,000 inhabitants ..	12	11	8	6	7	8	7

8. *Drunkenness.*—(i) *Cases and Convictions.* The number of cases of drunkenness and the convictions recorded in connexion therewith during the period 1935 to 1939 are given in the following table :—

DRUNKENNESS : CASES AND CONVICTIONS.

State or Territory.	1935.		1936.		1937.		1938.		1939.	
	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.
New South Wales	28,450	27,823	31,383	30,297	29,672	27,651	29,610	27,181	32,472	32,405
Victoria ..	10,221	9,217	10,390	10,247	10,433	10,296	11,311	11,128	11,609	11,421
Queensland (a) ..	8,383	8,362	10,436	10,409	10,450	10,183	11,416	11,187	11,202	11,118
South Australia ..	2,748	2,737	2,639	2,628	2,529	2,520	2,662	2,653	2,607	2,597
Western Australia	2,686	2,671	2,879	2,849	2,708	2,678	2,513	2,479	2,681	2,658
Tasmania ..	419	411	386	384	379	365	349	334	411	407
Northern Terr. (a)	134	134	87	87	145	145	156	151	686	677
Aust. Cap. Terr.	55	55	63	63	92	91	133	133	114	114
Total ..	53,096	51,410	58,263	56,964	56,408	53,929	58,150	55,246	61,782	61,397

(a) Year ended 30th June following.

Under the heading "drunkenness" are included cases of ordinary drunkenness, drunkenness and disorderliness, and habitual drunkenness. 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 drunkenness 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. Until 1939 the number of convictions recorded for New South Wales did not include cases where offenders were admonished and discharged.

(ii) *Convictions per 10,000 of Population.* The convictions for drunkenness per 10,000 of the population during each of the years from 1935 to 1939 are given hereunder:—

CONVICTIONS FOR DRUNKENNESS PER 10,000 OF THE POPULATION.

State or Territory.	1935.	1936.	1937.	1938.	1939.
New South Wales	105.2	113.6	102.6	100.0	117.9
Victoria	50.1	55.5	55.5	59.6	60.7
Queensland(a)	86.0	105.8	102.3	111.1	109.2
South Australia	46.8	44.7	42.8	44.8	43.6
Western Australia	60.0	63.3	58.9	53.9	57.2
Tasmania	17.9	16.6	15.6	14.2	17.1
Australian Capital Territory	58.6	64.5	89.3	119.6	95.1
Total	76.4	84.0	78.9	80.1	88.2

(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 84.0 in 1936, declined somewhat during the next two years, and rose to 88.2 in 1939. Figures for the consumption of beer have followed a similar course. From an average of 11½ gallons per head of the population consumed for some years prior to the depression the amount declined to 7.32 gallons in 1931-32, and thereafter rose each year to more than 12 gallons in 1938-39. The consumption declined to 11.08 gallons in 1939-40.

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 abnormal and have not, therefore, been included in the above table.) 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, and allowance must be made for the attitude of the magistracy, the police and the general public 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 1935-36 to 1939-40 :—

CONSUMPTION OF INTOXICANTS IN AUSTRALIA.

Year.	Consumption per Head of Population.		
	Spirits.	Wine.	Beer.
	Imp. Galls.	Imp. Galls.	Imp. Galls.
1935-36	0.21	} 0.36 {	9.60
1936-37	0.21		10.34
1937-38	0.22		11.62
1938-39	0.22		12.13
1939-40	0.26		11.08

(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 those convicted of more serious offences.

(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.

9. *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 convicted under it having been found to relapse into crime.

10. *Children's Courts.*—Special courts for the trial of juvenile offenders have been established in New South Wales, Victoria, Queensland, Western Australia and Tasmania, 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.

§ 2. Superior Courts.

I. Convictions at Superior Courts.—The following is a list of the principal offences for which persons were convicted in superior courts during 1939 :—

CONVICTIONS AT SUPERIOR COURTS, 1939.

Offence.	N.S.W. (a)	Vic.	Qld. (a)	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
I. OFFENCES AGAINST THE PERSON.									
Murder	7	2	7	..	..	I	..	..	17
Attempted Murder	2	..	2	..	..	..	..	..	4
Manslaughter	5	..	4	I	I	I	I	..	13
Rape	4	I	3	2	..	..	..	..	10
Other Offences against Females	44	17	18	29	2	3	2	..	115
Unnatural Offences	33	11	4	3	3	..	..	..	54
Abortion and Attempts to Procure .. .. .	..	2	..	I	..	..	..	..	3
Bigamy	18	12	9	..	I	2	..	..	42
Suicide, Attempted .. .. .	..	..	..	..	..	2	..	..	2
Assault, Aggravated .. .. .	..	..	17	I	I	2	2	..	23
Assault, Common	32	3	3	2	..	..	..	I	41
Other Offences against the Person	30	24	I	5	3	..	I	I	65
Total	175	72	68	44	11	11	6	2	389
II. OFFENCES AGAINST PROPERTY.									
Burglary and Housebreaking	485	305	74	72	28	11	I	12	988
Robbery and Stealing from the	68	30	11	6	2	..	..	..	117
Person .. .. .	..	2	3	I	..	..	..	..	6
Horse-stealing .. .. .	..	4	3	2	I	..	I	..	11
Cattle-stealing	2	5	..	2	I	..	..	..	10
Sheep-stealing .. .. .	..	..	..	..	..	..	..	..	..
Embezzlement and Stealing by .. .. .	..	..	..	..	..	..	..	..	..
Servants	15	6	I	5	4	..	..	..	31
Larceny, Other	71	160	22	7	9	I	I	..	271
Unlawfully using Horses, Cattle and .. .. .	..	..	..	..	..	..	..	..	..
Vehicles	4	..	..	..	..	..	..	..	4
Receiving	61	29	3	8	..	2	..	..	103
Fraud and False Pretences	38	27	11	6	..	5	..	..	87
Arson	3	6	..	..	I	..	..	..	10
Malicious Damage	4	..	..	..	..	..	..	..	4
Other Offences against Property	13	3	4	3	2	..	I	..	26
Total	764	577	132	112	48	19	4	12	1,668
III. FORGERY AND OFFENCES AGAINST THE CURRENCY.									
Forgery and Uttering Forged	16	25	I	12	5	4	I	..	64
Instruments	7	4	3	..	I	..	..	..	15
Offences in relation to the Currency .. .. .	..	..	..	..	..	..	..	..	..
Total	23	29	4	12	6	4	I	..	79
IV. OFFENCES AGAINST GOOD ORDER									
.. .. .	5	2	7	..	..	I	..	..	15
V. OTHER MISCELLANEOUS.									
Conspiracy	4	1	3	5	3	..	..	..	16
Perjury and Subornation	2	6	..	2	I	I	..	..	12
Other Offences	9	3	..	4	2	3	..	..	21
Total	15	10	3	11	6	4	..	..	49
Grand Total	982	690	214	179	71	39	11	14	2,200

(a) Year ended 30th June, 1940.

The number of convictions at superior courts and the rate per 10,000 of the population are given below for each of the years 1935 to 1939 :—

CONVICTIONS AT SUPERIOR COURTS.

State or Territory.	1935.	1936.	1937.	1938.	1939.
NUMBER.					
New South Wales(a) ..	766	623	695	804	982
Victoria.. ..	569	533	565	642	690
Queensland(a) ..	222	154	173	142	214
South Australia ..	172	171	183	172	179
Western Australia ..	55	52	103	90	71
Tasmania ..	54	47	42	55	39
Northern Territory(a) ..	6	10	14	23	11
Australian Capital Territory ..	..	2	1	4	14
Total	1,844	1,592	1,776	1,932	2,200

PER 10,000 OF THE POPULATION.

New South Wales(a) ..	2.9	2.4	2.6	2.9	3.6
Victoria.. ..	3.1	2.9	3.0	3.4	3.7
Queensland(a) ..	2.3	1.6	1.7	1.4	2.1
South Australia ..	2.9	2.9	3.1	2.9	3.0
Western Australia ..	1.2	1.2	2.3	2.0	1.5
Tasmania ..	2.4	2.0	1.8	2.3	1.6
Northern Territory(a) ..	11.8	19.4	24.2	39.3	15.6
Australian Capital Territory ..	..	2.0	1.0	3.6	11.7
Total	2.7	2.3	2.6	2.8	3.1

(a) Year ended 30th June following.

The rate of convictions in 1936 was the lowest on record, but it has increased consistently during each of the past three years. Owing to the smallness of the population and the particular conditions prevailing there, the rates for the Territories naturally show considerable variation.

2. **Habitual Offenders.**—Some account of the methods adopted in each State in connexion with habitual offenders is given in preceding issues of the Official Year Book (see No. 22, pp. 469-70).

3. **Capital Punishment.**—There were eight executions in Australia during the period 1935 to 1939. Four took place in New South Wales (two in 1935-36, one in 1937-38 and one in 1939-40) and four in Victoria (two in 1936 and two in 1939).

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 stated that 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.

§ 3. Civil Courts.

1. **Lower Courts.**—The total number of plaints entered and the amounts awarded to plaintiffs during 1939 are given in the following table. Particulars for earlier years appear in preceding issues of the Official Year Book.

CIVIL CASES AT LOWER COURTS, 1939.

State.	1939.	State or Territory.	1939.
New South Wales	{ Cases No. 78,970 Amount £ 426,429	Western Australia	{ Cases No. 28,107 Amount £ 179,454
Victoria..	{ Cases No. 112,423 Amount £ 705,971	Tasmania	{ Cases No. 19,321 Amount £ 68,800
Queensland(a)	{ Cases No. 17,248 Amount £ 184,780	Australian Capital Territory	{ Cases No. 830 Amount £ 4,414
South Australia	{ Cases No. 29,585 Amount £ 163,988	Total	{ Cases No. 286,484 Amount £ 1,733,836

(a) Year ended 30th June, 1940.

Particulars in regard to the amount of judgments involved in the 809 civil cases in the Northern Territory during the year ended 30th June, 1940, 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 1939. The particulars given below include the number and amount of judgments entered by default or consent, and differ from those in issues of the Official 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 2,316 judgments signed in the Supreme Court, for which the amounts entered are not available.

CIVIL CASES AT SUPERIOR COURTS, 1939.

State.	1939.	State or Territory.	1939.
New South Wales	{ Causes No. 8,976 Amount £ 393,156	Western Australia	{ Causes No. 128 Amount £ 39,626
Victoria..	{ Causes No. 3,226 Amount £ 232,843	(b) Tasmania	{ Causes No. 310 Amount £ 21,064
Queensland(a)	{ Causes No. 591 Amount £ 70,864	Australian Capital Territory	{ Causes No. 3 Amount £ 672
South Australia	{ Causes No. 341 Amount £ 15,785	Total	{ Causes No. 13,575 Amount £ 774,010

(a) Year ended 30th June, 1940.

(b) Judgments signed and entered.

3. Divorces and Judicial Separations.—The following table shows the number of petitions for divorce filed in each State during 1939, and the number of divorces granted :—

PETITIONS FOR DIVORCE AND DIVORCES GRANTED, 1939.

State or Territory.	Petitions for Divorce.			Divorces Granted.
	By Husband.	By Wife.	Total.	
New South Wales	1,138	1,232	2,370	1,545
Victoria	396	494	890	801
Queensland(a)	132	168	300	224
South Australia	165	195	360	243
Western Australia	122	160	282	234
Tasmania	45	81	126	80
Northern Territory(a) ..	1	..	1	2
Australian Capital Territory ..	3	4	7	10
Total	2,002	2,334	4,336	3,139

(a) Year ended 30th June, 1940.

The grounds on which divorces and judicial separations were granted during 1939 in each State are given in the following table :—

GROUND ON WHICH DIVORCES AND JUDICIAL SEPARATIONS WERE GRANTED, 1939.

Grounds on which Granted.	N.S.W.		Vic.		Qld.(a)		S.A.		W.A.		Tas.		N.T.(a)		A.C.T.		Aust.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
Adultery ..	349	1	165	4	77	..	130	..	88	..	14	..	1	..	..	..	824	5
Bigamy ..	2	..	2	..	..	..	..	..	2	..	..	..	..	..	..	..	6	..
Oruelty ..	11	3	2	..	1	..	9	..	..	..	3	..	..	..	..	..	26	3
Cruelty and Drunkenness ..	16	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	21	..
Drunkenness ..	17	1	10	..	..	..	3	..	1	..	2	..	..	..	..	..	33	1
Desertion ..	1,141	3	597	..	141	..	89	..	127	..	60	..	1	..	10	1	2,166	4
Imprisonment for Crime ..	6	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	9	..
Insanity ..	..	..	15	..	3	..	4	..	1	..	1	..	..	..	..	..	24	..
Other ..	3	..	5	..	2	..	7	..	13	..	..	..	..	..	..	..	30	..
Total ..	1,545	8	801	4	224	..	243	..	234	..	80	..	2	..	10	1	3,139	13

(a) Year ended 30th June, 1940.

The number of divorces and judicial separations in each State during the period 1935 to 1939 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 or Territory.	1935.		1936.		1937.		1938.		1939.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
New South Wales	1,133	15	1,160	12	1,272	11	1,431	9	1,545	8
Victoria	602	6	689	1	797	3	827	3	801	4
Queensland(a)	152	..	162	2	210	..	201	..	224	..
South Australia	212	1	213	..	207	3	243	1	243	..
Western Australia	159	..	192	..	236	..	255	..	231	..
Tasmania	86	1	61	1	30	..	109	..	80	..
Northern Territory(a) ..	2	..	4	..	4	..	4	..	2	..
Australian Capital Territory ..	11	..	2	..	3	..	4	..	10	1
Total	2,357	23	2,483	16	2,759	17	3,074	13	3,139	13

(a) Year ended 30th June following.

The average annual number of divorces and judicial separations in Australia for decennial periods from 1871 to 1930 and the proportion per 10,000 existing marriages were as follows :—

DIVORCES AND JUDICIAL SEPARATIONS : AUSTRALIA.

Particulars.	1871-80.	1881-90.	1891-1900.	1901-10.	1911-20.	1921-30.
Average	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 1892 and 1889 made the separation of the marriage tie comparatively easy.

The following table shows the numbers and proportions of divorced males and females according to age in Australia at each Census from 1891 onwards. Prior to 1911 no record was made of divorced persons in South Australia, so that no definite comparisons can be made to extend beyond that date.

DIVORCED PERSONS : AGE DISTRIBUTION, AUSTRALIA, 1891 TO 1933.

Age last Birthday.	Number.					Proportion per 10,000 of the Sex.				
	1891. (a)	1901. (a)	1911.	1921.	1933.	1891. (a)	1901. (a)	1911.	1921.	1933.
MALES.										
Years—										
15-19 .. .. .	..	..	2	11	..	..	..	0	0	..
20-24	10	21	27	55	73	0	1	1	2	3
25-29	37	77	137	321	501	2	5	7	14	18
30-34	60	167	286	580	1,100	4	11	17	26	44
35-39	68	262	321	661	1,575	7	17	21	34	69
40-44	41	233	361	592	1,777	5	19	25	35	77
45-49	34	154	407	533	1,614	5	17	30	37	77
50-54	27	131	338	498	1,256	4	19	31	37	73
55-59	28	76	204	425	877	6	14	28	36	66
60-64	16	55	134	281	611	4	12	26	31	53
65-69	5	33	76	155	477	2	9	19	28	51
70-74	5	14	43	86	270	3	5	14	26	41
75-79	1	7	12	27	122	1	5	6	14	34
80-84 .. .. .	..	3	14	7	35	..	5	16	7	25
85 and over ..	..	1	6	1	10	..	5	17	2	17
Age 15 and over	52	1,234	2,368	4,233	10,298	3	10	15	23	42
FEMALES.										
Years—										
15-19	2	2	1	8	6	0	0	0	0	0
20-24	16	56	71	168	230	1	3	3	7	8
25-29	60	168	239	526	960	4	11	13	22	37
30-34	49	244	332	756	1,565	5	18	21	34	66
35-39	40	287	374	713	1,939	5	24	26	37	82
40-44	26	178	366	621	1,880	4	19	29	38	83
45-49	19	107	319	496	1,593	4	16	29	37	80
50-54	10	52	229	405	1,066	2	10	27	34	65
55-59	4	28	79	280	662	1	6	14	28	51
60-64	1	11	59	217	485	0	3	13	28	42
65-69 .. .. .	..	10	38	70	287	..	3	10	14	32
70-74	1	5	14	25	136	1	3	5	8	21
75-79 .. .. .	..	..	16	14	58	..	..	10	7	16
80-84 .. .. .	..	1	2	2	12	..	2	3	2	8
85 and over ..	..	..	1	3	4	..	..	3	5	5
Age 15 and over	228	1,149	2,140	4,304	10,888	3	10	15	24	46

(a) Exclusive of South Australia.

4. Probates.—Information in regard to probates and letters of administration will be found in Chapter XXV. "Private Finance."

5. Bankruptcies.—Particulars relating to bankruptcy in each State up to the end of 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. 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, 1940, are given in the following table. For the purposes of comparison, figures for each of the preceding two years are appended to the table.

COMMONWEALTH BANKRUPTCY ACT RETURNS, 1939-1940.

Heading.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia
Sequestration Orders and Orders for Administration of Deceased Debtors' Estates	Number .. 333 Liabilities £ 317,189 Assets £ 147,594	265 187,354 5,800	91 80,201 41,219	137 130,414 65,573	39 52,644 26,053	44 14,034 4,244	..	909 781,839 290,483
Compositions, etc., after Bankruptcy	Number .. 3 Liabilities £ 2,882 Assets £ 1,684	.. .. ..	.. .. ..	2 10,811 6,889	1 608 250	2 742 39	..	8 15,043 8,862
Compositions, etc., without Bankruptcy	Number .. 15 Liabilities £ 19,232 Assets £ 10,266	6 24,742 17,986	.. .. ..	333 835,754 684,211	82 520,877 380,460	1,700 1,749	..	438 1,402,305 1,094,672
Deeds of Arrangement	Number .. 301 Liabilities £ 465,039 Assets £ 426,249	160 193,683 126,869	77 160,143 154,469	5 32,254 27,741	1 222 50	10 16,953 22,617	..	554 868,294 757,995
Total, 1939-40	Number .. 652 Liabilities £ 804,342 Assets £ 585,793	431 405,779 150,655	168 240,347 195,688	477 1,009,233 784,414	123 574,351 406,813	58 33,429 28,649	..	1,909 3,067,481 2,152,012
Total, 1938-39	Number .. 524 Liabilities £ 691,046 Assets £ 450,666	431 429,612 210,479	143 220,592 149,268	622 2,016,093 1,328,027	117 193,611 136,643	61 39,427 19,326	1 2,030 908	1,899 3,592,411 2,295,317
Total, 1937-38	Number .. 465 Liabilities £ 552,266 Assets £ 335,272	387 464,095 196,640	136 195,100 149,100	463 1,508,490 1,096,978	108 202,195 153,815	54 31,878 17,954	..	1,613 2,954,018 1,949,759

The Commonwealth Attorney-General's Report for the year ended 31st July, 1929, stated 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 provided for the appointment of a Judge or 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, 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 the Commonwealth Constitution, and in the Judiciary Act 1903-1940. 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 1939 and 1940. Figures for previous years are given in preceding issues.

TRANSACTIONS OF COMMONWEALTH HIGH COURT, 1939 AND 1940.

Original Jurisdiction.	1939.	1940.	Appellate Jurisdiction.	1939.	1940.
Number of writs issued	45	33	Number of appeals set down for hearing ..	110	84
Number of cases entered for trial ..	2	3	Number allowed ..	21	21
Verdicts for plaintiffs	9	15	Number dismissed ..	66	46
Verdicts for defendants	1	1	Otherwise disposed of	11	5
Otherwise disposed of	8	11			
Amount of judgments	£37,481	£149,287			

During 1939 and 1940 respectively the Court dealt also with the following : Appeals from Assessments under Taxation Assessment Act, 57, 45 ; Special cases stated for the opinion of the Full Court, 10, 5 ; Applications for Prohibitions, etc., 54, 34. The fees collected amounted to £777 in 1939 and £740 in 1940.

7. Commonwealth Court of Conciliation and Arbitration.—A 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 Chapter XXIV. "Labour, Wages and Prices," and in the *Labour Report*.

§ 4. Police and Prisons.

1. General.—Early issues of the Official Year Book (see No. 4, p. 918) contain a résumé 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 1939 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 in the Australian Capital Territory) are entirely under State control, but, by arrangement, the Commonwealth Government utilizes their services in various directions, such as acting as aliens registration officers, and policing the liquid fuel regulations, etc.

STRENGTH OF POLICE FORCES.

State or Territory.	Area of State in Sq. Miles.	No. of Police.				
		1935.	1936.	1937.	1938.	1939.
New South Wales ..	309,433	3,593	3,726	3,816	3,801	3,907
Victoria ..	87,884	2,247	2,289	2,280	2,279	2,333
Queensland (a) ..	670,500	1,325	1,363	1,390	1,395	1,460
South Australia (a)	380,070	817	837	882	894	905
Western Australia (a)	975,920	592	585	582	601	600
Tasmania (a) ..	26,215	284	282	283	284	296
Northern Territory (a)	523,620	41	41	43	43	48
Aust. Cap. Territory	939	14	15	15	17	17
Total ..	2,974,581	8,913	9,138	9,291	9,314	9,566

(a) 30th June of year following.

The figures for New South Wales for 1939 are exclusive of 12 "black trackers", (i.e., natives employed in detection of offenders chiefly in outlying districts) and 4 matrons, while the Victorian returns are exclusive of 3 matrons and 1 black tracker. For Queensland the figures exclude 33 black trackers, for South Australia 4 wardresses and 5 black trackers, and for the Northern Territory 36 black trackers. There are also 40 black trackers and 4 female searchers in Western Australia not included in the table. Women police are employed in all the States, the respective numbers included in the table above being:—New South Wales 8, Victoria 8, Queensland 2, South Australia 14, Western Australia 6, and Tasmania 2. 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 1939 the Inspector-General of Police in New South Wales refers to the valuable work performed by the women police in connexion with the welfare of women and young girls who frequent the streets and places of public resort, and the location of missing girls. 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 persons 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.	Persons to each Police Officer.				
		1935.	1936.	1937.	1938.	1939.
New South Wales	8.41	740	720	710	720	709
Victoria	20.71	820	809	816	822	809
Queensland (a)	1.41	740	728	722	729	703
South Australia (a)	1.53	718	703	672	666	661
Western Australia (a)	0.45	756	777	791	774	780
Tasmania (a)	8.68	809	825	827	833	808
Northern Territory (a)	0.01	130	133	134	144	165
Aust. Cap. Territory	9.52	666	652	683	674	721
Total	2.23	758	745	740	744	731

(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, it has been estimated that one-fifth of the time of the force was taken up 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 1939-40 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, 1940, over 242,500 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 police are able to perform these functions 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.

5. **Prison Accommodation and Prisoners, 1939.**—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 1939:—

PRISON ACCOMMODATION AND PRISONERS, 1939.

State or Territory.	Number of Prisons.	Accommodation in—		Prisoners at End of Year.
		Separate Cells.	Wards.	
New South Wales (a)	19	(b) 2,093	..	1,357
Victoria	10	1,322	433	1,144
Queensland	6	544	94	261
South Australia	16	756	173	199
Western Australia	19	607	506	234
Tasmania (a)	1	142	4	108
Northern Territory	3	14	90	23
Total	74	5,478	1,300	3,326

(a) Year ended 30th June, 1940.

(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.

6. **Prisoners in Gaol, 1935 to 1939.**—The number of prisoners in gaol at 31st December in each of the years 1935 to 1939 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.	1935.	1936.	1937.	1938.	1939.
NUMBER.					
New South Wales(a)	1,330	1,183	1,176	1,364	1,357
Victoria	1,159	1,092	1,030	1,084	1,144
Queensland	301	272	276	265	261
South Australia	260	242	231	235	199
Western Australia	264	264	260	294	234
Tasmania(a)	104	114	87	116	108
Northern Territory	19	18	18	17	23
Total	3,437	3,185	3,078	3,375	3,326
PER 10,000 OF THE POPULATION.					
New South Wales(a)	5.0	4.4	4.3	5.0	4.9
Victoria	6.3	5.9	5.5	5.8	6.1
Queensland	3.1	2.8	2.8	2.6	2.6
South Australia	4.4	4.1	3.9	3.9	3.3
Western Australia	5.9	5.9	5.7	6.4	5.0
Tasmania(a)	4.5	4.9	3.6	4.9	4.5
Total	5.1	4.7	4.5	4.9	4.8

(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 4.8 in 1939, which figure compares 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.

7. **Improvement in Prison Methods.**—In previous issues of the Official Year Book a fairly detailed account is 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. Cost of Administration of Justice.

1. **Expenditure by the States.**—The table below shows the expenditure from Consolidated Revenue during 1939-40 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. It will be noted that in South Australia and Western Australia the receipts for legal fees and registrations exceed the actual expenditure under "Justice".

NET EXPENDITURE ON JUSTICE, 1939-40.

State.	Net Expenditure.			Per Head of Population.		
	Justice.	Police.	Prisons.	Justice.	Police.	Prisons.
	£	£	£	s. d.	s. d.	s. d.
New South Wales ..	185,832	1,429,473	199,776	1 4	10 4	1 5
Victoria ..	111,519	812,839	110,064	1 2	8 7	1 2
Queensland ..	74,391	605,158	37,139	1 6	11 11	0 9
South Australia ..	-29,010	318,371	36,413	-1 0	10 8	1 3
Western Australia ..	-22,357	236,886	29,059	-1 0	10 2	1 3
Tasmania ..	20,529	104,706	16,325	1 9	8 9	1 4
Total ..	340,904	3,507,433	428,776	1 0	10 0	1 3

2. **Commonwealth Expenditure.**—The expenditure shown in the foregoing table is that incurred by the State Governments only, and does not include expenditure of the Commonwealth Attorney-General's Department, which is given hereunder for the years 1936-37 to 1939-40:—

EXPENDITURE OF THE COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT.

Year.	Gross Expenditure.	Receipts.	Net Expenditure.
	£	£	£
1936-37	252,158	102,613	149,545
1937-38	263,319	107,600	155,719
1938-39	281,497	111,036	170,461
1939-40	276,557	107,680	168,877

The totals for each year include expenditure in connexion with patents and copyright which amounted in 1939-40 to £63,635. As pointed out previously, the Commonwealth took over jurisdiction in bankruptcy in August, 1928, and the expenditure thereon in 1939-40 amounted to £44,126, including the salary of the Federal Judge, £2,500. Expenditure in connexion with the Australian Capital Territory police amounted in 1939-40 to £7,776, and £4,005 was expended on miscellaneous items including the Law Court, Titles Office and Industrial Arbitration Board. Revenue of the Attorney-General's Department amounted for the year to £107,680, comprising £61,982 for patents, copyright, trademarks and designs, £35,817 for bankruptcy and £9,881 miscellaneous including fees and fines.

In addition to the foregoing a sum of approximately £34,400 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, namely :—(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 XXVI. "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 1914-19, 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, tubercular patients, 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, 1929-1940.

(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, 1939.* Details regarding the number of hospitals, staffs and accommodation for the year 1939, or nearest available year, are given in the following table:—

PUBLIC HOSPITALS : NUMBER, STAFF AND ACCOMMODATION, 1939.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Hospitals ..	210	71	116	57	90	21	565
Medical Staff—							
Honorary	1,629	832	198	258	107	87	3,111
Salaried	444	224	173	69	23	38	971
Total	2,073	1,056	371	(b) 327	130	125	4,082
Nursing Staff	5,468	3,307	2,911	(b) 1,174	1,162	473	14,495
Accommodation—							
Number of beds and cots	14,972	7,778	6,494	(b) 2,612	3,401	1,606	36,863

(a) The figures relate to the years ended as follows:—New South Wales, Queensland, Western Australia and Tasmania—30th June, 1940; South Australia—31st December, 1939; Victoria—30th June, 1939. (b) Exclusive of particulars of Lying-in Homes, Sanatoria and Convalescent Homes.

The figures for accommodation shown in the table above 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, 1939.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Indoor Relief—Inmates at beginning of year—							
Males	5,309	2,706	2,389	850	946	498	12,698
Females	5,801	2,893	2,132	864	998	579	13,267
Total	11,110	5,599	4,521	1,714	1,944	1,077	25,965
Admissions and Re-admissions during year—							
Males	111,996	39,725	57,769	18,226	24,423	9,959	262,098
Females	126,663	51,978	55,066	20,062	21,674	12,521	287,964
Total	238,659	91,703	112,835	38,288	46,097	22,480	550,062
Discharges—							
Males	106,418	36,793	54,984	17,050	23,199	9,402	247,846
Females	123,281	49,676	53,488	19,217	21,239	12,236	279,137
Total	229,699	86,469	108,472	36,267	44,438	21,638	526,983
Deaths—							
Males	5,476	2,929	2,632	1,154	1,112	554	13,857
Females	3,733	2,045	1,537	792	599	353	9,059
Total	9,209	4,974	4,169	1,946	1,711	907	22,916
Inmates at end of year—							
Males	5,411	2,709	2,542	872	1,058	501	13,093
Females	5,450	3,150	2,173	917	834	511	13,035
Total	10,861	5,859	4,715	1,789	1,892	1,012	26,128
Average Daily Number Resident	11,025	5,681	4,519	(b) 1,924	1,863	1,078	26,090

(a) See footnote (a) to previous table.

(b) See footnote (b) to previous table.

(v) *Revenue and Expenditure.* The revenue and expenditure for the year 1939 were as follows:—

PUBLIC HOSPITALS : REVENUE AND EXPENDITURE, 1939.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue—							
Government Aid ..	61,242,440	483,710	634,479	272,563	531,052	90,718	3,254,962
Municipal Aid ..	(c)	80,120	293,486	51,108	571	..	425,285
Public Subscrip- tions, Legacies, etc. ..	(d)649,565	316,719	38,182	28,704	29,896	9,756	1,072,822
Fees ..	657,972	275,993	348,454	115,309	153,010	74,319	1,625,057
Other ..	(e) 409,029	(f) 238,851	96,601	9,678	38,501	19,818	812,478
Total ..	2,959,006	1,395,393	1,411,202	477,362	753,030	194,611	7,190,604
Expenditure—							
Salaries and Wages	1,284,726	616,239	593,651	219,117	270,149	98,563	3,082,445
Upkeep and Repair of Buildings and Grounds ..	89,259	15,520	25,511	27,657	4,896	6,949	169,992
All Other Ordinary Capital (g) ..	1,057,954	537,295	681,631	225,451	203,106	89,530	2,794,967
	(h)	330,233	104,393	21,773	271,475	..	(i) 727,874
Total ..	2,431,939	1,499,287	1,405,186	493,998	749,626	195,042	6,775,078

(a) See note (a) to table on page 188. (b) Includes State aid for buildings, £206,687.
(c) Included in "Other." (d) Includes legacies and bequests for capital purposes, £90,096.
(e) Includes loans raised under Section 37 of the Public Hospitals Act, £320,613. (f) Includes loan receipts, £139,649. (g) Includes such items as Purchases of Land, Cost of New Buildings and Additions to Buildings. (h) Not available. (i) Incomplete.

(vi) *Summary for Five Years, 1935 to 1939.* 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.	1935.	1936.	1937.	1938.	1939.
Number of institutions ..	526	557	560	563	565
„ beds and cots ..	31,727	33,377	34,541	35,711	36,863
Admissions during year ..	451,761	481,727	511,648	527,055	550,062
Total indoor cases treated ..	472,804	504,521	535,342	552,051	576,027
Deaths ..	20,805	21,601	22,162	23,372	22,916
Expenditure ..	£ 4,608,878	5,134,247	5,965,484	6,351,955	6,775,078

In addition to those admitted to the institutions, there are large numbers of out-patients. So far as the returns show there were 595,325 out-patients treated in New South Wales, 261,209 in Victoria, 266,783 in Queensland, 65,435 in South Australia, and 16,291 in Tasmania during the last year.

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 number 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 1939 are given in the following table:—

BENEVOLENT ASYLUMS : REVENUE AND EXPENDITURE, 1939.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue—							
Government Aid ..	123,977	45,830	37,005	2,375	10,431	17,805	237,423
Municipal Aid ..	(b)	997	..	..	5	..	1,002
Public Subscriptions, Legacies ..	13,900	20,749	7,972	1,287	3,342	..	47,250
Fees ..	35,797	51,222	40,559	3,129	19,442	6,342	156,491
Other ..	4,219	12,995	8,806	758	141	260	27,179
Total ..	177,893	131,793	94,342	7,549	33,361	24,407	469,345
Expenditure—							
Salaries and Wages ..	82,187	45,793	28,107	3,571	14,886	12,569	187,113
Upkeep and Repair of Buildings ..	3,177	2,692	2,796	239	687	538	10,129
All Other(c) ..	89,073	76,302	65,639	4,017	16,097	11,300	262,428
Total ..	174,437	124,787	96,542	7,827	31,670	24,407	459,670

(a) The figures relate to the years ended as follows:—New South Wales and South Australia—31st December, 1939; Victoria—30th June, 1939; and Queensland, Western Australia and Tasmania—30th June, 1940. (b) Included in "Other." (c) Including £17,362 in Victoria, £8,380 in Queensland, and £938 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 1939 was approximately £400,000.

(ii) *Principal Institutions.* Particulars concerning the principal institutions in each State were published in earlier issues of the Official Year Book (see No. 22, p. 486).

(iii) *Transactions of State Departments.* The following table summarizes the transactions during 1939 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, 1939.(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)	991	439	1,002	152	35	202	2,821
In licensed or approved institutions .. ..	..	1,805	..	111	628	..	2,544
Boarded-out—							
With own mothers ..	9,513	7,905	5,413	} 47056 (c)	} 23,053	{ 2,457 379	{ 41,055
With licensed foster mothers, guardians, relatives and friends	2,982	1,848	449				
Total children maintained or subsidized by the State	13,486	11,997	6,864	7,319	3,716	3,038	46,420
<i>B. Children not maintained or subsidized by the State.</i>							
In licensed or approved institutions	1,026	..	..	..	..	..	1,026
Boarded-out	167	..	..	1,174	446	..	1,787
On probation (from Institutions or Children's Courts)	1,674	1,281	134	227	375	..	3,691
In service or apprenticed	183	366	434	163	240	..	1,386
Adopted or otherwise placed	310	..	1	6	..	..	317
Total children not maintained or subsidized by the State	3,360	1,647	569	1,570	1,061	..	8,207
Total children under State control or supervision ..	16,846	13,644	7,433	8,889	4,777	3,038	54,627
Gross cost of children's relief	£ 477,203	£ 328,381	£ 195,449	£ 59,049	£ 22,207	£ 14,891	£ 1,097,180
Receipts from parents' contributions, etc. ..	21,611	10,617	9,130	4,496	8,047	872	54,773
Net cost to State ..	455,592	317,764	186,319	54,553	14,160	14,019	1,042,407

(a) The figures relate to the years ended as follows:—Victoria and Queensland—31st December, 1939; Other States—30th June, 1940. (b) Including inmates of hospitals. (c) Including 6,259 children in receipt of Ration Relief. (d) Mostly with own mothers. (e) In addition there were 196 children at Fairbridge Farm School and 110 at Tardun Agricultural 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, and Fantome Island, North Queensland); Western Australia (Derby); and the Northern Territory (Channel Island, near Darwin). At the end of 1940 there were 9 cases in residence at Little Bay, 105 in Queensland, 197 at Derby, and 84 at Channel Island. There were also 6 cases isolated in the south of Western Australia and 1 case in Victoria, which were European cases infected elsewhere. Of these 402 cases, 350 were aboriginals, 3 Asiatics and 49 Europeans.

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., 1939.* Particulars regarding the number of institutions, the medical and nursing staffs, and accommodation are given in the following table for the year 1939:—

HOSPITALS FOR THE INSANE : NUMBER, STAFFS, ACCOMMODATION, 1939.(a)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Institutions ..	13	(b) 11	4	2	4	1	35
Medical Staff—							
Males	32	30	7	7	6	2	84
Females	6	..	1	..	..	1	8
Total	38	30	8	7	6	3	92
Nursing Staff and Attendants—							
Males	1,064	767	305	170	139	70	2,515
Females	1,100	790	267	168	106	77	2,508
Total	2,164	1,557	572	338	245	147	5,023
Accommodation—							
Number of beds and cots	11,698	6,538	3,710	1,892	1,454	805	26,097

(a) The figures relate to years ended as follows:—New South Wales, Queensland and Tasmania—30th June, 1940; other States—31st December, 1939. (b) Includes two licensed private houses, in which cases at the end of the year numbered 59; other particulars are not available.

(iii) *Patients, 1939.* Information regarding patients treated, deaths, etc., for 1939 is given in the table hereunder:—

HOSPITALS FOR THE INSANE : PATIENTS, DEATHS, ETC. 1939.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of distinct persons treated during year (b)—							
Males	6,947	(c) 3,959	2,416	1,072	1,022	403	15,810
Females	6,400	(c) 4,386	1,790	961	601	394	14,532
Total	13,347	(c) 8,345	4,206	2,033	1,623	797	30,351

(a) See footnote (a) to previous table. (b) Exclusive of transfers to other institutions. (c) Including 14 males and 60 females in licensed private houses.

HOSPITALS FOR THE INSANE: PATIENTS, DEATHS, ETC., 1939(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	6,078	3,471	2,100	931	923	313	13,816
Females	5,600	3,855	1,550	816	554	318	12,693
Total	11,678	7,326	3,650	1,747	1,477	631	26,509
Admissions and re-admissions exclusive of absconders retaken and transfers from other institutions—							
Males	860	488	316	141	99	90	2,003
Females	800	531	240	145	47	76	1,839
Total	1,669	1,019	556	286	146	166	3,842
Discharges (including absconders not retaken)—							
Males	377	238	144	51	30	55	895
Females	388	314	113	49	19	41	924
Total	765	552	257	100	49	96	1,819
Deaths—							
Males	417	258	163	73	68	31	1,010
Females	330	250	94	60	24	30	788
Total	747	508	257	133	92	61	1,798
Number of patients on books at end of year—							
Males	6,153	3,463	2,109	948	924	317	13,914
Females	5,682	3,322	1,583	852	558	323	12,320
Total	11,835	7,285	3,692	1,800	1,482	640	26,734
Average daily number resident—							
Males	5,646	(b)2,930	2,024	938	918	314	12,770
Females	5,126	(b)3,331	1,475	839	545	318	11,634
Total	10,772	(b)5,261	3,499	1,777	1,463	632	24,404
Number of patients on books at end of year per 1,000 of population—							
Males	4.41	3.65	3.94	3.18	3.78	2.61	3.92
Females	4.12	3.94	3.23	2.84	2.49	2.74	3.68
Total	4.26	3.80	3.60	3.01	3.16	2.67	3.80
Average number of patients resident in hospitals for insane per 1,000 of mean population—							
Males	4.06	3.15	3.81	3.15	3.76	2.60	3.62
Females	3.74	3.50	3.03	2.81	2.47	2.70	3.36
Total	3.90	3.33	3.44	2.98	3.15	2.65	3.49

(a) See footnote (a) to previous table.

(b) Excluding two 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, 1939.* The revenue of Government hospitals for the insane 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 FOR THE INSANE : FINANCES, 1939.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Au-t.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue (exclusive of Government Grants)—							
Fees of Patients ..	128,314	56,997	31,661	30,735	18,975	8,275	274,957
Other ..	9,682	5,697	1,796	32	2,203	79	19,489
Total ..	137,996	62,694	33,457	30,767	21,178	8,354	294,446
Expenditure—							
Salaries and Wages ..	525,636	292,277	171,793	77,397	78,898	43,912	1,189,918
Upkeep and Repair of Buildings, &c. ..	16,252	28,597	3,866	8,718	2,385	1,130	60,948
All Other(b) ..	343,614	170,331	95,719	78,874	98,672	22,934	815,574
Total ..	884,932	497,205	271,383	161,989	179,955	67,976	2,066,440
Expenditure per Average Daily Resident ..	£82/3/0	£79/8/3	£77/11/2	£92/16/11	£123/0/1	£107/11/2	£84/13/6

(a) The figures relate to years ended as follows:—South Australia—31st December, 1939; other States—30th June, 1940. (b) Includes the following amounts for capital expenditure on Purchases of Land, Cost of New Buildings, and Additions to Buildings: New South Wales, £67,889; Queensland, £17,107; South Australia, £19,855; Western Australia, £53,080.

(v) *Summary for Australia, 1935 to 1939.* The table hereunder gives a summary of hospitals for the insane in Australia during each of the five years 1935 to 1939. 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.	1935.	1936.	1937.	1938.	1939.
Number of institutions ..	35	34	36	35	35
„ „ beds ..	24,880	25,017	25,287	25,654	26,097
Admissions ..	3,819	3,565	3,678	3,757	3,842
Discharged as recovered, relieved, etc. ..	1,715	1,566	1,573	1,800	1,819
Deaths ..	1,577	1,553	1,488	1,632	1,798
Expenditure—Total ..	£ 1,659,523	£ 1,771,406	£ 1,867,170	£ 1,903,817	£ 2,066,440
„ —Per Average Daily Resident ..	£72/6/4	£75/15/9	£78/8/1	£79/2/4	£84/13/6

(vi) *Number of Insane, 1935 to 1939.* 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.	1935.	1936.	1937.	1938.	1939.
NUMBER.					
New South Wales	11,009	11,145	11,473	11,678	11,835
Victoria	7,059	7,209	7,302	7,326	7,285
Queensland	3,321	3,368	3,544	3,650	3,692
South Australia	1,572	1,627	1,709	1,747	1,800
Western Australia	1,441	1,488	1,521	1,477	1,482
Tasmania	636	647	635	631	640
Australia	25,038	25,484	26,184	26,509	26,734
PER 1,000 OF POPULATION.					
New South Wales	4.13	4.14	4.22	4.25	4.26
Victoria	3.83	3.89	3.93	3.91	3.86
Queensland	3.39	3.39	3.53	3.59	3.60
South Australia	2.68	2.76	2.89	2.94	3.01
Western Australia	3.22	3.30	3.33	3.19	3.18
Tasmania	2.77	2.78	2.71	2.67	2.67
Australia	3.71	3.74	3.82	3.82	3.80

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, 1939.* (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 10 years 326 days for males, and 6 years 304 days for females; of those discharged, 1 year 82 days for males, and 1 year 227 days for females.

(c) *South Australia.* The average residence of those who died during the year was 6 years 7 months 18 days for males, and 9 years 9 months 27 days for females; of those discharged, 1 year 2 months 5 days for males, and 1 year 2 months 11 days for females.

(d) *Western Australia.* The average residence of those who died was 12 years 2 months for males, and 9 years 10 months 20 days for females; of those discharged, 2 years 2 months 20 days for males, and 2 years 1 month and 28 days for females.

(e) *Tasmania.* The average residence of those who died during the year was 13 years 6 months and 25 days for males, and 12 years and 6 months 19 days for females; of those discharged, 2 years for males, and 2 years 1 month and 9 days for females.

6. *Care of the Feeble-minded.*—An account of the treatment of the feeble-minded in Tasmania supplied by the Public Health Department of Tasmania, appeared in Official Year Book No. 19, pp. 477–8.

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 1939–40 was: New South Wales, £69,000; Victoria, £7,430; Queensland

£72,201; South Australia, £31,088; Western Australia, £47,381; Northern Territory £17,844; total for Australia, £244,944. According to the latest census taken by this Bureau, the number of full-blood and half-caste aborigines living in supervised camps in each State at 30th June, 1940, was as follows:—

ABORIGINES IN SUPERVISED CAMPS, 30th JUNE, 1940.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Northern Territory.	Total.
	No.	No.	No.	No.	No.	No.	No.
Full-bloods ..	454	39	5,033	384	3,329	6,505	15,744
Half-castes ..	5,681	349	2,681	938	2,099	699	(a)12,747

(a) Including 212 in Tasmania and 88 in the Australian Capital Territory.

Particulars regarding total numbers of aborigines in each State will be found in the Chapter XII. "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 headquarters 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 number for the individual States for 1939–40 being:—New South Wales, 15,919; Victoria, 5,328; Queensland, 1,270; South Australia, 601; Western Australia, 1,862; Tasmania, 366; and Fiji, which comes under the control of the Australian Federal Council, 157.

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. 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, creches, 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 fire 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. 493-5).

§ 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 ensuring 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. 495-7.

§ 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, 1940.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.
Premises registered ..	20,949	25,497	30,344	12,677	343	6,456
Cows in milk thereon ..	659,404	555,889	809,551	99,142	10,196	(b)

(a) Premises within a district extending 25 miles north and 90 miles south of Perth only.
available.

(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 in 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 Royal Australasian College 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 ninth session met at Canberra in November, 1940.

Under the Medical Research Endowment Act 1937, the Commonwealth Government has made an annual appropriation of funds 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 26. During the year 1940, grants numbered 33 in the following fields : bacteriology, biochemistry, clinical medicine, dentistry, epidemiology, experimental pathology, industrial hygiene, leprosy, obstetrics, ophthalmology, physiology and pharmacology, poliomyelitis, tropical physiology and hygiene, 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 Department of Health.

1. **General.**—An Order-in-Council dated 3rd March, 1921, defined various functions to be performed by the Commonwealth Department of Health in addition to quarantine, which is the only specific public health power of the Commonwealth Parliament under the Commonwealth Constitution. Many essential services have been developed by the Department to meet current needs and to further public health throughout Australia. In earlier issues of the Official Year Book reference has been made to several features of this development, including : The Royal Commission on National Health, 1925 (see No. 22, pp. 509–10), the International Pacific Health Conferences (see No. 22, p. 510 and No. 29, p. 334), Industrial Hygiene (see No. 18, pp. 522–55), Tropical Hygiene (see No. 22, pp. 506–7, No. 25, pp. 416–7, and No. 32, p. 226), and the Commonwealth Advisory Council on Nutrition (see No. 32, p. 222). Reference to quarantine is made below (see § 6, par. 2.)

2. **The 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 Laboratories are now installed in fully equipped buildings and a staff of 235 is employed. At Broadmeadows a farm of 254 acres has been developed, under veterinary supervision, for the many thousands of animals requisite to the work of the laboratories.

The list of biological preparations produced by the laboratories has been extended until at the present time almost the whole range of these products is manufactured and Australia is practically independent of other countries in thus producing its own requirements. Constant research is being conducted into every relevant aspect of bacteriology and immunology and new sera and prophylactic agents are being tested as the growth of medical knowledge opens up new avenues of treatment, prevention and diagnosis. Other original and applied research relating to all aspects of public health is maintained. The laboratories serve as the national centre for the maintenance in Australia of the international standards of the Permanent Commission on Biological Standards of the League of Nations.

For the past sixteen years the production of veterinary biological products has been a feature of the work of the laboratories. In recent years an extensive development has occurred in this direction and the products are being used in greatly increased amounts in all States for the prevention or treatment of diseases in domestic animals and stock.

3. The Commonwealth Health Laboratories.—The twelve Health Laboratories of the Department are situated at strategic points throughout Australia. They are located at Darwin, Cairns, Townsville, Rockhampton, Toowoomba, Lismore, Bendigo, Launceston, Hobart, Port Pirie, Kalgoorlie and Broome. These laboratories were established as an essential part of the quarantine system but were also to undertake research into local health problems and to provide medical practitioners of each district with up-to-date facilities for laboratory investigation and diagnosis. It was realized that co-operation between the general practitioner with his clinical observations and knowledge of the environment of disease on the one hand, and the staff of a well-equipped laboratory on the other hand, is essential to the efficient investigation of disease and the effective operation of control measures.

From this standpoint, the laboratories have already proved their value in the determination of Weil's disease and endemic typhus in North Queensland, in the investigation of special local problems at Darwin, of undulant fever throughout Australia, of silicosis and tuberculosis at Kalgoorlie and of plumbism at Port Pirie. In these investigations close co-operation has existed with State and local health and hospital services; especially is this so in Queensland where collaboration has yielded exceptionally valuable results in differentiating the groups of fevers hitherto unclassified in that State. In this investigational work, as well as in more routine activities, the laboratories have at their disposal the full resources and technical and specialist facilities available at the Commonwealth Serum Laboratories and the Sydney School of Public Health and Tropical Medicine.

A major part of the work performed at the Kalgoorlie Laboratory, since its establishment in 1925, has been the medical examination, on behalf of the State Department of Mines, of employees and applicants for employment in the metalliferous mines in that State. These examinations are performed in accordance with the provisions of the State Mines Regulation Act and the Mine Workers' Relief Act, the objects of which are to provide a healthy body of men for the industry and to free the industry of, and protect the future of, those found to be suffering from serious pulmonary disease. The examinations include clinical, laboratory and radiographic investigation. By means of a mobile X-ray unit an annual tour is also made of outlying mining centres.

In the fifteen years since the inception of this service over 30,000 men have been examined.

X-ray facilities are also provided at the Bendigo Laboratory as part of the campaign against tuberculosis, for the examination of miners and other radiographic work in the district.

4. The School of Public Health and Tropical Medicine.—The Commonwealth Government, under an agreement with the University of Sydney, established a School of Public Health and Tropical Medicine at the University of Sydney 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 were 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 services and missionaries.

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 issues of the Official Year Book (see No. 29, p. 334).

5. **The Australian Institute of Anatomy.**—Information concerning the Australian Institute of Anatomy at Canberra is given in previous issues of the Official Year Book (see No. 32, p. 919). In 1931 the Institute became an integral part of the Commonwealth Department of Health. The work of the Institute on general problems of comparative anatomy has now been concentrated on aspects of structure and function with special reference to the development of the growing child. Biochemical and biological research in this field is being developed in close association with the model kindergarten centres established by the Department in each capital city (see par. 8 below). The background of comparative anatomy and the museums of the Institute are maintained as part of the general plan of work, and an expert zoologist is a member of the body of research workers at the Institute.

6. **The Northern Territory Medical Service.**—As from 1st April, 1939, the Commonwealth Department of Health assumed administrative responsibility for the medical and health services of the Northern Territory, absorbing the Northern Territory Medical Service of the Territory Administration. The Health services of Darwin have been strengthened with the growing importance of that town as the northern gateway to Australia and as an administrative and service centre. A new hospital is being constructed at Darwin. The needs of the inland have been also carefully considered. A departmental ambulance aeroplane is maintained to provide a flying doctor service from Darwin. The hospital at Alice Springs has been enlarged and the medical officer of the hospital acts as the flying doctor for the local base of the Australian Aerial Medical Services which provide for pilot, aircraft and ground services.

7. **National Fitness.**—Health authorities in Australia have closely followed the world-wide movement for the advancement of physical fitness and in several States active work has been proceeding over some years. In 1938, following a recommendation of the National Health and Medical Research Council, the Commonwealth Government agreed to appoint a Commonwealth Council for National Fitness, under the Commonwealth Minister for Health, to effect collaboration of Commonwealth, State, and local Government authorities in the movement. Meetings of this Council were held in January, May, and July, 1939, and in May and November, 1940. Meanwhile active State Councils have been formed in all States. As a result of the recommendations of the central Council, the Commonwealth Council agreed to make available an annual sum of £20,000 for five years and grants were allocated to each State for purposes of organization and to each of the six Australian Universities to establish lectureships in physical education. A meeting of representatives of the State Councils and the local State organizers was held at Canberra in May, 1940. The movement continues to develop and to gain public interest and support through Australia.

8. **The Pre-school Child.**—Sessions of the National Health and Medical Research Council and the reports of the Commonwealth Advisory Council on Nutrition have called attention to the need for greater effort throughout Australia directed towards the care of the growing child, especially during the pre-school period. Movements for the care of the infant and the welfare of the school child are already developed by State authorities as recorded in §§ 7 and 8 below. It was felt by the Commonwealth Government that more could be done for the child of the pre-school age, and it was decided to give a lead by making possible a demonstration of the possibilities of effort and of the practical methods which could be employed.

In pursuance of these objectives the Commonwealth Government therefore decided to establish in each capital city a pre-school demonstration centre, and in order to achieve the best results in association with those who have had experience in this field it has secured the co-operation of the federal organization of Kindergarten Unions which is operating under the title of "The Australian Association for Pre-school Child Development". A suitable piece of land was secured in each capital city and the necessary school structure was built. The administration of these buildings is under the direction of the local Kindergarten Union, but the employment of staff and the technical methods used are approved by the Commonwealth Department of Health. This applies in so far as the educational side is concerned, and in this field advantage is being taken of the opportunity to try new methods and to make systematic records of observations with the object of securing reliable knowledge of the educational technique of this pre-school period.

Along with this educational practice there proceeds also the study of physiological requirements of the child and of the interaction between physical and mental health under varying conditions. In view of the importance, which has been indicated, of the study of growth and of nutrition of this age-period, these centres provide by reason of the children there available a considerable mass of human material for control and study. Not only are routine measurements made of height, weight and other bodily data, but problems of nutrition are studied in detail. The medical work at each of the States centres is carried on on a uniform basis, according to a scheme formulated at, and directed from, the Australian Institute of Anatomy, Canberra, where parallel investigations on the laboratory side are being undertaken.

9. **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 Australia 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 which was 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 is 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 Australia. 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 1940 a total quantity of 53,089 millicuries of radon was prepared and issued by this laboratory and the associated centres in Sydney, Adelaide, 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.

10. *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.

§ 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 of the Official Year Book (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 also to the Health Department. The duty of making 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 issues of the Official Year Book (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 1940 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, 1940.

Disease.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Aust. Cap. Terr.	Aust.
Anchylostomiasis ..	*	..	18	..	..	..	2	..	20
Anthrax ..	*	..	1	..	..	..	..	..	1
Beriberi ..	*	..	..	..	..	..	1	..	1
Bilharziasis ..	*	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis ..	40	55	5	3	103	3	56	1	266
Cholera ..	*	..	..	..	..	..	..	..	..
Coastal Fever(a) ..	*	..	19	..	..	..	..	..	19
Dengue ..	*	..	..	..	..	..	609	..	609
Diphtheria ..	1,838	1,365	598	603	599	366	7	9	5,385
Dysentery(b) ..	..	1	19	..	2	..	6	..	28
Encephalitis Lethargica ..	7	3	4	1	..	4	..	..	19
Erysipelas ..	*	..	..	102	..	..	2	..	104
Favus ..	*	..	..	..	..	..	..	..	..
Filariasis ..	*	..	..	..	..	..	..	..	..
Helminthiasis ..	*	3	..	..	..	..	..	..	3
Hydatid ..	*	10	..	..	..	..	..	..	10
Influenza ..	*	..	..	58	..	..	280	..	317
Leprosy ..	1	..	30	..	56	..	7	..	94
Malaria ..	*	2	10	..	2	..	10	..	24
Measles(c) ..	*	..	..	11,082	1,158	..	403	542	13,185
Plague ..	..	..	..	..	..	..	..	..	..
Polio-myelitis ..	11	19	44	63	2	..	..	..	139
Psittacosis ..	..	1	..	..	..	..	..	..	1
Puerperal Fever..	245	38	152	64	7	8	..	..	534
Scarlet Fever ..	3,025	4,363	248	210	130	240	..	36	8,252
Smallpox ..	*	..	..	..	..	..	..	..	..
Tetanus ..	..	12	..	..	..	..	..	..	12
Trachoma ..	..	1	..	..	..	..	..	..	1
Tuberculosis(d) ..	1,907	911	525	276	263	248	24	3	4,157
Typhoid Fever(e) ..	67	26	53	20	23	4	..	..	193
Typhus (Endemic)(f) ..	5	..	33	2	46	..	..	..	86
Undulant Fever..	..	..	..	..	..	..	..	..	..
Varicella ..	..	..	..	..	..	..	20	..	20
Weill's Disease(g) ..	..	..	55	..	..	..	..	..	55
Whooping Cough ..	..	..	..	1,836	..	..	8	39	1,883
Yellow Fever ..	..	..	..	..	..	..	..	..	..

* Not notifiable.

(a) Includes miasm and sarina fever. (b) Includes amoebic and bacillary. (c) Notifiable in Western Australia from 18th October, 1940. Returns include 504 cases of rubella in Australian Capital Territory and 207 cases of rubella in Northern Territory. (d) Includes all forms except in New South Wales and Northern Territory where only pulmonary tuberculosis is notifiable. (e) Includes enteric fever and paratyphoid. (f) Cases reported are all of the mild type known as Brill's disease or endemic typhus. (g) Includes leptospirosis, weill's and para-weill's disease.

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 and 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 issues of the Official Year Book (see No. 22, pp. 503-4).

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 Official Year Book (see No. 22, pp. 504-5) information was given concerning the provisions regarding vaccination in each State.

§ 7. 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.

At the beginning of 1940 the staff comprised 21 medical officers (including 2 psychiatrists for the Child Guidance Clinics, and 3 oculists), 18 dental officers, 8 dental assistants, 10 school nurses, 2 psychologists, 2 social workers and 6 clerical officers. Nine 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 assisted part-time at the Sydney College by two other medical 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 970 boys in 1939 and 835 in 1940. 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. A second clinic was established during 1939.

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 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 Clinics during 1940, was 1,464. In addition 244 evacuee children from the United Kingdom were examined by officers of this service.

The following summary furnishes particulars of children medically examined in schools in 1940 :—

Number fully examined (routine inspection)	..	..	87,271
Number reviewed	..	..	29,422
Of those examined—percentage notified for defects, medical and/or dental	..	..	36.72 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 645 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, faulty nutrition, trachoma, acute rheumatism, and special investigations into outbreaks of infectious diseases occurring in schools. The sanitary condition of school buildings is also inspected and reported on.

The foregoing 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.**—Medical inspection of school children was established in 1909. One of the objectives of the system is to have each child medically examined once every three years in its school life. 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. In spite of the comparatively small medical inspection staff, the plan for triennial visits to State schools is being fairly well maintained and all State High Schools, nearly all other State schools in the country, and some in the densely populated inner-metropolitan area are visited once in three or four years. Only a few of the registered and institutional schools are, however, visited.

At the medical inspection every child is first weighed and measured, tested for vision and hearing, 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 and how to correct faults, and 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 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 annual itinerary.

The staff of the medical branch consists of 7 full-time medical officers, 9 dentists, 11 dental attendants and 3 school nurses.

During the year ended 30th June, 1940, 32,808 children and 1,727 teachers were medically examined, and 28,370 children received dental treatment. In addition 5,570 homes were visited by the school nurses.

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; 4,907 were thus medically examined in 1940, and of these 1,866 were notified as suffering from some condition requiring correction.

The nurses now number fourteen. Each nurse is assigned a group of schools and is instructed to make a list at each school of those children who 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 1940, school nurses examined 44,778 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 16 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 1940, 34,580 children were examined; 33,093 extractions were performed; and there were 63,649 fillings and 16,222 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 two 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, junior technical, high and technical high schools. Children in the primary schools are examined in grades I., IV. and VII.; in the junior technical 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, 2 medical inspectors and a trained nurse. A psychologist, an assistant psychologist, a dentist, 2 dental assistants and a speech therapist 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 by the Children's Court, by the Women Police, or by the Children's Welfare Department, etc. The speech therapist examines children with defective speech, ascertains the nature of the defect and teaches the child to overcome it.

During 1940, 15,627 children were examined by medical inspectors; of these 833 required notices for defective vision, 126 for defective hearing, and 1,737 for tonsils and adenoids. Six hundred and forty-seven children were examined by the psychologist.

Of the 36,261 boys who have been examined in recent years 3.4 per cent. were wearing glasses at the time of the examination. The lenses were measured and the defects classified as follows:—myopia and myopic astigmatism, 359 (29.0 per cent.); hypermetropia and hypermetropic astigmatism, 789 (63.7 per cent.); and mixed astigmatism, 91 (7.3 per cent.).

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 2 full-time medical officers for schools, whose duty is to conduct medical examinations, and 2 school nurses are employed. During 1940, 11,939 (7,456 country and 4,483 metropolitan) children were examined. In addition 329 metropolitan and 12 country school children were re-examined. There were 39 schools visited in the metropolitan area and 203 in country districts.

Four dental officers visited 105 schools and gave attention to 4,768 children.

7. **Tasmania.**—The School Medical Service came under the administration of the Department of Public Health on 1st January, 1939. During 1940, 16 full-time Government Medical Officers and 4 school nurses were engaged in the work, with the result that many more children than hitherto received attention to their medical needs. An essential part of the School Medical Service is concerned with the condition of the children's teeth. During 1940, a permanent dental clinic functioned in each of the cities of Hobart and Launceston, whilst four travelling clinics operated in many of the remaining districts throughout the State.

The following summary furnishes particulars of (a) children medically examined in schools during 1940; and (b) children who received dental treatment for the same period:—

Number of children examined by medical inspectors..	6,462
Percentage notified for defects, medical and/or dental	70 per cent. (approximate)
Number of children who received dental treatment	
for the first time	11,982

In many instances, the Department arranged for hospital treatment of medical defects, where parents of children were in indigent circumstances.

A health camp was established during the year at a seaside resort for delicate and needy children. The medical officer in control reported that the camp was instrumental in raising the standard of health of the children to a remarkable degree. The establishment of a Sight-Saving School at a primary school in the City of Hobart was another important feature of this particular Medical Service.

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 1940 the examinations of entrants and those leaving the primary schools showed that 47.1 per cent. had dental defects, 8.8 per cent. had some pathological condition of the nasopharynx, 6.0 per cent. had eye defects, 1.2 per cent. had ear defects, 7.8 per cent. showed some evidence of minor deformity, and 5.0 per cent. were 10 per cent. or more underweight for their height and age. Of the pupils recommended for medical advice 88 per cent. received this advice, and 65 per cent. of those recommended for dental treatment received such treatment.

§ 8. 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 1936 to 1940 no less than 23,420 children died in Australia (excluding Territories) before reaching their first birthday. Further information regarding infantile mortality will be found in Chapter XIII. "Vital Statistics"—

INFANTILE DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1936.	1937.	1938.	1939.	1940.	1936.	1937.	1938.	1939.	1940.

NUMBER OF INFANTILE DEATHS.

New South Wales	738	702	712	667	758	1,270	1,230	1,268	1,302	1,169
Victoria ..	605	538	510	494	655	617	553	528	591	606
Queensland ..	185	201	215	181	201	494	482	569	541	520
South Australia	123	134	124	161	171	154	153	163	175	185
Western Australia	156	154	115	148	181	202	169	194	221	222
Tasmania ..	53	43	48	83	49	174	159	147	120	127
Australia(a) ..	1,860	1,772	1,724	1,734	2,015	2,911	2,756	2,869	2,950	2,829

RATE OF INFANTILE MORTALITY.(b)

New South Wales	41.73	38.66	38.35	34.51	38.01	44.56	41.92	44.10	45.41	39.71
Victoria ..	44.06	37.13	34.19	32.15	39.69	40.72	36.28	34.22	39.07	39.20
Queensland ..	37.95	40.21	42.35	33.93	37.40	35.59	34.03	40.89	36.04	34.58
South Australia	28.62	30.94	27.36	34.82	35.37	33.38	35.02	33.42	35.05	35.70
Western Australia	44.21	42.40	29.76	37.98	47.15	40.81	33.96	36.76	42.97	42.03
Tasmania ..	50.48	39.74	40.03	47.09	40.56	49.28	42.30	39.64	38.58	33.54
Australia(a) ..	41.09	37.95	35.80	34.31	38.98	41.27	38.21	39.87	40.55	38.18

(a) Excluding Territories.

(b) Number of deaths under one year per 1,000 births registered.

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 £273, 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 XXVI. "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 Official 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, 1940.

Heading.	New South Wales.	Victoria. (a)	Queensland. (a)	South Australia.	Western Australia. (a)	Tasmania.	Aust. Capital Territory. (a)	Total.
Baby Health Centres—								
Metropolitan No.	58	77	23	44	14	2	..	218
Urban-Provincial and Rural No.	163	143	112	22	13	24	11	488
Total No.	221	220	135	66	27	26	11	706
Attendances at Centres .. No.	938,827	560,321	265,269	123,009	93,509	46,993	7,371	2,035,299
Visits paid by Nurses .. No.	69,008	75,271	15,335	24,729	19,891	15,222	2,787	222,243
Bush Nursing Association—Number of Centres ..	44	80	12	32	6	20	..	194

(a) Year ended 30th June, 1940.

The number of attendances at the Baby Health Centres has increased very considerably in recent years. The following are the figures for the years 1935 to 1939 :—1935, 1,355,306 ; 1936, 1,512,198 ; 1937, 1,657,052 ; 1938, 1,597,124 ; and 1939, 1,869,770.

CHAPTER X. REPATRIATION.

§ 1. General.

An outline of the activities leading up to the formation of the Commonwealth Repatriation Commission was given in Official Year Book No. 15, p. 931. Some account was given also in the Official Year Book referred to, and in subsequent issues, of the policy and general activities of the Department, 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. 598–601). During the year ended 30th June, 1928, sustenance rates were amended to bring them into line with war pension rates, and the scale of rates in respect of 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. In 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, 1940, 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 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 £2 or £4 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.

In 1925 it was 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 pensions. 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, was 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.

In 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 a dependant 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 members' death he was in receipt of a pension under the Second Schedule to the Act or in respect of a double amputation; (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 operated 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 marriage or births took place on or before 30th June, 1938.

2. **Appeal Tribunals.**—The principal Act was amended as from 1st June, 1929, to create tribunals 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 arising 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 30th June, 1940, the number of war pensions was 236,877 and the annual liability £7,534,677. The outstanding features for 1939–40 were as follows :—

New claims granted	..	..	..	..	..	2,469
Claims rejected (gross)	..	..	..	..	..	4,846
Pensions reviewed	..	..	..	..	..	34,472
Pensions cancelled or discontinued	..	..	..	..	..	12,512
Deaths of pensioners	..	..	..	..	..	3,076
Number of pensions in force at 30th June, 1940	..	..	..	..	..	236,877
Annual pension liability at 30th June, 1940	..	..	..	..	..	£7,534,677
At 30th June, 1940, special rate pensions of £8 per fortnight were being paid to—						
Blinded soldiers	..	..	..	..	..	152
Tubercular soldiers	..	..	..	..	..	835
Totally and permanently incapacitated soldiers	..	..	..	..	..	2,365

An analysis of the total number of new grants during the year reveals the following :—

Members (i.e., ex-soldier pensioners)	..	..	..	..	..	325
Wives of members	..	..	..	..	..	398
Children	..	..	..	..	..	1,447
Other dependants	..	..	..	..	..	299
						2,469

In the following table the number receiving pensions at 30th June, 1940, is shown for each class of pensioner :—

WAR PENSIONS IN FORCE AT 30th JUNE, 1940.

Class.						Number of Pensioners.
Orphan children	..	..	..	..	..	3,808
War widows	..	..	..	..	..	9,944
Soldiers	..	..	..	..	..	76,462
Children	..	..	..	..	..	70,752
Wives	..	..	..	..	..	61,324
Parents	..	..	..	..	..	14,154
Brothers and sisters	..	..	..	..	..	184
Others	..	..	..	..	..	249
Total	..	..	..	..	..	236,877

4. Number of Pensioners and Expenditure.—The following table shows the number of pensioners at 30th June, 1940, and the places where payments were made during 1939-40 :—

WAR PENSIONS : NUMBER OF PENSIONERS AND EXPENDITURE, 1940.

Where Paid.	Incapacitated Members of the Forces.	Dependants of—		Total.	Expenditure.
		Deceased Members.	Incapacitated Members.		
	No.	No.	No.	No.	£
New South Wales ..	25,671	8,366	43,310	77,347	2,618,564
Victoria ..	25,334	8,058	44,720	78,112	2,317,417
Queensland ..	8,740	2,518	15,476	26,734	873,635
South Australia ..	4,536	2,090	7,862	14,488	497,743
Western Australia ..	6,931	2,165	12,353	21,449	685,019
Tasmania ..	3,348	1,121	7,260	11,729	404,154
Total, Australia ..	74,560	24,318	130,981	229,859	7,396,532
London ..	1,581	1,927	2,663	6,171	} 285,714
Union of South Africa ..	49	25	60	134	
New Zealand ..	252	115	304	671	
Other Overseas ..	20	3	19	42	
Total ..	76,462	26,388	134,027	236,877	7,682,246
Payments made in Australia in respect of other countries less amounts received from other countries ..	..	..	..	..	Cr. 7,434
Total, War Pensions Trust Fund Account ..	..	..	..	..	7,674,812

The following table shows the numbers of pensions granted, claims rejected, pensions in force, and the amount paid in pensions for the years ended 30th June, 1921 and 1931. and for each of the five years ended 30th June, 1940 :—

WAR PENSIONS : SUMMARY, AUSTRALIA.

Year ended 30th June—	Pensions Granted.	Claims Rejected.	Pensions in Force.				Amount paid in Pensions.
			Incapacitated Members of the Forces.	Dependants of Incapacitated Members.	Dependants of Deceased Members.	Total.	
							£
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
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
1939 ..	6,794	7,541	77,151	144,571	27,571	249,293	7,819,289
1940 ..	2,469	4,846	76,462	134,027	26,388	236,877	7,682,246

(a) Including payments made (less recoveries) from Trust Fund, War Pensions Account, on behalf of other countries.

5. Cost of Administration.—The cost of administration in 1939-40 was £279,857 representing 3.09 per cent. of the total cost of benefits disbursed. The administrative costs of the three War Pensions Appeal Tribunals are included in the foregoing figure and totalled £26,411.

§ 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 £2 per fortnight, and for a man and his wife to £3 8s. 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 shown above, 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 £2 per fortnight for a single man or £3 8s. per fortnight for a man and wife, as previously 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 applies only 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 1939-40 :—

Claims granted during the year—

Members of the Forces	..	..	..	..	1,617
Wives	..	..	..	..	566
Children	..	..	..	..	605
					<u>2,788</u>

Claims rejected during the year—

Members of the Forces	..	..	..	..	1,161
Wives	..	..	..	..	714
Children	..	..	..	..	1,073
					<u>2,948</u>

Pensions cancelled or discontinued during the year	..	..	..	..	1,997
Deaths of pensioners during year	..	..	..	..	522
Pensions in force at 30th June, 1940	..	..	..	..	14,000
Annual pension liability on 30th June, 1940	..	..	..	..	£484,482
Expenditure, 1939-40	..	..	..	..	£472,263

§ 4. Medical Treatment of Returned Soldiers Suffering from War Service Disabilities.

At 30th June, 1940, there were 2,024 in-patients, including a number whose care was undertaken by the Repatriation Commission on behalf of other countries or Commonwealth Departments. There were 148,671 out-patient attendances for treatment during the year, excluding treatments by the 813 Local Medical Officers resident in country towns. The expenditure to 30th June, 1940, was £9,671,295.

§ 5. Miscellaneous.

1. *Summary of Other Departmental Activities.*—The following is a summary of the work of the Repatriation Commission from 8th April, 1918, to 30th June, 1940:—

(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, 1940, 24,536 applications for assistance had been received. Of these, 22,981 had been approved, of which 15,072 recipients of benefits had completed their training and 6,661 were undergoing training, while 38 applications were pending and the remainder had been refused or withdrawn.

Up to 30th June, 1940, the expenditure was £2,124,139.

(iv) *Assistance Granted.* The total expenditure incurred apart from war and service pensions during the period from 8th April, 1918, to 30th June, 1940, was £23,227,967, of which £1,676,014 represented loan and £21,551,953 general expenditure. Of the total, the largest amounts were absorbed by medical treatment with £9½ million, vocational training with £5 million, and expenses of providing employment, £2½ million.

2. *Expenditure of Repatriation Commission.*—The expenditure of the Commission for the year ended 30th June, 1940, was £9,177,323, distributed as follows:—

Repatriation benefits—					£
Loans to soldiers	..	..	..	..	1
Grants to soldiers and general expenditure (including maintenance of training schools, medical institutions, etc.)	..	..	..	..	631,925
Assistance to soldiers in necessitous circumstances	..	..	..	..	27
Allowances to dependants of soldiers not provided for under the Act	..	..	..	..	908
Medical treatment to Home Service personnel	..	..	..	..	552
					<hr/>
					633,413
					<hr/>
Soldiers' Children Education Scheme	..	..	..	..	116,978
War and Service Pensions	..	..	..	..	8,147,075
Administrative costs—					£
Salaries	..	..	..	..	226,231
Contingencies	..	..	..	..	53,626
					<hr/>
					279,857
					<hr/>
Total	..	..	..	..	9,177,323
					<hr/>

The total expenditure for the previous year was £9,271,961.

3. *Losses on 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 XI.

THE TERRITORIES OF AUSTRALIA.

GENERAL.

The Territories under the control of Australia 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 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 local coins 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 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 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.
1936	..	..	3,566	1,709	5,305
1937	..	..	3,641	1,713	5,354
1938	..	..	3,825	1,820	5,645
1939	..	..	5,117	2,070	7,187
1940	..	..	6,308	2,544	8,852

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 the movement of population in 1940 (excluding road migration) :—

NORTHERN TERRITORY : MOVEMENT OF POPULATION. 1940.

Arrivals ..	6,246	Departures ..	4,668	Excess of arrivals over departures	1,578
Births ..	173	Deaths	86	Excess of births over deaths ..	87
<hr/>		<hr/>		<hr/>	
Increase ..	6,419	Decrease ..	4,754	Net Increase ..	1,665

The migration figures for the Territory during the five years ended 1940 are shown in the following table :—

NORTHERN TERRITORY : MIGRATION.

Year.					Arrivals.	Departures.
1936 ..	..	..	..	..	1,429	1,268
1937 ..	..	..	..	..	1,733	1,720
1938 ..	..	..	..	..	2,601	2,343
1939 ..	..	..	..	..	4,190	2,698
1940 ..	..	..	..	..	6,246	4,668

(v) *The Aborigines.* A special article contributed by Dr. W. Ramsay-Smith on the subject of the Australian aborigines was incorporated in Official Year Book No. 3 (p. 158). The Chapter "Population", in Official 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, 1940, was estimated at 14,803, of whom 3,213 were in regular employment. There are fifteen "aboriginal" reserves, comprising an area of 67,244 square miles. (See also Chapter XII. "Population").

§ 2. Legislation and Administration.

On 1st January, 1911, the Territory was transferred by South Australia to the Commonwealth. The terms are outlined in Official 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 repealed by the Northern Territory (Administration) Act 1931. 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 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 Official Year Book No. 1, p. 66; the rivers in No. 2, p. 76; the mountains in No. 3, p. 67; the lakes in No. 4, pp. 77, 78; the islands in No. 5, pp. 71, 72; and the mineral springs in 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 appear in Official 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 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 luxuriously 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*, *Goodeniaceae*, *Leguminosae*, *Urticaceae*.

Fuller particulars regarding fauna and flora are given in Official Year Book No. 6, pp. 1116-7.

§ 5. Production.

1. **Area.**—At 30th June, 1940, there were 209,686 square miles held under lease, licence and permit in the Northern Territory, comprising 160,934 square miles of pastoral leases, 696 square miles of pastoral permits, 45,061 square miles of grazing licences, 118 square miles of agricultural leases and 2,877 square miles of miscellaneous leases.

2. **Agriculture.**—Up to the present agriculture has made little progress in the Territory, although it has been proved that rice, tobacco, coco-nuts, 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 coco-nut 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. There was little activity in agriculture during 1939-40 and the outlook is not hopeful. It is hardly practicable to develop agricultural production in the sub-tropical district around Darwin, and the history of efforts in this connexion is one of almost complete failure. Last season's crop of peanuts amounted to only 56,000 lb. from 80 acres, and many growers have left their holdings.

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 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 1939-40 was about 98,400. In the southern portion of the Territory, the rainfall was above the average and was evenly distributed throughout the year, and a favorable season was again experienced. In the north, seasonal conditions varied considerably, while in the Darwin and Gulf District conditions were unfavorable and the late rains found the cattle in poor condition.

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.
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
1938 ..	33,191	899,472	29,901	355	19,427	162	1,323	443
1939 ..	32,721	922,581	38,587	483	20,335	331	1,443	366

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 the search for gold has been stimulated in recent years and production has increased annually. The principal producer of gold is the Tennant Creek field which gives every indication of increasing production for a number of years. Although the mica deposits in the Territory are not exploited systematically or on a large scale, a number of men have been engaged in this class of mining and during 1938 produced £20,000 worth of mica. Production of wolfram concentrates increased during the year but owing to prices falling the value of the output was reduced.

(ii) *Mineral Production.* The following table shows the value of mineral production for the five years ended 1938. Later particulars are not available for publication.

NORTHERN TERRITORY : MINERAL PRODUCTION.

Year.	Gold.	Tin Ore.	Silver-lead Ore.	Copper Ore.	Mica.	Wolfram.	Tantalite.	Total Value all Minerals.
	£	£	£	£	£	£	£	£
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
1938 ..	109,168	3,205	..	4,362	19,712	78,277	..	214,724

The value of all minerals produced to the end of 1939 was approximately £4,453,000.

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 XV. "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 has declined rapidly over the past three years. The production for 1939-40 amounted to only 179 tons, valued at £14,350, compared with 804 tons, £67,000, in 1937-38 and 410 tons, £31,500, in 1938-39. The depleted condition of the known beds and the depressed market were responsible for fewer Japanese vessels competing with local vessels during the year.

Three fishing licences and two boat licences were issued during 1938-39 in connexion with bêche-de-mer fisheries. Prices were not remunerative, however, and the production was valued at only £252.

Darwin continues to provide a firm and ready local market for fish. The lack of suitable refrigerating plants on the fishing-boats is responsible for the deficiency of regular supplies of fish except in limited quantities obtained from traps close to the town.

No raw salt was produced during the year as the stocks carried over from the previous year were sufficient to meet the local demand.

§ 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 States and Territories. The value of the direct oversea imports and exports for 1901 and for the years 1934-35 to 1938-39 is given hereunder. Later particulars are not available for publication:—

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.

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.

Year.	Arrivals.		Departures.	
	No. of Vessels.	Tonnage.	No. of Vessels.	Tonnage.
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
1938-39	161	181,961	172	179,422

The foregoing figures exclude particulars of coastwise shipping. During 1938-39 fourteen vessels of 285 tons net were entered at Darwin as coastwise. Later particulars are not available for publication.

3. **Air Services.**—Darwin is the first port of arrival in Australia of aircraft from Europe, Singapore and Netherlands East Indies. The air services calling at Darwin at 30th June, 1940, were as follows :—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 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 twice 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 weekly service in each direction as at 30th June, 1940. On the average six 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 transfer 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 202 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.

2. **Posts.**—Postal communication is maintained by vessels belonging to Burns, Philp and Co. Ltd., 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, and the southern districts are served via Adelaide.

3. **Telegraphs.**—The transcontinental telegraph line, covering a length of 2,230 miles, was completed on 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 Commonwealth Government at Wave Hill in the Territory, and at Camooweal, just over the eastern boundary, in Queensland.

§ 9. Finance.

In the Commonwealth finance statement separate accounts are given for Northern Territory administration. Revenue and expenditure for 1939-40 are given below :—

NORTHERN TERRITORY : REVENUE AND EXPENDITURE, 1939-40.

REVENUE.	£	EXPENDITURE.	£
Taxation—		Territory Administration ..	224,708
Customs and excise ..	17,446	Developmental services ..	20,789
Sales tax ..	1,331	Postmaster-General's Department ..	27,871
Land and income tax ..	13,006	Other departments ..	40,524
Probate and stamp duties ..	1,696	Rent, repairs, maintenance ..	20,176
Railways—		New works ..	313,738
North Australia ..	60,797	Interest ..	65,707
Central Australia ..	146,921	Sinking fund ..	14,746
Posts, telegraphs and telephones ..	30,165	Unemployment relief ..	2,779
Territorial ..	33,230	Shipping subsidy ..	7,925
Miscellaneous ..	59,055	Railways—	
Deficiency on year's transactions ..	1,042,211	Working expenses ..	308,132
		New works ..	30,561
		Interest ..	273,638
		Sinking fund ..	54,564
Total ..	1,405,858	Total ..	1,405,858

AUSTRALIAN CAPITAL TERRITORY.

1. **Introductory.**—In Official 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 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", appears on p. 454 of Official 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 9th May, 1901. (For particulars of the opening ceremony see Official Year Book No. 21, p. 604).

3. **Administration.**—In Official Year Book No. 18, a summary is 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 Official Year Book No. 22, a summary is given of the administrative activities of the Federal Capital Commission.

The administration of the Territory by the Federal Capital Commission was continued until 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 1st May, 1930, by Ordinance under the Act, and a Civic Administrator was appointed as Chairman to carry on the general administration of the Territory under the Minister, 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 an adult franchise.

On 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 so that the nominated members of the Council would 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).

Since April, 1932, the general control of the Territory has been 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 is outlined in Official Year Book No. 18. Later progress under the Commission is described in Official Year Book No. 22.

During 1940-41, 281 residences were completed and 110 were under construction as well as an omnibus garage at Ainslie. The following architectural works were completed:—Canberra Royal Australian Air Force Station, Patent Office, Barton Hostel, No. 2 Empire Air Training School, Duntroon Military College Training School, additions to Transport Depot, additions to complete the National War Memorial, and additions and new buildings for the Canberra Technical College.

In previous issues of the Official Year Book a synopsis of the works completed during the year were given, but for reasons of economy has been omitted from this issue.

5. **Forestry.**—A considerable amount of reafforestation work has been undertaken, and plantations have been established at Uriarra, Mount Stromlo, Pierce's Creek and Kowen. Experimental plots have also been established in the Brindabella mountains and sylvicultural work is being carried out at Black Mountain.

The total area of plantations to 30th June, 1940, was 12,000 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 1,200,000 super. feet in 1939-40.

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. *Pinus radiata* has been most extensively planted, and also, as a result of experimental work, pinus areas of better quality pines on a longer rotation, such as *pinus ponderosa* and *laricio* have been 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 453 leases are at present held under lease for periods varying from quarterly tenure to 25 years.

Auction sales of city leaseholds are described in Official 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 1939–40 was 495, representing a capital value of £222,568. During the year 57 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 273.

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 cent. 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 cent. of the unimproved capital value until 30th June, 1941.

(ii) *In the Jervis Bay Territory.* The Commonwealth 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 12,812 acres in the Jervis Bay Territory.

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 25th May, 1914, and for passenger traffic on 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.

8. *Population.*—The census return of population on 30th June, 1938, was 11,290 in the Australian Capital Territory and 272 in the Jervis Bay Territory, or a total of 11,562 persons. The estimated population at 30th June, 1941, was 13,474.

9. *Live Stock.*—The number of live stock depastured at 31st December, 1940, were—Horses, 1,157, cattle, 7,730, and sheep, 287,269.

10. *Educational Facilities.*—Arrangements have been made with the New South Wales Education Department to continue the administration of education in the Territory, the expenditure involved being refunded annually to the State. There are eleven schools in the Australian Capital Territory and two in the Jervis Bay Territory. The largest primary school is situated at Telopea Park, Barton, with accommodation for 600 scholars. Secondary education is provided at the Canberra High School, Acton.

It has accommodation for 550 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. 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 for supplementary courses for apprentices, journeymen desirous of improving their trade qualifications, and for others who desire to take any special courses.

There are at present four private schools in the Territory. The Canberra Grammar School, the Canberra Church of England Girls' Grammar School, 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 the Canberra University College will be found in Chapter VI. "Education".

11. Finance.—(i) *Financial Year 1939-40.* Receipts and Expenditure for the financial year 1939-40 are given in the following table:—

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND EXPENDITURE, 1939-40.

Receipts.		Expenditure.				
Items.	Amount.	Items.	Capital.	Main-tenance.	Other.	Total.
	£		£	£	£	£
Rent and rates ..	175,959	Architectural services ..	295,467	31,804	..	327,271
Electricity ..	56,392	Engineering services ..	194,148	89,455	..	283,603
Motor registration and fees ..	15,645	Lands, Forestry ..	2,973	..	..	2,973
Hospital tax ..	14,464	Loans for housing, net ..	29,248	..	..	29,248
Hotels ..	24,971	Sundry works and services ..	2,489	41,082	..	43,571
Transport and City Bus Service ..	93,896	Education ..	..	..	53,993	53,993
Sales of goods, manufactured products, etc. ..	408,566	Hospital—Working expenses ..	..	..	15,750	15,750
Housing ..	20,735	Interest and Sinking Fund ..	..	..	289,900	289,900
Miscellaneous ..	61,976	Administrative ..	..	..	83,630	83,630
		Hotels—Working expenses ..	..	..	25,628	25,628
		Transport and City Bus Service—Working expenses ..	..	..	95,196	95,196
		Factory Stores, etc.—Working expenses ..	..	..	411,571	411,571
		Housing ..	..	..	17,959	17,959
		Miscellaneous—Police, Fire Brigade, etc. ..	300	..	52,222	52,522
Total Receipts ..	872,604	Total Expenditure ..	524,625	162,341	1,045,849	1,732,815

(ii) *From 1901-2 to 30th June, 1940.*—The total receipts and expenditure from 1901-2 to 30th June, 1940, were as follows:—

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND EXPENDITURE TO 30th JUNE, 1940.

Receipts.		£	Expenditure.		£
Commonwealth Treasury—			Lands ..	..	907,449
Parliamentary Appropriations—			Engineering works ..	..	4,488,610
Revenue ..	..	5,804,002	Architectural works ..	..	3,179,629
Loan ..	..	5,815,299	Other capital expenditure, sundry debtors, etc. ..	..	1,049,618
					9,616,306
			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. ..	..	2,092,995*
Total Receipts ..	..	11,709,301	Net Expenditure ..	..	11,709,301

*Excluding interest, £3,290,326 net.

The foregoing table was prepared by the Department of the Interior and excludes part cost of National Buildings—Parliament House, the Secretariats, etc., Federal Highways within the Territory, Queanbeyan-Canberra Railway and Housing Loan, etc., and Loans for Housing, £2,308,958.

NORFOLK ISLAND.

1. *Area, Location, etc.*—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 3' 45" South, longitude 167° 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 length of 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 40° and 85°, with a mean of 68°. The average annual rainfall is 52 inches. It has been said that the salubrious climate, coupled with the beauty of its land and sea scapes, should 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, were 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. One of these is still alive.

3. *Administration.*—In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. 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 Australia. 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, provided for the establishment of an Advisory Council of eight elected members to advise the Administrator.

4. *Population.*—The population at 30th June, 1940, was 896, consisting of 480 males and 416 females. During 1939-40, 13 births, 14 deaths, and 4 marriages were recorded. The average age of the persons who died was 58 years. Departures from the island exceeded arrivals by 86, the respective figures being departures 275, arrivals, 189.

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. The 1939-40 crop was particularly good, the quantity exported amounting to 1,947 bushels, compared with 568 bushels in 1938-39 and 923 bushels in 1937-38.

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 19,680 gallons of passion fruit pulp were exported during 1939-40. The pulping of cherry guavas for jelly has also been experimented with and 316 lb. were shipped to Sydney during the same period. Investigations are being carried out with a view to cultivating flax and ramie.

The citrus trees on the island in full bearing are capable of producing over 3,000 cases of fruit, but owing to adverse weather conditions the crop amounted to about 800 cases only in 1939-40. A ready market is available in New Zealand.

A demonstration farm was established in 1938 for the study of crop diseases and suitable farming methods for the island.

Large numbers of whales pass the island throughout the season. However, whaling had not been conducted for a number of years until recently when the industry was revived by the formation of a whaling company. Three boats have been fitted out and manned by full crews. The preserved fish industry which was established some years ago has been abandoned, and the fish-freezing factory has also ceased operations. Such fish as trevally, kingfish, schnapper and many others abound in the waters around the island.

On 30th June, 1940, the total area of land held under freehold and Crown leasehold amounted to 6,678 acres, consisting of 4,519 acres freehold and 2,159 leasehold.

Imports and exports for the last five years for which particulars are available are given hereunder: the values are expressed in Australian currency:—

NORFOLK ISLAND : IMPORTS AND EXPORTS.

Country.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
IMPORTS.					
From—	£	£	£	£	£
Australia	26,260	28,657	33,825	31,188	27,427
New Zealand .. ..	..	..	2	119	..
Pacific Islands	258	140	210	239	163
Total	26,518	28,797	34,037	31,546	27,590
EXPORTS.					
To—	£	£	£	£	£
Australia	8,170	8,283	11,611	10,328	16,110
New Zealand .. ..	..	921	..	911	623
Pacific Islands	148	203	268	268	237
Total	8,318	9,407	11,879	11,507	16,970

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.
		s. d.			s. d.
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
offee .. ..	..	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 excise duty.

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.

A 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.

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 one assistant teacher 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, 1940, was 123.

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 1939-40 were as follows:—

NORFOLK ISLAND TRUST FUND ACCOUNT, 1939-40.

Items.		Receipts.	Items.		Expenditure.
		£			£
Balance carried forward	..	5,054	Salaries .. ..	..	5,614
Commonwealth Grant	..	4,000	Purchase of liquor ..	..	2,487
Customs duties	.. ..	3,087	Demonstration farm	..	499
Sale of liquor	.. ..	3,073	Repairs and maintenance	..	1,039
Miscellaneous	.. ..	2,797	Miscellaneous	.. ..	4,489
			Balance .. ..	..	3,883
Total	.. ..	18,011	Total	.. ..	18,011

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 18th March, 1902, and was accepted by the

Commonwealth by the Papua Act 1905, which came into force by virtue of the aforesaid proclamation. The transfer was made under the authority of Section 122 of the Constitution. The Territory is now under the control of the Commonwealth, but not included within it, and is divided into magisterial districts.

Prior to an amendment made in 1940, the Papua Act provided for the appointment of a Lieutenant-Governor to administer the Territory. The office of Lieutenant-Governor was held by Sir Hubert Murray, K.C.M.G., from 1909 until his death in February, 1940. By virtue of the amendment referred to, the Territory is now controlled by an Administrator.

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 30th June, 1940, was 1,822, made up of 1,201 males and 621 females. The numbers recorded in previous years were:—1937, 1,323; 1938, 1,488; and 1939, 1,608.

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 Administrator 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 1939–40 was 17,351 and the approximate number of non-indentured labourers was 3,000; 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.

The taxes collected in 1939–40 amounted to £14,845, of which £3,891 was transferred to the Native Education Fund, and £8,877 to the Native Benefits Fund. The Native Education Fund during 1939–40 disbursed to primary and technical education £4,241, and to agricultural education £1,075, leaving a credit balance of £23,265. From the Benefits Fund the expenditure included:—Anthropology, £1,308; health, £5,821; plantation requisites, £412; village improvements, £146; family bonus, £1,261; games in villages, £36; 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, the natives are employed as travelling native medical assistants. A training school has been established for this purpose. The chief complaints treated are yaws, ulcers, lung affections, hookworm, venereal and skin diseases. The death rate amongst native labourers was 1.84 per cent. in 1939-40.

§ 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 appraisal 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. **Crown Lands.**—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. The amount of Crown Land purchased from the natives in 1939-40 was 5,900 acres, and the total to 30th June, 1940, 1,775,605 acres. The tenures under which surveyed areas were held at 30th June, 1940, were leasehold 195,038 acres, and freehold 23,490 acres. The area of leases granted during 1939-40 was 9,997 acres most of which was intended for rubber plantations. The low price of copra and the more favorable prospects of rubber have diverted attention to the latter culture. More than 80,000 acres are now held under leases for the cultivation of rubber. Crown rents on leaseholds for 1940 amounted to £6,378.

§ 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 rubber and copra are the most important amongst plantation products. 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 exported 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, coco-nuts, 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 coco-nuts and rubber as the principal crops. The natives are compelled by an Ordinance to plant coco-nuts for food supply. In addition to the coco-nuts 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.	1935.	1936.	1937.	1938.	1939.
	Acres.	Acres.	Acres.	Acres.	Acres.
Coco-nuts	47,642	48,188	45,237	44,719	44,527
Rubber	9,591	10,270	10,956	12,809	14,494
Sisal hemp	150	150	150	700	700
Kapok	128	168	119	84	92
Coffee	388	368	271	248	190
Other	729	801	933	664	554
Total	58,628	59,945	57,636	59,224	60,557

At 30th June, 1940, the London market price for hot-air dried copra was £13 5s. per ton as compared with £11 7s. 6d. at 30th June, 1939. Rubber at the later date was 13½d. per lb. compared with 8d. per lb. on 30th June, 1939.

(iii) *Government Plantations.* There are two Government plantations, the Orangerie Bay coco-nut plantation and the Kemp Welch rubber plantation, of which the former, although showing a record production for 1939-40, sustained a loss, while the latter reported a net profit on the year's undertakings.

3. *Forestry.*—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, 1939, the live stock in the Territory consisted of 525 horses, 6,958 head of cattle, 112 mules, 1,440 goats, 623 pigs, 23 sheep and 6,434 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 1938–1939 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. 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)

1935–36.		1936–37.		1937–38.		1938–39.		1939–40.	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Fine oz. 19,254	£ 167,046	Fine oz. 21,605	£ 187,975	Fine oz. 25,835	£ 223,160	Fine oz. 35,808	£ 325,116	Fine oz. 30,422	£ 316,203

(a) Valued at average price realized for fine gold in Australia.

Most of the rivers, except 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, 1940, was £3,158,520.

(iii) *Copper.* The value of exports of copper during 1938–39 amounted to £5,041. In addition copper matte to the value of £29,614 was exported. The principal value of the latter item is its gold content.

(iv) *Other Minerals.* Some good samples of galena (sulphide of lead) have been obtained, while cinnabar (sulphide 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 is at least 10,000,000 h.p. available for this purpose.

§ 6. Trade and Shipping.

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 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. From 12th July, 1940, the duty has been re-imposed, but certain specified articles have been exempted. The value of imports into Papua during 1938–39 was £514,808 and the duty collected, £54,606. The duty collected in 1939–40 was £64,611.

In 1939–40, £127 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 XXIII. "Trade"), and a proclamation of 25th September, 1935, exempted from primage duty goods the produce or manufacture of the Territory.

2. **Imports and Exports.**—Tables of imports and exports during the years 1934-35 to 1938-39 are given hereunder. Later particulars are not available for publication. The values of exports are expressed in Australian currency but it is not possible to determine accurately the currency of the £ in the table of imports.

PAPUA : IMPORTS AND EXPORTS.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
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IMPORTS.

	£	£	£	£	£
Ale, spirits and beverages ..	8,732	9,170	11,362	14,453	14,818
Tobacco and manufactures ..	23,297	21,075	25,637	24,213	27,466
Agricultural products and groceries	74,945	85,205	114,621	143,937	138,551
Textiles, felts, furs, attire, etc. ..	30,127	30,985	40,987	45,492	37,712
Metals and machinery ..	49,551	49,389	98,875	124,277	76,068
Oils, paints and varnishes ..	14,179	17,327	27,519	37,139	33,331
Earthenware, cement, glass, etc.	2,730	2,687	5,078	6,969	5,585
Drugs and chemicals ..	8,143	7,444	9,596	12,904	12,828
Wood, wicker and cane ..	3,385	4,729	7,620	14,918	13,076
Jewellery and fancy goods ..	4,699	7,722	9,171	9,495	7,756
Leather and rubber ..	5,182	5,204	6,288	6,748	8,076
Paper and stationery ..	4,264	5,105	6,317	8,569	8,521
Miscellaneous ..	23,510	49,748	58,633	126,479	94,273
Government stores ..	16,555	22,025	30,352	55,904	36,747
Total	269,299	317,815	452,056	631,497	514,808

EXPORTS.

	£	£	£	£	£
Bêche-de-mer	4,455	1,802	3,939	1,363	2,506
Coco-nut, desiccated	37,895	42,467	47,137	52,628	48,140
Coffee beans	7,083	5,217	7,536	6,606	6,911
Copra	57,597	100,681	191,808	91,166	57,999
Gold	68,922	81,785	91,775	109,738	152,103
Pearls	5,742	2,395	1,966	2,400	15
Rubber	79,031	89,467	124,174	129,448	114,949
Trochus-shell	11,750	13,609	12,581	8,578	9,200
Other	22,268	17,734	43,085	33,666	98,335
Total	294,743	355,157	524,001	435,593	490,158

The trade of the Territory reached its maximum in 1925-26 when imports were valued at £470,774 and exports at £685,896. 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 last three years for which particulars are available :—

PAPUA : DIRECTION OF TRADE.

Country.	Imports.			Exports.		
	1936-37.	1937-38.	1938-39.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£	£
Australia	219,007	305,894	239,105	332,165	352,923	409,408
United Kingdom ..	72,580	87,910	56,699	55,338	32,622	25,840
Other British	20,717	22,453	45,313	6,245	6,477	17,630
Europe	18,761	35,839	23,966	97,392	20,915	11,024
Japan	12,888	17,969	14,858	8,381	5,509	7,582
Asia, excluding Japan	30,549	35,730	38,960	3,080	1,363	2,425
Dutch East Indies and Philippine Islands..	20,657	34,381	21,288	..	3,017	11,519
U.S.A.	56,470	89,847	73,446	21,400	55	576
America, Other	427	1,474	1,173	..	..	..
Morocco .. ..	..	..	..	..	3,712	4,154
Total	452,056	631,497	514,808	524,001	435,593	490,158

4. **Shipping.**—The following table shows the number and tonnage of oversea vessels entered and cleared at ports during the past five years for which particulars are available. Of the vessels recorded in 1938-39, 158 were of British nationality.

PAPUA : OVERSEA SHIPPING.

Year.	Vessels.	Tonnage.
1934-35	177	341,537
1935-36	194	371,980
1936-37	181	356,476
1937-38	243	482,981
1938-39	215	461,199

NOTE.—The above figures are exclusive of ships of war and Government vessels.

§ 7. Finance.

The revenue and expenditure for the last five years were as follows :—

PAPUA : REVENUE AND EXPENDITURE.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£	£
Revenue—					
Customs	46,132	57,443	58,539	54,606	64,874
Commonwealth Grant ..	42,500	42,500	42,500	42,500	42,500
Lands	5,177	6,531	6,708	6,013	7,112
Fees, fines, etc.	5,600	6,148	7,065	9,501	9,554
Other	(a) 66,279	(a) 59,169	67,996	53,203	53,878
Total	165,628	171,791	182,808	165,823	177,918
Expenditure—					
Medical	16,203	16,718	20,884	22,075	20,785
Ordinary Votes	(b) 129,282	(b) 127,926	122,536	116,277	127,456
Public Works	17,597	23,503	35,828	25,457	26,965
Native Affairs	2,739	2,773	3,854	2,522	2,726
Total	165,821	170,920	183,102	166,331	177,932

(a) Including Commonwealth grant to rubber growers £19,747 in 1935-36 and £6,871 in 1936-37, and Commonwealth grant for mining development, £5,000 in 1935-36. (b) Including expenditure of Commonwealth special grants.

§ 8. Progress of Papua.

As already stated in § 1, *supra*, the Territory was placed under Australian 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.	1938.	1939.	1940.
White population	690	1,488	1,608	1,822
Native labourers employed	2,000	18,478	19,733	20,352
Territorial revenue	£21,813	£140,308	£123,323	£135,418
" expenditure	£45,335	£183,102	£166,331	£177,932
Value of imports	£57,776	£631,497	£514,808	(a)
" exports	£63,756	£435,593	£490,158	(a)
Area of plantations acres	1,467	57,636	59,224	60,557
Meteorological stations established	3	21	21	21
Gold yield fine oz.	12,439	25,835	35,808	30,422

(a) Not available for publication.

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.
North East New Guinea (also called "The Mainland") ..	Sq. Miles. 69,700
Bismarek Archipelago—	
New Britain	14,600
New Ireland	3,340
Lavongui	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 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 in Official Year Book No. 33 (see p. 264).

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 1921-1939 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.**—Nineteen 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, 1939.

§ 3. Population.

1. **White Population.**—The number of the white population at various intervals since 1885 is shown in the following table. At 30th June, 1940, the white population was 4,399, of whom 3,345 were British subjects.

TERRITORY OF NEW GUINEA: WHITE POPULATION.

Year.	Number.			Year.	Number.		
1885	64	1937	..	..	4,286
1933	3,191	1938	..	..	4,445
1935	4,176	1939	..	..	4,608
1936	4,281	1940	..	..	4,399

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 1933 Census and at 30th June, 1940, numbered 2,099, of whom 2,061 were 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, 1940 :—

TERRITORY OF NEW GUINEA: NATIVE POPULATION AT 30th JUNE, 1940.
(Including Indentured Labourers.)

District.	Children.			Adults.			Total.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Kieta ..	10,829	9,454	20,283	16,195	15,236	31,431	27,024	24,690	51,714
Madang ..	31,446	26,133	57,599	49,488	46,479	95,967	80,934	72,632	153,566
Manus ..	2,647	2,289	4,936	4,948	4,607	9,555	6,896	6,896	14,491
Morobe ..	29,675	26,400	56,075	43,216	40,793	84,009	72,891	67,193	140,084
New Britain ..	21,736	19,126	40,862	34,410	26,101	60,511	56,146	45,227	101,373
New Ireland ..	7,593	6,862	14,455	16,115	11,662	27,777	23,708	18,524	42,232
Sepik ..	34,796	29,598	64,394	47,374	47,496	94,870	82,170	77,094	159,264
Total ..	138,722	119,882	258,604	211,746	192,374	404,120	350,468	312,256	662,724

(a) Including 6,147 Mission scholars, constabulary, etc.

The number of natives indentured as labourers, mostly for plantation work, on 30th June, 1940, was 39,344, compared with 41,675 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 coco-nut 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 coco-nut 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 1939–40 was £8,274. 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, 1940, the following schools were maintained by the Administration :—Native elementary schools and native day schools, Malaguna, Tavui 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 new day school for natives was opened at Pila Pila during the year.

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 head-quarters, and (c) high schools and technical schools. At 30th June, 1940, the various missions maintained 35 training centres, 44 high and technical schools, 158 elementary schools, and 2,329 village schools. The pupils numbered 65,598.

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 of 1914–19, 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 necessities; 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 include 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 1922–1941 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 is based on the leasehold principle. All grants or leases contain a reservation to the Administration of all minerals,

including mineral oil. Leases are for a term of 90 years except where a shorter period is provided. 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.

The following table shows the leases in force on 30th June, 1940 :—

TERRITORY OF NEW GUINEA : LEASES IN FORCE, 30th JUNE, 1940.

Tenure.	No. of Leases.	Area.
		Acres.
Agricultural leases	434	138,571
Pastoral leases	3	9,496
Residence and business leases	318	331
Special leases	57	709
Mission leases	433	1,517
Chinatown leases	197	52
Long period leases from German régime ..	115	5,189

The area of the Territory is estimated at 59,517,593 acres, of which 903,403 acres had been purchased from the natives by the Administration to 30th June, 1940. This alienated land comprised 521,057 acres of freehold, 155,866 acres of leasehold, 199,951 acres held by the Administration, and 26,529 acres vested in the Director of District Services and Native Affairs as a trustee for natives. The area alienated in 1939-40 was 9,344 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 1924-1939.

§ 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 exported 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 and an agricultural chemist was appointed recently to carry out this specialized work. 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) *Coco-nuts*. Coco-nut growing was, prior to the outbreak of war in September, 1939, by far the most important industry in the Territory, but low prices followed by the collapse of the world copra market have checked expansion during recent years. Exports of copra declined in value from £727,949 in 1938-39 to £504,627 in 1939-40. The export of copra reached its peak in 1936-37 when 76,409 tons valued at £1,231,309 were shipped.

(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 235 tons, or an increase of 56 tons over the previous year's figures, were exported during 1938-39.

(f) *Desiccated Coco-nut*. Three desiccated coco-nut factories have been established in the Territory. The quantity exported during 1938-39 was 1,590 tons.

(g) *Coffee*. Two plantations of coffee are in satisfactory condition and are commencing to yield. Thirty-eight tons of coffee valued at £843 were exported during 1938-39. The coffee is of good quality and is well received on the Australian market.

(h) *Rubber*. The tapping of rubber trees was increased during the year mainly because of the satisfactory price of rubber.

(i) *Other Crops*. The climate and soil of New Guinea are suitable for the cultivation of rice, Manila 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.

(j) *Plants Yielding Power Alcohol*. It seems probable that alcohol for power purposes will be produced economically. The sago palm and nipa palm yield as much as 60 gallons a ton, and in places are abundant.

(ii) *Plantations*. During 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, 1940. The figures are not complete, but they give an indication of the progress of agriculture in the Territory.

TERRITORY OF NEW GUINEA : PLANTATIONS, 1939-40.

(Excluding Native Reserves.)

Crop.				Area Planted.(a)	Area Bearing.	Yield.
				Acres.	Acres.	Tons.
Coco-nuts .. .. .	..	..	..	261,676	210,954	(b)71,583
Cocoa .. .. .	..	..	..	5,827	2,301	570
Coffee .. .. .	..	..	..	2,792	1,935	56
Rubber .. .. .	..	..	..	2,481	1,591	95
Kapok .. .. .	..	..	..	556	321	15
Native Food (c) ..	..	..	..	3,289	1,453	2,099
Other .. .. .	..	..	..	912	106	..
Total				277,533	218,661	..

(a) Including inter-planted crops.

(b) Copra : Desiccated coco-nut, 666 tons, also produced.

(c) Native food of all kinds is mostly grown between young coco-nut palms not yet in bearing.

The area of plantations at various periods from 1885 to 1940 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 Coco-nuts (including Area not in Bearing).
				Acres.	Acres.	Acres.
1885	..	..	..	148	(a)	(a)
1895	..	..	..	2,152	(a)	(a)
1911	..	..	..	58,837	(a)	51,510
1914	..	..	..	84,488	(a)	76,847
1924	..	..	..	411,275	(a)	172,373
1932	..	..	..	460,942	216,730	211,882
1937	..	..	..	487,375	244,066	234,189
1938	..	..	..	496,118	262,547	239,976
1939	..	..	..	504,000	264,877	253,235
1940	..	..	..	525,965	277,533	261,676

(a) Not available.

3. **Live Stock.**—The coco-nut 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 1939-40 there were 1,323 horses, 20,494 cattle, 1,184 sheep, 9,327 goats, and 6,160 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 sawmilling 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-afforest the area. In North-East New Guinea the Lutheran Mission and the Holy Ghost Mission both possess up-to-date sawmilling 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. Timber cut on permit areas during 1939-40 was 3,961,884 super. feet in the log. The exports, confined almost entirely to timber in the log, amounted to 1,718,916 super. feet in 1938-39.

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. Seven timber permits were issued during 1939-40 and seventeen permits were in force at 30th June, 1940, embracing an area of approximately 118,806 acres.

5. **Fisheries.**—The wealth of the waters of the Territory has 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 1938-39 was £12,674, compared with £14,819 in the previous year.

6. **Mining.**—Except for gold there has been little mining in New Guinea. 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 1928-1940. 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)
					<i>Fine oz.</i>	£
1935-36	..	..	..	..	190,848	1,657,071
1936-37	..	..	..	..	223,120	1,938,694
1937-38	..	..	..	..	223,929	1,935,954
1938-39	..	..	..	..	237,705	2,153,018
1939-40	..	..	..	..	278,922	2,917,526

(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 work proceeded steadily on the known gold-bearing areas.

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 30th June, 1940, 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 11s. 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. The imports in 1938-39 amounted to £1,340,835. In 1939-40 £186,695 was received in import duties, while £7,820 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 XXIII. "Trade"), 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 years 1934-35 to 1938-39 are shown hereunder. Later particulars are not available for publication. The values of exports are expressed in Australian currency, but it is not possible to determine accurately the currency of the £ in the table of imports.

TERRITORY OF NEW GUINEA : IMPORTS AND EXPORTS.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
IMPORTS.					
	£	£	£	£	£
Foodstuffs of animal origin ..	94,417	127,110	142,943	157,391	152,023
Foodstuffs of vegetable origin ..	121,146	159,287	186,732	190,657	158,895
Spirituous and alcoholic liquors ..	44,215	50,665	50,550	52,385	54,969
Tobacco and preparations thereof	38,777	53,213	59,045	58,155	63,122
Live animals	1,630	1,617	1,870	1,843	1,328
Animal substances	223	636	1,227	961	1,124
Vegetable substances and fibres	2,355	3,884	3,539	4,191	3,307
Apparel, textiles and manufac-					
tured fibres	117,670	171,092	152,923	182,590	138,077
Oils, fats and waxes	41,374	72,956	56,982	72,080	65,901
Paints and varnishes	10,472	13,599	14,422	11,044	10,934
Stones and minerals	8,741	12,291	14,039	16,030	8,164
Metals, manufactures and mach-					
inery	312,218	426,007	431,216	635,991	470,781
Rubber and leather and manu-					
factures	12,028	15,222	13,810	15,663	16,365
Wood and wicker	13,650	26,279	28,860	33,565	29,195
Earthenware, cement, glass, etc.	18,236	13,897	17,113	14,251	13,215
Paper and stationery	16,777	23,583	22,917	24,026	22,829
Jewellery and fancy goods ..	11,014	12,764	11,282	21,328	14,133
Optical and scientific instruments	17,521	22,019	18,610	21,377	22,318
Drugs, chemicals and fertilizers ..	30,905	38,716	44,907	46,878	46,163
Miscellaneous	35,035	45,951	38,636	50,561	47,992
Specie	4,589	133,600	80,400	31,500	..
Total	952,993	1,424,388	1,392,023	1,642,467	1,340,835
EXPORTS.					
	£	£	£	£	£
Copra	361,413	761,309	1,231,399	847,734	727,940
Cocoa	3,479	3,810	6,600	4,475	6,580
Ivory nuts	186	552	767	162	..
Trepang	5,800	5,025	1,350	2,250	2,025
Shell (trochus, etc.)	20,115	24,570	26,960	12,478	10,560
Tortoise-shell	82	103	50	91	89
Gold	1,897,244	1,704,498	2,020,667	2,028,980	2,129,263
Desiccated coco-nut	45,080	65,880	86,930	73,423	69,960
Rubber .. ..	..	..	..	242	4,050
Miscellaneous	7,225	7,504	45,073	25,334	23,419
Total	2,340,624	2,573,251	3,419,706	2,995,169	2,973,895

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 years 1936–37 to 1938–39, are given in the following table. Later particulars are not available for publication.

TERRITORY OF NEW GUINEA : DIRECTION OF TRADE.

Country.	Imports.			Exports.		
	1936–37.	1937–38.	1938–39.	1936–37.	1937–38.	1938–39.
	£	£	£	£	£	£
Australia ..	620,079	604,523	563,594	2,359,261	2,253,304	2,326,269
United Kingdom ..	148,551	159,215	154,501	289,210	172,355	337,605
Other British ..	83,490	64,920	48,163	6,523	480	..
China ..	57,705	67,165	69,831	3,445	2,528	17,428
Japan ..	73,747	98,585	46,627	10,027	8,620	7,445
France ..	2,955	3,875	3,806	..	16,480	6,193
Germany ..	63,084	70,886	71,245	95,991	75,124	31,829
U.S.A. ..	215,223	434,129	265,591	49,359	..	..
Other ..	127,189	139,169	117,477	614,890	466,278	247,126
Total ..	1,392,023	1,642,467	1,340,835	3,419,706	2,995,169	2,973,895

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.

§ 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 Dutch Royal Packet Navigation Company's vessel calls at Rabaul every five weeks en route from Singapore to Australia. Shipping within the Territory is regulated by the Shipping Ordinances 1936 and the Coastal Shipping, Ports, and Harbours Regulations.

2. **Oversea Tonnage in 1938–39.**—The number and net tonnage of oversea vessels which entered and cleared the Territory during 1938–39 are shown hereunder. Later particulars are not available for publication.

TERRITORY OF NEW GUINEA : SHIPPING, 1938–39.

Nationality.	Vessels Entered.		Vessels Cleared.		Total.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
British ..	84	273,706	85	275,369	169	549,075
Dutch ..	5	15,303	5	15,303	10	30,606
Norwegian ..	2	4,733	2	4,733	4	9,466
German ..	7	10,290	7	10,290	14	20,580
Japanese ..	14	21,897	14	21,897	28	43,794
Total ..	112	325,929	113	327,592	225	653,521

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 were 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 District Officers' stations. 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, 1940, 43 aeroplanes were operating in New Guinea.

A weekly subsidized air service between Sydney and Rabaul came into operation on 30th May, 1938. Passengers and mails are carried and the route followed is Sydney, Brisbane, Rockhampton, Townsville, Cairns, Cooktown, Port Moresby, Salamaua and Rabaul.

Further reference to New Guinea air activities is contained in Chapter V. "Transport and Communication" (see p. 123).

§ 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.	1935–36.	1936–37.	1937–38.	1938–39.	1939–40.
	£	£	£	£	£
Taxation—					
Customs(a)	207,172	233,657	247,062	214,629	207,261
Licences	10,900	12,654	13,087	13,796	12,667
Native Head Tax	19,641	21,859	20,481	21,417	20,025
Stamp duties	5,689	6,861	6,182	6,467	5,978
Postal	16,333	25,208	47,240	27,163	20,340
Lands	15,485	17,006	16,179	18,416	15,281
Mining—					
Royalty on gold	81,169	97,622	97,464	107,975	143,906
Other	18,996	24,154	19,479	16,403	40,297
Fees and fines	29,342	24,377	19,285	17,947	16,155
Sales of stores, etc.	1,615	2,605	2,472	2,170	2,428
Miscellaneous	13,578	15,067	17,467	14,453	12,351
Total	419,920	481,070	506,398	460,836	496,689

EXPENDITURE.

	£	£	£	£	£
Treasury and Audit	44,851	66,177	52,570	54,736	60,628
Agriculture	14,001	15,851	17,722	19,424	20,337
Public Justice	30,549	31,209	32,809	34,245	34,530
Public Health	68,153	73,191	80,377	89,784	85,207
Public Works	27,260	29,228	30,954	34,802	28,097
District Services and Native Affairs	97,694	109,705	115,648	125,877	127,296
New Works	76,760	66,223	70,011	69,145	63,257
Native Welfare	6,993	6,177	7,185	6,453	6,621
Other	59,533	62,357	61,013	68,114	74,641
Total	425,794	460,118	508,613	502,580	500,614

(a) Including harbour dues, wharfrage and storage fees.
to the volcanic eruption.

(b) Including £40,011, expenditure due

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 longitude 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 (which, since 1915, had been in charge of an official appointed by the British Colonial Office) should be vested in an Administrator who took up duty in June, 1921. The first Administrator was appointed for a term of five years by the Australian Government; on the expiration of his service, it was extended for another five years, and he resigned in 1927. The second Administrator was appointed in June, 1927. The third Administrator was appointed 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 shown 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 acting on the advice of the Federal Executive Council. All administration expenses 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 store 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 1936 to 1939 and on 31st December, 1940, are given hereunder :—

NAURU : POPULATION.

Nationality.	1936.	1937.	1938.	1939.	1940.
Europeans	179	194	179	171	192
Chinese	1,092	1,261	1,533	1,512	1,350
Nauruans (a)	1,647	1,658	1,727	1,765	1,761
Other Pacific Islanders	4	4	27	44	49
Total	2,922	3,117	3,466	3,492	3,352

(a) The natives of Nauru are Micronesians.

Births in 1940 numbered 69 (66 Nauruans, 1 European, 1 Chinese and 1 other Pacific Islander). There were 22 marriages (19 Nauruans), and 37 deaths (34 Nauruans and 3 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. The total number of persons receiving treatment at 31st December, 1940, was 136, of whom 44 were in the Leper Segregation Hospital. 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. 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*.—Formerly the education of Nauruan and other native children was undertaken by the Missions subsidized by the Administration, but on 1st October, 1923, the Administration assumed responsibility for education. At the close of 1940 there were seven primary and two post-primary schools for natives and a primary school for European children. A total of 37 European children and 609 native children were receiving instruction. The school for European children is in charge of 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 for Nauruan and other native children; after the termination of ordinary school attendance, twelve months are devoted to technical training. Arrangements are made to permit the children to attend 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 as follows:—

- (a) 4d. per ton to 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 were 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 was 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. By an amendment of the Lands Ordinance in 1939 the agreement was extended 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.

The amending Ordinance also increased, from 1st July, 1947, the lump sum to £45 per acre and to £7 10s. for areas less than 1 acre, payable to landowners from whom phosphate-bearing lands are leased.

(iii) *Nauru and Ocean Island Phosphate Industry.*—The following table gives particulars regarding exports of phosphate during the years 1934-35 to 1938-39. Later particulars are not available for publication.

NAURU AND OCEAN ISLAND : EXPORTS OF PHOSPHATE.

Year.			Total.	To Australia.	To New Zealand.
			Tons.	Per cent.	Per cent.
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
1938-39	..	..	1,228,590	67.06	23.63

From Nauru alone during the calendar year 1939 the export was 932,100 tons.

(iv) *Accounts of Commission.* A statement for the five years ended June, 1940, is given hereunder :—

NAURU AND OCEAN ISLAND : SALES OF PHOSPHATE.

Heading.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£	£
Receipts from Sales, etc. ..	835,148	916,690	944,068	909,027	1,041,418
F.o.b. cost, including interest on capital, sinking fund, etc.	828,818	910,673	940,059	906,133	1,037,208

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, 1940, this had been reduced to £3,084,058. The f.o.b. cost in 1939-40 includes a sum of £224,054 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 £447,442.

(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 Administration for its own use and spirits for scientific purposes are exempt.

The Tariff rates apply to all countries alike. Information regarding imports and exports for the years 1935 to 1939 is appended in the table below. Later particulars are not available for publication.

NAURU : IMPORTS AND EXPORTS.

Heading.	Year ended 31st December—				
	1935.	1936.	1937.	1938.	1939.
Imports .. £	168,595	154,940	144,454	272,256	170,624
Exports—					
Phosphate .. tons	480,950	547,400	688,900	841,050	932,100
£	474,393	469,607	513,989	546,683	605,974

Of the total imports Australia supplied £94,267 or 55 per cent. during 1939; the balance came mainly from Borneo, United Kingdom, China, United States of America and New Zealand in that order.

Phosphates were exported principally to Australia, 588,150 tons, and New Zealand 258,950 tons.

11. *Revenue and Expenditure.*—The revenue and expenditure of the Administration during the years 1936 to 1940 were as follows :—

NAURU : REVENUE AND EXPENDITURE.

Heading.	Year ended 31st December—				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
Revenue	24,906	53,343	29,428	33,084	27,104
Expenditure	23,989	29,311	30,287	29,391	26,223

Of the revenue in 1940, royalty on phosphate amounted to £20,351, Post Office receipts £748, capitation tax £1,517, import duty £1,286, interest on investments £1,606, and harbour dues and shipping fees £280. At the close of 1940 the accumulated funds of the Administration amounted to £58,225.

CHAPTER XII.

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, No. 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 overseas departures from Australia of $14\frac{1}{2}$ per cent. for males and 10 per cent. for females. These percentages were used as adjusting factors for recorded overseas departures during the intercensal period 1911 to 1921. 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 30th June, 1933, it would appear that the accuracy of the records of overseas 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 governmental expenditure it was decided to defer that Census, and the date was subsequently fixed for 30th June, 1933, the Census

for the whole of Australia being taken as for the night between 29th and 30th June, 1933. The numbers recorded in the several States and Territories on 4th April, 1921, and 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.
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
Northern Territory ..	2,821	1,046	3,867	3,378	1,472	4,850
Australian Capital Territory ..	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	115.89
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 30th June, 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 Per cent.	374,129 49.90	230,892 20.54	293,602 21.67	453,637 27.55	450,930 21.47	500,476 23.83
Victoria .. { Number Per cent.	278,274 32.30	61,230 5.37	114,481 9.53	215,729 16.40	266,178 17.38	288,981 18.87
Queensland .. { Number Per cent.	180,193 84.39	104,411 26.52	107,684 21.62	150,159 24.79	164,388 21.75	191,562 25.34
South Australia .. { Number Per cent.	39,119 14.15	42,813 13.57	50,212 14.01	86,602 21.20	80,024 16.16	85,789 17.33
Western Australia .. { Number Per cent.	20,074 67.57	134,342 269.86	97,990 53.22	50,618 17.94	98,679 29.66	106,120 31.89
Tasmania .. { Number Per cent.	30,962 26.76	25,808 17.60	18,736 10.86	22,569 11.80	10,674 4.99	13,819 6.46
Northern Territory { Number Per cent.	1,447 41.93	(a) — 87 (a) — 1.78	(a) — 1,501 (a) — 31.20	557 16.83	1,104 28.55	983 25.42
Australian Capital Territory .. { Number Per cent.	(b) (b)	(b) (b)	(b) (b)	858 50.06	6,416 249.46	6,375 247.86
Australia .. { Number Per cent.	924,198 41.07	599,409 18.88	681,204 18.05	980,729 22.01	1,078,393 19.84	1,194,103 21.97

(a) Decrease.

(b) Included in New South Wales.

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 31st December, 1940, was estimated at 7,068,689 persons, of whom 3,566,097, or 50.45 per cent., were males and 3,502,592, or 49.55 per cent., were females. The increase during the year 1940 was 71,363, equal to 1.03 per cent., males having increased by 31,284, or 0.89 per cent., and females by 40,079, or 1.16 per cent. This increase was largely due to the excess of births over deaths, namely, 57,963, the net gain by migration being only 13,400 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 are given at quinquennial periods from 1788, but it is considered that the abridged table presented herewith will suffice for general purposes.

ESTIMATED POPULATION, 1800 to 1940.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

As at 1st Dec.	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	6,611	..	..	..	..	974	..	..	7,585
1820	19,626	..	..	..	..	4,158	..	..	23,784
1830	33,900	..	..	..	877	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	89,763	(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	753,893	396,555	245,300	176,895	107,259	2,911	(b) 1,062	2,751,730
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	3,332,577
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	3,422,774
1936	1,355,493	915,304	514,174	294,807	238,704	118,833	3,596	5,287	3,440,198
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
1939d	1,392,174	931,724	532,062	299,162	245,064	122,811	5,117	6,699	3,534,813
1940d	1,401,005	949,764	536,775	297,849	244,137	123,225	6,308	7,034	3,566,097

FEMALES.

(a) 1800	1,437	..	..	..	..	..	..	..	1,437
1810	3,485	..	..	..	..	496	..	..	3,981
1820	8,398	..	..	..	..	1,361	..	..	9,759
1830	10,688	..	..	..	295	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	89,632	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	152,808	19,648	68,334	..	..	1,458,524
1900	644,258	594,440	219,163	176,901	60,870	83,137	(c) 569	..	1,788,347
1910	785,674	654,926	273,503	200,311	118,866	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
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	111,702	1,365	3,987	3,189,029
1931	1,263,421	907,141	441,794	287,682	201,280	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	3,277,372
1934	1,301,080	927,117	456,992	291,775	207,371	116,495	1,504	4,264	3,304,598
1935	1,313,327	931,313	462,338	292,703	210,516	117,530	1,609	4,314	3,331,340
1936	1,326,243	936,289	467,960	294,505	212,853	118,495	1,709	4,500	3,360,554
1937	1,342,233	940,827	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
1939d	1,372,608	954,632	486,415	299,301	222,312	119,611	2,070	5,564	3,462,513
1940d	1,388,118	969,010	492,838	300,242	224,174	119,832	2,344	5,834	3,502,592

(a) Details as to sex not available for earlier years.

(c) Previously included with South Australia.

(b) Previously included with New South Wales.

(d) See note (d) next page.

ESTIMATED POPULATION—*continued.*

As at 31st Dec.	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	10,096	..	..	..	..	1,470	..	..	11,566
1820	28,024	..	..	..	..	5,519	..	..	33,543
1830	44,588	..	..	..	1,172	(a)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	(a)538,234	(a)28,056	125,582	15,346	89,821	..	..	1,145,585
1870	497,992	723,925	115,272	184,546	25,135	100,686	..	..	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	(b)4,857	..	3,765,339
1910	1,643,855	1,301,408	599,016	406,868	276,832	193,603	3,301	..	4,425,683
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	(a)1,072	5,411,297
1929	2,519,693	1,778,260	902,136	572,973	426,637	223,278	4,780	8,447	6,436,213
1930	2,546,353	1,792,465	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	1,821,479	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
1939d	2,764,782	1,886,356	1,018,477	598,463	467,376	242,422	7,187	12,263	6,997,326
1940d	2,789,123	1,918,774	1,029,613	598,091	468,311	243,057	8,852	12,868	7,068,689

(a) Previously included with New South Wales. (b) Previously included with South Australia.
(c) See letterpress below. (d) Includes all armed forces enlisted in Australia irrespective of movements subsequent to enlistment.

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 interstate 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 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 31st December, based on corrected net migration figures for the years affected—1933, 9,341; 1934, 9,457; 1935, 9,761; 1936, 10,406; and 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 Australian 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 281.

3. Mean Population.—(i) *Calendar Years.* The following table shows the mean population for each State and Territory for the calendar years 1930 to 1940 :—

MEAN POPULATION : CALENDAR YEARS, 1930 to 1940.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Year ended 31st Dec.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
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	438,638	228,434	4,860	(a)9,056	6,629,861
1934 ..	2,623,560	1,830,893	955,584	583,343	441,611	229,161	4,933	(a)9,259	6,678,349
1935 ..	2,645,575	1,839,361	966,167	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
1939 ..	2,749,134	1,881,942	1,013,327	596,137	465,042	238,001	6,273	11,990	6,961,846
1940 ..	2,773,341	1,896,248	1,019,667	596,215	465,314	238,975	8,608	12,673	7,011,041

(a) See letterpress 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, 1931 to 1941 :—

MEAN POPULATION : FINANCIAL YEARS, 1931 to 1941.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
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	6,651,332
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	583,300	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
1940 ..	2,763,027	1,889,575	1,018,000	597,053	466,244	238,626	7,030	12,456	6,992,020
1941 ..	2,776,933	1,897,526	1,018,280	593,567	463,345	237,392	11,696	12,612	7,011,353

(a) See footnote (c) to table on p. 254. The following are revised estimates :—1933-34, 9,382 ; 1934-35, 9,540 ; 1935-36, 9,967 ; 1936-37, 10,619 ; 1937-38, 11,180.

4. Proportion of Area and Population, Masculinity and Density : States, 1940.—A previous table showed the estimated number of persons in each of the States and Territories on 31st December, 1940. 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 :—

MASCULINITY AND DENSITY OF POPULATION, 1940.

State or Territory.	Percentage of Total Area.	Percentage of Estimated Population, 31st December, 1940.			Masculinity. (a)	Density. (b)
		Males.	Females.	Persons.		
	%	%	%	%		
New South Wales ..	10.40	39.29	39.63	39.46	100.93	9.01
Victoria ..	2.96	26.63	27.67	27.14	98.01	21.83
Queensland ..	22.54	15.05	14.07	14.57	108.92	1.54
South Australia ..	12.78	8.35	8.57	8.46	99.20	1.57
Western Australia ..	32.81	6.85	6.40	6.62	108.91	0.48
Tasmania ..	0.88	3.45	3.42	3.44	102.83	9.27
Northern Territory ..	17.60	0.18	0.07	0.13	247.96	0.02
Australian Capital Territory	0.03	0.20	0.17	0.18	120.57	13.70
Australia ..	100.00	100.00	100.00	100.00	101.81	2.38

(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. In Tasmania the classification of urban and rural populations was made by the Census staff. Persons on board ships in Australian ports or travelling on long distance trains throughout Census night were classed as migratory.

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.	Census, 1933.			Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
	Males.	Females.	Persons.	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	.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.	Census, 1933.			Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
	Males.	Females.	Persons.	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.	Census, 1933.			Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
	Males.	Females.	Persons.	Census, 1921.	Census, 1933.	
TASMANIA.						
Urban—				%	%	%
Metropolitan	28,351	32,055	60,406	24.49	26.54	15.30
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 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. on 4th April, 1921 to 35.91 per cent. on 30th June, 1933. Of the States, 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 cities 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 ..	1940	1,310,530
Victoria ..	Melbourne ..	"	1,076,700
Queensland ..	Brisbane ..	"	335,520
South Australia ..	Adelaide ..	"	330,000
Western Australia ..	Perth ..	"	228,000
Tasmania ..	Hobart ..	"	66,620
England ..	London (a) ..	1938	8,700,000
Scotland ..	Edinburgh ..	1940	475,500
Northern Ireland ..	Belfast ..	1939	444,500
Eire ..	Dublin ..	"	482,300
Canada ..	Montreal (b)(e) ..	1931	1,000,159
New Zealand ..	Wellington ..	1940	162,800
Union of South Africa ..	Capetown (c) ..	1936	173,412
Argentine Republic ..	Buenos Aires ..	1939	2,364,263
Belgium ..	Brussels ..	1938	912,774
Czechoslovakia ..	Prague ..	1936	962,000
Denmark ..	Copenhagen ..	1935	843,168
Egypt ..	Cairo ..	1937	1,307,422
France ..	Paris ..	1936	2,829,746
Germany ..	Berlin ..	1939	4,332,242
Greece ..	Athens ..	1938	499,360
Hungary ..	Budapest ..	1939	1,115,877
Italy ..	Rome ..	"	1,324,775
Japan ..	Tokyo (d) ..	"	6,581,100
Netherlands ..	Amsterdam ..	1938	793,526
Norway ..	Oslo ..	"	275,000
Portugal ..	Lisbon ..	"	680,806
Spain ..	Madrid ..	1940	1,209,074
Sweden ..	Stockholm ..	1938	570,771
U.S.A. ..	New York (e) ..	1940	7,454,995
U.S.S.R. (Russia) ..	Moscow ..	1939	4,137,018

(a) Greater London.
(e) Principal City.

(b) Greater Montreal.

(c) European population.

(d) Greater Tokyo.

NOTE.—The population of Canberra in 1940 was 11,000.

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	73,444	Blackay	10,665
East and West Maitland	12,329	Gympie	7,749
Lismore	11,762	Charters Towers	6,978
Wagga Wagga	11,631	Warwick	6,664
Wollongong	11,403		
Albury	10,543		
Bathurst	10,413		
Temworth	9,913	South Australia—	
Orange	9,634	Adelaide and Suburbs	312,619
Fairfield	8,709	Port Pirie	11,677
Grafton and South Grafton	8,551	Mount Gambler	5,542
Dubbo	8,344	Murray Bridge	3,651
Armidale	6,794	Port Augusta	3,270
Katoomba	6,445	Peterborough	3,059
Liverpool	6,315	Port Lincoln	3,006
Cabramatta and Canley Vale	6,107		
Parkes	5,846		
Forbes	5,355	Western Australia—	
Glen Innes	5,352	Perth and Suburbs	(a) 207,440
Inverell	5,305	Kalgoorlie and Suburbs	17,326
Casino	5,287	Bunbury	5,140
Cowra	5,056	Geraldton	4,984
		Northam	4,817
		Albany	4,076
		Collie	3,784
Victoria—			
Melbourne and Suburbs	991,934	Tasmania—	
Geelong and Suburbs	39,223	Hobart and Suburbs	60,406
Ballarat and Suburbs	37,411	Launceston and Suburbs	32,833
Bendigo and Suburbs	29,137	Devonport	5,151
Warrnambool	8,906	Queenstown	3,809
Mildura	6,617	Burnie	3,390
Hamilton	5,786	Ulverstone	2,701
Shepparton	5,698		
Maryborough	5,631		
Wonthaggi	5,593		
Horsham	5,273	Northern Territory—	
Castlemaine	5,221	Darwin	1,566
Queensland—			
Brisbane and Suburbs	299,748	Australian Capital Territory—	
Rockhampton	29,369	Canberra	7,325
Toowoomba	26,423		

(a) Includes the City of Fremantle, 25,224.

8. Provincial Urban Areas.—In par. 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 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	37,697	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 ('000 omitted).	Country.	City.	Year.	City Population ('000 omitted).
England ..	<i>London (a) ..</i>	<i>1938</i>	<i>8,700</i>	China ..	Nanking ..	1936	1,019
U.S.A. ..	New York ..	1940	7,455	Japan ..	Kobe ..	1939	1,006
Japan ..	Tokyo (b) ..	1939	6,581	Canada ..	<i>Montreal (d)</i>	<i>1931</i>	<i>1,000</i>
Germany ..	Berlin ..	1939	4,332	Czechoslovakia ..	Prague ..	1936	962
U.S.S.R. ..	Moscow ..	1939	4,137	Italy ..	Naples ..	1939	929
China ..	Shanghai ..	1936	3,490	France ..	Marseilles ..	1936	914
U.S.A. ..	Chicago ..	1940	3,397	Belgium ..	Brussels ..	1938	913
Japan ..	Osaka ..	1939	3,394	U.S.A. ..	Cleveland ..	1940	878
U.S.S.R. ..	Leningrad ..	1939	3,191	Japan ..	Yokohama ..	1939	866
France ..	Paris ..	1936	2,830	China ..	Canton ..	1931	861
Argentina ..	Buenos Aires ..	1939	2,364	U.S.A. ..	Baltimore ..	1940	859
U.S.A. ..	Philadelphia ..	1940	1,931	U.S.S.R. ..	Kiev ..	1939	846
Germany ..	Vienna ..	1939	1,918	Denmark ..	Copenhagen ..	1935	843
Brazil ..	Rio de Janeiro ..	1936	1,711	U.S.S.R. ..	Kharkov ..	1939	833
Germany ..	Hamburg ..	1939	1,682	Germany ..	Munich ..	1939	818
U.S.A. ..	Detroit ..	1940	1,623	England ..	<i>Liverpool</i>	<i>1938</i>	<i>827</i>
China ..	Peking ..	1936	1,556	U.S.A. ..	St. Louis ..	1940	816
U.S.A. ..	Los Angeles ..	1940	1,504	Canada ..	<i>Toronto (e)</i>	<i>1931</i>	<i>809</i>
India ..	<i>Calcutta (c)</i>	<i>1931</i>	<i>1,486</i>	U.S.S.R. ..	Baku ..	1939	800
Spain ..	Barcelona ..	1940	1,423	Netherlands ..	Amsterdam ..	1938	794
Italy ..	Rome ..	1939	1,325	China ..	Hankow ..	1931	778
Australia ..	<i>Sydney</i>	<i>1940</i>	<i>1,311</i>	Chile ..	Santiago ..	1933	771
Egypt ..	Cairo ..	1937	1,307	U.S.A. ..	Boston ..	1940	770
China ..	Tientsin ..	1936	1,292	Germany ..	Cologne ..	1939	768
Poland ..	Warsaw ..	1937	1,266	Turkey ..	Istanbul ..	1935	741
Japan ..	Nagoya ..	1939	1,249	England ..	<i>Manchester</i>	<i>1938</i>	<i>733</i>
Italy ..	Milan ..	1939	1,224	Germany ..	Leipzig ..	1939	702
Spain ..	Madrid ..	1940	1,209	Italy ..	Turin ..	1939	700
Japan ..	Kyoto ..	1939	1,177	Uruguay ..	Montevideo ..	1937	683
India ..	<i>Bombay</i>	<i>1931</i>	<i>1,161</i>	Egypt ..	Alexandria ..	1937	682
Scotland ..	<i>Glasgow</i>	<i>1940</i>	<i>1,132</i>	Thailand ..	Bangkok ..	1937	681
Brazil ..	Sao Paulo ..	1936	1,120	Portugal ..	Lisbon ..	1938	681
Hungary ..	Budapest ..	1939	1,116	U.S.A. ..	Pittsburgh ..	1940	671
Australia ..	<i>Melbourne</i>	<i>1940</i>	<i>1,077</i>	Poland ..	Lodz ..	1937	665
Mexico ..	Mexico City ..	1933	1,065	U.S.A. ..	Washington ..	1940	663
England ..	<i>Birmingham</i>	<i>1938</i>	<i>1,041</i>	Italy ..	Genoa ..	1939	662

(a) Greater London. (b) Greater Tokyo. (c) Including Howrah. (d) Greater Montreal.
(e) Greater Toronto.

POPULATION OF THE WORLD'S LARGEST CITIES—*continued*.
(Cities in the British Empire are printed in *Italics*.)

Country.	City.	Year.	City Population (⁰⁰⁰ omitted).	Country.	City.	Year.	City Population (⁰⁰⁰ omitted).
Germany ..	Essen ..	1939	660	France ..	Lyons ..	1936	571
Rumania ..	Bucharest ..	1938	648	Sweden ..	Stockholm ..	1938	571
India ..	<i>Madras</i> ..	1931	647	Cuba ..	Havana ..	1938	569
U.S.S.R. ..	Gorky ..	1939	644	Germany ..	Frankfort-on-		
Hong Kong	<i>Hong Kong</i>	1938	641	Main ..		1939	547
China ..	Chungking ..	1931	635	Germany ..	Dusseldorf ..	1939	540
U.S.A. ..	San Francisco	1940	635	Germany ..	Dortmund ..	1939	537
China ..	Wenchow ..	1931	631	England ..	<i>Sheffield</i> ..	1938	520
Germany ..	Dresden ..	1939	625	U.S.S.R. ..	Tiflis ..	1939	519
Germany ..	Breslau ..	1939	615	China ..	Tsingtao ..	1931	515
Netherlands	Rotterdam ..	1938	612	Argentina ..	Rosario ..		
China ..	Changsha ..	1931	607	Republic ..	(Santa Fe) ..	1937	511
U.S.S.R. ..	Odessa ..	1939	604	U.S.S.R. ..	Rostov-on-		
U.S.A. ..	Milwaukee ..	1940	587	Don ..		1939	510
U.S.S.R. ..	Tashkent ..	1939	585	China ..	Hangchow ..	1931	507
U.S.A. ..	Buffalo ..	1940	576	U.S.S.R. ..	Dnieper-		
				petrovsk ..		1939	501

§ 5. Elements of Increase.

1. *Natural Increase.*—(i) *General.* The two factors which contribute to the growth of a population are the “natural increase,” i.e., 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 are given for each sex and State (see No. 22, p. 899). In the following table particulars for each sex are given in States for each quinquennium from 1901 to 1940 and for the latest eight years. The natural increase for Australia from 1861 to 1940 inclusive was 4,563,844, consisting of 2,114,370 males and 2,449,474 females, and represented 77.05 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 1914, but it steadily declined after that year to 7.07 in 1934. The figure rose to 7.99 per thousand in 1937 following small gains during each of the previous three years, fell slightly in 1939 to 7.72, and rose again to 8.27 in 1940. A graph showing the natural increase in the population of Australia from 1860 onwards appears on p. 282 of this chapter.

POPULATION : NATURAL INCREASE (a), 1901 to 1940.

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
1936-40..	49,092	26,141	23,145	9,187	9,409	6,040	39	397	123,450
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
1939 ..	9,441	4,949	4,616	1,871	1,985	1,247	..	107	24,216
1940 ..	10,289	5,463	5,067	2,034	1,801	1,208	27	97	25,986

(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
1936-40..	60,628	28,464	28,991	10,057	13,626	6,574	220	437	148,997
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
1939 ..	11,747	5,375	6,202	2,008	2,715	1,331	50	100	29,528
1940 ..	12,950	6,206	6,142	2,275	2,834	1,399	60	111	31,977

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	47,403	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	-5	378	368,017
1931-35..	111,866	53,502	46,663	17,914	20,928	11,763	63	550	263,249
1936-40..	109,720	54,605	52,136	19,244	23,035	12,614	259	834	272,447
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	47,726
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
1939 ..	21,188	10,324	10,818	3,879	4,700	2,578	50	207	53,744
1940 ..	23,239	11,669	11,209	4,309	4,635	2,607	87	208	57,963

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
1936-40..	8.06	5.84	10.42	6.50	10.04	10.71	8.28	14.96	7.90
1933 ..	8.41	6.01	9.30	6.88	9.31	10.33	2.68	10.24	7.86
1934 ..	7.57	5.01	9.60	5.24	8.43	9.28	5.68	10.92	7.07
1935 ..	7.61	5.13	9.15	5.31	8.98	9.16	2.75	10.99	7.09
1936 ..	8.17	5.47	10.39	5.87	9.44	9.50	10.08	11.07	7.70
1937 ..	8.26	5.99	10.26	6.34	10.00	11.18	6.65	15.14	7.99
1938 ..	7.80	6.10	9.78	6.53	10.67	11.11	5.76	12.58	7.83
1939 ..	7.71	5.48	10.68	6.50	10.11	10.84	7.97	17.26	7.72
1940 ..	8.38	6.15	10.99	7.23	9.96	10.91	10.11	16.41	8.27

(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. (d) Revised rates based on mean populations adjusted in accordance with the results of Census of 30th June, 1938.

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 Australia during recent years, the rate for Australia in 1940 being less than half that computed for the peak year 1914, namely, 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, increasing during the last five years to 54,489.

(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 rates of natural increase in 1939 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 how general has been the fall in the rate of natural increase.

NATURAL INCREASE OF POPULATION: VARIOUS COUNTRIES.

INCREASE PER ANNUM PER 1,000 MEAN POPULATION.

State or Country.	1909-13.	1939.	Country.	1909-13.	1939.
Australasia—			Europe— <i>continued.</i>		
Tasmania ..	18.8	10.8	Sweden ..	10.4	3.8
Queensland ..	17.9	10.7	Switzerland ..	9.3	3.5
Western Australia ..	18.1	10.1	England and Wales ..	10.7	3.3
New Zealand ..	17.1	9.5	Belgium ..	7.8	(b) 2.6
New South Wales ..	18.0	7.7	Spain ..	9.3	(b) 1.4
Australia ..	16.7	7.7	France ..	0.8	(b) -0.8
South Australia ..	16.8	6.5			
Victoria ..	13.6	5.5	Asia—		
			Japan	13.1	(b) 9.3
Europe—			Africa—		
U.S.S.R. (Russia)	15.8	(a) 17.4	Union of South		
Netherlands ..	15.1	12.0	Africa (whites only)		
Italy ..	12.8	10.1	(c)		16.0
Germany ..	12.8	8.0	America—		
Denmark ..	13.9	7.7	Canada		
Northern Ireland ..	6.3	5.9	(c)		
Norway ..	12.4	5.9	United States ..		
Eire ..	6.3	4.9	(c)		
Scotland ..	10.7	4.5			

(a) 1926-30.

(b) 1938.

(c) Not available.

NOTE.—Minus sign (—) denotes decrease.

2. *Net Migration.**—The other factor of increase in the population, namely, 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 1940 and annually for the last eight years :—

POPULATION : INCREASE BY NET MIGRATION, 1901 to 1940.

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	9,406	12,291	10,590	711	-5,784	- 366	(a)	37,999
1911-15..	38,483	1,566	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
1936-40(b)	7,574	11,913	5,249	-4,988	-2,501	- 793	2,787	1,632	20,873
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
1939 (b) ..	2,771	883	2,175	- 258	- 480	- 534	1,292	379	6,228
1940 (b) ..	- 1,458	12,577	- 354	-3,347	-2,728	- 794	1,164	238	5,298

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
1936-40(b)	14,163	9,233	1,509	-2,608	32	-1,872	715	1,083	22,255
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
1939 (b) ..	5,128	1,389	1,334	- 267	695	-1,029	200	213	7,663
1940 (b) ..	2,560	8,172	281	-1,334	- 972	-1,178	414	159	8,102

(a) Part of New South Wales prior to 1911.

(b) Civil migration only.

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.
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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
1936-40(c)	21,737	21,146	6,758	-7,596	-2,469	-2,665	3,502	2,715	43,128
1933 ..	- 85	156	1,138	- 612	- 140	- 858	19	(b) 596	214
1934 ..	2,823	3,831	1,298	-1,439	-1,379	-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
1939 (c) ..	7,899	2,272	3,509	- 525	215	-1,563	1,492	592	13,891
1940 (c)	1,102	20,749	- 73	-4,681	-3,700	-1,972	1,578	397	13,400

(a) Part of New South Wales prior to 1911. (b) See footnote (c) to table on p. 254. The following are revised estimates:—1931-35, 492; 1933, 684; 1934, 13; 1935, 197; 1936, 531; 1937, 472. (c) Civil migration only.

NOTE.—Minus sign (—) indicates the excess of departures over arrivals.

From 1861 to 1940 the increment to the population arising from net migration amounted to 1,359,260 or 22.95 per cent. of the total increase in population. During the 40 years since 1900 the total increase to the population was made up of 2,701,079 or 82.04 per cent. by natural increase, and 593,271 or 17.96 per cent. by net migration.

There was a loss of population by migration in the first five years of the present century: in the next five quinquennial periods there were varying gains which averaged about 115,000 per quinquennium.

In the five years ended 1935 there was a net emigration of 10,886 and in the five years ended 1940 the net immigration was 43,128.

Rates of increase by migration from 1901 to 1940 may be found for each State and Territory of Australia in *Demography Bulletin* No. 58.

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 Official 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 1940 was 5,923,104, while that from 1901 to 1940 was 3,303,350. The annual results for the last eight years are shown below, together with quinquennial figures from 1901 to 1940. A graph showing the increase in the population of Australia from 1860 appears on page 282.

POPULATION: TOTAL INCREASE, 1901 to 1940.

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	8,606	-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	110,052
1936-40(c)	56,666	38,054	28,394	4,199	6,908	5,247	2,826	2,029	144,323
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	5,763	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
1939 (c)..	12,212	5,832	6,791	1,613	1,505	713	1,292	486	30,444
1940 (c)..	8,831	18,040	4,713	-1,312	-927	414	1,191	335	31,284

FEMALES.

1901-05..	60,729	17,847	20,512	4,253	33,761	1,730	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
1936-40(c)	74,791	37,697	30,500	7,449	13,658	4,702	935	1,520	171,252
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
1939 (c)..	16,875	6,764	7,536	1,741	3,410	302	250	313	37,191
1940 (c)..	15,510	14,378	6,423	941	1,862	221	474	270	40,079

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	103,464	65,557	45,021	14,660	15,216	-494	143	441,840
1921-25..	230,618	156,142	94,218	56,042	46,204	6,612	-168	2,062	591,730
1926-30..	224,013	108,554	71,894	27,419	54,083	5,933	1,143	4,685	497,724
1931-35..	111,313	50,494	53,983	11,976	16,135	7,735	127	(b) 600	252,363
1936-40(c)	131,457	75,751	58,894	11,648	20,566	9,949	3,761	3,549	315,575
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
1939 (c)..	29,087	12,596	14,327	3,354	4,915	1,015	1,542	799	67,635
1940 (c)..	24,341	32,418	11,136	-372	935	635	1,665	605	71,303

(a) Part of New South Wales prior to 1911. (b) See footnote (c) to table on p. 254. The following are revised figures:—1931-35, 1,042; 1933, 777; 1934, 116; 1935, 304; 1936, 645; 1937, 637.
(c) Unadjusted for movement of armed forces.

NOTE.—Minus (-) denotes decrease.

4. Rates of Increase.—(i) *States.* The annual rates of increase of population of the several States of Australia in each of the years 1936 to 1940 inclusive were as follows :—

POPULATION : RATES OF INCREASE.

State or Territory.	Annual Rate of Increase of Population.				
	1936.	1937.	1938.	1939.	1940.
	%	%	%	%	%
New South Wales ..	0.91	1.08	0.92	1.06	0.88
Victoria	0.46	0.43	0.77	0.67	1.72
Queensland	1.18	1.15	1.08	1.43	1.09
South Australia ..	0.49	0.32	0.66	0.56	—0.06
Western Australia ..	0.85	1.23	1.17	1.06	0.20
Tasmania	0.95	1.56	1.01	0.42	0.26
Northern Territory ..	4.20	0.92	5.44	27.32	23.17
Australian Capital Territory	(a) 6.27	(a) 5.84	11.87	6.97	4.93
Australia	0.79	0.88	0.92	0.98	1.02

(a) Revised rates based on figures adjusted in accordance with results of Census of 30th June, 1938. See footnote (b) to preceding table.

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 IN VARIOUS COUNTRIES.

State or 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 of America	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.

(iii) *Variations in the Rates.* The annual rate of increase of the population during the present century has averaged 1.60 per cent., but the results from year to year have deviated widely from this figure. In the following table the period from 1900 to 1939 has been arranged into certain defined groups of years according to the occurrence of influences seriously affecting the growth of population :—

POPULATION : PERIODICAL RATES OF INCREASE.

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 1939 ..	10	0.56	56	0.82	0.01	0.84

Up to 1913 the rate of natural increase was rising, and this factor, coupled with the impetus given to immigration from 1911 onwards, was responsible for the comparatively high annual rate of 2.04 per cent. during this period. The War of 1914-1919 was a dominating influence in the decade 1914-1923, 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, the annual rate of growth rose to 1.88 per cent. After 1929 came the depression, and immigration ceased—in fact Australia actually lost people through an excess of departures over arrivals in 1930, 1931, 1932 and 1935. The rate of natural increase also fell, and the rate of growth of the population receded to 0.84 per cent. per annum.

If the population increased at the average rate of the present century, namely, 1.60 per cent., it would double itself in 43 years. It has been estimated, on the assumptions that the 1932-34 birth and death rates remain unchanged and that no increment to the population results from migration, that the average annual rates of natural increase would be for the period 1933-43, 0.73 per cent.; 1933-53, 0.64 per cent.; 1933-63, 0.55 per cent. and 1933-73, 0.46 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 1940 may be found for each State and Territory of Australia in *Demography Bulletin* No. 58, 1940.

§ 6. Seasonal Variations of Population.

1. *Variations in Natural Increase.*—The following notes are based on the experience of the ten years 1931-1940. 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 1931-1940 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 mainly 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 appears in Official Year Book No. 22. pp. 906-7.

§ 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, 1940, of 7,116,649, including 47,960 full-blood aborigines, has a density of only 2.39 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, 121; 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 and the unsuitability for settlement of much of the country, 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 2.39 in 1940. Victoria's density, however, has grown from 13.77 to 21.83, and that of New South Wales from 4.43 to 9.01 in the same period.

A map showing the density of population throughout Australia at the Census of 1933 appears on page 283 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 20 per cent.; Victoria, nil; Queensland, 13 per cent.; South Australia, 83 per cent.; Western Australia, 58 per cent.; Tasmania, nil; and Australia, 38 per cent.

Particulars concerning the number and density of the population of the most important countries of the world at 31st December, 1938, 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, 1939-40*. The figures for China and Afghanistan were taken from the *Statesman's Year Book, 1940*. 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, 1938.

Country.	Population. ('000 omitted)	Density. (a)	Country.	Population. ('000 omitted)	Density. (a)
EUROPE.			AFRICA.		
U.S.S.R. (European) ..	134,400	58.0	Nigeria and Protectorate (f) ..	20,583	55.2
Germany (b) ..	79,354	352.0	Egypt ..	16,380	42.4
United Kingdom ..	47,600	506.4	French West Africa ..	14,800	8.1
Italy (c) ..	44,487	339.6	Belgian Congo ..	10,329	11.4
France ..	41,980	197.1	Union of South Africa ..	10,070	21.3
Poland ..	35,090	233.9	Algeria ..	7,490	8.8
Spain (incl. Canary Is.) ..	25,600	132.0	French Morocco ..	6,500	42.2
Rumania ..	19,852	174.1	Anglo-Egyptian Sudan ..	6,342	6.5
Yugoslavia ..	15,490	161.4	Abyssinia ..	3,500	15.9
Hungary ..	10,789	246.8	Other ..	57,506	..
Netherlands ..	8,727	671.3	Total Africa ..	155,500	13.3
Belgium ..	8,386	698.8	NORTH AND CENTRAL AMERICA.		
Portugal ..	7,460	213.1	United States of America ..	130,300	43.0
Greece ..	7,108	142.2	Mexico ..	19,640	25.8
Sweden ..	6,310	36.5	Canada ..	11,255	3.0
Bulgaria ..	6,273	156.8	Cuba ..	4,228	96.1
Switzerland ..	4,210	203.1	Other ..	17,387	..
Denmark ..	3,819	224.6	Total North and Central America ..	182,810	21.1
Finland ..	3,659	24.7	SOUTH AMERICA.		
Eire ..	2,936	108.7	Brazil ..	44,116	13.4
Norway ..	2,921	23.4	Argentine Republic ..	12,957	12.0
Other ..	18,049	..	Colombia ..	8,800	20.0
Total Europe ..	534,500	121.2	Peru ..	7,200	14.9
ASIA.			Chile ..	4,635	16.1
China and Dependencies ..	457,835	106.8	Other ..	13,592	..
British India and Indian States ..	365,900	232.3	Total South America ..	91,300	13.2
Japan and Dependencies ..	104,390	398.4	OCEANIA, ETC.		
Netherlands Indies (d) ..	68,400	93.1	Australia (g) ..	6,981	2.3
U.S.S.R. (Asiatic) ..	36,000	6.1	New Zealand and Dependencies ..	1,636	15.7
French Indo-China ..	23,500	82.1	Territory of New Guinea ..	670	7.2
Philippine Islands ..	16,250	142.5	Hawaii ..	413	59.0
Burma ..	15,958	68.2	Papua ..	280	3.1
Turkey (e) ..	15,750	54.9	Fiji ..	211	30.1
Iran ..	15,000	23.7	Other ..	479	..
Thailand ..	14,900	74.5	Total Oceania, etc. ..	10,670	3.2
Afghanistan ..	10,000	39.8	SUMMARY.		
Arabia ..	7,000	7.0	Europe ..	534,500	121.2
Ceylon ..	5,944	237.8	Asia ..	1,181,335	72.8
Nepal ..	5,600	103.7	Africa ..	155,500	13.3
Other ..	18,908	..	America, North and Central ..	182,810	21.1
Total Asia ..	1,181,335	72.8	America, South ..	91,300	13.2
			Oceania, etc. ..	10,670	3.2
			Total ..	2,156,115	42.1

(a) Number of persons per square mile. (b) Including Austria and Sudeten Territory.
(c) Including Albania. (d) Including Dutch New Guinea. (e) Excludes European Territory—1,350,000. (f) Including British Cameroons. (g) Including 51,000 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 :—

AREA AND POPULATION : BRITISH EMPIRE AND WORLD.(a)

Particulars.	The World.	British Empire.
Area in square miles (exclusive of Polar Circles) ..	51,235,000	13,353,952
Population ..	2,156,115,000	500,774,000
Population per square mile ..	42.08	37.50

(a) Statistical Year Book of the League of Nations, 1939-40, and The Statesman's Year Book, 1940.

§ 9. General Characteristics.

1. Sex Distribution.—(i) General. Detailed information respecting the distribution of the sexes in the population of Australia appears in previous issues of the Official Year Book. (See No. 22, p. 910.)

(ii) *Masculinity*.—(a) *States*. The number of males to each hundred females has been adopted as a measure of the "masculinity" of the population. On pp. 163-5 in the second issue of the Official Year Book 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 p. 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 of 1914-1919 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 101.81 in the year 1940.

The following table shows the masculinity of the population at quinquennial periods from 1901 to 1935 and for each year from 1936 onwards:—

POPULATION : MASCULINITY, 1901 to 1940.

(Males per 100 Females.)

As at 31st December—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
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
1939	101.61	97.69	109.23	99.80	109.77	101.97	236.86	120.40	102.09
1940	100.93	98.01	108.92	99.20	108.91	102.83	247.96	120.57	101.81

(a) Part of New South Wales prior to 1911.

(b) *Various Countries*. The difference between young and old countries in the masculinity of their population is clearly illustrated by the comparisons furnished in the following table, which are based on the latest statistics available:—

POPULATION : MASCULINITY IN VARIOUS COUNTRIES.

Country.	Year.	Number of Males to each 100 Females.	Country.	Year.	Number of Males to each 100 Females.
Canada	1938	106.5	Hungary	1938	96.2
Eire	1936	105.0	Norway	1938	96.1
Union of South Africa (a)	1938	103.1	Spain	1940	95.9
Australia	1940	101.8	Poland	1938	95.3
United States of America	1935	101.6	Germany	1938	95.1
Japan	1939	100.4	U.S.S.R. (Russia) ..	1939	94.8
Netherlands	1937	99.4	Northern Ireland ..	1939	94.7
New Zealand	1940	99.1	Italy	1936	94.3
Sweden	1939	98.2	France	1936	93.0
Belgium	1938	98.0	Scotland	1938	92.9
Denmark	1939	97.4	England and Wales	1938	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 took place in the age constitution of the population during the 12½ years following the 1921 Census. Reference to the graph on page 284 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 owing 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 were still prominent, but owing to the lapse of time they then showed at the later ages of 12 to 16 years and 32 to 36 years. But for all ages below about 10 years the curve had been depressed to an extent which was even more marked than in 1921. This was due to a serious decline in the birth-rate, which was intensified in the years immediately prior to 1933 by the economic depression.

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 decline in the 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 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.	Census 1921.			Census 1933			Increase 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Years.							
0-4	305,397	294,319	599,716	290,461	278,502	568,963	- 30,753
5-9	302,481	291,836	594,317	318,937	308,440	627,377	30,060
10-14	266,289	260,556	526,845	317,524	307,098	624,622	98,777
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	69,781
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	146,203	136,520	282,723	209,329	199,380	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	4,103	7,856	6,423	6,228	10,871	3,015
90-94	848	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.

The ages recorded at a Census are not free from error and are therefore subjected to a process of graduation, or smoothing, to eliminate the effects of the tendency to mis-statement at certain ages. These 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, 1937 TO 1940.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Age last Birthday.	30th June, 1937.		30th June, 1938.		30th June, 1939.		30th June, 1940.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Years—								
0-4 ..	271,708	261,786	278,291	267,694	285,141	274,569	292,480	280,806
5-9 ..	296,901	285,370	285,851	274,768	276,972	266,224	268,806	259,247
10-14 ..	320,641	310,971	318,198	307,933	315,678	304,647	312,159	300,750
15-19 ..	312,132	302,185	317,190	306,852	323,327	312,557	325,201	315,340
20-24 ..	310,736	303,273	309,676	301,578	305,918	297,662	305,168	295,918
25-29 ..	291,133	277,921	295,809	283,981	300,807	290,917	305,620	297,186
30-34 ..	269,366	248,587	274,190	253,660	278,759	259,810	283,198	266,069
35-39 ..	241,836	233,827	247,180	234,260	252,282	236,275	257,764	239,593
40-44 ..	224,075	232,716	223,151	232,771	224,626	232,572	227,733	232,619
45-49 ..	220,931	217,303	222,352	220,714	223,082	223,765	222,879	226,672
50-54 ..	194,760	186,610	199,176	192,350	203,109	197,738	206,910	203,184
55-59 ..	153,106	148,578	159,634	154,944	165,991	161,274	172,043	167,657
60-64 ..	116,065	117,697	118,141	119,743	121,707	123,297	126,473	128,393
65-69 ..	96,537	99,852	96,729	101,593	96,639	102,585	96,723	103,546
70-74 ..	70,616	72,752	72,279	75,135	73,523	77,674	74,429	80,216
75-79 ..	43,100	45,401	43,798	46,982	44,128	48,269	44,763	49,758
80-84 ..	18,004	20,239	19,614	22,002	20,935	23,620	21,968	24,949
85-89 ..	4,739	6,524	4,812	6,681	4,808	6,800	5,023	7,160
90-94 ..	1,141	1,760	1,204	1,829	1,144	1,780	937	1,623
95-99 ..	141	197	130	194	80	195	53	141
100-104 ..	10	27	1	13	..	3	..	..
Total ..	3,457,788	3,373,576	3,487,406	3,405,677	3,518,656	3,442,233	3,550,330	3,480,829
Under 21 years ..	1,263,134	1,219,972	1,259,835	1,215,606	1,260,390	1,215,421	1,261,090	1,215,848
21 years and over ..	2,194,654	2,153,604	2,227,571	2,190,071	2,258,266	2,226,812	2,289,240	2,264,981
Total ..	3,457,788	3,373,576	3,487,406	3,405,677	3,518,656	3,442,233	3,550,330	3,480,829

The estimates in the above table are based on the graduated results of the 1933 Census.

The next table shows the change which has been taking place in the age constitutions 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 resulted during the intercensal period in an increase in the average age of males in Australia from 28.54 to 30.46 years and of females from 28.03 to 30.64 years. From 1911 to 1921 the average age for males and the average age for females were rapidly approaching equality with the former still somewhat higher than the latter. By 1933 the average age of females actually exceeded that of males. The higher average age of males in earlier years was

due to a relatively larger proportion of the population being immigrants, a majority of whom were males. As the proportion of native born increases the tendency is for females, whose average life is longer, to exceed males both in number and average age.

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	31.89	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 1921 Census the number never married had 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 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 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 30th June, 1933. This disparity is the result of two influences. The first is the greater longevity of females coupled with the usually younger age at marriage; and the second is that a larger proportion of males cancel their widowhood by remarriage.

The numbers of divorced males and females in this table differ slightly from those given on p. 181 where the conjugal conditions of those for whom particulars were not given at the Census have been distributed proportionally among the various groups.

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	1,018,587	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	104,480	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 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 represented 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, 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 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.

POPULATION : ORPHANHOOD OF CHILDREN UNDER SIXTEEN YEARS OF AGE, AUSTRALIA, 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. **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, Quakers and Latter Day Saints.

Ninety-nine per cent. of those who stated their religion professed the Christian faith as compared with 98 per cent. at the 1921 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 at the 1933 Census so large a proportion of the population gave no reply to this question.

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	1,160,223	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	31,627	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	- 379
Seventh Day Adventist	4,640	6,665	11,305	5,292	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	4,806	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.

7. **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	2,818,282	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	199,090	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	60,119	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	807,639	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	1,299	3,920	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

(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.

NOTE.—Minus sign (—) denotes decrease.

8. **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 during the years 1911 to 1913 is reflected in the outstanding number in the 20-24 years group, followed by the slump during the war period of 1914 to 1919 in the number in the 15-19 years group, and the increasing immigration after that 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 number 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 overseas vessels which were in Australian waters on the night of the Census.

IMMIGRANT POPULATION: Period of Residence in Australia of Persons who were not born in 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	6,304	17,491	- 76,925
40-44	31,843	20,851	52,694	22,110	17,196	39,306	- 13,388
45-49	16,616	11,776	28,392	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	12,912	25,989	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	3,669	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.

9. *Nationality.*—The number of foreign nationals in Australia 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 was 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—Italians, 12,755; Greek, 2,835; Yugoslav, 2,217; and Polish, 1,257; whilst those of Chinese nationality decreased by 6,007; Dutch by 702; Americans (U.S.) by 700; 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 30th June, 1933, the remainder being British subjects by naturalization.

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.; American, U.S., 42 per cent., and German, 22 per cent.

POPULATION: NATIONALITY (i.e., ALLEGIANCE), AUSTRALIA, 1921 AND 1933.
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

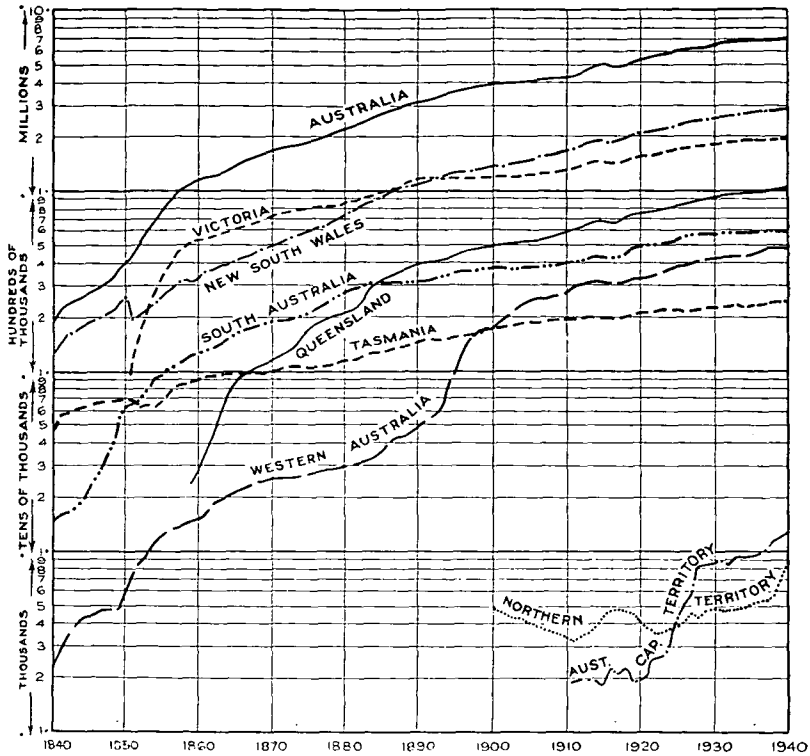
Nationality.	Census 1921.			Census 1933.			Increase. 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
British	2,722,152	2,665,053	5,387,205	3,318,228	3,251,290	6,569,518	1,182,313
Foreign—							
American, U.S. ..	2,520	737	3,257	1,904	653	2,557	— 700
Chinese	13,614	185	13,799	7,615	177	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	3,590	17,658	12,755
Japanese	2,489	150	2,639	1,937	147	2,084	— 555
Norwegian	960	65	1,025	1,150	88	1,238	213
Polish	351	149	500	1,008	749	1,757	1,257
Russian	1,055	662	2,317	1,283	772	2,055	— 262
Spanish	405	140	545	403	133	536	51
Swedish	1,399	80	1,479	1,274	96	1,370	— 109
Swiss	413	151	564	680	272	952	388
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.

10. *Race.*—The people of Australia may be classified into two groups with respect to racial characteristics, namely, 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 number at 30th June, 1940, were 47,960 but who are not included in the general population figures of Australia. 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

POPULATION OF AUSTRALIA, 1840 TO 1940 (RATIO GRAPH).

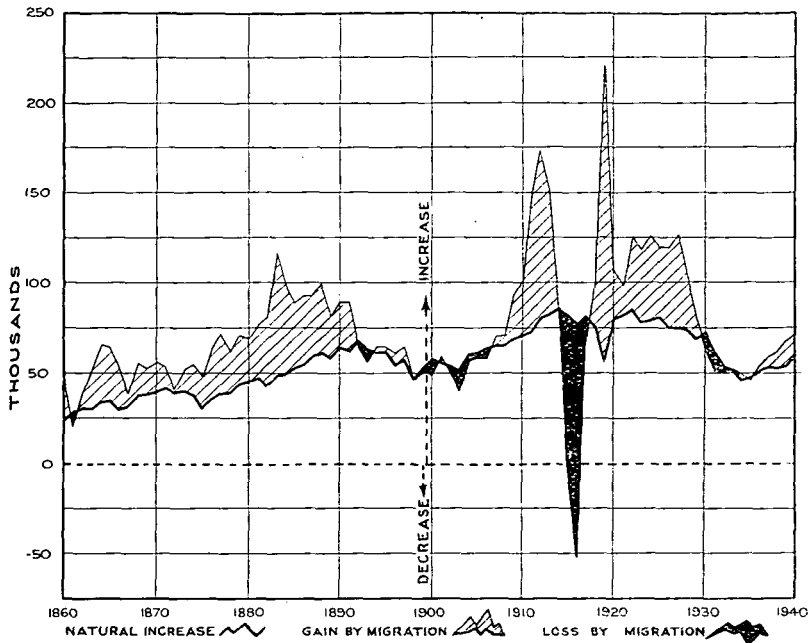


(See page 254.)

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.

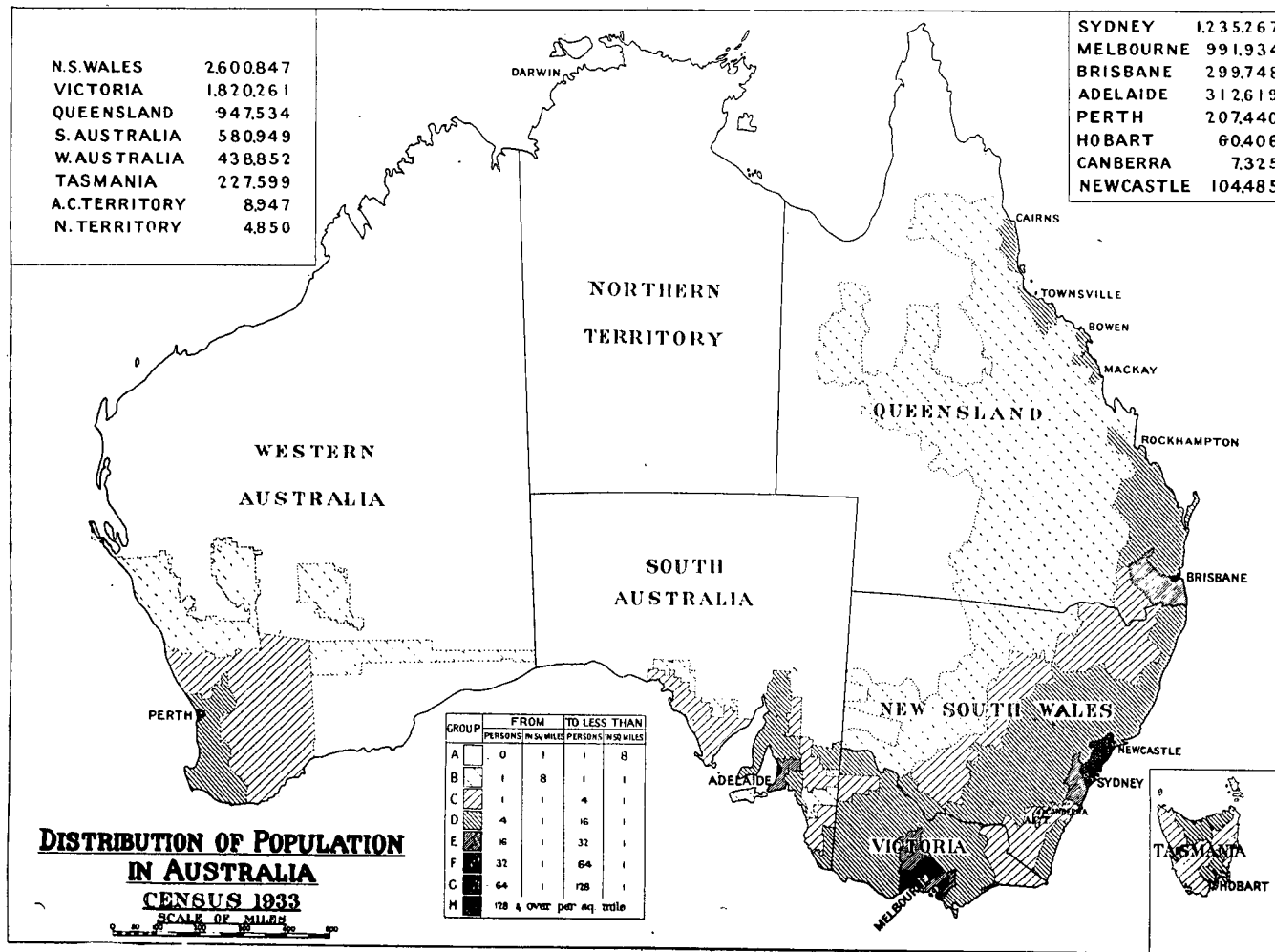
INCREASE OF POPULATION—AUSTRALIA, 1860 TO 1910.



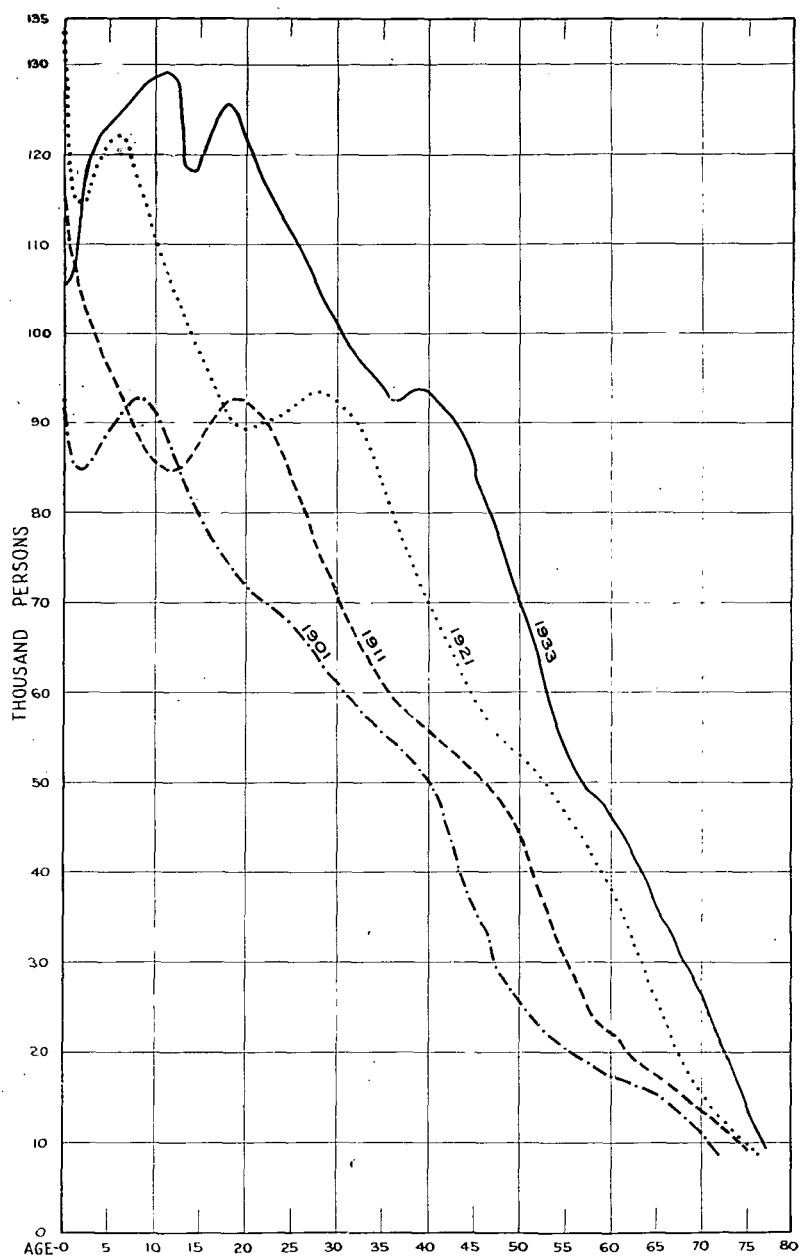
EXPLANATION.—The increase of population each year is represented by the distance between the light curve and the dotted zero line. The distance between the zero line and the heavy curve shows the amount of increase due to natural increase, while the distance between the two curves indicates gain or loss 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 War of 1914-19, a net loss in population is indicated.

N.S. WALES	2,600,847
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



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.

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 30th June, 1933, 99.2 per cent. of the population of Australia was stated to be of full-blood European race and 0.8 per cent. of non-European and half-caste, as compared with 99.1 per cent. and 0.9 per cent. respectively at the 1921 Census. The latter portion consisted of 22,780 full-blood non-Europeans, 20,620 half-caste aboriginals and 6,446 other half-castes. There were also 60,101 full-blood aboriginals who are not included in the general population figures.

During the intercensal period the number of full-blood non-Europeans decreased by 8,195 persons, or 26 per cent., the number of half-caste aboriginals increased by 9,084, or 74 per cent., and other half-castes increased by 366, or 6 per cent. The half-caste population 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	2,216	188	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	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 ..	5,980	5,556	11,536	10,631	9,989	20,620	9,084
Chinese	1,891	1,778	3,669	1,991	1,602	3,593	- 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.

11. **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. Of this number 39 per cent. 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 the Chinese, 54 per cent. of the Japanese, 36 per cent. of the Yugoslav, 37 per cent. of the Greek, and 20 per cent. of the Maltese 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.

IMMIGRANT POPULATION : FOREIGN LANGUAGE, AUSTRALIA, 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	5,068	64	5,072
Croatian	128	19	147
Czechoslovak	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
Malay	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

12. 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 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 adoption of 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. At the 1933 Census, however, they were specifically directed to state if they were pensioners and they were 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, 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 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 (excluding those not definitely associated with industry) in Australia 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 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 from 21.8 per cent. to 24.9 per cent.; Entertainment, Sport and Recreation from 13.0 per cent. to 16.4 per cent.; Transport and Communication from 3.5 per cent. to 5.2 per cent.; and Agricultural, Pastoral, etc., from 2.1 per cent. to 3.6 per cent. In the Industrial group (factories, construction works, etc.), the number of persons engaged in the Building and Construction sections—where the proportion of females is low—increased more than in the Factory group with the result that the proportion of females in the group fell 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 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 increased from 19.9 to 21.6 per cent.

POPULATION : NUMBER 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	30,191	89	30,280	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
Other	176,183	775	176,958	245,919	1,295	247,214	70,256
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 ..	258,395	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	190,024	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	1,832,672	466,989	2,349,661	2,367,780	787,841	3,155,621	805,960
Dependants	880,198	2,205,875	3,086,073	999,351	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. Most pensioners in 1921 were recorded in the industry group to which they claimed to belong.

NOTE.—Minus sign (—) denotes decrease.

13. *Grade of Occupation.*—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 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 at 30th June, 1933, 1,589,271 males and 510,277 females were stated to be in the wage and salary earning group. On account of the economic depression in 1933, a number of boys and girls who would normally have been wage and salary earners had never been in work, and were omitted from this grade. If these be included the total wage and salary earning group in 1933 would be 1,647,671 males and 538,515 females representing 65.9 and 22.2 per cent. respectively of males and females aged 14 years and over, compared with 67.1 and 20.2 per cent. at the 1921 Census.

The proportion of females to the total number of persons in the wage-earning group 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 OCCUPATION, 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.

14. Unemployment.—The number of persons who stated they were wholly unemployed at 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 percentage 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) ..	(b)	(b)	(b)	4,579	2,802	7,381	(b) 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) Not shown separately in 1921. (c) Excluding wage earners stated to be employed part-time or on sustenance or relief work. 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	5,608	2,218	7,826	- 5,516
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				133,184	35,297	168,481	
1 year and under 2 years				50,344	9,700	60,044	
2 years				69,848	8,667	78,515	
3				75,895	5,669	81,564	
4				40,607	2,616	43,223	
and over				35,391	13,826	49,217	
Not Stated	20,671	3,477	24,148				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.

§ 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 was 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 increased by 407,714, or 33.7 per cent., 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 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 ABORIGINALS.)

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 or Territory.	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 Australia 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 ABORIGINALS.)

Class of Occupied Dwellings.	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	426,215	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	298	462	1,624	1,326	483	651	2,460	830	
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	3,666	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	66	109	428	181(a)	
Penal Establishment ..	63	51	19	133	9	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	200	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 45	231 32	1,308 111	1,849 188	- 710	
Not Stated ..										
Total Other Occupied Dwellings ..	23,271	9,471	13,533	46,275	10,341	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	0.15	
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 30th June, 1933, was 5.03, and was slightly higher than that of 4.90 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 ABORIGINALS.)

Number of Occupied Private Dwellings.									
Number of Rooms per Dwelling.(a)	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase, 1921-1933.
	Urban.		Rural.	Total Aus- tralia.	Urban.		Rural.	Total Aus- tralia.	
	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	49,505	102,307	264,216	148,457	52,362	122,579	323,398	59,182
5	143,037	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	1,208	391	1,248	2,847	1,463	382	1,419	3,264	417
13	483	172	429	1,084	560	124	452	1,136	252
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	7,397	2,959	8,464	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 that of 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 Australia 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 ABORIGINES.)

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	211,507	91,031	117,082	449,680	360,393	108,359	146,660	615,412	165,732
Caretaker	6,036	6,025	37,514	49,575	6,410	5,022	29,331	40,763	16,310
Other Methods of Oc- cupancy									
Not Stated	7,526	4,136	10,347	28,000	3,146	2,810	19,166	25,122	6,325
					7,113	4,279	22,942	34,334	
Total	467,913	267,807	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 Australia. In the metropolitan areas the average was 19s. 7d. per week, in the provincial areas 15s. 9d., and in the rural areas 11s. 2d.

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.

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.

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 Australia 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 Australia showing the rents as at the middle of each quarter. A comparison of these figures for the first quarter of 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 1928 when the average for the metropolitan areas of Australia was 21 per cent. higher than for 1921, but since that peak year the average fell by 20 per cent. to the 1933 figures.

**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.)

Number of Occupied Private Dwellings.									
Rent per week Unfurnished.	Census, 4th April, 1921.				Census, 30th June, 1933.				Increase, 1921- 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	18,304	22,688	1,663	2,837	14,869	19,369	- 3,319
5s. and under 10s. . .	12,786	19,885	37,957	70,628	20,332	13,865	32,083	66,281	- 4,347
10s. " " 15s. . .	50,331	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	25,156	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. . .	14,395	1,881	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	469	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. . .	570	24	26	620	593	10	5	608	- 21
80s. " " 90s. . .	503	35	34	572	445	5	2	452	- 120
90s. " " 100s. . .	210	11	3	224	189	6	..	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 Dwell- ings. . .	341,567	91,031	117,082	449,680	360,393	109,359	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.	18. 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 comprised 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 had increased by 34 per cent. to a total of 1,108,594. Particulars as to rent were 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 was the same as that of the previous Census and the proportions of rented houses with walls of wood, and of brick or stone, had not changed 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. In the metropolitan areas the proportional increase of houses of five and six rooms was even higher. 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 regarding 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 Australia.

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 ABORIGINALS.)

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.			
o		s. d.	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 for the individual years. On pp. 265-6 of this chapter will be found a summary showing the increase by net migration to the population of the States from 1901 to 1940 in quinquennial groups and from 1933 to 1940 in single years. The following table shows for Australia 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	19,279	57,278
1911-15(a)	422,927	209,893	632,820	382,552	113,406	495,958	40,375	96,487	136,862
1916-20(a)	438,721	100,764	539,485	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	73,257	56,450	129,707
1931-35..	124,207	115,116	239,323	134,883	115,326	250,209	-10,676	- 210	- 10,886
1936-40..	161,774	159,538	321,312	140,901	137,283	278,184	20,873	22,255	43,128
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	34,679	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
1939(b) ..	37,719	37,366	75,085	31,491	29,703	61,194	6,228	7,663	13,891
1940(b) ..	19,296	19,307	38,603	13,998	11,205	25,203	5,298	8,102	13,400

(a) Inclusive of movements of armed forces.

(b) Exclusive of movements of armed forces.

NOTE.—Minus sign (—) indicates an excess of departures over arrivals.

The net migration has varied greatly during the foregoing periods, reaching a maximum in the five years 1921-25. The War of 1914-19, 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	1933	72
1906-10	7,945	1934	159
1911-15	30,111	1935	100
1916-20	2,326	1936	9
1921-25	23,090	1937	141
1926-30	19,881	1938	852
1931-35	156	1939	2,686
1936-40	766	1940	140

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 1940 in Demography Bulletin No. 58. Annual averages for the period 1925-29 appear in Official Year Book No. 25.

3. **Nationality or Race.**—The majority of migrants to and from Australia are of British nationality, while only a small proportion are of non-European race.

The numbers of arrivals and departures of migrants since 1931 classified according to nationality or race are shown in the next table :—

NATIONALITY OR RACE OF ARRIVALS AND DEPARTURES : AUSTRALIA.

Nationality or Race.	Arrivals.			Departures.		
	1931-35.	1936-40.	1940.	1931-35.	1936-40.	1940.
American, U.S. ..	5,065	10,671	1,132	5,119	10,179	1,269
British	200,159	254,803	32,218	210,549	240,138	20,044
French	3,090	2,597	306	3,003	2,595	326
German	1,446	9,514	262	1,294	2,212	126
Greek	1,435	4,399	195	1,629	921	29
Italian	7,234	10,520	691	5,711	2,870	192
Yugoslav	1,203	2,588	162	1,242	988	66
Other European ..	4,432	12,491	1,746	4,863	5,452	1,025
Total European ..	224,064	307,583	36,712	233,410	265,355	23,077
Chinese	8,709	7,804	1,106	9,972	7,633	1,266
Japanese	1,625	1,710	200	2,050	1,736	259
Indian and Cingalese	2,007	2,387	314	1,775	2,258	389
Other Non-European	2,918	1,828	271	3,002	1,202	212
Total Non-European	15,259	13,729	1,891	16,799	12,829	2,126
Total	239,323	321,312	38,603	250,209	278,184	25,203

During the period 1926-30 there was a considerable influx of Italian, Greek and Yugoslav 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 1931-35, there was a considerably reduced increment to the Italian population by migration, whilst there was actually an excess of departures of most other nationals. The last five years, however, saw a resumption of immigration of Southern Europeans, while refugees were responsible for the heavy increase in net immigration of German nationals. Usually there is an excess of departures of non-European people as a whole though it is not true of all non-European nationals. The net gain or loss according to nationality or race for the two quinquennia since 1930, and for the year 1940 and the percentage of each nationality on the total gain or loss are given in the following table:—

NET GAIN OR LOSS : NATIONALITY OR RACE, AUSTRALIA.

Nationality or Race.	Net Gain or Loss.			Proportion of Net Gain or Loss.		
	1931-35.	1936-40.	1940.	1931-35.	1936-40.	1940.
				Per cent.	Per cent.	Per cent.
American, U.S. ..	— 54	492	— 137	— 0.50	1.14	— 1.02
British	— 10,390	14,665	12,174	— 95.44	34.00	90.85
French	87	2	— 20	0.80	0.00	— 0.15
German	152	7,302	136	1.40	16.93	1.01
Greek	— 194	3,478	166	— 1.78	8.07	1.24
Italian	1,523	7,650	499	13.99	17.74	3.72
Yugoslav	— 39	1,600	96	— 0.36	3.71	0.72
Other European ..	— 431	7,039	721	— 3.96	16.32	5.38
Total European ..	— 9,346	42,228	13,635	— 85.85	97.91	101.75
Chinese	— 1,263	171	— 160	— 11.61	0.40	— 1.19
Japanese	— 425	— 26	— 59	— 3.90	— 0.06	— 0.44
Indian and Cingalese	232	129	— 75	2.13	0.30	— 0.56
Other Non-European	— 84	626	59	— 0.77	1.45	0.44
Total Non-European	— 1,540	900	— 235	— 14.15	2.09	— 1.75
Total	— 10,886	43,128	13,400	— 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 1938 the arrivals exceeded the departures by 9,137 and in 1939 the excess was 13,891, the greatest gain to the population by migration since 1928. The excess of arrivals over departures in 1940 was 13,400.

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 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. During 1936-40 British migrants once more showed a gain. Migrants of all other nationalities except Japanese also showed a gain and the British migrants contributed only 34 per cent. of the total net gain. In 1940 British migrants (including evacuees) showed the greatest gain followed by Italians at a much lower figure.

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, 1931-35 and 1936-40 and for the years 1939 and 1940 are as follows:—

MIGRANTS CLASSIFIED ACCORDING TO INTENDED RESIDENCE : AUSTRALIA.

Classification.	1926-30.	1931-35.	1936-40.	1939.	1940.
Permanent new arrivals ..	224,010	54,444	84,169	24,068	11,609
Australian residents returning from abroad ..	121,395	84,554	104,870	24,756	8,267
Temporary visitors ..	125,029	100,325	132,273	26,261	(a)18,727
Not Stated	46	..	..	..	..
Total Arrivals ..	470,480	239,323	321,312	75,085	38,603
Australian residents departing permanently ..	103,209	71,670	51,006	11,541	5,476
Departing temporarily ..	111,714	79,426	94,650	19,361	4,726
Temporary visitors ..	125,772	99,108	132,528	30,292	15,001
Not Stated	78	5	..	..	..
Total Departures ..	340,773	250,209	278,184	61,194	25,203

(a) Including British evacuees.

Although permanent new arrivals increased during each of the eight years prior to 1939 the number in the latter year was considerably below the annual average for the quinquennium 1926-1930 while the war caused a large drop in the number for 1940. Permanent departures were far more numerous in the years 1928 to 1931 than in earlier years 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 six years there was 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 Government became responsible for the selection 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 nominators undertaking responsibility for their settlement and aftercare.

In 1930 owing to 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 Australia prior to 1st January, 1930.

On 4th March, 1938, the Commonwealth Government decided, in co-operation with the Government of the United Kingdom, 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 United Kingdom 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. (a)	Amount of Assistance jointly contributed by British and Commonwealth Governments.
	£ 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
Female household workers	5 10 0	31 10 0
Other adults, 19 years and over	16 10 0	20 10 0
Juveniles, 12 and under 19 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 £7 sterling, and in the case of children under twelve years of age by £3 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 1931 to 1940 inclusive, and the total from the earliest years up to the end of 1940, are given in the following table :—

IMMIGRATION : NUMBER OF PERSONS ASSISTED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
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
1939	1,309	544	376	126	304	24	3	2,686
1940	92	20	16	4	5	3	..	140
Total from earliest years to end of 1940	347,705	256,090	236,413	115,994	87,015	25,022	72	1,068,311

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, except in cases of close family reunion 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 Section 51, xxvii. and xxviii. of the Commonwealth Constitution, 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 (except 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 issues of the Official Year Book (see No. 12, pp. 1166–8).

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.

The Immigration Act 1940.—This Act provides (a) that the holder of a landing permit shall on demand satisfy an officer that he is able to comply with the conditions specified in the permit; (b) for the issue of, and extensions of, certificates of exemption; (c) that a non-British person who is convicted of a crime of violence against the person or of extorting any money or thing by force or threat, or of any attempt to commit such a crime or who is convicted of any other criminal offence for which he is sentenced to imprisonment for one year or longer may be deported; (d) for the exercise of discretion by the Minister in enforcing an order for the deportation of a person; and (e) for the provision and enforcement of maintenance guarantees in relation to persons seeking to enter the Commonwealth.

2. *Conditions of Immigration into Australia.*—(i) *Immigration of Non-European or Coloured Persons.* In pursuance of the established policy, the general practice is not to permit Asiatics or other coloured immigrants to enter Australia for the purpose 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.

Following the outbreak of war, alien immigration into Australia was severely restricted, and at present the admission of aliens from European countries has been virtually suspended.

(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.,
- (b) In Great Britain: The Official Secretary, High Commissioner's Office, Australia House, Strand, London,
- (c) In the United States of America: The Secretary, Australian Legation, Washington, D.C.,
- (d) In Canada: The High Commissioner for Australia, Ottawa.

3. **Persons Admitted Without Dictation Test.**—The following table shows the number and nationality of persons admitted during 1940 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, 1940.**

Nationality or Race.	1940.	Nationality or Race.	1940.
Albanian	66	Swiss	86
American, U.S.	1,129	Yugoslav	162
American Negro	6	Other Whites	101
Belgian	43		
British	32,189	ASIATIC—	
Bulgarian	10	Chinese	534
Czechoslovak	135	Filipino	30
Danish	57	Indian and Cingalese	139
Dutch	688	Japanese	225
Estonian	17	Javanese	4
Finnish	9	Koepanger	166
French	306	Malay	15
German	262	Palestinian	29
Greek	196	Syrian	4
Hungarian	225		
Italian	690	OTHER—	
Maltese (British)	29	Pacific Islander	24
Norwegian and Swedish	64	Papuan	57
Polish	114	Other and Unspecified	38
Russian	129		
Spanish	5	Total	37,983

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 transhipments. They are not therefore in agreement with departures, compiled in this Bureau and published elsewhere, which include transhipments. The number of persons of non-European race who left Australia during 1940 was 1,711, distributed among the various nationalities as follows :—American Negroes, 13; Chinese, 761; Filipinos, 45; Natives of India and Ceylon, 161; Japanese, 362; Javanese, 3; Koepangers, 227; Malays, 24; Pacific Islanders, 4; Papuans, 90; other coloured, 21.

(C) Passports.

Provision is made in the Immigration Act 1901–1940 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 repealed 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 Australia, 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 Australia. 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 War of 1914–19 is exempt from payment of any fee. In the case of indigent persons the Minister may reduce the fee payable for a Certificate of Naturalization to 10s.

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, ceases 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 ceases to be a British subject and his wife acquires his new nationality she may within one year from the date on 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 appears in Official Year Book No. 22, pp. 934–5.

2. **Certificates Granted.**—(i) *Australia.* Particulars regarding the previous nationalities of the recipients of certificates of naturalization issued under the Act during the year 1940, and the countries from which such recipients had come, are given in the following table :—

NATURALIZATION : CERTIFICATES GRANTED, 1940.

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 ..	16	Lebanese ..	10	Albania ..	13	Lebanon ..	3
American, U.S. ..	41	Lithuanian ..	7	America, U.S. ..	90	Lithuania ..	2
Argentinian ..	2	Norwegian ..	79	Belgium ..	22	New Hebrides ..	1
Belgian ..	15	Palestinian ..	22	Bulgaria ..	19	Norway ..	53
Bulgarian ..	15	Polish ..	58	China ..	67	Palestine ..	51
Chinese ..	5	Roumanian ..	15	Czechoslovakia ..	16	Poland ..	31
Czechoslovak ..	28	Russian ..	144	Denmark ..	46	Roumania ..	4
Danish ..	103	Spanish ..	36	Egypt ..	69	Spain ..	16
Dutch ..	45	Swedish ..	96	Estonia ..	71	South Africa ..	11
Estonian ..	98	Swiss ..	69	Finland ..	46	Sweden ..	57
Finnish ..	69	Syrian ..	25	France ..	87	Switzerland ..	41
French ..	75	Turkish ..	13	Germany ..	53	Syria ..	25
German ..	88	Venezuelan ..	1	Great Britain ..	150	U.S.S.R. (Russia) ..	37
Greek ..	256	Yugoslav ..	138	Greece ..	193	Yugoslavia ..	111
Hungarian ..	6	No State ..	5	Holland ..	25	Others ..	168
Italian ..	605			Hungary ..	3		
Japanese ..	1			Italy ..	619		
Latvian ..	18	Total ..	2,204	Latvia ..	4	Total ..	2,204

(ii) *States.* The certificates of naturalization granted in 1940 were issued in the various States and Territories as follows :—New South Wales, 915 ; Victoria, 507 ; Queensland, 333 ; South Australia, 139 ; Western Australia, 288 ; Tasmania, 9 ; Northern Territory, 8 ; Australian Capital Territory, 3 ; and Papua, 2 ; Total, 2,204.

§ 14. Population of Territories.

At the Census of 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, namely :—(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.	Unocu- 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 Australia are included in Chapter XI. "The Territories of Australia".

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. 951-61, a brief account is given of the Australian aboriginal population, its origin, its numbers as estimated from time to time, and the steps taken for its protection. On pp. 914-16 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 appears on pp. 687-96 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 30th June, 1940, the following particulars were disclosed :—

ABORIGINAL CENSUS, 30th JUNE, 1940.

State or Territory.	Full-blood.					Half-caste.					Total Full-blood and Half-caste.
	Noma-dic.	In Employ-ment.	In Super-vised Camps. (a)	Other.	Total.	Noma-dic.	In Employ-ment.	In Super-vised Camps. (a)	Other.	Total.	
New South Wales	34	98	410	148	690	274	1,676	5,037	3,184	10,171	10,861
Victoria ..	..	19	20	38	77	7	201	209	256	673	750
Queensland (b) ..	1,486	3,061	3,330	889	8,766	100	1,705	1,950	2,409	6,164	14,930
South Australia ..	1,675	407	351	271	2,704	826	405	792	227	2,250	4,954
Western Australia	15,166	3,595	1,884	1,176	21,821	649	1,099	1,736	1,297	4,781	26,602
Tasmania ..	1	..	..	..	1	..	9	212	61	282	283
Northern Territory	6,035	2,818	4,070	978	13,901	..	56	32	..	88	13,989
Australian Capital Territory ..	..	..	..	..	..	6	395	346	155	902	902
Australia ..	24,397	9,998	10,065	3,500	47,960	1,862	5,546	10,314	7,589	25,311	73,271

(a) This figure does not include those living in supervised camps who were in regular employment.

(b) Exclusive of Torres Strait Islanders (853 in regular employment, 2,864 in supervised camps, and 10 other).

§ 16. The Chinese in Australia.

In Official Year Book No. 18, pp. 951-6, a brief historical sketch is given regarding "The Chinese in Australia".

§ 17. The Pacific Islanders in Australia.

In Official Year Book No. 19, pp. 902-3, a brief account is given of the introduction of Kanakas into Australia.

CHAPTER XIII.

VITAL STATISTICS.

§ 1. Live Births.

1. Number, 1940.—The number of live births registered in Australia during the year ended 31st December, 1940, is shown in the table below. The numerical relation which these births bear to the population, and various other associated features, are given in later tables.

LIVE BIRTHS, 1940.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aus.	W. Aus.	Tas.	N.T.	A.C.T.	Australia.
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MALES.

Single births	24,634	16,076	10,301	5,073	4,490	2,531	104	140	63,349
Twins ..	528	314	178	69	98	38	..	3	1,228
Triplets ..	8	3	4	3	..	..	..	..	18
Total ..	25,170	16,393	10,483	5,145	4,588	2,569	104	143	64,595

FEMALES.

Single births	23,697	15,249	9,716	4,803	4,422	2,403	69	142	60,501
Twins ..	512	317	212	69	111	22	..	1	1,244
Triplets ..	3	3	1	..	..	..	..	..	7
Total ..	24,212	15,569	9,929	4,872	4,533	2,425	69	143	61,752

TOTAL.

Single births	48,331	31,325	20,017	9,876	8,912	4,934	173	282	123,850
Twins ..	(a) 1,040	(b) 631	390	138	(b) 209	60	..	4	(c) 2,472
Triplets ..	(d) 11	6	(d) 5	3	..	..	..	..	(e) 25
Total ..	49,382	31,962	20,412	10,017	9,121	4,994	173	286	126,347

TOTAL CONFINEMENTS (LIVE BIRTHS).

Mothers of Nuptial Children ..	47,015	30,548	19,258	9,675	8,698	4,756	153	284	120,387
Mothers of Ex-nuptial Children ..	1,864	1,100	956	271	324	208	20	..	4,743
Total Mothers	48,879	31,648	20,214	9,946	9,022	4,964	173	284	125,130

(a) 48 still-born twins not included. (b) 11 still-born twins not included. (c) 70 still-born twins not included. (d) 1 still-born triplet not included. (e) 2 still-born triplets 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 1940.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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
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
1939 ..	48,003	30,493	20,348	9,618	9,036	5,004	138	251	122,891
1940 ..	49,382	31,962	20,412	10,017	9,121	4,994	173	286	126,347

(a) Part of New South Wales.

2. Birth-rates.—The next table gives the crude birth-rates at intervals from 1901 to 1940 :—

CRUDE BIRTH-RATES.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	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
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)14.43	16.78
1934 ..	16.52	15.20	18.17	14.50	17.66	19.51	17.84	(c)14.20	16.39
1935 ..	16.89	15.16	18.31	14.14	18.23	19.41	16.47	(c)15.20	16.55
1936 ..	17.31	15.63	19.17	15.17	18.84	19.84	21.50	(c)15.35	17.13
1937 ..	17.63	16.02	19.36	15.25	18.95	20.69	18.30	(c)18.99	17.43
1938 ..	17.39	16.25	18.98	15.88	19.87	20.82	17.81	17.98	17.46
1939 ..	17.46	16.20	20.08	16.13	19.43	21.03	22.00	20.93	17.65
1940 ..	17.81	16.86	20.02	16.80	19.60	20.90	20.10	22.57	18.02

(a) Number of births per 1,000 of the annual mean population. (b) Part of New South Wales.
(c) Revised rates based on mean population adjusted in accordance with the results of Census of 30th June, 1938. See footnote (c) to table on p. 254.

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 rapidly diminished and was actually reversed in 1939. The following rates, based on births in respect of which the mother's usual residence is the Australian Capital Territory, are a truer measure of birth-rates in the Australian Capital Territory :—

1929 ..	23.28	1933 ..	19.06	1937 ..	21.28
1930 ..	22.07	1934 ..	17.59	1938 ..	18.88
1931 ..	21.40	1935 ..	19.52	1939 ..	20.02
1932 ..	20.09	1936 ..	17.97	1940 ..	21.54

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 shown by the following corrected rates for 1940 :—New South Wales, 17.84; Victoria, 16.77; Queensland, 20.08; South Australia, 16.77; Western Australia, 19.62; Tasmania, 20.99; and Northern Territory, 20.79.

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. With the improvement in economic conditions the rate has risen slightly during each of the last six 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 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.	1932-34. (Age Distribution at Census of 1933.)							1920-1922.
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.	Aust.
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 inclusive (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 inclusive ..	0.78	0.56	0.83	0.41	0.70	0.96	0.69	1.05
Women 15-44 inclusive—per cent. on 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 inclusive ..	29.06	29.42	28.88	29.12	28.62	28.54	29.10	28.54
Married women 15-44 inclusive—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 inclusive ..	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 15-44 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	235.0	236.0	196.5	131.4

3. *Birth-rates of Various Countries.*—(i) *Crude Rates.* A comparison with other countries for 1939, the latest year for which complete figures are available, shows that the Australian States occupy a midway position. The rates for the period 1908-1913 have been added for purposes of comparison :—

CRUDE BIRTH-RATES(a) : VARIOUS COUNTRIES.

Country.	1908 to 1913.	1939.	Country.	1908 to 1913.	1939.
Egypt	43.6	43.4(b)	Western Australia ..	28.9	19.4
U.S.S.R. (Russia) ..	45.6	42.7(c)	Eire	23.1	19.1
Ceylon	36.9	36.0	Denmark	27.1	17.8
Rumania	43.1	28.3	Spain	32.1	17.8(b)
Japan	32.9	26.7(b)	Australia	27.4	17.7
Portugal	34.6	26.5	New South Wales ..	28.2	17.5
Union of South Africa (Europeans)	(d)	25.3	Scotland	26.2	17.4
Poland	37.4	24.5(b)	United States of America	(d)	17.2
Argentine Republic ..	37.1	24.0	Czechoslovakia ..	31.1	16.8(b)
Italy	32.4	23.5	Victoria	25.3	16.2
Tasmania	29.6	21.0	South Australia ..	27.1	16.1
Finland	29.5	21.0(b)	Norway	26.0	16.0
Netherlands	29.1	20.7	Belgium	23.4	15.6(b)
Canada	(d)	20.3	England and Wales ..	24.9	15.5
Germany	29.5	20.3	Great Britain and Northern Ireland ..	24.6	15.5
New Zealand	26.5	20.2	Sweden	24.4	15.3
Queensland	28.2	20.1	Switzerland	24.7	15.2
Northern Ireland ..	23.1	19.5	France	19.5	14.9

(a) Number of births per 1,000 of the mean population. (b) For 1938. (c) For 1932.
(d) Not available.

(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 appears in Official 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 1940 the figures ranged from 101.21 in Western Australia to 105.94 in Tasmania. The averages for the last intercensal 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 :—

MASCUINITY(a) OF LIVE BIRTHS REGISTERED : AUSTRALIA.

Particulars.	1901.	1911.	1921.	1931.	1937.	1938.	1939.	1940.
Total Births ..	104.11	104.73	105.86	106.15	104.60	105.76	105.37	104.60
Ex-nuptial Births ..	105.50	103.10	106.09	102.60	103.83	104.08	109.88	110.49

(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 appears 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 1936–1940 it was only 5,025, a decline of 29.9 per cent., whereas the annual average total live births for the same period declined by 6.3 per cent., from 129,156 to 120,971; hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.55 to 4.15 per cent. of all births.

The variations of the ex-nuptial birth-rates as between the individual States and Territories for 1940 are as follows:—

EX-NUPTIAL LIVE BIRTHS AND BIRTH-RATES, 1940.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Number..	1,877	1,106	961	276	326	209	20	..	4,775
Percentage of Total Births	3.80	3.46	4.71	2.76	3.57	4.19	11.56	..	3.78

The numbers of births and the rates at intervals from 1901 to 1940 are shown below:—

EX-NUPTIAL LIVE BIRTHS AND BIRTH-RATES : AUSTRALIA.

Particulars.	1901.	1911.	1921.	1931.	1937.	1938.	1939.	1940.
Number of Ex-nuptial Births ..	6,165	7,074	6,463	5,841	5,163	5,049	5,012	4,775
Percentage of Total Births ..	5.99	5.79	4.75	4.93	4.33	4.19	4.08	3.78

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.

(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:—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 for the years 1906–1915.

(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.	1937.	1938.	1939.	1940.
Ex-nuptial ..	1.63	1.57	1.18	0.90	0.75	0.73	0.72	0.68
Nuptial ..	25.53	25.63	23.77	17.26	16.68	16.73	16.93	17.34
Total ..	27.16	27.20	24.95	18.16	17.43	17.46	17.65	18.02

(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 purposes, 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 1940 1,201 children were legitimized in Australia.

7. *Multiple Births.*—Among the total number of 126,347 live births registered in Australia in 1940, there were 123,850 single births, 2,472 twins and 25 triplets. The number of cases of twins was 1,271 and of triplets 9, there being 70 still-born twins and 2 still-born triplets. The total number of mothers was, therefore, 125,130, the proportion of mothers of twins being one in every 98, of mothers of triplets one in every 13,903, and of mothers of all multiple births one in every 98 mothers. Multiple births occurred in 1.02 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.	1937.	1938.	1939.	1940.
Mothers of Multiple Births ..	1,236	1,465	1,271	1,304	1,248	1,280	1,280
Percentage on Total Mothers ..	1.02	1.09	1.08	1.11	1.05	1.05	1.02
Number of Mothers to each Multiple Birth	98	92	92	90	96	95	98

8. *Ages of Parents.*—The relative ages of the parents of children registered in 1940 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. 58, published by this Bureau. In the present work the exigencies of space allow only the insertion of a table showing the relative ages of parents of all births in groups of five years:—

AGES OF PARENTS : AUSTRALIA, 1940.

Ages of Fathers, and Type of Birth.		Total.	Ages of Mothers.								Un- speci- fied.
			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	{ Single Twins	693 7	2	483 6	189 1	17	2	..	..	..	..
20 to 24	{ Single Twins Triplets	14,636 116 1	3	3,350 19 1	9,331 77 ..	1,785 19 ..	148 1 ..	16	3....	..	..
25 to 29	{ Single Twins Triplets	35,226 335 2	1	1,645 12 ..	14,440 103 ..	16,374 183 2	2,527 33 ..	226 4 ..	13....	..	..
30 to 34	{ Single Twins Triplets	32,587 338 1	..	431 1 ..	5,279 41 ..	14,375 147 ..	10,924 121 1	1,471 26 ..	103 2 ..	4	..
35 to 39	{ Single Twins Triplets	20,181 243 1	1	131 1 ..	1,342 13 ..	4,029 42 ..	7,839 92 1	5,351 84 ..	577 11 ..	11	..
40 to 44	{ Single Twins Triplets	9,493 133 2	..	29	358 1 ..	1,197 15 1	2,663 43 ..	3,523 53 1	1,075 21 ..	48	..
45 to 49	{ Single Twins Triplets	4,056 39 2	..	15	93 2 ..	404 3 ..	805 6 ..	1,420 16 1	1,143 12 1	176	..
50 to 54	{ Single Twins	1,531 19	..	8 ..	39 ..	153 1	257 6	493 7	488 4	93 1	..
55 to 59	{ Single Twins	483 7	..	2 ..	16 ..	48 3	84 ..	151 ..	152 4	30	..
60 to 64	{ Single Twins	172 1	..	.. ..	6 ..	24 ..	27 ..	49 ..	58 1	8	..
65 and Upwards	Single	81	..	3	6	9	10	29	21	3	..
Unspeci- fied	Single	1	..	..	..	1	..	..	..	..	..
Mothers of Nuptial Children	{ Single Twins Triplets Total	119,140 1,238 9 120,387	7 7	6,097 39 1 6,137	31,099 238 .. 31,337	39,316 413 3 39,732	25,286 302 2 25,590	12,729 190 2 12,921	4,233 55 1 4,289	373 1 .. 374	........
Mothers of Ex- Nuptial Children	{ Single Twins Total	4,710 33 4,743	24 .. 24	1,279 3 1,282	1,515 12 1,527	883 9 892	515 9 524	352 .. 352	130 .. 130	9 .. 9	3 .. 3
Total Mothers	{ Single Twins Triplets	123,850 1,271 9	31	7,376 42 1	32,614 250 ..	40,199 422 3	25,801 311 2	13,081 190 2	4,363 55 1	382 1 ..	3
Total	..	125,130	31	7,419	32,864	40,624	26,114	13,273	4,419	383	3

9. Birthplaces of Parents.—The birthplaces of the parents of children whose births were registered during 1940 appear in *Demography Bulletin* No. 58, 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.	1940.	1911.	1940.	1911.	1940.
AUSTRALASIA—						
Australia	94,834	104,590	102,073	110,062	6,570	4,456
New Zealand	1,257	859	1,201	631	68	20
EUROPE—						
England and Wales ..	9,849	8,050	6,067	5,120	210	161
Scotland	2,289	2,314	1,486	1,509	46	51
Ire and Northern Ireland	2,138	772	1,374	359	46	6
Other British Possessions	49	149	20	122	1	..
Western Europe	607	164	165	88	9	1
Central Europe	1,185	456	606	283	8	4
Southern Europe	360	1,929	203	1,492	6	5
Eastern Europe	168	115	81	63	..	19
ASIA						
British Possessions ..	217	195	114	113	2	3
Foreign Countries ..	317	226	139	157	3	3
AFRICA—						
British Possessions ..	111	182	116	133	2	3
Foreign Countries ..	11	22	13	23	..	..
AMERICA—						
Canada	59	119	34	59	3	1
Other British Possessions..	8	10	5	2	..	..
United States of America..	182	113	87	86	3	1
Other Foreign Countries ..	70	28	19	16	1	1
POLYNESIA—						
British	30	51	21	34	1	3
Foreign	39	21	13	16	6	..
AT SEA AND INDEFINITE ..	159	22	102	19	33	5
Total	113,939	120,387	113,939	120,387	7,018	4,743

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 1940, 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.	1940.	1921.	1931.	1940.
				%	%	%
Agricultural, Pastoral, Mining, etc.	32,405	24,760	23,703	25.25	22.21	19.69
Industrial	53,567	49,902	26,681	41.74	44.76	22.16
Transport and Communication	15,351	12,302	10,226	11.96	11.04	8.50
Commercial	18,298	16,030	12,893	14.26	14.38	10.71
Professional	6,204	5,991	15,110	4.84	5.37	12.55
Domestic	2,319	2,416	2,340	1.81	1.93	1.94
Indefinite	182	349	29,434	0.14	0.31	24.45
Total	128,326	111,480	120,387	100.00	100.00	100.00

(a) Includes 7,677 (6.37 per cent.) clerks, etc., formerly included under "Commercial".
 (b) Includes 29,165 (24.23 per cent.), labourers, etc., not specified as belonging to any industry, formerly included under "Industrial".

11. *Mother's Age, Duration of Marriage, and Issue.*—(i) *General.* The total number of nuptial confinements resulting in live births in 1940 was 120,387, namely, 119,140 single births, 1,238 cases of twins, and 9 cases of triplets. Ex-nuptial children, if previous issue by the same father, are included as previous issue, but children by former marriages and still-born children are excluded. The table cannot be given in detail but the following are their most salient features. The complete tabulations are shown in *Demography Bulletin* No. 58, issued by this Bureau.

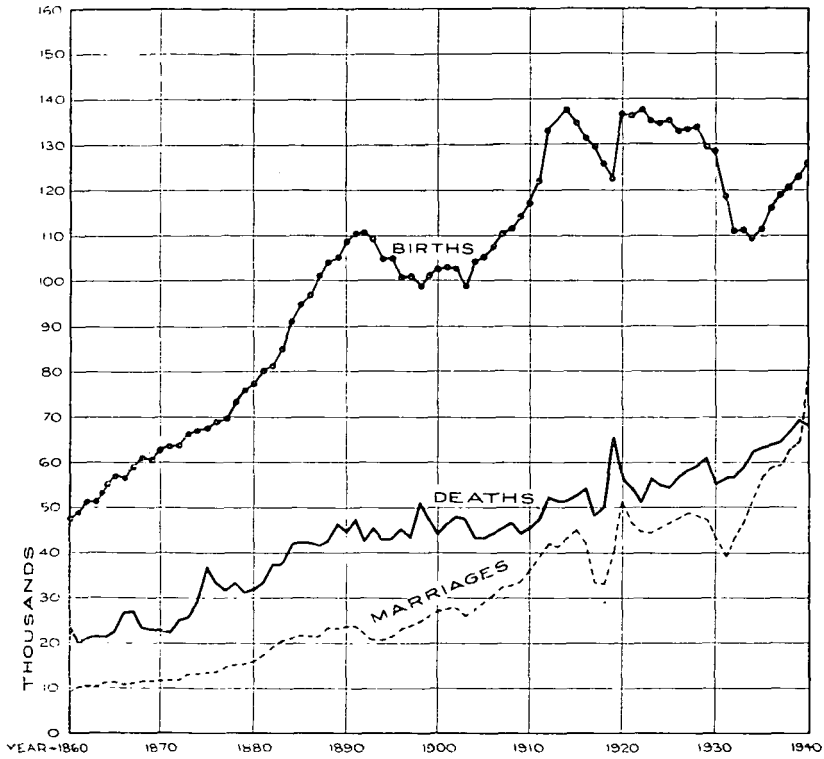
(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that the duration of marriage of mothers of nuptial children ranged from less than one year up to 33 years, and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1940 was 2.44 compared with 2.48 in 1939, 2.54 in 1938, 2.60 in 1937, and 2.65 in 1936.

DURATION OF MARRIAGE AND ISSUE OF MOTHERS : AUSTRALIA, 1940.

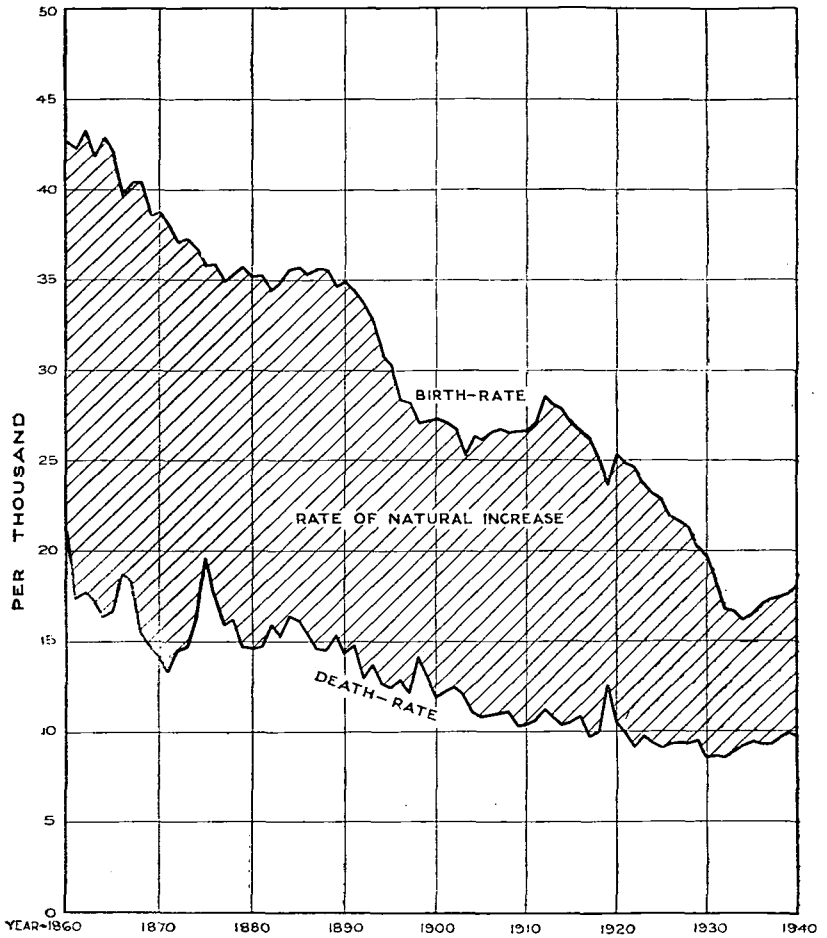
Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.	Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.
Years.				Years.			
0-1 ..	19,873	19,990	1.01	18-19 ..	859	5,696	6.63
1-2 ..	17,063	20,442	1.20	19-20 ..	740	5,111	6.91
2-3 ..	14,200	22,950	1.62				
3-4 ..	12,045	23,367	1.94	20-21 ..	524	4,013	7.66
4-5 ..	10,525	23,681	2.25	21-22 ..	390	2,982	7.65
				22-23 ..	234	1,975	8.44
5-6 ..	8,258	20,811	2.52	23-24 ..	178	1,578	8.87
6-7 ..	6,379	18,163	2.85	24-25 ..	119	1,091	9.17
7-8 ..	5,060	15,851	3.13				
8-9 ..	4,040	13,888	3.44	25-26 ..	92	875	9.51
9-10 ..	3,323	12,345	3.72	26-27 ..	44	383	8.70
				27-28 ..	34	336	9.88
10-11 ..	3,356	13,284	3.96	28-29 ..	12	125	10.42
11-12 ..	2,875	12,248	4.26	29-30 ..	6	48	8.00
12-13 ..	2,489	11,185	4.49				
13-14 ..	2,154	10,495	4.87	30-31 ..	1	13	13.00
14-15 ..	1,747	9,095	5.21	31-32 ..	2	21	10.50
				33-34 ..	1	12	12.00
15-16 ..	1,520	8,359	5.50	Not Stated	4	20	5.00
16-17 ..	1,192	7,135	5.99				
17-18 ..	1,048	6,506	6.21				
				Total ..	120,387	294,074	2.44

(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

BIRTHS, DEATHS, AND MARRIAGES—AUSTRALIA, 1860 TO 1940.

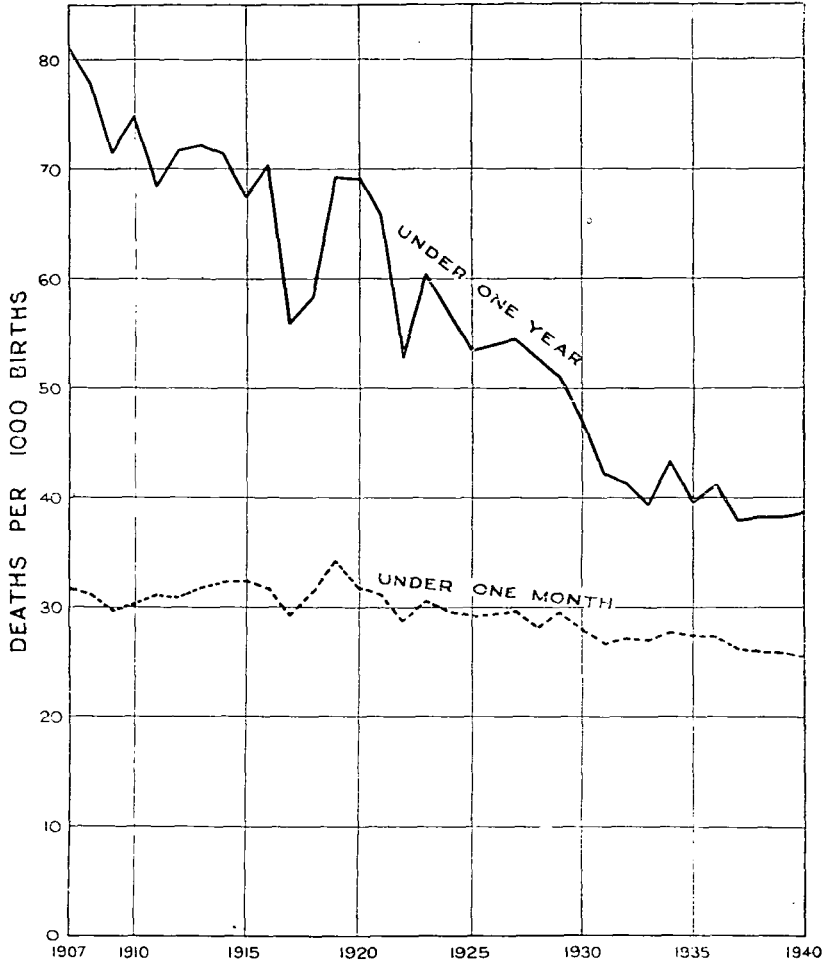


RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE--AUSTRALIA, 1860 TO 1910.



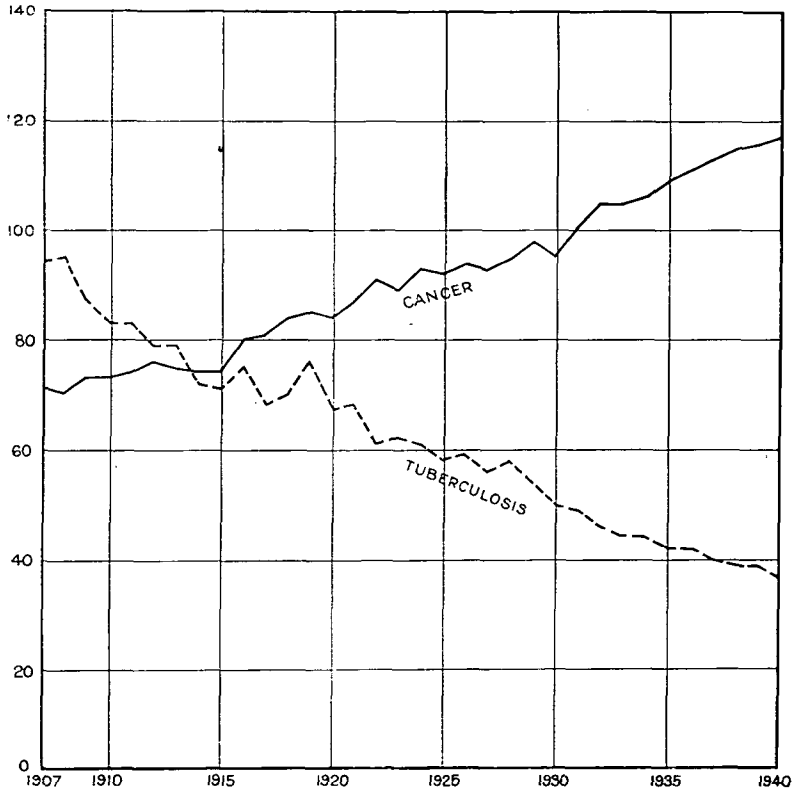
EXPLANATION.—The upper curve represents the number of births per 1,000 persons, while the lower curve represents the corresponding death-rate. The distance between the two curves is the rate of natural increase.

INFANTILE MORTALITY RATES --AUSTRALIA, 1907 TO 1940.



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 331).

DEATH-RATES—CANCER AND TUBERCULOSIS—AUSTRALIA, 1907 TO 1940.



(See page 353.)

EXPLANATION.—The vertical scale represents the number of deaths per 100,000 of the population.

of the age of the mother the number of issue has fallen in comparison with past years. During the period 1911 to 1940 the average issue of mothers of all ages has fallen by 26.95 per cent.—from 3.34 in 1911 to 2.44 in 1940 :—

AGES AND ISSUE OF MOTHERS : AUSTRALIA.

Ages of Mothers.	Average Number of Children.				Ages of Mothers.	Average Number of Children.			
	1911.	1921.	1931.	1940.		1911.	1921.	1931.	1940.
Under 20 years ..	1.18	1.16	1.21	1.21	40-44 years ..	6.97	6.27	6.00	5.47
20-24 years ..	1.77	1.64	1.74	1.61	45 years and over ..	8.52	8.04	7.48	6.92
25-29 " ..	2.64	2.44	2.46	2.13					
30-34 " ..	3.82	3.57	3.44	2.87					
35-39 " ..	5.28	4.95	4.71	4.02	All Ages ..	3.34	3.08	2.95	2.44

(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, 1940.

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	5,003	18,150	15,752	6,246	1,903	381	15	47,450
1	1,026	8,826	12,371	7,299	2,396	448	23	32,389
2	105	3,149	6,092	4,846	2,324	512	23	17,051
3	9	968	3,079	2,892	1,789	514	29	9,280
4	1	200	1,445	1,777	1,287	528	44	5,282
5	..	35	626	1,182	1,028	440	56	3,367
6	..	6	242	694	768	374	37	2,121
7	..	3	82	371	568	308	30	1,362
8	..	..	33	178	386	275	29	901
9	..	..	7	64	246	201	24	542
10	..	..	2	28	117	138	26	311
11	..	..	..	8	62	74	20	164
12	..	..	..	5	32	48	7	92
13	..	..	1	..	12	26	6	45
14	..	..	..	..	3	12	1	16
15	..	..	..	..	..	6	2	8
16	..	..	..	..	..	4	1	5
19	..	..	..	..	..	..	1	1
Total Mothers	6,144	31,337	39,732	25,590	12,921	4,289	374	120,387

(v) *Previous Issue of Mothers of Twins and Triplets.* Figures regarding the previous issue of married mothers of twins show that 445 mothers had no previous issue either living or deceased, 316 had one child previously, while 194 had two previous issue, 109 three, 57 four, 47 five, 26 six, 20 seven, 9 eight, 8 nine, 2 ten, 2 eleven, 1 twelve, 1 fourteen, and 1 fifteen previous issue.

Of the 9 cases of triplets registered during 1940, 1 mother had no previous issue, 2 had one previous issue, 5 had three previous issue, and 1 had fourteen 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 1940 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.	1940.	1911.	1921.	1931.	1940.
					%	%	%	%
Under 1 month ..	562	437	395	230	1.81	1.07	1.15	0.48
1 month ..	608	538	523	356	1.96	1.31	1.52	0.75
2 months ..	817	735	750	525	2.63	1.79	2.17	1.11
3 " ..	1,125	1,017	1,135	879	3.63	2.48	3.29	1.85
4 " ..	1,299	1,336	1,409	1,198	4.19	3.26	4.09	2.53
5 " ..	1,651	1,781	1,968	1,913	5.33	4.34	5.71	4.93
6 " ..	2,089	2,420	2,517	2,802	6.74	5.90	7.30	5.91
7 " ..	1,602	2,231	2,022	2,208	5.17	5.44	5.86	4.65
8 " ..	1,529	1,950	1,139	1,691	4.93	4.75	3.30	3.56
9 " ..	3,361	4,222	2,272	3,123	10.84	10.29	6.59	6.58
10 " ..	2,623	3,630	1,859	2,608	8.46	8.85	5.59	5.50
11 " ..	1,893	2,645	1,636	2,252	6.11	6.45	4.74	4.75
Total under 1 year	19,159	22,942	17,625	19,785	61.80	55.93	51.11	41.70
1- 2 years ..	7,400	11,149	8,888	13,789	23.87	27.18	25.77	29.06
2- 3 " ..	2,101	2,923	3,441	6,132	6.78	7.13	9.98	12.92
3- 4 " ..	908	1,413	1,823	3,195	2.93	3.45	5.29	6.73
4- 5 " ..	471	837	967	1,852	1.52	2.04	2.80	3.90
5- 9 " ..	762	1,473	1,424	2,256	2.46	3.59	4.13	4.76
10-14 " ..	159	223	262	372	0.51	0.54	0.76	0.78
15-19 " ..	31	54	50	61	0.10	0.13	0.14	0.13
20 years and over	9	4	6	8	0.03	0.01	0.02	0.02
Total ..	31,000	41,018	34,486	47,450	100.00	100.00	100.00	100.00

The masculinity of first births in 1940 was 104.49 compared with 104.60 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 a little less than 1 to 2. 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. 58, 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 76 per cent. among mothers under 20 years of age to a minimum of about 16 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 : AUSTRALIA.

Age of Mother at Birth of Child.	1910.				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.	1940.
	I.	II.	III.	IV.				
Under 20 years	1,306	3,495	4,801	6,309	83.12	79.23	82.60	76.10
20 to 24 years	1,530	5,734	7,264	19,680	53.91	45.82	48.43	36.91
25 to 29 "	892	1,834	2,726	16,644	32.50	25.60	21.89	16.38
30 to 34 "	524	543	1,067	6,770	28.06	23.05	22.20	15.76
35 to 39 "	352	158	510	2,255	32.64	29.43	30.86	22.62
40 to 44 "	130	36	166	511	36.56	35.31	38.95	32.49
45 and over ..	9	2	11	24	60.47	54.84	48.89	45.83
Total ..	4,743	11,802	16,545	52,193	48.14	39.74	43.80	31.70

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 is contained in *Demography Bulletins* issued by this Bureau for those years. The average interval for 1921 was 14.22 days for all children.

§ 2. Still-births.

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 still-births in Australia during 1940 was approximately 3,510.

§ 3. Marriages.

1. Number, 1940.—The number of marriages registered in Australia during the year ended 31st December, 1940, was 77,889, giving a rate of 11.11 per 1,000 of the mean population for the year, both the number and the rate being the highest on record. 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 1940.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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
1935 ..	22,361	15,409	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
1939 ..	25,471	17,368	9,108	5,670	4,195	2,264	85	88	64,249
1940 ..	30,364	22,299	10,287	6,950	5,234	2,476	154	125	77,889

(a) Part of New South Wales.

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.	N.T.	A.C.T.	Aust.
1901 ..	7.73	6.99	6.66	6.45	9.68	7.76	1.05	(b)	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
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	(c)5.84	7.03
1934 ..	7.70	7.57	7.99	7.39	8.34	7.32	6.08	(c)6.15	7.71
1935 ..	8.45	8.38	8.57	8.28	8.85	8.17	8.23	(c)7.60	8.45
1936 ..	8.57	8.61	8.49	8.82	9.43	8.98	7.80	(c)7.48	8.66
1937 ..	8.61	8.74	8.44	9.06	9.18	8.73	12.75	(c)5.60	8.70
1938 ..	9.03	9.16	8.85	9.26	9.03	8.83	11.70	6.74	9.05
1939 ..	9.27	9.23	8.99	9.51	9.02	9.51	13.55	7.34	9.23
1940 ..	10.95	11.76	10.09	11.66	11.25	10.36	17.89	9.71	11.11

(a) Number of marriages (not persons married) per 1,000 of mean annual population. (b) Part of New South Wales. (c) Revised rates based on mean population adjusted in accordance with the results of the Census of 30th June, 1938. See footnote (c) to table on p. 254.

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 1939, in comparison with the rates for various other countries :—

CRUDE MARRIAGE-RATES(a) : VARIOUS COUNTRIES.

Country.	1903 to 1913.	1939.	Country.	1908 to 1913.	1939.
New Zealand ..	8.5	11.1	Queensland ..	8.2	9.0
Germany ..	7.8	11.1	Western Australia ..	8.1	9.0
U.S. of America ..	(c)	11.0(e)	Norway ..	6.2	8.9
Union of South Africa(b)	(c)	10.8	Rumania ..	9.5	8.8(d)
England and Wales ..	7.6	10.6	Poland ..	7.0	8.0(d)
Great Britain and Northern Ireland ..	7.3	10.5	Japan ..	9.3	7.5(d)
South Australia ..	9.1	9.5	Switzerland ..	7.3	7.5
Tasmania ..	7.9	9.5	Belgium ..	7.9	7.3(d)
Sweden ..	6.0	9.5	Argentine Republic ..	6.8	7.3
Denmark ..	7.3	9.4	Italy ..	7.7	7.2
New South Wales ..	8.8	9.3	Czechoslovakia ..	7.7	7.2(d)
Australia ..	8.4	9.2	Northern Ireland ..	5.2	7.1
Victoria ..	8.0	9.2	Portugal ..	6.9	6.5
Netherlands ..	7.5	9.2	France ..	7.9	6.5(d)
Scotland ..	6.7	9.2	Spain ..	7.0	6.1(f)
Finland ..	6.1	9.2(d)	Ceylon ..	5.2	5.8(d)
Canada ..	(c)	9.2	Eire ..	5.2	5.2

(a) Number of marriages per 1,000 of mean population. (b) European population only. (c) Not available. (d) For 1938. (e) For 1937. (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. 58, 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 3,354 males who were less than twenty-one years of age married during 1940, while the corresponding number of females was 16,380. At the other extreme there were 67 men of sixty-five years and upwards who described themselves as bachelors, and 31 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, 1931, 1939 and 1940.

AGES AND CONJUGAL CONDITION OF PERSONS MARRIED : AUSTRALIA, 1940.

Ages at Marriage.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20 ..	1,552	1	..	1,553	10,689	4	2	10,695
20-24 years	24,546	29	22	24,597	34,517	82	108	34,707
25-29 ..	27,462	154	237	27,853	18,432	212	528	19,172
30-34 ..	11,097	283	452	11,832	5,667	340	631	6,638
35-39 ..	4,537	404	494	5,435	2,173	332	430	2,935
40-44 ..	1,794	440	350	2,584	860	394	257	1,511
45-49 ..	857	437	253	1,547	439	383	163	985
50-54 ..	340	473	136	949	198	298	67	563
55-59 ..	147	407	71	625	82	203	28	313
60-64 ..	77	291	29	397	47	137	10	194
65 years and over ..	67	437	13	517	31	140	5	176
Total ..	72,476	3,356	2,057	77,889	73,135	2,525	2,229	77,889
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
1939 ..	92.35	4.83	2.82	100.00	93.82	3.37	2.81	100.00
1940 ..	93.05	4.31	2.64	100.00	93.90	3.24	2.86	100.00

(ii) *Relative Ages, Bridegrooms and Brides.* The relative ages of bridegrooms and brides are shown for single years in *Demography Bulletin*, No. 58. A condensation into age-groups of five years is given below :—

RELATIVE AGES OF PERSONS MARRIED : AUSTRALIA, 1940.

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 ..	1,553	4	1,099	426	20	3	..	..	1
20 to 24 ..	24,597	8	6,111	15,320	2,856	264	33	3	2
25 to 29 ..	27,853	7	2,653	14,108	9,320	1,502	209	45	9
30 to 34 ..	11,832	..	604	3,608	4,580	2,360	535	104	41
35 to 39 ..	5,435	2	132	903	1,620	1,128	950	290	110
40 to 44 ..	2,584	1	41	228	498	632	574	390	220
45 to 49 ..	1,547	..	21	75	165	269	361	297	356
50 to 54 ..	949	..	3	22	78	108	161	194	383
55 to 59 ..	625	..	4	14	20	39	63	112	373
60 to 64 ..	397	..	1	3	11	22	27	50	283
65 years and over ..	517	..	1	..	4	11	22	26	453
Total Brides ..	77,889	22	10,673	34,707	19,172	6,638	2,935	1,511	2,231

(iii) *Average Ages, Bridegrooms and Brides.* The age at marriage of brides declined slightly during recent years to an average of about 25½ years, although in the years 1937 to 1939 this decline was temporarily arrested and the average rose to almost 26 years. The ages for the past five years are :—1936, 25.23 ; 1937, 25.86 ; 1938, 25.92 ; 1939, 25.87 and 1940, 25.74. For the following quinquennia the average ages were :—1911–15, 25.76 years ; 1916–20, 26.05 years ; 1921–25, 25.76 years ; 1926–30, 25.57 years ; 1931–35, 25.50 years ; and 1936–40, 25.72 years. The average age of bridegrooms was in 1936, 28.76 ; in 1937, 29.41 ; in 1938, 29.52 ; in 1939, 29.39 ; and in 1940, 29.08 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 1940, has already been given. The following table shows the conjugal condition of the contracting parties :—

PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED : AUSTRALIA. 1940.

Conjugal Condition of Bridegrooms.	Total Bridegrooms.	Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors	72,476	69,503	1,368	1,605
Widowers	3,356	2,048	982	326
Divorced	2,057	1,584	175	298
Total Brides ..	77,889	73,135	2,525	2,229

6. *Birthplaces of Persons Married.*—The following table shows the birthplaces of persons who were married in 1911, 1921 and 1940. In *Demography Bulletin*, No. 58, the relative birthplaces of bridegrooms and brides married in 1940 will be found tabulated in detail :—

BIRTHPLACES OF PERSONS MARRIED : AUSTRALIA.

Birthplace.	Bridegrooms.			Brides.		
	1911.	1921.	1940.	1911.	1921.	1940.
AUSTRALASIA—						
Australia	31,298	37,925	68,874	33,922	40,137	72,311
New Zealand	450	405	663	303	280	508
EUROPE—						
England and Wales ..	3,023	3,590	4,885	1,675	2,488	2,947
Scotland	739	867	1,393	460	656	880
Eire and Northern Ireland	494	470	414	363	281	202
Other British Possessions	16	30	58	9	14	36
Western Europe	205	175	115	45	45	45
Central Europe	311	149	268	92	61	190
Southern Europe	62	139	542	21	56	369
Eastern Europe	47	83	61	18	21	37
ASIA—						
British Possessions ..	59	59	115	27	24	56
Foreign Countries ..	83	57	89	16	12	51
AFRICA—						
British Possessions ..	42	58	121	20	39	66
Foreign Countries ..	1	3	8	2	5	7
AMERICA—						
Canada	44	45	92	6	11	58
Other British Possessions ..	6	8	8	..	5	2
United States of America	58	90	92	16	25	45
Other Foreign Countries ..	44	11	22	15	10	15
POLYNESIA—						
British	13	9	40	7	11	41
Foreign	25	18	15	7	13	4
AT SEA AND INDEFINITE ..	41	22	14	37	19	19
Total	37,061	44,213	77,889	37,061	44,213	77,889

7. Occupations and Ages of Bridegrooms.—For the year 1938 the average ages at marriage of bridegrooms in the larger classes of occupations were as follows:—Professional, 30.8 years; Domestic, 30.5 years; Commercial, 29.6 years; Transport, 29.8 years; Industrial, 28.9 years; and Primary Producers, 30.9 years.

8. Fertility of Marriages.—The quotient obtained by division of the nuptial births registered, e.g., during the five years 1936 to 1940, by the number of marriages registered during the five years 1931 to 1935, 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 2.44—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 quinquennia the results were:—1930–34, 2.30; 1931–35, 2.27; 1932–36, 2.35; 1933–37, 2.44; 1934–38, 2.51; 1935–39, 2.52; and 1936–40, 2.44.

9. Celebration of Marriages.—In all the States marriages may be celebrated either by ministers of religion who 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 1940 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 1940 are shown in the following table:—

MARRIAGES IN EACH DENOMINATION, 1940.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	
									No.	Per Cent.
Church of England ..	12,300	6,820	3,168	1,795	2,065	1,040	42	61	27,291	%
Roman Catholic ..	6,281	4,296	2,212	795	(a)797	333	29	30	14,773	35.04
Methodist ..	3,376	3,329	1,561	2,108	712	412	27	9	11,534	18.97
Presbyterian ..	3,573	4,196	1,847	323	436	154	(b)32	6	10,567	14.81
Baptist ..	519	826	269	256	88	86	..	..	2,044	13.57
Congregational ..	608	336	142	363	131	100	..	1	1,681	2.62
Church of Christ ..	149	546	90	264	78	28	..	..	1,155	2.16
Lutheran ..	44	100	202	284	7	..	..	..	637	1.48
Salvation Army ..	143	155	101	51	38	20	..	..	508	0.82
Seventh-Day Adventist ..	75	40	19	14	24	6	..	..	178	0.65
Greek Orthodox ..	49	11	21	4	9	..	..	..	94	0.23
Unitarian ..	4	63	..	12	..	..	..	..	79	0.12
Other Christian ..	120	114	198	36	23	34	..	..	525	0.10
Hebrew ..	93	138	10	5	20	6	1	..	273	0.67
Civil Officers ..	3,030	1,329	447	640	806	237	23	18	6,550	0.35
Total ..	30,364	22,299	10,287	6,950	5,234	2,476	154	125	77,889	100.00
Marriages celebrated by—										
Ministers of Religion per cent.	90.02	94.04	95.65	90.79	84.60	89.62	85.06	85.60	91.59	..
Civil Officers per cent.	9.98	5.96	4.35	9.21	15.40	10.38	14.94	14.40	8.41	..

(a) Including 1 Catholic, Other.

(b) Including 17 Presbyterian-Methdist.

§ 4. Deaths.

1. Number of Deaths, 1940.—The following table shows the number of deaths, male and female, registered in each State during the year :—

DEATHS, 1940.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Australia
Male ..	14,881	10,930	5,416	3,111	2,787	1,360	77	46	38,608
Female ..	11,262	9,363	3,787	2,597	1,699	1,027	9	32	29,776
Total ..	26,143	20,293	9,203	5,708	4,486	2,387	86	78	68,384

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 to 1940.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	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
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
1939 ..	26,815	20,169	9,530	5,739	4,336	2,426	88	44	69,147
1940 ..	26,143	20,293	9,203	5,708	4,486	2,387	86	78	68,384

(a) Part of New South Wales prior to 1911.

2. Crude Death-rates.—The crude death-rates at intervals from 1901 to 1940 are shown in the following table :—

CRUDE DEATH-RATES.(a)

Year and Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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
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)4.19	8.92
1934 ..	8.95	10.19	8.57	9.26	9.23	10.23	12.16	(c)3.29	9.32
1935 ..	9.28	10.03	9.16	8.83	9.25	10.25	13.72	(c)4.21	9.46
1936 ..	9.14	10.16	8.78	9.30	9.40	10.33	11.42	(c)4.27	9.43
1937 ..	9.36	10.63	9.10	8.91	8.95	9.51	11.64	(c)3.85	9.44
1938 ..	9.59	10.15	9.19	9.35	9.20	9.71	12.05	5.39	9.64
1939 ..	9.75	10.72	9.40	9.63	9.32	10.19	14.03	3.67	9.93
1940—									
Male ..	10.69	11.71	10.23	10.49	11.53	11.29	12.47	6.57	10.94
Female ..	8.16	9.73	7.73	8.67	7.61	8.68	3.92	5.54	8.55
Total ..	9.43	10.70	9.03	9.57	9.64	9.99	9.99	6.15	9.75

(a) Number of deaths per 1,000 of annual mean population. (b) Part of New South Wales prior to 1911. (c) Revised rates based on mean populations adjusted in accordance with the results of Census of 30th June, 1938. See footnote (c) to table on p. 254.

3. Standardized Death-Rates.—(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 into consideration differences in the sex and age composition of the

population. Other conditions being equal, however, the crude death-rate of a community will be low if it contains a large percentage of young people (not infants), and conversely the crude death-rate will be relatively high if the population includes a large proportion of elderly people. The foregoing table of crude death-rates, therefore, does not indicate comparative incidence of mortality either as between States in the same year or in any one State over a period of years. In order to obtain a comparison of mortality rates on a uniform basis so far as sex and age constitution are concerned, "standardized" death-rates may be computed. These are computed by selecting a particular distribution of age and sex as a standard, and then calculating what would have been the general death-rate if the death-rates in each sex and age group were as recorded, but the age and sex distribution the same as in the standard population. For the standardized rates which follow, the standard population compiled by the International Institute of Statistics has been used. This standard is based upon the age distribution according to sex of nineteen European countries at their Censuses nearest to the year 1900. Full details of the "Standard Population" are given in Official Year Book No. 22, p. 962.

(ii) *Death-rates in Age-Groups.* The following table provides a comparison of death-rates in age-groups in each State for the latest Census year (1933) in which the ages of population in each State were accurately ascertained.

DEATH-RATES(a) IN AGE-GROUPS, 1933.

Age-group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
Under 1 ..	41.03	43.52	45.64	34.04	38.25	43.28	75.27	43.48	41.72
1-4 ..	3.70	3.78	4.29	2.72	3.46	3.99	2.73	1.23	3.72
5-14 ..	1.08	1.21	1.24	0.96	1.31	1.67	..	0.55	1.16
15-24 ..	1.74	1.82	2.01	1.72	1.69	2.41	4.34	0.68	1.82
25-34 ..	2.50	2.76	3.10	2.65	2.99	3.47	4.30	0.63	2.74
35-44 ..	4.27	4.02	5.06	3.76	4.76	4.98	7.94	4.49	4.32
45-54 ..	8.43	8.10	8.69	7.27	10.03	8.11	9.71	6.19	8.36
55-64 ..	18.07	18.88	18.09	15.99	19.34	15.80	30.15	17.19	18.15
65 and over	64.78	62.85	66.87	61.18	60.49	65.43	77.47	40.91	63.85
Crude Death rate (all ages) ..	8.58	9.59	8.84	8.44	8.64	9.60	12.55	4.19	8.92

(a) Number of deaths per 1,000 of mean population at ages shown.

It will be observed that in this particular year while the crude death-rates for Victoria and Tasmania were substantially higher than in other States the rates at individual ages were lower than for Queensland and not appreciably higher than in New South Wales or Western Australia.

(iii) *Comparison of Crude and Standardized Death-rates.* The relative incidence of mortality as between individual States and as between the years 1921 and 1933 is illustrated in the following statement of crude and "standardized" death-rates. These years have been chosen for comparison because the Census data give essential information as to sexes and ages of the State population. Crude death-rates are shown to indicate the degree to which they disguise the true position.

CRUDE AND STANDARDIZED DEATH-RATES 1921 AND 1933.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Aust.
Crude Death-rate(a)—							
1921	9.50	10.52	9.37	10.02	10.42	10.30	9.91
1933	8.58	9.59	8.84	8.44	8.64	9.60	8.92
Standardized Death-rate(b)—							
1921	10.35	10.79	10.24	10.38	11.88	10.83	10.58
1933	8.52	8.74	9.10	7.66	8.74	8.86	8.62

(a) Total deaths per 1,000 of mean population.
in par. 3 (i) above.

(b) See explanation of standardized death-rates

The above comparisons relate to individual years which happened to be Census years and should not be used as the bases for general conclusions as to changes in incidence of mortality except for those years.

(iv) *Standardized Death-rates, Australia, 1933 to 1940.* It is not possible to continue the Index of Mortality formerly published. As indicated in letterpress previously published the Index of Mortality was an unsatisfactory basis for comparison. The more reliable Standardized Death-rates for 1933 and later years for Australia were as follows:—1933, 8.62; 1934, 8.92; 1935, 8.83; 1936, 8.70; 1937, 8.58; 1938, 8.59; 1939, 8.73 and 1940, 8.51.

4. *Crude Death-rates of Various Countries.*—The following table gives the crude death-rate for Australia in comparison with the rates for various other countries:—

CRUDE DEATH-RATES(a) : VARIOUS COUNTRIES.

Country.	1908-13.	1939.	Country.	1908-13.	1939.
Netherlands ..	13.9	8.7	Germany ..	16.5	12.3
New Zealand ..	9.3	9.2	Scotland ..	15.5	12.9
Western Australia ..	10.3	9.3	Finland ..	16.4	12.9(c)
Queensland ..	10.3	9.4	Belgium ..	15.7	13.0
Union of South Africa (Europeans) ..	(b)	9.4	Greece ..	(b)	13.0
South Australia ..	10.1	9.6	Italy ..	20.4	13.4
New South Wales ..	10.3	9.8	Northern Ireland ..	16.9	13.6
Australia ..	10.7	9.9	Hungary ..	(b)	13.7
Norway ..	13.6	10.1	Czechoslovakia ..	21.0	13.8
Denmark ..	13.2	10.1	Poland ..	21.0	13.8(c)
Tasmania ..	10.7	10.2	Eire ..	16.9	14.2
U.S. of America ..	(b)	10.6	Spain ..	22.8	16.4(c)
Victoria ..	11.7	10.7	France ..	18.6	16.7
Switzerland ..	15.2	10.9	Japan ..	20.5	17.4(c)
Argentine Republic ..	17.5	11.3	Rumania ..	24.7	18.6
Sweden ..	14.0	11.5	Ceylon ..	31.4	21.8
England and Wales ..	14.1	12.1	Egypt ..	25.8	26.4(c)
Great Britain and Northern Ireland ..	14.5	12.1			

(a) Number of deaths per 1,000 of mean population.

(b) Not available.

(c) For 1938.

5. *Infantile Deaths and Death-rates.*—(i) *Australia, 1901 to 1940.* 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 310,839 male infants born from 1936 to 1940, 13,394 (43.57 per 1,000) died during the first year of life, while of 295,018 female infants only 10,078 (34.34 per 1,000) died during the first year. Still-births 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
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
1939 ..	2,711	1,987	4,698	43.00	33.21	38.23
1940 ..	2,766	2,089	4,855	42.82	33.83	38.43

(a) Number of deaths under 1 year per 1,000 live births registered.

(ii) *States, 1901 to 1940.* For each State and Territory the rates of infantile mortality during the period 1901 to 1940 were as follows :—

INFANTILE MORTALITY RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Aust.
1901-05..	97.02	95.91	94.35	86.70	124.79	90.00	149.35	(b)	96.91
1906-10..	77.30	79.90	71.27	68.38	89.80	83.18	143.79	(b)	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	(c)34.48	41.27
1936-40..	41.18	37.63	36.75	33.08	39.70	41.23	44.80	21.78	38.81
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
1939 ..	41.02	35.58	35.48	34.93	40.84	40.57	57.97	23.90	38.23
1940 ..	39.02	39.45	35.32	35.54	44.18	35.24	46.24	10.49	38.43

(a) Number of deaths under 1 year per 1,000 live births registered. (b) Part of New South Wales prior to 1911. (c) Based on deaths of infants born in the Australian Capital Territory.

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.	1940.	1911-15.	1921-25.	1931-35.	1940.
New South Wales	31.75	29.97	27.64	25.58	39.30	28.14	14.28	13.44
Victoria ..	33.07	32.19	27.76	26.41	39.16	29.74	14.98	13.04
Queensland ..	30.73	27.44	28.02	25.38	34.95	23.55	11.47	9.94
South Australia ..	29.07	27.83	23.00	22.66	38.19	26.36	12.13	12.88
Western Australia	30.87	27.56	25.11	25.66	41.56	31.58	15.68	18.52
Tasmania ..	32.68	31.73	30.07	25.83	38.23	28.71	14.40	9.41
Australia ..	31.69	29.91	27.28	25.50	38.63	27.97	13.99	12.93

These tables disclose the striking decrease in infantile mortality, the rate for 1940 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 1940 numbered 4,855, the mortality rate being 38.43. Among the States, Tasmania had the lowest and Western Australia the highest rate.

(iii) *Districts.* The total number of births and of deaths of children under one year of age for 1940 are shown in *Demography Bulletin*, No. 58, 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. In 1939, the latest year for which comparable figures are available, South Australia, Queensland and Victoria had lower rates than any country other than New Zealand and the Netherlands, while Tasmania, Western Australia and New South Wales had the next lowest rates, with the exception of Sweden. The Australian cities Melbourne, Brisbane and Adelaide are among the ten cities having the lowest rates in the list shown on the next page. The list is headed by Oslo (28), Auckland (29), and Amsterdam (29), the next seven cities being San Francisco, Stockholm, Melbourne, Chicago, Copenhagen, Brisbane and Adelaide. The highest rate recorded of the cities named in the table was 238 in Madras. 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) 1939.	Country.	Infantile Mortality Rate. (a)		Crude Birth-rate, (b) 1939.
	1906-15.	1939.			1906-15.	1939.	
New Zealand ..	61	31	20.2	Denmark ..	103	58	17.8
Netherlands ..	115	34	20.7	Germany ..	168	60	20.3
South Australia ..	68	35	16.1	Canada ..	(c)	61	20.3
Queensland ..	68	35	20.1	France ..	122	67	14.9
Victoria ..	76	36	16.2	Eire ..	92	65	19.1
Australia ..	74	38	17.7	France ..	122	67	14.9
Sweden ..	74	39	15.3	Finland ..	(c)	68 (d)	21.0(d)
Tasmania ..	77	41	21.0	Scotland ..	113	69	17.4
Western Australia ..	81	41	19.4	Northern Ireland ..	92	70	19.5
New South Wales ..	74	41	17.5	Belgium ..	139	72 (d)	15.6(d)
Switzerland ..	108	43	15.2	Italy ..	144	97	23.5
U.S. of America ..	(c)	48	17.2	Japan ..	151	114 (d)	26.7(d)
Union of South Africa (Europeans) ..	(c)	50	25.3	Spain ..	156	119 (d)	17.8(d)
England and Wales ..	113	52 (d)	15.5	Portugal ..	(c)	120	26.5
Great Britain and Nthn. Ireland ..	(c)	55 (d)	15.5	Czechoslovakia ..	(c)	121 (d)	16.8(d)
				Hungary ..	(c)	125	18.9
				Egypt ..	(c)	163 (d)	43.4(d)
				Ceylon ..	(c)	166	36.0
				Rumania ..	(c)	176	28.3

(a) Number of deaths under 1 year per 1,000 births registered. (b) Number of births per 1,000 mean population. (c) Not available. (d) For year 1938.

INFANTILE MORTALITY RATES(a) : VARIOUS CITIES.

City.	Rate of Infantile Mortality. (a)		City.	Rate of Infantile Mortality. (a)	
	1921.	1939.		1921.	1939.
Oslo ..	54	28	Cape Town ..	82	49
Auckland ..	54	29	Hamburg ..	95	50(b)
Amsterdam ..	54	29	Leipzig ..	136	50(b)
San Francisco ..	50	30	Antwerp ..	98	50
Stockholm ..	61	31	Johannesburg ..	101	52
Melbourne ..	74	32	Leeds ..	98	57
Chicago ..	84	32	Berlin ..	135	58(b)
Copenhagen ..	67	34	Breslau ..	170	58(b)
Brisbane ..	62	34	Birmingham ..	82	59
Adelaide ..	74	35	Paris ..	95	61
Sydney ..	62	35	Manchester ..	94	61
Wellington ..	61	36	Munich ..	126	64(b)
New York City ..	72	37	Cologne ..	140	66(b)
Perth ..	81	38	Montreal ..	158	70
Detroit ..	83	40	Liverpool ..	105	71
Christchurch ..	54	42	Rome ..	..	79(b)
Philadelphia ..	78	42	Edinburgh ..	96	81
Toronto ..	91	43	Belfast ..	115	85
Geneva ..	..	43	Glasgow ..	106	86
Los Angeles ..	68	45	Dublin ..	123	90
Hobart ..	75	47	Aberdeen ..	108	95
Sheffield ..	99	47	Lisbon ..	..	133
London ..	80	47	Cairo ..	..	191
Dresden ..	115	48 (b)	Bombay ..	402	213
Washington ..	83	48	Madras ..	281	238

(a) Number of deaths under 1 year per 1,000 births registered. (b) For year 1938.

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR: AUSTRALIA, 1940.

Age at Death.	Measles.	Whooping Cough.	Diphtheria.	Erysipelas.	Meningococcal Meningitis.	Respiratory Tuberculosis.	Tubercular Meningitis.	Tuberculosis, other forms.	Syphilis.	Meningitis.	Convulsions.	Acute Bronchitis.
Under 1 week ..	..	..	..	..	..	..	..	..	1	..	10	2
1 week and under 2 weeks ..	..	..	..	..	..	..	..	..	1	..	1	..
2 weeks ..	..	..	..	..	..	..	..	..	1	..	1	..
3 ..	..	..	..	..	..	..	..	..	..	..	1	..
1 month ..	..	..	..	..	..	..	..	..	..	..	1	..
2 months ..	..	..	..	..	..	..	..	..	..	..	1	..
3 months ..	..	..	..	..	..	..	..	..	..	..	1	..
4 ..	..	..	..	..	..	..	..	..	..	..	1	..
5 ..	..	..	..	..	..	..	..	..	..	..	1	..
6 ..	..	..	..	..	..	..	..	..	..	..	1	..
7 ..	..	..	..	..	..	..	..	..	..	..	1	..
8 ..	..	..	..	..	..	..	..	..	..	..	1	..
9 ..	..	..	..	..	..	..	..	..	..	..	1	..
10 ..	..	..	..	..	..	..	..	..	..	..	1	..
11 ..	..	..	..	..	..	..	..	..	..	..	1	..
Total under 1 year ..	10	176	9	6	4	6	7	2	14	55	33	9
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	0.30	0.32
1940 ..	0.08	1.39	0.07	0.05	0.03	0.05	0.06	0.02	0.11	0.44	0.26	0.07
Ex-nuptial deaths under 1 year included in above, 1940	2	9	..	2	..	..	..	1	2	1	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
1940 ..	0.42	1.88	..	0.42	..	..	..	0.21	0.42	0.21	0.42	0.21

Age at Death.	Broncho-Pneumonia.	Pneumonia.	Other Diseases of the Stomach.	Diarrhoea and Enteritis.	Hernia and Intestinal Obstruction.	Malformation.	Congenital Debility (c).	Premature Birth.	Injury at Birth.	Icterus, Sclerema and other Diseases of Early Infancy.	Other Causes.	Total.
Under 1 week ..	22	15	..	4	2	279	92	1,314	469	387	40	2,646
1 week and under 2 weeks	12	11	..	5	2	49	19	104	29	38	19	293
2 weeks ..	18	10	..	17	3	27	8	36	11	8	16	156
3 ..	21	10	..	17	2	20	6	23	4	8	12	127
1 month ..	40	17	..	32	2	52	17	19	8	8	42	280
2 months ..	35	18	2	20	5	37	10	9	1	3	32	218
3 ..	27	14	1	23	3	26	4	8	2	5	34	176
4 ..	19	10	..	30	5	25	1	1	..	..	24	134
5 ..	20	16	..	28	6	14	6	..	2	..	27	141
6 ..	29	17	..	23	3	12	3	1	..	..	21	130
7 ..	28	14	..	23	3	8	2	1	..	..	23	134
8 ..	19	18	2	19	7	7	..	..	..	..	24	125
9 ..	23	12	..	29	2	6	2	1	..	1	14	111
10 ..	18	13	..	14	..	9	..	..	..	..	17	89
11 ..	15	6	..	18	1	10	4	..	..	..	23	95
Total under 1 year ..	346	201	5	302	46	581	174	1,517	526	458	368	4,855
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	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	
1940 ..	2.74	1.59	0.04	2.39	0.36	4.60	1.38	12.01	4.10	3.62	38.43	
Ex-nuptial deaths under 1 year included in above, 1940	22	12	..	32	2	24	15	106	21	13	26	293
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
1940 ..	4.61	2.51	..	6.70	0.42	5.03	3.14	22.20	4.40	2.72	5.44	61.36

(a) Rate per 1,000 total births.
and Sclerema prior to 1931.

(b) Rate per 1,000 ex-nuptial births.

(c) Including Icterus

7. Deaths at Single Ages and in Age-Groups.—(i) *General.* The 68,384 deaths registered in Australia in 1940 will be found tabulated in groups of five years for each State and Territory and in single ages for Australia 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, 1940.

Ages.	Males.	Females.	Total.	Ages.	Males.	Females.	Total.
Under 1 week ..	1,476	1,170	2,646	Total 5-9 years ..	368	295	663
1 week and under 2 ..	160	133	293	" 10-14 ..	337	219	556
2 weeks and under 3 ..	98	58	156	" 15-19 ..	594	332	926
3 weeks and under 1 month ..	89	38	127	" 20-24 ..	716	510	1,226
Total under 1 month ..	1,823	1,399	3,222	" 25-29 ..	699	581	1,280
1 month and under 3 ..	298	200	498	" 30-34 ..	703	616	1,319
3 months and under 6 ..	263	188	451	" 35-39 ..	882	651	1,533
6 months and under 12 ..	382	302	684	" 40-44 ..	1,207	884	2,091
Total under 1 year ..	2,766	2,089	4,855	" 45-49 ..	1,728	1,242	2,970
1 year and under 2 ..	371	298	669	" 50-54 ..	2,442	1,633	4,075
2 years ..	181	146	327	" 55-59 ..	3,067	1,831	4,898
3 ..	123	97	220	" 60-64 ..	3,615	2,309	5,924
4 ..	104	73	177	" 65-69 ..	4,090	2,894	6,984
Total under 5 years ..	3,545	2,703	6,248	" 70-74 ..	4,642	3,666	8,248
				" 75-79 ..	4,690	4,010	8,700
				" 80-84 ..	3,364	3,162	6,526
				" 85-89 ..	1,390	1,563	2,953
				" 90-94 ..	406	587	993
				" 95-99 ..	99	132	231
				" 100 and over ..	18	15	33
				Age Unspecified ..	6	1	7
				Total All Ages ..	38,608	29,776	68,384

(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 are given in Official Year Book, No. 22, p. 975.

AVERAGE ANNUAL DEATH-RATES : AGE-GROUPS, 1932 TO 1934.

Age-group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	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 ..	1.69	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	264.95	204.45	230.75
90 and over ..	313.38	348.76	314.86	303.07	380.77	401.97	327.55

AVERAGE ANNUAL DEATH-RATES: AGE-GROUPS, 1932 TO 1934—*continued*.

Age-group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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	3.63	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.—In previous years, up to and including Year Book No. 33, particulars are given concerning persons aged 100 years and upwards who died each year. However, while the Registrars-General of the various States verify the ages 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, and it is considered advisable to discontinue publication of this table. 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.

9. Length of Residence in Australia of Persons who Died.—The length of residence in Australia of all persons whose deaths were registered in 1940 is shown in the following table:—

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1940.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in Australia ..	28,139	23,178	51,317	Resident 25 to 29 years	1,090	712	1,802
Resident under 1 year	54	25	79	" 30 to 34 ..	796	371	1,167
" 1 year ..	31	28	59	" 35 to 39 ..	320	159	479
" 2 years ..	26	16	42	" 40 to 44 ..	538	232	770
" 3 ..	21	20	41	" 45 to 49 ..	393	213	606
" 4 ..	13	12	25	" 50 to 54 ..	1,321	793	2,114
" 5 ..	16	14	30	" 55 to 59 ..	1,100	761	1,861
" 6 ..	25	5	30	" 60 to 64 ..	871	644	1,515
" 7 ..	11	9	20	" 65 yrs. and over	1,112	1,275	2,387
" 8 ..	18	9	27	Length of residence not stated ..	1,491	472	1,963
" 9 ..	11	5	16				
" 10 to 14 years	386	247	633				
" 15 to 19 ..	530	301	831				
" 20 to 24 ..	295	275	570	Total ..	18,608	29,776	68,384

10. Birthplaces of Persons who Died.—The following table gives a summary of birthplaces of persons whose deaths were registered in 1911 to 1940. More detailed information in respect of 1940 will be found in *Demography Bulletin*, No. 58:—

BIRTHPLACES OF PERSONS WHO DIED : AUSTRALIA.

Birthplace.	1911.			1940.		
	Males.	Females.	Total.	Males.	Females.	Total.
AUSTRALASIA—						
Australia ..	14,476	12,279	26,755	28,139	23,188	51,327
New Zealand ..	126	79	205	365	258	623
EUROPE—						
England and Wales ..	5,639	3,541	9,180	5,089	3,427	8,516
Scotland ..	1,666	1,112	2,778	1,337	891	2,228
Eire and Northern Ireland ..	2,837	2,528	5,365	1,317	1,203	2,520
Other British Possessions ..	40	26	66	44	33	77
Western Europe ..	365	62	427	335	76	411
Central Europe ..	678	292	970	444	228	672
Southern Europe ..	122	15	137	268	86	354
Eastern Europe ..	71	6	77	83	18	101
ASIA—						
British Possessions ..	102	28	130	118	35	153
Foreign Countries ..	470	8	478	284	20	304
AFRICA—						
British Possessions ..	29	18	47	45	36	81
Foreign Countries ..	2	1	3	10	1	11
AMERICA—						
Canada ..	73	15	88	65	12	77
Other British Possessions ..	5	6	11	13	6	19
United States of America ..	72	18	90	76	53	129
Other Foreign Countries ..	35	12	47	5	6	11
POLYNESIA—						
British ..	47	4	51	16	6	22
Foreign ..	44	10	54	22	6	28
AT SEA AND INDEFINITE ..	692	218	910	533	187	720
Total ..	27,591	20,278	47,869	38,608	29,776	68,384

11. Occupations of Males who Died.—Information as to the main groups of the occupations of the 38,608 males who died in Australia in 1940 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.	1940.	1921.	1931.	1940.
				%	%	%
Professional	1,307	1,534	(a)3,630	4.26	4.82	(a)9.40
Domestic	830	846	943	2.71	2.66	2.44
Commercial	2,739	3,727	3,486	8.94	11.72	9.03
Transport and Communica- tion	1,841	2,189	2,704	6.01	6.89	7.00
Industrial	8,613	10,330	6,935	28.10	32.49	17.96
Agricultural, Pastoral and Mining, &c.	5,711	6,157	7,651	18.63	19.36	19.82
Indefinite	1,436	1,802	(b)7,130	4.68	5.67	(b)18.47
Dependent	8,175	5,211	6,129	26.67	16.39	15.88
Total Male Deaths ..	30,652	31,796	38,608	100.00	100.00	100.00

(a) 1,821 (4.72 per cent.) clerks, etc., not specified as belonging to any industry, formerly included under "Commercial" are included under "Professional". (b) 5,962 (15.44 per cent.) labourers, not specified as belonging to any industry formerly included under "Industrial" are included under "Indefinite".

12. Causes of Death.—(i) *General*. The classification adopted by this Bureau is that of the International Institute of Statistics, as amended by the Committees of Revision which met in Paris in 1909, 1920, 1929 and 1938.

(ii) *Mortality Statistics for 1907 and Subsequent Years*. The statistics relating to causes of death in Australia from 1907 onward have been tabulated in this Bureau in accordance with the above-mentioned classification, and the system is being employed also in the State statistical offices. Particulars for the year 1940 have been tabulated on the 1938 revision of the International List.

(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 given in past issues of the Official 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 87 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 1940 in Australia for each cause enumerated. To preserve continuity with former statistics, particulars for 1940 have been compiled in the abridged form also and are shown on p. 345 in conjunction with those for the previous four years, and averages over quinquennial periods to 1936-40 are shown in the same form on p. 346.

The compilations for the years 1936 to 1940 will be found in full detail in *Demography Bulletins*, Nos. 54 to 58. 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 1940. Table D shows in the abridged form, on the basis of the 1938 revision of the International List, the number of persons who died in each of the years 1936 to 1940 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, three quinquennial periods have been shown in table E giving the number of deaths and the rates per million persons. 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, 1940.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
1. Typhoid and Paratyphoid										
Fevers (1)	1, 2	5	..	7	2	2	..	..	..	16
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	7	7	7	1	..	1	1	..	..	17
4. Whooping Cough (4)	9	44	68	11	11	4	..	1	..	139
5. Diphtheria (5)	10	34	12	12	10	10	11	..	..	89
6. Tuberculosis of the Respiratory System (6)	13	579	437	166	102	129	54	1	1	1,469
7a. Tubercular Meningitis (7a)	14 (a)	8	11	2	6	4	6	..	..	37
7b. Other forms of Tuberculosis (7b)	14 (b)—22	28	24	10	12	6	5	..	..	85
8. Septicæmia, Purulent Infection (Non-puerperal) (14)	24	21	6	7	3	6	3	1	..	47
9. Dysentery (14)	27	10	4	3	..	2	..	..	..	19
10. Malaria (8)	28	3	..	2	..	..	..	..	..	5
11. Syphilis (9)	30	148	114	61	31	38	11	3	..	406
12a. Influenza—Pneumonic (10a)	33 (a)	51	27	41	3	18	3	..	..	143
12b. Influenza—Other (10b)	33 (b)	29	14	13	1	6	3	..	..	66
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	8	7	10	18	20	5	1	..	69
15. Typhus Fever (13)	39	..	..	5	..	1	..	..	..	6
16. Diseases caused by Helminths (14)	40—42	11	9	4	5	3	1	..	1	34
17. Other Infectious or Parasitic Diseases (14)	*	85	44	36	19	26	6	2	..	218
18. Cancer of the Buccal Cavity and Pharynx (15)	45	95	78	65	24	20	11	..	..	293
19. Cancer of the Digestive Organs and Peritoneum (15)	46	897	717	327	220	180	67	3	3	2,414
20. Cancer of the Respiratory System (15)	47	139	86	40	31	34	7	1	..	338
22. Cancer of the Breast (15)	50	1	6	..	1	..	..	..	..	8
23. Cancer of Other or Unspecified Organs (15)	49, 51—55	435	335	142	93	82	44	..	1	1,132
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	77	47	39	15	10	5	..	1	194
25. Acute Rheumatic Fever (20)	58	39	43	28	10	8	2	..	..	130
26. Chronic Rheumatism and Gout (17)	59, 60	23	20	9	9	5	3	..	..	69
27. Diabetes Mellitus (18)	61	182	151	49	54	20	15	..	..	471
28. Diseases of the Thyroid and Parathyroid Glands (20)	63	18	13	7	4	1	1	..	..	44
29. Other General Diseases (20)	62, 64—66	22	21	8	3	7	2	..	..	63
30. Avitaminoses (20)	67—71	..	..	1	..	2	..	1	..	4
31. Anæmias (20)	73	46	26	7	8	10	4	..	..	101
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74—76	69	45	26	15	13	5	1	..	174
33. Alcoholism (acute or chronic) (19)	77	25	13	20	5	3	1	2	..	69
34. Other Chronic Poisonings (20)	78, 79	1	2	5	2	..	..	..	..	10
35. Meningitis (Non-meningococcal) (21)	81	47	31	17	8	10	8	1	..	122
36. Diseases of the Spinal Cord (21)	82	44	30	19	12	7	3	..	..	115
37. Intra-cranial Lesions of Vascular Origin (22)	83	1,094	697	307	241	175	84	1	1	2,600
38. Mental Diseases and Deficiency (23)	84	12	6	12	8	2	1	..	..	41
39. Epilepsy (23)	85	40	23	23	10	1	5	..	..	102
40. Other Diseases of the Nervous System (23)	80, 86, 87	107	71	35	18	24	8	..	..	263
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	19	19	5	7	3	1	..	..	54
42. Pericarditis (24)	90	5	3	3	1	..	2	..	..	14
43. Chronic Affections of the Valves and Endocardium (24)	92	339	259	127	81	62	38	..	1	907
44. Diseases of the Myocardium (24)	93	2,497	1,560	764	380	284	198	8	1	5,692
45. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	1,345	820	366	226	191	94	4	2	3,048
46. Other Diseases of the Heart (24)	91, 95	214	171	89	40	28	19	..	..	561

* No. 17:—4-7, 11, 12, 23, 25, 26, 29, 31, 32, 36-38, 43, 44.

A.—CAUSES OF DEATH: MALES, 1940—*continued.*

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S.Aus.	W. Aus.	Tas.	Nor. Ter.	A. C. T.	Australia.
47. Arteriosclerosis and Gangrene (25)	97, 98	273	342	59	46	65	54	..	1	840
48. Other Diseases of the Circulatory System (25)	96, 99-103	66	53	34	9	18	16	1	..	197
49a. Acute Bronchitis (26a)	106 (a) (c)	31	25	15	12	8	8	..	..	99
49b. Chronic Bronchitis (26b)	106 (b) (d)	89	110	37	30	23	14	..	..	303
50. Pneumonia and Bronchopneumonia (27)	107-109	784	814	265	199	189	89	3	1	2,344
51. Pleurisy (28)	110	37	51	21	16	13	3	1	..	142
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111-114	120	145	88	67	68	16	..	..	504
53. Ulcer of the Stomach and Duodenum (32b)	117	195	156	63	33	18	17	1	..	483
54. Diarrhoea and Enteritis (under 2 years of age) (29a)	119	99	43	33	14	38	2	..	..	229
55. Diarrhoea and Enteritis (2 years and over) (29b)	120	69	28	31	9	15	5	..	..	157
56. Appendicitis (30)	121	134	70	54	21	18	8	1	1	307
57. Hernia, Intestinal Obstruction (32a)	122	126	81	57	31	29	12	..	..	336
58. Cirrhosis of the Liver (31a)	124	68	66	26	15	6	4	1	..	186
59. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31b)	125-127	63	44	34	13	17	7	..	1	179
60. Other Diseases of the Digestive System (32b)	..	69	53	28	25	23	5	1	1	205
61. Nephritis (33)	130-132	778	675	336	135	106	66	7	2	2,105
62. Other Diseases of the Kidneys and Ureters (34)	133	49	38	25	11	13	4	..	..	140
63. Calculi of the Urinary Passages (34)	134	29	17	21	6	3	1	1	..	78
64. Diseases of the Urinary Bladder (34)	135	11	9	5	5	5	1	..	..	36
65. Diseases of the Urethra, Urinary Abscess, etc. (34)	136	13	12	2	2	4	1	..	..	34
66. Diseases of the Prostate (34)	137	211	198	105	56	41	31	..	..	642
67. Diseases of the Genital Organs, not specified as Venereal (34)	138, 139	1	2	2	..	1	..	..	..	6
73. Diseases of the Skin and Cellular Tissue (37)	151-153	29	14	22	8	6	3	..	..	82
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37)	154-156	33	26	10	5	7	3	..	..	84
75. Congenital Malformations (Stillbirths not included) (38)	157	149	103	61	26	29	16	..	..	384
76. Congenital Debility (38)	158	43	20	6	6	17	8	..	..	100
77. Premature Birth (38)	159	309	235	134	60	54	38	4	..	834
78. Injury at Birth (38)	160	125	71	57	23	32	15	1	1	325
79. Other Diseases Peculiar to the First Year of Life (38)	161	103	65	35	20	21	11	..	..	255
80. Senility (39)	162	459	368	176	134	114	39	4	..	1,294
81. Suicide (40)	163, 164	226	109	108	47	59	11	5	3	568
82. Homicide (41)	165-168	29	10	10	3	9	4	..	..	65
83. Automobile Accidents (42)	170	402	371	135	95	108	49	2	8	1,170
84. Other Violent or Accidental Deaths (43)	169, 171-195	687	385	375	134	150	61	8	12	1,812
85. Deaths due to Operations of War (43)	196, 197	..	..	..	..	..	..	..	..	..
86. Legal Executions (43)	198	..	..	..	..	..	..	..	..	..
87. Ill-defined or Unspecified (44)	199, 200	69	44	15	46	2	1	5	3	185
Total Males	..	14,881	10,930	5,416	3,111	2,787	1,360	77	46	38,608

* No. 58.—115, 116, 118, 123, 128, 129.

B.—CAUSES OF DEATH : FEMALES, 1940.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
1. Typhoid and Paratyphoid										
Fevers (1)	1, 2	4	3	1	3	1	..	..	..	12
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	8	8	8	..	1	..	..	..	..	17
4. Whooping Cough (4)	9	53	52	10	6	5	..	..	..	126
5. Diphtheria (5)	10	40	14	12	11	12	7	..	..	96
6. Tuberculosis of the Respiratory System (6)	13	314	290	97	86	52	31	..	..	870
7a. Tubercular Meningitis (7a)	14(a)	14	17	..	5	1	5	..	..	42
7b. Other Forms of Tuberculosis (7b)	14b-22	16	33	5	9	4	2	..	1	70
8. Septicæmia, Purulent Infection (Non-puerperal) (14)	24	10	10	6	..	2	1	..	..	29
9. Dysentery (14)	27	19	2	5	..	4	..	..	..	30
10. Malaria (8)	28	..	1	1	..	..	..	..	..	2
11. Syphilis (9)	30	31	32	30	11	6	6	..	..	116
12a. Influenza—Pneumonic (8a)	33(a)	31	23	25	3	11	2	..	..	95
12b. Influenza—Other (8b)	33(b)	20	16	8	2	2	2	..	..	50
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	14	7	11	12	9	4	..	..	57
15. Typhus Fever (13)	39	..	..	1	..	..	..	..	..	1
16. Diseases caused by Helminths (14)	40-42	9	8	3	1	..	2	..	..	23
17. Other Infectious or Parasitic Diseases (14)	*	41	33	28	9	12	7	..	..	130
18. Cancer of the Buccal Cavity and Pharynx (15)	45	15	21	7	3	1	2	..	..	49
19. Cancer of the Digestive Organs and Peritoneum (15)	46	703	579	224	171	96	51	1	3	1,828
20. Cancer of the Respiratory System (15)	47	42	28	5	9	10	5	..	..	99
21. Cancer of the Uterus (15)	48	200	183	72	46	37	22	..	..	560
22. Cancer of the Breast (15)	50	270	269	90	82	38	32	..	..	781
23. Cancer of Other or Unspecified Organs (15)	49, 51-55	285	226	80	70	30	20	..	1	712
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	107	70	35	20	13	13	..	1	259
25. Acute Rheumatic Fever (20)	58	29	43	8	3	7	6	..	1	97
26. Chronic Rheumatism and Gout (17)	59, 60	39	42	12	12	8	3	..	..	116
27. Diabetes Mellitus (18)	61	335	231	104	73	28	31	..	1	803
28. Diseases of the Thyroid and Parathyroid Glands (20)	63	88	38	29	9	12	8	1	..	185
29. Other General Diseases (20)	62, 64-66	28	15	6	2	4	2	..	..	57
30. Avitaminoses (20)	67-71	3	..	..	..	..	..	..	..	3
31. Anæmias (20)	73	41	40	19	12	8	4	..	..	124
32. Leucæmia, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74-76	51	32	31	15	15	3	..	..	147
33. Alcoholism (acute or chronic) (19)	77	10	2	1	..	4	..	..	..	17
34. Other Chronic Poisonings (20)	78, 79	..	..	5	..	..	..	..	..	5
35. Meningitis (Non-meningococcal) (21)	81	32	21	7	6	9	3	..	1	79
36. Diseases of the Spinal Cord (21)	82	26	15	9	3	3	3	..	..	59
37. Intra-cranial Lesions of Vascular Origin (22)	83	1,210	1,026	331	338	160	118	1	1	3,185
38. Mental Diseases and Deficiency (23)	84	25	12	11	7	5	3	..	..	63
39. Epilepsy (23)	85	24	6	7	5	..	3	..	..	45
40. Other Diseases of the Nervous System (23)	80, 86, 87	72	47	40	14	9	9	..	..	191
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	14	9	2	4	2	..	..	1	32
42. Pericarditis (24)	90	2	5	1	..	..	..	..	..	8
43. Chronic Affections of the Valves and Endocardium (24)	92	267	243	91	70	46	32	..	1	750
44. Diseases of the Myocardium (24)	93	1,965	1,488	510	353	187	131	..	1	4,635
45. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	597	374	158	121	72	40	..	..	1,362
46. Other Diseases of the Heart (24)	91, 95	155	167	61	49	28	18	..	..	478
47. Arteriosclerosis and Gangrene (25)	97, 98	201	309	50	56	45	27	..	1	689
48. Other Diseases of the Circulatory System (25)	96, 99-103	57	62	25	13	26	3	1	..	187

* No. 17 :—4-7, 11, 12, 23, 25, 26, 29, 31, 32, 36-38, 43, 44.

B.—CAUSES OF DEATH: FEMALES, 1940—*continued*.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	A. C. T.	Aus-tralia.
49a. Acute Bronchitis (26a) ..	106 (a) (c)	40	21	12	10	3	4	..	..	90
49b. Chronic Bronchitis (26b) ..	106 (b) (d)	62	86	25	27	10	11	..	..	221
50. Pneumonia and Bronchopneumonia (27) ..	..	..	..	..	..	..	..	..	..	..
51. Pleurisy (28) ..	107-109	592	554	189	114	120	68	..	7	1,644
52. Other Diseases of the Respiratory System (except Tuberculosis) (28) ..	110	13	15	12	8	..	3	..	..	51
53. Ulcer of the Stomach and Duodenum (32b) ..	104, 105, 111-114	98	108	52	42	33	16	..	..	349
54. Diarrhoea and Enteritis (under 2 years of age) (29a) ..	117	41	42	11	7	10	5	..	..	116
55. Diarrhoea and Enteritis (2 years and over) (29b) ..	119	89	28	21	7	20	3	..	..	168
56. Appendicitis (30) ..	120	63	40	27	6	11	4	..	..	151
57. Hernia, Intestinal Obstruction (32a) ..	121	56	45	21	8	7	5	..	1	143
58. Cirrhosis of the Liver (31a) ..	122	69	98	31	18	20	10	..	1	247
59. Other Diseases of the Liver and Biliary Passages including Biliary Calculi (31b) ..	124	44	44	16	7	2	2	..	..	115
60. Other Diseases of the Digestive System (32b) ..	125-127	96	102	41	31	17	14	..	..	301
61. Nephritis (33) ..	*	59	48	25	18	12	4	..	..	166
62. Other Diseases of the Kidneys and Ureters (34) ..	130-132	610	636	285	101	64	59	..	5	1,760
63. Calculi of the Urinary Passages (34) ..	133	42	44	16	14	5	3	..	..	124
64. Diseases of the Urinary Bladder (34) ..	134	13	6	9	3	3	..	..	..	34
65. Diseases of the Urethra, Urinary Abscess, &c. (34) ..	135	6	7	2	4	3	1	..	..	23
67. Diseases of the Genital Organs not specified as Venereal or connected with Pregnancy &c. (34) ..	136	1	..	..	..	..	..	..	..	1
68. Diseases and Accidents of Pregnancy (36) ..	138, 139	38	41	8	7	6	3	..	..	103
69. Abortion, without mention of Infection (36) ..	142-145	29	21	18	9	12	5	..	..	94
70. Abortion, with mention of Infection (35a) ..	141	5	9	8	5	..	1	..	..	28
71. Infection during Childbirth and the Puerperium (35b) ..	140	59	49	15	7	6	6	..	..	142
72. Other Accidents and Diseases of Childbirth and the Puerperium (36) ..	147	42	19	24	5	2	3	..	..	95
73. Diseases of the Skin and Cellular Tissue (37) ..	146, 148-150	74	31	31	8	4	7	..	1	156
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37) ..	151-153	37	19	7	4	8	2	1	..	78
75. Congenital Malformations (Stillbirths not included) (38) ..	154-156	17	14	8	5	6	..	..	..	50
76. Congenital Debility (38) ..	157	126	61	50	32	30	10	..	..	309
77. Premature Birth (38) ..	158	31	14	9	4	13	3	..	..	74
78. Injury at Birth (38) ..	159	289	177	121	40	40	16	..	..	683
79. Other Diseases peculiar to the First Year of Life (38) ..	160	95	38	35	13	11	8	1	..	201
80. Senility (39) ..	161	58	59	31	22	19	14	..	..	203
81. Suicide (40) ..	162	404	430	126	162	86	38	..	1	1,247
82. Homicide (41) ..	163, 164	83	35	28	14	14	1	..	..	175
83. Automobile Accidents (42) ..	165-168	19	2	7	1	5	..	..	..	34
84. Other Violent or Accidental Deaths (43) ..	170	91	101	33	20	29	9	2	2	287
85. Deaths due to Operations of War (43) ..	169, 171-195	243	150	153	72	44	27	..	..	689
86. Legal Executions (43) ..	196, 197	..	..	..	..	..	..	..	..	..
87. Ill-defined or Unspecified (44) ..	198	..	..	..	..	..	..	..	..	..
Total Females ..	199, 200	11	17	6	17	..	1	1	..	53
	..	11,262	9,363	3,787	2,597	1,699	1,027	9	32	29,776

* No. 58:—115, 116, 118, 123, 128, 129.

C.—CAUSES OF DEATH : PERSONS, 1940.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
1. Typhoid and Paratyphoid Fevers (1)...	1, 2	9	3	8	5	3	..	..	..	28
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	8	15	15	1	1	1	1	..	..	34
4. Whooping Cough (4)	9	97	120	21	17	9	..	1	..	265
5. Diphtheria (5)	10	74	26	24	21	22	18	..	1	185
6. Tuberculosis of the Respiratory System (6)	13	893	727	263	188	181	85	1	..	2,339
7a. Tubercular Meningitis (7a)	14 (a)	22	28	2	11	5	11	..	..	79
7b. Other Forms of Tuberculosis (7b)	14(b)-22	44	57	15	21	10	7	..	1	155
8. Septicæmia Purulent Infection (Non-puerperal) (14)	24	31	16	13	3	8	4	1	..	76
9. Dysentery (14)	27	29	6	8	..	6	..	..	..	49
10. Malaria (8)	28	3	1	3	..	..	..	..	..	7
11. Syphilis (9)	30	179	146	91	42	44	17	3	..	522
12a. Influenza (Pneumonic) (8a)	33 (a)	82	50	66	6	29	5	..	..	238
12b. Influenza (Other) (8b)	33 (b)	49	30	21	3	8	5	..	..	116
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	22	14	21	30	29	9	1	..	126
15. Typhus Fever (13)	39	..	..	6	..	1	..	..	..	7
16. Diseases caused by Helminths (14)	40-42	20	17	7	6	3	3	..	1	57
17. Other Infectious or Parasitic Diseases (14)	*	126	77	64	28	38	13	2	..	348
18. Cancer of the Buccal Cavity and Pharynx (15)	45	110	99	72	27	21	13	..	..	342
19. Cancer of the Digestive Organs and Peritoneum (15)	46	1,600	1,296	551	391	276	118	4	6	4,242
20. Cancer of the Respiratory System (15)	47	181	114	45	40	44	12	1	..	437
21. Cancer of the Uterus (15)	48	200	183	72	46	37	22	..	..	560
22. Cancer of the Breast (15)	50	271	275	90	83	38	32	..	..	789
23. Cancer of other or unspecified Organs (15)	49, 51-55	720	561	222	163	112	64	..	2	1,844
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	184	117	74	35	23	18	..	2	453
25. Acute Rheumatic Fever (20)	58	68	86	36	13	15	8	..	1	227
26. Chronic Rheumatism and Gout (17)	59, 60	62	62	21	21	13	6	..	..	185
27. Diabetes Mellitus (18)	61	517	382	153	127	48	46	..	1	1,274
28. Diseases of the Thyroid and Parathyroid Glands (20)	63	106	51	36	13	13	9	1	..	229
29. Other General Diseases (20)	62, 64-66	50	36	14	5	11	4	..	..	120
30. Avitaminoses (20)	67-71	3	..	1	..	2	..	1	..	7
31. Anæmias (20)	73	87	66	26	20	18	8	..	..	225
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74-76	120	77	57	30	28	8	1	..	321
33. Alcoholism (acute or chronic) (19)	77	35	15	21	5	7	1	2	..	86
34. Other Chronic Poisonings (20)	78, 79	1	2	10	2	..	..	..	..	15
35. Meningitis (Non-meningococcal) (21)	81	79	52	24	14	19	11	1	1	201
36. Diseases of the Spinal Cord (21)	82	70	45	28	15	10	6	..	..	174
37. Intra-cranial Lesions of Vascular Origin (22)	83	2,304	1,723	638	579	335	202	2	2	5,785
38. Mental Diseases and Deficiency (23)	84	37	18	23	15	7	4	..	..	104
39. Epilepsy (23)	85	64	29	30	15	1	8	..	..	147
40. Other Diseases of the Nervous System (23)	80, 86, 87	179	118	75	32	33	17	..	..	454
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	33	28	7	11	5	1	..	1	86
42. Pericarditis (24)	90	7	8	4	1	..	2	..	..	22
43. Chronic Affections of the Valves and Endocardium (24)	92	606	502	218	151	108	70	..	2	1,657
44. Diseases of the Myocardium (24)	93	4,462	3,048	1,274	733	471	329	8	2	10,327
45. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	1,942	1,194	524	347	263	134	4	2	4,410
46. Other Diseases of the Heart (24)	91, 95	369	338	150	89	56	37	..	..	1,039
47. Arteriosclerosis and Gangrene (25)	97, 98	474	651	109	102	110	81	..	2	1,529
48. Other Diseases of the Circulatory System (25)	96, 99-103	123	115	59	22	44	19	2	..	384
49a. Acute Bronchitis (26a)	106 (a) (r)	71	46	27	22	11	12	..	..	189

* No. 17:—4-7, 11, 12, 23, 25, 26, 29, 31, 32, 36-38, 43, 44.

C.—CAUSES OF DEATH: PERSONS, 1940—*continued*.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
49b. Chronic Bronchitis (26b) ..	106 (b) (d)	151	196	62	57	33	25	..	..	524
50. Pneumonia and Broncho-Pneumonia (27) ..	107-109	1,376	1,368	454	313	309	157	3	8	3,988
51. Pleurisy (28) ..	110	50	66	33	24	13	6	1	..	193
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111, 114	218	253	140	109	101	32	..	..	853
53. Ulcer of the Stomach and Duodenum (32b) ..	117	236	198	74	40	28	22	1	..	599
54. Diarrhoea and Enteritis (under 2 years of age) (29a) ..	119	188	71	54	21	58	5	..	..	397
55. Diarrhoea and Enteritis (2 years and over) (29b) ..	120	132	68	58	15	26	9	..	..	308
56. Appendicitis (30) ..	121	190	115	75	29	25	13	1	2	450
57. Hernia, Intestinal Obstruction (32a) ..	122	195	179	88	49	49	22	..	1	583
58. Cirrhosis of the Liver (31a) ..	124	112	110	42	22	8	6	1	..	301
59. Other Diseases of the Liver and Biliary Passages including Biliary Calculi (31b) ..	125, 127	159	146	75	44	34	21	..	1	480
60. Other Diseases of the Digestive System (32b) ..	..	128	101	53	43	35	9	1	1	371
61. Nephritis (33) ..	130-132	1,388	1,311	621	236	170	125	7	7	3,865
62. Other Diseases of the Kidneys and Ureters (34) ..	133	91	82	41	25	18	7	..	..	264
63. Calculi of the Urinary Passages (34) ..	134	42	23	30	9	6	1	1	..	112
64. Diseases of the Urinary Bladder (34) ..	135	17	16	7	9	8	2	..	..	59
65. Diseases of the Urethra, Urinary Abscess, etc. (34) ..	136	14	12	2	2	4	1	..	..	35
66. Diseases of the Prostate (34) ..	137	211	198	105	56	41	31	..	..	642
67. Diseases of the Genital Organs not specified as Venereal or connected with Pregnancy etc. (34)	138, 139	39	43	10	7	7	3	..	..	109
68. Diseases and Accidents of Pregnancy (36) ..	142-145	29	21	18	9	12	5	..	..	94
69. Abortion, without mention of Infection (36) ..	141	5	9	8	5	..	1	..	..	28
70. Abortion, with mention of Infection (35a) ..	140	59	49	15	7	6	6	..	..	142
71. Infection during Childbirth and the Puerperium (35) ..	147	42	19	24	5	2	3	..	..	95
72. Other Accidents and Diseases of Childbirth and the Puerperium (36) ..	146, 148-150	74	31	31	8	4	7	..	1	156
73. Diseases of the Skin and Cellular Tissue (37) ..	151-153	66	33	29	12	14	5	1	..	160
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37) ..	154-156	50	40	18	10	13	3	..	..	134
75. Congenital Malformations (Stillbirths not included) (38) ..	157	275	164	111	58	59	26	..	..	693
76. Congenital Debility (38) ..	158	74	34	15	10	30	11	..	..	174
77. Premature Birth (38) ..	159	598	412	255	100	94	54	4	..	1,517
78. Injury at Birth (38) ..	160	220	109	92	36	43	23	2	1	526
79. Other Diseases peculiar to the First Year of Life (38) ..	161	161	124	66	42	40	25	..	..	458
80. Senility (39) ..	162	863	798	302	296	200	77	4	1	2,541
81. Suicide (40) ..	163, 164	309	144	136	61	73	12	5	3	743
82. Homicide (41) ..	165-168	48	12	17	4	14	4	..	..	99
83. Automobile Accidents (42) ..	170	493	472	168	115	137	58	4	10	1,457
84. Other Violent or Accidental Deaths (43) ..	169, 171-195	930	535	528	206	194	88	8	12	2,501
85. Deaths due to Operations of War (43) ..	196-197	..	..	..	..	..	..	..	..	..
86. Legal Executions (43) ..	198	..	..	..	..	..	..	..	..	..
87. Ill-defined or Unspecified (44) ..	100, 200	80	61	21	63	2	2	6	3	238
Total ..	..	26,143	20,203	9,203	5,708	4,486	2,387	86	78	68,384

* No. 58:—115, 116, 118, 123, 128, 129.

D.—CAUSES OF DEATH : ABRIDGED CLASSIFICATION, AUSTRALIA, 1936 TO 1940.

Abridged Classification.	General Classification Numbers.	1936.	1937.	1938.	1939.	1940.	1940— Rate per 1,000,000 Population
1. Typhoid and Paratyphoid Fevers	1, 2	58	62	48	35	28	4
2. Plague	3	..	..	..	..	..	..
3. Scarlet Fever	8	56	33	28	29	34	5
4. Whooping Cough	9	257	179	144	82	265	38
5. Diphtheria	10	454	314	308	344	185	26
6. Tuberculosis of the Respiratory System	13	2,537	2,462	2,398	2,458	2,339	334
7a. Tubercular Meningitis	14 (a)	109	104	81	80	79	11
7b. Other Tuberculous Diseases	14b-22	190	190	177	171	155	22
8. Malaria	28	11	9	10	21	7	1
9. Syphilis	30	(a) 326	(a) 290	(a) 317	(a) 373	(b) 522	75
10a. Influenza—Pneumonic	33 (a)	323	261	443	648	238	34
10b. Influenza—Other	33 (b)	151	133	180	239	116	17
11. Small-pox	34	..	..	1	..	..	..
12. Measles	35	43	18	10	193	126	18
13. Typhus Fever	39	8	3	5	7	7	1
14. Other Infective or Parasitic Diseases	*	496	574	524	453	530	75
15. Cancer and other Malignant Tumours	45-55	7,551	7,691	7,929	8,092	8,214	1,172
16. Non-malignant Tumours or Tumours of Undetermined Nature	56, 57	449	428	410	448	453	65
17. Chronic Rheumatism and Gout	59, 60	152	155	174	169	185	26
18. Diabetes Mellitus	61	1,052	1,149	1,220	1,258	1,274	182
19. Chronic or Acute Alcoholism	77	54	64	55	72	86	12
20. Other General Diseases	*	1,194	1,114	1,215	1,125	1,144	161
21. Non-meningococcal Meningitis and diseases of the Spinal Cord	81, 82	349	323	383	343	375	52
22. Intra-cranial Lesions of Vascular Origin	83	5,064	4,292	5,459	5,538	5,785	825
23. Other Diseases of Nervous System and Sense Organs	80, 84-89	854	793	842	847	791	113
24. Diseases of the Heart	90-95	13,782	14,692	15,463	17,278	17,455	2,490
25. Other Diseases of the Circulatory System	96-103	(b) 1,725	(b) 2,734	(b) 1,938	(b) 1,872	(a) 1,913	273
26a. Acute Bronchitis	106 (a)(c)	199	172	163	198	189	27
26b. Chronic Bronchitis	106 (b)(d)	542	500	538	558	524	75
27. Pneumonia and Broncho-pneumonia	107-109	4,396	4,212	4,402	4,127	3,988	569
28. Other Diseases of the Respiratory System	*	1,039	957	951	1,028	1,046	150
29a. Diarrhoea and Enteritis (under two years of age)	119	358	331	343	426	397	57
29b. Diarrhoea and Enteritis (two years and over)	120	336	333	315	306	308	44
30. Appendicitis	121	554	552	525	560	450	64
31a. Cirrhosis of the Liver	124	284	281	316	319	301	43
31b. Other Diseases of the Liver and Biliary Calculi	125-127	476	426	518	488	480	69
32a. Hernia, Intestinal Obstruction	122	551	635	551	591	583	83
32b. Other Diseases of the Digestive System	*	986	980	944	1,016	970	138
33. Nephritis	130-132	3,695	3,838	3,890	3,909	3,865	551
34. Other Diseases of the Genito-Urinary System	133-139	1,190	1,181	1,248	1,216	1,221	175
35a. Post-abortive Sepsis	140	213	150	144	114	142	20
35b. Puerperal Infection	147	125	62	63	48	95	14
36. Other Diseases of Pregnancy, Childbirth and the Puerperium	141-146, 148-150	358	339	355	341	278	40
37. Diseases of the Skin, Bones, etc.	151-156	368	357	331	319	294	42
38. Congenital Debility, Malformations, Premature Birth, etc.	157-161	3,303	3,231	3,274	3,322	3,368	480
39. Senility	162	2,884	2,919	2,891	2,522	2,541	362
40. Suicide	163, 164	789	721	746	781	743	106
41. Homicide	165-168	97	107	81	75	99	14
42. Automobile Accidents	170	1,223	1,386	1,391	1,405	1,457	208
43. Other Accidental or Violent Deaths	169, 171-198	2,386	2,552	2,495	3,064	2,501	357
44. Unstated or Ill-defined Causes	199, 200	335	207	205	239	238	34
Total .. ..	..	63,932	64,496	66,451	69,147	68,384	9,754

* No. 14 :—4-7, 11, 12, 23-27, 29, 31, 32, 36-38, 40-44 ; No. 20 :—58, 62-76, 78, 79 ; No. 28 :—104, 105, 110-114 ; No. 32b :—115-118, 123, 128, 129.

(a) Excluding Aneurysm of the Aorta.

(b) Including Aneurysm of the Aorta.

NOTE.—All causes of death have been classified in accordance with the 1938 revision of the International List.

E.—CAUSES OF DEATH : ABRIDGED CLASSIFICATION, AUSTRALIA, NUMBER AND RATES.

Abridged Classification.	General Classification Numbers.	Number of Deaths.			Average Rate per 1,000,000 of Population.		
		1921-25.	1931-35.	1936-40.	1921-25.	1931-35.	1936-40.
1. Typhoid and Paratyphoid Fevers ..	1, 2	1,209	379	231	42	12	7
2. Plague ..	3	72	..	..	3	..	..
3. Scarlet Fever ..	8	235	331	180	8	10	5
4. Whooping Cough ..	9	1,612	1,186	927	57	36	27
5. Diphtheria ..	10	2,565	2,083	1,605	90	63	47
6. Tuberculosis of the Respiratory System ..	13	15,321	13,221	12,194	538	400	354
7a. Tubercular Meningitis ..	14 (a)	876	618	453	31	19	13
7b. Other Tuberculous Diseases ..	14 (b)-22	1,404	1,016	883	49	31	26
8. Malaria ..	28	150	97	58	5	3	2
9. Syphilis ..	30	1,750	1,600	1,828	61	48	53
10a. Influenza—Pneumonic ..	33 (a)	1,808	2,859	1,913	64	86	55
10b. Influenza—Other ..	33 (b)	1,344	1,326	819	47	40	24
11. Small-pox ..	34	4	1	1	..	..	..
12. Measles ..	35	582	391	390	20	12	11
13. Typhus Fever ..	39	4	15	30	..	1	1
14. Other Infective or Parasitic Diseases ..	4	3,063	2,649	2,577	108	80	75
15. Cancer and other Malignant Tumours ..	45-55	25,794	34,825	39,477	906	1,053	1,145
16. Non-malignant Tumours or Tumours of Undetermined Nature ..	56, 57	633	1,817	2,188	22	55	63
17. Chronic Rheumatism and Gout ..	59, 60	862	847	835	30	26	24
18. Diabetes Mellitus ..	61	3,355	5,095	5,953	118	154	173
19. Chronic or Acute Alcoholism ..	77	763	235	331	27	7	10
20. Other General Diseases ..	6	5,355	5,437	5,792	188	164	168
21. Non-meningococcal meningitis and diseases of the Spinal Cord ..	81, 82	2,787	1,371	1,773	98	42	51
22. Intra-cranial Lesions of Vascular Origin ..	83	13,637	22,395	26,130	479	676	758
23. Other Diseases of Nervous System and Sense Organs ..	80, 84-89	7,536	4,600	4,127	265	139	120
24. Diseases of the Heart ..	90-95	31,588	60,227	78,670	1,109	1,817	2,282
25. Other Diseases of the Circulatory System ..	96-103	7,191	7,380	10,182	253	223	295
26a. Acute Bronchitis ..	106(a)(c)	1,580	1,078	921	56	33	27
26b. Chronic Bronchitis ..	106(b)(d)	4,053	2,666	2,662	140	90	77
27. Pneumonia and Broncho-pneumonia ..	107-109	18,400	20,157	21,125	646	608	613
28. Other Diseases of the Respiratory System ..	*	5,781	5,045	5,021	203	152	146
29a. Diarrhoea and Enteritis (under two years of age) ..	119	9,866	2,043	1,855	346	62	54
29b. Diarrhoea and Enteritis (two years and over) ..	120	3,144	1,922	1,598	110	58	46
30. Appendicitis ..	121	2,035	2,680	2,641	71	81	77
31a. Cirrhosis of the Liver ..	124	1,531	1,321	1,501	54	40	44
31b. Other Diseases of the Liver and Biliary Calculi ..	125-127	1,796	2,326	2,388	63	70	69
32a. Hernia, Intestinal Obstruction ..	122	2,648	2,792	2,911	93	84	84
32b. Other Diseases of the Digestive System ..	128	4,053	4,104	4,896	142	133	142
33. Nephritis ..	130-132	12,803	17,754	19,206	450	536	557
34. Other Diseases of the Genito-Urinary System ..	133-139	4,146	5,388	6,056	146	163	176
35a. Post-abortive Sepsis ..	140	(a)	761	763	(a)	23	22
35b. Puerperal Infection ..	147	1,138	466	393	40	14	11
36. Other Diseases of Pregnancy, Childbirth and the Puerperium ..	141-146, 148-150	2,321	1,833	1,671	82	56	48
37. Diseases of the Skin, Bones, etc. ..	151-156	1,556	1,696	1,669	55	51	48
38. Congenital Deformity, Malformation, Premature Birth, etc. ..	157-161	21,511	15,909	16,498	755	481	478
39. Senility ..	162	20,429	14,021	13,757	717	424	399
40. Suicide ..	163, 164	3,106	3,988	3,780	109	121	110
41. Homicide ..	165-168	439	530	459	15	16	13
42. Automobile Accidents ..	170	(b)	4,372	6,862	(b)	132	199
43. Other Accidental or Violent Deaths ..	169, 171-198	13,875	11,267	12,998	487	340	377
44. Unstated or Ill-defined Causes ..	199, 200	3,460	1,542	1,224	122	46	35
Total ..	..	271,171	298,262	332,410	9,522	9,011	9,641

* No. 14 :—4, 7, 11, 12, 23-27, 29, 31, 32, 36-38 ; No. 20 :—58, 62-76, 78, 79 ; No. 28 :—104, 105, 110-114 ; No. 32b :—115-118, 123, 128, 129. (a) Not available, included in 35b and 36. (b) Not available, included in 43.

NOTE.—See note on previous page.

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* (6). Of the various forms of tuberculosis prevalent in Australia, phthisis, or tuberculosis of the lungs, has attracted the most attention. The close 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 p. 346, which shows how both the number of deaths and the death-rate have declined since the period 1921–25.

During 1940 there were 2,339 deaths (1,469 males and 870 females) from tuberculosis of the respiratory system, which compares favourably with the average of 2,479 for the preceding five years. The deaths in 1940 represented a rate of 334 per million persons living.

(iii) *Tuberculosis of the Meninges* (7a). The number of deaths ascribed to this cause in 1940 was 79, which is below the average of 96 for the preceding five years.

(iv) *Other Forms of Tuberculosis* (7b). The 155 deaths in 1940 comprised the following :—Tuberculosis of the intestines and peritoneum, 34; vertebral column, 32; other bones and joints, 13; skin and sub-cutaneous cellular tissue, 2; lymphatic system, 6; genito-urinary system 23; other organs, 2; and disseminated tuberculosis—acute 38, and unspecified 5.

(v) *All Forms of Tuberculosis* (6, 7)—(a) *General*. The total number of deaths in 1940 was 2,573, namely, 1,591 males and 982 females.

(b) *Ages at Death*. The following table shows the ages of these 2,573 persons; comparable figures are also given for the year 1911 :—

TUBERCULAR DISEASES : DEATHS IN AGE-GROUPS, AUSTRALIA.

Ages.	1911.			1940.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years	124	114	238	41	32	73
5 years and under 10 ..	30	31	61	9	10	19
10 " " 15 ..	44	42	86	10	17	27
15 " " 20 ..	70	148	218	31	60	91
20 " " 25 ..	168	260	428	60	105	165
25 " " 30 ..	219	255	474	73	138	211
30 " " 35 ..	220	206	426	92	135	227
35 " " 40 ..	187	176	363	122	89	211
40 " " 45 ..	246	140	386	156	82	238
45 " " 50 ..	223	100	323	185	58	243
50 " " 55 ..	164	49	213	198	57	255
55 " " 60 ..	140	49	189	200	46	246
60 " " 65 ..	89	43	132	170	51	221
65 " " 70 ..	64	37	101	117	40	157
70 " " 75 ..	42	19	61	70	27	97
75 " " 80 ..	15	6	21	45	21	66
80 " " over ..	7	6	13	10	14	24
Age unspecified	3	..	3	2	..	2
Total	2,055	1,681	3,736	1,591	982	2,573

**TUBERCULOSIS (ALL FORMS): DEATH-RATES AND PROPORTION OF
TOTAL DEATHS—continued.**

State or Territory.	Proportion per 10,000 Total Deaths.					
	1911.			1940.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	737	737	737	413	305	366
Victoria	801	936	862	432	363	400
Queensland	613	648	626	329	269	304
South Australia	775	995	877	386	385	385
Western Australia	718	870	770	499	335	437
Tasmania	839	854	846	478	370	432
Northern Territory	1,356	..	1,231	130	..	116
Australian Capital Territory .. .. .	..	2,000	1,000	217	313	256
 Australia	 745	 829	 780	 412	 330	 376

(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 ..	1940	26	28	Belgium	1936	56	72
Union of South Africa (Europeans)	1939	27	33	Germany	1935	62	73
New South Wales ..	1940	32	35	Italy	1938	59	80
South Australia ..	1940	32	37	Scotland	1940	62	82
Australia ..	1940	33	37	Northern Ireland ..	1939	66	84
New Zealand ..	1939	34	40	Switzerland ..	1939	73	95
Western Australia ..	1940	39	42	Norway	1937	78	98
Tasmania	1940	36	43	Sweden	1939	85	103
Victoria	1940	38	43	Spain	1935	(a)	107
Denmark	1936	37	47	Eire	1939	89	113
U.S. of America ..	1939	43	47	France	1934	109	126
Netherlands ..	1936	36	50	Greece	1936	104	128
Canada	1940	41	51	Czechoslovakia ..	1936	114	129
Egypt	1936	45	56	Japan	1936	105	142
Ceylon	1937	55	(a)	Portugal	1939	119	144
England and Wales	1938	53	64	Hungary	1939	127	152
Great Britain and Northern Ireland	1938	53	64	Poland (b) ..	1937	135	153
				Finland	1937	179	210

(a) Not available.

(b) In towns with over 100,000 inhabitants.

(vi) *Cancer and other Malignant Tumours (18 to 23).*—(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 8,214 in 1940. Of the deaths registered during 1940, 4,185 were of males, namely, 1,567 in New South Wales, 1,222 in Victoria, 574 in

Queensland, 369 in South Australia, 316 in Western Australia, 129 in Tasmania, 4 in the Northern Territory, and 4 in the Australian Capital Territory: while 4,029 were of females, namely, 1,515 in New South Wales, 1,306 in Victoria, 478 in Queensland, 381 in South Australia, 212 in Western Australia, 132 in Tasmania, 1 in the Northern Territory, and 4 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 1940 will be found in *Demography Bulletin*, No. 58. A summary regarding type and seat of disease for 1940 is given below. It may be pointed out that the significance of the number 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.

DEATHS FROM CANCER : TYPE AND SEAT OF DISEASE, AUSTRALIA, 1940.

Type of Disease.	Males.	Fem.	Persons.	Seat of Disease.	Males.	Fem.	Persons.
Cancer	361	332	693	Buccal Cavity and Pharynx ..	293	49	342
Carcinoma—				Digestive Tract and Peritoneum—			
Carcinoma Simplex	3,184	3,149	6,333	Stomach and Duodenum ..	1,131	685	1,816
Epithelioma ..	131	76	207	Rectum and Anus ..	242	190	432
Scirrhus ..	1	43	44	Colon ..	288	326	614
Rodent Ulcer ..	36	19	55	Other ..	753	627	1,380
Adeno-Carcinoma a	19	49	68	Respiratory Organs	338	99	437
Colloid Carcinoma	3	2	5	Uterus ..	..	560	560
Paget's Disease ..	..	3	3	Other Female Genital Organs ..	..	242	242
Sarcoma—				Breast ..	8	781	789
Sarcoma ..	155	121	276	Male Genital Organs	471	..	471
Myeloma ..	4	5	9	Genito-Urinary Organs ..	177	117	294
Endothelioma ..	5	2	7	Skin ..	183	111	294
Glioma	28	11	39	Brain and Nervous System ..	42	16	58
Melanoma—				Other or Unspecified Organs ..	259	226	485
Melanotic Sarcoma	19	13	32				
Melano-Carcinoma	24	18	42				
Embryonic Tumours—							
Hypernephroma	22	14	36				
Teratoma ..	5	..	5				
Malignant Disease..	188	172	360				
Total Deaths	4,185	4,029	8,214	Total Deaths	4,185	4,029	8,214

(a) Including X-ray Carcinoma.

(c) *Ages at Death.* The ages of the persons who died from cancer in 1911 and 1940 are given below. Inferences drawn from the great increase in the number of deaths from cancer in 1940 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.			1940.		
	Males.	Females.	Total.	Males.	Females.	Total
Under 15 years ..	21	8	29	31	23	54
15 years and under 20 ..	10	6	16	9	5	14
20 " " 25 ..	10	7	17	17	7	24
25 " " 30 ..	12	17	29	33	21	54
30 " " 35 ..	25	35	60	39	44	83
35 " " 40 ..	29	59	88	46	74	120
40 " " 45 ..	81	100	181	123	154	277
45 " " 50 ..	132	173	305	179	309	488
50 " " 55 ..	208	203	411	296	422	718
55 " " 60 ..	203	179	382	414	469	883
60 " " 65 ..	243	177	420	523	473	996
65 " " 70 ..	306	194	500	605	557	1,162
70 " " 75 ..	203	160	363	778	575	1,353
75 " " 80 ..	150	136	286	638	486	1,124
80 " " 85 ..	83	67	150	339	287	626
85 years and over ..	44	39	83	115	123	238
Unspecified ..	1	..	1	..	..	..
Total Deaths ..	1,761	1,560	3,321	4,185	4,029	8,214

(d) *Occupations.* A tabulation in summarized form of occupations of the males who died from cancer in 1921, 1931 and 1940, 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 in each Group.		
	1921.	1931.	1940.	1921.	1931.	1940.
				%	%	%
Professional	133	188	(a) 430	5.45	5.40	(a) 10.28
Domestic	76	97	125	3.11	2.78	2.99
Commercial	275	446	422	11.27	12.80	10.08
Transport and Communica- tion	212	295	319	8.69	8.47	7.62
Industrial	940	1,346	874	38.52	38.63	20.88
Agricultural, Pastoral, Mining, etc.	639	843	894	26.19	24.20	21.36
Indefinite	129	130	(b) 894	5.29	3.73	(b) 21.36
Dependent	36	139	227	1.48	3.99	5.43
Total Male Deaths ..	2,440	3,484	4,185	100.00	100.00	100.00

(a) 208 (4.97 per cent.) clerks, etc., not specified as belonging to any industry, formerly included under "Commercial", are included under "Professional". (b) 671 (16.03 per cent.) labourers, etc., not specified as belonging to any industry, formerly included under "Industrial", are included under "Indefinite".

(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 1940. 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.			1940.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	77	71	74	113	110	111
Victoria	80	85	82	131	136	133
Queensland	71	56	64	108	98	103
South Australia	70	76	73	124	127	126
Western Australia	65	57	62	131	95	114
Tasmania	77	60	69	107	112	109
Northern Territory	37	..	30	64	42	58
Australian Capital Territory	99	..	56	58	70	63
Australia	75	72	74	119	116	117

(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, 1,201 were due to cancer in 1940, as against 693 per 10,000 total deaths in 1911.

DEATHS FROM CANCER : PROPORTIONS PER 10,000 TOTAL DEATHS.

State or Territory.	1911.			1940.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	662	783	713	1,053	1,345	1,179
Victoria	637	819	719	1,118	1,395	1,246
Queensland	586	628	602	1,060	1,262	1,143
South Australia	675	828	745	1,186	1,467	1,314
Western Australia	557	700	605	1,134	1,248	1,177
Tasmania	723	629	680	949	1,285	1,093
Northern Territory	170	..	154	519	1,111	581
Australian Capital Territory	2,000	..	1,000	870	1,250	1,026
Australia	638	769	693	1,084	1,353	1,201

(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 forty years comprised in the quinquennial averages shown below the death-rate for tuberculosis declined by 50 while the rate for cancer increased by 52 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 in each period, the figures being :—1901–05, 152 per 100,000; 1906–10, 145; 1911–15, 152; 1916–20, 154; 1921–25, 153; 1926–30, 152; 1931–35, 150; 1936–40, 154; and 1940, 154.

TUBERCULOSIS AND CANCER : DEATH-RATES^(a), AUSTRALIA.

Period.	Death-rate from Tuberculosis.			Death-rate 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
1926-30 ..	64	49	57	97	94	95
1931-35 ..	52	37	45	108	102	105
1936-40 ..	47	31	39	116	113	115
1940 ..	45	28	37	119	116	117

(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 those for other countries :—

CANCER : DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Ceylon	1937	10	New Zealand ..	1939	118
Egypt	1936	26	U.S. of America ..	1939	122
Portugal	1939	47	Czechoslovakia ..	1936	126
Japan	1936	48	Eire	1939	127
Greece	1936	50	Norway	1937	131
Spain	1935	68	Netherlands ..	1936	131
Italy	1938	86	Sweden	1937	133
France	1934	96	Northern Ireland ..	1939	133
Hungary	1939	96	Germany	1935	145
Finland	1936	100	Denmark	1936	151
Poland (a)	1936	104	Switzerland ..	1939	157
Union of South Africa (Europeans) ..	1939	105	Scotland	1938	162
Canada	1939	110	Great Britain and Northern Ireland ..	1938	172
Belgium	1936	110	England and Wales ..	1938	173
Australia	1940	117			

(a) In towns with over 100,000 inhabitants.

(vii) *Diseases of the Heart* (42 to 46). The number of deaths in 1940 was 17,455, namely, 10,222 males and 7,233 females. Of these deaths, 22 were attributed to pericarditis, 120 to acute bacterial endocarditis, 28 to other acute endocarditis, 316 to aortic valve disease, 631 to mitral valve disease, 70 to aortic and mitral valve disease, 148 to endocarditis not returned as acute or chronic, 492 to other or unspecified valve disease, 162 to acute myocarditis, 86 to fatty heart, 8,625 to other myocardial degeneration, 1,454 to myocarditis not returned as acute or chronic, 3,969 to diseases of coronary arteries, 211 to angina pectoris with record of coronary disease, 230 to other angina pectoris, 310 to disordered action of the heart, 41 to cardiac dilatation (cause unspecified), and 540 to heart disease undefined. The sex and territorial distribution of the deaths will be found in the tables on pp. 339-344. This class is the largest among causes of death, the death-rate having grown from 1,019 per million in 1911-15 to 2,282 in 1936-40

and 2,490 in 1940. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past eight 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 since that year. 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 1940 the number of deaths assigned to this cause was 3,969, an increase of 3,405, or nearly 700 per cent., since 1931. The death-rates and proportions per 10,000 deaths in 1940 were as follows:—

**DISEASES OF THE HEART: DEATH-RATES^(a) AND PROPORTION OF
10,000 TOTAL DEATHS, 1940.**

State or Territory.	Death-rates from Diseases of the Heart.			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	316	216	266	2,957	2,651	2,825
Victoria	301	237	268	2,574	2,432	2,508
Queensland	255	168	213	2,491	2,168	2,358
South Australia	246	198	222	2,340	2,283	2,314
Western Australia	234	149	193	2,027	1,960	2,002
Tasmania	291	187	239	2,581	2,152	2,396
Northern Territory	191	..	139	1,558	..	1,395
Australian Capital Territory	58	35	47	870	625	769
 Australia	 290	 208	 249	 2,648	 2,429	 2,552

(a) Number of deaths from diseases of the heart per 100,000 of mean population.

(viii) *Diarrhœa and Enteritis (Children under two years of age)* (54). The number of deaths due to these causes was 397 in 1940, which is an increase of 42 over the average of 355 for the previous five years. During 1940, 5,524 children died before reaching their second birthday, and of these 397, or 7.2 per cent., died from diarrhœa and enteritis. The ages of children dying from these diseases during the first year of life will be found on page 333.

The number of deaths under 2 years of age, due to diarrhœa and enteritis, the death-rates, and proportions of 10,000 deaths for 1911–15, 1921–25, 1931–35, 1936–40, and 1940 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
„	1936–40	„ 3.4	„ 2.7	„ 3.0

**DIARRHŒA AND ENTERITIS (UNDER 2 YEARS OF AGE): DEATHS AND
DEATH-RATES^(a), AUSTRALIA, 1940.**

State.	Number of Deaths from Diarrhœa and Enteritis. (Under 2 years of age.)			Death-rates from Diarrhœa and Enteritis. (Under 2 years of age.)			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	99	89	188	7	6	7	67	79	72
Victoria ..	43	28	71	5	3	4	39	30	35
Queensland ..	33	21	54	6	4	5	61	55	59
South Australia ..	14	7	21	5	2	4	45	27	37
Western Australia	38	20	58	16	9	13	136	118	129
Tasmania ..	2	3	5	2	3	2	15	29	21
Australia 1940 ..	229	168	397	7	5	6	59	56	58
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
1936-40 ..	212	159	371	6	5	5	57	54	56

(a) Number of deaths from these diseases per 100,000 of mean population.

(ix) *Puerperal Septicæmia* (including Post-abortive Sepsis, including Criminal Abortion) (70, 71). Deaths from puerperal septicæmia and post-abortive sepsis during 1940, numbered 211, the highest figure for three years, being made up as follows:—Post-abortive sepsis 42, criminal abortion 115, puerperal infections 54. Owing to the change in classification in 1940 figures prior to 1940 for these, particular causes are not entirely on a comparable basis, as it is probable that some of the deaths classified with puerperal septicæmia in earlier years are now included in "other diseases of pregnancy". The death-rate per 1,000 live births during 1940 was 1.67, while corresponding rates for preceding years were:—1931, 2.11; 1932, 2.19; 1933, 2.09; 1934, 2.34; 1935, 2.20; 1936, 2.91; 1937, 1.78; 1938, 1.72; and 1939, 1.32. The rate in 1940 per 1,000 live births of the 96 deaths from puerperal septicæmia, excluding criminal abortion, was 0.76.

(x) *Other Diseases or Accidents of Pregnancy and Labour* (68, 69, 72). The deaths under this heading numbered 339 in 1933; 374 in 1934; 345 in 1935; 358 in 1936; 339 in 1937; 355 in 1938; 341 in 1939; and 304 in 1940. Included in the 278 deaths in 1940 were the following:—Abortion not returned as septic, 13; ectopic gestation, 31; hæmorrhage of pregnancy, 10; toxæmias of pregnancy, 44; other diseases and accidents of pregnancy, 9; puerperal hæmorrhage, 57; puerperal thrombophlebitis, 9; puerperal embolism or sudden death, 32; puerperal toxæmias, 54; other accidents of child-birth, 36 (Cæsarean section, 15; others, 21); other or unspecified conditions of the puerperal state, 9.

(xi) *All Puerperal Causes* (68 to 72). The 515 deaths in 1940 under the preceding two headings, including criminal abortion, correspond to a death-rate of 14.8 per 100,000 females or 31.3 per 100,000 women between the ages of 15 and 45 years. The rate is also equivalent to 4.08 deaths per 1,000 live births. The death-rate may be expressed in other terms by stating that 1 of every 243 women giving birth to a live child in 1940 died from puerperal causes; the corresponding ratios for married women were 1 of every 265, and for single women 1 in every 78. More detailed information will be found in a series of tables in *Demography Bulletin*, No. 58.

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 the States and Australia deaths from criminal abortion have been excluded from puerperal sepsis 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 many of the countries given hereunder totally exclude deaths from criminal abortion.

CHILD-BIRTH : 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
Italy	1938	0.83	1.60	2.43
France	1934	1.00	1.50	2.50
Western Australia	1940	0.22	2.41	2.63
Norway	1937	1.18	1.65	2.83
England and Wales (a)	1938	0.86	2.11	2.97
Netherlands	1936	0.99	2.04	3.03
Sweden	1937	1.52	1.53	3.05
Great Britain and Northern Ireland	1938	0.90	2.27	3.17
South Australia	1940	0.50	2.89	3.39
Spain	1935	2.00	1.40	3.40
Union of South Africa (Europeans)	1939	1.29	2.32	3.61
New Zealand	1939	1.24	2.40	3.64
Switzerland	1939	1.02	2.65	3.67
Northern Ireland	1939	0.79	3.01	3.80
Hungary	1939	2.11	1.72	3.83
Denmark	1936	1.30	2.60	3.90
United States of America	1939	1.70	2.30	4.00
Victoria	1940	0.31	3.72	4.03
Australia	1940	0.76	3.32	4.08
Eire	1938	0.81	3.30	4.11
Greece	1936	2.20	2.00	4.20
Canada	1939	1.30	2.90	4.20
New South Wales	1940	1.01	3.22	4.23
Portugal	1939	1.95	2.33	4.28
Tasmania	1940	1.00	3.40	4.40
Belgium	1936	1.60	3.00	4.60
Queensland	1940	1.18	3.52	4.70
Germany	1935	1.99	2.86	4.85
Czechoslovakia	1936	2.88	2.03	4.91
Scotland	1936	2.19	3.36	5.55
Egypt (b)	1936	2.67	7.18	9.85

(a) Rate per 1,000 live and still-births.

(b) Localities having Health Bureaux.

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. 58.

The total number of children left by the 454 married mothers who died was 1,114, an average of 2.5 children per mother.

Eighteen of the mothers who died had been married less than one year, 64 between one and two years, and 39 between two and three years. The duration of marriage ranged up to 26 years, apart from 2 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. 58, which also includes a table showing in combination the duration of marriage and previous issue.

(xii) *Congenital Malformation, Debility and Premature Birth* (75 to 79). The deaths under this heading in 1940 numbered 3,368 of which 3,256 were of children under one year of age. Of all deaths of children under one year of age 67 per cent. was due to these causes. The number of deaths for 1940 is given in the following table :—

DEATHS FROM CONGENITAL DEBILITY, ETC., AND MALFORMATION, 1940.

State or Territory.	Congenital Malformation.			Premature Birth and Injury at Birth.			Congenital Debility and other Diseases peculiar to the First Year of Life.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	149	126	275	434	384	818	146	89	235
Victoria ..	103	61	164	306	215	521	85	73	158
Queensland ..	61	50	111	191	156	347	41	40	81
South Australia ..	26	32	58	83	53	136	26	26	52
Western Australia	29	30	59	86	51	137	38	32	70
Tasmania ..	16	10	26	53	24	77	19	17	36
Northern Territory	..	..	..	5	1	6	..	..	..
Aust. Cap. Terr...	..	..	..	1	..	1	..	..	..
Australia ..	384	309	693	1,159	884	2,043	355	277	632
Number of deaths under one year	325	256	581	1,159	884	2,043	355	277	632
Number of deaths under one year per 1,000 births	5.03	4.15	4.60	17.94	14.31	16.17	5.50	4.49	5.00

(xiii) *Suicide* (81).—(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; 1938, 746—574 males and 172 females; 1939, 781—602 males and 179 females; and 1940, 743—568 males and 175 females.

(b) *Modes Adopted*. The modes adopted by persons who committed suicide in the periods 1931–35, 1939 and 1940 were as follows :—

SUICIDE : MODES ADOPTED, AUSTRALIA.

Mode of Death.	Males.			Females.			Persons.		
	Average of 5 years, 1931–35.	1939.	1940.	Average of 5 years, 1931–35.	1939.	1940.	Average of 5 years, 1931–35.	1939.	1940.
Poisoning	139	118	112	67	70	62	206	188	174
Poisonous gas	39	51	36	20	32	35	59	83	71
Hanging or strangulation ..	83	108	81	17	23	19	100	131	100
Drowning	46	32	27	28	21	22	74	53	49
Firearms and explosives ..	199	187	216	11	10	13	210	197	229
Cutting or piercing instruments	89	77	72	9	9	12	98	86	84
Jumping from a high place ..	15	13	10	6	7	6	21	20	16
Crushing	13	8	10	2	4	3	15	12	13
Other modes	12	8	4	3	3	3	15	11	7
Total	635	602	568	163	179	175	798	781	743

(c) *Death-rates.* The death-rates from suicide and the proportion per 10,000 of total deaths are given in the following table for each year 1936 to 1940, corresponding rates for the periods 1911-15, 1921-25, 1931-35, and 1936-40, being shown at the foot of the table :—

SUICIDE : DEATHS, DEATH-RATES,(a) AND PROPORTION OF TOTAL DEATHS, 1940.

State or Territory.	Number of Deaths.			Death-rates from Suicide.			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	226	83	309	16	5	11	103	29	71
Victoria ..	109	35	144	12	4	8	80	16	50
Queensland ..	108	28	136	20	6	13	153	29	102
South Australia ..	47	14	61	16	5	10	135	35	89
Western Australia	59	14	73	24	6	16	144	53	109
Tasmania ..	11	1	12	9	1	5	74	10	46
Northern Territory	5	..	5	80	..	58	390	..	349
Australian Capital Territory ..	3	..	3	43	..	24	435	..	256
Australia, 1940 ..	568	175	743	16	5	11	109	26	73
„ 1939 ..	602	179	781	17	5	11	155	59	113
„ 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
Average—1936-40	586	170	756	17	5	11	157	56	114
„ 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 1940, it will be seen that both youth and extreme old age are represented :—

AGES OF PERSONS WHO COMMITTED SUICIDE : AUSTRALIA, 1940.

Ages.	M.	F.	Total.	Ages.	M.	F.	Total.
15 years and under 20	9	9	18	65 years and under 70	26	9	35
20 „ „ 25	35	10	45	70 „ „ 75	23	9	32
25 „ „ 30	39	11	50	75 „ „ 80	17	3	20
30 „ „ 35	51	22	73	80 „ „ 85	6	2	8
35 „ „ 40	44	12	56	85 „ „ 90	2	..	2
40 „ „ 45	47	22	69	90 „ „ 95	..	..	..
45 „ „ 50	74	26	100	95 „ „ 100	1	..	1
50 „ „ 55	70	23	93	Not stated	1	..	1
55 „ „ 60	59	7	66				
60 „ „ 65	64	10	74				
				Total Deaths ..	568	175	743

(e) *Occupations of Males.* The next table shows the occupations of the males who committed suicide in 1921, 1931 and 1940 :—

OCCUPATIONS OF MALES WHO COMMITTED SUICIDE : AUSTRALIA.

Occupation Group.	Number of Male Deaths.			Percentage of Total.		
	1921.	1931.	1940.	1921.	1931.	1940.
				%	%	%
Professional	32	29	(a) 66	6.27	4.21	(a) 11.62
Domestic	20	22	16	3.92	3.19	2.82
Commercial	81	106	52	15.88	15.38	9.15
Transport and Communica- tion	42	52	40	8.24	7.55	7.04
Industrial	180	256	92	35.29	37.16	16.20
Agricultural, Pastoral, Min- ing, etc.	131	182	154	25.69	26.41	27.11
Indefinite	21	39	(b) 129	4.12	5.66	(b) 22.71
Dependent	3	3	19	0.59	0.44	3.35
Total Male Deaths ..	510	689	568	100.00	100.00	100.00

(a) 29 (5 per cent.) clerks, etc., not specified as belonging to any industry, formerly included under "Commercial", are included under "Professional". (b) 99 (17 per cent.) labourers, etc., not specified as belonging to any industry, formerly included under "Industrial" are included under "Indefinite".

(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	Great Britain and Nor- thern Ireland ..	1936	12.2
Eire	1939	2.7	England and Wales ..	1936	12.4
Spain	1935	3.9	Portugal	1939	12.9
Northern Ireland ..	1939	5.2	U.S. of America ..	1939	14.2
Greece	1936	5.7	Queensland	1939	14.4
Norway	1937	6.9	Japan	1936	15.1
Italy	1938	7.2	Western Australia ..	1939	15.3
Victoria	1939	7.7	Sweden	1937	15.6
Netherlands	1936	8.1	Finland	1936	16.2
Tasmania	1939	8.4	Belgium	1935	16.8
Canada	1939	8.6	Denmark	1935	19.4
Scotland	1936	10.0	France	1934	21.4
South Australia ..	1939	10.9	Poland (b)	1936	22.0
Australia	1939	11.2	Switzerland	1939	23.8
Union of South Africa (a)	1939	11.3	Hungary	1939	26.0
New Zealand	1939	11.7	Germany	1935	27.5
New South Wales ..	1939	12.0	Czechoslovakia ..	1936	27.8

(a) European population only.

(b) In towns with over 100,000 inhabitants.

(xiv) *Homicide (82).* Deaths from homicide in 1940 numbered 99, which was 24 more than the previous year and 6 more than the average for the five years 1935 to 1939, namely, 93. See par. (xvi).

(xv) *Accidental or Violent Deaths (except Suicide and Homicide).* Deaths from accidents in 1940 numbered 3,958 compared with an average of 3,863 for the previous five years. Of the deaths in 1940—1,423 occurred in New South Wales; 1,007 in Victoria; 696 in Queensland; 321 in South Australia; 331 in Western Australia; 146 in Tasmania; 12 in Northern Territory; and 22 in the Australian Capital Territory. See par. (xvi).

(xvi) *Accidental or Violent Deaths (including Suicide and Homicide).* The following table shows the various kinds of violent deaths, including suicides and homicides, recorded in Australia for 1940.

DEATHS FROM EXTERNAL VIOLENCE : AUSTRALIA, 1940.

Cause of Death.				Males.	Females.	Persons.
Suicide (see par. (xiii))	..	..	..	568	175	743
Infanticide (murder of children under 1 year)	..			4	2	6
Homicide by firearms	..	..	..	25	16	41
Homicide by cutting or piercing instruments	..			11	4	15
Homicide by other means	..	..	..	25	12	37
Homicide Total	..	..	..	65	34	99
Accidents on railways..	..	..	..	123	16	139
Automobile accidents—						
Collisions with trains	..	..	..	18	7	25
Collisions with trams	..	..	..	25	2	27
Other automobile accidents	..	..	..	1,029	265	1,294
Motor cycle accidents	..	..	..	98	13	111
Other road transport accidents—						
Tramway accidents..	..	..	..	32	19	51
Others	..	..	..	70	20	90
Water transport accidents	..	..	..	37	..	37
Air transport accidents	..	..	..	53	1	54
Accidents in mines and quarries	..	..	..	81	..	81
Agricultural and forestry accidents—						
Accidents from farm machinery, &c.	..	..	..	30	..	30
Injury by animals	..	..	..	31	..	31
Others	..	..	..	64	..	64
Accidents caused by machinery n.e.i.	..	..	..	27	2	29
Food poisoning	..	..	..	11	4	15
Accidental absorption of irrespirable or poisonous gas	..	..	..	18	6	24
Other acute accidental poisonings (not by gas)	..	..	..	27	15	42
Conflagration	..	..	..	30	13	43
Accidental burns (conflagration excepted)	..	..	..	100	62	162
Accidental mechanical suffocation	..	..	..	22	28	50
Accidental drowning	..	..	..	344	76	420
Accidental injury by firearms	..	..	..	96	8	104
Accidental injury by cutting or piercing instruments	..	..	..	6	3	9
Accidental injury by falling, crushing, etc.—						
Fall, not otherwise specified	..	..	..	311	321	632
Other crushings	..	..	..	36	6	42
Cataclysm	..	..	..	..	..	..
Injuries by animals (n.e.i.)	..	..	..	21	2	23
Hunger or thirst	..	..	..	4	..	4
Excessive cold	..	..	..	1	..	1
Excessive heat	..	..	..	68	42	110
Lightning	..	..	..	4	..	4
Other accidental electric shocks	..	..	..	44	4	48
Attack by venomous animals—						
Snakebite	..	..	..	4	1	5
Other	..	..	..	2	2	4
Other accidents—						
Accidents due to medical or surgical intervention	..	..	..	2	1	3
Lack of care of the new-born	..	..	..	2	5	7
Other accidents	..	..	..	111	32	143
Deaths due to operations of war	..	..	..	..	..	..
Capital punishment	..	..	..	..	..	..
External Violence, excluding Suicide and Homicide				2,982	976	3,958
Total Deaths from External Violence	..			3,615	1,185	4,800

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 in 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 1931-35, but the rate rose again during the period 1936-40.

DEATH-RATES,^(a) ETC., EXTERNAL VIOLENCE : AUSTRALIA.

Period.	Death-rates from Homicide.			Death-rates from External Violence, excluding Suicide and Homicide.			Death-rates from all External Violence.			All External Violence Proportion of 10,000 Deaths.
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	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
1936-40 ..	18	9	13	862	283	576	1,069	342	699	725
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
1939 ..	15	6	11	943	335	642	1,129	393	765	771
1940 ..	18	10	14	887	308	600	1,024	340	685	702

(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, 1940.

Causes.				General Classification Number.	M.	F.	Total.
Cerebro-spinal meningococcal meningitis	..	..	..	6	24	14	38
Malignant pustule and anthrax	..	..	..	7	2	..	2
Erysipelas	..	..	..	11	11	13	24
Tetanus	..	..	..	12	55	21	76
Leprosy	..	..	..	23	4	2	6
Gonococcal infections	..	..	..	25	3	..	3
Diseases due to spirochaetes, n.e.i.	..	..	..	32	5	7	12
Acute poliomyelitis and polioencephalitis	..	..	..	36	23	10	33
Acute infectious encephalitis	..	..	..	37	12	8	20
Herpes zoster	..	..	..	38c	..	6	6
German measles	..	..	..	38d	6	7	13
Chicken pox	..	..	..	38e	4	..	4
Mycoses	..	..	..	43	6	7	13
Venereal diseases n.e.i.	..	..	..	44a	1	..	1
Pernicious lymphogranulomatosis	..	..	..	44b	59	32	91
Mumps	..	..	..	44c	3	3	6
Total	..	..	..	..	218	130	348

F.—DEATHS FROM "OTHER DISEASES": AUSTRALIA, 1940—continued.

Causes.				General Classifi- cation Number.	M.	F.	Total.
29. OTHER GENERAL DISEASES.							
Diseases of the pituitary gland	62	5	8	13			
Diseases of the thymus (including status lymphaticus) ..	64	10	9	19			
Diseases of the adrenal glands	65	11	19	30			
Other general diseases	66	37	21	58			
Total .. .. .	..	63	57	120			
30. AVITAMINOSES.							
Scurvy	67	1	..	1			
Beri-beri	68	3	..	3			
Pellagra	69	..	1	1			
Other vitamin-deficiency diseases	71	..	2	2			
Total .. .. .	..	4	3	7			
32. LEUCÆMIAS, ETC., AND OTHER DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS.							
Hæmorrhagic conditions	72	24	20	44			
Leucæmia, lymphadenoma—							
Leucæmia	74a	124	96	220			
Aleucæmia (lymphadenoma)	74b	1	..	1			
Diseases of the spleen	75	19	19	38			
Other diseases of the blood and blood-forming organs ..	76	6	12	18			
Total .. .. .	..	174	147	321			
34. OTHER CHRONIC POISONING.							
Lead poisoning	78a	4	..	4			
Chronic poisoning by other mineral and organic sub- stances—							
(a) Occupational	78b	6	5	11			
(b) Other	79	..	..	..
Total .. .. .	..	10	5	15			
40. OTHER DISEASES OF NERVOUS SYSTEM.							
Encephalitis (not epidemic)—							
Intra-cranial abscess	80a	25	10	35			
Others	80b	31	24	55			
Convulsions of infants under five years of age ..	86	31	20	51			
Other diseases of the nervous system—							
Chorea	87a	1	5	6			
Neuritis	87b	2	6	8			
Paralysis agitans	87c	94	69	163			
Disseminated sclerosis	87d	41	33	74			
Other diseases	87e	38	24	62			
Total .. .. .	..	263	191	454			
48. OTHER DISEASES OF THE CIRCULATORY SYSTEM.							
Aneurysm (other than heart and aorta)	96	52	51	103			
Other diseases of the arteries	99	41	36	77			
Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)	100	16	28	44			
Diseases of the lymphatic system, lymphangitis, etc. ..	101	2	3	5			
High blood pressure (idiopathic)	102	82	63	145			
Other diseases of the circulatory system	103	4	6	10			
Total .. .. .	..	197	187	384			

F.—DEATHS FROM "OTHER DISEASES": AUSTRALIA, 1940—*continued*.

Causes.	General Classification Number.	M.	F.	Total.
52. OTHER DISEASES OF THE RESPIRATORY SYSTEM.				
Diseases of the nasal fossæ and annexa	104	22	13	35
Diseases of the larynx	105	18	9	27
Congestion, œdema, embolism, etc., of the lungs	111	226	236	462
Asthma	112	82	64	146
Pulmonary emphysema	113	12	2	14
Other diseases of the respiratory system (except tuberculosis)—				
Silicosis and other occupational respiratory diseases	114 <i>a</i>	75	..	75
Gangrene of the lung	114 <i>b</i>	5	2	7
Abscess of the lung	114 <i>c</i>	33	11	44
Other diseases	114 <i>d</i> , <i>e</i>	31	12	43
Total .. ..	..	504	349	853
60. OTHER DISEASES OF THE DIGESTIVE SYSTEM.				
Diseases of the buccal cavity, pharynx, etc.—				
Pharynx and tonsils	115 <i>a</i>	40	36	76
Buccal cavity and annexa	115 <i>b</i>	14	13	27
Diseases of the œsophagus	116	8	5	13
Other diseases of the stomach (cancer excepted)	118	26	18	44
Other diseases of the intestines	123	42	42	84
Diseases of the pancreas	128	18	18	36
Peritonitis (without specified cause)	129	57	34	91
Total .. ..	..	205	166	371
72. PUERPERAL CAUSES.				
Hæmorrhage of childbirth and the puerperium	146	..	57	57
Puerperal toxæmias—				
Puerperal eclampsia	148 <i>a</i>	..	31	31
Puerperal albuminuria and nephritis	148 <i>b</i>	..	11	11
Acute yellow atrophy of the liver (post-partum)	148 <i>c</i>	..	5	5
Other puerperal toxæmias	148 <i>d</i>	..	7	7
Other accidents of childbirth	149	..	36	36
Other or unspecified diseases of childbirth and the puerperium	150	..	9	9
Total .. ..	..	..	156	156

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 1921-25, 1931-35 and 1936-40 :—

DEATHS, DEATH-RATE,^(a) ETC., IN CLASSES : AUSTRALIA, 1940.

Class.	Total Deaths.			Death-rates.			Proportion of 10,000 Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Parasitic and Infectious Diseases	2,865	1,766	4,631	81	51	66	743	593	676
2. Cancer and Other Tumours	4,379	4,288	8,667	124	123	124	1,134	1,440	1,267
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases	781	1,261	2,042	22	36	29	202	423	299
4. Diseases of the Blood and Blood-forming Organs	275	271	546	8	8	8	71	91	80
5. Chronic Poisoning and Intoxications	79	22	101	2	1	1	21	7	15
6. Diseases of the Nervous System and Organs of Special Sense	3,297	3,654	6,951	94	105	99	854	1,227	1,016
7. Diseases of the Circulatory System	11,259	8,109	19,368	319	233	276	2,916	2,723	2,832
8. Diseases of the Respiratory System	3,392	2,355	5,747	96	67	82	879	791	840
9. Diseases of the Digestive System	2,082	1,407	3,489	59	40	50	539	473	512
10. Diseases of the Genito-Urinary System	3,041	2,045	5,086	86	59	73	788	687	744
11. Pregnancy, Labour and Puerperal State	..	515	515	..	15	7	..	173	75
12. Diseases of the Skin and of the Cellular Tissue	82	78	160	2	2	2	21	26	23
13. Diseases of the Bones and Organs of Locomotion	84	50	134	2	1	2	22	17	20
14. Congenital Malformations	384	309	693	11	9	10	99	104	101
15. Early Infancy	1,514	1,161	2,675	43	33	38	392	390	391
16. Old Age	1,294	1,247	2,541	37	36	36	335	419	372
17. Violent or Accidental Deaths	3,615	1,185	4,800	103	34	69	936	398	702
18. Causes of Death not Determined	185	53	238	5	2	3	48	18	35
Total	38,608	29,776	68,384	1,094	855	975	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.								
	1921 to 1925.			1931 to 1935.			1936 to 1940.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Parasitic and Infectious Diseases	248	222	236	92	70	81	80	56	68
2. Cancer and Other Tumours				113	108	110	121	120	121
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases				18	33	25	20	36	28
4. Diseases of the Blood and Blood-forming Organs				9	9	9	8	8	8
5. Chronic Poisoning and Intoxications				2	..	1	2	1	1
6. Diseases of the Nervous System and Organs of Special Sense	93	83	88	66	67	67	67	74	70
7. Diseases of the Circulatory System	150	118	134	249	200	225	318	245	282
8. Diseases of the Respiratory System	121	88	105	101	75	88	100	72	86
9. Diseases of the Digestive System	97	81	89	60	46	53	59	44	52
10. Diseases of the Genito-Urinary System	72	49	60	81	59	70	85	61	73
11. Puerperal Condition	..	25	12	..	19	9	..	17	8
12. Diseases of Skin and Cellular Tissue	6	4	5	3	3	3	3	2	3
13. Diseases of Organs of Locomotion	3	2	2	3	1	2	3	1	2
14. Congenital Malformations	12	10	11	11	8	10	11	9	10
15. Early Infancy	73	56	65	44	34	39	43	33	38
16. Old Age	76	68	72	42	42	42	39	41	40
17. Violent or Accidental Deaths	95	26	61	92	28	61	105	34	70
18. Causes of Death not Determined	15	9	12	7	2	5	5	2	4
Total	1,061	841	952	993	804	900	1,069	856	964

15. Ages at Death of Married Males and Females, and Issue.—*Demography Bulletin*, No. 58, 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 1940. A summary of those tables is given hereunder. Deaths of married males in 1940 numbered 25,603, and of married females, 21,895. The tabulations which follow deal, however, with only 25,294 males and 21,730 females, the information regarding issue in the remaining 474 cases being incomplete. The total number of children in the families of the 25,294 males was 98,295, and of the 21,730 females, 92,101. 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.	1940.	1911.	1921.	1931.	1940.
Under 20 years ..	0.33	..	0.75	0.40	0.94	0.77	0.66	0.77
20 to 24 " ..	0.77	0.84	0.81	0.65	1.27	1.22	1.13	0.89
25 " 29 " ..	1.25	1.29	1.33	1.11	1.82	1.86	1.81	1.71
30 " 34 " ..	2.05	2.06	1.79	1.76	2.74	2.45	2.34	1.96
35 " 39 " ..	2.80	2.58	2.13	2.12	3.64	3.29	2.89	2.66
40 " 44 " ..	3.47	3.23	2.77	2.49	4.09	3.66	3.29	2.80
45 " 49 " ..	4.09	3.48	3.10	2.72	4.54	3.76	3.55	2.98
50 " 54 " ..	4.75	3.76	3.46	3.02	5.35	4.23	3.60	3.33
55 " 59 " ..	5.44	4.41	3.69	3.34	5.86	4.69	4.01	3.62
60 " 64 " ..	5.95	4.98	4.02	3.53	5.99	5.39	4.21	3.65
65 " 69 " ..	6.23	5.50	4.41	3.64	6.50	5.86	4.82	4.04
70 " 74 " ..	6.41	6.06	5.06	4.06	6.38	6.30	5.41	4.49
75 " 79 " ..	6.75	6.66	5.65	4.71	6.72	6.56	6.02	4.87
80 " 84 " ..	6.68	6.89	6.17	5.09	6.22	6.76	6.26	5.50
85 " 89 " ..	6.67	7.18	6.59	5.83	5.97	6.93	6.57	5.86
90 " 94 " ..	6.03	7.21	6.94	5.89	5.69	6.53	6.73	5.65
95 " 99 " ..	7.30	6.97	6.69	6.48	5.05	6.05	7.10	6.38
100 years and upwards ..	9.33	9.20	7.00	8.58	5.17	5.11	8.20	7.46
Age not stated ..	4.33	5.36	5.00	..	4.60	5.80	5.00	..
All Ages ..	5.42	4.97	4.44	3.89	5.35	5.05	4.72	4.24

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 230. The totals are shown in the following table :—

ISSUE OF DECEASED MARRIED MALES AND FEMALES : AUSTRALIA, 1940.

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Males.	Females.	Total.
Living ..	41,530	40,642	82,172	Living ..	36,609	36,407	73,016
Dead ..	9,247	6,876	16,123	Dead ..	10,854	8,231	19,085
Total ..	50,777	47,518	98,295	Total ..	47,463	44,638	92,101

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 parent 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 Marriage.	Average Issue.							
	Males.				Females.			
	1911.	1921.	1931.	1940.	1911.	1921.	1931.	1940.
Under 15 years ..	..	..	..	..	9.71	7.60	6.36	6.43
15 to 19 ..	6.97	6.32	6.15	5.56	7.10	6.97	6.79	6.13
20 „ 24 ..	6.34	6.05	5.56	4.80	5.77	5.50	5.23	4.79
25 „ 29 ..	5.70	5.17	4.70	4.19	4.27	4.09	3.79	3.52
30 „ 34 ..	4.92	4.45	3.96	3.41	3.04	2.66	2.42	2.38
35 „ 39 ..	4.05	3.90	3.14	2.74	1.68	1.61	1.40	1.29
40 „ 44 ..	3.43	2.67	2.36	2.17	0.72	0.62	3.88	0.43
45 „ 49 ..	2.59	2.20	1.96	1.53	0.26	0.03	0.12	0.05
50 „ 54 ..	2.45	1.70	1.60	0.95	..	..	..	..
55 „ 59 ..	1.66	1.30	0.95	0.83	..	..	..	..
60 „ 64 ..	2.00	0.33	0.63	0.48	..	..	..	..
65 years and upwards ..	1.00	0.25	0.18	0.54	..	..	..	..
Age unspecified ..	5.40	4.93	3.64	2.91	5.23	5.41	3.96	2.61
All Ages ..	5.42	4.97	4.44	3.89	5.35	5.05	4.72	4.24

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 1940, 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.		1940.		1911.		1940.	
	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.
Australasia—								
Australia ..	4,074	4.71	17,633	3.90	4,566	4.57	16,171	4.20
New Zealand ..	64	3.89	276	3.24	56	3.84	218	3.57
Europe—								
England and Wales ..	4,079	5.87	4,178	3.81	3,152	5.86	3,087	4.20
Scotland ..	1,133	5.89	1,063	3.86	1,002	6.09	784	4.51
Elre and Northern Ireland ..	1,766	6.12	884	4.27	2,118	5.83	990	4.72
Other British Possessions ..	23	6.52	34	3.82	24	5.75	15	3.53
Western ..	199	4.33	230	3.79	55	5.07	51	5.33
Central ..	484	5.81	354	4.86	270	6.56	172	5.67
Southern ..	58	5.09	168	3.43	12	4.92	62	4.02
Eastern ..	35	4.37	46	3.37	6	4.50	12	5.08
Asia—								
British Possessions ..	32	3.87	65	3.51	17	6.41	22	4.55
Foreign Countries ..	74	2.46	107	2.81	5	2.60	8	4.25
Africa—								
British Possessions ..	16	3.56	30	2.67	15	4.80	18	3.83
Foreign Countries ..	..	..	7	3.43	..	..	2	1.50
America—								
British Possessions ..	42	5.55	47	2.72	17	6.47	12	4.92
United States ..	40	3.78	61	2.74	17	4.94	33	3.88
Other Foreign Countries ..	17	4.53	5	2.60	10	4.50	2	0.50
Polynesia ..	5	4.00	13	3.85	9	3.33	10	4.30
At Sea and Indefinite ..	72	4.28	93	3.35	72	4.85	61	4.15
Total ..	12,213	5.42	25,294	3.89	11,423	5.35	21,730	4.24

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.	1940.	1921.	1931.	1940.
Professional	926	1,194	(a) 2,827	4.04	3.78	(a) 3.00
Domestic	552	621	700	3.55	3.64	3.00
Commercial	1,977	2,962	2,943	4.18	3.55	3.35
Transport and Communica- tion	1,254	1,742	2,204	4.63	4.15	3.77
Industrial	5,086	6,883	5,705	4.95	4.49	3.82
Agricultural, Pastoral, Min- ing, etc.	3,983	4,495	5,720	5.83	5.31	4.66
Indefinite	759	936	(b) 4,153	5.49	4.68	(b) 4.05
Unoccupied	15	39	1,042	4.00	3.85	4.00
Total	14,552	18,872	25,294	4.97	4.44	3.89

(a) 1,438 clerks, etc. (average issue 3.00), not specified as belonging to any industry, formerly included under "Commercial", are included under "Professional". (b) 4,120 labourers, etc. (average issue 4.07) not specified as belonging to any industry, formerly included under "Industrial", are included under "Indefinite".

§ 5. Australian Life Tables.

The Official Year Book, No. 20, pp. 962 and 969-73, contains a synopsis of the various Australian Life Tables, and comparisons with other countries of the expectation of life at various ages were also given. 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.

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.

In 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. 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 in regard to 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 this Bureau 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 Governmental 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 (7,766 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, 1940)—						Miles.
State Highways	..	..	..	..	..	5,178
Trunk Roads	..	..	..	..	..	2,371
Ordinary Main Roads	..	..	..	..	..	9,458
Secondary Roads	..	..	..	..	..	94
Developmental Roads	..	..	..	..	..	2,578
Minor Roads	..	..	..	..	..	98,613
<i>Western Division (30th June, 1939)</i>						7,766
						<hr/> 126,058

Of these roads, 32 miles were of wood block, 332 miles cement concrete, 248 miles asphaltic concrete, 3,282 miles tar or bituminous macadam (premixed or penetrated), 2,591 surfaced waterbound macadam or gravel, 3,684 waterbound macadam, 27,037 gravel or crushed rock, and 88,852 miles were formed only, cleared only, or of natural surface.

(iii) *Revenue and Expenditure.*—The revenue and expenditure of the central road authority for the year ended 30th June, 1940, were as follows :—

Revenue.				Expenditure.			
£				£			
Motor Taxation	..	..	2,119,268	Maintenance	..	..	1,577,013
Petrol Taxation	..	..	1,229,230	Construction	..	..	2,727,159
Councils' direct contributions	..	..	232,491	Interest and other loan charges	..	..	383,839
Loans from State Government	..	..	1,003,133	Other	..	..	108,465
Defence Works	..	..	308,200				
Other	..	..	70,683				
Total	..	..	4,963,005	Total	..	..	4,796,476

The total expenditure on all roads in the State by all authorities during 1938–39 was £8,894,099.

(iv) *Sydney Harbour Bridge.* The Government expenditure in connexion with the Sydney Harbour Bridge, which amounted to £9,871,600 to 30th June, 1940, is not included in the figures above. Of this amount £8,195,487 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 resumpptions for £1,144,673. 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, State highways, tourists'

roads, etc., 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 1939 there were 103,929 miles of roads and streets in Victoria, comprising 97 miles of wood or stone, 114 portland cement concrete, 233 asphaltic concrete and sheet asphalt, 8,211 tar or bitumen surface, 24,458 waterbound macadam, gravel, sand, and hard loam pavements, 24,921 formed only, and 45,895 surveyed only but used for general traffic. Of the total length, only 2,641 miles or 3 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 1939-40 were £2,441,868 made up as follows:—Motor registration fees, £1,747,024; contributions by municipalities for permanent works (now subject to relief), £148,097, and for maintenance works, £187,072; sale of stores and material and hire of plant, £269,718; and other sources, £89,957. The expenditure for the year was £2,400,404, comprising maintenance and reconditioning of main roads and State highways, £1,162,611; plant, stores, administration, etc., £518,398; and interest, sinking funds, etc., £719,395. The expenditure shown for interest, sinking funds, etc., comprises the following items:—Interest and sinking fund payments on account of loan moneys, £369,329; repayments by municipalities for interest and sinking fund, £115,276; and relief to municipalities from liability in respect of interest and sinking fund, £234,790.

(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, 1940, the amounts paid into this Account were £2,074 from the State Loans Repayment Fund, while expenditure for the year on permanent works was £2,234, and the total to 30th June, 1940, was £5,046,550.

(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:—Unemployed relief, £53,610 and contributions by the Commonwealth Government under the provisions of the Federal Aid Roads Act, £770,357.

The total expenditure by the Board on road construction and maintenance during the year ended 30th June, 1940, amounting to £2,090,846, may be summarized as follows:—State highways, £506,551; main roads, £886,821; developmental roads, £461,661; unemployment relief (on main and developmental roads, etc.), £53,610; tourist roads, £68,262; Murray River bridges and punts, £8,275; roads adjoining Commonwealth properties, £11,908; and Commonwealth defence works, unemployment relief, £93,758.

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 £ on the property valuation of the whole area. He has also power to grant relief in exceptional circumstances.

At 30th June, 1940, there were under various local authorities 125,095 miles of roads in Queensland, of which 6,320 were natural or artificial sand-clay loam, 6,287 waterbound pavement, 1,432 waterbound pavement with bitumen surface, 946 bituminous penetration macadam, 64 concrete, 27,616 formed only and 82,430 unconstructed but used for general traffic. These totals include the roads under the control of the Main Roads Commission, which at 30th June, 1940, totalled 16,038 miles comprising 9,424 miles of main roads, 5,428 of State highways and 1,186 of developmental, tourist, etc., roads.

During the year ended 30th June, 1940, the receipts of the Commission amounted to £3,038,727, including £438,000 from the Treasury Loan Fund, £908,351 from motor fees, £845,100 from the Commonwealth for works under the Federal Aid Roads scheme and £316,000 from the Special Employment Works Fund. Disbursements amounted to £3,085,679, including £1,937,771 on permanent works, and £522,300 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 1934–1939; (b) fees for hawkers' licences; and (c) 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 30th June, 1940, was 52,330 miles, of which 22 miles were paved with wood or stone; 245 were bituminous concrete; 1,757 bitumen penetration; 14,735 bitumen surfaced, metalled or gravelled; 8,134 formed only; and 27,437 unformed.

The expenditure from the Highways Fund for the year ended 30th June, 1940, was £725,715, including £152,192 for interest on loans. The amount received from the Commonwealth Government for expenditure on Federal Aid Roads was £494,906, the amount allocated from the Highways Fund for roads in newly-settled areas, etc., was £148,097, and grants in aid of rates collected paid to Councils amounted to £27,744. 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 £24,160. At the close of the period under review the Commissioner was maintaining departmentally about 2,082 miles of improved main roads.

5. **Western Australia.**—In Western Australia the construction, maintenance and management of roads, streets and bridges are the functions of Municipalities and Road Boards.

Certain principal highways and developmental roads are proclaimed main roads under the control of the Commissioner of Main Roads, appointed under the Main Roads Act 1930. At 30th June, 1940, the length of "Declared Main Roads" totalled 3,062 miles.

6. **Tasmania.**—(i) *Length and Description of Roads.* At 30th June, 1940, there were 9,386 miles of roads in Tasmania, comprising 618 of bitumen or oil-sprayed; 5,135 metalled and gravelled; 2,266 formed; and 1,367 grubbed and cleared. Of the total length, 1,374 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 1939-40 on the construction of roads and bridges amounted to £108,035, and expenditure from the Crown Lands Fund to £964. In addition, the sum of £121,140 provided by the Commonwealth Government was expended on roads. New-road mileage completed during the year was 32 miles metalled and gravelled and 26 miles formed under State votes, and 5 miles of new construction and 46 miles of reconstruction under the 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 1939-40 was £129,217.

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 1935-36 to 1939-40, together with the aggregate amounts of expenditure up to 30th June, 1940. 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.	Total.
	£	£	£	£	£	£	£
1936 ..	92,682	77,040	426,266	..	132,783	82,773	811,544
1937 ..	669,704	41,807	325,804	196,000	123,659	96,787	1,453,761
1938 ..	716,051	Cr. 50,200	342,665	152,500	154,713	62,634	1,378,363
1939 ..	1,850,480	Cr. 22,502	357,252	199,900	144,860	140,770	2,670,760
1940 ..	450,574	Cr. 25,466	457,343	71,000	210,513	108,035	1,271,999
Total to							
30/6/40	20,256,535	d12,440,163	5,507,985	3,839,145	3,145,408	5,686,979	50,876,215

(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. (d) Gross loan expenditure.

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 1939 being 184,007 square miles. 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 Local Government Act 1919 and subsequent amendments and ordinances constitute the basis of the operation of Local Government bodies known as municipalities, shires and county councils. The operations of the City of Sydney are governed by the Sydney Corporation Act 1932–1940.

The City of Greater Newcastle was constituted in 1938 with increased powers by special Act, by the union of the City of Newcastle with ten suburban municipalities and portions of two shires, and is subject to the general provisions of the Local Government Act.

The area, population and value of ratable property in the incorporated areas at 31st December, 1939, 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, 1939.

Local Bodies.	Number.	Area.	Population.	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Assessed Annual Value.(a)
		Acres.		£	£	£
Metropolitan—						
Capital City ..	1	3,220	89,070	47,765,704	155,776,340	7,009,935
Other ..	48	152,088	1,204,590	98,654,922	302,611,073	23,149,135
Total ..	49	155,308	1,293,660	146,420,626	458,387,413	30,159,070
Outside Metropolitan Area ..	249	117,609,152	1,447,150	179,616,094	(b)	(b)
Grand Total ..	298	117,764,460	2,740,810	326,036,720	(b)	(b)

(a) Nine-tenths Annual Rental Value.

(b) Not available.

(ii) *Victoria.* Local Government is established throughout the State, the various divisions being termed cities, towns, boroughs, or shires. The only unincorporated areas are French Island in Western Port Bay and two other smaller islands. 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, which, prior to 1938, ended on 31st December and 31st August respectively, now end, with those of all other municipalities, on 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, 1939.

Local Bodies.	Number.	Area.	Population.	Value of Ratable Property.	
				Improved Capital Value.	Annual Value.
		Acres.		£	£
Metropolitan—					
Capital City	1	7,740	93,200	96,242,920	4,812,146
Other(a)	28	160,906	957,130	271,997,860	15,086,897
Total	29	168,646	1,050,330	368,150,780	19,899,043
Outside Metropolitan Area ..	168	56,074,895	835,220	298,414,000	14,955,076
Grand Total	197	56,243,541	1,885,550	666,564,780	34,854,119

(a) Including the whole of the Shire of Braybrook and the whole of the City of Heidelberg.

(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 1938–39 :—

LOCAL GOVERNMENT AUTHORITIES, QUEENSLAND : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1938–39.

Local Bodies.	Number.	Area.	Population. (a)	Unimproved Capital Value.
		Acres.		£
Capital City	1	246,400	325,890	21,118,551
Outside Metropolitan Area ..	143	428,446,720	678,260	51,437,662
Total	144	428,693,120	1,004,150	72,556,213

(a) At 31st December, 1938.

(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.

The following table gives the area, population and value of ratable property in incorporated areas for the year ended 30th June, 1939.

LOCAL GOVERNMENT AUTHORITIES, SOUTH AUSTRALIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1939.

Local Bodies.	Number.	Area.	Population.	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Metropolitan—		Acres.		£	£	£
Capital City ..	1	3,772	31,390	11,800,000	28,000,000	1,336,000
Other ..	20	99,215	290,631	(a)	72,000,000	3,586,000
Total ..	21	102,987	322,021	(a)	100,000,000	4,922,000
Outside Metropolitan Area ..	121	34,400,079	262,107	(a)	81,000,000	4,043,000
Grand Total ..	142	34,503,066	584,128	(a)	181,000,000	8,965,000

(a) Not available.

(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, 1939, for Municipalities, and the year ended June, 1939, for District Road Boards.

LOCAL GOVERNMENT AUTHORITIES, WESTERN AUSTRALIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1939.

Local Bodies.	Number.	Area.	Population.	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Municipalities—		Acres.		£	£	£
Metropolitan—						
Capital City ..	1	15,479	87,710	(a)	31,000,000	1,563,131
Other ..	8	11,374	66,318	(a)	13,364,224	644,344
Outside Metropolitan Area ..	12	32,698	50,168	(a)	6,634,766	497,121
Total ..	21	59,551	204,196	(a)	50,998,990	2,704,596
District Road Boards—						
Other Metropolitan ..	11	(b) 322,560	83,186	3,701,938	(a)	1,112
Outside Metropolitan Area ..	116	624,207,360	200,680	18,152,114	(a)	516,499
Total ..	127	624,529,920	283,866	21,854,052	(a)	517,611
Grand Totals ..	148	624,589,471	488,062	21,854,052	(a)	3,222,207

(a) Not available. (b) Includes Swan District (235,264 acres), of which 8,064 acres only are in the Metropolitan Area.

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, 1939.

LOCAL GOVERNMENT AUTHORITIES, TASMANIA : AREA, POPULATION AND VALUE OF RATABLE PROPERTY, 1939.

Local Bodies.	Number.	Area.	Population.	Value of Ratable Property.		
				Unimproved Capital Value.	Improved Capital Value.	Annual Value.
Metropolitan—		Acres.		£	£	£
Capital City ..	1	17,760	51,200	4,874,743	13,502,987	833,376
Other(a) ..	2	99,000	14,000	1,136,178	2,953,725	167,969
Total ..	3	116,760	65,200	6,010,921	16,456,712	1,001,345
Outside Metropolitan Area ..	46	16,661,240	171,726	16,860,544	37,323,067	1,917,834
Grand Total ..	49	16,778,000	236,926	22,871,465	53,779,779	2,919,179

(a) Including the whole of the Municipalities of Clarence and Glenorchy.

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 1939 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, 1939.

Particulars.	N.S.W. (a)	Victoria. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Taxation—	£	£	£	£	£	£	£
Rates (net) ..	5,558,528	3,638,835	2,376,153	889,414	673,445	352,207	13,620,919
Penalties ..	102,600	27,491					
Licences ..	113,162	84,893	32,364	30,059	20,473	1,593	290,784
Other ..		..	..	..	..	9,833	
Total ..	5,774,290	3,751,219	2,408,517	919,473	694,371	363,633	13,911,703
Public Works and Services—							
Sanitary and garbage services ..	462,270	145,713	382,495	20,726	69,167	11,456	1,091,827
Council properties ..	571,063	499,179	310,527	85,315	94,701	53,422	1,614,207
Street construction ..	304,584	177,891	15,371	38,096	15,958	902	552,802
Other ..	205,302	43,543	24,560	24,328	6,622	7,938	312,293
Total ..	1,543,219	866,326	732,953	168,165	186,448	73,718	3,571,129
Government Grants—							
Unemployment relief ..	1,671,758	966,305	209,386	17,855	76,708	27,111	5,109,241
Roads ..	1,371,526	58,111	286,839	(d) 418,526			
Other ..	316,898	136,327	311,027	7,798	4,942	4,307	781,299
Total ..	3,360,182	1,160,743	807,252	444,179	81,650	36,534	5,890,540
Profits from Business Undertakings—							
..	..	226,264	7,795	..	60,144	14,795	308,998
Fees and fines ..	..	11,021	221,115	19,576	2,727	12,466	788,101
All other ..	..	54,978					
Total ..	10,677,691	6,070,551	4,177,632	1,578,688	1,447,154	518,755	24,470,471

(a) Figures relating to New South Wales are on an income and expenditure basis as distinct from those of other States which are on a cash basis. (b) Capital city, nine months, Geelong, thirteen months ended 30th September, 1939. (c) Includes grants for specific work mainly to relieve unemployment. (d) Includes £60,000 reimbursements from Highways Department. (e) Includes £351,826 collections in connexion with vehicles registration.

In the next table the expenditure for the year 1939 is shown. The figures are exclusive of expenditure in connexion with the debt services of business undertakings.

LOCAL GOVERNMENT AUTHORITIES : EXPENDITURE, 1939.

Particulars.	N.S.W.	Victoria. <i>a</i>	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
General Administration	681,586	631,296	317,203	133,592	129,960	61,460	1,955,097
Debt Services (excluding business undertakings)—							
Interest ..	891,339	469,259	581,840	41,798	99,056	32,857	2,116,149
Redemption ..	1,135,400	388,363	376,525	60,659	145,637	27,760	2,134,344
Exchange ..	(b)	..	51,401	..	1,114	3,847	56,362
Other ..	4,945	7,185	1,187	..	155	14	13,486
Total ..	2,031,684	864,807	1,010,953	102,457	245,962	64,478	4,320,341
Public Works and Services—							
Roads, streets and bridges ..	5,266,369	1,895,329	1,354,967	933,978	587,903	214,852	10,253,398
Health administration ..	145,374	166,291	93,654	94,007	38,085	16,281	553,692
Sanitary and garbage services ..	641,924	267,753	350,953	60,436	96,456	26,828	1,444,350
Street lighting ..	352,114	155,499	68,450	56,607	46,497	20,933	700,100
Council properties ..	1,123,258	784,715	267,010	136,559	258,400	57,180	2,627,122
Other ..	304,925	83,661	(c)437,538	31,845	13,231	12,851	884,051
Total ..	7,833,964	3,353,248	2,572,572	1,313,432	1,040,572	348,925	16,462,713
Grants—							
Fire brigades ..	118,611	69,371	25,754	(d)	25,301	4,330	243,367
Hospitals and ambulances ..	22,556	45,250	268,727	(d)	4,710	334	347,469
Other charities ..			500	2,773	1,621	998	
Other ..	(e)205,780	(f)230,232	10,191	1,421	1,854	3,138	452,616
Total ..	346,947	344,853	305,172	4,194	33,486	8,800	1,043,452
All other ..	7-238,466	(h)998,655	128,734	4,494	39,099	23,313	955,829
Total ..	10,655,715	6,192,859	4,334,634	1,558,169	1,489,079	506,976	24,737,432

(a) Capital city, nine months, Geelong, thirteen months ended 30th September, 1939. (b) Included with Interest. (c) Includes £282,948 for Sewerage and Drainage. (d) Compulsory contributions included under Public Works and Services. (e) Main Roads Department. (f) Includes £174,381 to Country Roads Board. (g) Includes deductions to offset duplication in the figures above caused by expenditure on the purchase of assets and depreciation of same, etc. (h) Includes £974,424, for sustenance work.

3. **New Money Loan Raisings, Debt and Interest Payable.**—Particulars are given in the following table of new money loan raisings during the year 1939-40 and the amount of debt at 30th June, 1940, 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, 1939-40.

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)—							
From Government ..	18	6	290	7	1	..	322
From Public ..	2,017	624	2,377	35	120	137	5,310
Total ..	2,035	630	2,667	42	121	137	5,632
Funds Provided for Redemption—							
Government Loans ..	309	34	347	22	1	10	723
Loans due to Public ..	1,647	628	1,271	55	226	132	3,959
Total ..	1,956	662	1,618	77	227	142	4,682
Debt—							
Due to Government ..	1,531	580	10,144	106	1	321	12,683
Due to Banks (Net Overdraft) ..	240	595	738	57	36	..	1,666
Due to Public Creditor ..	38,047	12,399	21,222	797	3,131	3,031	78,627
Total ..	39,818	13,574	32,104	960	3,168	3,352	92,976
Maturing Overseas ..	7,350	..	8,946	..	552	800	17,648
Interest Payable ..	1,771	598	1,485	43	139	147	4,183

SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.

New Money Loan Raisings(a)—							
From Government ..	55	722	811	344	..	..	1,932
From Public ..	4,840	3,211	165	13	22	30	8,281
Total ..	4,895	3,993	976	357	22	30	10,213
Funds Provided for Redemption—							
Government Loans ..	216	164	184	161	2	40	767
Loans due to Public ..	525	568	68	6	14	16	1,197
Total ..	741	732	252	167	16	56	1,964
Debt—							
Due to Government ..	24,713	4,543	9,240	7,510	287	318	46,611
Due to Banks (Net Overdraft) ..	541	177	1,417	32	4	..	2,171
Due to Public Creditor ..	57,324	64,037	3,611	884	116	509	126,481
Total ..	82,578	68,757	14,268	8,426	407	827	175,263
Maturing Overseas ..	5,413	5,722	..	..	..	..	11,135
Interest Payable ..	3,036	2,773	551	331	19	35	6,745

(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 more recent arrangements councils are now usually required to raise loans to meet the capital cost and to undertake the work of construction. In certain cases the Government contributes towards the cost and assists councils in the payment of interest on loan debt.

(ii) *Waterworks.* (a) *Metropolitan.* The main catchment of the metropolitan water system is drained by the Nepean, Cataract and Cordeaux Rivers. It is 347 square miles in extent and the combined capacities of the storage reservoirs is 108,772 million gallons. Water is drawn also from the Woronora and Warragamba Rivers, with catchments of 29 square miles and 3,383 square miles respectively. A reservoir under construction on the Woronora River has at present a capacity of 1,474 million gallons but this will be increased to 15,479 million gallons on completion. Water from the Warragamba River is drawn by pumps from the normal river flow which is impounded by a low weir. The off-take varies according to the river flow, the maximum being 40 million gallons per day. This scheme is in the first stages of development. Service reservoirs throughout the metropolitan system number 91, with a total capacity of 535,388,000 gallons. At 30th June, 1940, the length of mains was 4,476.5 miles, and the average daily supply in 1939-40 was 119,601,000 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 coal-mining 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. Service 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 967 miles at 30th June, 1940.

(c) *Water Supplied, etc.* The following table gives the number of houses, the estimated population supplied, and other details for the year 1939-40 :—

WATERWORKS, SYDNEY(a) AND NEWCASTLE : WATER SUPPLIED, 1939-40.

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.	'000 Gallons.	'000 Gallons.	Gallons.	Gallons.
Sydney (a) ..	360,548	1,502,000	119,601	43,774,000	332	79.63
Newcastle ..	49,732	198,900	12,925	4,730,580	260	64.97

(a) Including part of South Coast.

(iii) *Sewerage and Drainage.* (a) *Metropolitan.* The Sydney sewerage system consists of three main outfalls, discharging into the Pacific Ocean. During 1939-40, new sewers laid measured 76.3 miles and 0.7 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 102.2 miles in 1939-40, and properties connected increased by 1,718.

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 Throsby Creek Stormwater Area. A drainage rate of 3d. in the £ on assessed annual value of rateable property was levied in 1939-40.

(c) *Particulars of Services.* The following table supplies details of sewerage services and stormwater drains as at 30th June, 1940.

SEWERAGE AND DRAINAGE : SYDNEY(a) AND NEWCASTLE, 1939-40.

System.	Premises Drained.	Population Served.	Length of Sewers.	Length of Stormwater Drains.
	No.	No.	Miles.	Miles.
Sydney (a)	264,604	1,102,000	2,637.2	87.4
Newcastle	29,975	119,900	489.3	37.0

(a) Including part of South Coast.

(d) *Finances.* The following statement shows the revenue and expenditure on account of the services of waterworks, sewerage and drainage during 1939-40 :—

WATERWORKS, SEWERAGE AND DRAINAGE : SYDNEY(a) AND NEWCASTLE.

Item.	Capital Debt.	Revenue.	Expenditure.				Surplus or Deficit.
			Working Expenses, including Renewals Reserve.	Interest.	Exchange on Interest.	Sinking Fund.	
	£	£	£	£	£	£	£
Sydney (a)—							
Water ..	26,782,721	1,920,837	651,686	1,009,687	72,543	159,355	+ 27,566
Sewerage ..	16,261,817	1,118,768	364,761	635,060	37,940	89,298	— 8,291
Drainage ..	1,068,679	46,204	13,794	42,854	2,672	6,159	— 19,275
Total ..	44,113,217	3,085,809	1,030,241	1,687,601	113,155	254,812	..
Newcastle—							
Water ..	2,794,859	256,127	136,491	97,109	11,237	13,141	— 1,941
Sewerage ..	1,579,647	132,511	68,863	54,391	4,036	6,723	— 1,502
Drainage ..	113,389	16,177	11,184	3,981	522	549	— 59
Total ..	4,487,895	404,815	216,538	155,571	15,795	20,413	— 3,502

(a) Including part of South Coast.

(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 £6,422,361 at 31st December, 1939, namely, £3,793,567 for water and £2,628,794 for sewerage. Of the foregoing amounts, £877,988 for water and £226,674 for sewerage are owing to the State Government. At 31st December, 1939, country waterworks were in operation or under construction in 82 municipalities and 37 shires, and country sewerage services in 50 municipalities and 10 shires. In addition two county councils, each comprising four shires, had been formed to supply water to towns within the areas of constituent councils, but the work of construction was only in the initial stages at the end of 1939.

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 £1,060,110 at 31st December, 1939.

* 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 on 1st January, 1939. Capital debt owing to the State was written off and the Board commenced to raise loans on its own behalf to finance the construction of water amplification works and sewerage services. In 1939 income amounted to £50,312 and expenditure to £34,943; the debenture debt was £60,000 at 31st December, 1939.

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 Shires of Dandenong and Blackburn and Mitcham, is included within the metropolitan area for water supply, sewerage, main drainage and river improvement purposes. This territory covers 447 square miles of land area, and in 1940 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 at 30th June, 1940, for loans raised was £26,140,470. The Board was then still empowered to borrow £999,464 before reaching the limit of its borrowing powers.

(b) *Receipts and Expenditure.* The ordinary receipts and expenditure for the year 1939-40 were £2,439,184 and £1,749,574 respectively, and the loan receipts and expenditure, £1,447,158 and £2,076,544 (including loan redemption £836,030) respectively.

In the following table showing the finances of the various services, charges against General Revenue Account amounting to £578,165 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 1939-40. The rate levied was 7d. in the £ on the net annual value of the property served.

WATER SUPPLY, MELBOURNE : PARTICULARS OF SERVICES.

Year.	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.	'000 Gallons.	'000 Gallons.	Gallons.	Gallons.	Miles.
1939-40 ..	291,261	1,156,306	78,594	28,765,422	269.84	67.97	3,347

(b) *Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The cost of construction and the financial operations for the year 1939-40 are given below. The total capital cost to that date was £12,649,284.

WATER SUPPLY, MELBOURNE : FINANCES.

Year.	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
	£	£	£	%	£	£
1939-40 ..	480,387	1,016,936	170,897	16.80	551,657	294,382

(a) Includes interest on renewals and payments to sinking funds.

C. Melbourne Sewerage. (a) *Number of Houses Connected, etc.* Particulars of services for 1939-40 are given below. The rate levied was 1s. 2d. in the £ on the net annual value of the property served.

SEWERAGE, MELBOURNE : PARTICULARS OF SERVICES.

Year.	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.	'000 Gallons.	'000 Gallons.	Gallons.	Gallons.	Miles.
1939-40 ..	274,974	1,091,646	51,669	18,910,710	187.9	47.3	2,617

(b) *Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The cost of construction and the financial operations for the year 1939-40 are given below. The total capital cost to that date was £14,396,033.

SEWERAGE, MELBOURNE : FINANCES.

Year.	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
	£	£	£	%	£	£
1939-40 ..	352,342	1,170,699	214,712	18.34	675,763	280,224

(a) Includes interest on renewals and payments to sinking funds.

(c) *Metropolitan Sewage Farm.* The total area of the farm at 30th June, 1940, was 22,634 acres. The following table gives details in connexion therewith for the year 1939-40. The total capital cost to that date was £1,298,930.

METROPOLITAN SEWAGE FARM : FINANCES.

(Included in Sewerage Finances.)

Year.	Capital Cost for Year.	Cost of Sewage Disposal.	Interest.	Trading Profit.	Net Cost of Sewage Purification.
	£	£	£	£	£
1939-40 ..	39,192	34,703	56,357	9,574	81,486

(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 629,345 for the year 1939-40.

D. Melbourne Drainage and Rivers—Capital Cost, Revenue, Working Expenses, Interest and Surplus. The following table gives details in connexion therewith for the year 1939–40. The total capital cost to that date was £1,535,586.

DRAINAGE AND RIVERS, MELBOURNE : FINANCES.

Year.	Capital Cost for Year.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
	£	£	£	%	£	£
1939–40	297,742	89,521	21,527	24.04	63,566	4,428

(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 1902, 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 49,623.

(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 545 million gallons of water per annum from the upper reaches of the river Barwon. There are 320 miles of mains within the water supply area. The total expenditure on waterworks to 30th June, 1940, was £744,005, and the revenue for the year 1939–40 was £58,767; the sinking fund appropriations at June, 1940, amounted to £78,049, of which £74,150 has been expended in the redemption of loans. There is a water rate of 1s. in the £ (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 £35,858.

(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 145 miles of reticulation mains have been constructed. The drainage area is 9,571 acres, and the number of buildings within the drainage area is 12,325 and within the sewered areas 12,092, while 12,115 buildings have been connected with the sewers. The total expenditure to 30th June, 1940, on sewerage works was £647,920, and on the cost of sewerage installation under deferred payment conditions £257,503, of which £1,327 is outstanding. The revenue in 1939–40 amounted to £43,503 and the sinking fund appropriations at June, 1940, were £73,638, of which £71,702 has been expended in the redemption of loans. A general rate of 1s. 3d. in the £ is levied on the net annual value of ratable properties. Replacement and Contingencies Reserves (Sewerage) amount to £29,115.

(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 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 £691,003. The liabilities are loans due to the Government amounting to £285,547 as at 31st December, 1940. The revenue for the year 1940 was £41,924.

(c) *Sewerage.* The scheme as designed provides for a population of 90,000 persons. The capital cost of construction to 31st December, 1940, was £454,364. The method of sewerage disposal is by sedimentation, oxidation and sludge digestion. Ninety-nine sewered areas have been declared as at 1st January, 1941, comprising 9,755 tenements.

The scheme is financed by debenture-issue loans from various financial institutions, £500,020 having been provided up to 31st December, 1940, of which £64,793 has been redeemed, leaving a loan liability of £435,227 for constructional works. An expenditure of £186,587 was incurred for house connexions, of which £170,003 has been redeemed, the balance outstanding being £16,584.

(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, 1940, was £340,695 for sewerage scheme and £186,988 for house connexions, excluding those tenements connected privately. The number of tenements connected to sewers is 6,455.

(v) *Sewerage in other Country Districts.* At the end of 1940 sewerage authorities had been constituted also in the following districts :—Ararat, Bairnsdale, Beechworth, Benalla, Castlemaine, Colac, Dandenong, Dimboola, Echuca, Euroa, Hamilton, Horsham, Kerang, Kyabram, Kyneton, Leongatha, Lorne, Maffra, Mildura, Mornington, Morwell, Murtoa, Nhill, Portland, Sale, Shepparton, Swan Hill, Traralgon, Wangaratta, Warracknabeal, Warragul, Warrnambool, Werribee, Wodonga, Yarram and Yarrawonga.

(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 1940 :—

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.
1940 ..	No. III	£ 2,146,046	£ 1,468,388	£ 2,648	No. 17	£ 927,943	£ 577,278	£ 105

3. *Queensland.*—(i) *The Metropolitan Works Board, Department of Works, 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 capacity 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, Sparkes Hill, Wickham Terrace and Paddington (elevated tank) is approximately 32,356,000 gallons.

(b) *Waterworks. Summary.* The following table gives a summary of operations for the year 1939-40 :—

WATERWORKS, BRISBANE : SUMMARY.

Year.	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.	'000 Gallons.	Gallons.	Gallons.
1939-40 ..	965	77,273	328,915	5,647,000	15,427,896	47.54

(a) Exclusive of Ipswich, which is a bulk supply.

The total length of the trunk mains is 219 miles.

(c) *Sewerage.* At 30th June, 1940, 36,154 premises were connected to the Council's sewerage system, the estimated population served being 162,690 persons. The total length of sewers in operation is 1,089 miles, consisting of 586 miles of sewers within premises, and 503 miles of main and reticulation sewers.

(d) *Waterworks and Sewerage Works Finances.* The following table gives particulars regarding finance for the year 1939-40 :—

WATER AND SEWERAGE WORKS, BRISBANE : FINANCES.

Year.	Capital Cost.	Net Revenue from Rates.	Management and Working Expenses.	New Works Construction.	Interest and Redemption of Loans, including Sinking Fund and Overdraft.
	£	£	£	£	£
939-40 ..	11,122,097	772,262	207,509	277,140	(a) 639,372

(a) Exclusive of the sum of £61,577 paid as exchange, registry fees, etc.

(ii) *Country Towns.—(a) Water Supply.* In addition to the city of Brisbane, there were at 30th June, 1940, seventy-nine country towns in Queensland provided with water supply systems (including six in the course of construction) constructed by municipalities chiefly from Government loans. The following statement gives particulars of all water supply systems, exclusive of Brisbane, for the year 1939-40 :—

COUNTRY WATER SUPPLY SYSTEMS : QUEENSLAND.

Cost of Construction to 30th June, 1940—£3,931,907.					
Receipts.	£	Expenditure.	£		
Rates and sales of water ..	325,559	Office and salaries ..	25,770		
Government and other loans ..	230,230	Construction ..	290,910		
Government subsidy or loans ..	81,419	Maintenance ..	145,543		
Other ..	31,849	Interest and redemption ..	148,310		
		Other expenses ..	16,643		
Total ..	669,057	Total ..	627,176		
Assets ..	2,829,787	Liabilities ..	2,257,170		

(b) *Sewerage Systems.* At 30th June, 1940, there were eight cities outside the Metropolitan area—Bundaberg, Ipswich, Mackay, Maryborough, Rockhampton, Toowoomba, Townsville and Warwick—with sewerage works. Sewerage works are also in the towns of Charleville and Goondiwindi and in the shires of Paroo (Cunnamulla) and Quilpie. The works at Mackay, Maryborough, Rockhampton, Toowoomba, Cunnamulla and Quilpie 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 were constructed and are maintained by the Public Works Department.

(ii) *Adelaide Waterworks.* (a) *Summary.* The following table gives particulars for 1939-40, the figures for consumption being recorded by gaugings taken at the reservoirs and including evaporation and absorption. There are 65,873 meters in the Adelaide District.

ADELAIDE WATERWORKS : SUMMARY.

Year.	Number of Assessments.	Annual Value.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
	No.	£	Acres.	Million Gallons.	Miles.	Million Gallons.
1939-40	133,770	5,643,825	138,074	14,436	1,400	8,863

(b) *Finances.* Particulars for the year 1939-40 are given below :—

ADELAIDE WATERWORKS : FINANCES.

Year.	Capital Cost.	Revenue.		Expenses.				Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Adminis- tration.	Mainten- ance.	Other.	Total.	
1939-40 ..	£ 4,714,939	£ 375,042	£ 467,174	£ 22,541	£ 66,369	£ 33,034	£ 121,944	% 7.32

(a) Including £10,577 for guarding departmental property.

(iii) *Adelaide Sewerage.* Particulars for 1939-40 are given hereunder :—

ADELAIDE SEWERAGE : SUMMARY.

Year.	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, Maintenance, etc.	Total.	
1939-40 ..	Miles. 538	No. 56,048	£ 1,657,320	£ 188,273	£ 195,054	£ 31,252	£ 35,236	% 9.69

(iv) *Country Water Supply.* (a) *Summary.* The chief items of information regarding these undertakings are set forth in the table below for 1939-40. There are 35,921 meters in country districts.

COUNTRY WATERWORKS, SOUTH AUSTRALIA : SUMMARY.

Year.	Number of Assessments.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
	No.	Acres.	Million Gallons.	Miles.	Million Gallons.
1939-40	52,661	11,742,297	9,378	5,018	4,500

(b) *Finances.* The next table gives financial information for 1939-40 :—

COUNTRY WATERWORKS, SOUTH AUSTRALIA : FINANCES.

Year.	Capital Cost.	Revenue.		Working Expenses.				Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Adminis- tration.	Mainten- ance.	Other.	Total.	
1939-40 ..	£ 10,073,173	£ 164,601	£ 223,237	£ 21,357	£ 71,936	£ 98,491	£ 191,784	% 0.31

(v) *Other Sewerage Systems.* Information in summarized form is given below regarding the two suburban sewerage systems, namely, the Glenelg system and the Port Adelaide and Semaphore system, for 1939-40 :—

SUBURBAN SEWERAGE SYSTEMS, SOUTH AUSTRALIA : SUMMARY.

Year.	Length of Sewers.	Number of Con- nections.	Capital Cost.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates.	Total.	Adminis- tration and Mainten- ance.	Total.	
1939-40 ..	Miles. 391	No. 26,931	£ 1,741,271	£ 77,482	£ 79,453	£ 32,947	£ 42,424	% 2.13

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 Canning Dam, Churchman's Brook, Wongong Brook, Victoria Reservoir, Mundaring Reservoir and certain bores. The largest water supply project, the Canning Dam, with a capacity of 20,550 million gallons was completed during 1940, and at the 30th September, 1941, there were 11,143 million gallons impounded

The sewerage treatment works of Perth and suburbs consist of primary sedimentation with separate sludge digestion and discharge of effluent to the ocean. Fremantle treatment works consist of septic tanks with ocean outfall for effluent. Further extensive reticulation works were carried out during the year. At 30th June, 1940, the number of premises connected with sewers was 39,271.

(b) *Summary.* The following table gives particulars regarding water supply for 1939-40 :—

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA : SUMMARY.

Year.	Estimated Population Supplied.	Number of Services.	Water Supplied.	Average Daily Supply.		Number of Meters.	Length of Mains.
				Per Head.	Per Service.		
	No.	No.	'000 Gallons.	Gallons.	Gallons.	No.	Miles.
1939-40	255,695	63,019	5,598,329	59.82	242.72	40,401	957

(c) *Finances.* The table hereunder gives separate information for the water supply and sewerage and drainage branches for 1939-40 :—

METROPOLITAN WATER SUPPLY, AND SEWERAGE AND DRAINAGE, WESTERN AUSTRALIA : FINANCES.

Year.	Water Supply.			Sewerage and Drainage.		
	Capital Cost.	Revenue.	Expenditure.	Capital Cost.	Revenue.	Expenditure.
	£	£	£	£	£	£
1939-40	5,105,024	302,604	292,076	3,689,437	195,089	197,764

(iii) *Goldfields Water Supply.* The source of supply for the Eastern goldfields as well as for the intervening towns and agricultural districts is the Mundaring Reservoir, which has a capacity of 4,650 million gallons. This scheme is now linked by pipe-line with the Canning Dam. In 1939-40 the railways consumed 6 per cent., the mines 42 per cent., and domestic, etc., 52 per cent. of the supply. The following table gives details for 1939-40 :—

GOLDFIELDS WATER SUPPLY, WESTERN AUSTRALIA : SUMMARY.

Year.	Total Consumption.(a)	Number of Services.	Length of Water Mains.	Capital Cost.	Revenue.	Expenditure.
	'000 gallons.	No.	Miles.	£	£	£
1939-40	1,469,000	14,378	1,721	5,738,959	322,377	312,281

(a) Includes 137,665,000 gallons supplied to the Metropolitan Water Supply Department.

(iv) *Water Supply of Other Towns.* During 1939-40 water supplied to other towns and districts amounted to 291,572,000 gallons, distributed as follows :—Railways, 34,155,000 gallons ; mines, 23,594,000 gallons ; and 233,823,000 gallons to domestic and other consumers. The length of mains utilized was 1,721 miles.

(v) *Agricultural Water Supply.* During the year 1939-40, one well was sunk and ten tanks excavated. During the thirty years from 1st July, 1910, to 30th June, 1940, 545 tanks were built, 381 wells sunk, and 3,602 bores put down to a total depth of 180,302 feet. Of the bores put down, 554 yielded fresh and 312 stock water.

(vi) *Artesian and Sub-artesian Waters.* Up to 30th June, 1940, the total number of bores put down in search of artesian or sub-artesian water and in which water was struck was 284, ranging in depth from 30 to 4,006 feet. These figures include 52 bores sunk in the metropolitan area.

6. *Tasmania.*—(i) *Hobart Water Supply.* The cost of this undertaking to 30th June, 1940, was £757,464, 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, 1940, amounted to £566,309. At the same date the number of tenements supplied in the city and suburbs was 14,409 and the length of reticulation mains was 145 miles. The revenue for 1939-40 was £57,713.

(ii) *Hobart Sewerage System.* The revenue for the year ended 30th June, 1940, was £38,200. Up to that date 83.9 miles of sewers had been laid in connexion with the original city system at a cost of £222,328 and 8,827 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 29.7 miles of sewers, connecting with 1,849 tenements, have been constructed at a cost of £133,165. In New Town a total of 40.4 miles of sewers has been laid, and 1,969 properties connected. The cost to 30th June, 1940, including surveys and sewerage outfall, was £117,447.

§ 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 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 and by the State Department of Navigation.

(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 68,103 feet of wharfage controlled by the Maritime Services Board, and 9,928 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 following table gives particulars of the finances of the Board for 1939-40 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.	Revenue.				Working Expendi- ture.	Interest.	Surplus.	Total Capital Debt.
	Wharfage and Harbour Rates.	Tonnage Rates and Berthing Charges.	Other Sources.	Total.				
	£	£	£	£	£	£	£	£
1939-40	785,109	56,714	361,404	1,203,227	359,211	542,818	301,198	611,275,655

(a) Including £57,554 exchange and £63,210 sinking fund contributions.

(b) After allowing for balance in liquidation of Capital Debt Account.

(c) *Port of Newcastle.* Newcastle Harbour is administered by the Maritime Services Board and an advisory committee consisting of five members appointed by the Governor. 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.* The Navigation and Harbour and Tonnage Rates Acts are administered at Port Kembla by the New South Wales Department of Public Works on behalf of the Maritime Services Board. 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 (excluding Pilotage).	Average Rate per Ton of Shipping.
Australia—				£	d.
Sydney (1938-39)	..	..	11,650,317	234,094	4.8
Melbourne (1938)	..	..	8,578,270	210,432	5.9
United Kingdom—					
London (1938-39)	..	..	31,041,920	1,418,494	10.9
Liverpool (1938-39)	..	..	21,724,050	1,594,036	17.6

NOTE.—Later particulars are not available for publication.

2. *Victoria.*—(i) *Melbourne Harbour Trust.* (a) *General.* Information regarding the origin and constitution of this trust appears in Official Year Book No. 12, p. 970 *et seq.* At 31st December, 1940, the sheds available for wharfage accommodation had a length of 18,271 feet, covering an area of 1,207,274 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 60,950 feet, giving an area of over 56 acres of wharfage, of which 50,699 feet is effective berthing space. During 1940 the quantity of material raised by dredging and excavation in the river and bay amounted to 3,001,621 barge yards at a cost of £135,929. The Trust has expended £377,518 in reclaiming land within its jurisdiction by depositing 7,862,946 barge yards of material thereon.

(b) *Finances.* During the year ended 31st December, 1940, the revenue (excluding refunds) of the Trust amounted to £855,232, and expenditure to £836,833 (including the amount of £157,806 paid to Consolidated Revenue and Geelong Harbour Trust). There was a net surplus on revenue account of £18,399. Appropriation for sinking fund and charges for depreciation, renewals and insurance against revenue account for the year amounted to £182,834. The capital expenditure for the year was £160,269. At 31st December, 1940, the total capital expenditure amounted to £9,222,592, the loan indebtedness at that date being £4,028,881.

(ii) *Geelong Harbour Trust.* The Geelong Harbour Trust was constituted in 1905, and 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 1940 was £89,614. Revenue expenditure was £92,320 and capital expenditure £25,077, and loans outstanding at the end of that year amounted to £526,570.

(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, 1938, 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 1940 was £527, while the revenue was £13,577 and the expenditure £14,443.

(ii) *Bundaberg Harbour Board.* The Bundaberg Harbour Board consists of nine members, of whom one is appointed by the Governor in Council, four are 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 1940 was £2,197, while the revenue was £11,736 and expenditure £11,388.

(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 concrete, upon which spacious sheds are erected with a floor area of 14,400 feet, brilliantly lighted by the Barron Falls Hydro Electricity Scheme. A start has been made on the new 450 feet extension to No. 5 Wharf, for which a debenture loan of £33,640 has been obtained. A most comprehensive electrical equipment is erected at the wharves for handling sugar from shed direct into vessels' holds 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 1940 was £65,407 and expenditure £59,878. In addition £4,034 was spent from loan during the year on the reclamation of foreshores.

(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 1940 was £7,354 and the total to the end of 1940 amounted to £139,688. The revenue for 1940 was £19,604, and the expenditure £19,950.

(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, and it is expected that the main construction work will be completed shortly.

Expenditure for 1940 totalled £213,208, of which £169,162 was spent on construction. Receipts totalled £187,988, harbour dues amounting to £118,032, Government loan to £14,428, and Government subsidy of loan to £50,942.

(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 1940 was £34,462, and the expenditure £34,716. The capital expenditure for 1940 was £3,152, and the total at the end of 1940 was £813,583.

(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 1940 was £3,867; the revenue for 1940 was £71,742, and the expenditure £74,562.

HARBOUR BOARDS, QUEENSLAND : FINANCES.

Year ended 31st December.	Revenue.		Expenditure.					Assets.	Liabilities.
	Wharfage and Harbour Dues.	Total.	Interest on Loans.	Redemption of Loans.	Construction and Maintenance.	Other.	Total.		
1940 ..	£ 303,219	£ 421,516	£ 48,781	£ 27,045	£ 326,828	£ 29,526	£ 432,180	£ 2,880,807	£ 2,622,184

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 is given in a previous issue of the Official 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 1939-40 :—

FREMANTLE HARBOUR TRUST : FINANCES.

Year.	Revenue.	Expenditure.						
		Working Expenses.	Interest.	Sinking Fund.	Renewals Fund.	Capital Expenditure.	Surplus Revenue. (a)	Total.
1939-40 ..	£ 534,494	£ 267,116	£ 144,316	£ 19,924	£ 2,000	£ 7,107	£ 78,093	£ 518,556

(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 1939-40 are given hereunder. Surplus revenue is paid into Consolidated Revenue Fund to meet interest and other charges :—

BUNBURY HARBOUR BOARD : FINANCES.

Year.	Capital Account.	Revenue.	Expenditure.	Interest.
	£	£	£	£
1939-40	680,897	25,871	24,642	33,670

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 1939-40 :—

MARINE BOARD OF HOBART : FINANCES.

Year.	Capital Debt.	Revenue.		Expenditure.		
		Taxes, Dues, etc.	Total.	Interest and Sinking Fund.	Works, Services, etc.	Total.
	£	£	£	£	£	£
1939-40	17,317	46,557	50,884	7,698	45,317	56,908

(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 1939-40 :—

MARINE BOARD OF LAUNCESTON : FINANCES.

Year.	Capital Debt.	Revenue.		Expenditure.		
		Taxes, Dues, etc.	Total.	Interest and Sinking Fund.	Works, Services, etc.	Total.
	£	£	£	£	£	£
1939-40	231,686	61,923	62,310	27,585	23,781	58,883

(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, 736 feet in length by 91 feet wide, with a depth at low water from 30 to 40 feet. There are two other timber wharves 700 feet and 520 feet long with depths of 20 to 26 feet and 26 to 30 feet respectively. The receipts for the year 1939-40 were £39,394, and the expenditure £27,514, including £16,588 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 128 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 31st December, 1940, the Board had under its control 80 fire stations in the Sydney fire district and 155 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 1940 was £481,004, made up as follows :—From the Government, £118,080; municipalities and shires, £118,080; fire insurance companies and firms, £236,160; and from other sources, £8,684. The disbursements for the year were £493,996.

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 30th June, 1940, the Board had under its control 43 stations. The total receipts for 1939–40 were £257,655, comprising contributions £187,038, receipts for services £30,393 and interest and sundries £40,224. The expenditure was £256,173, made up as follows :—Salaries (permanent staff) £131,035, interest and repayments of principal £42,698, and other expenditure, £82,440. The loan expenditure during the year was £17,382, and the loan indebtedness at the end of the year, £205,455.

(iii) *Country Fire Brigades Board.* At 30th June, 1940, there were 128 municipal councils and 111 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 42 of the larger provincial cities and townships. There were 154 registered brigades at the end of June, 1940. For 1939–40 the revenue was £35,910 and the expenditure £33,901. Loan expenditure during the year amounted to £10,848, and at the close of the year the loan indebtedness was £67,239.

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 30th June, 1940, there were fire brigades in 36 towns. The total revenue for the year 1939–40 was £95,447, received mainly from the following sources :—Government £26,146, local authorities £26,472, insurance companies £39,228, and loans (Government and other), £7,262. The total expenditure for the year was £102,416, the chief items being salaries and wages £63,703, and interest and redemption of loans, £13,005.

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 30th June, 1941, there were altogether 27 fire brigade stations, and the total revenue for the year 1940-41 was £61,892.

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, 1940, were £67,418 and £68,535 respectively. The estimated value of land and buildings was £98,534 and of plant £43,180.

6. *Tasmania.*—(i) *General.* The municipal council of any municipality may, under the Act of 1920, petition the Government 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 1940 amounted to £7,316.

CHAPTER XV.

MINERAL INDUSTRY.

(NOTE.—The censorship provisions preclude the publication of certain data usually included in this Chapter. A table showing available particulars of mineral production for 1940 will be found in the Appendix. With the exception of gold this information was not available at the time 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, the pastoral or the dairying 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 issues of the Official Year Book. (See No. 22, p. 755.)

During the years 1934 to 1940, a survey of certain areas in Australia north of the 22nd parallel of south latitude was undertaken by the Governments of the Commonwealth, Queensland and Western Australia. This survey is referred to in § 16 below.

3. **Quantity and Value of Production in 1939.**—The quantities (where available) and the values of certain of the principal minerals produced in each State, and in Australia as a whole, during 1939 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 below. 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, cadmium, cobalt 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.

The quantities of cadmium and cobalt recovered in Tasmania from zinc ores mined in New South Wales during 1938 are given in § 9 pars. 2 and 3 hereafter.

MINERAL PRODUCTION : QUANTITIES, 1939.

Mineral.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
Alunite ..	ton	750	..	..	..	..	..	..	750
Arsenic	1,416	..	..	1,416
Barytes	324	..	..	3,825	..	..	..	4,149
Coal—
Black	11,195,832	364,895	1,317,488	..	557,535	99,392	..	13,535,142
Brown	3,651,014	..	..	..	..	..	3,651,014
Chalk, Tale, Soap-stone, etc.	..	602	..	..	1,097	..	..	..	1,699
Diatomaceous earth	..	3,008	282	12	..	..	..	..	3,302
Felspar	50	..	..	605	3,633	..	..	4,288
Fireclay	42,922	..	..	5,925	830	..	..	49,677
Flint pebbles	102	..	..	..	102
Glauconite	151	..	..	151
Gold ..	fine oz.	87,189	156,522	147,248	3,930	7,214,238	19,984	16,586	1,645,697
Gypsum ..	ton	7,032	11,777	..	144,940	14,340	..	..	178,089
Kaolin	11,833	5,863	114	1,428	..	..	..	19,238
Limestone flux	..	254,606	..	19,234	30,592	..	301,122	..	605,554
Ochre and other pigment clays	..	440	..	..	..	142	..	202	784
Salt, crude	(a)	..	79,483	..	..	..	(b) 79,483
Silica	38,203	..	7	3,365	..	7,134	..	48,709

(a) Not available.

(b) Incomplete.

The values of the minerals raised in each State in 1939 are given in the following table :—

MINERAL PRODUCTION : VALUES, 1939.

Mineral.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N.T.	Australia.
	£	£	£	£	£	£	£	£
Alunite ..	1,423	..	..	..	..	..	..	1,423
Arsenic ..	..	..	..	..	25,488	..	..	25,488
Barytes ..	618	..	..	9,313	..	..	..	9,931
Coal—	..	..	..	..	..	..	..	..
Black ..	6,768,659	259,814	1,167,841	..	362,811	74,460	..	8,633,588
Brown ..	..	385,952	..	..	..	..	..	385,952
Chalk, Tale, Soap-stone, etc.	833	..	..	2,656	..	..	..	3,489
Diamonds	167	..	..	..	..	..	..	167
Diatomaceous earth	2,244	816	21	..	..	..	..	3,111
Felspar ..	150	..	..	1,132	10,976	..	..	12,258
Fireclay ..	16,096	..	..	3,484	522	..	..	20,102
Flint pebbles	..	..	..	443	..	..	..	443
Gems	..	..	326	..	..	..	..	326
Glauconite	..	..	..	..	3,770	..	..	3,770
Gold ..	848,985	1,533,899	1,428,598	38,895	11,796,085	192,596	163,414	16,002,472
Gypsum ..	5,194	3,727	..	108,705	13,492	..	..	131,118
Kaolin ..	8,907	8,364	285	1,193	..	..	..	18,749
Limestone flux	49,740	..	14,988	21,205	..	78,797	..	164,730
Ochre and other pigment clays	636	..	..	..	1,398	..	607	2,641
Opal ..	1,020	..	50	6,020	..	..	..	7,090
Salt, crude	..	(b)	..	158,966	..	..	..	(c) 158,966
Silica ..	19,902	..	31	2,524	..	1,798	..	24,255
Unenumerated	4,399,177	55,567	1,944,819	2,965,645	73,990	1,709,090	80,457	11,228,745
Total ..	12,123,751	2,248,169	4,556,962	3,320,181	12,288,532	2,056,741	244,478	36,838,814

(a) For items excluded see letter-press below.

(b) Not included with mineral production.

(c) Incomplete.

It should be pointed out in connexion with the figures given in the foregoing table 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". Particulars of the production of some of these items are given in par. 6, Quarries, below. 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 1939 consisted of—lime, £71,283; building stone, £203,012; Portland cement, £1,231,566; coke, £1,185,579; road material and gravel, £917,855; shell grit, £19,515; sulphur and sulphuric acid, £46,897; and brick and pottery clays, £332,649. Carbide and cement, £414,557, have been excluded from the Tasmanian figures.

4. **Value of Production, 1935 to 1939.**—The values of the minerals produced in each State during the past five years are given in the table hereunder :—

MINERAL PRODUCTION : VALUES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
	£	£	£	£	£	£	£	£
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
1938 ..	10,731,391	1,884,015	5,966,119	2,932,473	10,844,469	1,880,804	214,724	32,462,995
1939 ..	12,123,751	2,248,169	4,556,962	3,320,181	12,288,532	2,056,741	244,478	36,838,814

The value of mineral production in Australia during 1939 exceeded that of 1938 by £4,376,000. Increases were recorded in every State, the greatest being in Western Australia £1,444,000, followed by New South Wales £1,392,000, Queensland £591,000, South Australia £388,000, Victoria £364,000, Tasmania £167,000 and the Northern Territory £30,000.

There was an upward movement both in quantity and value for many minerals. Gold and black coal, with increases of nearly £2 million and £1.4 million respectively, were chiefly responsible for the increased value of production in 1939.

Where permissible under the provisions of the censorship, more detailed particulars of the production in the various States are given in later sections.

5. **Total Production to end of 1938.**—In the next table will be found the estimated value of the total mineral production in each State up to the end of 1938. The items excluded from the preceding table are also omitted here, and consequently the total for New South Wales is £66,000,000 less than that published by the State Department of Mines. The principal items excluded from the table below are coke, £19,809,000; cement, £25,484,000; lime, £2,014,000; and considerable values for marble, slate, granite, chert, gravels, etc., which the State Department now includes in the returns for quarries.

MINERAL PRODUCTION : VALUES TO END OF 1938.

Mineral.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
	£	£	£	£	£	£	£	Million £
Gold ..	67,118,536	309,584,931	92,260,985	2,027,662	215,196,620	9,754,996	2,669,950	699
Silver and lead ..	141,474,520	268,250	10,386,731	384,345	2,385,684	10,125,626	66,652	165
Copper ..	15,920,956	216,686	27,843,509	33,230,566	1,812,318	24,232,730	239,992	103
Iron ..	7,754,107	15,641	509,813	21,248,714	36,722	91,229	..	30
Tin ..	16,422,868	1,084,744	12,213,702	..	1,654,389	18,799,261	664,965	51
Wolfram ..	329,438	11,885	1,133,232	301	1,441	463,722	414,533	2
Zinc ..	26,358,324	..	1,471,293	15,993	5,437	2,161,458	..	30
Coal ..	228,855,931	17,629,187	25,877,648	..	9,142,735	2,516,596	..	284
Other ..	9,090,110	989,919	2,960,636	6,295,827	873,245	2,607,921	152,808	23
Total ..	513,324,790	329,801,243	174,666,549	63,203,408	231,108,591	70,753,539	4,208,900	1,387

NOTE.—Later figures are not available for publication.

The "other" minerals in New South Wales include alunite, £213,000; antimony, £377,000; arsenic, £194,000; bismuth, £245,000; chrome, £136,000; diamonds, £148,000; magnesite, £384,000; molybdenite, £218,000; opal, £1,627,000; scheelite, £202,000; and oil shale, £2,695,000. In the Victorian returns antimony ore was responsible for £629,000. The value for coal in this State includes £3,710,000 for brown coal. Included in "other" in the Queensland production were opal, £188,000; gems, £645,000; bismuth, £143,000; cobalt, £158,000; molybdenite, £613,000; limestone flux, £828,000; and arsenic, £124,000. The chief items in South Australian "other" minerals were salt, £3,955,000; limestone flux, £331,000; gypsum, £1,252,000; phosphate, £135,000; and opal, £165,000. In Western Australia arsenic, £327,000; gypsum, £94,000; and asbestos, £88,000 were the principal items included with "other" minerals. In the Tasmanian returns osmiridium was responsible for £626,000, scheelite for £119,000, and limestone for £942,600.

6. Quarries.—Statistics giving details of the output of quarries were first published in Official Year Book No. 33, 1940. The details were collected following a resolution of the Conference of Australian Statisticians held in 1935.

For the purpose of these statistics the Conference defined a quarry as an establishment in which four hands or more are employed, or in which power other than hand-power is used. The details given in the following table represent the output of quarries conforming to this definition, although in a few relatively unimportant cases details of other establishments have been included.

The authorities responsible for the collection of these statistics are the Government Statistician in New South Wales, Victoria, Queensland and Western Australia, and the Department of Mines in South Australia and Tasmania.

It should be noted that the inclusion of returns from certain small establishments tends to inflate the figures in the following tables, but there is possibly a compensating factor in that some quantities used by shires and municipalities in the repair of roads have not been returned to the collecting authority.

OUTPUT OF QUARRIES : AUSTRALIA, 1939.

Description.	N.S.W.	Victoria. (a)	Q'land. (a) (b)	S. Aust.	W. Aust. (a)	Tas.	Australia.
QUANTITY.							
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Building Stone ..	484,356	62,280	1,277	33,314	26,289	246	607,762
Macadam, Ballast, etc. ..	5,377,754	1,395,997	622,373	1,805,181	353,217	..	9,554,522
Limestone (c) ..	863,441	353,726	23,792	7,040	86,540	330,772	1,665,311
Clays ..	1,619,288	(d)	..	216,940	(e)	..	1,836,228
Other ..	116,215	..	..	..	(e)	..	(f) 116,215
Total ..	8,461,054	1,812,003	647,442	2,062,475	466,046	331,018	13,780,038
VALUE.							
	£	£	£	£	£	£	£
Building Stone ..	177,111	42,182	463	16,577	10,073	885	247,291
Macadam, Ballast, etc. ..	862,539	424,217	166,618	424,420	141,764	..	2,019,558
Limestone (c) ..	174,404	86,489	19,870	1,491	12,830	97,178	392,262
Clays ..	207,294	(d)	..	27,118	36,396	..	270,808
Other ..	25,579	..	..	..	13,012	..	38,591
Total ..	1,446,927	552,888	186,951	460,606	214,075	98,063	2,968,510

(a) Year ended June, 1940. (b) Estimated. (c) Limestone used as a flux and for the manufacture of lime and cement. It omits quantities used as building stone and as macadam, ballast, etc., which are already included under those headings. (d) Not collected. (e) Not available. (f) Incomplete.

In the following table corresponding details are given for each State for the years 1935 to 1939 :—

OUTPUT OF QUARRIES : AUSTRALIA.

State.	1935.		1936.		1937.		1938.		1939.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 tons.	£	'000 tons.	£	'000 tons.	£	'000 tons.	£	'000 tons.	£
New South Wales	6,142	1,052,989	7,260	1,261,301	8,616	1,662,135	9,402	1,654,887	8,461	1,446,927
Victoria (a) (b) ..	1,609	476,293	1,673	514,984	1,573	474,303	1,621	493,576	1,812	552,888
Queensland (a) ..	(c) 609	168,030	(c) 934	255,040	(c) 776	242,693	(c) 729	213,318	647	186,951
South Aust. ..	1,005	170,273	1,154	196,957	1,244	226,696	1,765	339,064	2,063	469,606
Western Aust. (a)	164	68,201	272	94,975	367	137,672	500	185,237	(d) 466	214,075
Tasmania ..	254	68,357	262	71,243	309	86,986	288	89,655	331	98,063
Total ..	10,076	2,004,143	11,555	2,394,500	12,885	2,530,485	14,305	2,975,737	13,780	2,968,510

(a) Year ended June following.

(b) Omits clays.

(c) Estimated.

(d) Incomplete.

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.

§ 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 1931 to 1939. 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. Terr.	Australia.
	£	£	£	£	£	£	£	£
1851-60 ..	11,530,583	93,337,952	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	28,443,792	13,843,081	246,668	178,473	1,514,921	713,345	49,216,821
1891-1900	10,332,120	29,904,152	33,989,359	219,931	22,308,524	2,338,336	906,088	89,999,410
1901-10 ..	9,569,492	30,136,686	23,412,395	310,080	75,540,415	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	1,100,652	76,240,384
1921-30 ..	940,946	2,721,309	1,976,715	47,564	20,462,957	193,833	(b) 11,545	26,354,869
1931 ..	118,623	262,492	79,652	17,328	3,054,743	28,150	3,692	3,564,680
1932 ..	203,622	351,586	173,144	22,018	4,413,809	43,137	3,066	5,210,382
1933 ..	226,068	448,228	710,168	49,619	4,915,950	51,579	5,085	6,406,670
1934 ..	307,662	597,040	982,636	58,582	5,534,491	48,139	15,941	7,544,491
1935 ..	439,140	768,401	904,755	64,109	5,677,328	73,143	81,457	8,008,333
1936 ..	525,792	1,018,670	1,048,748	66,593	7,326,309	152,291	65,683	10,204,086
1937 ..	595,855	1,266,507	1,104,760	60,372	8,688,021	176,130	100,462	11,993,007
1938 ..	780,958	1,273,351	1,334,788	46,922	10,286,349	195,079	109,168	11,026,615
1939 ..	848,985	1,533,899	1,428,598	38,895	11,796,085	192,596	163,414	16,002,472
Total—								
1851-1939	67,967,521	311,118,834	93,689,583	2,066,557	226,992,705	9,947,592	2,833,364	714,616,156

(a) Period July, 1911 to June, 1920.

(b) Period July, 1920 to December, 1930.

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 War of 1914-19, the production of gold in Australia declined from 3,838,029 fine oz. in 1903 to 427,159 fine 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 abandoned propositions into profit. The output of gold rose annually from 466,593 fine oz. in 1930 to 1,645,697 fine oz. in 1939, but fell slightly to 1,644,000 fine oz. in 1940. This is the first reduction in output recorded since 1929.

Values per fine oz. 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, £8 13s. 8d. in 1937, £8 16s. 2½d. in 1938 and £9 14s. 5½d. in 1939. Monthly fluctuations in the price of gold in London and in Australia are shown in Chapter XXVI. "Public Finance".

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 ended 1939. A separate line is added showing the total production in thousands of fine ounces from 1851 to 1939:—

GOLD : QUANTITY PRODUCED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Australia.
	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.
1935 ..	50,102	87,609	102,990	7,333	649,049	8,343	9,310	914,736
1936 ..	60,739	117,596	121,174	7,681	846,208	17,600	7,583	1,178,581
1937 ..	68,607	145,799	127,281	6,962	1,000,647	20,276	11,563	1,381,135
1938 ..	88,698	144,243	151,432	5,292	1,167,791	22,200	12,378	1,592,034
1939 ..	87,189	156,522	147,248	3,930	1,214,238	19,984	16,586	1,645,697
Total (a)								
1851-1939	15,469	72,220	21,028	435	45,588	2,221	598	157,559

(a) '000 omitted.

Preliminary returns of production for 1940 are given in the following table. The figures are subject to minor amendment.

GOLD PRODUCTION : AUSTRALIA, 1940.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
Quantity .. fine oz.	100,255	180,567	126,831	3,270	1,191,482	19,171	22,423	1,643,999
Value .. £ A'000	1,069	1,924	1,352	35	12,697	204	239	17,520

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 State each year. With the exception of 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 the proportion contributed by Western Australia has increased and in 1939 represented 74 per cent. 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 nine 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	713,882	2.95
1933	..	..	..	25,568,920	830,332	3.25
1934	..	..	..	27,032,084	887,490	3.28
1935	..	..	..	29,434,127	914,736	3.11
1936	..	..	..	33,167,494	1,178,581	3.55
1937	..	..	..	34,543,360	1,381,135	4.00
1938	..	..	..	37,110,594	1,592,034	4.29
1939	..	..	..	39,524,100	1,645,697	4.16

In 1939 the world's production of gold in fine oz. was 39,500,000, as compared with a return of 37,100,000 fine oz. in 1938. It is estimated that the world's production in 1940 approximated 40,500,000 fine oz. of which Australia's share amounted to 1,644,000 fine oz. or 4.1 per cent.

The quantities of gold produced in the principal producing countries in each of the five years 1935 to 1939 are given in the table hereunder. Particulars of the quantities and values of gold produced in all countries for the ten years 1930-39 will be found in *Production Bulletin* No. 34, Part II., issued by this Bureau.

GOLD PRODUCTION IN PRINCIPAL COUNTRIES.

Country.	1935.	1936.	1937.	1938.	1939.
	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.
Union of South Africa	10,773,991	11,336,214	11,734,575	12,161,392	12,821,507
Canada	3,284,890	3,748,028	4,096,213	4,725,117	5,094,379
U.S.S.R. (Russia) ..	4,500,000	5,500,000	5,000,000	5,000,000	5,000,000
U.S.A.	3,163,166	3,759,645	4,117,078	4,245,368	4,620,567
Australia	914,736	1,178,581	1,381,135	1,592,034	1,645,697
Philippine Islands ..	451,818	599,057	716,967	903,265	990,000
Korea	540,000	650,000	850,000	1,050,000	975,000
Mexico	682,319	753,950	846,381	923,798	944,000
Japan, including					
Formosa	674,030	820,666	832,000	852,000	910,000
Rhodesia	727,928	801,513	808,447	815,191	800,276

The next table shows the average yearly production in the principal gold-producing countries for the decennium 1930 to 1939 :—

**GOLD : AVERAGE ANNUAL PRODUCTION IN PRINCIPAL COUNTRIES,
1930 TO 1939.**

Country.	Quantity.	Country.	Quantity.
	Fine oz.		Fine oz.
Union of South Africa ..	11,347,391	Mexico	732,725
U.S.S.R. (Russia) ..	3,663,862	Rhodesia	696,881
Canada	3,471,036	Japan, including Formosa	639,893
U.S.A.	3,145,750	Korea	521,992
Australia	1,020,723	Philippine Islands ..	488,921

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. Terr.	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
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
1938 ..	3,764	6,315	3,378	158	15,374	141	267	29,397
1939 ..	3,441	6,169	3,299	178	15,216	116	421	28,840

(a) Estimated.

(b) Year of maximum production for Australia.

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 have declined since that year.

6. **Tax on Gold.**—(i) *General.* The Commonwealth Government imposed a tax on gold produced in Australia or in any Territory under its jurisdiction and delivered to the Commonwealth Bank on or after 15th September, 1939. The rate of tax was fixed at 50 per cent. of the price payable by the Bank in excess of £A9 per fine oz. Gold imported from places other than Australian Territories is not subject to the tax, nor is gold coin or wrought gold unless and until the Treasurer otherwise directs by notice in the *Commonwealth Gazette*.

The tax on gold yielded £1,214,621 during 1939–40 and £1,452,260 during 1940–41.

(ii) *Development of Gold Mining Industry.* Under the Gold Mining Encouragement Act 1940 a rebate of tax is allowed to bona fide prospectors in respect of the first 25 ounces delivered by them each year, and a refund of the whole or part of the tax is made

to certain producers on low margins. In such cases gold is not taxed if their profits do not exceed 30s. per fine oz. and they only pay tax, but not exceeding the ordinary tax payable, to the extent to which their profits exceed 30s. per fine oz.

Assistance amounting to £150,000 was given to the Gold Mining Industry, through the medium of the States, during 1940-41.

7. **Bounty on Production.**—A reference to the bounty provided by the Commonwealth on gold production in Australia appears in Official Year Book No. 32, p. 579.

§ 3. Platinum and Platinoid Metals.

1. **Platinum.**—(i) *New South Wales.* The deposits at present worked in the State are situated in the Fiffeld division, near Parkes and in the Ballina division. The production in 1938 from these divisions amounted to 4 oz. and 3½ oz. respectively making a total of 7½ oz. valued at £52, as compared with 46 oz. valued at £455 in the preceding year. The total production recorded to the end of 1938 amounted to 20,193 oz., valued at £128,544. Later figures are not available for publication.

(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 191 oz. in 1938 valued at £2,976 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 os. 4d. per oz. in 1938, but the depletion of the known alluvial deposits was also a factor. Later particulars of production are not available for publication.

§ 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 each of the five years ended 1938 are given hereunder:—

SILVER AND LEAD: VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
	£	£	£	£	£	£	£	£
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
1938 ..	3,520,465	647	926,614	70	29,477	267,773	..	4,745,046

(a) Year ended 30th June.

NOTE.—Figures for years later than 1938 are not available for publication.

(ii) *New South Wales.* The figures quoted above for New South Wales for 1938 include silver to the value of £7,357 and silver-lead ore and concentrates valued at £3,513,108. 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 1938 showed an increase in quantity over that of the previous year. Owing to the fall in the price of lead, however, the value of these ores and concentrates declined by almost £800,000.

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 metals extracted within Australia 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 Extracted within Australia.				Contents of Concentrates Exported.			
	Silver.	Lead.	Zinc.	Value.	Silver.	Lead.	Zinc.	Value.
	Fine oz.	Tons.	Tons.	£	Fine oz.	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	117,903	184,149	3,759,691
1923 ..	7,233,236	124,570	41,153	5,707,739	4,834,718	40,900	149,319	1,813,287
1933 ..	7,439,479	158,175	53,950	3,579,880	790,792	18,344	63,849	475,161
1935 ..	8,422,316	180,958	67,666	4,933,402	660,630	11,947	72,285	424,920
1936 ..	7,778,514	157,755	57,744	4,608,888	779,289	18,569	68,071	549,319
1937 ..	8,731,750	184,822	43,254	6,353,963	1,048,749	13,832	64,785	889,991
1938 ..	8,497,637	181,187	47,370	4,438,188	1,060,913	15,213	66,359	479,795

NOTE.—Figures for years later than 1938 are not available for publication.

* Further details in regard to zinc are given in § 7 hereinafter.

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 1938 the amount won from ores of New South Wales origin was given as 147.17 tons, valued at £60,770. 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, p. 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 1938.

Mine.	Value of Output to end of 1938.	Dividends and Bonuses Paid to end of 1938.
	£	£
Broken Hill Proprietary Co. Ltd.	54,059,804	16,580,109
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)	29,037,544	3,770,625
Broken Hill South Ltd.	28,224,159	7,535,000
North Broken Hill Ltd.	25,049,365	7,950,190
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.	15,229,099	4,842,178
Barrier South Ltd.	151,517	50,000
Total	172,004,981	43,910,973

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 the Broken Hill Proprietary Company. If the output of the companies which were, prior to 1938, 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 £179.3 millions and £47.0 millions respectively. The authorized capital of the various companies amounted to £18,918,000 in 1938, an increase of £7.5 million on that of 1936 due to the authorized capital of the Broken Hill Proprietary Co. being raised from £7.5 million to £15 million in 1937. In 1938 the dividends and bonuses paid amounted to £1,882,760 shared in by the companies controlling the principal mines as follows :—Zinc Corporation, £431,142 ; North Broken Hill, £315,000 ; Broken Hill South, £400,000 ; Broken Hill Proprietary, £706,618, and Sulphide Corporation, £30,000. 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 1938 was relatively unimportant. Development of the Captain's Flat silver-lead-zinc mine was continued during 1938 and, as expected, production commenced during 1939. This mine employs about 400 men. The initial capacity of the plant is 500 tons per day, increasing to 1,000 tons per day as soon as a relatively small amount of 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 1938 amounted to 5,898 oz., valued at £647, and was obtained in the refining of gold at the Melbourne Mint.

(iv) *Queensland.* The production of silver in 1938 increased by 268,496 oz. to about 3.5 million oz., and lead production by 2,722 tons to 41,196 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 subsequently there has been a small output of silver. In 1938 production amounted to 503 oz. valued at £51. In addition 1 ton of lead was mined for a value of £20.

(vi) *Western Australia.* The quantity of silver obtained as a by-product and exported in 1938 was 271,346 oz., valued at £28,852.

(vii) *Tasmania.* The silver produced in 1938 amounted to 1,219,550 oz., valued at £104,671, and the lead to 10,652 tons, valued at £163,102. This represents a considerable increase on that of the previous year as regards quantities. The drop in the price of lead, however, was responsible for the lower value. About 1,153,000 oz. of the total silver output were contained in silver-lead, while 67,000 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. Production during the past ten years has been very intermittent and not of great consequence in those years when any output was recorded.

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

NOTE.—Figures for years later than 1938 are not available for publication.

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.

1935.	1936.	1937.	1938.	1939.
'000 fine oz.	'000 fine oz.	'000 fine oz.	'000 fine oz.	'000 fine oz.
223,000	249,000	276,000	267,000	258,900

The world's production of silver in millions of fine oz. during 1918, 1928 and 1938 amounted respectively to 203, 258 and 267, of which Australia contributed 10.4 million, 9.6 million and 13.9 million fine oz., or 5.1 per cent., 3.7 per cent. and 5.2 per cent. respectively. The production for Australia includes an estimate of the silver contents of the ores, bullion and concentrates exported.

The estimated yields of the principal silver-producing countries in 1939 were as follows :—

SILVER PRODUCTION IN PRINCIPAL COUNTRIES, 1939.

Country.	Production.	Country.	Production.
	Fine oz. (‘000 omitted.)		Fine oz. (‘000 omitted.)
Mexico	75,869	Bolivia	7,240
United States of America ..	57,808	Burma	(a) 5,920
Canada	23,117	Argentine Republic ..	3,930
Peru	18,200	Belgian Congo	2,850
Australia	(a) 13,896	Yugoslavia	2,570
Japan	11,000	Newfoundland	1,415
U.S.S.R. (Russia)	7,000	Union of South Africa ..	1,183
Germany	7,000	Chile	1,174

(a) Year 1938.

5. **Production of Lead in Australia.**—For reasons already mentioned, difficulties arise when an attempt is made to show the production of lead by States. This is due to the fact that production is largely recorded in terms other than metal. As the chief sources of production are New South Wales, Queensland, and Tasmania, the aggregation of their outputs can be accepted as being representative of the production for Australia. This is shown in the following table :—

LEAD : PRODUCTION IN AUSTRALIA.

Year.	New South Wales. (a)	Queensland. (a)	Tasmania.	Total.
	Tons.	Tons.	Tons.	Tons.
1934	175,783	42,462	1,507	219,752
1935	192,905	32,952	1,488	227,345
1936	176,324	35,762	7,563	219,649
1937	198,654	38,474	9,117	246,245
1938	196,400	41,196	10,652	248,248

(a) Estimated lead contents of silver-lead ores.

NOTE.—Figures for years later than 1938 are not available for publication.

The following table is compiled from details supplied by the Australian Mines and Metals Association, and practically confirms the total figures given in the previous table :—

LEAD : PRODUCTION IN AUSTRALIA.

Particulars.	1934.	1935.	1936.	1937.	1938.
	Tons.	Tons.	Tons.	Tons.	Tons.
Metal recovered in Australia	160,201	181,211	159,504	186,757	182,214
Metallic contents in ores and concentrates exported ..	57,682	48,000	52,534	53,279	57,376
Total Production ..	217,883	229,211	212,038	240,036	239,590

NOTE.—Figures for years later than 1938 are not available for publication.

6. **Lead : War-time Contract.**—On the outbreak of war in September, 1939, the British Ministry of Supply contracted with the Broken Hill Associated Smelters Pty. Ltd. for the purchase of Australia's surplus lead for the year ended 31st August, 1940. The quantity involved amounted to 13,330 tons per month up to a total of 160,000 tons for the year and the price quoted was £Stg15 1s. 3d. per ton or £A18 16s. 7d. on a basis of f.o.b. Port Pirie. The contract was renewed for a further period of twelve months to 31st August, 1941.

7. **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 on the London Metal Exchange during the last five years have been incorporated in the table hereunder :—

PRICES OF SILVER, LEAD AND SPELTER.

Metal.	1936.	1937.	1938.	1939.	1940.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Silver (Standard per oz.)	0 1 8.06	0 1 8.07	0 1 7.52	0 1 8.57	0 1 10.28
Lead .. per ton	17 13 4	23 4 3	15 5 4	15 13 10	25 0 0
Spelter .. "	15 0 9	22 5 9	13 19 10	14 13 6	25 15 0

(a) Maximum price as fixed by the British Ministry of Supply.

A marked recovery in the prices of lead and spelter occurred on the London Metal Exchange 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 June, 1939, were quoted at £15 and £14 per ton respectively.

At the outbreak of war in September, 1939, the prices of lead and zinc were fixed in London by the Ministry of Supply at £Stg16 12s. 6d. and £Stg15 respectively. On 18th December, 1939, increases to £Stg25 and £Stg25 15s. respectively, were permitted. In Australia prices were fixed on 19th December, 1939, at £A20 17s. 8d. per ton for lead and £A20 2s. 6d. per ton for zinc, and increases to £A22 per ton for each metal were made in February, 1940. No further changes were recorded in either country up to November, 1941.

8. **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, LEAD AND ZINC-MINING : PERSONS EMPLOYED.

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1935 ..	3,536	544	..	..	162	..	4,242
1936 ..	4,163	601	3	32	271	..	5,070
1937 ..	5,225	578	2	29	369	..	6,203
1938 ..	5,612	530	..	4	421	3	6,570
1939 ..	5,137	550	5	2	401	..	6,095

§ 5. Copper.

1. **Production.**—Copper is widely distributed throughout Australia, but the chief sources of production are now centred in Tasmania and Queensland. South Australia and New South Wales were once large producers of copper but the output has dwindled considerably during recent years. The quantity of copper raised in Australia is dependent largely upon prices; as prices improve production expands and vice versa.

The values of the local production as reported and credited to the mineral industry for the years 1934 to 1938 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.	1931.	1935.	1936.	1937.	1938.
	£	£	£	£	£
New South Wales	25,398	30,071	53,687	72,406	87,905
Queensland	95,903	101,489	161,688	308,968	203,967
South Australia	8,475	11,065	22,609	21,620	15,333
Western Australia .. ..	..	..	97	986	1,275
Tasmania	267,342	464,007	556,734	759,332	580,238
Northern Territory .. ..	..	..	(a) 1,972	55	4,362
Australia	397,118	606,632	796,787	1,163,367	893,080
Ingot, Matte, etc. ..	Tons. 12,003	Tons. 16,992	Tons. 18,069	Tons. 18,694	Tons. 18,751
Ore and Concentrates ..	96	56	819	2,884	935

(a) Eighteen months ended 31st December, 1936.

NOTE.—Figures for years later than 1938 are not available for publication.

2. Sources of Production.—(i) *New South Wales.* The production during 1938 amounted to 1,280 tons of electrolytic copper and 683 tons of concentrates, the latter being exported overseas. Practically all of the copper was obtained at Port Kembla from the treatment of copper matte forwarded by the Broken Hill Smelters and derived from Broken Hill silver-lead ores. The concentrates were obtained from the treatment of ore from the Cobar district. Other copper-mines operated in the State during the year but their output was 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.* In 1938, the yield in this State amounted to 4,459 tons valued at £203,967. Although an improvement on the yields of recent years the output for 1938 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 1938 were as follows : Cloncurry, 1,562 tons, £71,462 ; Herberton, 169 tons, £7,743 ; and Mount Morgan, 2,488 tons, £113,829.

(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, Queensland and New South Wales. A short account of the discovery, etc., of some of the principal mining areas, such as Kapunda, Burra Burra, Wallaroo and Moonta, is 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. Between 1933 and 1938, the field was worked on a co-operative basis known as the Moonta Mining Scheme, to which reference is made in previous issues of the Official Year Book. Owing to the exhaustion of the ore reserves the operations of the Scheme ceased in August, 1938. The production of copper in the State in 1938 amounted to 254 tons, valued at £15,323.

(iv) *Western Australia.* Twenty-nine tons of copper valued at £1,275 were exported from this State during 1938, compared with 35 tons valued at £986 exported in 1937.

(v) *Tasmania.* The quantity of copper produced in Tasmania during 1938 was 12,729 tons, valued at £580,238, the Mount Lyell Mining and Railway Co. Ltd. accounting for the whole of the production. This company treated 58,822 tons of ore and concentrates and produced 12,791 tons of blister copper, containing copper 12,700 tons, silver 67,176 oz., and gold 7,919 oz., the whole being valued at £A803,065.

(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 produced, whilst in 1938 the production amounted to 252 tons valued at £4,362.

3. *World's Production of Copper.*—The world's production of copper during the five years 1935 to 1939 was estimated as follows. The figures have been taken from the statistical summary prepared by the Imperial Institute or from other authoritative sources.

COPPER : WORLD'S PRODUCTION.

1935.	1936.	1937.	1938.	1939.
Tons.	Tons.	Tons.	Tons.	Tons.
1,470,000	1,700,000	2,300,000	2,020,000	2,160,000

The yields from the principal copper-producing countries in 1939 were as follows :—

COPPER : PRODUCTION IN PRINCIPAL COUNTRIES, 1939.

Country.	Production.	Country.	Production.
	Tons.		Tons.
United States of America ..	667,000	Mexico	49,000
Chile	339,000	Yugoslavia	42,000
Canada	281,000	Peru	35,000
Rhodesia	216,000	Cyprus	(a) 34,000
Belgian Congo	122,000	Germany	30,000
U.S.S.R. (Russia)	107,000	Spain	25,000
Japan	77,000	Australia	(a) 19,446

(a) Year 1938.

During 1938 the share of the United States of America in the world's copper production amounted to nearly one-fourth and in 1939 to 31 per cent. The Australian proportion in 1938 was less than 1 per cent.

4. *War-time Contract.*—Soon after the outbreak of war in September, 1939, the British Ministry of Supply agreed to purchase, under contract, any surplus electrolytic copper up to a total quantity of 7,000 tons for the first year. Owing to the expansion in the armament industry in Australia, however, the contract did not operate and was not renewed after September, 1940.

5. *Prices.*—The marked fluctuation in the price of copper is shown in the following table of average prices quoted in London and New York. The New York 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 per lb. Electrolytic Copper.
	£ s. d.	Cents.
1935	31 18 1	8.65
1936	38 9 7	9.47
1937	54 10 7	13.17
1938	40 15 0	10.00
1939	43 16 4	10.97

At the outbreak of war in September, 1939, the price of copper in London was fixed at £Stg51 per ton. This was subsequently increased on 18th December, 1939, to £Stg62 per ton, at which figure it still remained in November, 1941.

In Australia the price was fixed at £A63 17s. 6d. per ton on 19th December, 1939, and further increased to £A76 per ton on 16th February, 1940, and to £A78 10s. per ton on 7th February, 1941. On the latter date supplies of local and imported copper were pooled and sold to consumers at the increased price to offset the loss on copper imported at a higher figure. The price paid to local producers, however, remained unaltered at £A76 per ton. Increased mining costs made a further rise necessary and the price was raised on 5th May, 1941, to £A80 10s. from which an amount of £A1 10s. is set aside to provide a bonus of £A5 per ton on production from new sources or on increased supplies from existing sources.

6. **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. Terr.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1935	7	170	54	..	1,113	..	1,344
1936	9	196	54	..	914	4	1,177
1937	27	306	75	..	952	8	1,368
1938	13	213	67	4	1,015	5	1,317
1939	5	224	36	4	1,017	5	1,291

In 1917 over 9,000 persons were engaged in copper-mining.

§ 6. Tin.

1. **Production.**—The values of the production of tin as reported to the Mines Departments in each of the States during the five years 1934 to 1938 are given in the next table. A separate line is appended showing the recorded tonnage for Australia during each of the specified years.

TIN : PRODUCTION.

State.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
New South Wales	328,130	287,890	268,454	336,628	286,768
Victoria	3,886	14,475	14,750	44,127	28,650
Queensland	179,404	187,234	157,889	202,614	141,547
Western Australia	6,765	8,829	6,882	12,421	7,421
Tasmania	219,246	258,919	206,656	260,673	244,037
Northern Territory	(a) 9,566	(a) 6,036	(b) 4,176	7,205	3,205
Total	746,997	763,383	658,807	863,668	711,628
	Tons.	Tons.	Tons.	Tons.	Tons.
Ingot, Matte, etc.	3,169	3,395	3,187	3,377	3,446
Concentrates	154	207	225	366	286

(a) Year ended 30th June.

(b) Eighteen months ended December, 1936.

NOTE.—Figures for years later than 1938 are not available for publication.

2. **Sources of Production.**—(i) *New South Wales.* Production of tin in 1938 was stated at 1,162 tons of ingots valued at £282,024, and 28 tons of concentrates valued at £4,744 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, 527 tons of stream tin being won in 1938. The Tingha area was the principal contributor to the output in 1938, the yield from this district comprising 615 tons of concentrates. Amongst other areas, Emmaville produced 243 tons of concentrates and Ardlethan 205 tons of concentrates, and the lode-mines at Torrington returned a yield of 25 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 1938 amounted to 109 tons of concentrates valued at £28,650 compared with 218 tons valued at £44,127 in 1937.

(iii) *Queensland.* The chief producing districts in Queensland during 1938 were Herberton, 601 tons, valued at £83,953; Cooktown, 71 tons, £10,898; Stanthorpe, 119 tons, £17,854; Chillagoe, 78 tons, £10,815 and Kangaroo Hills, 122 tons, £16,080. The total production, 1,005 tons, £141,547, was a decrease of 166 tons and £61,067 on that for 1937. These figures may be compared with those recorded in 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 1938 amounted to 68 tons, valued at £7,421, and was obtained in the Pilbara and Greenbushes fields.

(v) *Tasmania.* For 1938, the output amounted to 1,279 tons of tin, valued at £244,037, an increase of 189 tons in quantity but a decrease of £16,636 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 and the prospects of greater activity in the future are very favourable.

(vi) *Northern Territory.* The production for 1938 amounted to 21 tons of concentrates valued at £3,205, compared with 41 tons of concentrates valued at £7,205 produced during 1937.

3. **World's Production.**—The world's production of tin during each of the last five years was as follows :—

TIN : WORLD'S PRODUCTION.

1935.	1936.	1937.	1938.	1939.
Tons.	Tons.	Tons.	Tons.	Tons.
136,000	179,000	206,000	157,000	183,000

The production of tin reached its maximum in 1937 when 206,000 tons were recorded. The chief producing countries of the world are :—Malaya, Netherlands East Indies, Bolivia and Thailand. These countries produced about three-quarters of the total production in 1939. 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 1939 were as follows :—

TIN : PRODUCTION IN PRINCIPAL COUNTRIES, 1939.

Country.	Production.	Country.	Production
	Tons.		Tons.
Malaya	55,950	Burma	5,750
Netherlands East Indies ..	31,281	Australia	(a) 3,732
Bolivia	27,215	Argentine Republic ..	2,481
Thailand	16,998	United Kingdom ..	1,800
China	10,859	Japan	1,700
Nigeria	10,855	Indo-China	1,392
Belgian Congo	9,663	Portugal	1,005

(a) Year 1938.

Australia's share of the world's tin production, estimated at 157,000 tons in 1938, would appear to be a little more than 2 per cent.

4. Prices.—The average prices of the metal in the London market for the years 1935 to 1940 were as follows :—

TIN PRICES : LONDON.

Year.	Average Price Per Ton.	Year.	Average Price Per Ton.
	£ s. d.		£ s. d.
1935	225 14 5	1938	189 12 1
1936	204 12 8	1939	226 5 8
1937	242 6 7	1940	256 12 2

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 but rose to £256 per ton in 1940.

Subsequent to the outbreak of war in September, 1939, the price of tin in London was controlled and fixed at £Stg230 per ton. In December, 1939, the price was unpegged and immediately rose to £Stg271. In Australia the domestic price was raised to £A306 per ton in February, 1940, and to £A320 per ton in April, 1941.

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. Terr.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1935	1,807	5	1,122	58	1,415	30	4,437
1936	1,762	6	1,270	48	1,253	37	4,376
1937	1,781	8	1,389	60	1,330	27	4,595
1938	1,440	5	1,263	73	1,123	15	3,919
1939	1,566	5	1,375	50	1,100	17	4,113

(a) The tin produced in Victoria was raised by a dredging company operating primarily for gold.

§ 7. Zinc.

1. **General.**—The censorship provisions preclude the publication of details for years later than 1938.

2. **Production : States.**—(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 1938 the zinc concentrates produced amounted to 265,296 tons, valued at £230,989. Portion of the zinc concentrates produced is treated at Risdon in Tasmania. The production from these concentrates in 1938 as recorded by the Electrolytic Zinc Company of Australia Ltd. at Risdon amounted to 47,370 tons of zinc, 147.17 tons of cadmium and 18.97 tons of cobalt oxide. This is referred to in the Tasmanian production below. The balance, which in 1938 amounted to 124,071 tons, valued at £240,677, was exported overseas.

The reopening in 1937 of the mine at Captain's Flat by the Lake George Mines Ltd. was an important development. Production commenced in 1939. Approximately 400 men are employed at the mine.

(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 1934 to 1938 will be found in § 17 hereinafter.

(ii) *Queensland.* The production of zinc in the Cloncurry district of Queensland during 1938 was 23,735 tons, valued at £329,464, compared with 4,411 tons valued at £68,863, obtained in 1935. The metal was produced by the Mount Isa Mines Ltd. and is exported overseas as concentrates.

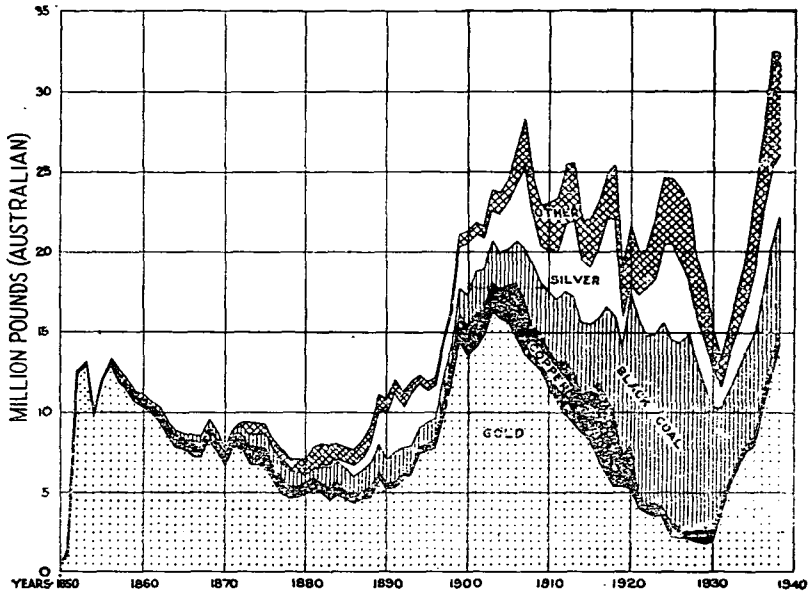
(iii) *South Australia.* Zinc is known to exist in various localities in South Australia, but there has been no production during recent years.

(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 commenced in 1936. In 1937—the first full year's operations since the inception of milling at Rosebery—23,481 tons, valued at £525,824, were obtained. In 1938, 25,366 tons of zinc, valued at £356,452, were obtained from Tasmanian ores, as well as 49 tons of cadmium, valued at £18,636, and 12 cwt. of cobalt oxide, valued at £243.

In addition to the above, the Electrolytic Zinc Company at Risdon operated on raw materials obtained from Broken Hill in New South Wales. Production from this source during 1938 amounted to 47,370 tons of slab zinc, valued at £915,617, 147.18 tons of cadmium, valued at £60,760, and 18.97 tons of sheet cobalt oxide, valued at £7,841.

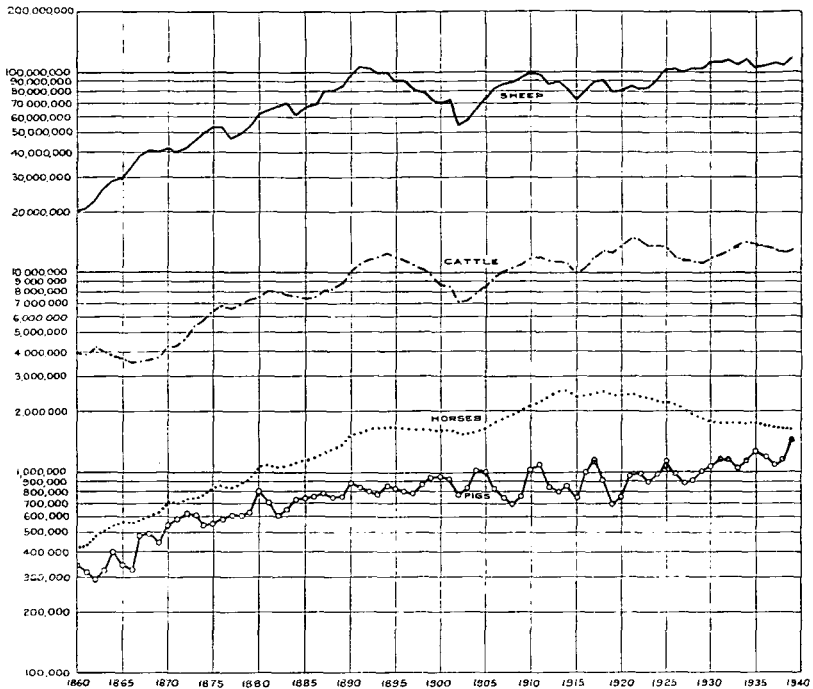
3. **Production : Australia.**—The details furnished above do not adequately convey the potentialities of Australia as a producer of zinc. This is due to the omission of the metallic contents of ores and concentrates exported overseas, which, in recent years, have been in excess of the amount of metal actually recovered in Australia. In the following table the estimated metallic contents of these exports have been combined with the quantities of metal extracted in Australia to show the total production of zinc from ores mined in Australia. The figures do not include the contents of other zinc-bearing concentrates, e.g., lead concentrates, unless payment has been made for the zinc actually contained in them.

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, 1850 TO 1940



(See page 443.)

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.

PRODUCTION OF ZINC : AUSTRALIA, 1938.

State of Extraction or Export.	Estimated Metallic Contents and Metal extracted from Ores and Concentrates the Produce of—			
	New South Wales.	Queensland.	Tasmania.	Total.
	Tons.	Tons.	Tons.	Tons.
New South Wales	(a) 66,359	..	..	(a) 66,359
Queensland .. ..	..	(b) 23,735	..	(b) 23,735
Tasmania	47,370	..	25,366	72,736
Total	113,729	23,735	25,366	162,830

(a) Metallic contents of 124,071 tons of concentrates exported overseas. (b) Metallic contents of 44,799 tons of zinc concentrates produced.

4. World's Production.—The world's production of zinc ore in terms of metal during the five years 1934 to 1938 was as follows :—

ZINC : WORLD'S PRODUCTION.

1934.	1935.	1936.	1937.	1938.
Tons. 1,162,000	Tons. 1,540,000	Tons. 1,700,000	Tons. 1,860,000	Tons. 1,840,000

The yields from the principal producing countries in 1938 are given hereunder, the figures referring to slab zinc produced in the various countries, irrespective of the source of the ore :—

ZINC : PRODUCTION IN PRINCIPAL COUNTRIES, 1938.

Country.	Production.	Country.	Production.
	Tons.		Tons.
United States of America ..	398,500	United Kingdom ..	55,000
Belgium	207,000	Japan	50,000
Germany	191,300	Norway	45,000
Canada	153,500	Mexico	33,100
Poland	106,400	Italy	36,900
Australia	72,736	Netherlands	24,900
U.S.S.R. (Russia) ..	70,000	Rhodesia	10,200
France	60,000	Czechoslovakia	8,700

The production of Australia quoted above represents the actual quantity of metal extracted in Australia and omits, therefore, the zinc contents of ores and concentrates exported. If this quantity was included, the total production would amount to 162,830 tons, or about 9 per cent. of the world's output.

5. War-time Contract.—On the outbreak of war in September, 1939, the British Ministry of Supply contracted with the Electrolytic Zinc Company for the purchase of Australia's surplus zinc during the twelve months ended 31st August, 1940. The quantity involved amounted to 3,000 tons per month, or a total of 36,000 tons for the year and the price was £Stg18 per ton, or £A22 10s. on a basis of f.o.b. Risdon. The contract was renewed for a further period of twelve months to 31st August, 1941.

6. **Prices and Employment.**—Information regarding prices of zinc and employment in zinc-mining will be found in § 4, pars. 7 and 8, respectively.

§ 8. Iron.

1. **General.**—Although iron ore is widely distributed throughout Australia, the only 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. Bearing in mind the expansion of the iron industry in Australia, and the limitations of these reserves, the Commonwealth Government prohibited the export of iron ore from 1st July, 1938. A survey of the iron ore resources of Australia undertaken by the Commonwealth Geologist was completed at the end of 1940.

Later figures are not available for publication.

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 year since 1929 in which 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 gas-works 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 1938 the iron oxide raised amounted to 108 tons, valued at £43. 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) *Queensland.* Extensive deposits of iron ore are known to exist in Queensland. Their location and size, however, preclude their exploitation in comparison with the more favourable deposits of South Australia. In 1938, 5,326 tons of ore were obtained from Mount Lucy and used as a flux at the Chillagoe State Smelters.

(iii) *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 1938, when 2,245,366 tons of ore valued at £2,582,171 was raised, in contrast to an output of 289,000 tons obtained during the depression of 1931.

(iv) *Western Australia.* The development of the deposits at Yampi Sound was discontinued in 1938 as a result of the embargo on exports. Exploratory operations are to continue until the survey of the quantity and grade of ore is completed. The expenditure thus incurred is to be the responsibility of the Commonwealth Government.

(v) *Tasmania.* There was no production of ironstone in Tasmania during 1938. The production of iron pyrites which amounted to 50,277 tons, valued at £62,845 in 1938, 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.

(vi) *Other States.* Reference to the iron ore deposits in the various States appears in preceding issues of the Official Year Book (see No. 22, p. 779).

3. **Iron and Steel Bounties.**—During 1939-40 the bounties paid under the Bounties Acts on articles manufactured from locally produced materials were as follows: Wire-netting, £4,534; traction engines, £12,452. Corresponding amounts paid during 1940-41 were £567 and £6,971 respectively.

4. **World's Production of Iron and Steel.**—(i) *General.* According to the *The Mineral Industry*, the production in the principal countries during the latest available three years was as follows. The figures for 1939 are in many instances estimates and, particularly for belligerent countries, should be accepted with some reserve.

PIG-IRON AND STEEL : WORLD'S PRODUCTION.

Country.	Pig-Iron.			Steel Ingots and Castings.		
	1937.	1938.	1939.	1937.	1938.	1939.
	Thousands of Tons.			Thousands of Tons.		
U.S.A.	37,127	19,161	31,604	51,792	28,739	47,732
Germany	15,957	18,226	19,828	19,816	22,875	24,139
U.S.S.R. (Russia) ..	14,520	14,479	15,374	17,824	17,802	17,439
Great Britain	8,497	6,763	8,130	12,963	10,394	13,559
France	7,917	5,956	7,826	7,761	6,080	8,402
Japan	3,561	3,040	3,320	6,423	5,930	6,230
Belgium	3,843	2,426	3,019	3,777	2,249	3,061
Italy	790	850	950	2,087	2,285	2,339
Luxemburg	2,513	1,527	1,812	2,510	1,413	1,650
Canada	898	758	831	1,401	1,156	1,385
Australia	905	1,059	(a)	1,146	1,206	(a)
Czechoslovakia ..	1,675	1,215	900	2,315	1,733	1,230
Poland	724	952	810	1,450	1,522	1,201
Sweden	646	647	612	1,104	964	1,080
India	1,453	1,628	1,800	971	950	1,050
Hungary	362	345	350	706	650	739
Austria	389	(b)	(b)	650	(b)	(b)
Union of South Africa	272	271	304	332	341	345
Total—All Countries	102,848	80,452	104,494	135,317	107,157	132,857

(a) Not available for publication.

(b) Included with Germany.

The figures for the world's production of iron and steel reached exceptionally low levels in 1932, namely, pig-iron, 39,275,000 tons; steel, 50,029,000 tons. From that year onwards all steel-producing nations recorded continuous increases in production, but in 1938 a marked decline was recorded. During 1939, however, the fear of the approaching war created greater demands for pig-iron and steel. The output of the former metal reached record proportions in Germany, Union of Soviet Socialist Republics, Italy and Japan, while new records in steel production were attained in Great Britain, Germany, Italy and Japan.

The principal producers in Australia are the Broken Hill Pty. Co. Ltd. and the Australian Iron and Steel Ltd., 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 while an extension of the industry to South Australia is in hand.

(ii) *Australia.* The production of steel and pig-iron in New South Wales, which is the only producing State, is shown for each of the years 1929-30 to 1938-39.

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.
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
1934 ..	487,259	518,326	431,765	1939 ..	1,104,605	1,170,103	987,847

NOTE.—Figures for years later than 1938-39 are not available for publication.

§ 9. Other Metallic Minerals.

1. **Wolfram and Scheelite.**—(i) *General.* Tungsten ores occur in several of the States, in the Northern Territory and on King Island in Bass Strait, the last-named being included with Tasmania. It is a minor metal of growing importance in both peace and war. 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 £3 2s. 9d. per cwt. in 1932. As a result, production of wolfram and scheelite responded accordingly. Although prices receded slightly in 1938 production, both in quantity and value, increased considerably. The production during the five years 1934 to 1938 is shown in the following table :—

WOLFRAM AND SCHEELITE : PRODUCTION, AUSTRALIA.

Particulars.		1934.	1935.	1936.	1937.	1938.
WOLFRAM.						
New South Wales	cwt.	950	1,095	105	915	1,877
	£	6,506	5,694	560	13,051	25,740
Queensland ..	cwt.	740	480	404	1,963	3,015
	£	5,049	2,888	1,889	26,139	30,779
Tasmania ..	cwt.	3,884	4,640	4,143	5,820	5,982
	£	27,375	29,345	28,323	71,643	63,348
Northern Territory	cwt. (a)	800	(a) 1,846	(b) 3,155	5,831	8,694
	£ (a)	3,114	(a) 10,380	(b) 15,451	84,832	78,277
Total ..	cwt.	6,374	8,061	7,807	14,529	19,568
	£	42,044	48,307	46,223	195,665	198,144
SCHEELITE.						
New South Wales	cwt.	130	50	245	202	184
	£	818	381	1,631	3,401	2,472
Queensland ..	cwt.	..	22	..	38	13
	£	..	120	..	533	93
Tasmania ..	cwt.	..	..	..	..	611
	£	..	..	..	..	6,193
Total ..	cwt.	130	72	245	240	808
	£	818	501	1,631	3,934	8,758

(a) Year ended June.

(b) Eighteen months ended December, 1936.

NOTE.—Figures for years later than 1938 are not available for publication.

(ii) *War-time Contract.* Arrangements have been made for the sale of the Australian output of wolfram and scheelite to the Government of the United Kingdom. The agreement provides for the purchase of the whole of Australia's annual output on the basis of £Stg2 10s. per unit f.o.b.

2. **Cadmium.**—Cadmium is extracted at Risdon in Tasmania as a by-product from ores mined at Broken Hill in New South Wales, and on the west coast of Tasmania. The particulars given in the following table refer to the production of metal and do not include the cadmium contents of zinc ores or concentrates exported overseas.

3. **Cobalt.**—The recovery of this metal as an oxide is obtained in the same way as cadmium. It is recovered from the treatment of silver, lead and zinc ores of Broken Hill and Tasmanian origin. The production together with that of cadmium is given for the years 1934 to 1938 in the following table :—

PRODUCTION OF CADMIUM AND COBALT : AUSTRALIA.

Year.	Cadmium.				Cobalt Oxide.			
	Extracted in Tasmania from Ores mined in				Extracted in Tasmania from Ores mined in			
	New South Wales.	Tasmania.	Total.		New South Wales.	Tasmania.	Total.	
	Cwt.	Cwt.	Cwt.	£	Cwt.	Cwt.	Cwt.	£
1934	3,450	..	3,450	24,163	..	..	..	..
1935	4,372	..	4,372	48,980	..	..	..	..
1936	4,284	673	4,957	64,977	..	..	..	..
1937	3,245	900	4,145	77,203	..	..	..	..
1938	2,943	980	3,923	79,406	377	12	389	8,084

NOTE.—Figures for years later than 1938 are not available for publication.

The figures given above do not include the metallic contents of cadmium and cobalt contained in the ores and concentrates exported overseas.

4. Other.—Detailed information in regard to occurrence and production of other metallic minerals in each of the States appears 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 appears 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 1913, 1921, 1931 and each of the years 1936 to 1939 are given in the table hereunder :—

COAL : PRODUCTION.

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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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
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
1938 ..	9,570,930	307,258	1,113,426	..	604,792	83,753	11,680,159
1939 ..	11,195,832	364,895	1,317,488	..	557,535	99,392	13,535,142

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
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
1938 ..	5,603,842	188,101	958,884	..	375,083	61,991	7,187,901
1939 ..	6,768,659	259,814	1,167,844	..	362,811	74,460	8,633,588

(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 :—

BROWN COAL : PRODUCTION IN VICTORIA.

Year.	Quantity.	Value. (a)	Year.	Quantity.	Value. (a)
	Tons.	£		Tons.	£
1913	2,984	569	1936	3,044,897	323,914
1921	79,224	31,074	1937	3,393,919	325,950
1926	957,935	188,899	1938	3,675,450	351,721
1931	2,194,453	251,511	1939	3,651,014	385,952

(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 Australia.

The table hereunder gives the yields in each of the three districts during the five years 1935 to 1939 :—

COAL : PRODUCTION IN DISTRICTS OF NEW SOUTH WALES.

District.	1935.	1936.	1937.	1938.	1939.
	Tons.	Tons.	Tons.	Tons.	Tons.
Northern	5,679,802	6,197,554	6,674,362	6,294,213	7,365,981
Southern	1,558,282	1,626,143	1,880,440	1,831,408	2,160,717
Western	1,460,495	1,375,769	1,496,717	1,445,309	1,669,134
Total	8,698,579	9,199,466	10,051,519	9,570,930	11,195,832
Total Value (a) £ ..	4,887,341	5,126,850	5,823,469	5,603,842	6,768,659
Average value per ton (a) ..	11s. 3d.	11s. 2d.	11s. 7d.	11s. 8½d.	12s. 1d.

(a) At the pit's mouth.

For a number of years before the industrial depression the production of coal in New South Wales exceeded 10 million tons, reaching its maximum in 1924, when 11,618,000 tons were produced. The output fell to 6,400,000 tons in 1931, but it has steadily increased each year to 11,195,832 tons in 1939. Of the total quantity of coal won in New South Wales since the commencement of operations to the end of 1939, namely, 434 million tons, about 294 million tons or 68 per cent. was obtained in the Northern District, 89 million tons or 20 per cent. in the Southern District, and 51 million tons or 12 per cent. in the Western District.

The quantity of coal cut by machinery in New South Wales amounted to 3,593,775 tons in 1939 or 32.1 per cent. of the total output for the State, compared with 23.4 per cent. so cut in 1929.

(ii) *Victoria.* (a) *Black Coal.* The deposits of black coal in Victoria occur in three main areas in the southern portion of the State, namely, 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 quantity of black coal mined in Victoria to the end of 1939 amounted to 18,317,000 tons valued at £14,079,321.

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.
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
1938	..	..	253,065	54,193	307,258	188,101	12 3
1939	..	..	312,452	52,443	364,895	259,814	14 3

(a) At the pit's mouth.

(b) *Brown Coal.*—(i) *General.* Victoria is richly endowed, both in quantity and quality, with 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, p. 785). The brown coal produced in Victoria in 1939 amounted to 3,651,014 tons, all but 850 tons being procured at the State open cut at Yallourn. During 1939-40, 3,944,515 tons of brown coal were produced by the State Electricity Commission, of which 2,315,108 tons went to the power station and 1,629,407 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 428,389 in 1939-40. Two and a half tons of brown coal are required to make one ton of briquettes.

(iii) *Queensland.* The distribution of production during the five years 1935 to 1939 was as follows :—

COAL : PRODUCTION IN QUEENSLAND.

District.			1935.	1936.	1937.	1938.	1939.
			Tons.	Tons.	Tons.	Tons.	Tons.
Ipswich	..	..	496,411	499,732	546,259	547,901	627,965
Bowen	..	..	216,008	213,267	245,309	224,778	246,713
Clermont	..	..	84,047	81,650	63,769	88,407	111,945
Maryborough	..	..	82,707	71,405	79,229	77,162	101,967
Darling Downs	..	..	78,945	74,704	77,588	76,571	88,819
Rockhampton	..	..	64,753	77,379	69,945	64,174	88,053
Chillagoe (Mount Mulligan)	..	..	20,320	20,451	18,770	19,192	27,911
Mount Morgan	..	..	7,829	7,490	16,072	13,698	23,861
Mackay	..	..	958	801	3,238	1,543	254
Total	..	..	1,051,978	1,046,879	1,120,179	1,113,426	1,317,488

The production in 1939 was 18 per cent. greater than in the previous year, but it is still below the peak output of 1,369,000 tons recorded in 1929.

(iv) *South Australia.* So far no coal has been worked in South Australia (see Official Year Book No. 22, p. 786).

(v) *Western Australia.* The production from the five collieries operating on the Collie field amounted in 1939 to 557,535 tons, a decrease of 47,257 tons on the return for 1938. The value of the production decreased by £12,272 to £362,811. The number of men employed was 752 and the output per man was 741 tons, which was 50 tons less than in 1938. The total production of coal from the Collie coal-field to the end of 1939 amounted to 14,434,827 tons.

(vi) *Tasmania.* The production in 1939 amounted to 99,392 tons, being 15,639 tons greater than the total for 1938. About 61,000 tons were contributed in 1939 by the Cornwall Coal Company and 17,000 tons by the Jubilee Company, the two mines combined raising nearly 78,000 tons, or about 78 per cent. of the total output of the State.

(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 1938 amounted to about 1,420 million tons, towards which Australia contributed about 15.4 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 1938. Similar details for 1939 are not available:—

COAL : PRODUCTION IN BRITISH EMPIRE.

Year.	Great Britain.	British India.	Canada.	Australia.	New Zealand.	Union of S. Africa.
BLACK COAL.						
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
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	10,840,000	12,074,000	970,000	15,246,000
1938	.. 227,015,000	28,343,000	9,623,000	11,680,000	978,000	16,027,000
BROWN COAL, LIGNITE.						
1935	.. ..	..	3,186,000	2,222,000	1,290,000	..
1936	.. ..	..	3,452,000	3,045,000	1,281,000	..
1937	.. ..	..	3,299,000	3,394,000	1,308,000	..
1938	.. ..	..	3,098,000	3,675,000	1,244,000	..

COAL : PRODUCTION IN FOREIGN COUNTRIES.

Year.	Germany.	Austria.	Hungary.	Belgium.	France. (a)	Czechoslovakia.	Yugoslavia.
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BLACK COAL.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
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	16,513,000	432,000
1938 ..	183,238,000	222,000	(b)	29,106,000	45,763,000	13,300,000	(b)

Year.	Spain.	Poland.	Netherlands.	U.S.S.R.	Japan.	China. (c)	U.S.A.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1935 ..	6,905,000	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)	444,096,000
1938 ..	(d)	37,502,000	13,275,000	130,300,000	(d)	(d)	348,865,000

BROWN COAL, LIGNITE.

Year.	Germany.	Austria.	Hungary.	Belgium.	France.	Czechoslovakia.	Yugoslavia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
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	17,613,000	4,523,000
1938 ..	191,899,000	3,477,000	9,212,000	..	1,040,000	12,900,000	5,651,000

Year.	Spain.	Poland.	Netherlands.	U.S.S.R.	Japan.	China.	U.S.A.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1935 ..	299,000	18,000	85,000	13,602,000	(d)	..	(e)
1936 ..	(d)	13,000	87,000	17,333,000	(d)	..	(e)
1937 ..	(d)	19,000	141,000	(e)	(d)	..	(e)
1938 ..	(d)	9,000	168,000	(e)	(d)	..	(e)

(a) Excluding 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.
 (b) Included with brown coal. (c) Including about 300,000 tons of lignite yearly. (d) Not available. (e) Included with black coal.

World production dropped from 1,510 million tons in 1937 to 1,420 million tons in 1938, largely as the result of the decline of nearly 100 million tons in the United States of America. The production of the British Empire amounted to 304 million tons in 1938, a decrease of 11 million tons or 3.5 per cent. on that of 1937. The production of foreign countries also decreased by 80 million tons to 1,120 million tons, or by 6.6 per cent. in the same period.

4. Exports.—(i) General. The quantity of coal of Australian production (excluding bunker coal) exported to other countries in 1938-39 was 382,085 tons, valued at £347,054. New South Wales exported 381,778 tons, Queensland 305 tons, and Victoria 2 tons. Similar details for 1939-40 are not available for publication. 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 ..	2,098,505	1,121,505	1935-36 ..	307,540	276,553
1921-22 ..	1,028,767	1,099,899	1936-37 ..	340,388	300,457
1931-32 ..	344,015	341,800	1937-38 ..	392,873	354,754
1934-35 ..	305,139	273,305	1938-39 ..	382,085	347,054

NOTE.—Figures for years later than 1938-39 are not available for publication.

Australian coal taken for bunker purposes during the same years was as follows :—

COAL : BUNKER, AUSTRALIA.

	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 ..	1,647,870	1,018,375	1935-36 ..	614,333	576,549
1921-22 ..	1,498,035	2,178,101	1936-37 ..	605,425	564,071
1931-32 ..	506,140	534,897	1937-38 ..	614,762	575,319
1934-35 ..	575,418	544,875	1938-39 ..	549,453	561,063

NOTE.—Figures for years later than 1938-39 are not available for publication.

(ii) *New South Wales.* Details of coal exports from New South Wales in 1939 are not available for publication. In 1938, the quantities exported amounted to 3,024,265 tons, valued at £2,622,292 of which 2,695,217 tons, valued at £2,348,181 were shipped from Newcastle. Interstate exports amounted to 2,113,393 tons, valued at £1,773,530 and were divided as follows :—Cargo, 1,763,628 tons, £1,505,388 ; bunker, 349,765 tons £268,142. Oversea exports totalled 910,872 tons, valued at £848,762, representing 531,272 tons of bunker coal, valued at £506,641 and 379,600 tons of cargo coal, valued at £342,121.

The distribution of the total output from New South Wales collieries during the five years 1934 to 1938 was as follows, the quantities shown for export include bunker coal :—

COAL : DISTRIBUTION OF OUTPUT, NEW SOUTH WALES.

Year.	Exports to Australian Ports.	Exports to Foreign Ports.	Local Consumption.	Total.
	Tons.	Tons.	Tons.	Tons.
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
1938	2,113,393	910,872	6,546,665	9,570,930

NOTE.—Figures for years later than 1938 are not available for publication.

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 quantity shown for local consumption in 1938 includes an amount of 48,711 tons of interstate bunker coal shipped from Sydney. It is understood that this amount is not included in the export returns.

The figures quoted in the table above are given on the authority of the New South Wales Mines Department.

5. *Consumption in Australia.*—From the information now available it is possible to show in greater detail, particulars of the production of coal and the manner of its disposal in Australia.

Under normal circumstances the production and consumption of coal move in the same direction, but in times of industrial trouble large consumers may be compelled to rely upon accumulated stocks, and, consequently annual figures may move out

of alignment. For this reason the following table has been prepared on a quinquennial basis in order to smooth out any variations from the normal.

COAL : PRODUCTION AND UTILIZATION IN AUSTRALIA.

Particulars.	Average for Five Years ended—			
	1933-34.		1938-39.	
BLACK COAL.				
Source—				
Production of Saleable Coal (a) ..	Tons.	%	Tons.	%
Imports	8,770,730	98.10	11,168,996	99.72
	169,940	1.90	30,860	0.28
Total Supplies	8,940,670	..	11,199,856	..
Disposal—				
Exported overseas	320,449	3.58	345,606	3.09
Exported as bunker, overseas	521,651	5.84	592,469	5.29
Total	842,100	9.42	938,075	8.38
Consumed as fuel in—				
Electric Light and Power Works ..	1,491,633	16.68	1,795,568	16.03
Factories (b)	1,434,635	16.05	2,067,462	18.46
Railway Locomotives (c)	2,161,552	24.18	2,327,791	20.78
Total	5,087,820	56.91	6,190,821	55.27
Consumed as raw material in—				
Gas Works	1,077,372	12.05	1,110,801	9.92
Coke Works	609,020	6.81	1,467,459	13.10
Total	1,686,392	18.86	2,578,260	23.02
Balance available for consumption including accumulation of stocks (d)	1,324,358	14.81	1,492,700	13.33
Grand Total	8,940,670	100.00	11,199,856	100.00

BROWN COAL.

Production of Brown Coal	Tons. 2,294,321		Tons. 3,063,879	
Utilization—				
As fuel in Electric Light and Power Works	1,173,743	51.16	1,673,018	54.60
Used in Briquette Works (e)	1,120,578	48.84	1,390,861	45.40
Total	2,294,321	100.00	3,063,879	100.00

(a) Estimated. (b) Estimated where details were not available. Excludes brown coal, see Note (e). (c) Government Railways only. (d) Includes bunker coal for Interstate and Intra-state Shipping. (e) A portion of the briquette output is consumed in factories.

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 use estimates, which are probably accurate enough for the purpose.

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, but the average price in the Southern district is now in excess of that prevailing in the northern. According to the figures compiled by the State Statistician the average prices of saleable coal for the various districts and for the State as a whole during the last five years are given in the following table :—

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.		
1935	10	10		12	10		8	5		10	9	
1936	10	11		12	8		8	9		10	10	
1937	11	3		13	0		8	9		11	2	
1938	11	11		14	0		9	6		12	0	
1939	12	8		14	5		10	8		12	9	

(ii) *Victoria.* In Victoria, the average price of black coal per ton at the pit's mouth in 1935 was 11s. 10d. ; in 1936, 11s. 11d. ; in 1937, 12s. 0d. ; in 1938, 12s. 3d. ; and in 1939, 12s. 10d. These averages are exclusive of brown coal, which in 1939 cost 2s. 1d. per ton to produce.

(iii) *Queensland.* Prices in the principal coal-producing districts during the last five years were as follows :—

COAL PRICES : QUEENSLAND.

District.	Value at Pit's Mouth.				
	1935.	1936.	1937.	1938.	1939.
	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.
Ipswich	15 5	16 0	16 4	17 0	17 2
Darling Downs	18 3	18 10	19 3	19 11	20 3
Wide Bay and Maryborough	23 1	23 9	23 7	24 0	24 3
Rockhampton	16 7	17 4	17 4	17 0	17 7
Clermont	12 5	12 8	13 0	13 8	13 11
Bowen	13 10	14 0	14 2	14 10	15 10
Chillagoe (Mount Mulligan)	29 0	28 9	30 5	31 6	31 1
Average for State ..	16 0	16 5	16 8	17 2	17 9

(iv) *Western Australia.* The average prices per ton of the Collie (Western Australia) coal during the last five years were : 1935, 11s. 10d. ; 1936, 11s. 9d. ; 1937, 12s. 4d. ; 1938, 12s. 5d. ; and 1939, 13s. 0d.

(v) *Tasmania.* The average prices per ton of coal at the pit's mouth in Tasmania for the last five years were : 1935, 13s. 11d. ; 1936, 13s. 11d. ; 1937, 14s. 8d. ; 1938, 14s. 10d. ; and 1939, 15s. 0d.

7. *Prices in the United Kingdom.*—During the five years 1934 to 1938 the average selling prices of coal per ton at the pit's mouth in the United Kingdom were : 1934, 12s. 11d. ; 1935, 13s. ; 1936, 14s. 0½d. ; 1937, 15s. 2½d. ; and 1938, 16s. 7½d. Later details are not available.

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 for selected years from 1913 and for each of the last five years :—

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
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
1938 ..	15,815	1,322	444	2,495	765	269	21,110
1939 ..	16,581	1,376	449	2,615	752	238	22,011

(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 1933 there has been a gradual improvement, but the numbers employed in 1939 were only about two-thirds of the maximum figure already quoted. As the production in 1939 almost equalled 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 1929, 23.4 per cent of the total output of coal in New South Wales was cut by machinery, while in 1939 the percentage had increased to 32.1.

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 appears to have 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, 1939.

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 ..	16,581	15	81	0.90	4.89	746,389	138,220
Victoria ..	1,825	..	2	..	1.10	..	22,007,955
Queensland ..	2,615	3	140	1.15	53.54	439,163	9,411
Western Australia ..	752	1	233	1.33	309.84	557,535	2,393
Tasmania ..	238	..	6	..	25.21	..	16,565
Total ..	22,011	19	462	0.86	20.99	904,534	37,200

(a) Includes brown coal.

The next table shows the average number employed in mining, number of fatalities, and rate per 1,000 during the quinquennium 1935-39 :—

COAL-MINING : FATALITIES, 1935 TO 1939.

State.	Average No. of Coal-miners Employed.	Average No. of Fatal Accidents.	Rate per 1,000 Employed.
New South Wales	14,987	15.20	1.01
Victoria	1,827	3.40	1.86
Queensland	2,488	3.40	1.37
Western Australia	739	0.40	0.54
Tasmania	301	0.20	0.66
Total	20,342	22.60	1.11

(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. Details are not available for a later comparison.

§ 11. Coke.

1. *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 of 1914-19. This was below local requirements and necessitated a fairly considerable import from abroad. During recent years, however, a high standard has been attained in the local product, imports have almost ceased, and Australian coke is being shipped to New Zealand and other islands in the Pacific. Particulars for 1939-40 are not available for publication, but for 1938-39 the quantity of coke imported amounted to 9,719 tons, of which 6,695 tons were obtained from the United Kingdom and 2,030 tons from Germany, Western Australia being the chief importing State. The quantity exported was 30,091 tons, valued at £56,027, of which 25,894 tons, valued at £42,291, were sent to New Caledonia.

2. *New South Wales.*—The table hereunder gives the production in New South Wales during the five years 1934 to 1938 as recorded by the Department of Mines :—

COKE : PRODUCTION IN NEW SOUTH WALES.

Items.	1934.	1935.	1936.	1937.	1938.
Quantity .. tons	688,621	857,875	893,201	939,944	1,135,446
Value, total .. £	636,346	802,887	800,632	909,822	1,100,266
Value, per ton	18s. 6d.	18s. 9d.	17s. 11d.	19s. 4d.	19s. 5d.

NOTE.—Figures for years later than 1938 are not available for publication.

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 1,135,000 tons in 1938. During the latter year the number of coke ovens at work totalled 548, and the number of persons engaged in its manufacture was 647.

3. *Queensland.*—A small quantity of coke is made in Queensland, the quantity returned in 1938 being 30,984 tons, of which 27,328 tons were produced at the 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 local output is sufficient to meet the requirements of the State and leave a small surplus

available for export. During 1938, 2,329 tons of coke were exported from Bowen to Noumea. The following table shows the amount manufactured during the five years 1934 to 1938:—

COKE : PRODUCTION IN QUEENSLAND.

Year.	1934.	1935.	1936.	1937.	1938.
Quantity .. tons	25,655	24,877	23,326	30,459	30,984

NOTE.—Figures for years later than 1938 are not available for publication.

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. Shale-oil and Mineral Oil.

1. *Shale-oil.*—(i) *General.* Reference to the deposits of shale and the search for mineral oil in Australia will be found in Official Year Book No. 22, pp. 791-3.

(ii) *New South Wales.* Reference to the establishment of the shale-oil industry in Australia will be found in previous issues of the Official Year Book. In 1937 negotiations were completed between the Commonwealth and New South Wales Governments and the National Oil Proprietary Ltd., by 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 annually, 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 and should provide a valuable training ground for technicians. Production commenced in 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 owned by the Tasmanite Shale Oil Company has not operated since the end of January, 1935.

Investigations into the shale-oil deposits of the Mersey Valley are being continued and the State Government has decided to install a small-scale plant to determine the economics of the industry. The future development of the industry in this State will depend upon the result of these investigations.

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. A report dated 25th July, 1939, on the production of oil from coal was submitted to the Minister by the Standing Committee on Liquid Fuels. The recommendations of this Committee followed the lines of those of its predecessors.

3. *Natural Oil.*—(i) *Australia.* Natural oil has been proved to exist in Queensland, Victoria and Western Australia, the best indications being found in Victoria and Queensland. Many of the conditions favourable to the accumulation of oil in commercial quantities have been shown to be present in Queensland, Western Australia and New South Wales. In the latter State, however, no strong positive evidence of its existence has been recorded. Oil has been proved to occur in noteworthy quantities at Lakes Entrance, Victoria, but it still remains to be demonstrated whether the area can be developed on a commercial basis.

Reference is made in § 16 below to the assistance afforded by the Commonwealth Government in the search for petroleum oil.

(ii) *Victoria*. The production of crude petroleum oil in 1939 amounted to 4,807 gallons, valued at £67. The total production to the end of that year amounted to 111,283 gallons, valued at £2,669. In conjunction with the State Government, the Commonwealth Government is carrying out a scout-drilling campaign in the Gippsland area.

(iii) *Queensland*. Great hopes are still entertained in regard to the petroliferous area in Queensland. Gas and light to medium gravity oils have been found at Roma, and gas and oily wax at Longreach. Structural conditions favourable to accumulation on a commercial scale have been located at several places between Injune and Springsure. The search for oil was continued during 1939 by several companies in localities situated at Mount Bassett, near Roma, at Hutton Creek and at Arcadia. Test bores have been drilled to bed rock in all the localities mentioned, the deepest being that at Arcadia which exceeded 6,000 feet. Showings of petroliferous gas, amounting at Arcadia to 3,000,000 cubic feet a day, and of petroleum have been encountered in all these bore-holes.

(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*. Only one company was active in Western Australia during 1939. The company, financially assisted by the Commonwealth and State Governments, commenced deep-drilling operations in the Kimberley district in 1939.

(vi) *General*. During 1939 efforts were made to secure greater uniformity in State legislation governing the search for oil. A draft Bill based on modern legislation in other countries was prepared by the Commonwealth and submitted to the State Governments. As a result amending legislation was passed in Victoria, Queensland, South Australia and Western Australia. There was immediate response to this in Queensland, where an agreement has been reached between the State Government and one of the major oil companies, whereby the company has undertaken to spend up to £400,000 in the search for oil in that State.

§ 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 issues of the Official Year Book (see No. 22, pp. 793-6). 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 1938.

§ 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 1939 in New South Wales was estimated at 103 carats, valued at £167. These were won by fossickers in the Inverell district. The total production to the end of 1939 is given at 205,646 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 district, 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 £326 were purchased on the Anakie sapphire fields in 1939. 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 20 in 1939. Production has declined very considerably since 1920, when the yield was valued at £66,000.

3. *Precious Opal*.—The estimated value of the opal won in New South Wales during 1939 was £1,020. This is not regarded as the total output of the State, however, because 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 1890 is estimated at £1,628,041, 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 south as Cunnamulla. The yield in 1939 was estimated at £50, 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. Only seven men operated during 1939. 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. The demand improved in 1937 and the production rose to £11,887 but it has since declined to £6,020 in 1939. The field is extremely prolific, a large quantity of precious white opal having been raised therefrom, and 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, chialtolite, emeralds, garnets, moonstones, olivines, 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. Number 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 1939, the number so engaged was as follows :—

NUMBER OF PERSONS ENGAGED IN MINING, 1939.

State.	Number of Persons engaged in Mining for—						Total.
	Gold.	Silver, Lead and Zinc.	Copper.	Tin.	Coal.	Other.	
New South Wales ..	3,441	5,137	5	1,566	16,581	1,399	28,129
Victoria ..	6,169	..	..	5	1,825	89	8,088
Queensland ..	3,299	550	224	1,375	2,615	492	8,555
South Australia ..	178	5	36	..	..	684	903
Western Australia ..	15,216	2	4	50	752	175	16,199
Tasmania ..	116	401	1,017	1,100	238	289	3,161
Northern Territory ..	421	..	5	17	..	311	754
Australia ..	28,840	6,095	1,291	4,113	22,011	3,439	65,789

Included in the figures for "other" in South Australia were 292 engaged in mining iron ore, 64 gypsum miners, 141 salt gatherers, and 50 opal miners. The Tasmanian figures include 49 osmiridium miners, and those for the Northern Territory, 50 mica and 250 wolfram miners.

The following table shows, at intervals since 1901, the number of persons engaged in mining in each State and the proportion of the total population so engaged:—

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION.

State.	1901.		1911.		1921.	
	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	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.		1938.		1939.	
	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.
New South Wales ..	30,682	1,200	28,191	1,036	28,129	1,023
Victoria	6,463	359	8,193	439	8,088	430
Queensland	6,753	730	8,453	845	8,555	844
South Australia ..	518	90	832	140	903	151
Western Australia..	7,147	1,653	16,427	3,571	16,199	3,483
Tasmania	3,397	1,512	3,274	1,389	3,161	1,328
Northern Territory ..	145	2,918	611	10,669	754	12,020
Australia	55,105	844	65,981	957	65,789	945

The general falling-off since 1901 is largely due to the causes mentioned in each section above. The proportion to population shows increases since 1931 in all States, excepting New South Wales and Tasmania, and is attributable mainly to the larger numbers engaged in the search for gold. Since that year the increase in the number so engaged was approximately 5,000 persons. The number engaged in mining for tin increased by 1,900, while increases of 2,500 were also recorded in the mining for silver, lead and zinc. The number of copper-miners decreased by 500 over the same period.

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 shown in the *Labour Report* issued by this Bureau.

3. **Accidents in Mining, 1939.**—The following table gives particulars of the number of men killed or injured in mining accidents during 1939 :—

MINING ACCIDENTS, 1939.

Mining for—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
KILLED.								
Coal ..	15	..	3	..	1	..	..	19
Copper ..	..	..	..	..	..	..	..	..
Gold ..	2	10	4	..	38	..	..	54
Silver, lead and zinc ..	8	..	2	..	..	2	..	12
Tin ..	..	..	..	..	..	..	..	..
Other minerals ..	..	..	..	4	..	..	..	4
Total ..	25	10	9	4	39	2	..	89
INJURED.								
Coal ..	81	2	140	..	233	6	..	462
Copper ..	..	..	60	..	..	30	..	90
Gold ..	23	5	23	..	1,074	1	..	1,126
Silver, lead and zinc ..	154	..	37	..	..	15	..	206
Tin ..	1	..	1	..	..	16	..	18
Other minerals ..	..	..	5	48	..	12	1	66
Total ..	259	7	266	48	1,307	80	1	1,968

§ 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 1930, the Petroleum Oil Search Acts 1936, which superseded the Petroleum Prospecting Acts 1926, 1927 and 1928, the Loan Appropriation (Unemployment Relief) Act 1934, the Northern Australia Survey Act 1934 and the Gold Mining Encouragement Act 1940.

The last-mentioned Act provided financial assistance to the States for the development of the gold-mining industry. The amount granted was £150,000, distributed as follows :—New South Wales, £8,000; Victoria and Queensland, £14,000 each; South Australia, £1,000; Western Australia, £111,000; and Tasmania £2,000. The Act provided further for assistance to bona fide prospectors, marginal producers and low grade mines by refunds, under certain conditions, of the tax on gold.

Expenditure under the other Acts mentioned has been reviewed in previous issues of the Official Year Book. With the exception of the assistance to prospectors, etc., under the Gold Mining Encouragement Act and the Petroleum Oil Search Acts further expenditure under these Acts is not contemplated.

(ii) *Survey of North Australia.* 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 over a period of six years of certain areas in Australia

north of the 22nd parallel of south latitude. The survey was completed at the end of 1940. The total cost of the survey involved an expenditure of £250,000, of which the Commonwealth Government contributed £140,000, Queensland £67,500 and Western Australia £42,500. The final report was in respect of the period ended 31st December, 1940. In addition to these periodical reports, 180 other reports have been released. These refer to individual areas examined by the survey during the six years of its operations.

(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 recent 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 and 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 test-drilling has been and still is being done at approved sites in Australia. So far no commercial production has been obtained. An Australian company operating in the Gulf District, Papua, is at present engaged on deep test-drilling.

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;
- (2) for the purchase of drilling plants;
- (3) towards the cost of any geological survey or scout-drilling operations conducted by the Commonwealth in conjunction with a State in connexion with the search for petroleum; and
- (4) for the purpose of advances to persons engaged in the initial stages of the production of petroleum.

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 in Queensland, Victoria, New South Wales, Western Australia and Papua.

In conjunction with the Government of Victoria the Commonwealth is conducting a scout-drilling campaign in Gippsland.

(iv) *Mineragraphic and Ore-dressing Investigations.* In addition to the assistance mentioned above the Commonwealth Government made a grant of £25,000 in 1934 to the Council for Scientific and Industrial Research to stimulate gold production by conducting mineragraphic and ore-dressing investigations as required by the industry. This amount was expended during the succeeding five years in conducting these investigations, which were carried out conjointly with appropriate State institutions, the three laboratory centres being the School of Mines, Kalgoorlie, the School of Mines and Industries, Adelaide, and the University of Melbourne.

The success of the scheme induced a further grant of £22,000. After providing £2,000 for 1940-41, the balance is to be expended at the rate of £4,000 during each of the succeeding five years. The scheme is administered by a Mining Advisory Committee.

(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 has undertaken the investigation of such matters as the production of oil from coal, benzol, power alcohol, shale-oil, the use of producer and compressed gas in road vehicles, and tar and other substitutes for fuel oil. Seven reports have been issued by this Committee to date.

2. **New South Wales.**—Assistance given to prospectors in New South Wales during 1939 amounted to £16,235 which was met partly from Unemployment Relief funds and partly from the Commonwealth Grant. Prospectors for gold received £10,531, for silver, £3,320; for tin, £1,603; and for other minerals £781.

3. **Victoria.**—During 1939 expenditure in connexion with mining amounted to £24,500. Of this amount £8,906 represented aid granted to prospectors and £8,310 advances to companies. The balance of £7,284 was provided for operation of State batteries, boring operations, geological surveys, etc.

4. **Queensland.**—State assistance to the mining industry in 1939-40 amounted to £40,470, of which £39,632 was advanced as a grant, loan or subsidy for prospecting, the balance consisting of grants under the Mining Machinery Advances Act £638, and £200 for the provision of transport facilities, etc., to mineral fields. In addition to the above amounts, a sum of £9,636 was spent in connexion with the aerial survey of North Australia and £6,197 in connexion with geological surveys.

Mining operations conducted by the State include three coal-mines situated at Bowen, Styx and at Mount 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 continues 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 1939 the total amount of subsidy paid was £70,915, of which £17,136 has been repaid, and £4,700 written off, leaving a debit of £49,079. Portion of this amount is represented by machinery that has been reclaimed by 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 1939 amounted to £6,599.

6. **Western Australia.**—Under the Mining Development Act of 1902 assistance granted in 1939 was as follows:—Aid to prospectors, £38,191; subsidies on stone crushed for the public, £535; advances in aid of mining work and equipment of mines with machinery, £8,341. Other assistance granted from the vote on various matters during the year amounted to £392. The total amount involved was £47,459.

In 1939 there were 23 State batteries in operation of which three were leased. The amount expended thereon up to the end of 1939 was £93,051 from revenue, £401,336 from loan fund and £42,408 from other sources, giving a total of £536,795. The working expenditure up to the end of 1939 exceeded the revenue by £71,000. The total value of gold and tin produced to the end of 1939 at the State plants was £10,705,742. 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 1939 amounted to £3,593, of which £214 was expended as sustenance, £658 as advances and £2,721 as assistance to prospectors and for the provision of other aid.

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 1939 the assistance granted to prospectors amounted to £1,377. In addition a sum of £11,640 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 (excluding 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

NOTE.—Figures for years later than 1938 are not available for publication.

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, in 1937–38 to 929,676 tons and in 1938–39 to 1,104,605 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	1,819,546	2,506,015	2,810,828	3,505,293	3,400,581
	Lead Concentrates and Ores	612,014	275,154	444,052	557,438	831,809
	Zinc Concentrates and Ores	147,522	217,266	222,536	204,840	306,012
	Copper and Gold Ores ..	..	..	..	..	..
	Total	2,579,082	2,998,435	3,477,416	4,267,571	4,538,402
Lead tons	Lead-Silver-Gold Bullion	35,804	36,723	33,450	41,773	40,369
	Lead Concentrates and Ores	21,075	9,619	17,497	10,086	15,049
	Zinc Concentrates and Ores	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

NOTE.—Figures for years later than 1938 are not available for publication.

§ 18. Oversea Exports of Ores, Metals, etc.

The following table shows the quantities and values of the principal oversea exports of ores, concentrates and metals, the produce of Australia, together with the countries to which the respective products were forwarded, for 1938-39:—

OVERSEA EXPORTS OF AUSTRALIAN ORES, METALS, ETC., 1938-39.

Article.	Total Exports.	Exports to—						
		U.K.	U.S.A.	Belgium.	Germany.	Japan.	N.Z.	Other Countries.
QUANTITY.								
Ores—	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Copper ..	376	376	..	..	..	..	..	..
Silver and Silver-lead ..	8,447	..	3,287	5,139	..	..	..	..
Iron ..	2,643,260	..	1,146,600	..	..	1,496,660	..	21
Wolfram ..	18,371	3,350	404	2,351	7,150	..	..	6,106
Tin ..	174	..	..	..	..	..	..	..
Zinc ..	46,121	46,121	..	..	..	..	..	..
Other ..	43,317	14,488	20,700	459	3,076	108	1,565	2,921
Concentrates—								
Silver and Silver-lead ..	688,968	..	194,550	494,418	..	..	..	..
Zinc ..	4,893,291	4,073,931	650,089	62,049	40,499	..	..	(a) 71,723
Copper ..	267,380	..	263,882	628	2,870	..	..	..
Tin ..	9,464	9,464	..	..	..	..	..	..
Lead Slime Residue ..	34,744	11,859	17,889	1,569	..	..	..	427
Gold Ore, Quartz and Concentrates ..	10,359	13	8,256	1,683	..	..	407	..
Other ..	20,838	213	1,500	19,125	..	..	..	..
Cadmium—Blocks, Ingots, etc. ..	3,036	2,240	..	..	..	14	22	760
Copper—								
Matte ..	21,231	24	..	21,207	..	..	..	..
Ingot ..	324	4	..	..	..	..	320	..
Tin—Ingot ..	29,431	14,860	6,600	1,400	..	..	4,402	2,169
Lead—Pig ..	4,089,895	4,010,625	..	..	..	6,985	43,698	28,587
Zinc—Bars, Blocks, etc. ..	892,192	283,055	..	4,800	..	230,281	3,427	(b) 370,629
Platinum, Osmium, etc. ..	oz. 225	oz. 169	oz. 02.	oz. 02.	oz. 02.	oz. 56	oz. 02.	oz. 02.
Gold—								
Bar, Dust, etc. ..	1,639,430	212,409	1,426,180	..	..	..	..	(d) 841
Silver—								
Bar, Ingot, etc. ..	0,332,624	108,050	33,054	..	74,205	..	3,940	20,023,366
VALUE.								
Ores—	£	£	£	£	£	£	£	£
Copper ..	1,092	1,092	..	..	..	..	..	..
Silver and Silver-lead ..	5,817	..	2,628	2,869	..	..	..	20
Iron ..	83,300	..	31,823	..	..	51,477	..	..
Wolfram ..	177,361	35,665	5,178	13,217	68,253	..	..	55,048
Tin ..	1,167	1,167	..	..	..	..	..	..
Zinc ..	19,509	19,509	..	..	..	..	..	..
Other ..	90,297	23,144	24,850	7,469	27,982	1,028	1,204	4,620
Concentrates—								
Silver and Silver-lead ..	484,395	..	149,229	335,166	..	..	..	..
Zinc ..	804,264	662,205	..	111,238	7,398	14,895	..	(a) 8,528
Copper ..	406,446	..	401,148	1,483	3,815	..	..	..
Tin ..	80,139	80,139	..	..	..	..	..	..
Lead Slime Residue ..	27,937	5,619	21,928	190	..	..	..	140
Gold Ore, Quartz and Concentrates ..	17,799	7,208	8,712	1,757	..	..	122	..
Other ..	24,241	316	675	23,250	..	..	..	..
Cadmium—Blocks, Ingots, etc. ..	56,543	41,356	..	..	..	314	314	14,559
Copper—								
Matte ..	14,741	56	..	14,685	..	..	..	..
Ingot ..	915	10	..	..	..	..	905	..
Tin—Ingot ..	370,737	184,142	83,070	13,240	..	..	56,307	28,378
Lead—Pig ..	4,266,566	4,188,961	..	..	..	7,050	43,423	27,132
Zinc—Bars, Blocks, etc. ..	887,421	281,454	..	4,716	..	228,995	3,811	(b) 368,445
Platinum, Osmium, etc. ..	(c) 4,768	3,726	..	..	..	1,042	..	..
Gold—								
Bar, Dust, etc. ..	14,848,705	1,887,423	12,953,955	..	..	..	..	(d) 7,327
Silver—								
Bar, Ingot, etc. ..	958,053	21,705	3,402	..	7,745	..	459	(e) 924,742
Total ..	23,631,313	7,444,897	13,686,058	534,280	115,193	304,801	106,545	1,438,939

(a) Czechoslovakia, 40,000 cwt., £4,602; Netherlands, 31,723 cwt., £3,926. (b) India, 357,599 cwt., £355,479. (c) Mainly osmium exported from Tasmania. (d) France. (e) Ceylon, 8,801,107 fine oz., £901,209; India, 222,259 fine oz., £23,533.

NOTE.—Figures for years later than 1938-39 are not available for publication.

CHAPTER XVI.

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 number 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	(a)
1st July, 1794	(b) 20	40	576	(a)	522
15th June, 1795	(c) 49	176	832	(a)	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 stated.

(b) Excluding three asses.

(c) Excluding seven asses.

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 only 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 418.

During the seventy-nine years covered by the table the live stock of Australia increased considerably, horses, 294 per cent. ; cattle, 230 per cent. ; sheep, 493 per cent. ; and pigs, 314 per cent. The average annual increases which these aggregates represent are as follows :—Horses, 1.75 per cent. ; cattle, 1.52 per cent. ; sheep, 2.28 per cent. ; and pigs, 1.82 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	81,795,727	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	13,491,872	110,242,704	1,202,752
1937	..	..	..	1,746,513	13,078,356	113,372,518	1,100,082
1938	..	..	..	1,724,056	12,861,781	111,057,832	1,155,591
1939	..	..	..	1,698,797	13,080,180	119,305,391	1,455,341

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 occurred in 1868, 1877, 1883-4, 1892, 1893, 1895, 1901-2, 1912, 1914, 1918, 1919, 1922-23, 1925-26, 1927-28, 1929-30 and 1940-41.

The years in which the number of live stock attained their maxima are as follows :—Horses, 1918, 2,527,149 ; cattle, 1921, 14,441,309 ; sheep, 1939, 119,305,391 ; and pigs, 1939, 1,455,341.

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-nine years as shown in the following 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	1934	..	0.27	2.11	16.97	0.17
1880	..	0.48	3.37	27.87	0.37	1935	..	0.26	2.06	16.13	0.19
1890	..	0.48	3.17	31.06	0.28	1936	..	0.26	1.98	16.20	0.18
1900	..	0.43	2.29	18.75	0.25	1937	..	0.26	1.91	16.59	0.16
1910	..	0.49	2.65	22.16	0.23	1938	..	0.25	1.87	16.11	0.16
1920	..	0.44	2.49	15.11	0.14	1939	..	0.24	1.87	17.06	0.21

6. Live Stock in Relation to Area.—The number 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, 1939.

State or Territory.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales	1.73	8.93	175.72	1.46
Victoria	3.71	20.34	207.68	3.39
Queensland	0.66	9.25	36.08	0.58
South Australia	0.50	0.92	26.15	0.31
Western Australia	0.14	0.82	9.81	0.15
Tasmania	1.13	9.63	102.12	1.71
Northern Territory	0.06	1.76	0.07	0.00
Australian Capital Territory	1.32	6.25	275.97	0.64
Australia	0.57	4.40	40.11	0.49

7. Minor Classes of Live Stock.—Excluding Victoria, where the details are not available, the number of minor classes of live stock returned for 1939, were as follows :—Goats, 85,458; camels, 2,334; and mules and donkeys, 11,275. Of these, goats were most numerous in Queensland, and camels, mules and donkeys in Western Australia. In the raising of goats, some attention has been devoted to the angora goat and its product (mohair), and 5,498 angora goats are included in the number of goats shown above. Of these, 1,794 were in New South Wales, 1,000 in Queensland, 2,443 in South Australia, and 261 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 1935–36 to 1939–40 were as follows :—

NET EXPORTS OF PASTORAL PRODUCTS : AUSTRALIA.

Product.	Unit of Quantity.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	
QUANTITIES.							
Animals (living)—							
Cattle	No.	76	—665	184	405	371	
Horses	"	3,783	4,674	3,549	2,294	1,503	
Sheep	"	64,340	49,896	67,808	66,739	72,385	
Bones	Cwt.	17,188	16,603	17,895	21,497	11,854	
Glue-pieces and Sinews	"	379	(a)	—1,945	—11,145	—15,651	
Glycerine	lb.	—1,193,982	—1,163,777	—1,023,406	78,727	(b)	
Hair	"	—962,875	—1,152,954	—1,820,795	—1,003,366	—2,050,896	
Hoofs	Cwt.	(a)	(a)	(a)	(a)	(a)	
Horns	"	(a)	(a)	(a)	(a)	(a)	
Meats—							
Frozen Beef (c)	lb.	196,818,221	233,851,658	293,802,831	271,948,548	(b)	
" Mutton and Lamb	"	178,005,079	208,457,576	201,800,129	186,487,551	(b)	
" Rabbits and Hares	Pair	(a)	(a)	(a)	(a)	(a)	
" Other	lb.	15,098,299	18,498,278	20,737,142	19,588,368	(b)	
Potted, and Extract of	"	(a)	(a)	(a)	(a)	(a)	
Preserved in Tins, etc.	lb.	6,418,202	9,197,093	12,230,650	14,778,896	(b)	
Other (excluding Bacon and Ham)	"	561,341	637,509	398,085	308,448	732,892	
Sausage Casings	Cwt.	8,938	12,502	11,973	8,673	4,427	
Skins—							
Hides	No.	(a)	(a)	(a)	(a)	(a)	
Sheep	"	(a)	(a)	(a)	(a)	(a)	
Rabbit and Hare	Cwt.	91,443	66,446	43,946	37,544	(d) 65,319	
Other (including Undressed Furs)	"	(a)	(a)	(a)	(a)	(a)	
Tallow	Cwt.	445,358	624,521	524,170	560,241	803,096	
Wool—							
Greasy	lb.	742,738,515	755,610,976	708,509,619	779,781,662	(b)	
Scoured	"	68,053,803	66,594,446	61,314,071	70,299,595		
Tops	"	3,144,411	3,746,779				
Rolls	"	1,647,629	1,291,681				
Waste	"	880,045	621,324				

(a) Quantity not available. (b) Not available for publication. (c) Including chilled beef.
(d) Rabbit skins only.

NOTE.—The minus sign (—) signifies net imports.

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 £333,091,990 for the period, or an average of £66,618,398 per annum, of which wool represents 76.96 per cent. Meat, skins and tallow rank next in order of importance.

NET EXPORTS OF PASTORAL PRODUCTS : AUSTRALIA.

Product.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
VALUES. (a)					
Animals (living)—					
Cattle	—30,244	—24,921	—11,131	142	2,111
Horses	2,473	—9,385	—16,276	—11,258	—20,594
Sheep	36,062	16,605	47,458	39,405	58,508
Bones	9,911	9,804	10,919	10,741	6,541
Glue-pieces and Sinews	4,812	317	—1,618	7,796	—10,750
Glycerine	—34,937	—38,748	—41,326	4,004	(b)
Hair	—115,077	—120,245	—177,266	—103,353	—157,920
Hoofs	5,935	7,280	8,560	8,027	6,123
Horns	16,721	19,762	21,811	18,615	13,462
Meats—					
Frozen Beef(c)	2,181,803	3,035,943	4,367,049	4,323,235	4,825,237
" Mutton and Lamb	4,465,691	5,233,626	5,339,832	4,807,418	6,082,341
" Rabbits and Hares	243,623	129,390	172,225	232,034	355,456
" Other	286,415	385,061	406,748	417,670	590,259
Potted, and Extract of	—32,925	—38,916	—25,391	—32,580	—25,135
Preserved in Tins, etc.	191,316	295,172	390,535	492,709	916,609
Other (excluding Bacon and Ham)	9,885	10,407	7,459	6,336	16,430
Sausage Casings	9,206	60,582	125,366	185,649	52,739
Skins—					
Hides	450,577	976,227	929,687	775,398	551,892
Sheep	2,808,267	3,785,748	3,435,269	2,336,718	(b)
Rabbit and Hare	1,732,715	1,623,046	1,033,519	393,641	(d) 881,777
Other (including Undressed Furs)	—110,180	165,625	—238,123	—287,277	—368,355
Tallow	653,353	812,828	611,844	480,459	846,534
Wool—					
Greasy	45,806,287	54,921,808	40,531,631	36,617,167	46,758,717
Scoured	5,548,336	6,659,952	5,731,196	5,277,117	7,245,209
Tops	404,644	532,121			
Noils	123,481	112,969			
Waste	48,848	32,780			
Total Values	65,017,998	78,585,838	62,659,977	55,984,221	70,971,626

(a) Australian currency values. (b) Not available for publication, included with total.
(c) Including chilled beef. (d) Rabbit skins only.

NOTE.—The minus sign (—) signifies net imports.

9. Value of Pastoral Production.—(i) *General.* Particulars of the gross, local and net values of pastoral production for each State are shown in the following table for 1939-40. Fuller details of the source of the information and an explanation of the terms used in this compilation will be found in Chapter XXVII. "Miscellaneous". Maintenance costs have not been computed in all States and depreciation has not been deducted; consequently the net values are inflated to the extent of these costs.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, 1939-40.

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 ..	39,611,000	4,061,000	35,550,000	685,000	303,000	34,562,000
Victoria ..	18,947,004	1,496,232	17,450,772	375,000	641,380	16,434,392
Queensland ..	20,408,000	1,845,000	18,563,000	620,000	250,000	17,693,000
South Aust. ..	7,395,828	769,256	6,626,572	224,664	195,291	6,206,617
Western Aust. ..	5,731,707	571,594	5,160,113	195,818	274,450	4,689,845
Tasmania ..	2,058,900	151,900	1,907,000	40,630	64,220	1,802,150
Total ..	94,152,439	8,894,982	85,257,457	2,141,112	1,728,341	81,388,004

(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 1939-40 and amounted in the aggregate to £446,971.

(ii) States 1930-31 to 1939-40. The following table shows the net value of pastoral production by States and the net value per head of population, for the years 1930-31 to 1939-40:—

VALUE OF PASTORAL PRODUCTION.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
NET VALUE. (a)							
	£	£	£	£	£	£	£
1930-31	17,592,000	9,418,083	11,916,422	2,342,113	3,385,270	950,970	45,604,858
1931-32	19,024,000	8,610,781	9,100,483	2,225,169	3,088,039	976,380	43,024,852
1932-33	20,993,000	8,172,957	9,880,086	2,387,520	3,099,346	952,600	45,485,509
1933-34	34,259,000	15,903,468	12,833,102	4,560,947	5,642,524	1,607,550	74,806,591
1934-35	23,311,000	13,305,109	11,004,135	3,181,285	3,916,280	1,040,690	55,758,499
1935-36	32,799,000	17,422,400	11,561,000	4,602,656	5,350,216	1,492,460	73,227,732
1936-37	39,300,000	19,502,210	14,112,000	5,217,256	4,597,230	1,692,580	84,421,276
1937-38	33,939,000	18,533,223	15,364,000	4,856,629	4,003,310	1,470,580	78,166,742
1938-39	23,613,000	15,156,276	14,881,000	5,054,784	3,666,461	1,449,590	63,821,111
1939-40	34,562,000	16,434,392	17,693,000	6,206,617	4,689,845	1,802,150	81,388,004

NET VALUE PER HEAD OF MEAN POPULATION. (a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1930-31	6 18 3	5 5 1	12 19 7	4 1 7	7 17 1	4 5 4	7 0 4
1931-32	7 8 2	4 15 5	9 15 7	3 17 2	7 2 5	4 6 5	6 11 4
1932-33	8 2 0	4 10 1	10 10 0	4 2 5	7 1 10	4 3 7	6 17 8
1933-34	13 2 3	8 14 3	13 10 0	7 16 7	12 16 3	7 0 4	11 4 9
1934-35	8 16 11	7 4 10	11 9 0	5 8 11	8 16 9	4 10 10	8 6 5
1935-36	12 6 11	9 9 1	11 17 10	7 17 0	11 18 11	6 9 7	10 16 11
1936-37	14 13 2	10 10 7	14 6 10	8 17 4	10 3 6	7 5 9	12 8 2
1937-38	12 10 7	9 19 2	15 8 9	8 4 5	8 15 1	6 5 2	11 7 9
1938-39	8 12 9	8 1 8	14 15 7	8 10 1	7 18 5	6 2 4	9 4 3
1939-40	12 10 2	8 14 0	17 7 8	10 7 11	10 1 2	7 11 0	11 12 10

(a) No deduction has been made for depreciation and maintenance.

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, but it is uncertain whether they have been compiled on the same 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 of America. 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, 1939-40.	New Zealand.	Great Britain, 1937.	Canada, 1938.	United States of America, 1939.
	lb.	lb.	lb.	lb.	lb.
Beef and Veal	128.22	140-150	69	63.2	60.8
Mutton and Lamb ..	69.94	82	30	5.8	6.6
Pork and Bacon and Ham..	16.84	22	42	56.8	63.6
Total All Meats ..	215.00	249*	141	125.8	131.0

* Veal excluded.

§ 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 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. Owing to the mechanization of the Army 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.
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
1938	531,355	343,828	444,521	195,834	143,674	30,458	33,191	1,195	1,724,056
1939	534,837	326,217	444,956	190,013	139,207	29,605	32,721	1,241	1,698,797

(a) 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 rate of decline has slackened slightly and, with the introduction of rationing of motor spirit as a war-time measure, it is expected that this decline will be further arrested during this restriction.

The number of horses in Australia from 1860 onwards may be obtained from the graph on page 418.

3. Proportions in the Several States and Territories.—The percentages of the number of horses in the several States and Territories on the total for Australia for 1939 were:—New South Wales, 31.49; Victoria, 19.20; Queensland, 26.19; South Australia, 11.19; Western Australia, 8.19; Tasmania, 1.74; Northern Territory, 1.93; and Australian Capital Territory, 0.07 per cent.

The percentages in the various States have remained fairly 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 1939 the relative numbers were:—New South Wales, 0.20; Victoria, 0.17; Queensland, 0.44; South Australia, 0.32; Western Australia, 0.30; Tasmania, 0.12; Northern Territory, 5.60; Australian Capital Territory, 0.11; and Australia, 0.25.

5. Comparison with other Countries.—The latest particulars of the number of horses in the leading horse-breeding countries of the world are as follows:—

HORSES : NUMBER IN PRINCIPAL COUNTRIES.

Country.	Year.	Number of Horses (,000 omitted).	Country.	Year.	Number of Horses (,000 omitted).
U.S.S.R. (Russia) ..	1938	17,500	Turkey ..	1938	651
U.S.A. ..	1938	10,800	Uruguay ..	1930	623
Argentine Republic ..	1937	8,527	Sweden ..	1938	617
Brazil ..	1935	6,052	Cuba ..	1934	569
China ..	1935	4,080	Spain ..	1933	568
Poland ..	1938	3,886	Denmark ..	1938	565
Germany ..	1938	3,443	Lithuania ..	1938	558
Canada ..	1938	2,821	Bulgaria ..	1934	532
France ..	1938	2,692	Chile ..	1936	528
India (British and Native) ..	1936	2,380	Eire ..	1938	442
Rumania ..	1937	2,167	Peru ..	1932	432
Mexico ..	1932	1,888	Haiti ..	1935	400
Manchuria ..	1936	1,840	Latvia ..	1938	400
Australia ..	1939	1,609	Bolivia ..	1932	390
Japan ..	1936	1,432	Thailand ..	1938	386
Yugoslavia ..	1938	1,265	Finland ..	1937	380
United Kingdom ..	1938	1,100	Greece ..	1937	372
Colombia ..	1934	972	Netherlands ..	1938	312
Hungary ..	1938	814	New Zealand ..	1938	278
Italy ..	1938	791	Belgium ..	1938	265
Union of South Africa ..	1937	778	Austria ..	1938	246
Czechoslovakia ..	1936	704	Estonia ..	1938	219
Dutch East Indies ..	1937	671	French Morocco ..	1938	192
			Paraguay ..	1935	186

6. *Oversea Trade in Horses.*—(i) *Exports.* Australia's export trade in horses is far below that of earlier years. During the period 1901-5 the average number exported was over 18,000, whereas during the last five years the figure was 3,442. The total number of horses exported during the latter period amounted to 17,208, valued at £640,083, equal to an annual average of 3,442 valued at £128,017. The average export price was £37 3s. 10d. The horses exported to India, where they are largely used for army remounts, numbered 2,607 or 76 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 £A494. The average number imported per annum was, however, only 281, and the average annual value, £138,825. The following table gives the imports, exports and net exports of horses during each of the years from 1935-36 to 1939-40:—

HORSES : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
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
1938-39 ..	238	125,192	2,532	113,934	2,294	— 11,258
1939-40 ..	190	100,688	1,693	80,094	1,503	— 20,594

(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 number 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 a decline of nearly 1,000,000 occurred since 1934. In 1939, an upward movement is shown in all States excepting New South Wales and Tasmania. A graph showing the number of cattle in Australia from 1860 appears on page 418.

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. Terr.	Aus. Cap. Terr. (a)	Total.
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	2,005,759	5,959,572	328,013	792,508	261,597	855,398	9,856	13,491,872
1937	3,019,581	1,880,429	5,959,165	324,163	740,241	254,812	891,640	8,325	13,078,356
1938	2,811,884	1,697,295	6,097,080	318,897	767,680	262,407	899,472	7,057	12,861,781
1939	2,762,653	1,787,597	6,198,798	351,013	799,175	252,484	922,581	5,879	13,080,180

(a) March, year following.

Although the proportion is not as high as it has been in the past, Queensland was carrying 47.40 per cent. of the cattle in Australia in 1939. The percentage in each State and Territory during 1939 was :—New South Wales, 21.12 ; Victoria, 13.67 ; Queensland, 47.40 ; South Australia, 2.68 ; Western Australia, 6.11 ; Tasmania, 1.93 ; Northern Territory, 7.05 ; Australian Capital Territory, 0.04.

A graph showing the distribution of cattle in Australia during 1938–39 appears on page 453. A similar graph showing the distribution during 1924–25 is shown in Official Year Book No. 22, p. 660.

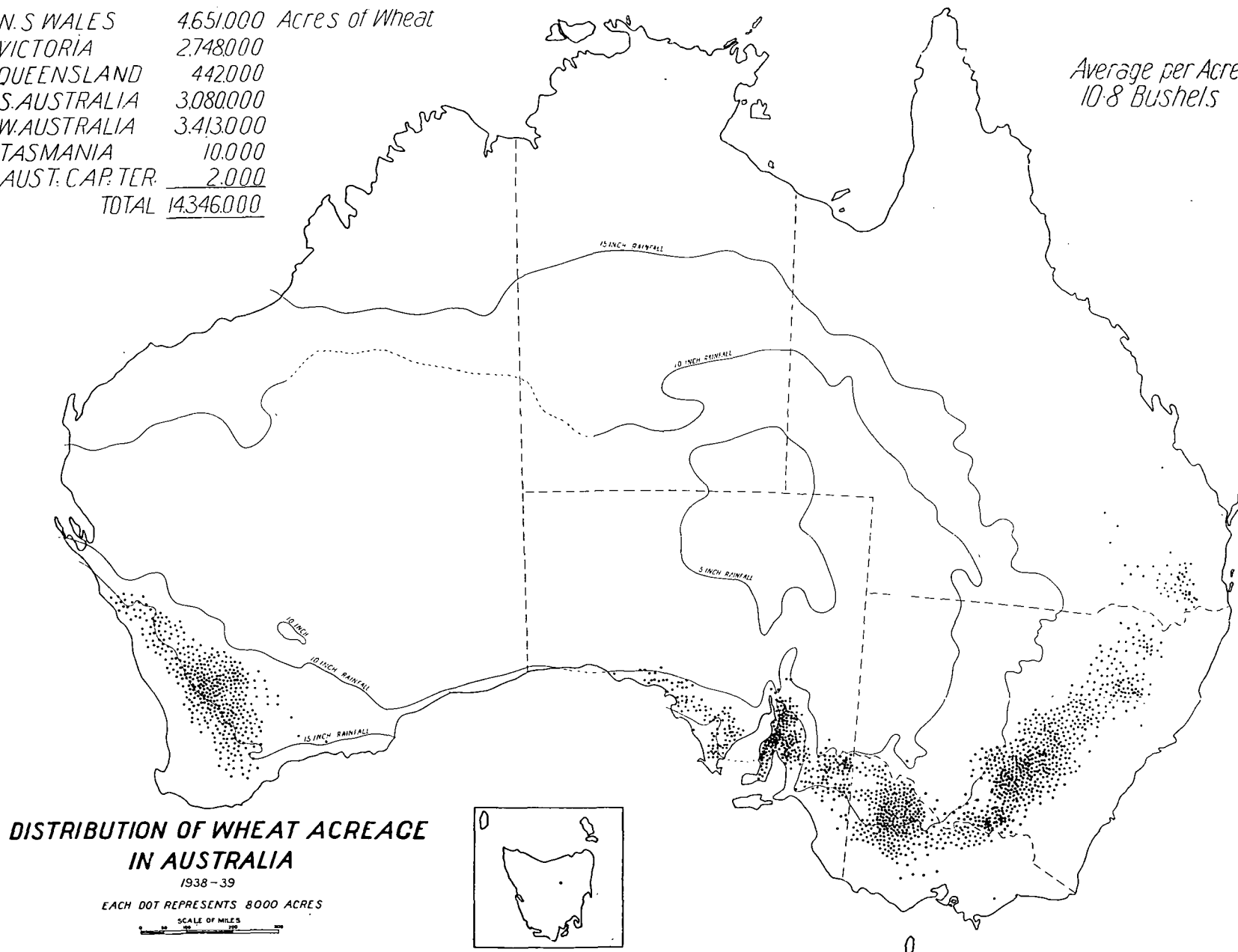
3. Comparison with other Countries.—The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world at the latest available date :—

CATTLE : NUMBER IN VARIOUS COUNTRIES.

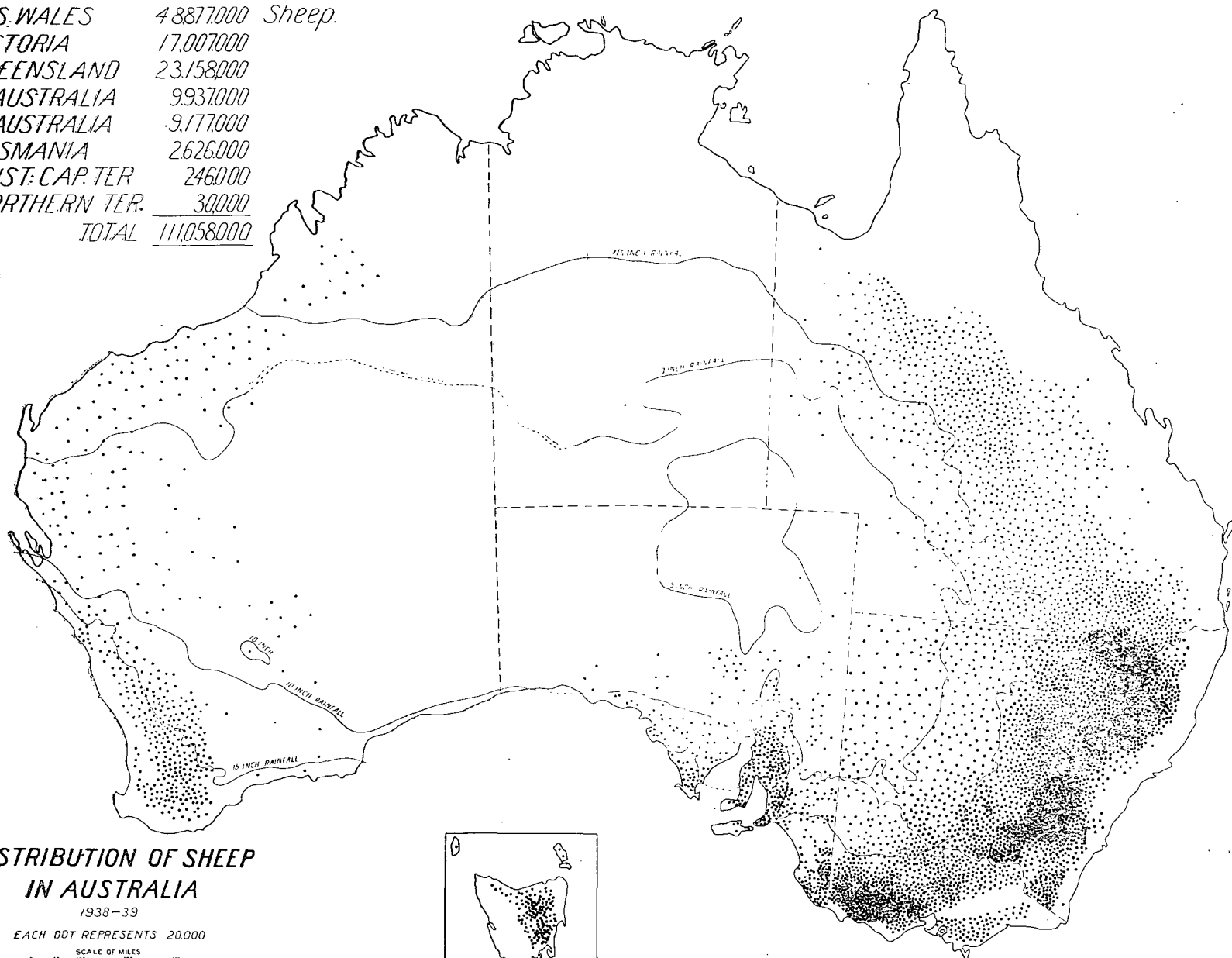
Country.	Year.	Number of Cattle (,000 omitted).	Country.	Year.	Number of Cattle (,000 omitted).
India (British and Native) ..	1936	119,437	Czechoslovakia ..	1937	4,938
U.S.A. ..	1938	66,821	Cuba ..	1935	4,651
U.S.S.R. (Russia) ..	1938	63,200	New Zealand ..	1938	4,506
Brazil ..	1935	40,514	Dutch East Indies	1937	4,414
Argentine Republic	1937	33,101	Yugoslavia ..	1938	4,268
China ..	1935	22,647	Rumania ..	1937	4,184
Germany ..	1938	19,911	French Equatorial and West Africa	1937	4,073
France ..	1938	15,622	Eire ..	1938	4,056
Australia ..	1939	13,080	Spain ..	1933	3,570
Union of South Africa	1937	11,395	Denmark ..	1938	3,238
Poland ..	1938	10,554	Paraguay ..	1935	3,052
Mexico ..	1930	10,083	Sweden ..	1938	3,036
United Kingdom ..	1938	8,903	Nigeria ..	1937	2,985
Colombia ..	1935	8,337	Rhodesia ..	1937	2,936
Uruguay ..	1937	8,297	Netherlands ..	1938	2,764
Canada ..	1938	8,091	Venezuela ..	1929	2,750
Italy ..	1938	7,667	Sudan (Anglo-Egyptian) ..	1938	2,700
Turkey ..	1938	5,896	Austria ..	1936	2,596
Thailand ..	1938	5,712	Uganda ..	1938	2,582
Kenya ..	1932	5,214	Chile ..	1937	2,460
Tanganyika Territory	1937	5,035	Bolivia ..	1931	2,064
Madagascar ..	1937	4,947			

N.S. WALES	4651000	Acres of Wheat
VICTORIA	2748000	
QUEENSLAND	442000	
S. AUSTRALIA	3080000	
W. AUSTRALIA	3413000	
TASMANIA	10000	
AUST. CAP. TER.	<u>2000</u>	
TOTAL	<u>14346000</u>	

*Average per Acre
10.8 Bushels*



N.S. WALES	4,887,000	Sheep.
VICTORIA	17,007,000	
QUEENSLAND	23,158,000	
S. AUSTRALIA	9,937,000	
W. AUSTRALIA	9,177,000	
TASMANIA	2,626,000	
AUST. CAP. TER.	246,000	
NORTHERN TER.	30,000	
TOTAL	<u>111,058,000</u>	

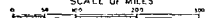


DISTRIBUTION OF SHEEP IN AUSTRALIA

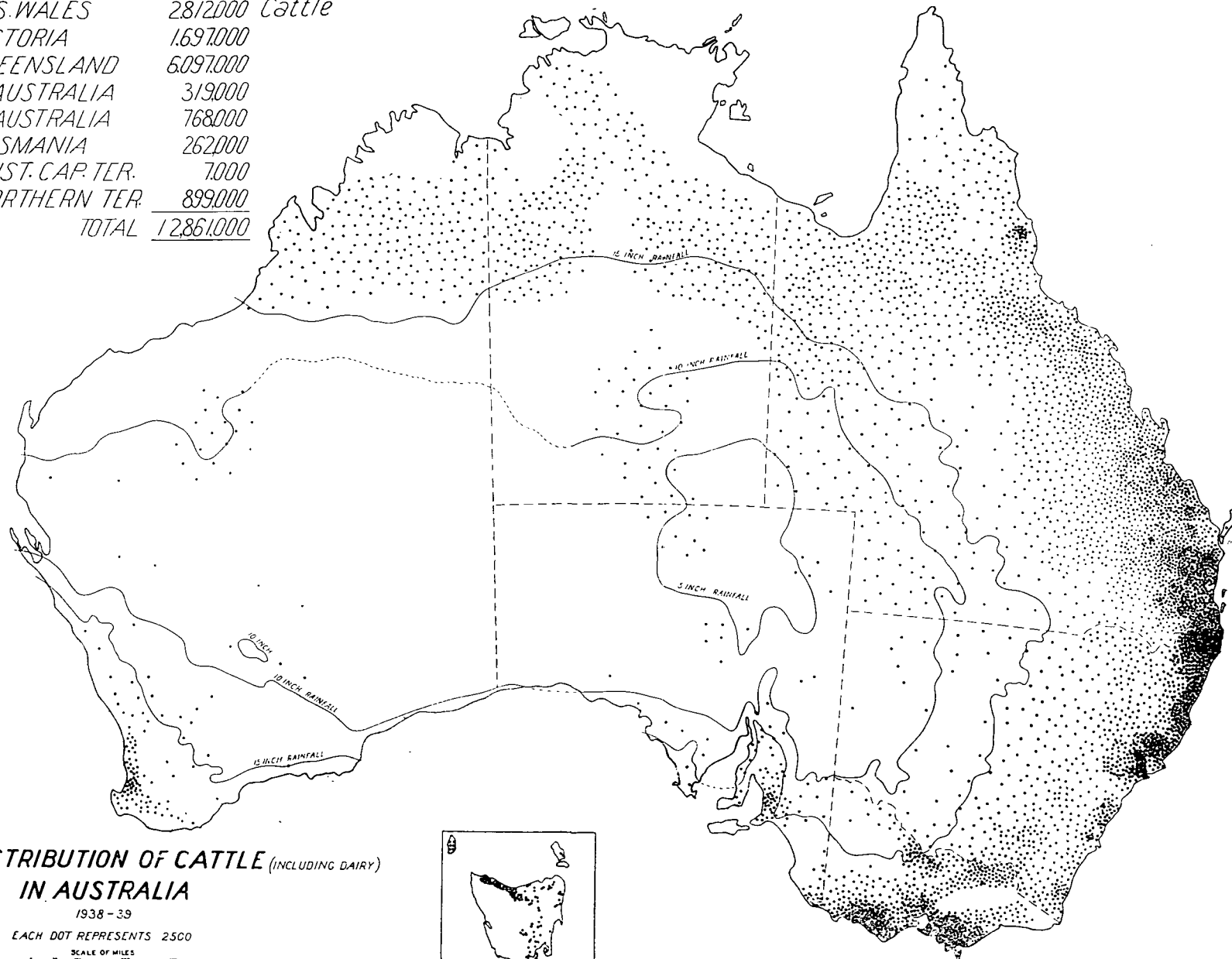
1938-39

EACH DOT REPRESENTS 20,000

SCALE OF MILES



N.S. WALES	2812000 Cattle
VICTORIA	1697000
QUEENSLAND	6097000
S. AUSTRALIA	319000
W. AUSTRALIA	768000
TASMANIA	262000
AUST. CAP. TER.	7000
NORTHERN TER.	899000
TOTAL	<u>12,861,000</u>



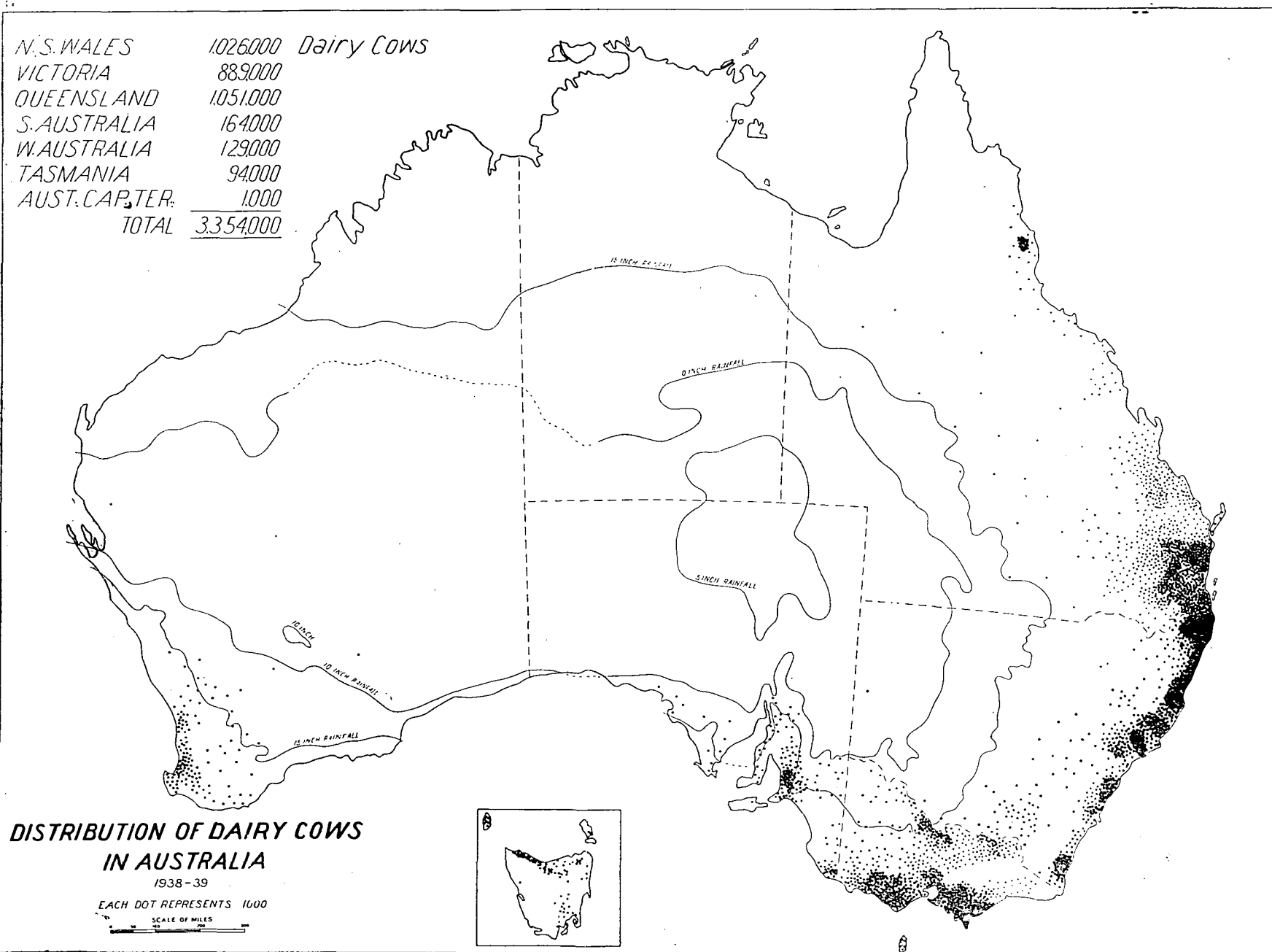
**DISTRIBUTION OF CATTLE (INCLUDING DAIRY)
IN AUSTRALIA**

1938-39

EACH DOT REPRESENTS 2500

SCALE OF MILES

N.S. WALES	1026000	Dairy Cows
VICTORIA	889000	
QUEENSLAND	1051000	
S. AUSTRALIA	164000	
W. AUSTRALIA	129000	
TASMANIA	94000	
AUST. CAP. TER.	1000	
TOTAL	<u>3,354,000</u>	



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)
		£		£		£
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
1938-39 ..	42	9,431	447	9,573	405	142
1939-40 ..	48	5,555	419	7,666	371	2,111

(a) Australian currency values.

NOTE.—The minus sign (—) signifies net imports.

The average value of the cattle imported during the last five years was £71 12s. 7d. per head, while the average value of the cattle exported during the same period was £19 8s. 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 1935 to 1939 is given hereunder:—

CATTLE (INCLUDING CALVES) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N. Terr.	A.C.T. (a)	Total.
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	904,889	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
1938	1,136,024	811,703	1,284,465	160,044	126,580	50,397	9,105	2,609	3,580,921
1939	1,122,956	737,260	1,256,953	151,135	118,648	48,428	6,072	2,620	3,444,072

(a) For year ended 30th June of year following.

6. **Production and Consumption of Beef.**—The production of beef in Australia during 1938-39 was estimated at 1,252,631,000 lb. The local market absorbed 969,495,000 lb. or approximately 77 per cent., leaving a balance of 283,136,000 lb. or 23 per cent., which was exported as frozen, chilled or canned beef. (See also § 1 par. 10.) Particulars for 1939-40 are not available for publication.

7. **Exports of Frozen Beef.**—The export of frozen meat from Australia dates from about 1881, and since that year the trade had grown considerably, the quantities and values exported during each of the five years ended 1938-39 were as follows:— 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; 1937-38, 293,803,532 lb., £4,367,064. and 1938-39, 271,963,829 lb., £4,323,680. Particulars of quantities exported during 1939-40 are not available for publication, but the value was £4,825,237. 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 1938-39 took £3,901,691, or about 90.2 per cent. of the total shipments. Other countries importing Australian beef were in order of importance Egypt, Malaya (British), Malta, Philippine Islands and Hong Kong; these countries, together with the United Kingdom, accounted for 98.6 per cent. of the total value of export.

In view of the preference for chilled beef overseas the Australian beef industry was at a serious disadvantage until investigations proved that beef could be successfully transported from Australia to United Kingdom in a chilled condition. Trial shipments of 254,000 lb. in 1932-33 and 1,515,000 lb. in 1933-34 were made, and the exports in subsequent years increased as follows:—1934-35, 21,570,928 lb., £322,239; 1935-36, 23,193,737 lb., £348,047; 1936-37, 41,869,695 lb., £608,175; 1937-38, 58,690,559 lb., £972,341; and 1938-39, 58,963,009 lb., £988,148. In 1939-40 the value exported was £206,353, but the quantity is not available for publication.

8. War-time Contract.—The Government of the United Kingdom has contracted to purchase Australian beef. Fuller particulars will be found in Chapter XXVII. "Miscellaneous".

9. 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.

10. 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 1935 to 1939. Later details are not available for publication.

IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES INTO THE UNITED KINGDOM.

Country of Origin.	1935.	1936.	1937.	1938.	1939.
CHILLED—QUANTITY.					
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Brazil	508,512	508,653	496,818	517,374	500,982
Uruguay	561,560	545,283	583,689	558,708	428,076
Argentine Republic ..	6,937,141	7,108,768	6,993,075	6,888,542	5,225,350
Australia	228,473	295,433	451,967	527,608	430,396
Other British Countries ..	249,863	321,548	444,150	471,269	439,344
Total Chilled ..	8,485,549	8,779,685	8,969,699	8,963,501	7,024,148
CHILLED—VALUE.					
	£	£	£	£	£
Brazil	793,741	809,936	909,703	981,920	916,904
Uruguay	907,452	839,141	1,046,813	1,046,882	775,465
Argentine Republic ..	11,529,888	12,001,446	13,449,779	13,788,986	10,338,878
Australia	352,090	457,663	857,343	985,526	767,081
Other British Countries ..	376,583	442,696	793,989	873,038	763,112
Total Chilled ..	13,959,754	14,550,882	17,057,627	17,676,352	13,561,440
FROZEN—QUANTITY.					
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Brazil	11,245	3,421	7,900	3,879	3,355
Uruguay	41,971	36,090	53,974	72,147	116,352
Argentine Republic ..	93,933	113,479	111,798	158,522	1,746,760
Other Foreign Countries ..	..	..	1	..	739
Australia	1,104,511	1,055,162	1,325,749	1,186,955	1,317,318
New Zealand	464,758	277,904	246,999	207,486	230,727
Other British Countries ..	4,509	4,248	12,413	1,454	31,960
Total Frozen ..	1,720,927	1,490,304	1,758,834	1,630,443	3,447,211
Grand Total (Chilled and Frozen) ..	10,206,476	10,269,989	10,728,533	10,593,944	10,471,359

IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES INTO THE UNITED KINGDOM—*continued.*

Country of Origin.	1935.	1936.	1937.	1938.	1939.
FROZEN—VALUE.					
	£	£	£	£	£
Brazil	17,417	5,230	12,199	6,768	6,962
Uruguay	78,018	62,610	94,434	134,471	233,888
Argentine Republic ..	159,524	172,338	199,506	290,141	3,741,428
Other Foreign Countries ..	..	..	2	..	1,388
Australia	1,481,103	1,316,743	1,969,902	1,885,549	2,139,052
New Zealand	606,849	344,012	363,996	313,359	332,519
Other British Countries ..	6,134	5,143	18,792	2,054	68,068
Total Frozen	2,349,045	1,906,076	2,658,831	2,632,342	6,523,305
Grand Total (Chilled and Frozen)	16,308,799	16,456,958	19,716,458	20,308,694	20,084,745

§ 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.

A graph showing the distribution of sheep in Australia during 1938–39 appears on p. 452. A similar graph showing the distribution of sheep during 1924–25 was published in Official Year Book No. 22, p. 659.

Fluctuations in the number of sheep recorded for each year in Australia from 1860 onwards may be seen from the graph on page 418. 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 119,305,391 in 1939, the greatest number 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 estimate for 1940 indicates a record number of over 122 million.

The number of sheep in the several States and Territories for each year from 1935 to 1939, together with an estimate of the number at 31st December, 1940, are shown in the table hereunder :—

SHEEP : NUMBER.

31st Dec.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	N.T.	A.C.T. (a)	Total.
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	48,876,663	17,007,352	23,158,569	9,936,586	9,177,531	2,625,690	29,001	245,540	111,057,832
1939	54,372,472	18,251,870	24,190,931	9,940,370	9,574,433	2,677,120	38,587	259,408	119,305,391
1940	55,568,000	20,412,362	23,963,099	10,263,423	9,516,272	2,682,375	40,000	281,791	122,700,322

(a) March year following.

(b) Estimated.

3. **Proportion in the Several States and Territories.**—Apart from the effect of drought the relative number of sheep depastured in the different States remains fairly constant.

The percentage distribution in 1939 was:—New South Wales, 45.57; Victoria, 15.30; Queensland, 20.28; South Australia, 8.33; Western Australia, 8.03; Tasmania, 2.24; Northern Territory, 0.03; Australian Capital Territory, 0.22 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 111 million, followed by the U.S.S.R. (Russia) with 85 million, the United States of America with 54 million, the Argentine Republic with 44 million and India (British and Native), 42 million. On account of drought the number of sheep in the Union of South Africa declined from 46 million in 1933 to 36 million in 1935, but the number had increased to 41 million in 1938. In the Argentine Republic sheep flocks also declined from 44.4 million in 1930 to 38 million in 1935, but the number recorded in 1937 was 44 million. During the years 1925 to 1929 the sheep flocks of the U.S.S.R. 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 this number was only approximately reached by 1938. Russian sheep are mainly coarse-woolled, and the wool is of inferior quality, but the Soviet Government is making efforts to improve it. In a classification of the wool production in 1934, 10 per cent. was classed as fine wool, 16 per cent. as semi-fine quality, and 74 per cent. as coarse wool. In 1938 the production of fine wool had increased to 14 per cent. and semi-fine to 39 per cent., while the proportion of coarse wool had declined to 47 per cent. Production of wool in the U.S.S.R. amounted to about 303 million lb. during 1938, representing an average weight of fleece shorn of more than 3 lb.

SHEEP : NUMBER IN VARIOUS COUNTRIES.

Country.	Year.	No. of Sheep (,000 omitted).	Country.	Year.	No. of Sheep (,000 omitted).
Australia	1938	111,058	Italy	1938	9,467
U.S.S.R. (Russia) ..	1938	84,500	Bulgaria	1934	8,840
U.S.A.	1938	53,762	Greece	1937	8,451
Argentine Republic	1937	43,740	Algeria	1937	5,965
India (British and Native)	1936	42,060	Chile	1936	5,749
Union of South Africa	1938	41,150	Germany	1938	5,677
New Zealand	1938	32,379	Iraq	1938	5,514
United Kingdom ..	1938	26,775	Bolivia	1931	5,232
China	1935	20,957	México	1930	3,674
Spain	1933	19,093	Canada	1938	3,415
Uruguay	1932	17,931	Poland	1938	3,411
Turkey	1937	16,449	Tunis	1937	3,383
Iran	1936	13,615	Portugal	1934	3,274
Brazil	1935	12,645	Kenya	1930	3,243
Rumania	1937	12,372	Eire	1938	3,197
Peru	1929	11,209	Somaliland ..	1938	3,000
French Equatorial and West Africa	1937	11,014	Sudan (Anglo-Egyptian) ..	1938	2,500
French Morocco ..	1938	10,162	Syria and Lebanon	1938	2,129
Yugoslavia	1938	10,137	Manchuria	1937	1,966
France	1938	9,872	Nigeria	1938	1,796
			Tanganyika Territory	1937	1,646

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 Western Australia. On 27th November, 1929, the export of stud sheep was prohibited, except with the approval of the Minister for Trade and Customs. Stud sheep, however, are being exported in increasing numbers, and shipments in 1939-40 amounted to 23,329 sheep valued at £79,955 compared with 12,235 valued at £45,744 in the previous year. The chief countries to which these sheep are consigned are New Zealand, South Africa, Japan and Korea. The ordinary flock sheep exported from Australia were, 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 1935-36 to 1939-40 :—

SHEEP : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value. (a)	No.	Value. (a)	No.	Value. (a)
		£		£		£
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
1938-39 ..	5,288	44,961	72,027	84,366	66,739	39,405
1939-40 ..	6,990	54,088	79,375	112,596	72,385	58,508

(a) Australian currency values.

6. **Sheep Slaughtered.**—The number of sheep slaughtered in the several States during each of the years from 1935 to 1939 were as follows :—

SHEEP (INCLUDING LAMBS) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N.T.	A.C.T. (a)	Total.
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
1938..	6,322,338	7,727,774	1,120,783	2,007,312	1,318,249	376,583	250	26,222	18,899,511
1939..	6,900,294	6,990,746	1,232,477	2,094,202	1,301,418	460,957	360	25,748	19,006,202

(a) Year ended 30th June, year following.

7. **Production and Consumption of Mutton and Lamb.**—The production of mutton and lamb during 1938-39 amounted to 717,454,000 lb., of which 527,241,000 lb. or 73 per cent. was consumed locally, leaving a balance of 190,213,000 lb. or 27 per cent. for exportation. (See also § 1 par. 10.) Information for 1939-40 is not available for publication.

8. **Exports of Frozen Mutton and Lamb.**—The export trade in mutton and lamb preserved by cold process expanded rapidly to 1913 when 205 million lb. was shipped. Progress was interrupted during the War of 1914-19, and probably owing to high wool prices the exports of mutton and lamb for a number of years after that war were considerably less than earlier shipments. Exports commenced to rise again in 1929-30, and from that year onwards they have continued to expand almost uninterruptedly. Formerly the shipments consisted largely of frozen mutton, but in 1923-24 lamb supplanted mutton, and the exports of lamb have been responsible for the increase in shipments of mutton and lamb during the past ten years.

The quantity and value of the shipments of mutton and lamb during each of the five years ended 1938-39 were as follows :—Lamb, 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; 1938-39, 158,332,714 lb., £4,393,773. Mutton, 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; 1938-39, 28,155,757 lb., £413,693.

During 1939-40, lamb valued at £5,353,874 and mutton valued at £728,510 was exported; details of quantities are not available for publication.

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 1938-39.

9. War-time Contract.—The Government of the United Kingdom has contracted to purchase Australian mutton and lamb. Further particulars will be found in Chapter XXVII. "Miscellaneous".

10. 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. 9.)

11. 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 1939 are given in the following table. Particulars for later years are not available.

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM.

Country of Origin.	1935.	1936.	1937.	1938.	1939.
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MUTTON—QUANTITY.

	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Chile	89,326	95,759	94,201	96,594	58,790
Uruguay	6,232	8,240	16,553	23,713	11,893
Argentine Republic ..	150,423	121,908	110,907	98,884	104,664
Other Foreign Countries ..	2,870	2,063	4,871	1,424	1,846
Total, Foreign ..	248,851	227,970	226,532	220,615	177,193
Australia	424,050	227,097	405,929	367,044	322,908
New Zealand	1,041,563	888,864	862,182	1,014,052	815,912
Other British Countries ..	..	350	4,582	2,605	18,620
Total, British ..	1,465,613	1,116,311	1,272,693	1,384,301	1,157,440
Grand Total ..	1,714,464	1,344,281	1,499,225	1,604,916	1,334,633

MUTTON—VALUE.

	£	£	£	£	£
Chile	129,856	177,128	163,122	166,009	100,978
Uruguay	10,635	13,945	28,128	43,859	20,527
Argentine Republic ..	223,070	219,406	202,384	192,254	185,299
Other Foreign Countries ..	3,984	3,204	8,762	2,500	3,175
Total, Foreign ..	367,545	413,683	402,396	404,622	309,979
Australia	693,878	421,720	727,408	622,648	490,512
New Zealand	1,754,720	1,616,742	1,638,107	1,779,019	1,291,327
Other Foreign Countries ..	..	613	8,482	4,194	37,242
Total, British ..	2,448,598	2,039,075	2,373,997	2,405,861	1,819,081
Grand Total ..	2,816,143	2,452,758	2,776,393	2,810,483	2,129,060

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM—
continued.

Country of Origin.	1935.	1936.	1937.	1938.	1939.
LAMB—QUANTITY.					
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Chile	118,554	111,209	115,682	99,199	137,256
Uruguay	130,176	118,055	148,876	147,637	165,215
Argentine Republic	754,827	777,996	778,943	794,712	817,656
Other Foreign Countries	28,561	37,230	38,006	42,947	32,048
Total, Foreign ..	1,032,118	1,044,490	1,081,507	1,084,495	1,152,175
Australia	1,360,158	1,268,909	1,476,615	1,531,232	1,305,702
New Zealand	2,591,399	2,641,494	2,740,202	2,660,882	2,730,479
Other British Countries	18	558	4,174	7,312	5,759
Total, British ..	3,951,575	3,910,961	4,220,991	4,199,426	4,047,940
Grand Total ..	4,983,693	4,955,451	5,302,498	5,283,921	5,200,115

LAMB—VALUE.

	£	£	£	£	£
Chile	271,858	316,386	312,972	287,386	350,924
Uruguay	327,257	316,870	419,469	411,710	442,169
Argentine Republic	1,898,688	2,091,387	2,179,470	2,250,955	2,203,637
Other Foreign Countries	77,642	101,194	108,090	113,239	87,004
Total, Foreign ..	2,575,445	2,825,837	3,020,001	3,063,290	3,083,734
Australia	3,934,693	3,698,058	4,349,418	4,571,384	3,647,984
New Zealand	8,063,996	8,264,409	8,753,793	8,743,507	8,441,400
Other British Countries	51	1,529	11,704	17,831	16,673
Total, British ..	11,998,740	11,963,996	13,114,915	13,332,722	12,106,057
Grand Total ..	14,574,185	14,789,833	16,134,916	16,396,012	15,189,791

§ 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 8 per cent. of the total production in 1939-40.

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	1938-39	111.1	984
United States of America ..	1938-39	53.7	458
Argentine Republic.. ..	1937-38	43.7	389
New Zealand	1938-39	32.4	329
U.S.S.R. (Russia)	1938-39	84.5	303
Union of South Africa ..	1938-39	41.2	264

2. **Greasy and Scoured Wool.**—Whether the weight of the wool clip should be stated as “in the grease” or as “scoured and washed” is a matter which seriously affects comparisons between the clips of different seasons and of different countries. The quantity of grease and other extraneous matter in a fleece differs, not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, and 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 and washed.

A committee of experts in a report to the Central Wool Committee estimated in 1940 that the clean scoured wool content of the total production of Australia averaged between 51 and 53 per cent. of its greasy weight.

Wool scoured in Australia by wool-scouring works, however, yields only about 46 per cent. because the grade of greasy wool treated locally for export as scoured includes a large proportion of dirty and low-grade wool.

The quantity of scoured and washed Australian wool exported during the five years ended 1938-39 was approximately 15 per cent. of the total wool exports regarded as “greasy”.

3. **Production.**—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 1940-41 are preliminary only, and 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 Australia. The gross value for 1939-40 is based upon the average appraised value plus certain adjustments as computed by the State Statisticians. The value shown for 1940-41 is a preliminary estimate.

WOOL : TOTAL PRODUCTION.

State.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.(a)
	lb.	lb.	lb.	lb.	lb.
New South Wales(b)	505,375,065	496,824,150	439,049,939	548,505,998	539,000,000
Victoria.. ..	163,048,510	178,890,131	165,829,182	179,125,526	185,100,000
Queensland(c) ..	153,766,368	174,751,280	179,458,589	195,770,277	194,200,000
South Australia ..	76,604,296	86,606,388	102,888,121	105,265,869	107,000,000
Western Australia(c)	69,935,210	70,684,855	78,802,143	80,657,367	71,400,000
Tasmania	14,067,000	15,598,500	17,519,000	18,334,000	18,000,000
Northern Territory	(d)35,000	(d)35,000	(d)35,000	(d)35,000	300,000
Total—Quantity	982,831,449	1,023,390,304	983,581,974	1,127,694,037	1,115,000,000
	£	£	£	£	£
Value..	64,100,668	54,131,618	42,042,734	61,759,180	62,400,000

(a) Preliminary; subject to revision.
(b) Preliminary; subject to revision.

(c) Preliminary; subject to revision.

(d) Approximate.

(e) For year ended December.

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 at the latest available date and shows the importance of Australia as a wool-producing country. Of a total production of 3,991 million lb. in 1938-39, Australia produced 984 million lb., or 24.7 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 1,849 million lb., or 46.3 per cent.

WOOL : WORLD'S PRODUCTION.

(In millions of lb., "greasy" basis.)

Countries.	Average Five Years 1909-13.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Australia	741.4	1,015.4	971.1	982.8	1,023.4	983.8
U.S.A.	314.1	451.0	452.7	448.6	454.6	457.7
Argentine Republic ..	358.7	370.0	359.0	379.0	380.0	394.0
New Zealand	198.5	265.0	304.0	303.5	297.0	329.0
U.S.S.R. (Russia) ..	380.0	128.0	158.4	202.1	259.0	303.0
Union of South Africa	165.9	219.0	250.0	277.0	246.0	264.0
Uruguay	157.0	112.0	110.0	114.0	110.0	114.0
China (a)	100.0	110.0	110.0	110.0	110.0	110.0
United Kingdom ..	134.0	115.0	109.0	108.0	107.0	110.0
India (a)	100.0	100.0	100.0	100.0	100.0	100.0
Turkey	118.0	35.4	41.1	48.9	64.5	69.0
Spain	72.0	73.0	66.0	66.0	60.0	60.0
France	80.7	52.8	52.7	53.9	55.1	54.4
Rumania	13.2	43.0	42.9	42.9	45.0	48.5
Morocco (French) ..	14.9	35.6	40.8	40.7	47.8	44.7
Germany	52.0	32.2	36.3	40.1	43.3	44.5
Brazil	35.0	36.4	37.5	37.5	43.2	(a)43.0
Iran	12.1	40.0	37.5	37.5	35.3	40.0
Yugoslavia	25.4	31.0	32.2	33.6	31.5	35.5
Chile	17.4	37.0	35.2	35.7	36.0	33.0
Italy	55.0	36.0	30.0	30.0	30.0	33.0
Bulgaria	23.7	21.3	21.1	20.4	20.7	21.2
Canada	11.2	19.5	19.4	18.9	19.0	18.8
Eire .. ..	..	17.0	16.5	17.6	16.4	17.9
Algeria	35.2	15.2	16.1	17.6	17.2	16.4
Basutoland .. ..	..	5.1	7.3	6.0	4.7	6.9
Falkland Islands ..	..	4.0	4.2	4.0	4.6	3.6
Other Countries ..	71.2	201.4	214.0	222.3	215.9	234.8
Total	3,286.6	3,621.3	3,675.0	3,798.6	3,877.2	3,990.5

(a) Estimated.

6. **War-time Contracts.**—(i) *Wool.* After the outbreak of war in September, 1939, negotiations were concluded between the Governments of the Commonwealth and of the United Kingdom whereby the latter contracted to purchase the entire wool clip of Australia for the duration of the War and one full clip thereafter. The price per lb. at store in Australia was fixed at 10½d. sterling, or 13.4375d. in Australian currency, and provision was made for an equal division between the two Governments of any profits derived from

the sale of the wool for use outside the United Kingdom. In addition, an amount not exceeding 3d. sterling or 3d. (Aust.) will be paid by the United Kingdom Government to cover all costs from store at port of oversea shipment to ship. The agreement provides that sufficient quantities of wool shall be retained in Australia for domestic use. The administration of the scheme in Australia is controlled by the Central Wool Committee assisted by a Committee in each State. These Committees consist of representatives of growers, brokers, buyers and manufacturers.

Separate agreements have been negotiated by the Governments of the United Kingdom, Union of South Africa and New Zealand.

(ii) *Sheepskins*. Under the contract negotiated in April, 1940 between the Governments of the Commonwealth and of the United Kingdom, the latter agreed to purchase the exportable surplus of Australian sheepskins. The scheme, which is for the same period as the wool contract, is administered by the Central Wool Committee.

The production of Australia approximates 20 million skins annually and these are bought in open competition by fellmongers and export packing houses. Similar conditions apply under the contract scheme excepting that the skins purchased by export packers are acquired by the Central Wool Committee on behalf of the United Kingdom Government and appraised according to the sheepskin table of limits. The quantity so appraised during the period of operation for the season 1939-40 amounted to 1,604,631 skins with an appraised value of £352,592.

In the case of fellmongers, wool taken from skins is appraised under the wool table of limits but the disposal of the pelt is left to the fellmonger.

Arrangements have been made to fellmonger in Australia large quantities of appraised sheepskins and the wool obtained will be appraised on behalf of the United Kingdom Government. It will not be included with the ordinary wool appraisements, but, with the pelts will be dealt with separately.

Further particulars of these contracts appear in Chapter XXVII. "Miscellaneous".

7. *Wool Appraisements*.—Details of the quantity and value of wool appraised by the Central Wool Committee during 1939-40 and 1940-41 are given in the following table. The quantities include the production for the years shown plus any unappraised wools carried forward.

WOOL APPRAISEMENTS : AUSTRALIA.

Year ended June—	Greasy.		Scoured.		Total Appraised Value.	Average Value per lb. Greasy.
	Quantity.	Appraised Value.	Quantity.	Appraised Value.		
	lb.	£	lb.	£	£	d.
1940 (a)	1,066,236,666	55,880,334	45,828,781	3,961,945	59,842,279	12.4028
1941 ..	990,833,406	50,519,740	53,205,679	4,731,411	55,251,151	12.0850

(a) Period September, 1939—June, 1940.

8. *Consumption of Locally Processed Wool*.—It is impossible to obtain particulars of the total consumption of wool in Australia, as considerable quantities of manufactured woollen goods 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 blankets, rugs and knitted-wear. Some difficulties arise in the aggregation of returns from individual mills concerned with only one process in manufacture and whose output constitutes the raw material of other mills, but the risk of duplication has been reduced to a minimum. Reference is made to the woollen mills established in Australia in Chapter XXI. "Manufacturing Industry".

The factors used to convert scoured wool and woollen yarn processed in Australia into their greasy equivalent are now computed from the data furnished by woollen mills. In 1939-40 these factors were :—1 lb. of worsted yarn was taken to equal 2.45 lb. of greasy while the greasy equivalent of 1 lb. of scoured wool was 1.94 lb.

In the following table particulars are given of the quantity of wool processed in Australian factories during each of the past ten years.

CONSUMPTION OF LOCALLY PROCESSED WOOL IN AUSTRALIA.

(In terms of greasy.)

Year.			Quantity.	Year.			Quantity.
			lb.				lb.
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
1933-34	..	..	60,881,494	1938-39	..	..	68,444,311
1934-35	..	..	55,753,478	1939-40	..	..	93,847,066

9. Exports of Wool.—(i) *Greasy—Quantities.* Of the total weight of greasy wool shipped overseas during the five years ended 1938-39, 38 per cent. was sent to the United Kingdom, the same proportion as that dispatched during the years 1909 to 1913. The other leading consignees during the same period were Japan 17 per cent.; Belgium 14 per cent.; France 13 per cent.; and Germany 5 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.

Particulars for later years are not available for publication.

EXPORTS OF WOOL IN THE GREASE : AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	212,004,088	292,725,835	244,568,575	277,210,184	294,411,888	333,263,937
Other British Countries ..	(a)	1,252,059	2,477,886	2,396,943	1,931,028	2,861,227
Belgium ..	55,143,706	124,169,015	102,501,997	120,959,897	87,862,566	104,147,161
France ..	149,835,946	75,760,166	64,692,287	76,063,696	123,835,665	162,034,076
Germany ..	106,344,696	27,220,923	27,116,447	41,451,486	53,956,616	35,027,760
Italy ..	4,381,197	17,694,730	4,502,392	35,775,546	29,577,669	21,186,890
Japan ..	7,262,683	196,125,519	234,518,700	81,058,539	69,162,890	72,659,411
Netherlands ..	(a)	16,450,416	15,296,631	8,798,135	7,084,535	15,701,733
Poland ..	(a)	12,058,269	12,679,782	12,296,714	17,988,525	6,954,917
United States of America ..	15,486,447	5,448,868	24,810,766	72,758,475	4,193,670	21,484,517
Other Foreign Countries ..	6,382,577	16,878,821	18,722,139	27,404,760	31,821,901	20,406,016
Total ..	556,841,340	785,784,621	751,887,602	759,174,375	721,826,953	795,727,712

(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. Later details are not available for publication.

EXPORTS OF WOOL—SCOURED AND WASHED, INCLUDING TOPS, NOILS AND WASTE : AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	32,032,577	36,713,150	33,670,787	34,770,657	30,951,063	36,591,488
Canada ..	(a)	3,270,402	4,226,701	5,227,856	4,686,416	4,470,367
Other British Countries ..	(a)	862,051	1,000,077	1,363,204	1,650,938	1,156,535
Belgium ..	7,528,058	10,733,900	10,826,486	8,701,786	5,115,651	5,802,183
France ..	16,068,910	9,843,830	10,835,868	7,668,430	8,238,396	9,960,450
Germany ..	12,310,967	2,879,686	3,927,532	3,561,744	2,772,248	1,935,088
Italy ..	265,442	1,073,491	213,531	593,359	310,170	67,051
Japan ..	1,888,161	1,027,420	1,814,949	474,775	695,954	1,618,827
Poland ..	(b)	1,187,583	2,003,013	812,765	555,721	497,285
Other Foreign Countries ..	252,995	4,392,352	5,378,311	9,134,695	6,687,941	8,845,890
Total ..	70,347,110	71,983,865	73,897,255	72,309,271	61,664,498	70,945,164

(a) Included with Other Foreign Countries.

(iii) *Total Value of Exports.* Particulars of exports during 1939-40 are not available for publication but the value of wool exported from Australia during the five years ending 1938-39 averaged 39 per cent. of the value of the exports of merchandise of local origin, but during 1938-39 the proportion was only 36 per cent. The value during the period 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.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£	£	£	£	£	£
United Kingdom ..	10,608,967	16,007,777	18,379,416	23,025,184	20,247,877	18,513,175
Other British Countries ..	(a)	409,286	657,572	948,495	834,619	675,143
Belgium ..	2,546,915	5,433,157	6,184,099	8,195,565	4,782,798	4,720,537
France ..	6,494,832	3,558,066	4,413,359	5,441,316	7,111,406	7,566,458
Germany ..	5,131,282	1,511,094	2,052,436	3,578,244	3,877,114	1,994,320
Italy ..	202,434	867,775	273,549	2,594,586	1,846,631	1,175,304
Japan ..	516,528	8,680,119	14,594,465	7,513,956	4,042,266	3,804,120
Netherlands ..	(a)	825,971	1,058,533	707,361	466,198	826,198
Poland ..	(a)	617,064	968,108	918,665	1,050,739	403,446
United States of America ..	795,328	352,466	2,102,066	7,039,771	391,356	1,346,187
Other Foreign Countries ..	296,356	1,063,165	1,661,958	2,541,424	2,326,557	1,712,208
Total ..	26,592,642	39,265,940	52,345,561	62,504,567	46,983,561	42,737,096

(a) Included with Other Foreign Countries.

10. *Exports and Local Sales of Wool.*—Approximately 90 per cent. of Australian wool is normally disposed of locally. Under pre-war conditions buyers from the United Kingdom, France, Belgium, Germany and other European countries, and from America, Japan, China and India attended 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*, Part II., issued by this Bureau.

11. *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. During the ten years ended 1938-39, the price of greasy wool sold in the selling centres of Australia averaged 11½d. per lb. This figure may be compared with an average of 18d. per lb. during the nine post-war years ended 1928-29, and 9d. per lb. for the seven pre-war years ended 1913-14. 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 prices again receded.

As mentioned in paragraph 6 above, the price of wool is now determined by the Imperial wool contract. The price as fixed for 1939-40 and 1940-41 was 13.4375d. per lb.

The effect of fluctuating wool values upon the national income is reflected in the following figures. Based upon appraisement in each State plus certain adjustments as recorded by the State Statisticians, the gross value of the wool clip for Australia for 1939-40 amounted to £61,759,000 compared with £42,043,000 realized during 1938-39 under open market conditions. 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.

The estimated value of the clip for 1940-41 is £62,400,000, which 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.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	d.	d.	d.	d.	d.	d.	d.
Greasy (a) ..	9.75	14.01	16.48	12.51	10.39	(b)13.44	(b)13.44

(a) National Council of Wool-selling Brokers.
sterling.

(b) The equivalent of the contract price of 10½d.

Measured in terms of Australian, sterling and gold currencies the approximate values of greasy wool per lb. since 1931-32 were as follows :—

GREASY WOOL : AVERAGE VALUES PER LB.

Year.	Australian Currency.	Sterling.	Gold Prices.
	d.	d.	d.
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
1939-40	13.44	10.75	5.37
1940-41	13.44	10.75	5.34

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 rates of exchange between the months of September and June in each year. Though not exact these results will suffice for general purposes.

12. **United Kingdom Importation of Wool.**—The appended statement of the quantities and values of wool imported into the United Kingdom during 1939 from the principal wool-producing countries shows the important position which Australia occupies in the supply of wool to the Mother Country. Particulars for later years are not available for publication.

WOOL (a) : IMPORTS INTO UNITED KINGDOM, 1939.

Country of Origin.	Quantity.	Value.	Country of Origin.	Quantity.	Value.
	lb.	£		lb.	£
Australia ..	355,078,400	16,734,633	Other British Possessions ..	3,043,500	108,765
New Zealand ..	223,794,300	9,573,230	Peru ..	1,487,700	75,412
Argentine Republic ..	112,401,500	3,980,130	Belgium ..	4,560,000	303,471
Union of South Africa ..	85,130,000	3,054,049	Falkland Islands ..	3,116,300	119,058
India ..	48,136,800	1,748,059	Germany ..	301,500	11,315
France ..	25,735,900	1,393,451	U.S.A. ..	414,900	16,465
Uruguay ..	11,926,500	540,552	Other Countries ..	5,243,500	193,973
Chile ..	11,564,800	481,492			
Eire ..	8,622,000	341,983			
			Total ..	900,557,600	38,676,038

(a) Greasy and Scoured.

Of the importations of wool into the United Kingdom during 1939, Australian wool represented 40 per cent. of quantity and 43 per cent. of value, and New Zealand 25 per cent. of quantity and 25 per cent. of value. Altogether, 726,921,300 lb., valued at £31,679,777, 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.

13. **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 1938, 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. Later details are not available for publication.

WOOL : PRINCIPAL IMPORTING COUNTRIES AND SOURCES OF SUPPLY, 1938.

(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 ..	110.0	365	107	79	198	132	881
Belgium ..	0.7	106	19	20	7	65	217
Czechoslovakia ..	2.0	18	4	6	..	1	29
France ..	54.4	168	52	62	22	86	390
Germany ..	44.5	49	90	56	14	97	306
Italy ..	33.0	19	22	12	..	23	76
Japan ..	..	87	5	6	11	8	117
Poland ..	12.9	14	2	14	4	..	34
U.S.A. ..	457.7	7	1	47	4	44	103
Total ..	..	833	302	302	260	456	2,153

(a) As in the grease.

As a considerable transit trade exists between continental countries, it must not be assumed, that the whole of the imports recorded by these countries are retained for their own consumption. The countries chiefly concerned with the transit trade are United Kingdom, Belgium, and France. The quantities re-exported during 1938 were :—United Kingdom, 269 million lb., or 30 per cent., of the total imports ; Belgium, 76 million lb., or 35 per cent. ; and France, 49 million lb., or 13 per cent.

14. **Inquiry into Wool Industry.**—A Committee was appointed by the Commonwealth Government on 15th August, 1932, to inquire into and report on the condition of the Australian wool industry. The report of the Committee was presented on 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, p. 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 ended 1939-40 amounted to £27,420,963, or an average of £5,484,193 per annum.

2. **Sheepskins with Wool.**—The exports of sheepskins with wool aggregating £14,392,801 during the five years constitute the largest item in the values referred to in the preceding paragraph. During 1938-39 France was the largest purchaser, taking 74 per cent. of the total consignments, while the United Kingdom ranked next with 15 per cent., followed by Germany, with 7 per cent. Details for 1939-40 are not available for publication. The exports of sheepskins with wool during each of the years from 1935-36 to 1939-40 were as follows :—

EXPORTS OF SHEEPSKINS WITH WOOL : AUSTRALIA.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number ..	11,811,480	12,130,265	12,713,364	12,625 200	(a)
Value .. £	2,805,083	3,636,659	3,381,480	2,301,800	2,267,779

(a) Not available for publication.

3. **Sheepskins without Wool.**—Sheepskins without wool are exported chiefly to the United States of America. During 1938-39 this country accounted for 40 per cent. of the total shipments while 24 per cent. were exported to France and 16 per cent. to the United Kingdom. Quantities and values for the last five years are given in the table hereunder :—

EXPORTS OF SHEEPSKINS WITHOUT WOOL : AUSTRALIA.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number ..	255,636	1,543,713	916,157	1 075,895	1,463,610
Value .. £	19,370	169,250	79,461	68,152	101,027

4. **Hides.**—(i) *Exports.* The export trade in cattle hides during 1938-39 was distributed as follows :—United Kingdom, £410,100; Japan, £143,882; Germany £76,502; Finland, £44,722; United States of America, £40,151; Denmark, £33,452; Other Countries, £147,943. Details for later years are not available for publication.

The exports during the last five years are given in the table below :—

EXPORTS OF CATTLE HIDES : AUSTRALIA.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number ..	807,604	1,034,937	1,063,896	1,186,543	559,490
Value .. £	613,717	940,024	1,092,048	896,752	579,640

Calfskins exported during the five years ended 1939-40 numbered 3,376,682 valued at £823,691 and were shipped mainly to the United States of America. The annual export of horse hides is very small, and for the past five years numbered 39,267 hides valued at £23,672.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the chief source of supply being New Zealand, and small quantities are obtained from the Pacific Islands, France and Italy. The quantities and values of cattle hides, including calfskins, imported into Australia during the years 1935-36 to 1939-40 were as follows:—

IMPORTS OF CATTLE HIDES : AUSTRALIA.

Particulars.		1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Quantity cwt.		64,902	47,705	69,955	80,641	24,985
Value (a) £		301,217	248,848	363,573	280,273	88,667

(a) Australian currency values.

The number of horse hides imported into Australia is small. The value of imports during 1939-40 amounted to £11 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£	£
Rabbit and Hare	1,744,834	1,649,412	1,052,709	429,140	(a) 911,384
Opossum ..	18,938	375,152	78,961	16,040	9,110
Kangaroo ..	229,469	125,033	182,490	169,078	155,921
Fox ..	61,943	80,390	68,684	27,767	39,190
Wallaby ..	12,803	25,789	27,635	9,640	16,903
Other ..	5,966	15,458	31,559	25,912	25,010
Total ..	2,073,953	2,271,234	1,442,038	677,577	1,157,518

(a) Rabbit skins only.

These skins were shipped principally to the United States of America and the United Kingdom, the values taken by each during 1938-39 are given in the following table. Particulars for later years are not available for publication.

OTHER SKINS : EXPORTS TO UNITED STATES AND UNITED KINGDOM, 1938-39.

Description.	United States of America.	United Kingdom.
	£	£
Rabbit and Hare	392,435	15,539
Opossum	4,654	11,386
Kangaroo	169,011	67
Fox	11,108	14,850
Wallaby	6,922	2,662
Other	9,576	2,278
Total	593,706	46,782

CHAPTER XVII. 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. (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 of crops 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 of crops 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 of crops 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 of crops in each of the States and Territories of Australia at decennial intervals since 1860 and during each of the last five seasons:—

AREA OF CROPS.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N.T.	A.C.T.	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	113,978	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	15,069,858
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
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	263,251	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
1938-39	7,049,357	5,019,299	1,734,789	4,724,090	4,719,254	243,048	1,116	6,827	23,497,780
1939-40	6,381,531	5,002,362	1,726,209	4,541,614	4,331,299	258,038	340	8,119	22,249,512

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 War of 1914-19, 18,528,234 acres were cultivated in Australia. Four years later the area of crops declined 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 of crops receded to just under 20 million acres in 1935-36. Subsequently the area increased; amounting to 22½ million acres in 1939-40. Wheat is the most extensively grown crop in Australia and material changes in the total area of crops 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 of artificially-sown grasses mainly sown on cultivated land after burning off the scrub. These areas, which are not included in "area of crops", have expanded from 5½ million acres in 1929-30 to more than 9 million acres in 1939-40.

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 Commonwealth Minister for Commerce, the Commonwealth Minister in charge of Development and the State Ministers of Agriculture, with power to co-opt the services of other Commonwealth and State Ministers as required. The principle 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 in 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, Department of Commerce.

§ 3. Distribution, Production and Value of Crops.

1. **Distribution of Crops.**—The following table gives the areas in the several States and Territories of each of the principal crops for the season 1939-40:—

AREA OF PRINCIPAL CROPS, 1939-40.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Wheat ..	4,380,595	2,827,417	362,044	2,734,595	2,970,411	7,495	..	2,448	13,285,005
Oats ..	405,262	439,555	11,595	349,018	452,764	23,110	..	658	1,681,962
Maize ..	115,856	18,963	176,844	39	110	..	..	..	311,812
Barley—									
Malting ..	13,871	179,552	9,279	450,530	55,200	7,215	..	..	715,647
Other ..	10,402	24,687	3,929	53,018	27,521	508	..	..	120,065
Beans and Peas	157	6,819	357	18,297	5,872	18,418	40	..	49,960
Rye ..	12,196	1,728	80	8,196	1,680	149	..	30	24,059
Other Cereals	24,120	..	..	70	..	72	..	..	24,262
Hay ..	706,599	1,204,810	59,970	531,614	395,639	96,264	..	3,746	2,998,642
Green Forage	519,581	91,441	550,716	284,317	380,793	26,130	..	974	1,853,952
Grass and other									
Seeds ..	(a)	17,452	17,957	10,999	..	4,726	..	..	51,134
Orchards and									
other Fruit-									
gardens ..	85,099	70,315	33,014	29,099	22,155	31,074	40	139	270,935

(a) Not available.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Vines—	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Productive ..	16,035	40,321	2,400	55,075	5,445	2	119,278
Unproductive ..	948	2,273	521	3,147	1,012	7,901
Market-gardens	27,185	24,414	7,688	3,056	3,754	1,076	..	53	67,226
Sugar-cane—									
Productive ..	10,488	..	262,181	272,669
Unproductive ..	10,483	..	91,815	102,298
Potatoes ..	19,232	32,177	12,446	4,499	5,676	30,452	..	52	104,534
Onions ..	241	4,503	1,191	644	221	17	..	3	6,820
Other Root Crops	8,837	5,391	6,923	811	..	9,790	5	14	31,771
Tobacco ..	717	2,018	4,520	2	1,019	105	25	..	8,406
Broom Millet ..	3,543	659	429	4,631
Pumpkins and Melons ..	5,373	1,449	28,766	425	287	5	1	..	36,306
Hops	173	21	946	1,140
Cotton	41,212	175	..	41,387
All other Crops	4,711	6,245	40,332	4,163	1,719	486	54	..	57,710
Total Area ..	6,381,531	5,002,362	1,726,209	4,541,614	4,331,299	258,038	340	8,119	22,249,512

As pointed out previously wheat is the main crop in Australia, the area thereof for grain and hay representing 63 per cent. of the total area of crops in 1939-40.

[illegible]

3. Area of Principal Crops in Australia.—The area of the principal crops during each of the last five seasons, together with the average for the decennium ended 1929-30 is shown hereunder :—

AREA OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Average, Ten years ended 1929-30.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	'000 acres.	'000 acres.	'000 acres.	'000 acres.	'000 acres.	'000 acres.
Barley (a)	279	486	394	525	650	716
Maize	321	298	318	320	324	312
Oats	1,047	1,564	1,525	1,408	1,784	1,682
Rice	5	22	23	24	24	24
Wheat	11,291	11,957	12,317	13,735	14,346	13,285
Green Forage	844	1,423	1,625	1,640	1,789	1,854
Hay	2,956	3,007	3,101	2,982	3,250	2,999
Beans and Peas	46	52	48	41	43	50
Onions	8	7	8	8	7	7
Potatoes (b)	140	125	130	114	98	105
Sugar-beet	2	3	3	4	4	4
Vineyards	108	119	123	125	127	127
Hops	1.6	1	1	1	1	1
Sugar-cane	257	335	359	358	357	375
Cotton	37	55	62	53	66	41
Tobacco	2.4	11	11	11	8	8
Market-gardens (c)	46	55	62	66	66	104
Orchards	277	271	278	277	272	271
All Other Crops	103	183	215	260	282	285
Total	17,771	19,974	20,603	21,952	23,498	22,250

(a) Malting only. (b) Excluding 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 1939-40 and for the decennium ended 1929-30 :—

TOTAL AND AVERAGE PRODUCTION OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	Average, Ten years ended 1929-30.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Barley (a)	'000 bus.	5,077	8,413	6,383	10,802	9,704	13,732
Maize	" "	8,510	7,468	7,246	6,817	7,057	6,560
Oats	" "	14,775	18,721	16,662	17,165	15,555	25,302
Rice	" "	431	2,164	2,277	2,269	2,775	1,858
Wheat	" "	135,400	144,218	151,390	187,256	155,369	210,487
Hay	" tons	3,608	3,498	3,448	3,424	3,321	4,158
Beans and Peas	" bus.	729	610	778	625	495	808
Onions	" tons	40	35	53	56	18	38
Potatoes (b)	" "	365	323	461	345	274	323
Sugar (Beet)	" "	2.3	5.1	4.2	5.6	1.5	6.3
Grapes	" "	263	364	409	505	402	475
Wine	" gals.	14,761	17,728	20,168	20,430	14,958	14,775
Raisins and Currants	" tons	42	64	73	93	75	95
Hops	" lb.	2,412	2,403	2,376	2,277	2,402	1,902
Sugar (Cane)	" tons	402	647	783	810	823	929
Cotton, Unginned	" lb.	9,008	20,785	19,199	11,793	13,688	17,550
Tobacco	" "	1,620	6,007	5,510	5,860	4,046	4,912
Pumpkins and Melons	" tons	39	62	66	82	81	96

(a) Malting only. (b) Excluding Sweet Potatoes.

5. Average Yield per Acre of Principal Crops in Australia.—The following table shows the yield per acre for Australia of the principal crops for the five years ended 1939-40 and for the decennium ended 1929-30.

AVERAGE YIELD PER ACRE OF PRINCIPAL CROPS : AUSTRALIA.

Crop.	Unit of Quantity.	Average, Ten years ended 1929-30.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Barley (a)	Bushel	18.20	17.31	16.20	20.56	14.92	19.19
Maize	"	26.47	25.09	22.81	21.29	21.77	21.04
Oats	"	14.11	11.97	10.93	12.19	8.72	15.04
Rice	"	87.07	99.64	97.36	95.59	117.92	77.02
Wheat	"	11.99	12.06	12.29	13.63	10.83	15.84
Hay	Ton	1.22	1.16	1.11	1.15	1.02	1.39
Beans and Peas	Bushel	15.85	11.95	16.16	15.27	11.47	16.18
Onions	Ton	5.19	4.95	6.81	6.67	2.74	5.60
Potatoes (b)	"	2.61	2.59	3.55	3.02	2.80	3.09
Sugar (Beet)	"	1.17	1.62	1.20	1.39	0.35	1.48
Grapes (c)	"	3.09	3.29	3.62	4.40	3.43	3.98
Wine (c)	Gallon	..	364	411	412	300	295
Raisins and Currants (c)	Ton	..	1.17	1.31	1.63	1.26	1.56
Hops (c)	lb.	1,572	2,388	2,243	2,193	2,235	1,806
Sugar (Cane) (c)	Ton	2.30	2.71	3.06	3.17	3.14	3.41
Cotton, Unginned (c)	lb.	387.86	378	309	224	206	424
Tobacco	"	779	527	449	563	584	584
Pumpkins and Melons	Ton	2.69	3.02	2.34	2.57	2.65	2.64

(a) Malting only.

(b) Excluding 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 1934-35 to 1939-40 :—

GROSS VALUE OF AGRICULTURAL PRODUCTION : AUSTRALIA.

Crops.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Barley (a)	£'000. 984	£'000. 1,036	£'000. 1,326	£'000. 2,231	£'000. 1,417	£'000. 2,429
Maize	1,208	1,619	1,785	1,761	1,503	1,365
Oats	1,940	2,136	2,282	2,537	2,085	2,597
Rice	383	409	458	459	540	413
Wheat	24,738	29,768	40,471	37,000	21,989	38,360
Green Forage	2,435	2,703	2,784	3,043	2,999	3,039
Hay	10,567	10,061	12,104	13,629	12,704	10,567
Beans and Peas	194	165	258	222	253	377
Onions	311	297	250	255	306	296
Potatoes (b)	2,491	2,561	2,165	2,442	3,649	3,497
Sugar-beet	76	77	65	97	27	97
Grapes	3,562	3,754	4,233	4,865	3,924	4,657
Hops	151	172	171	190	183	148
Sugar-cane	7,310	7,493	8,742	9,065	9,178	11,192
Tobacco	257	484	437	513	360	504
Cotton, Unginned	397	376	330	205	230	301
Market-gardens (c)	2,136	2,240	2,330	2,395	2,473	3,347
Orchards	7,343	7,702	8,508	9,204	9,695	9,212
Other Crops	1,994	2,335	2,704	3,116	3,336	2,971
Total, Gross Value	68,587	75,388	91,403	93,229	76,851	95,369

(a) Malting only.

(b) Excluding Sweet Potatoes.

(c) Including Pumpkins and Melons.

7. Value of Production—Gross and Net.—(i) *General.* Uniform methods for arriving at the gross and net values of production in the various States were finally determined at a Conference of Statisticians held in March, 1935. The returns for the year 1933-34 and subsequent years have been valued on the new basis, and a revaluation was made for the years back to 1928-29. 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 XXVII "Miscellaneous".

In computing the net value of production no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm machinery ; consequently the figure stated is inflated to this extent.

GROSS, FARM AND NET VALUES OF AGRICULTURAL PRODUCTION, 1939-40.

(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 ..	26,152,000	5,760,000	20,392,000	2,425,000	2,462,000	15,505,000	1,152,000
Victoria ..	21,327,593	4,111,043	17,216,550	3,830,304	1,479,115	11,907,131	875,000
Queensland ..	18,086,000	1,560,000	16,526,000	1,330,000	1,500,000	13,696,000	830,000
South Australia ..	14,321,460	2,122,728	12,198,732	1,352,073	1,388,519	9,458,140	625,015
Western Australia ..	11,104,917	1,948,365	9,156,552	623,221	1,469,231	7,064,100	535,334
Tasmania ..	3,830,270	631,270	3,199,000	582,070	183,170	2,433,760	84,770
Total ..	94,822,240	16,133,406	78,688,834	10,142,668	8,482,035	60,064,131	4,102,119

(a) No deduction has been made for depreciation and maintenance.

(ii) *States 1930-31 to 1939-40.* In the following table the net value of agricultural production and the net value per head of population are given by States for each year since 1930-31 :—

VALUE OF AGRICULTURAL PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
NET VALUE.(a)							
	£	£	£	£	£	£	£
1930-31 ..	9,776,000	6,314,177	10,211,044	2,183,945	2,534,495	1,294,600	32,314,261
1931-32 ..	12,969,000	11,489,164	9,682,821	8,340,631	5,550,466	1,681,650	49,713,732
1932-33 ..	15,124,000	11,130,699	8,944,145	6,282,382	4,973,710	1,231,950	47,686,886
1933-34 ..	11,724,000	10,077,018	9,703,968	5,909,760	4,598,144	1,679,380	43,692,270
1934-35 ..	12,787,000	8,735,776	9,018,187	6,375,538	4,268,547	1,951,150	43,136,198
1935-36 ..	13,285,000	11,716,768	9,699,000	7,336,655	4,678,390	1,723,180	48,438,993
1936-37 ..	19,364,000	16,356,341	10,706,000	9,057,406	5,921,108	1,708,630	63,113,485
1937-38 ..	14,829,000	14,962,412	11,264,000	9,150,941	6,142,705	2,482,500	58,840,558
1938-39 ..	11,804,000	5,619,765	11,615,000	5,489,228	4,065,616	3,084,971	41,678,580
1939-40 ..	15,505,000	11,907,131	13,696,000	9,458,140	7,064,100	2,433,760	60,064,131

NET VALUE PER HEAD OF MEAN POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1930-31 ..	3 16 10	3 10 5	11 2 5	3 16 0	5 17 7	5 16 2	4 19 6
1931-32 ..	5 1 0	6 7 4	10 8 1	14 9 2	12 16 0	7 8 9	7 11 9
1932-33 ..	5 16 9	6 2 8	9 10 1	10 16 10	11 7 8	5 8 1	7 4 5
1933-34 ..	4 9 9	5 10 5	10 4 2	10 2 11	10 8 10	7 6 8	6 11 4
1934-35 ..	4 17 1	4 15 2	9 7 8	10 18 3	9 12 8	8 10 4	6 8 9
1935-36 ..	5 0 0	6 7 1	9 19 6	12 10 4	10 8 11	7 9 8	7 3 6
1936-37 ..	7 4 6	8 16 7	10 17 7	15 7 11	13 2 1	7 7 2	9 5 6
1937-38 ..	5 9 6	8 0 9	11 6 4	15 10 2	13 8 8	10 8 7	8 11 5
1938-39 ..	4 6 4	2 19 11	11 10 9	9 4 8	8 15 9	13 0 5	6 0 4
1939-40 ..	5 12 2	6 6 0	13 9 1	15 16 10	15 3 0	10 4 0	8 11 10

(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*. 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 use 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 only serious interruptions in more recent years were those occasioned by the War of 1914-1919 and the economic depression of the early thirties. As previously mentioned, any variation in the acreage sown to this cereal is materially reflected in the total area of crops. The area and yield of wheat for grain in each State are given below for the five years ended 1939-40; the table also includes an estimate for the 1940-41 crop and the average for the decennium ended 1939-40:—

WHEAT : AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
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AREA ('000 OMITTED).

	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1935-36 ..	3,851	2,324	240	2,989	2,541	10	2	11,957
1936-37 ..	3,983	2,394	284	3,058	2,575	21	2	12,317
1937-38 ..	4,465	2,686	373	3,162	3,026	21	2	13,735
1938-39 ..	4,651	2,748	442	3,080	3,413	10	2	14,346
1939-40 ..	4,381	2,827	362	2,735	2,970	8	2	13,285
1940-41 ..	4,454	2,673	322	2,560	2,625	8	2	12,644
Average for ten seasons ended 1939-40 ..	4,343	2,989	293	3,435	3,098	16	2	14,176

PRODUCTION ('000 OMITTED).

	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1935-36 ..	48,822	37,552	2,690	31,616	23,316	186	36	144,218
1936-37 ..	55,668	42,845	2,016	28,715	21,549	571	26	151,390
1937-38 ..	55,104	48,173	3,750	43,428	36,225	526	50	187,256
1938-39 ..	59,898	18,104	8,584	31,675	36,844	205	59	155,369
1939-40 ..	76,552	45,054	6,795	41,072	40,861	168	45	210,487
1940-41 ..	23,933	13,522	5,687	17,856	21,060	140	35	82,233
Average for ten seasons ended 1939-40 ..	60,149	40,380	4,374	36,473	35,990	347	45	177,758

Graphs showing the expansion of the area sown to wheat for grain in Australia since 1860 and its distribution during 1938-39 appear on pages 487 and 451. A similar graph showing the distribution in 1924-25 is shown in Official Year Book, No. 22, p. 695.

(ii) *Production*. The size of the wheat harvest in Australia is largely determined by the nature of the season and as this varies quite considerably from year to year production fluctuates in a similar manner.

It should be noted, however, that with improved farming methods, which includes the proper tillage of the soil, rotation of crops, the growing of suitable varieties and the application of fertilizers, average yields per acre during the past four decades have shown a continued improvement and fluctuations in production have become less pronounced.

Australia's wheat production in 1939-40 amounted to 210.5 million bushels representing an average yield of 15.84 bushels per acre. This is the third highest output and is only exceeded by the harvests of 1930-31 and 1932-33 when more than 213 million bushels were produced. In contrast with this, the estimated figures available for 1940-41 indicate a harvest of only 82 million bushels or a return of 6.50 bushels per acre and indicates the severity of the conditions under which the crop was grown. It is the first occasion since 1919-20 that the total harvest for Australia has fallen below 100 million bushels.

(iii) *Decennial Averages, 1861-70 to 1931-40.* 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.**

Decennium.	Area.	Production.	Yield per Acre.		Average Wholesale Price.
			Bushels.		
	'000 Acres.	'000 Bushels.			s. d.
1861-70	831	10,622	12.77		(a)
1871-80	1,646	17,711	10.76		5 1
1881-90	3,253	26,992	8.29		4 7
1891-1900	4,087	29,934	7.32		3 8
1901-10	5,711	56,058	9.82		3 10
1911-20	8,928	95,480	10.69		5 0
1921-30	11,291	135,400	11.99		5 8
1931-40	14,176	177,758	12.54		3 4½

(a) Not available.

(iv) *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.	A.C.T.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
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 ..	12.88	6.59	19.42	10.28	10.79	20.84	28.74	10.83
1939-40 ..	17.48	15.93	18.77	15.02	13.76	14.37	18.54	15.84
1940-41 ..	5.37	5.06	17.66	6.97	8.02	17.46	17.09	6.50
Average 10 seasons, ended 1939-40	13.85	13.51	14.95	10.62	11.62	21.33	20.50	12.54

Variation in the average yield is chiefly due to the vagaries of the seasons. The best average yields for single seasons since 1901 were obtained in 1920-21, 16.08 bushels; in 1924-25, 15.20 bushels; and in 1939-40, 15.84 bushels.

(v) *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.

3. **Wheat Farms.**—Particulars of the number of farms growing wheat for grain on 20⁰ acres and upwards during the past five years are shown in the following table. It should be noted 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	No.	No.	No.	No.	No.
New South Wales ..	14,923	15,425	16,287	16,550	16,175
Victoria ..	12,051	12,090	12,936	12,305	12,065
Queensland ..	1,847	2,211	2,809	3,190	2,542
South Australia ..	11,974	12,155	12,251	11,842	11,468
Western Australia ..	8,681	8,625	8,841	8,989	8,482
Tasmania ..	171	379	372	146	143
Total ..	49,647	50,885	53,496	53,022	50,875

4. **World Production of Wheat.**—(i) *Average Yield.* The next table gives the average return per acre in the principal wheat-growing countries of the world for the latest available period. These range from a maximum in the Netherlands of 45 bushels per acre to a minimum in Palestine of 6 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, 1936-1938.	1939.		Average, 1936-1938.	1939.
Netherlands ..	44.90	43.50	Chile ..	16.15	(a) 17.40
Denmark ..	44.68	(a) 52.17	China ..	(e) 15.65	(f) 14.93
Belgium ..	40.50	(b) 42.90	Argentine Republic	15.35	8.30
Sweden ..	35.41	38.00	Greece ..	15.21	14.80
Germany ..	35.30	(c) 34.30	Brazil ..	(d) 14.39	(d) 14.39
Switzerland ..	33.92	32.10	U.S.S.R. (Russia)	14.23	(a) 14.85
United Kingdom ..	33.22	33.90	Syria ..	13.97	(a) 16.54
New Zealand ..	32.08	(a) 29.40	U.S.A. ..	13.25	11.30
Eire ..	31.56	31.00	Australia ..	12.24	15.84
Egypt ..	31.47	32.70	Manchukuo ..	11.99	(a) 10.40
Norway ..	30.17	(a) 30.40	Uruguay ..	11.90	(a) 11.39
Finland ..	27.10	26.00	Korea ..	11.83	(a) 12.31
Japan ..	26.92	33.50	Portugal ..	11.52	(a) 14.00
Czechoslovakia ..	26.26	(a) 29.60	Iraq ..	11.36	(a) 12.26
France ..	22.55	23.60	Spain ..	11.28	12.70
Hungary ..	21.76	24.00	India ..	10.95	10.50
Italy ..	21.56	22.90	Mexico ..	9.98	(a) 10.20
Bulgaria ..	21.38	23.40	Canada ..	9.92	17.90
Yugoslavia ..	19.07	19.40	Algeria ..	7.71	10.40
Iran ..	(d) 18.81	(d) 18.81	Columbia ..	(e) 7.48	(f) 6.75
Latvia ..	18.52	(a) 20.26	Tunisia ..	7.47	8.90
Poland ..	17.86	19.10	Union of South Africa ..	7.28	(a) 8.36
Lithuania ..	16.78	18.40	French Morocco ..	6.11	12.20
Rumania ..	16.64	17.20	Palestine ..	5.80	10.00
Estonia ..	16.58	16.20			
Turkey ..	16.31	(a) 16.40			

(a) Year 1938.
(d) Year 1936.

(b) Includes Luxemburg.
(e) Subject to revision.

(c) Includes Austria and Sudeten area.
(f) Year 1937.

(ii) *Production by Countries.* 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, 1936-1938.	1939.		Average, 1936-1938.	1939.
U.S.S.R. (Russia)	1,418,307	1,494,000	Chile	31,544	(a) 35,174
U.S.A.	810,433	739,400	Sweden	25,810	31,500
China (b) ..	706,956	(e) 636,456	Iraq	21,015	(a) 22,046
India	373,756	371,000	Syria and Lebanon	18,961	(a) 23,674
France	284,128	276,000	French Morocco ..	18,767	38,800
Italy	272,641	294,000	Belgium	17,278	(f) 17,000
Argentine Republic	256,281	147,000	Netherlands ..	15,033	13,300
Canada	253,884	479,000	Union of South		
Germany	177,248	(d) 205,200	Africa	14,481	15,000
Australia ..	163,470	210,487	Denmark	13,949	14,000
Rumania	148,011	164,900	Uruguay	13,702	(a) 15,461
Turkey	144,970	158,000	Tunisia	13,233	18,600
Spain	(e) 121,493	111,800	Portugal	12,911	18,300
Yugoslavia ..	101,669	105,400	Mexico	12,539	13,000
Hungary	85,893	112,100	Korea	9,867	12,300
Iran	(e) 79,352	(e) 79,352	Lithuania ..	8,429	9,200
Poland	76,313	83,400	Eire	7,408	8,000
Bulgaria	67,722	71,200	Finland	7,055	8,670
United Kingdom ..	61,649	59,700	New Zealand ..	6,262	(a) 5,910
Czechoslovakia ..	57,835	40,000	Latvia	6,208	6,500
Japan	46,950	61,000	Switzerland ..	6,118	6,559
Egypt	45,672	49,000	Brazil	(e) 5,512	(e) 5,512
Manchukuo	33,772	39,000	Columbia	(b) 3,734	(c) 3,336
Algeria	32,642	42,600	Palestine	3,036	5,000
Greece	32,321	35,300	Estonia	2,786	3,010

NOTE.—The harvests reported above for 1939 relate to the year 1939 for the Northern, and 1939-40 for the Southern Hemisphere.

(a) Year 1938. (b) Recorded production. Subject to revision. (c) Year 1937. (d) Includes Austria and Sudeten area. (e) Year 1936. (f) Includes Luxemburg.

(iii) *Total World Production.* 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 and the latest available figures are given in the following table. The output of China has been omitted. Normally this country is a large producer of wheat and is generally ranked with the United States next to the U.S.S.R. (Russia). In 1937, the recorded production exceeded 636 million bushels but this refers to some provinces and does not include the output of all Territories forming the Chinese Republic.

WHEAT : WORLD'S PRODUCTION.(a)

Year.		Area.	Production.	Yield per acre.
		'000 Acres.	'000 Bushels.	Bushels.
Average 1909-1913 ..	..	270,266	3,779,479	13.98
„ 1928-1932 ..	..	337,761	4,652,000	13.77
1934 .. ..	..	330,941	4,620,520	13.96
1935 .. ..	..	339,244	4,698,784	13.85
1936 .. ..	..	345,347	4,653,590	13.48
1937 .. ..	..	365,115	5,435,863	14.89
1938 .. ..	..	379,076	6,007,964	15.85
Average 1934-1938 ..	..	351,945	5,083,344	14.44

(a) From countries reporting including the U.S.S.R. (Russia) but excluding China.

As a producer of wheat, Australia occupies tenth position on the list of producing countries of the world and, on the average of the five years 1934-38, contributed about 3½ per cent. of the area and 3 per cent. of production. As an exporter of wheat, however, Australia occupies a position, ranking next after Canada and Argentina. During the five years 1934-38, exports of wheat and flour, in terms of wheat, from Australia averaged nearly 18½ per cent. of the world net exports compared with 7½ per cent., the average for the quinquennium 1909-13.

(iv) *World Wheat Supplies, Requirements and Carryover.* The following table of world wheat statistics has been compiled from the latest available data published by the International Institute of Agriculture. It shows details of the world exportable supplies, import requirements, carryover stocks and consumption covering four quinquennial periods and the years 1938 and 1939.

The figures given exclude, where indicated, details in respect of the Soviet Union, China, Iraq and Iran. This omission is due to the insufficiency of data respecting these countries.

WHEAT : WORLD STATISTICS.

(In million bushels.)

Period.	World Exportable Supplies.(a)	World Import Require- ments.	End of Season Stocks.		World Consump- tion.(b)	World Production. (b)
			Exporting Countries. (a)	World.		
Average five years ended—						
1913-14 ..	(c)	680	(c)	(c)	3,300	3,130
1927-28 ..	960	780	180	620	3,440	3,480
1932-33 ..	1,290	765	525	930	3,770	3,860
1937-38 ..	840	540	300	790	3,760	3,640
Year—						
1938-39 (d) ..	1,138	618	520	1,100	3,993	4,508
1939-40 (d) ..	1,324	610	714	1,319	3,969	4,185

(a) Stocks held by the four major exporting countries, European exporting countries and those afloat.
 (b) Excluding Soviet Union, China, Iraq and Iran. (c) Not available. (d) Forecast.

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. 4½d. in 1931, a decline of 53 per cent. Subsequent to 1931, prices fluctuated between 2s. 6d. and 3s. per bushel until 1936 when an upward movement coincided with the depletion of excess stocks following crop failures in North America. By December, 1936, prices exceeded 5s. per bushel and remained at that level during 1937. By the end of 1938, world exportable surpluses had again accumulated. Prices receded during 1938 and by August, 1939, had reached the lowest level recorded in Australia, viz., 2s. 1d. per bushel.

On 21st September, 1939, the Australian Wheat Board was appointed under war-time legislation and the price of wheat for export or local consumption is determined by that authority. In consequence, the open market for wheat ceased and therefore a price comparison on a pre-war basis is no longer possible. The following table shows the price of wheat in Australia for the periods indicated. The price stated for 1940 and 1941 represents the approximate average price of wheat exported during those years.

PRICE OF WHEAT : AUSTRALIA.

(WEIGHTED AVERAGE OF SHIPPERS' LIMITS FOR GROWERS' BAGGED AND BULK LOTS, SYDNEY, MELBOURNE AND ADELAIDE.)

Item.	1936.	1937.	1938.	1939. (a)	1940. (b)	1941. (b)
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Price per bushel	4 1 $\frac{3}{4}$	5 0 $\frac{1}{2}$	3 4 $\frac{3}{4}$	2 4	3 11 $\frac{1}{4}$	4 2

(a) Average for eight months ended August.

(b) Approximate export price.

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. Later details are not available for publication. 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 97,932,000 bushels in 1938-39 and 124,767,000 bushels in 1937-38, the net exports for the period averaging 107,530,000 bushels:—

WHEAT AND FLOUR : EXPORTS FROM AUSTRALIA.

Year.	Exports.			Net Exports.
	Wheat.	Flour.	Total.	
	'000 Bushels.	'000 Eq. Bushels.(a)	'000 Bushels.	'000 Bushels.
1934-35 ..	75,960	33,503	109,463	109,458
1935-36 ..	76,993	29,620	106,613	106,611
1936-37 ..	71,778	27,109	98,887	98,886
1937-38 ..	94,504	30,263	124,767	124,765
1938-39 ..	63,129	34,803	97,932	97,931

(a) Equivalent in bushels of wheat.

(ii) *Destination.* The following table gives the exports of wheat to various countries for each of the five years ended 1938-39, together with averages for the period 1909-13. Later details are not available for publication.

WHEAT : EXPORTS FROM AUSTRALIA.

('000 omitted.)

Country to which Exported.	Average, Five years ended 1912-13.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
United Kingdom ..	30,305	41,198	46,776	44,244	61,522	32,235
India ..	(a)	169	486	..	735	6,922
Eire ..	(a)	2,623	4,744	5,699	1,012	2,303
Union of South Africa ..	2,992	21	327	3	955	1,706
Other British Countries	(a)	439	1,447	957	4,507	3,880
Belgium ..	1,218	254	2,429	613	162	324
China ..	(a)	13,664	5,053	1,273	144	10,621
Egypt ..	136	1,606	..	30	491	389
France ..	1,682	..	41	776	3,876	..
Germany ..	287	..	..	797	..	376
Italy ..	581	19	1,737	10,167	3,837	..
Japan ..	330	15,530	11,044	2,507	2,845	431
Other Foreign Countries	4,466	437	2,909	4,712	14,418	3,942
Total ..	41,997	75,960	76,993	71,778	94,504	63,129

(a) Included with Other Foreign Countries.

Exports of flour from Australia for the periods mentioned are given in the next table. Later details are not available for publication:—

FLOUR : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Average, Five years ended 1912-13.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
United Kingdom	27,699	99,332	130,998	177,329	187,943	118,957
Ceylon	3,389	18,821	17,090	16,210	14,305	18,147
Hong Kong	2,672	50,616	44,382	40,503	66,291	23,040
Malaya (British)	15,492	61,926	55,592	66,596	65,464	66,965
Union of South Africa	30,714	371	545	208	273	132
Other British Countries	(a)	46,158	60,314	65,758	76,623	86,494
China	(a)	814	951	2,113	31,544	216,878
Egypt	(a)	26,864	23,722	35,005	18,674	17,153
Manchuria (b)	(a)	240,181	112,789	9,422	11,941	..
Netherlands East Indies	26,099	82,147	82,077	74,928	83,079	96,524
Philippine Islands	13,680	27,437	40,491	35,522	27,280	32,722
Other Foreign Countries	47,367	43,304	48,130	41,184	47,054	48,053
Total	167,112	697,971	617,081	564,778	630,471	725,065

(a) Included with Other Foreign Countries.

(b) Including Kwantung Peninsula.

7. Exports—Principal Countries.—The following table shows the latest available net quantities of wheat exported from the chief exporting countries in recent years and during the period from 1909 to 1913. In the years before the War of 1914-19 the U.S.S.R. (Russia) 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 the Argentine Republic and Australia coming next in order.

Although the local production of wheat is little more than 3 per cent. of the world's total, the exports from Australia represented just under 18½ per cent. of the quantities shipped during 1934 to 1938, and as an exporting country Australia has made the greatest relative advance since 1913.

WHEAT (a) : NET EXPORTS, PRINCIPAL COUNTRIES.

Country.	Average 1909-13.		1937.	1938.	Average 1934-38.	
	'000 Bushels.	Per cent.	'000 Bushels.	'000 Bushels.	'000 Bushels.	Per cent.
U.S.S.R. (Russia)(b) ..	157,109	23.71	33,803	39,154	22,520	4.04
U.S.A.	100,864	15.22	36,416	105,540	43,648	7.83
Argentine Republic ..	95,041	14.34	147,493	75,413	122,739	22.01
Canada	89,919	13.57	112,462	125,195	175,407	31.45
British India	50,886	7.68	20,043	12,203	8,877	1.59
Australia	49,417	7.46	99,658	124,202	102,695	18.41
All Other Countries ..	119,351	18.02	108,431	99,303	81,839	14.67
Total	662,587	100.00	558,306	581,010	557,725	100.00
World's Production ..	3,779,479		5,435,863	6,007,964	5,083,344	
Percentage of Aus- tralian Net Exports on Total Net Exports	7.46		17.85	21.38	18.41	
Percentage of Aus- tralian Production on World's Produc- tion	2.39		3.46	2.51	3.02	

(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.

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 for the latest available years. 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.		1937.	1938.	Average, 1934-38.	
	'000 Bushels.	Per cent.	'000 Bushels.	'000 Bushels.	'000 Bushels.	Per cent.
United Kingdom ..	219,365	30.42	202,058	208,854	208,749	33.80
Germany ..	89,732	12.44	47,161	48,253	25,606	4.15
Netherlands ..	76,340	10.59	24,058	27,009	22,584	3.66
Belgium ..	73,963	10.26	44,972	38,196	42,856	6.94
Italy ..	57,156	7.93	61,097	10,698	25,891	4.19
France ..	38,682	5.36	18,931	19,332	23,767	3.85
Brazil ..	20,774	2.88	36,226	7,146	29,812	4.83
Egypt ..	7,915	1.10	115	208	586	0.09
Union of South Africa	6,519	0.90	38	2,643	753	0.12
China (c) ..	5,526	0.77	6,914	24,242	27,471	4.45
Japan ..	3,714	0.52	7,555	2,617	11,551	1.87
All Other ..	121,409	16.83	187,599	202,295	198,051	32.05
Total ..	721,095	100.00	636,724	591,493	617,677	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.

9. Consumption of Wheat in 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, 1935-36 TO 1939-40.

Flour milled	1,308,782 tons
Less net exports of flour	645,563 tons
Less net exports of flour in biscuits	1,012 "
	646,575 "
	662,207
Change in flour stocks	-6,450 "
Net quantity consumed	655,757 "
Equivalent in terms of wheat	31,476,000 bushels
Net quantity consumed per head of population—	
As flour	191 lb.
Equivalent in terms of wheat	4.6 bushels

AVERAGE USED FOR SEED, 1935-36 TO 1939-40.

Average area sown for grain, hay and green forage ..	13,122,764 acres
Average quantity of seed used	14,053,000 bushels
Average quantity of seed used per acre	60 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, which varies according to the movement in prices, is estimated at 10,218,000 bushels or $1\frac{1}{2}$ bushels per head of population for the five

years ended 1939-40. Almost the whole of this quantity is used in the form of grain as feed for poultry, principally fowls, which numbered a little more than 16 million during the year 1939-40. Grain used for seed in Victoria, South Australia and Western Australia has been estimated on the basis of data collected from growers. In the other States estimates supplied by the Agricultural Departments have been used. The average annual quantity used for seed during the last five years was 2.05 bushels per head of population, or 60 lb. per acre sown. The consumption of wheat in Australia for all purposes (human consumption, live-stock and seed) during the period dealt with averaged 55,748,000 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 1939-40, including amount of assistance paid from Flour Tax, is shown below. The values are on a gross basis at the principal market in each State. Pending the finalizing of the accounts of the Australian Wheat Board, these values are subject to slight revision.

WHEAT : VALUE OF CROP.(a) 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value(b)	13,651,750	8,470,256	1,313,514	7,617,632	7,269,316	29,620	8,095	38,360,183
Value per acre (b)	£3/2/4	£2/19/11	£3/12/7	£2/15/9	£2/8/11	£3/19/0	£3/6/2	£2/17/9
Amount of Assistance—								
Total ..	306,788	194,043	28,758	175,400	171,915	..	..	876,904
Per acre ..	1/5	1/4	1/7	1/3	1/2	..	..	1/4
Per bushel ..	1d.	1d.	1d.	1d.	1d.	..	..	1d.

(a) Gross value of total crop, including seed used on farm, but exclusive of value of straw.

(b) Including assistance paid from Flour Tax.

11. **Varieties of Wheat Sown.**—(i) *General.* The breeding of wheat suitable to local conditions has long been established in Australia. Farrar (1845-1905) did invaluable work in pioneering this field and the results of his labour and the continued efforts of those who have since followed him have proved of immense benefit to the wheat industry of Australia. Their efforts have resulted in better average yields, a greater uniformity of sample, with which has accrued certain marketing advantages, as well as an improvement in the quality of wheat grown. More than 1,000 different varieties of Australian wheats have been catalogued by the Council for Scientific and Industrial Research but the number of the principal varieties grown during each season is restricted to about 40.

(ii) *States, 1939.* Particulars of the varieties of wheat sown and the areas thereunder are collected annually. The following table shows details 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 1939.

WHEAT : PRINCIPAL VARIETIES SOWN, 1939.

New South Wales.		Victoria.		South Australia.		Western Australia.	
Variety.	Per-cent-age.	Variety.	Per-cent-age.	Variety.	Per-cent-age.	Variety.	Per-cent-age.
	%		%		%		%
Bencubbin ..	24.3	Ghurka ..	47.3	Ranee ..	20.1	Bencubbin ..	37.0
Ford ..	18.2	Ranee ..	22.5	Bencubbin ..	11.6	Glucub ..	15.9
Dundee ..	13.9	Dundee ..	9.4	Dundee ..	10.5	Merredin ..	8.4
Nabawa ..	9.1	Free Gallipoli ..	7.2	Nabawa ..	8.0	Noongar ..	5.4
Waratah ..	5.3	Bencubbin ..	3.7	Sword ..	7.5	Gluyas Early ..	4.6
Ranee ..	5.1	Sepoy ..	1.7	Waratah ..	5.7	Nabawa ..	4.3
Onlar ..	3.2	Bobin ..	1.5	Gluyas ..	5.0	Totadgin ..	4.2
Pusa No. 4 ..	2.9	Rajah ..	1.2	Ghurka ..	4.0	Dundee ..	2.9
Bobin ..	2.8	Nabawa ..	0.6	Ford ..	3.3	Waratah ..	2.1
All Others ..	15.2	All Others ..	4.9	All Others ..	24.3	All Others ..	15.2
Total ..	100.0	Total ..	100.0	Total ..	100.0	Total ..	100.0

Continued progress in the breeding of new and better wheats has resulted in many changes in the varieties sown. In New South Wales, Bencubbin, previously a variety relatively unimportant outside Western Australia, is the leading wheat sown. It is also the second variety sown in South Australia, while in Victoria it is unimportant, but the area sown to this wheat is increasing. The leading variety sown in Victoria between 1929 and 1934 was Free Gallipoli, but since 1935 it has been supplanted by Ghurka, Ranee and Dundee. In South Australia, Nabawa came into prominence in 1933, but in 1939, though still relatively important, it ceded the leading position to Ranee and now occupies fourth place after Bencubbin and Dundee. 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 1939 it retained its leading position with 37 per cent.

12. Stocks of Wheat and Flour.—Stocks of wheat and flour held by each State at 30th November, 1939, and the total held in Australia on the same date for the previous four years will be found in the following table. Later details are not available for publication. The figures have been compiled from information collected from millers, merchants, the Railway Departments and other sources.

WHEAT AND FLOUR : STOCKS AT 30th NOVEMBER 1939.(a)

State.		Wheat.	Flour.	Total in terms of wheat.(a)
		Bushels.	Tons.	Bushels.
New South Wales	.. ..	5,059,320	34,875	6,733,320
Victoria	.. ..	3,435,783	27,350	4,748,584
Queensland	.. ..	304,199	5,292	558,215
South Australian	.. ..	5,139,508	21,479	6,170,500
Western Australia	.. ..	2,114,766	8,592	2,527,182
Tasmania	.. ..	162,251	1,695	243,611
Total, 30th November, 1939	.. ..	16,215,827	99,283	20,981,412
"	" 1938	9,639,443	89,502	13,935,539
"	" 1937	5,233,866	76,450	8,903,465
"	" 1936	3,505,469	101,063	8,356,493
"	" 1935	12,371,270	89,637	16,673,867

(a) One ton of flour treated as equivalent to 48 bushels of wheat.

An accumulation of wheat stocks occurred in Australia following the large harvest of 1939-40. This arose from the scarcity of shipping, while the loss of some European markets due to the war and the added disadvantage of a long sea haul were additional factors. The small harvest of 1940-41, however, relieved the storage position for the time being, but with a return to normal harvests and the continuance of shipping difficulties the problem of future storage will be accentuated.

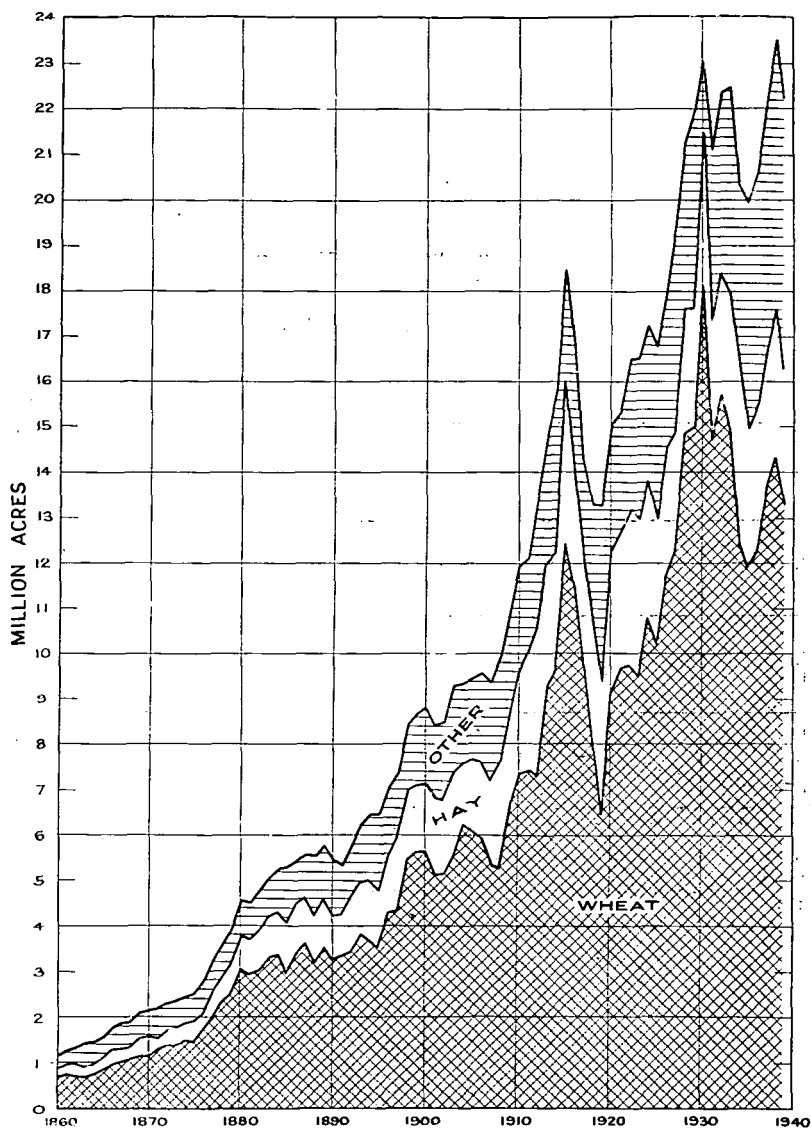
The Australian Wheat Board has planned the storage of wheat in Australia in order to prevent deterioration and to minimize the risk of infestation by weevils and other vermin. The Board has estimated that storage charges per bushel for one year would be 1½d. for bagged and 1¼d. for bulk wheat. For two years, the respective charges would be about 2½d. and 1¾d. per bushel.

13. Voluntary Wheat Pools.—Details of wheat pools operating in Australia are given in previous issues of the Official Year Book. These pools ceased to function when the Australian Wheat Board was created in September, 1939.

14. War-time Marketing of Wheat.—(i) *General.* At the outbreak of war in September, 1939, the wheat industry of Australia was experiencing a period of low prices. Wheat had fallen to 2s. 1d. per bushel in August, 1939, compared with 3s. 1d. in August, 1938, 5s. 1d. in August, 1937, and 2s. 2d. per bushel in the same month of 1931, which was the lowest monthly quotation during the economic depression of that period.

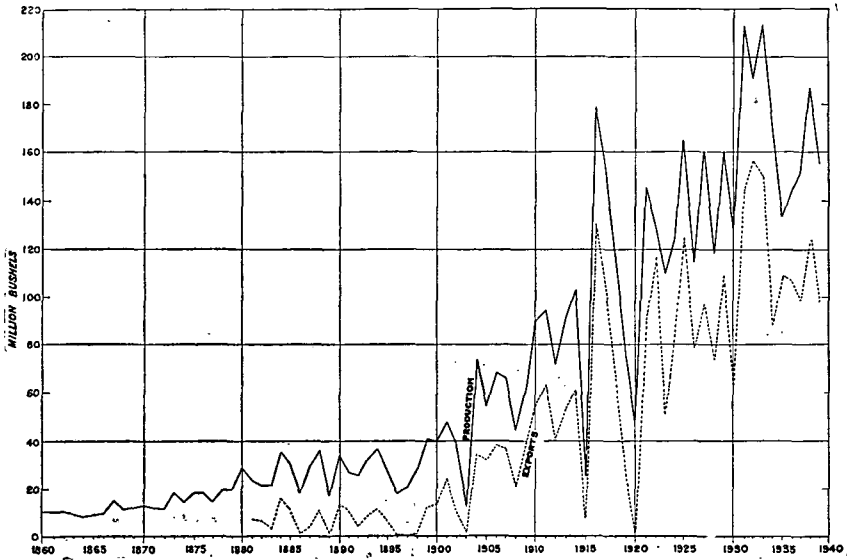
Apart from low prices, other difficulties created by war conditions were those of marketing and transport. There was also a large accumulation of surplus stocks in the

AREA OF CROPS—AUSTRALIA, 1860-61 TO 1939-40.



EXPLANATION.—The total area of crops is shown by the top curve in this graph, and the area of wheat by the bottom curve. The vertical distances between these curves and that in the centre indicate the areas of hay and other crops.

PRODUCTION AND EXPORTS OF WHEAT—AUSTRALIA, TO 1938-39.



NOTE.—The export figures for the years 1915-16 to 1920-21 do not represent the surplus available for export in each of these years because of the dislocation of shipping due to the War of 1914-1919. For these years the quantity consumed in Australia has been averaged and the balance taken as exports.

chief exporting countries of the world and the natural disability of Australia's remoteness from the main centres of consumption was another factor adding to a most difficult position.

In view of these circumstances, the Commonwealth Government, under the Wheat Acquisition Regulations, constituted the Australian Wheat Board on the 21st September, 1939, to acquire, with certain exceptions, all wheat held in Australia. The harvest of 1939-40 was also acquired by notification published on 16th November, 1939.

(ii) *Australian Wheat Board.* Under the Wheat Acquisition Regulations, the Board was empowered, subject to directions of the Minister for Commerce, to purchase, sell or dispose of wheat or wheat products, manage and control all matters connected with the handling, storage, protection, shipment, etc., of wheat acquired, and such other matters necessary to give effect to the regulations under which it was created.

(iii) *Wheat Acquired and Disposed—No. 1 Pool.*—The total quantity of wheat of the 1938-39 season acquired amounted to 17,840,000 bushels, which was sold at an average price of 2s. 9.386d. per bushel f.o.b. main shipping ports basis.

No. 2 Pool.—The quantity of wheat acquired from the 1939-40 harvest and handled under No. 2 Pool amounted to 195,444,000 bushels. Of this quantity, sales overseas up to 25th October, 1941, amounted to 139,000,000 bushels of which 122,000,000 bushels had been shipped. Local sales amounted to 49,009,000 bushels. The unsold balance of this Pool amounted to 7,127,000 bushels on 25th October, 1941.

No. 3 Pool.—A relatively small quantity of wheat of inferior quality harvested during 1939-40 was subsequently excluded from the No. 2 Pool and placed in No. 3 Pool created for that purpose. All wheat so transferred was paid 3d. per bushel less than that under No. 2 Pool.

No. 4 Pool.—The quantity of wheat acquired from the 1940-41 harvest and handled under No. 4 Pool amounted to 63,632,000 bushels. Of this quantity, sales overseas up to 25th October, 1941, amounted to 14,000,000 bushels of which 12.7 million bushels had been shipped. Local sales amounted to 26,661,000 bushels. The unsold balance of this Pool amounted to 22,896,000 bushels on 25th October, 1941.

Particulars of the quantities in thousands of bushels of wheat acquired and disposed of are given by States in the following table:—

AUSTRALIAN WHEAT BOARD.—STATEMENT OF QUANTITIES OF WHEAT ACQUIRED AND DISPOSED OF AS AT 25th OCTOBER, 1941.

'000 Bushels.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
No. 1 POOL (BALANCE OF 1938-39 HARVEST).							
Wheat acquired ..	6,226	2,805	..	5,884	2,925	..	17,840
Wheat sold—							
Overseas (a) ..	2,210	..	..	4,899	2,380	..	9,489
Locally (b) ..	4,016	2,805	..	985	545	..	8,351
Total Sales ..	6,226	2,805	..	5,884	2,925	..	17,840
No. 2 POOL (1939-40 HARVEST).							
Wheat acquired ..	66,688	46,960	6,255	38,130	37,370	41	195,444
Wheat delivered against sales—							
Overseas (a) ..	40,181	27,076	563	25,720	28,467	..	122,007
Locally (b) ..	25,102	18,452	5,692	3,624	4,033	1,038	57,941
To Tasmania ..	112	144	..	1,228	..	(c) 1,484	..
Stocks on hand	1,293	1,288	..	7,558	4,870	487	15,496

(a) Including wheat delivered for gristing and export as flour. (b) Including wheat sold for gristing for local consumption. (c) Quantity imported from other States.

**AUSTRALIAN WHEAT BOARD.—STATEMENT OF QUANTITIES OF WHEAT
ACQUIRED AND DISPOSED OF AS AT 25th OCTOBER, 1941—continued.**
'000 Bushels.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
No. 4 POOL (1940-41 HARVEST).							
Wheat acquired ..	16,915	9,978	5,287	13,816	17,561	75	63,632
Wheat delivered against sales—							
Overseas (a) ..	2,586	2,492	5	4,770	2,895	..	12,748
Locally (b) ..	7,659	2,896	4,313	1,664	929	387	17,848
To Tasmania ..	..	..	..	623	..	(c) 623	..
Stocks on hand	6,670	4,590	969	6,759	13,737	311	33,036

(a) Including wheat delivered for gristing and export as flour.
gristing for local consumption.

(b) Including wheat sold for other States.
(c) Quantity imported from other States.

Contracts made by the Board, for the sale of wheat and flour include 64,000,000 bushels to the United Kingdom Government, but shipment has not been completed.

(iv) *Finance.* Under the terms of the Wheat Acquisition Regulations the Minister is empowered to arrange with the Commonwealth Bank for the making of advances to the Board, such advances to be guaranteed by the Commonwealth Government.

The financial operations of the Board under No. 2 Pool disclose that at the 25th October, 1941, the total payments amounted to £37,432,000, of which £30,200,000 represented the amounts paid to growers, £3,699,000 rail freight and £3,533,000 expenses. The amount received from sales was £34,966,000 and proceeds under the Flour Tax £900,000. The overdraft at the Commonwealth Bank at that date was £1,566,000.

Under the No. 4 Pool total payments at 25th October, 1941, amounted to £10,965,000 of which £9,197,000 represented the amounts paid to growers, £1,177,000 rail freight and £591,000 expenses. The amount received from sales was £7,775,000 and proceeds under the Flour Tax £940,000. The overdraft at the Commonwealth Bank at that date was £2,250,000.

Details of advances made to growers to 25th October, 1941, are given below :—

ADVANCES MADE TO GROWERS TO 25th OCTOBER, 1941.

Particulars.	No. 1 Pool.		No. 2 Pool.		No. 4 Pool.	
	Amount Disbursed (f.o.b. Basis).		Amount Disbursed (Trucks Terminal Port Basis).		Amount Disbursed (Trucks Terminal Port Basis).	
	Per Bushel.	Total.	Per Bushel.	Total.	Per Bushel.	Total.
Advances made to Growers—	s. d.	£'000.	s. d.	£'000.	s. d.	£'000.
1st Payment (a)—						
Bulk ..	2 0	1,784	2 8.50	27,283	2 10.50	9,327
Bagged ..	2 0		2 10.50		3 0	
2nd Payment—						
Bulk ..	0 6	501	0 4	3,257	0 4	1,056
Bagged ..	0 8		0 4		0 4	
3rd Payment—						
Bulk ..	0 1.75	130	0 3	2,442	(b) 0 3	792
Bagged ..	0 1.75		0 3		(b) 0 3	
Final Payment—						
Bulk ..	0 0.158	12	0 1.125	913	..	..
Bagged ..	0 0.158		0 1.125		..	
Total—						
Bulk ..	2 7.908	2,427	3 4.625	33,895	(c) 3 5.50	11,175
Bagged ..	2 9.908		3 6.625		(c) 3 7.00	

(a) From which rail freight was deducted.
1941.

(b) Approved for distribution on 25th November, 1941.

(c) Total advance per bushel to 25th November, 1941.

15. Special Tabulation of Wheat Holdings.—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 Official Year Book No. 33, pp. 374 to 377.

§ 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 59.71 per cent., oats represented only 7.56 per cent. of the area of crops in 1939-40. 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.	A.C.T.	Australia.
AREA ('000 ACRES).								
1935-36.. ..	280	505	7	300	448	24	..	1,564
1936-37.. ..	236	381	8	415	463	22	..	1,525
1937-38.. ..	255	394	8	332	386	33	..	1,468
1938-39.. ..	399	658	9	267	426	25	..	1,784
1939-40.. ..	405	439	12	349	453	23	1	1,682
Average 10 seasons ended 1939-40 ..	251	459	6	289	376	28	..	1,409
PRODUCTION ('000 BUSHEL).								
1935-36.. ..	4,736	6,365	119	2,381	4,558	557	5	18,721
1936-37.. ..	3,968	6,108	22	2,364	3,445	751	4	16,662
1937-38.. ..	3,395	5,327	79	2,961	4,365	1,032	6	17,165
1938-39.. ..	4,831	2,909	93	2,401	4,668	645	7	15,554
1939-40.. ..	6,904	8,281	200	4,063	5,315	529	10	25,302
Average 10 seasons ended 1939-40 ..	4,015	6,073	84	2,483	4,099	766	5	17,525

The oat crop showed considerable variation during the past decennium, ranging from 15,195,000 bushels in 1931-32 to 25,302,000 bushels in 1939-40 with an average for the period of 17,525,000 bushels. For Australia as a whole the record yield of oats was obtained during 1939-40, when 25,301,980 bushels were harvested. The demand for the grain for oatmeal varies from $1\frac{1}{2}$ 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. Considerable quantities are produced in the other States. In Queensland, however, the area sown to this cereal is very small.

(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 ended 1939-40 are given in the table below :—

OATS : AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
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
1938-39	12.09	4.42	10.77	8.99	10.95	25.97	21.95	8.72
1939-40	17.04	18.84	17.23	11.64	11.74	22.91	15.77	15.04
Average for 10 seasons ended 1939-40 ..	16.01	13.23	13.38	8.58	10.91	27.45	21.62	12.43

The smallest average yield per acre ever recorded for Australia was that experienced in the abnormally dry season 1914-15, namely, 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 1938, as compiled by the International Institute of Agriculture, amounted to 3,704 million bushels. This quantity was harvested from 136 million acres, and represents an average yield of 27.24 bushels per acre. In comparison with this average return per acre, that of Australia for the same period (8.72 bushels) appears very small. Yields in excess of 40 bushels per acre are not uncommon and some European countries record averages in excess of 50 bushels per acre. The following table shows the world's production and average yield for the quinquennium 1928-32 and for each of the six years ended 1938 which is the latest available :—

OATS : WORLD'S PRODUCTION.

Year.					Area.	Production.	Average Yield per Acre.
					Million Acres.	Million Bushels.	Bushels.
Average 1928-32	..	..	..	..	146	3,670	25.13
1933	..	..	..	..	139	3,365	24.09
1934	..	..	..	..	136	3,222	23.69
1935	..	..	..	..	146	3,732	25.56
1936	..	..	..	..	137	3,290	24.01
1937	..	..	..	..	138	3,605	26.12
1938	..	..	..	..	136	3,704	27.24

3. **Price of Oats.**—The average wholesale prices in the Metropolitan markets for the year 1939-40 are given in the following table :—

OATS : AVERAGE WHOLESALE PRICES, 1939-40.

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	2 5	2 2½	3 5½	1 7½	1 8½	3 9½

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 1935-36 to 1939-40 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.	£
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
1938-39 ..	10,428	2,762	117,347	18,866	106,919	16,104
1939-40 ..	2,553	1,033	266,068	35,850	263,515	34,817

(a) Australian currency values.

The quantity of oats imported into Australia is usually not very large, although in 1927-28 imports exceeded exports by 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 1939-40 amounted to 336,588 cwt., practically the whole of which is consumed locally, the quantity of oats used for oatmeal being 1,721,827 bushels, or about 7 per cent. of the total production. Oversea trade in this and similar products is small; the imports of oatmeal, wheatmeal and rolled oats during 1939-40 amounted to 3 cwt., and exports to 46,181 cwt.

6. *Value of Oat Crop.*—The estimated value of the oat crop for the season 1939-40 was as follows:—

OATS : VALUE OF CROP, (a) 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value ..	661,610	862,563	39,953	364,851	570,287	97,060	994	2,597,318
Value per acre ..	£1/12/8	£1/19/3	£3/8/11	£1/0/11	£1/5/3	£4/4/0	£1/10/3	£1/10/11

(a) Exclusive of the value of straw.

§ 6. Maize.

1. *States Growing Maize.*—Maize is grown for grain chiefly in Queensland and New South Wales, the area so cropped in these States during the 1939-40 season being 292,700 acres, or 94 per cent. of the total for Australia. Of the balance, Victoria contributed 18,963 acres, South Australia 39 acres, and Western Australia 110 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 sown to maize in Australia has averaged only 296,000 acres during the past decennium. Compared with the previous year, the area in 1939-40 decreased by 12,334 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 ended 1939-40 are given in the following table.

MAIZE : AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	N.T.	A.C.T.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
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
1938-39..	122,201	18,485	183,415	37	8	..	..	324,146
1939-40..	115,856	18,963	176,844	39	110	..	..	311,812
Average 10 seasons ended 1939-40 ..	115,645	18,545	161,903	16	23	..	7	296,139

PRODUCTION ('000 omitted).

	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1935-36..	3,325	639	3,504	..	..	..	..	7,468
1936-37..	3,303	794	3,149	..	..	..	..	7,246
1937-38..	3,403	785	2,628	1	..	..	..	6,817
1938-39..	2,905	417	3,733	2	..	..	..	7,057
1939-40..	2,833	381	3,345	..	1	..	..	6,560
Average 10 seasons ended 1939-40 ..	3,051	616	3,422	1	..	..	..	7,090

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 1939-40 amounted to 6,560,000 bushels, and the average for the decennium ended 1939-40 was 7,090,000 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 1935-36 to 1939-40 and for the decennium ended 1939-40 :—

MAIZE : AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	N. Terr.	A.C.T.	Aust.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
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
1938-39	23.77	22.54	20.36	41.35	11.25	..	..	21.77
1939-40	24.45	20.08	18.91	3.54	14.24	..	..	21.04
Average for 10 seasons ended 1939-40 ..	26.38	33.21	21.13	23.47	11.79	..	8.48	23.94

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 23.94 bushels per acre. During the period 1928-32 the United States of America averaged 25.1 bushels, Argentine Republic 30.7 bushels, Rumania 17.7 bushels, and the U.S.S.R. (Russia) 14.0 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 for the latest available period 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 1928-32	..	..	..	204	4,449	21.81
1934 .. ..	..	..	..	201	3,669	18.25
1935 .. ..	..	..	..	201	4,299	21.39
1936 .. ..	..	..	..	200	3,700	18.50
1937 .. ..	..	..	..	196	4,617	23.56
1938 .. ..	..	..	..	196	4,547	23.20

The United States of America 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 1 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	4 10½	5 3	5 2½	4 6½	4 7½

5. **Oversea Imports and Exports.**—The imports of maize into Australia during the five years ended 1939-40 were negligible, averaging 36,000 bushels compared with nearly 600,000 bushels during the five years ended 1929-30. Details of imports and exports for the years 1935-36 to 1939-40 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.	£
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
1938-39.. ..	54	55	282,018	41,489	-281,964	-41,434
1939-40.. ..	75,123	13,864	5,013	1,317	70,110	12,547

NOTE.—The minus sign (—) denotes net exports.

(a) Australian currency values.

6. **Maize Products.**—A small quantity of cornflour is imported annually into Australia, the principal countries of supply being the United Kingdom, Union of South Africa and the United States of America. During the year 1929-30 the imports amounted to 702,062 lb., and represented a value of £7,956, but since then they have been unimportant. Exports from Australia are small, and in 1939-40 were 293,773 lb., valued at £4,664.

7. **Value of Crop.**—The value of the crop for the season 1939-40 was as follows :—

MAIZE : VALUE OF CROP, 1939-40.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Australia.
	£	£	£	£	£	£
Aggregate value ..	649,190	107,962	607,157	46	790	1,365,145
Value per acre ..	£5/12/1	£5/13/10	£3/8/8	£1/3/7	£7/3/7	£4/7/7

§ 7. Barley.

1. **Progress of Cultivation.**—(i) *Area and Production.* Despite wide annual fluctuations the area sown to barley has expanded considerably during the past ten years ; the average annual area sown for the decennium ended 1939-40 amounted to 533,007 acres, compared with an average of 336,889 acres for the previous ten years. Victoria was originally the principal barley-growing State, but since 1913-14 South Australia has been the chief producing State, accounting for 60 per cent. of the Australian acreage in 1939-40. Victoria was next in importance with 24 per cent., leaving a small

balance of about 16 per cent. distributed among the other States. The figures here given relate to the areas harvested for grain; small areas only are sown for hay, but more considerable quantities are cut for green forage. These, however, are not included in this section. The area and production of barley for grain in the several States for the last five years and the average for the decennium ended 1939-40 are shown in the following table:—

BARLEY : AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AREA ('000 Acres).							
1935-36.. ..	12	116	6	394	32	5	565
1936-37.. ..	12	100	7	304	40	7	470
1937-38.. ..	11	140	9	411	45	9	625
1938-39.. ..	14	176	14	457	75	9	745
1939-40.. ..	24	204	13	504	83	8	836
Average 10 seasons ended 1939-40 ..	12	118	8	351	37	7	533
PRODUCTION ('000 Bushels).							
1935-36.. ..	215	2,314	91	6,494	418	93	9,625
1936-37.. ..	206	2,143	38	4,260	449	241	7,337
1937-38.. ..	167	2,709	121	8,647	584	306	12,534
1938-39.. ..	218	3,672	246	7,541	946	208	10,831
1939-40.. ..	466	3,738	270	9,960	971	196	15,601
Average 10 seasons ended 1939-40 ..	209	2,131	139	6,244	442	189	9,354

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 6,244,000 and 2,131,000 bushels.

(ii) *Malting and Other Barley.* (a) Year 1939-40. Particulars for the season 1939-40 are as follows:—

BARLEY-MALTING AND OTHER : AREA AND PRODUCTION, 1939-40.

('000 omitted.)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Malting barley ..	14	180	9	451	55	7	716
Other barley ..	10	24	4	53	28	1	120
Total ..	24	204	13	504	83	8	836
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Malting barley ..	307	3,205	203	9,163	672	182	13,732
Other barley ..	159	533	67	797	299	14	1,869
Total ..	466	3,738	270	9,960	971	196	15,601

Taking Australia as a whole, about 86 per cent. of the area of barley in 1939-40 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 1939-40 was as follows: malt works, 3,579,777 bushels; flour and other grain mills, 227,762 bushels; distilleries, 77,591 bushels; exports, 3,890,462 bushels; leaving a balance of 7,825,329 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 and the decennium ended 1939-40:—

BARLEY-MALTING AND OTHER: AREA AND PRODUCTION, AUSTRALIA.

Season.	'000 Acres.			'000 Bushels.			Average Yield per Acre.		
	Malting.	Other.	Total.	Malting.	Other.	Total.	Malting.	Other.	Total.
1935-36 ..	486	79	565	8,413	1,212	9,625	Bus. 17.31	Bus. 15.35	Bus. 17.04
1936-37 ..	394	76	470	6,383	954	7,337	16.20	12.48	15.60
1937-38 ..	525	100	625	10,802	1,732	12,534	20.56	17.31	20.04
1938-39 ..	650	95	745	9,705	1,126	10,831	14.92	11.92	14.54
1939-40 ..	716	120	836	13,732	1,869	15,601	19.19	15.56	18.67
Average 10 seasons ended 1939-40 ..	460	73	533	8,210	1,144	9,354	17.83	15.75	17.55

During the past ten seasons the area and production of malting barley have approximated seven 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-year 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 ended 1939-40 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.
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
1938-39 ..	15.34	9.50	17.56	16.50	12.63	23.94	14.54
1939-40 ..	19.19	18.30	20.42	19.78	11.74	25.33	18.67
Average for 10 seasons ended 1939-40 ..	17.28	18.10	16.75	17.83	11.91	25.33	17.55

2. *Australian Barley Board.*—The whole of the 1939-40 barley crop was acquired by the Australian Barley Board, which was created under the National Security Act 1939, and is responsible for the marketing and storage of barley.

Particulars of the quantities acquired, sold, and advances made to growers are given in the following table :—

QUANTITIES ACQUIRED, SOLD, ETC., AT NOVEMBER, 1941.

Particulars.				No. 1 Pool (1939-40 Crop).	No. 2 Pool (1940-41 Crop).
Quantity acquired	..	..	'000 bus.	11,616	4,173
Quantity sold	..	..	"	11,616	4,143
Advances made per bushel on 2-row, No. 1 Grade—				s. d.	s. d.
1st Advance	..	..	..	1 3	(a) 2 9
2nd Advance	..	..	..	(a) 1 0	0 7
3rd Advance	..	..	..	0 8	0 6
4th Advance	..	..	..	0 4	(c)
Final Advance	..	..	..	(b)	..

(a) From which rail freight was deducted. (b) Advance varied between $\frac{1}{4}$ d. and $\frac{3}{4}$ d. per bushel according to State. (c) Advance varied between $\frac{1}{4}$ d. and $\frac{7}{8}$ d. per bushel according to State.

3. **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 1938 are as follows :—United States of America, 242 million bushels; Germany, 187 million bushels; Turkey, 106 million bushels; and Canada, 98 million bushels. Details of production in the U.S.S.R. (Russia) are not available but in 1935 production approximated 360 million bushels, while China produced 281 million bushels in 1937. Later details are not available.

4. **World's Production.**—The following table shows the latest available details of the world's acreage of 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 1928-32	..	..	..	91.1	1,809	19.85
1934	..	..	..	87.2	1,663	19.07
1935	..	..	..	94.0	1,845	19.63
1936	..	..	..	89.7	1,744	19.44
1937	..	..	..	91.7	1,820	19.85
1938	..	..	..	90.7	1,915	21.11

5. **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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	s. d.	s. d.	s. d.	s. d.	s. d.
Malting barley	2 10 $\frac{1}{4}$	4 0 $\frac{3}{4}$	4 1 $\frac{3}{4}$	3 5 $\frac{3}{4}$	3 5
Cape barley	2 5	3 7	3 7	2 11 $\frac{1}{2}$	3 0

6. Imports and Exports.—Australian exports of barley during the last five years averaged 3,476,560 bushels. Consignments during 1939-40 were mainly to Korea, Japan, New Zealand and the United Kingdom; South Australia being the principal exporting State. Particulars of the Australian oversea imports and exports for the last five years are shown in the following table :—

BARLEY : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	'000 Bushels.	£	'000 Bushels.	£	'000 Bushels.	£
1935-36	3	3,472	369,391	3,472	369,388
1936-37	69	2,606	504,495	2,606	504,426
1937-38	4,796	805,943	4,796	805,943
1938-39	24	2,618	341,935	2,618	341,911
1939-40	1	85	3,891	520,521	3,890	520,436

(a) Australian currency values.

In addition to barley grain, there is also an export of Australian pearl and scotch barley, the total for 1939-40 amounting to 2,934,172 lb., valued at £17,486 consigned mainly to the United Kingdom, Ceylon and India.

7. Imports and Exports of Malt.—In the years before the War of 1914-1919 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 Far East and New Zealand. Details of imports and exports for the five years ended 1939-40 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.	£
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
1938-39	140	91	137,473	49,552	137,333	49,461
1939-40	170	123	320,410	111,499	320,240	111,376

(a) Australian currency values.

8. Value of Barley Crop.—The estimated value of the barley crop for the season 1939-40 and the value per acre are shown in the following table :—

BARLEY : VALUE OF CROP,(a) 1939-40.

Value.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Total	89,750	657,544	49,173	1,745,644	143,873	37,200	2,723,184
Per acre	£3/13/11	£3/4/5	£3/14/6	£3/9/4	£1/14/9	£4/16/4	£3/5/2

(a) Exclusive of the value of straw.

§ 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 area which growers may plant is subject to control. Each year representatives of the Rice Marketing Board, Rice Growers, the Department of Agriculture and the Water Conservation and Irrigation Commission of New South Wales meets to decide the maximum area which growers may plant in the following season. Since 1933-34, the area has been fixed at 80 acres per grower.

During the past five years an annual average of 290,000 centals of cleaned and 4,000 centals of uncleaned rice has been exported from Australia, mainly to the United Kingdom, Canada and the Pacific Islands.

Figures relating to area, production, trade and price, since 1931-32 will be found in the following table :—

RICE : AREA, PRODUCTION, TRADE AND PRICE, AUSTRALIA.

Year.	No. of Growers. (a)	Area.	Production Paddy Rice.	Average Yield.	Imports.		Exports.		Weighted Average Retail Price.
					Un-cleaned.	Cleaned.	Un-cleaned.	Cleaned.	
		Acres.	'000 Bushels.	Bushels.	Centals.	Centals.	Centals.	Centals.	d. per lb.
1931-32 ..	277	19,589	1,350	68.91	..	40,363	40,968	92,157	3.48
1932-33 ..	280	22,034	1,901	86.30	..	44,063	29,623	79,860	3.24
1933-34 ..	292	20,226	2,172	107.36	..	41,368	7,556	209,348	3.24
1934-35 ..	290	21,746	1,888	88.84	67	37,725	28,618	235,872	3.22
1935-36 ..	304	21,715	2,164	99.64	963	41,697	9,820	215,793	3.27
1936-37 ..	320	23,384	2,277	97.36	26	32,605	2,137	320,893	3.07
1937-38 ..	319	23,737	2,260	95.59	9,535	33,315	2,825	308,844	3.09
1938-39 ..	313	23,533	2,775	117.92	29	46,019	3,386	277,851	3.24
1939-40 ..	314	24,120	1,858	77.02	5	29,765	2,554	326,267	3.44

(a) New South Wales.

The production from several small experimental plots in States other than New South Wales is included in the foregoing 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 of the first two mentioned crops for the season 1939-40 was 49,960 acres, giving a yield of 808,403 bushels, or an average of 16.18 bushels per acre, which was less than the average yield for the decennium ended 1939-40, namely 14.91 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 of rye in Australia during the season 1939-40 was 24,059 acres, yielding 253,769 bushels, or an average of 10.55 bushels per acre, as compared with the average of 11.44 bushels for the last ten seasons. Of the total area sown to rye in 1939-40, about 51 per cent. in New South Wales, 35 per cent. was located in South Australia, and 7 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 widely grown. The principal areas are the central highlands, the south-western and Gippsland districts. Tasmania comes next in order of acreage sown, but the production exceeded that of Victoria in the last two years. New South Wales occupies third place in acreage and production. The area for these three States accounted for 78 per cent. of the total for Australia in 1939-40.

The area and production of potatoes in each State during the last five years and the average for the decennium ended 1939-40 are given hereunder :—

POTATOES : AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
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
1938-39 ..	16,866	34,396	10,389	4,290	5,355	26,696	56	98,048
1939-40 ..	19,232	32,177	12,446	4,499	5,676	30,452	52	104,534
Average 10 seasons ended								
1939-40..	19,844	51,996	11,433	5,038	4,018	34,357	35	127,622
PRODUCTION.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
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
1938-39 ..	39,385	81,415	19,183	18,487	26,532	89,330	109	274,441
1939-40 ..	40,531	87,931	28,306	21,251	30,761	114,409	128	323,317
Average 10 seasons ended								
1939-40..	45,784	141,857	19,191	20,828	23,732	96,827	76	348,295

(a) Includes Northern Territory, 1 acre.

The area sown to potatoes averaged 140,000 acres during the ten years ended 1929-30, but it has declined to an average of 127,600 acres during the past decade. Victoria, with a drop of 12,000 acres, was mainly responsible for this decline, followed by New South Wales with 2,000 acres and Tasmania with 1,500 acres. In the other States a small increase occurred in South and Western Australia, while in Queensland, the increase amounted to 2,700 acres or 30 per cent.

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.

(ii) *Average Yield.* Particulars for each State for the five seasons, and the average for the decennium ended 1939-40 are given hereunder :—

POTATOES : AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
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
1938-39 ..	2.34	2.37	1.85	4.31	4.95	3.35	1.95	2.80
1939-40 ..	2.11	2.73	2.27	4.72	5.42	3.76	2.46	3.09
Average for 10 seasons ended								
1939-40 ..	2.31	2.73	1.68	4.13	4.83	2.82	2.17	2.73

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 1939-40 averaged 7.04 tons per acre from an area of 20,033 acres, as compared with 3.09 tons per acre from 104,534 acres in Australia.

(iii) *Relation to Population.* The average annual production of potatoes for the last five seasons was slightly in excess of 50 tons per 1,000 of population. 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 9 cwt. Details for each State for the five seasons ended 1939-40 are as follows :—

POTATOES : PRODUCTION PER 1,000 OF POPULATION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
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
1938-39 ..	14	43	19	31	57	377	9	40
1939-40 ..	15	47	28	36	66	479	10	46

(iv) *Consumption.* The consumption in Australia during the last five years averaged about 49 tons per 1,000 of population. These figures include the quantities used for seed. Omitting seed potatoes the consumption per 1,000 of population would be 44 tons or 98 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. It may be noted, however, that the production of the latter State during the last two years was barely sufficient for local needs and exports, if any, must have been very restricted.

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.	£
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
1938-39 ..	2	35	1,255	17,443	1,253	17,408
1939-40 ..	1	26	1,971	21,995	1,970	21,969

(a) Australian currency values.

3. *Value of Potato Crop.*—The estimated value of the potato crop of each State for the season 1939-40 is given in the following table :—

POTATOES : VALUE OF CROP, 1939-40.

Value.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
Total ..	634,990	934,267	311,366	253,559	303,481	1,057,810	2,005	3,497,478
Per acre ..	£33/0/3	£29/0/9	£25/0/4	£56/7/2	£53/9/4	£34/14/9	£38/11/2	£33/9/2

§ 11. Other Root and Tuber Crops.

1. *General.*—Root crops, other than potatoes, are not extensively grown in Australia, the total area of such crops for the season 1939-40 being only 38,591 acres. The most important were onions, mangolds, sugar-beet, turnips and sweet potatoes. Of these, onions and sugar-beet are most largely grown in Victoria, turnips in Tasmania, and mangolds and sweet potatoes in Queensland. The total area of onions in Australia

during the season 1939-40 was 6,820 acres, giving a yield of 38,178 tons, and averaging 5.60 tons per acre. The area in 1939-40 of root crops other than potatoes and onions was 31,771 acres, from which a production of 184,374 tons was obtained, an average of 5.80 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, is that of onions, in which any considerable overseas trade is carried on by Australia. During the last five years 14,776 tons, valued at £A168,888, were imported, principally from Japan, the United States of America, New Zealand and Egypt, while during the same period the exports, which amounted to 14,659 tons, valued at £A107,809, 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 1939-40 averaged 13.48 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 of hay of all kinds in the several States during the last five years is given below.

HAY : AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Aust.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
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	502,057	432,399	73,047	2,732	2,982,465
1938-39 ..	1,068,925	1,104,558	65,732	519,309	408,276	79,959	3,501	3,250,260
1939-40 ..	706,599	1,204,810	59,970	531,614	395,639	96,264	3,746	2,998,642
Average 10 seasons ended								
1939-40 ..	757,831	1,144,595	68,872	539,983	429,911	84,729	2,491	3,028,412
PRODUCTION.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
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
1938-39 ..	1,181,264	892,975	109,761	585,554	437,809	109,533	4,265	3,321,161
1939-40 ..	965,678	1,820,878	102,750	646,075	475,677	141,404	5,602	4,158,064
Average 10 seasons ended								
1939-40 ..	986,421	1,348,905	106,614	597,150	468,716	121,986	3,197	3,632,989

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 of hay is liable to fluctuate considerably. The area of hay in Australia during the season 1915-16, 3,597,771 acres, was the largest on record, whilst the average during the decennium ended 1939-40 amounted to 3,028,412 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 24 cwt. Particulars for the several States for the seasons 1935-36 to 1939-40 and the average of the ten years ended 1939-40 are given hereunder :—

HAY : PRODUCTION PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
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
1938-39	1.11	0.72	1.67	1.13	1.07	1.37	1.22	1.02
1939-40	1.37	1.51	1.71	1.22	1.20	1.47	1.50	1.39
Average for 10 seasons ended 1939-40 ..	1.30	1.18	1.55	1.11	1.09	1.44	1.28	1.20

(iii) *Varieties Grown.* Information in regard to the crops cut for hay is available for all States, and details for the last five seasons are given in the following table :—

HAY : VARIOUS KINDS GROWN.

Varieties.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	Acres.	Acres.	Acres.	Acres.	Acres.
NEW SOUTH WALES—					
Wheaten	224,632	293,854	348,339	559,437	264,239
Oaten	328,866	342,334	312,337	413,002	349,266
Barley	930	912	815	2,225	1,921
Lucerne	103,478	110,422	97,354	92,598	89,958
Other.. ..	904	405	717	1,663	1,215
Total	658,810	747,927	759,562	1,068,925	706,599
VICTORIA—					
Wheaten	77,795	72,837	90,244	258,839	95,610
Oaten	926,293	940,058	817,001	722,528	804,246
Lucerne, etc. ..	136,273	168,717	171,794	123,191	304,054
Total	1,140,361	1,181,612	1,079,039	1,104,558	1,204,810
QUEENSLAND—					
Wheaten	1,789	5,259	6,004	6,628	7,259
Oaten	2,928	3,218	4,187	4,901	3,179
Lucerne	62,779	42,526	51,084	50,228	46,385
Other.. ..	3,813	11,755	12,354	3,975	3,147
Total	71,309	62,758	73,629	65,732	59,970
SOUTH AUSTRALIA—					
Wheaten	213,703	243,561	194,196	227,604	197,728
Oaten	334,529	277,413	343,480	270,425	303,436
Lucerne	5,093	3,944	6,052	4,805	6,433
Other.. ..	12,739	14,209	18,329	16,475	24,017
Total	566,064	539,127	562,057	519,309	531,614
WESTERN AUSTRALIA—					
Wheaten	214,406	201,792	175,374	165,153	135,094
Oaten	250,039	241,485	220,922	204,610	213,248
Lucerne	63	120	335	..	..
Other.. ..	29,987	34,702	35,768	38,513	47,297
Total	494,495	478,099	432,399	408,276	395,639
TASMANIA—					
Wheaten .. ..	..	..	525	979	491
Oaten	88,075	121,288	60,479	64,310	70,097
Barley .. ..	..	..	920	533	310
Other.. ..	8,813	15,583	11,123	14,137	25,366
Total	96,888	136,871	73,047	70,059	96,264

Oats is generally the predominant hay crop throughout Australia except in Queensland where lucerne is the chief variety grown. For all States the proportions of the areas sown to the principal kinds of hay were 58 per cent. for oaten, 23 per cent. for wheaten, 6 per cent. for lucerne, and 13 per cent. for other hay.

2. **Comparison with Other Countries.**—As already stated, 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 1938 amounted to 1,893,000 tons from 1,571,000 acres, while from permanent grasses a yield of 3,389,000 tons of hay was obtained from 4,402,000 acres, giving a total of 5,282,000 tons from 5,973,000 acres, or an average of about 18 cwt. per acre. Details later than 1938 are not available.

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 figure largely amongst the imports and exports of Australia. During 1939-40, 85 tons were imported, while the exports amounted to 2,123 tons, valued at £13,675, the principal purchases being made by Malaya (British), Philippine Islands, Korea, Ceylon, India and Netherlands East Indies.

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 1939-40 :—

HAY : VALUE OF CROP, 1939-40.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
Total Value ..	3,525,440	3,770,306	562,867	1,096,714	1,166,411	424,210	21,235	10,567,183
Value per acre ..	£4/19/9	£3/2/7	£9/7/9	£2/1/3	£2/19/0	£4/8/2	£5/13/5	£3/10/6

§ 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 of 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.	A.C.T.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
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
1938-39	573,569	108,796	448,643	275,988	352,442	28,681	681	1,788,800
1939-40	519,581	91,441	550,716	284,317	380,793	26,130	974	1,853,952

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 1939-40 exclusive of Western Australia may be taken approximately as £3,039,000.

§ 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 374,967 acres of sugar-cane grown for this purpose in Australia for the season 1939-40, there were 353,996 acres, or about 94 per cent., in Queensland. This latter area is made up of 262,181 acres cut for crushing, 10,881 acres cut for plants, and 80,934 acres left to stand-over or young cane on areas not ready for cutting. 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 of this crop. The area of 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 1939-40 amounting to 18,822 acres. In Queensland, although fluctuations in area are manifest, the general trend has been upwards. In 1939-40 the acreage of cane was the highest on record, namely, 353,996 acres. The area of sugar-cane in Australia from 1935-36 and the average for the decennium ended 1939-40 are given in the following table:—

SUGAR-CANE : AREA, ACRES.

Season.	New South Wales.			Queensland.			Australia.			Total.
	Area crushed	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	
1935-36 ..	10,416	9,794	184	228,515	76,589	9,596	238,931	86,383	9,780	335,094
1936-37 ..	10,231	10,190	221	245,918	81,365	11,403	256,149	91,555	11,624	359,328
1937-38 ..	10,716	10,137	203	245,131	92,203	11,506	255,847	102,340	11,709	369,896
1938-39 ..	10,458	10,772	163	251,847	84,098	11,254	262,305	94,870	11,417	368,592
1939-40 ..	10,488	10,229	254	262,181	80,934	10,881	272,669	91,163	11,135	374,967
Average 10 seasons ended 1939-40 ..	9,338	9,300	164	234,057	77,889	9,682	243,415	87,189	9,846	340,450

(ii) *Productive and Unproductive Cane.* The areas given in the preceding table do not include the small acreage cut for green forage which in 1939-40 amounted to 4,204 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 6,313,369 tons in 1939-40. The average production of cane during the decennium ended 1939-40 was 4,843,587 tons, and the quantity of raw sugar amounted to 697,009 tons. Particulars of the total production of cane and sugar for the last five years and the decennium ended 1939-40 are as follows.

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.
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
1938-39	336,701	45,022	5,342,193	778,064	5,678,894	823,086
1939-40	274,548	36,883	6,038,821	891,738	6,313,369	928,621
Average 10 seasons ended 1939-40 ..	248,314	32,048	4,595,273	664,961	4,843,587	697,009

The production of raw sugar in Australia in 1939-40 amounted to 928,621 tons manufactured from 6,313,369 tons of cane, and exceeded the previous highest recording of 823,086 tons in 1938-39. 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 1939-40 totalled 7,820 and 4,519 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 1940-41 season are not yet complete, but latest estimates indicate a yield of 806,500 tons of raw sugar.

(iv) *Average Production of Cane 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 ended 1939-40 were 14.47 tons for New South Wales, and 18.13 tons for Queensland. Similarly, the yields of sugar per acre crushed for the same period were estimated at 1.87 tons and 2.62 tons respectively. Leaving aside the consideration mentioned above, the yields of cane and sugar per acre crushed for Australia for the ten years ended 1939-40 were 19.90 tons and 2.86 tons respectively, as compared with 18.03 tons and 2.30 tons for the decennium ended 1929-30.

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.
1935-36	26.93	3.50	7.69	18.47	2.67	6.92	18.34	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
1938-39	32.20	4.31	7.48	21.21	3.09	6.87	21.65	3.14	6.90
1939-40	26.18	3.52	7.44	23.03	3.40	6.77	23.15	3.41	6.80
Average 10 seasons ended 1939-40 ..	26.53	3.43	7.75	19.64	2.84	6.91	19.90	2.86	6.95

(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 1939-40 it took 6.95 tons of cane to produce 1 ton of sugar or 14.39 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 6.78 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 1929-30 it required on the average 7.83 tons of cane to produce one ton of sugar in Australia, whereas the average figure for the decennium ended 1939-40 was reduced to 6.95 tons.

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 260 lb. per head of population. Details for the period 1935-36 to 1939-40 are as follows:—

RAW SUGAR : PRODUCTION PER HEAD OF POPULATION.

State.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	lb.	lb.	lb.	lb.	lb.
New South Wales	31	32	39	37	30
Queensland	1,406	1,695	1,718	1,731	1,962
Australia	215	258	264	266	297

(vii) *Consumption.* The average annual consumption of raw sugar during the five years ended 1939-40 was estimated at 371,767 tons, equal to 121.26 lb. of raw sugar or 115.80 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 content 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	Tons.	Tons.	Tons.	Tons.	Tons.
Aerated Waters and Cordials	7,786	8,905	10,744	11,810	12,346
Bacon Factories	165	276	281	267	265
Bakeries—including Cakes and Pastry	10,404	17,150	18,182	18,801	18,728
Biscuits	6,663				
Breweries	12,404	13,451	15,663	16,733	17,742
Cereal Foods	(a)	(a)	478	1,287	1,317
Condensed and Concentrated Milk	5,547	7,637	8,156	6,889	7,918
Confectionery, Ice Cream, &c.	21,123	24,809	25,644	26,926	29,710
Jams, Jellies and Preserved Fruit	(c)32,595	(b)40,721	(b)42,218	(b)40,537	(b)52,391
Other	(a)	461	633	583	459
Total	96,687	113,410	121,999	123,833	140,876

(a) Not available.

(b) Including Condiments, Pickles, etc.

(c) Including Jelly Crystals.

(viii) *Control of Cane—Production in Queensland.* By agreement between the Commonwealth and Queensland Governments an Australian price has been fixed for refined sugar of £33 4s. per ton in each of the capital cities. This is substantially above the world price which has prevailed during recent years, and the proceeds of Australian sales are pooled with the proceeds of exports. This pooling is made possible by the acquisition by the Queensland Government of all sugar produced in the State, under legislation which has been in force since 1915. The small New South Wales production (about 5 per cent. of the whole) is also acquired by the Queensland Sugar Board by private agreement.

Sugar production, which in 1923 had scarcely been sufficient to cover Australian requirements, grew very rapidly in subsequent years. In 1925 the Queensland Government took steps to prevent, as a general rule, new land from being opened up for cane production. At this date 56 per cent. of the sugar production was consumed in Australia and 44 per cent. exported. After 1925, production remained stable for some years. In 1929 the operations of the pool, which had hitherto received at a uniform price all sugar offered it by the mills, were re-organized. After 1929 mills only received the full pool price for sugar up to the amount of their previous maximum production. Any further supplies were acquired at export price only.

Between 1929 and 1939 the export price was generally less than half the pool price. In spite of this, production increased by 72 per cent. between 1929 and 1939. In 1939, in view of the fact that the volume of Australian exports is now restricted by the International Sugar Agreement, the Queensland Parliament passed further legislation limiting the pool to 737,000 tons. Any production in excess of this was to be acquired at a penalty price of 10s. per ton. This tonnage was divided up in quotas between the mills, on the understanding that the mills would allocate quotas of production to individual farmers. Proclamations issued by the Government permitted the harvesting of the whole crops for 1939 and 1940; but the basic quotas totalling 737,000 tons will be strictly adhered to for the 1941 season.

2. *Sugar-beet.*—(i) *Area and Production.* Victoria is the only State growing beet for sugar, although 5 tons of sugar-beet were produced from 1 acre in Tasmania during 1939-40. Particulars in regard to acreage and production for Victoria for the last four years and for the decennium ended 1939-40 are shown in the table below :—

SUGAR-BEET : AREA AND PRODUCTION, VICTORIA.

Particulars.	1936-37.	1937-38.	1938-39.	1939-40.	Average ten seasons ended 1939-40.
Area harvested .. acres	3,475	4,046	4,268	4,235	3,486
Production .. tons	31,079	48,594	13,454	42,903	38,332
Average per acre .. "	8.94	12.01	3.15	10.13	11.00
Sugar produced .. "	4,180	5,625	1,507	6,250	4,920

As in the case of other agricultural production in this State, seasonal conditions were much more favourable during 1939-40 and production rose accordingly. The quantity of beet required to produce 1 ton of sugar was 6.86 tons as compared with 8.93 tons for the previous year and 7.79 tons, the average for the decennium ended 1939-40.

(ii) *Encouragement of Beet-growing.* The irrigation scheme on the Macallister 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. 394-6.)

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 closely followed 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 $\frac{1}{4}$ 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, and in May, 1940, the agreement was extended for a further period of five years to 31st August, 1946. The wholesale and retail price of sugar remains unaltered but the concession to the fruit industry was increased to £216,000 in 1936.

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. This figure may be increased, however, where the delivery from any British Colony falls short of its quota. In such circumstances, the deficiency may be allocated among other producing countries of the Empire including Australia.

This agreement, which would normally expire on 31st August, 1942, has proved of great benefit to Australia. Since the outbreak of war in September, 1939, however, the agreement has virtually lapsed because of the difficulties arising therefrom.

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 RETURNS, AUSTRALIA.

Year.	Percentage Exported. (a)	Net Value of Exports per Ton. (a)	Average Price per Ton for Whole Crop. (a)	Estimated Value of Crop.
	Per cent.	£ s. d.	£ s. d.	£
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
1938-39	55.78	8 4 3	15 3 11	12,806,376
1939-40	58.68	10 7 6	15 17 7	15,329,011

(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 1939-40 amounted to £338,823. 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 showing 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. (a)	Quantity.	Value. (a)	Quantity.	Value. (a)
	Tons.	£	Tons.	£	Tons.	£
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
1938-39	42	883	443,021	4,177,741	442,979	4,176,858
1939-40	230	6,151	(b)	6,185,992	(b)	6,179,841

(a) Australian currency values.

(b) Not available for publication.

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 XXI. "Manufacturing Industry". A distillation plant erected at Sarina, near Mackay, was opened during 1927 and produces power alcohol of excellent quality. Other distilleries have been erected since the outbreak of war in 1939.

Boards are now being made from the residuum of crushed fibre after the removal of the sugar content from sugar-cane. These boards are used in the building industry for walls and ceilings and possess high insulating and sound-absorbing properties.

10. **Sugar Prices.**—The prices of sugar in Australia from 1915 to 1946 are shown in the following table. During recent years the prices were fixed in accordance with the agreements referred to on page 510.

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	3
16.1.16 to 30.6.17	18	0 0	29 5 0	3½
1.7.17 to 24.3.20	21	0 0	29 5 0	3½
25.3.20 to 30.6.20	21	0 0	49 0 0	6
1.7.20 to 31.10.22	30	6 8	49 0 0	6
1.11.22 to 30.6.23	30	6 8	42 0 0	5
1.7.23 to 21.10.23	27	0 0	42 0 0	5
22.10.23 to 31.8.25	26	0 0	37 11 4	4½
1.9.25 to 31.8.31	(a) 26	10 0	37 6 8	4½
1.9.31 to 4.1.33	26	0 0	37 6 8	4½
5.1.33 to 31.8.36	24	0 0	33 4 0	4
1.9.36 to 31.8.41	24	0 0	33 4 0	4
1.9.41 to 31.8.46	24	0 0	33 4 0	4

(a) The price of raw sugar for the years 1925 to 1940 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.; in 1937-38, £15 7s. 6d.; in 1938-39, £15 3s. 11d.; and in 1939-40, £15 17s. 7d.

11. **War-time Contract.**—After the outbreak of war in September, 1939, the British Ministry of Food concluded arrangements with the Queensland Government for the purchase of Australia's surplus production of raw sugar for the season 1939. The price was fixed at £Stg. 7 10s. per ton at United Kingdom ports plus the existing tariff preference on dominion sugar of £Stg. 3 15s. per ton. This was expected to give a net return in Australia of £A. 10 7s. 6d. per ton compared with £A. 8 4s. 3d. per ton in 1938.

Similar agreements were negotiated for the disposal of the surplus from the 1940 and 1941 crops. The price for both crops, however, was increased by £Stg. 1 7s. 6d. to £Stg. 8 17s. 6d. per ton plus the existing preference. The net return to Australia is estimated to be £A. 11 5s. 6d. per ton.

The shipment of the surplus from the 1940 crop was very favourable but, because of shipping difficulties, the satisfactory disposal of the exportable surplus from the 1941 season appears unlikely. In anticipation of this, action has been taken to increase storage facilities in Australia.

§ 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 of 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 of 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 (a) for wine-making; (b) for table use; and (c) for drying. The total area of vines in the several States during each of the last five years and the average for the decennium ended 1939-40 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.	Acres.
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
1938-39 ..	16,979	42,436	2,793	58,020	6,277	..	a 126,507
1939-40 ..	16,983	42,594	2,921	58,222	6,457	..	a 127,179
Average 10 seasons ended 1939-40	15,917	40,763	2,260	54,745	5,815	..	119,500

(a) Includes Australian Capital Territory 2 acres.

The total area of 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 around 114,000 acres but commenced to increase again in 1933-34. Since then the expansion has continued, reaching the record area of 127,179 acres in 1939-40.

(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 $2\frac{1}{2}$ million gallons only or 0.3 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 both here and abroad and with the assistance of a Commonwealth bounty on the export of fortified wine of specified strength, the industry has been greatly stimulated. Further development however, has been interrupted by the war. The loss of the United Kingdom market due to the lack of shipping space has placed the wine industry in a most difficult position. In addition, wine is not a priority cargo and until adequate shipping space becomes available, the problem will remain serious. The attention of growers to the question of over-production has been directed by the Australian Wine Board.

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. The payment of a bounty at the rate of 1s per gallon for a period of five years to 28th February, 1945, was provided for under the Wine Export Bounty Act of 1939.

At the Imperial Economic Conference at Ottawa in 1932, a margin of preference was granted by the Government of the United Kingdom on Australian wines. This margin diminished when the rates of duties on foreign and Empire wines were increased as a war-time measure, and, in July, 1940, was further diminished when greater preference was given to British wines by further imposts.

The quantity of wine produced in the several States during the last five seasons together with the average for the decennium ended 1939-40 are given in the table hereunder :—

WINE : PRODUCTION.

('000 omitted).

Season.	N.S.W.	Victoria.	Queensland.	S. Aust.	W. Aust.	Australia.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
1935-36 ..	2,568	1,683	22	13,024	431	17,728
1936-37 ..	2,944	1,819	29	15,027	349	20,168
1937-38 ..	2,690	1,434	17	15,889	400	20,430
1938-39 ..	2,502	825	45	11,147	439	14,958
1939-40 ..	2,090	1,126	43	11,180	336	14,775
Average 10 seasons ended						
1939-40 ..	2,115	1,425	35	12,227	399	16,201

2. Imports and Exports of Wine.—(i) *Imports.* The principal countries of origin of wine imported into Australia were, before the War, 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.	£	£	£
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
1938-39 ..	10,759	30,451	41,210	23,303	22,792	46,095
1939-40 ..	6,500	19,847	26,347	18,164	17,428	35,592

(a) Australian currency values.

(ii) *Exports.* Practically all of the wine exported from Australia is sent to the United Kingdom; approximately 200,000 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 76,390 gallons valued at £33,619, while the latter imported 69,476 gallons valued at £29,954, during 1939-40.

Wine was not included among the commodities sold by contract to the Government of the United Kingdom as a war-time emergency. Because of the prior claims of other commodities to shipping space, the export of wine to the United Kingdom has virtually ceased.

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.	£	£	£
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
1938-39 ..	2,369	3,718,135	3,720,504	3,507	978,570	982,077
1939-40 ..	2,564	3,617,240	3,619,804	3,666	930,580	934,246

(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 of 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.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
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
1938-39 ..	4,034	4,089	2,313	985	3,139	14,560
1939-40 ..	3,975	4,107	2,118	1,046	2,523	13,769

(ii) *Raisins and Currants.* The quantities of raisins (sultanas and lexias) and currants dried during each of the last five seasons and the decennium ended 1939-40, are given in the following table. The production for the 1939-40 season amounted to 95,183 tons and was the greatest output in any year. For 1940-41 the production is estimated at 79,000 tons.

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.
1935-36 ..	4,158	864	35,486	4,421	10,508	5,371	778	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	9,167	725	1,837	71,977	21,357
1938-39 ..	4,837	1,239	33,659	10,301	11,656	9,569	737	2,762	50,889	23,871
1939-40 ..	6,613	1,459	47,328	10,642	14,993	10,447	723	2,978	69,657	25,526
Average 10 seasons ended 1939-40 ..	4,478	888	36,049	8,168	11,938	8,242	704	1,953	53,169	19,251

(a) Sultanas and Lexias.

4. Exports of Raisins and Currants.—The following table gives the oversea exports of raisins and currants during each of the last five years. Previously this table included details of imports. The quantities involved, however, were practicably negligible and therefore they have been omitted.

RAISINS AND CURRANTS: EXPORTS, AUSTRALIA.

Year.	Raisins.		Currants.		Total Raisins and Currants.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Tons.	£	Tons.	£	Tons.	£
1935-36 ..	37,998	1,501,146	9,945	375,923	47,943	1,877,069
1936-37 ..	40,875	1,540,909	11,739	440,734	52,614	1,981,643
1937-38 ..	47,490	1,968,450	15,266	571,143	62,756	2,539,593
1938-39 ..	49,550	1,974,045	23,759	772,966	73,309	2,747,011
1939-40 ..	37,285	1,447,353	13,711	487,678	50,996	1,935,031

(a) Australian currency values.

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 1939-40 was 72,000 tons, of which 54,800 tons were exported and about 17,200 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 1939-40 being, 28,940, 16,944 and 3,731 tons or 57, 33, and 7 per cent. respectively. Exports to Canada have increased from 4,600 tons in 1928-29 to 16,944 tons in 1939-40.

5. War-time Contract.—All unsold stocks of dried vine fruits in Great Britain and afloat were acquired by the Government of the United Kingdom soon after the outbreak of war. These stocks included 14,343 tons of Australian origin harvested during the 1939 season.

The surplus production of the 1940 season after providing for the Canadian and New Zealand requirements was also sold to the United Kingdom, the quantities involved being 16,400 tons of currants and 33,000 tons of raisins. The whole of the 1941 season's surplus output has been sold in a similar manner.

§ 16. Orchards and Fruit-Gardens.

1. Progress of Cultivation.—The greatest area of orchards and fruit-gardens was attained in 1933-34 when 281,989 acres were planted. The total area of 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.	A.C.T.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
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
1938-39 ..	85,598	71,300	32,641	28,943	22,029	31,580	97	272,238
1939-40 ..	85,099	70,315	33,014	29,099	22,155	31,074	139	270,935

(a) Includes 50 acres Northern Territory.

(b) Includes 40 acres Northern Territory.

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. In New South Wales, citrus fruits (oranges, lemons, etc.) occupy the leading position, although apples, peaches, plums, pears, cherries and bananas are extensively grown. The principal varieties grown in Victoria are the apple, peach, pear, orange, plum and apricot. In Queensland, the banana, pineapple, apple, orange, peach and plum 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 table gives the acreage—bearing and non-bearing—of the principal kinds of fruit, and the quantity and value of fruit produced.

(ii) *Area.* The table hereunder shows the total acreage for 1939-40 :—

ORCHARDS AND FRUIT-GARDENS : AREA, 1939-40.

Fruit.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Apples ..	17,513	27,322	5,764	9,841	13,098	23,534	101	97,173
Apricots ..	1,848	4,233	266	3,250	655	1,401	7	11,660
Bananas ..	14,456	..	8,534	..	177	..	..	23,167
Cherries ..	3,528	1,286	7	1,105	62	95	2	6,085
Citrus—								
Oranges ..	20,474	4,200	4,370	4,477	3,099	..	..	40,356
Mandarins ..	3,461					185	..	
Lemons ..	2,891					493	..	
Other ..	564					93	..	
Nectarines and		(b)	24	63	93	..	..	744
Peaches ..	8,301	13,492	1,402	1,825	1,108	86	7	26,221
Nuts ..	870	510	105	2,889	373	..	5	4,752
Pineapples ..	224	..	7,350	..	1	..	..	7,575
Pears ..	4,058	11,871	332	1,852	1,045	2,448	5	21,611
Plums and Prunes	5,126	3,599	1,201	2,165	1,069	411	8	13,579
Small Fruits ..	17	607	203	302	32	3,032	..	4,193
Other Fruits ..	1,768	1,579	3,067	909	665	67	4	8,059
Total ..	85,099	70,315	33,014	29,099	22,155	31,074	139	270,895

(a) Estimated.

(b) Included with oranges, etc.

(iii) *Production.*—(a) *Quantities.* The production in 1939-40 is shown in the next table :—

ORCHARDS AND FRUIT-GARDENS : PRODUCTION, 1939-40.

Fruit.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
Apples .. bushel	615,932	1,603,043	246,934	589,112	1,118,404	5,148,000	1,475	9,322,900
Apricots .. "	104,994	485,612	10,664	438,190	62,879	73,500	118	1,268,957
Bananas .. "	1,654,678	..	843,751	..	23,881	..	..	2,522,310
Cherries .. "	69,225	23,891	73	43,913	1,170	4,800	32	143,104
Citrus—								
Oranges .. "	1,945,107	531,570	354,535	751,070	343,346	..	..	4,144,407
Mandarins .. "	186,598	12,638				16,543	..	
Lemons .. "	211,567	120,647				70,198	..	
Other .. "	62,513	487				4,455	..	
Nectarines and			2,486	9,069	4,455	..	..	79,910
Peaches .. "	531,916	1,211,343	68,914	173,380	89,486	6,700	112	2,081,851
Nuts .. lb.	171,008	151,949	12,680	1,134,784	85,070	..	20	1,555,511
Pineapples .. dozen	38,574	..	2,381,895	..	20	..	..	2,420,489
Pears .. bushel	276,257	1,298,787	23,485	279,311	96,546	315,500	108	2,289,994
Plums and Prunes	307,118	201,615	45,996	161,716	86,972	63,000	102	866,519
Small Fruits .. cwt.	198	12,555	6,284	6,200	727	133,334	..	159,298

(b) *Gross Values.* The gross value of production for the various classes of fruit for the year 1939-40 is given in the following table :—

ORCHARDS AND FRUIT-GARDENS : VALUE OF PRODUCTION, 1939-40.

Fruit.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
	£	£	£	£	£	£	£	£
Apples	269,320	300,571	107,807	203,282	504,135	1,093,950	645	2,479,710
Apricots	124,840	133,543	8,210	158,340	30,654	15,620	76	471,283
Bananas	866,120	..	373,750	..	16,551	..	..	1,256,421
Cherries	88,640	21,502	146	30,739	2,279	2,340	41	145,687
Citrus—								
Oranges	936,390	230,514	145,517	214,836	112,836	..	..	1,728,386
Mandarins	76,200	5,476				6,617	..	
Lemons	93,380	54,291				18,281	..	
Other	28,620	219	14,619	22,885	1,708	..	..	203,456
Nectarines and Peaches	263,510	394,932	497	3,900	..	..	..	34,944
Nuts	7,480	5,587	31,329	51,580	48,044	1,340	59	790,794
Pineapples	9,080	..	385	33,549	2,791	..	1	49,793
Pears	122,080	324,697	467,369	86,998	21	..	..	476,470
Plums and Prunes	163,640	48,441	8,610	86,998	45,831	78,870	48	667,134
Small Fruits	900	34,596	16,591	49,869	35,997	15,490	59	330,087
Other Fruits	58,640	99,480	19,497	11,813	3,294	190,980	..	261,080
			105,350	29,182	23,391	860	41	316,944
Total	3,108,840	1,653,849	1,299,677	896,973	852,430	1,399,450	970	9,212,189

3. *Principal Fruit Crops.*—(i) *Area.* The area in Australia of 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
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
1938-39 ..	97,351	22,895	46,930	25,054	21,587	14,119
1939-40 ..	97,173	23,167	46,820	24,719	21,611	13,579

(a) Includes prunes.

(ii) *Production*—(a) *Quantities.* In the next table the production of the principal varieties of fruit grown in Australia is shown for the same periods :—

PRINCIPAL FRUIT CROPS : PRODUCTION IN AUSTRALIA.

(‘000 omitted.)

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.(a)
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1913-14 ..	5,000	836	1,639	930	951	622
1935-36 ..	9,771	2,501	5,057	1,763	2,458	906
1936-37 ..	10,999	2,369	4,972	2,133	2,692	1,115
1937-38 ..	10,959	2,631	5,106	2,640	2,596	1,077
1938-39 ..	11,126	2,494	5,644	2,523	2,300	771
1939-40 ..	9,323	2,522	4,717	2,002	2,290	867

(a) Includes prunes.

(b) *Values.* The value of the principal fruit crops during the periods mentioned is given in the following 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
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
1938-39 ..	3,357,817	1,206,879	1,916,912	737,791	674,887	232,681
1939-40 ..	2,479,710	1,256,421	1,966,786	745,233	667,134	330,087

(a) Includes prunes.

4. *Imports and Exports of Fruit.*—(i) *General.* 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 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. A considerable export trade in both fresh and dried fruits is carried on by Australia with overseas countries. The value of the shipments in 1939-40 amounted to £1,166,691 and £1,993,943 respectively. Apples constitute the bulk of the fresh fruit exported although the exports of citrus fruits and pears are fairly considerable, but the war has seriously curtailed the shipment of fresh fruit. 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.* Particulars of the Australian overseas trade in fresh fruits are given hereunder :—

FRESH FRUITS : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.(a)	Quantity.	Value.(a)	Quantity.	Value.(a)
	Cental.	£	Cental.	£	Cental.	£
1935-36 ..	37,205	18,910	2,517,624	2,027,222	2,480,419	2,008,312
1936-37 ..	37,040	19,986	2,493,292	1,980,102	2,456,252	1,960,116
1937-38 ..	42,518	22,469	2,556,226	2,055,186	2,513,708	2,032,717
1938-39 ..	69,883	29,843	2,752,437	2,022,936	2,682,554	1,993,093
1939-40 ..	57,852	36,791	1,222,089	1,166,691	1,164,237	1,129,900

(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.	£
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
1938-39 ..	2,111,139	1,433,440	294,930	264,805	274,229	221,184
1939-40 ..	827,299	741,854	117,523	134,589	232,644	211,546

(iv) *Dried Fruits.* The quantity and value of overseas 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)
	'000 lb.	£	'000 lb.	£	'000 lb.	£
1935-36 ..	11,912	86,590	4,144	110,423	7,768	(c) 23,833
1936-37 ..	10,918	76,653	2,661	78,553	8,257	(c) 1,900
1937-38 ..	13,744	94,445	5,331	144,892	8,413	(c) 50,447
1938-39 ..	11,097	80,752	3,927	117,814	7,170	(c) 37,062
1939-40 ..	11,327	135,107	1,486	58,912	9,841	76,195

(a) Excluding raisins and currants referred to separately under Vineyards, § 15 par. 4. (b) Australian currency values. (c) Export values exceed imports.

(v) *Jams and Jellies.* Jams and jellies were exported in large quantities during the War of 1914-1919 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 declined, but in 1939-40, exports almost doubled that of the previous year and amounted to £506,000. Particulars of 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)
	'000 lb.	£	'000 lb.	£	'000 lb.	£
1935-36 ..	50	1,910	7,019	134,796	6,969	132,886
1936-37 ..	60	2,333	5,542	106,433	5,482	104,100
1937-38 ..	126	4,461	6,207	121,395	6,081	116,934
1938-39 ..	81	3,253	13,872	262,486	13,791	259,233
1939-40 ..	77	3,006	24,446	506,002	24,369	502,996

(a) Australian currency values.

(vi) *Preserved Fruit.* (a) *Imports and Exports.* 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 1939-40 was £39,595, or £49,593 in Australian currency. Oversea exports in 1939-40 were as follows :—Apricots, 7,039,658 lb., £131,707; peaches, 42,663,848 lb., £634,704; pears, 21,684,167 lb., £402,837; pineapples, 5,109,615 lb., £114,915; and other, 7,394,541 lb., £199,948; or a total shipment valued at £1,484,111.

(b) *War-time Contract.* Two contracts were negotiated between the Commonwealth and United Kingdom Governments whereby the latter undertook to purchase the exportable surplus of the 1940 pack of Australian canned apricots, peaches and pears. Similar arrangements were concluded for the disposal of the exportable surplus of the 1941 pack but the prices were slightly higher than those in the earlier contract.

5. **Apple and Pear Acquisition.**—The development of the apple and pear industry is dependent upon the expansion of exports; normally, little more than half of Australia's production is needed to meet the local demand. The interruption to exports due to the war imposed a severe strain on the industry and to meet such conditions the Commonwealth Government introduced the National Security (Apple and Pear Acquisition) Regulations to provide for the acquisition and orderly marketing of the 1940 crop.

The Australian Apple and Pear Board was appointed as the marketing authority and a Marketing Committee of the Board, with a committee in each State, was set up to supervise the whole of the marketing arrangements in Australia and for export.

§ 17. Minor Crops.

i. **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 1939-40 devoted to crops not dealt with in previous sections was 267,940 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 of 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.	A.C.T.	Aus- tralia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
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
1938-39	7,528	21,059	1,546	1,691	3,292	508	41	35,665
1939-40	7,841	24,414	1,510	1,623	3,754	513	53	39,708

3. **Grass and Other Seed.**—Particulars of the area of crops grown for seed cannot be accurately determined as seed is obtained from certain crops such as clover, lucerne, etc., at a second cutting. The production of seed recorded in 1939-40 was 1,219,245 bushels, but particulars are not available for New South Wales.

4. **Tobacco.**—(i) **General.** Tobacco-growing years ago promised to occupy an important place amongst the agricultural industries of Australia. As early as the season 1888-89, the area of 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.

(ii) *States, Area and Production.* An expansion of the tobacco-growing industry is hoped for as a war-time measure. This development is expected eventually to reach an area of 15,000 acres and a production of about 9 million lb. With this end in view a conference of growers, Government technical experts and manufacturers was held in 1940 at which the latter undertook to increase their purchases of suitable Australian leaf to double the present quantities.

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.

In the following table particulars of the area and production of tobacco are given by States for each year since 1930-31, and for the decennium ended 1939-40.

TOBACCO : AREA AND PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Total.
AREA IN ACRES.								
1930-31 ..	547	2,650	382	83	3	..	..	3,665
1931-32 ..	2,860	12,791	3,817	959	348	72	10	20,266
1932-33 ..	4,105	13,418	4,004	859	466	171	..	(a) 23,037
1933-34 ..	1,187	8,900	2,081	467	291	100	..	13,026
1934-35 ..	560	4,765	3,117	151	313	55	..	8,961
1935-36 ..	934	5,840	3,973	141	426	80	..	11,394
1936-37 ..	851	5,492	3,812	102	1,041	113	..	11,411
1937-38 ..	610	4,736	3,740	90	1,216	159	..	10,551
1938-39 ..	629	2,559	3,653	39	908	130	1	7,919
1939-40 ..	717	2,018	4,402	2	1,019	105	25	8,288
Average 10 seasons ended 1939-40	1,301	6,257	3,298	239	603	99	4	11,851

PRODUCTION OF DRIED LEAF.

'000 lb.

1930-31 ..	229	1,270	261	34	2	..	..	1,796
1931-32 ..	2,614	6,659	2,304	374	201	51	(b)	12,203
1932-33 ..	2,807	4,073	2,080	181	335	23	..	9,499
1933-34 ..	425	1,471	1,025	114	199	60	..	3,294
1934-35 ..	230	1,501	1,555	23	289	45	..	3,643
1935-36 ..	667	2,879	2,005	31	352	73	..	6,007
1936-37 ..	606	1,754	2,317	24	666	143	..	5,510
1937-38 ..	409	2,336	2,197	14	789	115	..	5,860
1938-39 ..	398	720	2,094	13	767	54	..	4,046
1939-40 ..	524	1,098	2,596	(b)	712	18	9	4,957
Average 10 seasons ended 1939-40	891	2,376	1,844	81	431	58	1	5,682

(a) Includes Australian Capital Territory, 14 acres. No leaf was produced from this area.

(b) No leaf produced.

(iii) *Australian Tobacco Board.* The Australian Tobacco Board, constituted in May, 1941, consists of three representatives of growers, manufacturers and brokers and a chairman, nominated by the Commonwealth Government. The object of the Board is to arrange for the marketing of all tobacco-leaf grown in Australia and the regulations provide for the submission of leaf by growers, for appraisement. A table of limits, based upon grades and types of leaf grown in Australia, has been prepared and appraisement is made by an Appraisal Committee in accordance with this table. The tobacco manufacturers have agreed to take all leaf appraised.

(iv) *Tariff Board Inquiries.* The tobacco industry has been the subject of a number of investigations. The Tariff Board inquired into this industry in 1926, 1931 and 1940 and reports were issued. In 1930, a Select Committee appointed by the House of Representatives, presented a report of its investigations into the growing of tobacco.

(v) *Tobacco Inquiry Committee.* The Tobacco Inquiry Committee, which was appointed by the Commonwealth Government to investigate certain aspects of the industry in North Queensland, presented its report in 1933. Recommendations made included the payment of a sum of £20,000 annually for a period of five years to assist the States to continue economic and scientific investigations. This was adopted and the distribution was spread between the years 1934-1938 as follows:—£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.

A further grant of £62,500 has been allotted by the Commonwealth Government and periodical payments will be made between the years 1939 and 1943. This 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 effecting 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, which has seriously retarded the development of the industry. The States are carrying out field investigations on disease resistance, selection, yield and quality improvement, and are conducting instructional, demonstrational and field experimental work.

(vi) *Tobacco Factories.* In 1939-40, the quantity of stemmed leaf used in tobacco factories in Australia amounted to 21.2 million lb. of which 4.7 million was of local origin and the balance was imported chiefly from the United States of America.

(vii) *Imports.* The total net imports of tobacco into Australia during the year 1939-40 were valued at £A.2,121,590, while the net value of unmanufactured tobacco imported was £A.2,246,481.

5. *Pumpkins and Melons.*—The total area of this crop in Australia during 1939-40 was 36,306 acres, of which 5,373 acres were in New South Wales, 1,449 acres in Victoria, 28,766 acres in Queensland, 425 acres in South Australia, 287 acres in Western Australia, 5 acres in Tasmania and 1 acre in the Northern Territory. The production for Australia amounted to 95,920 tons.

6. *Hops.*—Hop-growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for 1939-40 being 1,140 acres, of which 946 acres were in Tasmania, 173 acres in Victoria and a small area of 21 acres in Western Australia. The Tasmanian area, though still small, has increased during the present century, the total for 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 173 in 1939-40. 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 1939-40 the imports of hops exceeded the exports by 1,142,380 lb., valued at £A.119,309.

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 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 1938-39, however, another attempt was made to establish the industry and 1,358 acres were planted in this State compared with 1,167 acres in the previous year. In South Australia, 4 acres producing 6 cwt. of seed valued at £7 was also recorded.

The linseed flax industry has been the subject of two investigations during recent years, namely, in 1933 and in 1936 (see Official Year Book, No. 32, p. 658).

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.

As a war-time measure, the flax-growing industry is being rapidly expanded. Owing to the failure of supplies from European countries, the British Empire is experiencing a shortage of flax necessary for war and civil needs. Arrangements have been made to increase the area sown to flax in Australia to 50,000 acres. Fibre and tow produced will be sold to the Government of the United Kingdom at prices already arranged.

8. *Millet*.—Millet figures in the statistical returns of three of the States. The total area devoted thereto in 1939-40 was 4,631 acres, of which 3,543 acres were in New South Wales, 659 in Victoria, and 429 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 1939-40 the areas in these States were 870, 1,092, 209, 216 and 337 acres respectively.

10. *Cotton*.—(i) *General*. The production of cotton in Australia is restricted to Queensland where cultivation began 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 until 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.

(ii) *Bounties, etc.* 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 1½d. 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 areas 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 varying from ¾d. to 1½d. per lb. according to grade. In addition, the cotton-manufacturing industry received a graduated bounty 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 cotton-growing industry was further assisted by the Bounty Act of 1934, which extended the period to 1940 at varying rates of bounty.

The Raw Cotton Bounty Act 1940 provided an extension of assistance for a further period of five years ended 31st December, 1945.

(iii) *Expansion of the Cotton-growing Industry*. The increased demand for raw cotton to meet Australia's war and civil needs has stimulated production. At present Australia is producing less than one-third of its requirements and efforts are being directed to reduce the nation's dependence upon imported raw cotton obtained chiefly from the United States of America and India. Production is to be increased by means of an extension of area and the introduction of irrigation methods. The expansion of the industries connected with the spinning and weaving of cotton is referred to in Chapter XXI. "Manufacturing Industry".

The area under cultivation and the production in Queensland since the year 1931 are shown herunder :—

COTTON : AREA AND PRODUCTION IN QUEENSLAND.

Season Ended September.	Area Harvested.	Production of Cotton.			Average Yield per Acre Harvested.	
		Unginned.	Ginned.	Ginned Equivalent in Bales.(a)	Unginned.	Ginned.
	Acres.	lb.	lb.	Bales.	lb.	lb.
1931 ..	22,452	15,244,644	4,908,775	9,689	679	219
1932 ..	29,995	6,270,116	2,018,977	3,989	209	67
1933 ..	68,203	17,718,306	5,545,830	10,974	260	81
1934 ..	43,397	26,924,179	8,777,282	17,471	620	202
1935 ..	54,947	20,785,418	7,067,042	14,515	378	129
1936 ..	62,200	19,198,600	6,653,973	13,504	309	107
1937 ..	52,692	11,792,828	4,113,684	8,519	224	78
1938 ..	66,470	13,687,872	4,773,936	9,654	206	72
1939 ..	41,212	17,527,709	6,182,808	12,447	424	150
1940 ..	41,262	12,108,491	4,127,823	8,370	295	100
1941(b) ..	55,000	17,000,000	6,000,000	12,000	309	109

(a) Bales of 500 lb.

(b) Preliminary Estimate.

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 of this 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 1939-40 only 11 acres were recorded with a production of 5,583 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, 1941, amounted to £122,244. 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 1936-37 to 1940-41 are as follows :—

BOUNTIES : AUSTRALIA.

Articles on which Bounty was Paid.	Rate of Bounty Payable.	Date of Expiry of Bounty.	Amount Paid.				
			1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
Iron and Steel Products			£	£	£	£	£
Bounty Act—							
* Wire Netting ..	12s. per ton (a) ..	23rd Oct., 1939.	8,467	6,741	5,736	4,451	..
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 per cent. from 11th July, 1931. Restored to original rate from 4th December, 1933(a)	23rd Oct., 1939.	20,503	25,556	17,313	6,052	221

(a) Subject to 20 per cent. reduction under Financial Emergency Act.

BOUNTIES: AUSTRALIA—continued.

Articles on which Bounty was Paid.	Rate of Bounty Payable.	Date of Expiry of Bounty.	Amount Paid.				
			1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
			£	£	£	£	£
Wire Netting Bounty Act 1939	9s. 7d. per ton ..	23rd Oct., 1944.	..	..	..	83	567
Tractor Bounty Act 1939	According to capacity, £32-£72	23rd Oct., 1944.	..	..	..	6,400	6,750
Motor Industry Bounty Act— Radiator Assembly ..	10s. each ..	6th Dec., 1940.	..	..	..	2,396	1,287
Sulphur Bounty Act 1923— Sulphur from Australian Pyrites and other Sulphide Ores or Concentrates	£2 5s. per ton(a) ..	23rd Oct., 1939.	68,011	83,114	87,575	55,036	..
Sulphur Bounty Act 1939—	Varies ..	23rd Oct., 1944.	..	..	..	..	..
Wine Export Bounty Act 1934-35— Fortified Wine, containing not less than 34 per cent. 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.	214,886	184,693	167,872	..	..
Wine Export Bounty Act 1939	1s. per gallon from 1st March, 1940	28th Feb., 1945.	..	..	..	146,592	56,547
Raw Cotton Bounty Act 1934-(a) Raw cotton produced in Australia and graded as prescribed	5½d. per lb. to 30th November, 1935, 4½d. to 30th November, 1936, and 4½d. per lb. to 30th November, 1940, fluctuating according to variations in Liverpool spot price	30th Nov., 1940.	50,643	95,044	115,012	60,391	14,523
Raw Cotton Bounty Act 1940—	To 31st December, 1941, 4½d. per lb.	31st Dec., 1945.	..	..	..	..	35,390
Papua and New Guinea Bounties Act—(a) Cocoa Beans ..	1½d. per lb. ..	31st Dec., 1947.	1,285	1,774	2,885	3,595	4,722
Bamboos and Rattans (Unmanufactured)	£4 per ton ..	" "	..	..	27	..	18
Manila, Sisal and Other Hemp Fibres	£6 per ton ..	" "	..	..	2	..	..
Coir Fibre ..	£3 per ton ..	" "	..	..	45	239	264
Kapok ..	2d. per lb. ..	" "	..	..	..	..	2
Fruit Exported— Oranges ..	2s. per export case	(b)	7,431	..	..	..	..
Oranges, Lemons, Grape Fruit and Mandarins	Varies from 1s. to 2s. per case	31st Dec., 1940.	..	9,807	9,820	3,872	1,953
Apples and Pears ..	4d. per bushel case	(b)	..	..	..	..	..
	4½d. " " "	(b)	104,045	..	..	..	..
	2½d. " " "	(b)	..	54,643	..	..	..
Prunes ..	3d. per lb. "	(b)	..	..	..	..	..
	3d. " "	(b)	2,200	..	..	..	..
Total .. ..	.. ..	.. ..	477,471	461,402	406,287	289,107	122,244

(a) Subject to 20 per cent. reduction under Financial Emergency Act on production prior to 1st January, 1938.
 (b) 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 exclude such items as the expenditure on cattle tick control, banana industry, tobacco investigation and apple and pear research, which indirectly benefits the industries concerned, and exclude loans made to States to alleviate hardship suffered by primary producers in consequence of drought. The distribution as bounty, relief or subsidy has been made in the following manner :—

**AMOUNTS PAID BY THE COMMONWEALTH GOVERNMENT AS GRANTS TO ASSIST
PRIMARY PRODUCERS : AUSTRALIA.**

Amounts paid to—	Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	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	40,744	507,138	436,145	2,342	308	2,000,000
Relief ..	1933-34	911,094	603,586	76,455	764,343	639,493	(b)57,024	805	3,053,000
Bounty (a) ..	1934-35	531,593	285,000	45,717	300,687	296,652	2,543	222	1,462,414
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	(b)33,906	226	2,004,944
Relief ..	1935-36	565,327	441,948	42,835	432,146	392,850	(b)40,403	360	1,915,869
Relief ..	1938-39	558,489	307,564	70,824	398,559	421,296	(b)51,961	..	1,808,693
Relief ..	1939-40	910,839	415,119	109,805	436,667	497,888	(b)114,716	1,033	2,486,067
Relief ..	1940-41	477,819	246,328	47,878	413,661	263,615	(b)49,292	..	1,498,593
Relief (Drought) ..	1940-41	320,000	250,000	..	200,000	200,000	..	..	970,000
Total ..	..	6,486,609	4,404,601	553,618	4,958,576	4,436,292	359,494	2,954	21,202,144
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	19,903	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 ..	1938-39	18,290	76,500	19,020	36,400	43,260	12,460	90	206,020
Manure subsidy ..	1939-40	427	17,100	4,320	783	320	250	..	23,200
Total ..	..	187,937	710,004	161,844	324,859	363,579	98,608	370	1,847,201
Grand Total ..	..	6,695,309	5,173,225	718,043	5,301,809	4,825,502	592,133	3,324	23,309,345

(a) Rate of Bounty 4½d. per bushel in 1931-32 and 3d. per bushel in 1934-35.
grant to Tasmania.

(c) Growers of apples, pears and mandarins.

(b) Includes special

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 1934-35 season. 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. From the same source, a sum of £2,486,067 was allocated to the States for the same purpose during 1939-40 and £1,498,593 in 1940-41.

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, but in 1936-37 this was reduced to 10s. per ton. The payment of this subsidy ceased on 30th June, 1939. During the period 1932-33 to 1939-40, more than £1,847,000 was distributed in this manner.

Because of the substantial increases in the price of superphosphate and their effect on the efficiency of the farming industry, the Commonwealth Government introduced a bounty on superphosphate produced and sold in Australia after 1st July, 1941. The rate of bounty was fixed at 25s. per ton and is payable to manufacturers who are required to adjust their prices so that consumers receive the full benefit of the subsidy.

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. This practice is much less in evidence now than in the early days of Australian agricultural development. Under the guidance of the State Departments of Agriculture, scientific farming is now much more widely practised. The importance of fallowing, crop rotation, and the application of suitable fertilizers in adequate quantities is now 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 is given in Official Year Book No. 12, p. 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 1938-39 the value of rock phosphate imported represented 65 per cent. of the total imports of fertilizers. Nauru, Cocos Island 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 latest available five-yearly period are given in the following table.

FERTILIZERS : IMPORTS INTO AUSTRALIA.

Australian Currency Values.

Fertilizer.		1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Ammonium sulphate	cwt.	229,200	491,208	573,979	604,566	710,065
" "	£	104,809	216,671	240,089	279,949	336,872
Potash salts	cwt.	149,701	209,379	269,476	212,308	223,202
" "	£	59,841	75,120	115,925	97,989	102,794
Rock phosphate	cwt.	8,201,296	10,488,165	13,259,884	15,551,909	16,008,437
" "	£	610,092	735,962	893,252	984,313	1,038,399
Sodium nitrate	cwt.	83,548	110,273	134,311	188,129	203,666
" "	£	39,431	49,580	71,885	84,664	103,074
Other	cwt.	59,072	116,589	38,445	3,357	125,551
" "	£	6,880	13,607	6,079	3,275	12,237
Total	cwt.	8,722,817	11,415,614	14,276,095	16,560,269	17,270,921
	£	821,053	1,090,940	1,327,230	1,450,190	1,593,376

4. **Exports.**—The following table shows the exports of manures for the years 1935-36 to 1939-40. 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.		1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Ammonium sulphate	cwt.	4,061	5,011	2,613	2,097	(a)
" "	£	1,569	974	1,094	940	(a)
Bone-dust	cwt.	2,576	2,865	3,224	5,238	15,771
" "	£	1,396	1,597	1,809	2,931	7,732
Rock phosphate	cwt.	..	1	220	61	87
" "	£	..	7	60	143	123
Sodium nitrate	cwt.	..	59	10	22	..
" "	£	..	59	17	42	..
Superphosphate	cwt.	36,454	41,254	33,924	37,062	49,643
" "	£	6,261	7,136	5,875	6,182	8,943
Other	cwt.	29,300	68,817	102,664	53,197	68,928
" "	£	11,665	34,104	52,484	27,323	38,648
Total	cwt.	72,391	118,007	142,655	97,677	134,429
	£	20,891	43,877	61,339	37,561	55,446

(a) Not available for publication ; included with Other.

5. **Quantities Locally Used.**—Information regarding the area manured and the quantity used in each State during the year 1939-40 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 are 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 1939-40 the quantity involved amounted to 643,026 loads :—

AREA MANURED AND QUANTITY OF MANURE USED, 1939-40.

State or Territory.	Artificial Manure (Superphosphate, Bone-dust, Nitrates, etc.).				Total Area Manured.	Total Artificial Manure Used.
	Area of Crops Manured.		Pasture Lands Top-dressed.			
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
New South Wales	3,882,344	125,606	650,134	30,465	4,532,478	156,071
Victoria	4,119,706	169,092	3,218,761	171,541	7,338,467	340,633
Queensland	268,266	61,668	(a)	(a)	268,266	61,668
South Australia	4,001,234	170,111	1,074,843	53,583	5,076,077	223,694
Western Australia	4,254,556	204,132	1,283,614	66,346	5,538,270	270,478
Tasmania	219,179	21,668	297,288	15,328	516,467	36,996
Northern Territory .. ..		..	..	..	..	..
Australian Capital Territory ..	6,969	342	3,772	168	10,741	510
Total	16,752,354	752,619	6,528,412	337,431	23,280,766	1,090,030

(a) Included with area manured ; area and quantity probably very small.

Particulars of the quantity of artificial manure used in each State and Territory 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.

The interruption of the imports of rock phosphate due to war has resulted in a serious diminution in the output of superphosphate. It has been necessary to introduce a system of rationing and, from 1st January, 1942, consumers will receive only 60 per cent. of the quantity of superphosphate purchased by them during 1939-40.

QUANTITY OF ARTIFICIAL MANURE USED : AUSTRALIA.

Year.	N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Total. (b)
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1930-31 ..	132,619	274,470	28,783	205,110	236,146	24,870	..	131	902,079
1931-32 ..	70,374	163,234	31,255	148,707	178,509	22,050	..	92	614,221
1932-33 ..	89,955	199,557	35,505	157,995	199,337	24,235	..	128	706,712
1933-34 ..	98,313	217,251	42,517	158,989	203,848	25,844	..	120	746,882
1934-35 ..	101,885	211,657	44,279	157,189	196,741	25,824	..	135	737,710
1935-36 ..	123,472	251,897	40,393	174,593	202,325	27,104	2	166	819,952
1936-37 ..	151,088	306,846	(c) 40,393	208,053	224,473	31,364	4	304	962,525
1937-38 ..	178,369	364,281	66,889	227,547	249,640	33,131	..	357	1,120,214
1938-39 ..	186,569	395,163	61,300	235,443	280,384	33,933	..	432	1,193,224
1939-40 ..	156,071	340,633	61,668	223,694	270,178	36,996	..	510	1,090,050

(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 the subsidy was reduced to 10s. per ton. The payment of this subsidy ceased on 30th June, 1939, but was re-introduced as from 1st July, 1941, at the rate of 25s. per ton.

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 1939-40 was 36, made up as follows:—New South Wales, 5; Victoria, 7; Queensland, 6; South Australia, 6; Western Australia, 5; and Tasmania, 7. The production of superphosphate in Australia during 1939-40 amounted to 966,105 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 ensilage.

2. **Quantity Made.**—Information regarding the number of holdings on which ensilage was made and the quantity made during the seasons 1935-36 to 1939-40 is given in the following table.

ENSILAGE MADE.

State.	1935-36.		1936-37.		1937-38.		1938-39.		1939-40.	
	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 ..	1,311	109,731	1,350	113,542	1,399	109,628	1,476	124,496	1,743	173,220
Victoria ..	326	22,346	549	32,902	841	46,860	549	28,716	1,292	78,193
Queensland ..	86	5,644	(b) 86	5,644	291	14,831	291	17,772	307	18,238
South Australia ..	124	9,160	118	9,270	160	11,183	103	6,056	177	15,546
Western Australia ..	332	14,806	306	13,197	379	17,650	328	16,156	322	17,196
Tasmania ..	29	1,341	17	619	20	648	12	490	185	1,102
Australia ..	2,208	163,118	2,426	175,174	3,090	200,808	2,759	193,686	4,026	303,495

(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. In 1939-40, the production amounted to 303,495 tons, and is the greatest output 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.**—A summary regarding agricultural colleges and experimental farms in respect of the year 1939-40 will be found in the *Production Bulletin* No. 34, Part II., issued by this Bureau.

§ 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 fruit-pickers, 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.(a)	S. Aust.	W. Aust.	Tasmania.	Total.(b)
1933-34 ..	42,084	38,514	32,400	30,329	24,925	13,945	182,197
1934-35 ..	42,135	37,294	29,500	30,177	23,775	13,353	176,234
1935-36 ..	42,204	35,926	29,700	30,096	22,585	12,731	173,242
1936-37 ..	43,648	35,575	31,600	30,273	22,317	12,138	175,551
1937-38 ..	43,279	35,592	(c) 34,000	30,365	22,527	11,929	177,692
1938-39 ..	44,627	35,548	31,600	28,981	19,653	11,676	172,085
1939-40 ..	43,269	35,570	33,800	28,502	18,703	11,507	171,351

(a) Estimated from returns furnished by Queensland State Government Insurance Office.
(b) Revised since last issue. (c) As recorded by State Statistician.

Although the area of crops has expanded considerably during the past two decades there has been a decrease in the number 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 £40.7 million in 1939-40.

§ 23. Number and Area of Rural Holdings.

1. **General.**—The statistical data included in the Chapters relating to Agriculture, Pastoral and Dairying are obtained at an annual census taken in each State under the direction of the State Statisticians. This census is taken as early as practicable after the conclusion of the main harvest and covers every holding within the boundaries of each State.

A holding in Australia has been defined by the States on a more or less uniform basis and discrepancies which exist are not of sufficient importance to vitiate any comparisons. For the purpose of these statistics, a holding may be defined as land of one acre or more in extent used in the production of agricultural produce, the raising of live stock or the products of live stock.

With the exception of Queensland, particulars of the number of holdings included in these censuses are available for all States over a series of years. It was not until 1938-39, however, that a complete tabulation became available for Queensland.

2. *Number and Area.*—The following table shows the number and area of the holdings by each State for the year 1939-40 and for previous years for which information is available.

RURAL HOLDINGS : NUMBER AND AREA.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australian Capital Territory.	Total.
NUMBER OF RURAL HOLDINGS.								
	No.	No.	No.	No.	No.	No.	No.	No.
1929-30 ..	76,158	74,161	(a)	30,246	21,101	11,623	(a)	(a)
1930-31 ..	74,717	74,537	(a)	30,449	21,918	11,461	(a)	(a)
1931-32 ..	74,106	74,996	(a)	30,648	21,959	11,481	(a)	(a)
1932-33 ..	74,778	75,392	(a)	30,724	22,066	11,335	(a)	(a)
1933-34 ..	74,981	75,386	(a)	30,986	22,639	11,731	(a)	(a)
1934-35 ..	75,800	74,473	(a)	31,123	22,874	11,754	186	(a)
1935-36 ..	75,631	73,772	(a)	31,262	22,652	11,857	202	(a)
1936-37 ..	76,239	72,845	(a)	31,321	21,763	11,735	202	(a)
1937-38 ..	75,923	72,792	(a)	31,277	21,682	11,680	202	(a)
1938-39 ..	75,365	72,452	41,503	31,280	21,052	11,680	204	253,536
1939-40 ..	74,909	72,557	42,076	31,244	20,807	11,575	204	253,372
TOTAL AREA OF RURAL HOLDINGS.								
	'000. acres.	'000. acres.	'000. acres.	'000. acres.	'000. acres.	'000. acres.	'000. acres.	'000. acres.
1929-30 ..	172,536	38,338	(a)	132,675	229,884	6,547	320	(a)
1930-31 ..	171,772	37,806	(a)	129,569	223,081	6,559	331	(a)
1931-32 ..	172,307	37,276	(a)	129,369	230,857	6,492	356	(a)
1932-33 ..	171,930	37,704	(a)	132,673	227,616	6,595	370	(a)
1933-34 ..	171,641	38,778	(a)	134,847	217,979	6,675	373	(a)
1934-35 ..	171,631	38,861	(a)	137,918	214,455	6,813	369	(a)
1935-36 ..	172,457	39,129	(a)	138,330	218,079	6,931	383	(a)
1936-37 ..	173,880	39,826	(a)	136,978	215,210	6,851	385	(a)
1937-38 ..	174,137	40,388	(a)	142,836	215,911	6,755	382	(a)
1938-39 ..	174,660	40,791	317,782	144,682	211,720	6,778	371	896,784
1939-40 ..	174,315	40,653	338,216	145,979	213,503	6,779	394	919,839

(a) Not available.

3. *Analysis of Holdings.*—(a) *General.* It is not possible to classify these holdings according to the purpose for which they are used. This arises from a number of factors, the chief of which is mixed farming. The general trend in Australia is for farmers to diversify their activities and consequently it is very difficult to determine whether the purpose of many holdings is mainly agricultural, pastoral or dairying or any of these in combination.

(b) *New South Wales.* Such an analysis is made in New South Wales but as pointed out by the Statistician it should be regarded as an approximation. It is compiled from the description of purpose given by the occupier of the holding at the time of the Census. This tabulation reveals that there were 72,339 holdings so classified in New South Wales during 1939-40. Of this number, 10,373 described their main purpose as Agricultural only, 20,578 as Pastoral only, 14,210 as Dairying only, 2,540 as Poultry, Pig or Bee Farming while the main purpose of the remaining 25,000 holdings were stated to be a combination of two or more of these activities. Holdings used mainly for residential or other purposes but which were used partly for the production of rural products have been omitted. These numbered 2,570 during 1939-40.

CHAPTER XVIII.

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 publication. 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 dealing with 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 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 *materiel*, prevails. Financial assistance of a temporary nature is also given.

The export trade is regulated by the terms of the Commonwealth Commerce (Trade Descriptions) Act 1905-1933, and regulations thereunder. 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.* 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 Parliaments 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 while 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, and 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 home-consumption price scheme for 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 also give 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 XVII. "Agricultural Production".

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 1939-40. They were distributed among the States as follows:—New South Wales, 127; Victoria, 167; Queensland, 102; South Australia, 50; Western Australia, 24; and Tasmania, 50. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXI. "Manufacturing Industry".

7. **Ottawa Conference.**—Details of the agreement reached at the Imperial Economic Conference at Ottawa in August, 1932, regarding the dairying, bee and poultry industries are given in previous issues of the Official Year Book.

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.

EMPLOYMENT IN DAIRYING INDUSTRY.

Year and Sex.		N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Total. (b)
		No.	No.	No.	No.	No.	No.	No.
1935-36	Males ..	38,150	42,972	27,000	4,500	5,465	3,539	120,726
	Females ..	6,481	7,790	7,000	2,756	1,249	2,462	27,738
1936-37	Males ..	37,450	41,922	28,600	4,578	5,261	3,332	121,143
	Females ..	5,444	7,666	7,000	2,331	1,143	2,234	25,818
1937-38	Males ..	35,940	41,878	(c) 29,000	4,540	5,495	3,634	120,487
	Females ..	6,027	7,406	(c) 7,000	2,779	1,129	2,146	26,487
1938-39	Males ..	35,860	41,829	27,000	4,436	6,365	3,917	119,407
	Females ..	6,505	7,222	7,000	2,812	1,661	2,200	27,400
1939-40	Males ..	35,975	41,854	28,800	4,757	6,362	3,670	121,358
	Females ..	7,130	7,314	7,000	2,418	1,678	2,064	27,604

(a) Estimated from returns of Queensland State Government Insurance Office.
since last issue.

(c) As recorded by Government Statistician.

(b) Revised

The employment of males shown in the table below together with other details gives some indication of the expansion of the dairying industry since 1918-19.

DAIRYING INDUSTRY : AUSTRALIA.

Year.	Number of Dairy Cows.	Production of Butter.	Value of Machinery employed on Dairy Farms.	Number of Males engaged.
	No.	lb.	£	No.
1918-19	1,901,000	181,802,675	1,325,502	68,100
1928-29	2,466,000	290,790,190	3,437,000	82,300
1938-39	3,353,825	455,834,329	5,659,000	119,400
1939-40	3,420,476	474,852,474	6,421,000	121,400

§ 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 1939 the number exceeded 3.4 million. 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. Figures for these heifers, however, are not collected in Tasmania, but in the other States they numbered 181,743.

A graph showing the distribution of dairy cows in Australia during 1938-39 appears on p. 454.

NUMBER OF CATTLE AND DAIRY CATTLE.

State.		1935.	1936.	1937.	1938.	1939.
New South Wales	{ All Cattle ..	3,388,538	3,288,169	3,019,581	2,811,884	2,762,653
	{ Dairy Cows ..	1,091,562	1,069,888	1,047,332	1,026,299	1,027,000
Victoria	{ All Cattle ..	2,091,246	2,005,759	1,880,429	1,697,295	1,787,597
	{ Dairy Cows ..	987,676	968,555	952,006	889,259	917,051
Queensland	{ All Cattle ..	6,033,004	5,950,572	5,959,165	6,097,089	6,198,798
	{ Dairy Cows ..	955,746	914,815	985,858	1,050,569	1,080,430
South Australia	{ All Cattle ..	335,354	328,013	324,163	318,897	351,013
	{ Dairy Cows ..	173,706	169,761	164,903	164,110	173,089
Western Australia	{ All Cattle ..	882,761	792,508	740,241	767,680	799,175
	{ Dairy Cows ..	130,132	126,301	124,278	128,726	130,388
Tasmania	{ All Cattle ..	270,935	261,597	254,812	262,407	252,484
	{ Dairy Cows ..	97,350	93,657	92,493	93,816	91,417
Northern Territory	{ All Cattle ..	900,535	855,398	891,640	899,472	922,581
	{ Dairy Cows ..	(a)	(a)	(a)	(a)	(a)
Australian Capital Territory	{ All Cattle ..	10,186	9,856	8,325	7,057	5,879
	{ Dairy Cows ..	1,052	1,116	1,129	1,046	1,101
Australia	{ All Cattle ..	13,911,659	13,491,872	13,078,356	12,861,781	13,080,180
	{ Dairy Cows ..	3,437,224	3,344,093	3,368,899	3,353,825	3,420,476

(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.	A.C.T.	Australia. (b)
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
1938-39—								
Dairy Cows (a) .. No.	994,155	889,719	961,674	152,686	119,183	93,154	1,041	3,211,612
Production 1,000 gals.	311,384	377,882	347,336	72,521	45,541	34,102	350	1,189,116
Aver. per cow .. gal.	313	425	361	475	382	366	336	370
1939-40—								
Dairy Cows (a) .. No.	982,765	861,442	1,010,884	154,523	120,833	92,617	1,017	3,224,081
Production 1,000 gals.	314,709	459,050	325,342	77,316	44,723	34,576	388	1,256,104
Aver. per cow .. gal.	320	533	322	500	370	373	382	390

(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 438,000,000 lb. for the latest five years. The largest production of butter in Australia was recorded in 1939-40 when, as a result of a specially favourable season, 475,000,000 lb. were manufactured.

Preliminary figures indicate a total production of 432,500,000 lb. in 1940-41. This represents a reduction of output of more than 42,000,000 lb. on that of the previous year and was due to unfavourable seasonal conditions experienced throughout Australia during the year.

The total output of cheese is likewise dependent upon seasonal conditions. The production in 1939-40 was 69,784,000 lb., which exceeded the previous record in 1938-39 by 4,000,000 lb. The production in 1940-41 was estimated at 60,000,000 lb.; a reduction of over 9,000,000 lb. due to adverse seasonal conditions.

There has been a remarkable development in the production of cheese in Australia during recent years. Since 1935-36 the output has grown from 39,000,000 lb. to nearly 70,000,000 in 1939-40. The States contributing to this development were mainly Victoria and South Australia; the production in Victoria has nearly doubled, while that in South Australia has been even greater. Formerly Queensland was the chief producing State, but although its output is increasing, Queensland is now only the third largest producer. In Tasmania there has also been a notable increase in production, but in New South Wales the output averaged only 7,400,000 lb.

Further development is expected in the cheese industry as a result of a change-over from the manufacture of butter to cheese. This will arise from the quantity reduction of butter to be taken by the United Kingdom and the increase in the quantity under the cheese contract. This will necessitate the diversion of a proportion of the milk used for the production of butter-fat to the manufacture of cheese.

The production of butter and cheese for the five years ended 1939-40 was as follows :—

BUTTER AND CHEESE PRODUCTION.

State.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
BUTTER.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	125,169,296	109,830,751	120,882,732	118,820,717	116,813,692
Victoria	148,132,527	154,769,391	141,321,445	130,573,013	164,826,094
Queensland	115,920,415	87,474,757	118,244,260	157,625,746	142,846,421
South Australia	20,964,305	20,892,369	22,428,298	20,716,584	22,938,381
Western Australia	12,908,745	12,360,924	15,373,334	16,244,449	15,551,189
Tasmania	10,613,358	10,918,278	11,997,323	11,835,500	11,861,190
Australian Capital Territory	13,849	15,223	14,218	17,415	15,507
Australia	433,722,475	396,261,693	430,261,610	455,834,329	474,852,474
CHEESE.					
	lb.	lb.	lb.	lb.	lb.
New South Wales	7,356,203	7,417,640	8,004,873	7,485,907	6,803,510
Victoria	10,973,804	13,350,124	16,466,038	19,554,061	24,495,121
Queensland	9,149,283	7,789,890	11,963,445	15,768,543	13,848,936
South Australia	8,103,663	12,164,819	15,516,879	18,457,598	20,550,047
Western Australia	865,482	1,012,139	885,418	980,254	846,301
Tasmania	2,150,281	2,994,227	3,770,189	3,399,626	3,240,328
Australia	38,598,716	44,728,839	56,606,842	65,645,989	69,784,243

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 1935-36 to 38,598,154 lb.; in 1936-37 to 53,159,599 lb.; in 1937-38 to 57,634,422 lb.; in 1938-39 to 51,741,477 lb., and in 1939-40 to 37,112,664 lb. Production in New South Wales during 1939-40 was 10,515,977 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 1939-40 amounted to 91,108,343 lb. Imports of milk into Australia consist almost entirely of malted or otherwise medicated milk.

5. **War-time Contract—Butter, Cheese and Preserved Milk.**—At the outbreak of war in September, 1939, contracts were negotiated between the Governments of the Commonwealth and the United Kingdom whereby the latter undertook to purchase from Australia at prices fixed according to grade 75,500 tons of butter and 13,000 tons of cheese for the period ending June, 1940. The contracts were further extended to June, 1941, and June, 1942. Under the last contract, the quantity of butter was reduced and the grades were restricted to choicest and first quality only. Prices, however, remained unaltered. A further increase in the quantity of cheese was arranged under the cheese contract for the year ended June, 1942, as well as an advance in price of 5s. 9d. per cwt. sterling or 7s. 2d. in Australian currency.

While no similar contract exists in regard to preserved and powdered milk, a ready market for these commodities exists in the United Kingdom and elsewhere in Eastern Asia, particularly in Malaya. Manufacturers in Australia are increasing production as far as possible to meet this demand.

6. **Oversea Trade in Butter, Cheese and Milk.**—The production of butter and cheese in Australia is considerably in excess of local requirements and consequently a substantial surplus is available for export overseas. The extent of this surplus is chiefly dependent

upon the conditions during the season. Normally, the quantity of butter and cheese consumed in Australia is about 230 million lb. and 30 million lb., respectively, and production in excess of these amounts may be regarded as available for export.

The bulk of these exports is consigned to the United Kingdom. During 1938-39 217 million lb. or 95 per cent. of butter was shipped to Britain, and nearly 35 million lb. or 97 per cent. of cheese exported was consigned to that country. Details for later years are not available for publication.

All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to the supervision, inspection and examination by officers appointed for that purpose. These commodities are graded according to quality which has been fixed by Regulation as follows:—Flavour and aroma, 50 points; texture, 30 points; and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality; at 90 to 92 points, first quality; at 86 to 89 points, second quality; and at 80 to 85 points, pastry or cooking quality or, in the case of cheese, third quality.

In the following table particulars are given of the relative proportions of butter and cheese graded for export according to quality. Fuller details, which include actual quantities by States, are to be found in *Production Bulletin* No. 34, Part II.

BULK BUTTER AND CHEESE, GRADED FOR EXPORT: AUSTRALIA.

Grade.	Butter.			Cheese.		
	1938-39.	1939-40.	1940-41.	1938-39.	1939-40.	1940-41.
	%	%	%	%	%	%
Choicest	54.30	51.54	51.74	17.69	17.48	15.42
First Quality ..	33.69	36.19	35.72	47.40	51.03	52.04
Second Quality ..	10.17	10.86	10.76	34.91	31.49	32.54
Third Quality ..	1.84	1.41	1.78	(a)	(a)	(a)
Total ..	100.00	100.00	100.00	100.00	100.00	100.00

(a) Included with Second Quality.

The following tables give the imports, exports and net exports of butter, cheese and condensed milk. In each of the five years, the exports exceeded the imports:—

BUTTER, CHEESE, AND MILK: IMPORTS AND EXPORTS, AUSTRALIA.

Australian Currency Values.

Products.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
IMPORTS.					
Butter lb.	3,826	2,678	1,691	3,425	4,646
" £	309	167	133	286	436
Cheese lb.	88,511	130,864	126,066	156,188	83,598
" £	7,052	10,225	9,969	11,551	8,022
Milk—concentrated and preserved lb.	12,861	129,039	79,737	44,135	155,093
" " " " £	942	3,876	2,515	1,048	3,768

BUTTER, CHEESE, AND MILK: IMPORTS AND EXPORTS, AUSTRALIA—*contd.**Australian Currency Values.*

Products.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
EXPORTS.					
Butter lb.	212,646,177	174,309,396	197,345,647	229,542,779	(a)
" £	9,832,733	8,801,643	10,781,124	12,891,837	15,894,718
Cheese lb.	12,972,627	13,924,572	27,245,638	35,924,467	43,055,779
" £	337,467	384,027	845,130	1,074,008	1,440,140
Milk—concentrated and preserved lb.	16,961,023	22,169,680	24,717,435	19,106,953	32,219,408
" £	722,301	851,769	963,873	791,100	1,126,066

NET EXPORTS.

Butter lb.	212,642,351	174,306,718	197,343,956	229,539,354	(a)
" £	9,832,424	8,801,476	10,780,991	12,891,551	15,894,282
Cheese lb.	12,884,116	13,793,708	27,119,572	35,768,279	42,972,181
" £	330,415	373,802	835,161	1,062,457	1,432,118
Milk—concentrated and preserved b.	16,948,162	22,040,641	24,637,698	19,062,818	32,064,315
" £	721,359	847,893	961,358	790,052	1,122,298

(a) Not available for publication.

7. **Local Consumption of Butter and Cheese.**—The local production of butter and cheese, minus the net export or plus the net import for the corresponding period, represents approximately the quantity available for consumption in Australia. The figures for the five years ended 1939-40 are as follows:—

BUTTER AND CHEESE: LOCAL CONSUMPTION.

Products.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	lb.	lb.	lb.	lb.	lb.
Butter—Total	221,080,124	221,954,975	232,917,654	226,294,975	(a)
Per head of population ..	32.75	32.62	33.93	32.67	(a)
Cheese—Total	25,714,600	30,935,131	29,487,270	29,877,710	26,812,062
Per head of population ..	3.81	4.55	4.30	4.31	3.83

(a) Not available for publication.

Consumption in 1938-39 averaged 32.67 lb. of butter and 4.31 lb. of cheese per head of population. The consumption of butter in the United Kingdom, Canada and New Zealand was 24.8 lb., 32.7 lb., and 40.7 lb. per head per annum respectively, and that of cheese amount 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 1,455,341 in 1939. The distribution of pigs among the States and Territories in 1939 was—New South Wales, 451,064; Victoria, 297,655; Queensland, 391,333; South Australia, 119,660; Western Australia, 149,604; Tasmania, 44,941; Northern Territory, 483; Australian Capital Territory 601; total 1,455,341. The figures for New South Wales, Victoria and the Australian Capital Territory represent the number as on the 31st March, 1940.

A more accurate index of the development of pig-raising in Australia is provided in the following table which combines the number of slaughtering with the number returned each year from 1930. 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.
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
1933	1,046,867	1,636,974	1938	1,155,591	1,839,597
1934	1,158,274	1,763,332	1939	1,455,341	1,952,552

A great increase in the production of pork has taken place in Australia. Up to the year 1928-29, production was sufficient to meet local requirements and to provide a small surplus for export. Since that year, however, all local requirements have been met, and the exports have grown rapidly to more than 52 million lb. of pork.

2. Consumption, Pork and Bacon and Ham.—Particulars available regarding the consumption of pork, as such, give an average for Australia of 6.48 lb. per head of population. This decrease from the previous year was due to the increased volume of exports recorded during 1939-40 which was achieved at the expense of the quantity available for local consumption. The per capita consumption of bacon and ham has remained constant at about 10½ lb. Although exports have increased since the commencement of the War in 1939, production expanded sufficiently to maintain consumption at that figure. The average consumption of pork and bacon and ham per head of population amounted to 17 lb. compared with 22 lb. in New Zealand, 57 lb. in Canada, and 64 lb. in the United States of America. The figures for Australia for each of these commodities during the last five years are as follows :—

PORK AND BACON, ETC. : LOCAL CONSUMPTION.

Product.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	lb.	lb.	lb.	lb.	lb.
Pork—					
Quantity	60,433,372	68,492,630	52,044,818	52,169,753	45,353,242
Per head of population	8.95	10.06	7.58	7.53	6.48
Bacon and Ham—					
Quantity	75,565,065	70,877,086	68,198,109	72,352,774	73,759,675
Per head of population	11.19	10.42	9.94	10.44	10.55

3. War-time Contract.—A contract for the sale of the surplus production of Australian pig meats was concluded between the Governments of the Commonwealth and the United Kingdom for the year ended 30th September, 1940. Details of this contract will be found in Chapter XXVII. "Miscellaneous".

4. Bacon and Ham.—The highest production of bacon and ham was reached in 1939-40 with an output of 78,585,970 lb. compared with 74,733,000 lb., the average for the last five years. The production in 1939-40 was distributed among the several States as follows :—New South Wales, 26,046,025 lb.; Victoria, 17,886,305 lb.; Queensland, 20,040,740 lb.; South Australia, 7,046,860 lb.; Western Australia, 4,671,665 lb.; Tasmania, 2,893,805 lb.; Australian Capital Territory, 570 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 10.46 lb. per unit of population. The bacon and ham exported from Australia is consigned chiefly to the Pacific Islands and the East.

5. Oversea Trade in Pig Products.—The oversea trade in pigs and pig products for the five years ended 1939-40 is shown in the following table:—

PIG PRODUCTS : OVERSEA TRADE, AUSTRALIA.

Australian Currency Values.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Pigs.					
Imports.. .. No.	39	10	56	28	12
" £	2,124	413	3,079	1,007	413
Exports.. .. No.	131	164	152	69	54
" £	708	607	979	621	387
Net Exports .. No.	92	154	96	41	42
" £	-1,416	194	-2,100	-386	-26
BACON AND HAM.					
Imports.. .. lb.	5,168	2,760	7,212	9,681	737
" £	313	209	605	597	81
Exports.. .. lb.	1,701,575	1,752,518	1,675,969	1,739,053	4,247,554
" £	109,760	112,680	117,654	119,994	274,932
Net Exports .. lb.	1,696,407	1,749,758	1,668,757	1,729,372	4,246,817
" £	109,447	112,471	117,049	119,397	274,851
LARD.(a)					
Imports.. .. lb.	13,366	29,644	28,244	106,821	97,499
" £	415	941	1,240	3,065	2,737
Exports.. .. lb.	2,792,008	4,051,472	4,213,026	5,490,959	14,324,614
" £	53,603	69,374	63,662	67,744	182,564
Net Exports .. lb.	2,778,642	4,021,828	4,184,782	5,384,138	14,227,115
" £	53,188	68,433	62,422	64,679	179,827
FROZEN PORK.					
Imports.. .. lb.	85,942	7,746	34	31,805	..
" £	3,513	210	3	1,770	..
Exports.. .. lb.	23,577,743	26,816,453	33,959,412	30,716,417	52,202,821
" £	587,410	687,043	934,575	882,117	1,561,432
Net Exports .. lb.	23,491,801	26,808,707	33,959,378	30,684,612	52,202,821
" £	583,897	686,833	934,572	880,347	1,561,432

(a) Includes Lard Oil, and Refined Animal Fats.
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 1939-40, however, oversea exports of frozen pork showed a remarkable increase averaging 33,450,000 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 1939 amounted to 7.9 million cwt., valued at £36,706,000, the supplies being obtained chiefly from Denmark and Canada.

The agreement at the Ottawa Conference regarding the regulation of supplies from foreign countries and the Dominions and its substitution by a Bacon Marketing Scheme by the British Government is referred to in detail in previous issues of the Official Year Book. At the outbreak of war in September, 1939, these arrangements were superseded by the war-time contract referred to in par. 3 above. The loss of supplies from Denmark and other European countries owing to war provides an opportunity for the expansion of the industry in Australia. Plans for this development are now being considered.

§ 4. Total Dairy Production.

The dairy production for each State in 1939-40 is shown below :—

DAIRY PRODUCTION, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Total.
MILK.								
Used for—	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Butter ..	232,024,898	358,150,161	291,433,481	45,098,761	33,075,955	25,407,374	49,165	985,239,795
Cheese ..	6,892,441	24,388,632	13,380,593	19,544,182	850,747	3,294,671	..	68,351,266
Condensing and concentrating ..	11,887,542	28,189,378	(a)	(a)	(a)	..	..	(b)40,076,920
Other purposes ..	63,904,146	48,321,691	220,527,628	112,673,229	110,796,223	5,873,520	339,195	162,435,632
Total ..	314,709,027	459,049,862	325,341,702	77,316,172	44,722,925	34,575,565	388,360	1,256,103,613

BUTTER.

In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy and other Farms ..	112,019,857	161,289,017	139,795,042	19,843,023	14,002,180	9,309,881	..	456,259,000
..	4,793,335	3,537,077	3,051,379	3,095,358	1,549,009	2,551,309	15,507	18,593,474
Total ..	116,813,692	164,826,094	142,846,421	22,938,381	15,551,189	11,861,190	15,507	474,852,474

CHEESE.

In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy and other Farms ..	6,634,079	24,379,610	13,841,405	20,549,867	842,831	3,121,588	..	69,372,380
..	169,431	115,511	7,531	180	3,470	115,740	..	411,863
Total ..	6,803,510	24,495,121	13,848,936	20,550,047	846,301	3,240,328	..	69,784,243

CONDENSED, CONCENTRATED AND POWDERED MILK.

In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
..	15,708,917	67,093,385	(a)	(a)	(a)	..	..	291,108,343

BACON AND HAM.

In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy and other Farms ..	25,628,982	17,385,348	19,949,697	6,643,434	4,642,625	2,559,005	..	76,809,591
..	417,043	500,457	91,043	403,420	29,040	334,800	570	1,776,379
Total ..	26,046,025	17,886,305	20,040,740	7,046,860	4,671,665	2,893,805	570	78,585,970

(a) Figures not available for publication.
milk used for condensing and concentrating.(b) Excluding States marked (a).
(d) Including States marked (a).

(c) Includes

Particulars in regard to the production of other milk products are not available for all the States, but casein amounting to 6,875,847 lb., valued at £130,274, was manufactured in Australia during 1939-40.

§ 5. Value of Dairy Production.

1. Value of Production—Gross and Net.—(i) *General.* 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 XXVII. "Miscellaneous".

GROSS, LOCAL AND NET VALUE OF DAIRY PRODUCTION, 1939-40.

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 ..	14,174,000	1,526,000	12,648,000	1,746,000	15,000	10,887,000	64,000
Victoria ..	14,854,336	582,165	14,272,171	1,615,349	324,000	12,333,822	24,000
Queensland ..	11,449,000	310,000	11,139,000	1,100,000	240,000	9,799,000	100,000
South Australia ..	2,792,649	89,290	2,703,359	392,459	116,733	2,194,167	13,059
Western Australia ..	1,832,586	55,471	1,777,115	659,990	211,753	905,372	12,361
Tasmania ..	1,164,350	43,730	1,120,620	337,240	58,530	724,850	7,740
Total ..	46,266,921	2,606,656	43,660,265	5,851,038	966,016	36,843,211	221,160

(a) No deduction has been made for depreciation and maintenance.

(ii) *States 1930-31 to 1939-40.* In the following table the net value of dairy production and the net value per head of population are given by States for each year since 1930-31.

NET VALUE OF DAIRY PRODUCTION.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
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NET VALUE. (a).

	£	£	£	£	£	£	£
1930-31 ..	8,379,000	7,263,062	5,841,714	1,142,389	598,576	543,910	23,768,651
1931-32 ..	7,811,000	7,484,164	5,058,779	1,217,398	468,786	524,140	22,564,267
1932-33 ..	7,429,000	7,873,426	4,092,671	1,419,590	391,315	427,190	21,633,192
1933-34 ..	8,011,000	6,232,393	4,626,681	1,138,928	369,050	384,200	20,762,252
1934-35 ..	8,844,000	7,531,415	5,798,796	1,121,089	619,810	445,130	24,360,240
1935-36 ..	9,195,000	9,344,742	5,860,000	1,393,141	505,401	540,600	26,847,884
1936-37 ..	9,128,000	10,778,186	4,957,000	1,587,796	554,010	542,070	27,547,062
1937-38 ..	10,181,000	10,495,005	7,443,000	1,891,356	825,354	753,620	31,589,335
1938-39 ..	10,446,000	9,958,474	9,878,000	1,942,994	893,428	662,860	33,781,756
1939-40 ..	10,887,000	12,332,822	9,799,000	2,194,167	905,372	724,850	36,843,211

NET VALUE PER HEAD OF MEAN POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1930-31 ..	3 5 10	4 1 0	6 7 3	1 19 9	1 7 9	2 8 10	3 13 2
1931-32 ..	3 0 10	4 3 0	5 8 8	2 2 2	1 1 7	2 6 4	3 8 10
1932-33 ..	2 17 4	4 6 9	4 7 0	2 9 0	0 17 10	1 17 6	3 5 6
1933-34 ..	3 1 3	3 8 4	4 17 4	1 19 1	0 16 9	1 13 7	3 2 5
1934-35 ..	3 7 2	4 2 0	6 0 9	1 18 5	1 8 0	1 18 10	3 12 8
1935-36 ..	3 9 3	5 1 4	6 0 9	2 7 6	1 2 7	2 7 0	3 19 7
1936-37 ..	3 8 1	5 16 5	5 0 9	2 14 0	1 4 6	2 6 8	4 1 0
1937-38 ..	3 15 2	5 12 10	7 9 7	3 4 0	1 16 1	3 4 1	4 12 0
1938-39 ..	3 16 5	5 6 3	9 16 3	3 5 5	1 18 8	2 16 0	4 17 6
1939-40 ..	3 18 10	6 10 6	9 12 6	3 13 6	1 18 10	3 0 9	5 5 4

(a) No deduction has been made for depreciation and maintenance.

§ 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.

State.	Fowls.	Ducks.	Geese.	Turkeys.
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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	450,120

1939-40.

	No.	No.	No.	No.
New South Wales ..	5,474,350	202,395	23,263	212,779
Victoria (a) ..	5,496,969	292,882	39,283	113,966
Queensland ..	1,312,536	44,377	5,237	20,357
South Australia ..	2,100,602	49,813	14,587	51,326
Western Australia ..	1,402,455	40,748	1,732	38,367
Tasmania (b) ..	450,000	35,000	10,000	10,000
Total ..	16,236,912	665,215	94,102	446,795

(a) 30th June, 1933.

(b) Estimated.

3. Value of Poultry Products—Gross and Net.—(i) *General.* Difficulty is experienced in obtaining complete figures for the production of poultry 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 Statisticians:—

GROSS, LOCAL AND NET VALUE OF POULTRY PRODUCTS, 1939-40.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Feed and Other Costs.	Net Value of Production. (a)
	£	£	£	£	£
New South Wales ..	3,836,000	338,000	3,498,000	1,161,000	2,337,000
Victoria ..	4,617,090	346,280	4,270,810	1,170,949	3,099,861
Queensland ..	707,000	113,000	594,000	265,000	319,000
South Australia ..	952,173	99,003	853,170	320,423	532,747
Western Australia ..	583,018	106,969	476,049	183,293	292,756
Tasmania ..	468,090	35,110	432,980	35,510	397,470
Total ..	11,163,371	1,038,362	10,125,009	3,136,175	6,978,834

(a) No deduction has been made for depreciation and maintenance.

(ii) *States 1930-31 to 1939-40.* In the following table the net value of poultry products and the net value per head of population are given by States for each year since 1930-31:—

NET VALUE OF POULTRY PRODUCTS.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
NET VALUE. (a)							
	£	£	£	£	£	£	£
1930-31 ..	1,958,000	2,854,752	387,824	339,184	258,934	350,640	6,149,334
1931-32 ..	1,779,000	2,756,077	239,163	329,543	283,737	315,280	5,702,800
1932-33 ..	1,815,000	2,138,513	290,064	243,735	306,224	311,960	5,105,496
1933-34 ..	1,810,000	2,243,044	270,584	250,037	307,185	298,510	5,179,360
1934-35 ..	1,849,000	2,185,047	248,679	339,335	322,478	317,120	5,261,659
1935-36 ..	2,203,000	2,333,620	299,000	257,088	270,414	305,440	5,668,562
1936-37 ..	2,186,000	2,301,568	322,000	244,354	288,624	338,540	5,681,086
1937-38 ..	2,248,000	2,902,026	362,000	326,492	251,060	367,110	6,456,688
1938-39 ..	2,658,000	3,112,609	376,000	436,425	294,216	425,240	7,302,490
1939-40 ..	2,337,000	3,099,861	319,000	532,747	292,756	397,470	6,978,834

NET VALUE PER HEAD OF MEAN POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1930-31 ..	0 15 4	1 11 10	0 8 6	0 11 10	0 12 0	1 11 6	0 18 11
1931-32 ..	0 13 10	1 10 6	0 5 2	0 11 5	0 13 1	1 7 11	0 17 4
1932-33 ..	0 14 0	1 3 7	0 6 2	0 8 5	0 14 2	1 7 4	0 15 6
1933-34 ..	0 13 10	1 4 7	0 5 8	0 8 7	0 13 11	1 6 1	0 15 7
1934-35 ..	0 14 1	1 3 10	0 5 2	0 11 7	0 14 7	1 7 8	0 15 8
1935-36 ..	0 16 7	1 5 5	0 6 2	0 8 9	0 12 1	1 6 6	0 16 10
1936-37 ..	0 16 4	1 4 10	0 6 6	0 8 4	0 12 9	1 9 2	0 16 8
1937-38 ..	0 16 7	1 11 2	0 7 3	0 11 1	0 11 0	1 11 3	0 18 10
1938-39 ..	0 19 5	1 13 2	0 7 6	0 14 8	0 12 9	1 15 11	1 1 1
1939-40 ..	0 16 11	1 12 10	0 6 3	0 17 10	0 12 7	1 13 4	1 0 0

(a) No deduction has been made for depreciation and maintenance.

4. *War-time Contract—Eggs.*—At the outbreak of war in September, 1939, a contract was negotiated between the Governments of the Commonwealth and the United Kingdom whereby the latter undertook to purchase 9 million dozen eggs for the season ended 31st December, 1939. The contract was extended to 31st December, 1940. Prices are fixed according to grade, but in 1940 they were 1½d. per dozen higher than in 1939.

On account of the shortage of refrigerated shipping space, plans have been made to reduce the export of eggs in shell by the substitution of powdered egg. Plant for the drying of eggs has been erected in New South Wales and Victoria and exports from these States will be in that form. Similar plant will be operating in the remaining States, excepting Tasmania, during 1941-42. The loss of supplies from Europe provides an opportunity for an expansion of the poultry industry in Australia, and shipments of the powdered egg arriving in England have been very favourably received.

5. *Oversea Trade in Poultry Products.*—The Australian overseas 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 1939-40 amounting to £597,872. Exports of eggs 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 to 10.3 million dozen in 1939-40.

The overseas trade during the five years ended 1939-40 was as follows :—

POULTRY PRODUCTS : TRADE, AUSTRALIA.

Australian Currency Values.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
LIVE POULTRY.					
Imports No.	154	2,780	39	29	3
„ £	605	1,256	81	139	20
Exports No.	1,733	1,099	2,175	2,189	4,462
„ £	973	572	860	970	3,772
Net Exports .. No.	1,579	—1,681	2,136	2,160	4,459
„ £	368	—684	779	831	3,752
FROZEN POULTRY.					
Imports lb.	11,671	11,589	1,349	83	148
„ £	467	616	150	8	8
Exports pair	52,377	40,754	35,358	21,768	63,310
„ £	36,078	35,432	36,803	19,917	43,457
Net Exports (a)	(a)	(a)	(a)	(a)	(a)
„ £	35,611	34,816	36,653	19,909	43,449
Eggs.					
Imports doz.	7,311	7,625	8,388	105,330	5,364
„ £	397	361	458	8,188	318
Exports doz.	17,365,132	16,473,894	11,287,363	10,144,344	10,279,346
„ £	910,892	954,578	686,713	638,159	597,854
Net Exports .. doz.	17,357,821	16,466,269	11,278,975	10,039,014	10,273,982
„ £	910,495	954,217	686,255	629,971	597,536
EGG CONTENTS.					
Imports lb.	46,917	32,634	31,954	68,567	60,075
„ £	3,957	3,953	3,547	4,936	4,087
Exports lb.	290,612	652,858	426,320	650,470	560
„ £	7,170	19,756	16,926	23,065	18
Net Exports .. lb.	243,695	620,224	394,366	581,903	—59,515
„ £	3,213	15,803	13,379	18,129	—4,069

(a) Quantity not available.

NOTE.—Minus sign (—) signifies net imports.

§ 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 1939-40 gave an average of 52.1 lb. per hive, and the average quantity of wax was 0.74 lb. per hive.

2. **Production of Honey and Bees-wax.**—The number of hives and the production of honey and bees-wax during the year 1939-40 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 bee-keepers enables the collection to cover all producers and the production for these States is considered to be complete.

BEEHIVES, HONEY AND BEES-WAX, 1939-40.

State.	Beehives.			Honey Produced.		Bees-wax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Gross Value.	Quantity.	Gross Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	59,670	22,779	82,449	2,477,381	43,767	42,393	3,012
Victoria ..	52,253	17,839	70,092	2,752,125	74,537	35,630	2,969
Queensland ..	13,468	6,088	19,556	1,049,442	15,304	15,259	953
South Australia ..	39,492	14,332	53,824	2,388,647	34,834	30,952	1,838
Western Australia ..	17,054	2,705	19,759	828,168	11,182	11,549	794
Tasmania ..	3,609	2,096	5,705	164,764	3,775	1,668	125
Aust. Cap. Territory	24	24	48	770	14	25	2
Australia ..	185,570	65,863	251,433	9,661,297	183,413	137,476	9,693

The table hereunder gives the production of honey and bees-wax for the latest available five years :—

HONEY AND BEES-WAX PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Australia.
HONEY.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
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	3,439,262	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
1938-39	2,723,719	1,340,046	1,164,536	2,940,877	754,254	148,473	1,280	9,073,185
1939-40	2,477,381	2,752,125	1,049,442	2,388,647	828,168	164,764	770	9,661,297
BEES-WAX.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
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
1938-39	43,780	22,285	17,463	40,257	15,050	1,780	60	140,675
1939-40	42,393	35,630	15,259	30,952	11,549	1,668	25	137,476

The production of honey and bees-wax varies greatly from year to year according to the conditions during the season. During the last five years New South Wales produced on the average 3,214,000 lb. of honey and 50,300 lb. of bees-wax; Victoria produced 3,595,000 lb. of honey and 42,900 lb. of wax; and South Australia 3,034,000 lb. of honey and 38,170 lb. of wax. These States together accounted for 82.6 per cent. of the total Australian production of honey and 80.0 per cent. of the bees-wax. Next in order of importance were Western Australia, Queensland and Tasmania.

3. Value of Production—Gross and Net.—(i) *General.* 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. As production costs are not known they are not taken into account and consequently the gross production valued at the farm and net values shown are identical.

GROSS, LOCAL AND NET VALUE OF BEE PRODUCTS, 1939-40.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Net Value of Production.(a)
	£	£	£	£
New South Wales	47,000	5,000	42,000	42,000
Victoria	77,506	14,668	62,838	62,838
Queensland	16,000	2,000	14,000	14,000
South Australia	36,672	4,974	31,698	31,698
Western Australia	11,976	..	11,976	11,976
Tasmania	3,900	190	3,710	3,710
Total	193,054	26,832	166,222	166,222

(a) No deduction has been made for depreciation and maintenance.

(ii) *States 1930-31 to 1939-40.* In the following table the net value of bee products and the net value per head of population are given by States for each year since 1930-31:—

NET VALUE OF BEE PRODUCTS.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
-------	--------	------	---------	------	------	------	--------

NET VALUE. (a)

	£	£	£	£	£	£	£
1930-31	46,000	45,498	9,465	18,078	11,410	2,590	133,041
1931-32	34,000	37,308	4,531	16,700	4,401	1,250	98,190
1932-33	47,000	53,936	8,830	45,748	7,119	3,450	166,083
1933-34	22,000	17,345	8,740	24,140	9,491	4,170	85,886
1934-35	95,000	39,540	10,458	43,052	14,037	1,420	203,507
1935-36	68,000	77,505	6,000	31,367	12,137	4,210	199,219
1936-37	43,000	45,360	5,000	28,053	19,803	2,740	143,956
1937-38	51,000	59,930	5,000	20,645	18,850	5,180	160,605
1938-39	43,000	23,448	15,000	27,857	10,591	2,770	122,666
1939-40	42,000	62,838	14,000	31,698	11,976	3,710	166,222

(a) No deduction has been made for depreciation and maintenance.

NET VALUE OF BEE PRODUCTS—*continued*.

Year.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
NET VALUE PER HEAD OF MEAN POPULATION. (a)							
1930-31 ..	s. d. 0 5	s. d. 0 6	s. d. 0 2	s. d. 0 8	s. d. 0 6	s. d. 0 3	s. d. 0 5
1931-32 ..	0 3	0 5	0 1	0 7	0 2	0 1	0 5
1932-33 ..	0 5	0 7	0 2	1 7	0 4	0 4	0 6
1933-34 ..	0 2	0 2	0 2	0 10	0 5	0 4	0 3
1934-35 ..	0 8	0 5	0 3	1 6	0 7	0 1	0 7
1935-36 ..	0 6	0 10	0 1	1 1	0 6	0 4	0 7
1936-37 ..	0 4	0 6	0 1	0 11	0 10	0 3	0 5
1937-38 ..	0 5	0 8	0 1	0 8	0 10	0 5	0 6
1938-39 ..	0 4	0 3	0 3	0 11	0 5	0 3	0 4
1939-40 ..	0 4	0 8	0 3	1 1	0 6	0 4	0 5

(a) No deduction has been made for depreciation and maintenance.

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 78,000 cwt. annually, of which Australia supplies approximately 7,700 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 1939-40 the exports from Australia amounted to £129,000 compared with a total of £14,000 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 1939-40, the imports of honey amounted to 7,970 lb. and the exports to 4,631,781 lb. The imports of bees-wax amounted to 56,577 lb. in 1939-40 and the exports to 24,323 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 1939-40 are shown below :—

AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS : EXPORTS.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
QUANTITY.					
Bees-wax	lb. 395	48,656	21,109	5,565	24,323
Butter	212,646,177	174,309,396	197,345,647	229,542,779	(b)
Cheese	12,972,627	13,924,572	27,245,638	35,924,467	43,055,779
Eggs not in shell	290,612	652,858	426,320	650,470	560
Eggs	17,365,132	16,473,894	11,287,363	10,144,344	10,279,346
Feathers, undressed	(a)	(a)	(a)	(a)	(a)
Honey	lb. 764,606	1,934,162	1,365,364	687,007	4,631,781
Lard	2,792,008	4,051,472	4,213,026	5,490,959	14,324,614
Meats—					
Bacon and Ham	1,701,575	1,752,518	1,675,969	1,739,053	4,247,554
Frozen poultry	52,377	40,754	35,358	21,768	63,310
Frozen pork	lb. 23,577,743	26,816,453	33,959,412	30,716,417	52,202,821
Milk, concentrated and preserved	16,961,023	22,169,680	24,717,435	19,106,953	32,219,408
Pigs, live	No. 131	164	152	69	54
Poultry, live	1,733	1,099	2,175	2,189	4,462

(a) Quantity not available.

(b) Not available for publication.

AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS: EXPORTS—*contd.*

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
VALUE.					
	£	£	£	£	£
Bees-wax	28	2,934	1,322	148	2,127
Butter	9,832,733	8,801,643	10,781,124	12,891,837	15,894,718
Cheese	337,467	384,027	845,130	1,074,008	1,440,140
Eggs not in shell	7,170	19,756	16,926	23,065	18
Eggs	910,892	954,578	686,713	638,159	597,854
Feathers, undressed	2,257	3,110	1,192	307	665
Honey	12,840	30,380	21,081	13,957	128,974
Lard	53,603	69,374	63,662	67,744	182,564
Meats—					
Bacon and Ham	109,760	112,680	117,654	119,994	274,932
Frozen poultry	36,078	35,432	36,803	19,917	43,457
Frozen pork	587,410	687,043	934,575	882,117	1,561,432
Milk, concentrated and preserved	722,301	851,769	963,873	791,100	1,126,066
Pigs, live	708	607	979	621	387
Poultry, live	973	572	860	970	3,772
Total	12,614,220	11,953,905	14,471,894	16,523,944	1,257,106

§ 9. British Imports of Dairy Products.

1. Quantities and Values.—The following table gives the quantities and values of the principal dairy products imported into the United Kingdom during the years 1935 to 1939. Figures for later years are not available for publication :—

DAIRY PRODUCTS: IMPORTS INTO UNITED KINGDOM.

Products.	1935.	1936.	1937.	1938.	1939.
Butter cwt.	9,608,016	9,740,735	9,417,669	9,517,913	8,736,967
" £	39,328,128	44,385,148	47,362,965	50,873,133	48,424,422
Cheese cwt.	2,714,351	2,676,371	2,935,907	2,927,326	2,845,425
" £	6,649,093	7,783,747	9,252,915	9,681,245	8,868,544
Milk, concentrated and preserved cwt.	2,005,528	1,926,629	1,978,313	1,989,552	1,698,896
" £	2,435,822	2,407,028	2,819,107	3,160,266	2,817,760
Bacon and ham cwt.	7,603,672	7,241,374	7,600,154	7,532,436	7,895,493
" £	30,462,249	30,247,252	32,440,620	33,936,331	36,706,410
Pork (a) cwt.	915,098	1,025,156	1,057,159	1,180,866	988,804
" £	2,509,315	2,780,455	3,250,389	3,680,644	3,036,040

(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 1939 amounted to 1,973,454 cwt., or 23 per cent. of the total importation. The Australian contribution was valued at £11,090,254 and was exceeded only by that received from New Zealand and Denmark. These three countries combined supplied 71 per cent. of the total imports in 1938 and in 1939. Later details are not available for publication :—

BUTTER: IMPORTS INTO UNITED KINGDOM, 1939.

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	Cwt.	£		Cwt.	£
New Zealand	2,094,417	12,060,037	Estonia	149,807	707,027
Denmark	2,031,353	11,799,324	Argentine Republic	113,198	606,024
Australia	1,973,454	11,090,254	Union of South Africa	112,617	646,601
Netherlands	834,106	4,078,747	British Possessions, n.e.i.	112,194	597,192
Lithuania	247,509	1,268,671	Foreign Countries, n.e.i.	40,104	206,320
Sweden	239,165	1,315,660			
Latvia	237,284	1,118,944			
Eire	227,368	1,386,750			
Poland	162,575	728,346			
Finland	161,816	814,425	Total	8,736,967	48,424,422

(ii) *London Prices.* Fluctuations in prices in London during recent years are given in the following table. Until September, 1939, 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. Since September, 1939, the price represents that fixed in accordance with the contract between the Governments of Australia and the United Kingdom for choicest Australian butter. Pence have been omitted throughout.

**AVERAGE PRICE PER CWT. OF AUSTRALIAN CHOICEST BUTTER IN LONDON
(WITH F.O.B. EQUIVALENTS IN AUSTRALIAN CURRENCY).**

Month.	1936-37.		1937-38.		1938-39.		1939-40.		1940-41-42.	
	London.	Australia. (a)	London.	Australia. (a)	London.	Australia. (a)	London.	Australia.	London.	Australia.
	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).
July ..	113	126	112	126	120	135	114	(a)127	(c)110	(b)137
August ..	118	132	116	130	118	132	110	(a)123	(c)110	(b)137
September ..	108	120	119	134	116	130	120	(a)135	(c)110	(b)137
October ..	100	111	139	158	111	124	(c)110	(b)137	(c)110	(b)137
November ..	108	120	130	147	104	115	(c)110	(b)137	(c)110	(b)137
December ..	98	108	111	124	107	119	(c)110	(b)137	(c)110	(b)137
January ..	94	103	109	122	120	134	(c)110	(b)137	(c)110	(b)137
February ..	86	94	111	124	118	132	(c)110	(b)137	(c)110	(b)137
March ..	97	107	117	131	115	128	(c)110	(b)137	(c)110	(b)137
April ..	104	116	124	140	113	126	(c)110	(b)137	(c)110	(b)137
May ..	106	118	127	143	107	119	(c)110	(b)137	(c)110	(b)137
June ..	108	120	120	135	113	126	(c)110	(b)137	(c)110	(b)137

(a) Sydney and Melbourne. (b) Equivalent of contract price. (c) Contract price—equivalent under pre-war conditions would be 122s. stg.

3. *Cheese.*—The value of cheese imported into the United Kingdom in 1939 was £8,868,544, of which £4,469,171 was received from New Zealand, and £2,440,005 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 1939 amounted to £958,333. Later details are not available.

4. *Bacon and Ham.*—Of a total import of bacon and ham valued in 1939 at £36,706,410, the United Kingdom received imports to the value of £16,625,749 from Denmark, £7,200,278 from Canada, £2,886,537 from the Netherlands, £2,338,465 from Eire, £2,279,955 from the United States of America, and £1,860,740 from Poland. The import from Australia was small. Later details are not available.

5. *Pork.*—The value of the United Kingdom imports of pork (frozen and chilled) was £3,036,040 in 1939. Imports from Australia were valued at £938,956, showing a further increase over the imports in previous years. The bulk of the supplies were received from New Zealand, namely, £1,293,035. Later details are not available.

6. *Other Products.*—The imports into the United Kingdom from Australia of bees-wax, poultry, game, lard and honey in 1939 were unimportant, but frozen rabbits to the value of £204,931 and eggs in shell to the value of £418,687 representing 80 per cent. and 3 per cent. respectively of the total imports were imported during the year. Later details are not available.

CHAPTER XIX.

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 reafforestation 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 (see pp. 701–12 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 carries 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 appear 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, 1920. 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.	Percentage on Total Area.
				Acres.	Per Cent.
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.
U.S.S.R. (Russia) ..	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 2.8 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 Australian 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 silvicultural and other forest research work and to provide for 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 in 1930 and following years delayed progress on the research side, and the Australian Forestry School was the Bureau's main activity. Since then, however, the research work of the Bureau has been developed, and stations established in South Australia and Tasmania on a co-operative basis with the State Forestry services.

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 is being developed.

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 at 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, 1940, is set out in the following table:—

AREA OF FOREST RESERVATIONS, 30th JUNE, 1940.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Dedicated State forests ..	5,243,570	4,860,145	3,152,182	(a) 267,649	3,666,974	1,593,070	18,783,390
Timber and fuel reserves ..	1,352,386	(b)	3,195,191	..	2,161,912	951,600	(c) 7,661,089
Total ..	6,595,956	4,860,145	6,347,373	267,649	5,828,886	2,544,670	26,644,679

(a) Includes Timber and Fuel Reserves.

(b) Not available.

(c) Incomplete.

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 elimination of 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, 1940, to 18,783,590 acres, or 96 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 7,661,089 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, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Total area of indigenous forest improved or regenerated acres	1,387,472	1,037,478	369,470	9,928	499,381	1,935	3,305,664
Total area of effective plantations—							
Hardwoods .. acres	..	2,500	2,415	4,976	(a) 12,763	250	22,904
Softwoods ..	45,980	44,153	23,557	94,405	12,494	1,375	221,964
Number of persons employed in Forestry Departments—							
Office staff .. No.	142	41	127	36	41	24	411
Field staff .. "	124	137	1,256	349	(b) 439	46	2,351

(a) Mallet—mainly for bark for tanning.

(b) Including 300 casual hands.

4. Revenue and Expenditure.—The revenue and expenditure of State Forestry Departments from 1935-36 to 1939-40 are given below :—

STATE FORESTRY DEPARTMENTS : REVENUE AND EXPENDITURE.

State.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
REVENUE.					
	£	£	£	£	£
New South Wales ..	87,674	206,770	201,416	224,266	244,993
Victoria ..	176,626	199,360	213,694	198,157	218,961
Queensland ..	660,455	669,457	835,311	764,557	888,360
South Australia ..	115,513	114,638	117,305	101,312	110,897
Western Australia ..	143,158	164,888	176,201	145,724	151,770
Tasmania ..	26,904	30,693	30,722	32,765	33,241
Total ..	1,210,330	1,385,806	1,574,649	1,466,781	1,648,222

STATE FORESTRY DEPARTMENTS: REVENUE AND EXPENDITURE—*contd.*

State.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
EXPENDITURE.					
	£	£	£	£	£
New South Wales ..	(a) 179,234	84,857	190,215	250,355	191,086
Victoria ..	196,279	(b) 610,604	(b) 491,964	(b) 406,175	(b) 475,517
Queensland ..	496,928	495,740	624,087	764,545	865,288
South Australia ..	175,913	174,973	182,534	182,633	222,915
Western Australia ..	(a) 235,186	(c) 196,698	(c) 182,283	(c) 164,943	(c) 154,870
Tasmania ..	15,674	20,234	58,869	71,437	70,852
Total ..	1,299,214	1,583,106	1,729,952	1,840,088	1,980,528

(a) Including expenditure from Unemployment Relief Funds as follows:—1935-36—New South Wales, £117,703; Western Australia, £183,549. (b) Including expenditure from Relief Works, 1936-37, £350,564; 1937-38, £258,341; 1938-39, £167,611; 1939-40, £148,125. (c) Including expenditure from General Loan and Trust Funds, 1936-37, £122,011; 1937-38, £155,178; 1938-39, £136,254; 1939-40, £126,174.

§ 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, Queensland or Sydney, 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 is given in Official Year Book No. 22, p. 743. 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 1939-40 are shown in the following table :—

OUTPUT OF NATIVE TIMBER : FOREST SAWMILLS, 1939-40.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
LOGS TREATED INCLUDING THOSE SAWN ON COMMISSION.							
Hardwood— Quantity '000 sup. ft.	138,096	214,434	115,686	4,843	304,253	152,808	930,120
Softwood— Quantity '000 sup. ft.	55,997	3,252	171,691	18,226	1,506	2,965	253,637
Total— Quantity '000 sup. ft.	194,093	217,686	287,377	23,069	305,759	155,773	1,183,757
ROUGH SAWN TIMBER PRODUCED FROM LOGS ABOVE.							
Hardwood— Quantity '000 sup. ft.	87,108	117,918	68,438	2,548	117,169	76,993	470,174
Softwood— Quantity '000 sup. ft.	33,670	1,667	119,322	8,632	429	1,816	165,536
Total— Quantity '000 sup. ft.	120,778	119,585	187,760	11,180	117,598	78,809	635,710

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 the last three years.

SAWN OUTPUT OF NATIVE TIMBER : ALL MILLS.

State.	1923-24.	1928-29.	1937-38.	1938-39.	1939-40.
	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.
New South Wales	167,493	136,051	168,042	179,350	191,583
Victoria	134,639	79,018	141,439	120,197	138,634
Queensland	141,672	106,862	208,098	193,250	210,375
South Australia	1,350	3,219	16,167	14,537	19,232
Western Australia	161,749	145,043	129,986	125,453	117,819
Tasmania	63,120	46,195	83,009	84,228	79,330
Total	670,023	516,388	746,741	717,015	756,973

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 :—1935–36, 45,614,500 sup. feet ; 1936–37, 44,771,668 sup. feet ; 1937–38, 46,775,418 sup. feet ; 1938–39, 35,862,540 sup. feet ; and 1939–40, 36,000,000 sup. feet. The annual reports of the Forest Departments of the States contain particulars concerning the output of timber from areas under departmental control, but owing to lack of uniformity in classification and measurement, accurate determination of total production cannot be made. Moreover, there is a moderate quantity of hewn timber produced from privately owned land, but information regarding output is not available.

2. **Stocks of Timber, Logs and Sawm.**—Particulars are given below of timber stocks held on 30th June, 1939, as reported by mills and other factories included in the wood-working group. These latter establishments include box and case factories and joinery works, etc. Later details are not available for publication.

STOCKS OF TIMBER REPORTED BY FACTORIES, 30th JUNE, 1939.

State.	Logs.			Sawn Timber.		
	Hardwood.	Softwood.	Total.	Hardwood.	Softwood.	Total.
	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.	'000 sup. feet.
New South Wales	9,918	17,164	27,082	(a)	(a)	61,953
Victoria ..	9,921	5,239	15,160	19,955	18,432	38,387
Queensland ..	(a)	(a)	(a)	(a)	(a)	(a)
South Australia	610	3,358	3,968	2,477	9,476	11,953
Western Australia	1,810	..	1,810	35,238	937	36,175
Tasmania ..	4,695	278	4,973	5,546	586	6,132
Total ..	(a)	(a)	(a)	(a)	(a)	(a)

(a) Not available.

3. **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 1935–36 to £53,797 ; in 1936–37 to £82,457 ; in 1937–38 to £94,538 ; in 1938–39 to £86,714 ; and in 1939–40 to £130,422 ; the bulk of the product is shipped from Victoria to the United Kingdom, the United States of America 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 improved 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 1935–36 to £27,526 ; in 1936–37 to £38,185 ; in 1937–38 to £35,128 ; in 1938–39 to £25,550 ; and in 1939–40 to £22,438. 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 1938–39, 1,648 tons valued at £42,330 were exported, the whole of which was shipped to the East ; Hong Kong 805 tons and China 686 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 1939-40 amounted to 2,096 tons, whilst the exports from Australia amounted to 1,903 tons valued at £12,128 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 and 1939-40, the annual excess value averaging £2,945 during the past five years. The chief exporting States are Western Australia, South Australia and Tasmania. 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 is given in Official Year Book No. 22, p. 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.

4. **Value of Production—Gross and Net.**—(i) *General*. 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, 1939-40.

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 ..	2,510,000	163,000	2,347,000	..	2,347,000
Victoria ..	1,474,386	205,889	1,268,597	159,733	1,108,864
Queensland..	2,786,000	255,000	2,531,000	..	2,531,000
South Australia ..	654,663	49,244	605,419	..	605,419
Western Australia ..	1,329,823	228,739	1,101,084	13,350	1,087,734
Tasmania ..	507,140	54,620	452,520	..	452,520
Total ..	9,262,112	956,492	8,305,620	173,083	8,132,537

(a) No deduction has been made for depreciation and maintenance.

(ii) *States 1930-31 to 1939-40.* In the following table the net value of forestry production and the net value per head of population are given by States for each year since 1930-31.

NET VALUE OF FORESTRY PRODUCTION.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
NET VALUE. (a)							
	£	£	£	£	£	£	£
1930-31 ..	1,237,000	612,317	1,121,680	435,962	904,701	182,890	4,494,530
1931-32 ..	1,158,000	541,665	833,994	473,915	655,923	189,070	3,852,567
1932-33 ..	1,476,000	537,324	1,313,547	521,000	591,410	210,150	4,649,431
1933-34 ..	1,737,000	588,837	1,334,088	488,069	729,796	259,360	5,137,150
1934-35 ..	1,922,000	664,800	1,988,751	523,786	1,012,261	325,750	6,437,348
1935-36 ..	2,014,000	692,209	2,076,000	525,936	1,135,851	363,600	6,807,596
1936-37 ..	2,096,000	731,777	2,186,000	570,692	1,314,152	407,300	7,305,921
1937-38 ..	2,179,000	1,029,174	2,514,000	570,199	1,272,707	431,200	7,996,280
1938-39 ..	2,261,000	1,067,732	2,362,000	542,465	1,147,335	399,500	7,780,032
1939-40 ..	2,347,000	1,108,864	2,531,000	605,419	1,087,734	452,520	8,132,537

NET VALUE PER HEAD OF MEAN POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1930-31 ..	0 9 8	0 6 10	1 4 5	0 15 2	2 2 0	0 16 5	0 13 10
1931-32 ..	0 9 0	0 6 0	0 17 11	0 16 5	1 10 3	0 16 9	0 11 9
1932-33 ..	0 11 4	0 5 11	1 7 11	0 18 0	1 7 1	0 18 5	0 14 1
1933-34 ..	0 13 3	0 6 5	1 8 1	0 16 9	1 13 2	1 2 8	0 15 5
1934-35 ..	0 14 7	0 7 3	2 1 5	0 17 11	2 5 8	1 8 5	0 19 3
1935-36 ..	0 15 2	0 7 6	2 2 8	0 17 11	2 10 9	1 11 7	1 0 2
1936-37 ..	0 15 8	0 7 11	2 4 5	0 19 5	2 18 2	1 15 1	1 1 5
1937-38 ..	0 16 1	0 11 1	2 10 6	0 19 4	2 15 8	1 16 8	1 3 4
1938-39 ..	0 16 7	0 11 5	2 6 11	0 18 3	2 9 7	1 13 9	1 2 6
1939-40 ..	0 17 0	0 11 9	2 9 9	1 0 3	2 6 8	1 17 11	1 3 3

(a) No deduction has been made for depreciation and maintenance.

5. *Employment.*—(i) *Census Returns.* 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.

EMPLOYMENT IN FORESTRY, 30th JUNE, 1933.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total. (a)
	No.	No.	No.	No.	No.	No.	No.
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) Excluding Northern Territory, 11, and Australian Capital Territory, 152.

(ii) *Logging Operations : Forest Sawmills.* Particulars of employment and costs of logging operations in the forests are given for each State in the following table. These data have been compiled from the details furnished by those establishments which come within the definition of a forest sawmill as distinct from those defined as town sawmills.

FOREST SAWMILLS : LOGGING OPERATIONS, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
Number of men employed							
Value of wages paid		991	551	32	838	696	
Other Costs		181,949	95,403	4,270	204,193	106,097	
Value of Royalties, etc., paid		102,335	159,482	17,729	112,438	99,200	
Period worked by men above		111,903	147,742	35,506	123,077	29,049	
		(a)	8.51	9.69	10.83	9.90	

(a) Not available.

(iii) *Mill Workers : Forest Sawmills.* Details of the number employed in the milling operations of these forest sawmills are given in the next table. Further details regarding the operations of these mills are given in Chapter XXI. "Manufacturing Industry".

FOREST SAWMILLS : MILL WORKERS, 1939-40.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	No.	No.	(a) No.	No.	No.	No.	No.
Males ..	2,115	1,901	4,415	239	1,774	1,331	11,775
Females ..	40	9	106	1	8	9	173
Total ..	2,155	1,910	4,521	240	1,782	1,340	11,948

(a) Including town sawmills.

§ 7. Commercial Uses of Principal Australian Timbers.

1. *General.*—The uses of the more important Australian timbers are many and varied, and are indicated in previous issues of this work.

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 1935-36 to 1938-39 inclusive are shown according to countries of origin in the following tables. Later details are not available for publication :—

DRESSED TIMBER : IMPORTS INTO AUSTRALIA.

Country of Origin.	Quantity.				Australian Currency Values.			
	1935-36.	1936-37.	1937-38.	1938-39.	1935-36.	1936-37.	1937-38.	1938-39.
	Sup. ft.	Sup. ft.	Sup. ft.	Sup. ft.	£	£	£	£
United Kingdom ..	369	2,609	235	551	34	238	76	48
Canada ..	4,279,916	6,772,408	12,267,864	8,926,950	44,288	66,826	165,374	99,797
Other British Countries ..	208,443	98,196	91,387	2,576	2,910	883	2,095	23
Norway ..	5,972,177	5,312,467	5,510,582	4,209,070	53,670	51,318	73,579	47,570
Sweden ..	2,041,848	2,504,871	5,362,982	1,977,921	18,299	28,514	81,694	26,687
U.S. of America ..	1,568,577	2,326,883	1,921,944	2,242,023	12,907	18,523	25,042	24,203
Other Foreign Countries ..	1,966,985	220,576	776,892	418,430	18,377	5,283	14,491	6,771
Total ..	16,038,315	17,238,010	25,931,886	17,777,521	150,485	171,585	362,351	205,099

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 £67,198 in 1938-39 including plywood, veneered or otherwise, £24,463.

The bulk of the imports of dressed timber come 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 1935-36 to 1938-39 are given hereunder. Later details are not available for publication :—

UNDRESSED TIMBER, INCLUDING LOGS (a) : IMPORTS INTO AUSTRALIA.

Country of Origin.	Quantity.				Australian Currency Values.			
	1935-36.	1936-37.	1937-38.	1938-39.	1935-36.	1936-37.	1937-38.	1938-39.
	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	£	£	£	£
United Kingdom ..	202	75	175	115	15,696	8,513	14,112	10,969
Canada ..	265,016	261,219	334,233	296,948	825,777	960,374	1,693,455	1,225,650
India ..	101	136	190	7	4,299	6,355	2,595	287
Malaya (British) ..	104	128	369	165	730	959	2,930	1,389
New Zealand ..	36,697	17,114	14,568	11,193	452,167	248,030	221,252	173,556
Other British Countries ..	3,690	4,254	9,684	10,840	34,212	27,914	73,256	75,136
Japan ..	1,186	786	727	374	14,166	10,411	14,837	8,439
Netherlands East Indies ..	41	..	..	20	185	36	..	130
Norway ..	33	..	124	21	237	90	1,668	385
New Caledonia ..	..	2	62	1,671	..	9	313	6,368
Philippine Islands ..	3,949	3,390	4,359	6,879	37,138	31,566	42,375	72,921
Sweden ..	2,251	2,549	2,409	4,654	16,778	20,116	28,066	40,592
United States of America ..	39,863	23,490	31,043	12,245	341,432	219,058	341,800	210,092
Other Foreign Countries ..	5,015	5,028	8,240	2,966	31,307	32,835	77,801	29,022
Total ..	358,148	318,171	406,783	348,098	1,774,124	1,566,266	2,514,460	1,854,936

(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 of America; 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 1935-36 to 1938-39 are given below, together with the countries of destination. Later details are not available for publication:—

UNDRESSED TIMBER, INCLUDING LOGS. (a) : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.				Value.(b)			
	1935-36.	1936-37.	1937-38.	1938-39.	1935-36.	1936-37.	1937-38.	1938-39.
	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	1,000 sup. ft.	£	£	£	£
United Kingdom	13,133	16,159	17,500	11,760	148,682	186,253	216,323	138,294
Canada	140	131	341	223	2,565	2,483	7,715	4,723
eylon	635	760	567	535	6,353	7,941	5,893	5,563
Hong Kong .. ..	..	69	443	50	..	621	3,740	616
India	438	1	..	..	4,514	3	..	..
Mauritius	432	403	311	354	4,738	5,014	5,846	4,520
New Zealand	12,842	15,066	15,835	17,149	160,398	209,648	237,098	245,450
Pacific Islands—								
Fiji	727	744	896	841	10,832	11,745	14,788	15,637
Gilbert and Ellice Islands	..	..	..	..	..	..	..	..
Colony	149	156	212	210	1,337	4,413	2,272	2,292
Nauru	153	243	282	293	1,020	4,858	4,218	3,013
Papua	262	267	424	241	3,932	4,074	6,980	3,670
Solomon Islands	160	246	236	161	2,383	4,160	4,800	2,527
Territory of New Guinea	241	207	289	141	3,158	3,595	4,741	2,188
Other Islands	26	74	125	169	391	1,360	2,372	4,172
Union of South Africa ..	5,399	5,099	7,358	7,164	64,957	57,788	83,055	80,668
Other British Countries ..	22	127	92	161	269	2,252	1,579	1,769
Africa, Portuguese East ..	574	382	346	415	7,271	4,370	4,983	5,023
Belgium	1,078	518	1,612	1,286	11,181	7,117	24,241	19,347
China	1,153	748	128	271	11,504	7,161	1,010	2,324
Egypt	302	132	228	719	3,919	1,317	2,280	7,186
Germany	236	298	81	648	2,625	4,661	1,066	9,989
Netherlands	73	196	685	224	974	2,169	8,541	2,777
Pacific Islands—								
New Caledonia	219	60	94	72	3,492	1,075	1,880	1,117
New Hebrides	64	150	128	51	725	1,733	2,306	836
Other Islands	18	36	44	33	378	862	995	780
United States of America ..	2,475	2,834	1,150	955	63,241	85,101	32,850	27,857
Other Foreign Countries ..	78	84	35	212	1,352	929	438	2,487
Australian Produce	40,307	44,056	48,882	43,798	516,022	606,702	674,187	588,746
Other Produce	812	1,134	560	540	6,169	16,001	7,823	6,079
Total	41,119	45,190	49,442	44,338	522,191	622,703	682,010	594,825

(a) Exclusive of Timber not measured in super. feet.

(b) Australian currency values.

The bulk of the exports of undressed timber were 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. Later details are not available for publication :—

RAILWAY SLEEPERS : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.		Value.(a)	
	1937-38.	1938-39.	1937-38.	1938-39.
	Sup. ft.	Sup. ft.	£	£
United Kingdom	1,184,784	1,438,303	16,722	14,467
Ceylon	3,750,156	5,333,820	37,499	53,339
Hong Kong	1,396,604	..	14,888	..
Mauritius	964,987	562,500	10,217	6,216
New Zealand	7,628,809	16,895,691	78,636	165,303
Pacific Islands	216,038	201,036	2,180	2,341
Union of South Africa ..	6,299,076	4,941,144	62,990	49,412
Other British Countries ..	30,024	..	300	..
China	7,852,981	..	80,312	..
Egypt	8,148,120	4,198,210	81,481	41,986
Iran (Persia)	155,604	271,038	1,556	2,707
Iraq	14,479,697	164,769	141,034	1,696
Other Foreign Countries ..	44,556	29,160	445	291
Total	(b)52,151,436	(c)34,035,671	528,260	337,758

(a) Australian currency values.
1,267,894.

(b) Number of sleepers, 1,803,793.

(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 1938-39 are given in the next table. Later details are not available for publication :—

TIMBER : VARIETIES IMPORTED AND EXPORTED FROM AUSTRALIA,
QUANTITIES, 1938-39.

Description.	Unit of Quantity.	Imports.	Exports.	Excess of Imports over Exports.
Dressed	Sup. ft.	17,777,521	881,055	16,896,466
Undressed, including logs .. ..	..	348,098,462	44,338,109	303,760,353
Sleepers .. ..	..	(a)	34,035,671	-34,035,671
Architraves, mouldings, etc. ..	Lin. ft.	18,810	72,960	-54,150
Plywood, veneered or otherwise ..	Sq. ft.	2,890,388	3,015,669	125,281
Palings	No.	5,665	125,420	-119,755
Shingles .. ..	..	157,280	..	157,280
Staves—				
Dressed, etc. .. ..	..	807,085	200	806,885
Undressed .. ..	..	1,004,795	..	1,004,795
Laths—				
For blinds .. ..	..	..	..	..
Other .. ..	..	640,115	..	640,115
Doors .. ..	..	1,069	(b)	(b)
Wood pulp	Ton	37,550	(a)	37,550
Veneers	Sq. ft.	4,493,339	4,358,479	134,860
Spokes, rims, felloes, etc. ..	No.	500	(b)	(b)
Other .. ..	..	(b)	(b)	(b)

(a) Not recorded separately.

(b) Quantity not available.

NOTE.—The minus sign (—) denotes an excess of exports.

Similar particulars relative to the values of imports and exports during the year 1938-39 are shown hereunder. Later details are not available for publication :—

**TIMBER : VARIETIES IMPORTED AND EXPORTED FROM AUSTRALIA,
VALUES (a), 1938-39.**

Description.	Imports.	Exports.	Excess of Imports over Exports.
	£	£	£
Dressed	205,099	20,130	184,969
Undressed, including logs	1,854,936	594,825	1,260,111
Sleepers	(b)	337,758	-337,758
Architraves, mouldings, etc.	132	567	-435
Plywood, veneered or otherwise	24,463	41,254	-16,791
Palings	65	1,265	-1,200
Shingles	342	..	342
Staves—			
Dressed, etc.	45,337	25	45,312
Undressed	25,913	..	25,913
Laths—			
For blinds .. .. .	..	..	..
Other	712	..	712
Doors	74	1,405	-1,331
Wood pulp	399,187	(b)	399,187
Veneers	37,714	27,148	10,566
Spokes, rims, felloes, etc.	12	503	-491
Other	3,809	38	3,771
Total	2,597,795	1,024,918	1,572,877

(a) Australian currency values.

(b) 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)			
	1935-36.	1936-37.	1937-38.	1938-39.	1935-36.	1936-37.	1937-38.	1938-39.
	Ton.	Ton.	Ton.	Ton.	£	£	£	£
Hong Kong	1,209	2,120	729	805	32,842	63,344	21,242	18,709
India	75	105	40	26	2,339	3,279	1,280	842
Malaya (British)	99	140	116	97	2,997	4,283	3,578	3,149
Other British Countries	11	20	13	17	351	620	415	545
China	932	1,154	312	686	27,513	34,426	9,357	18,511
Other Foreign Countries	26	16	31	17	803	496	959	574
Total	2,352	3,555	1,241	1,648	66,845	106,448	36,831	42,330

(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 for the four years ended 1938-39. Later details are not available for publication :—

TAN BARK : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity.				Value.(a)			
	1935-36.	1936-37.	1937-38.	1938-39.	1935-36.	1936-37.	1937-38.	1938-39.
	Cwt.	Cwt.	Cwt.	Cwt.	£	£	£	£
United Kingdom ..	305	..	100	..	162	..	20	..
New Zealand ..	20,001	10,808	5,779	7,620	9,482	6,024	3,118	3,897
Other British Possessions ..	..	..	30	40	..	..	21	27
Germany ..	1,517	515	3,193	8,251	1,101	228	1,313	3,582
Other Foreign Countries ..	1,941	1,514	6,253	2,309	914	2,155	3,100	1,124
Total ..	23,764	12,837	15,355	18,220	11,659	8,407	7,572	8,630

(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. Since 1931-32 there has been a diminution of exports and by 1939-40 these had reached the low level of less than 4,000 cwt. The quantity imported, however, has not risen appreciably but during the years 1936-37 and 1939-40 imports exceeded exports. The Union of South Africa is the chief source of supply.

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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
QUANTITIES—	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Imports	4,362	18,216	7,361	6,199	21,981
Exports	23,764	12,837	15,355	18,220	3,885
Excess of exports over imports	19,402	—5,379	7,994	12,021	—18,096
VALUES (a)—	£	£	£	£	£
Imports	1,395	6,660	3,145	2,548	10,141
Exports	11,659	8,407	7,572	8,630	2,344
Excess of exports over imports	10,264	1,747	4,427	6,082	—7,797

(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 species of Australian wattle, *Acacia mollissima*, 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 in Australian currency of the importations in 1939-40 was £135,466, and was composed as follows :—Wattle bark extract, £51,633; quebracho extract, £16,832; other extract, £28,468; and valonia, myroblans, cutch, etc., £38,533.

CHAPTER XX. 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. The Development of Fisheries in Australia.

1. **Progress of Industry.**—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 hands 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. 333–5 of the Official Year Book No. 14.

2. **Economic Investigations.**—(i) *General.* 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.

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 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 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

* 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 (see pp. 752–67 therein).

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.

The building of a second fishing survey vessel has been ordered. This vessel, which is expected to cost about £7,000, is to be used in Western Australian waters, where salmon and tuna suitable for canning are known to abound.

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.

(ii) *Tariff Board Inquiry.* The question of assistance to the fishing industry, including the processing of fish, was the subject of an inquiry by the Tariff Board, whose report was issued in June, 1941.

The Board concluded that the development of a prosperous fishing industry would be an important contribution to the war effort, that the possibilities of commercial exploitation having been established, the stage had now been reached when additional governmental assistance was desirable. It recommended that assistance to the Council for Scientific and Industrial Research be continued and that a Commonwealth Fisheries Development Authority be established with the necessary authority to carry out its functions.

A conference between representatives of the Council for Scientific and Industrial Research and State Departments administering fisheries was held in October, 1941, for the purpose of inquiring into the constitution of the proposed Commonwealth Authority and other related matters.

3. *Canning of Fish.*—Apart from some establishments which may be engaged in the canning of fish as a subsidiary to that of meat and fruit, fish canneries have been established at various places in Australia with varying results. The industry has not developed, however, and the cause has been attributed to either faulty location, failure of supply or failure to ensure a sound market.

There is evidence of the industry being re-established as a result of the development consequent upon the decisions reached at the 1929 conference and there has been a considerable expansion in the output of canned fish since 1936–37. Further development may be expected from the attention directed to the canning of fish as a war-time measure.

The treatment of by-products is a valuable adjunct to the industry and a ready market exists in Australia and overseas for such commodities as fish livers, fish oil, meal and fertilizers.

4. *Consumption of Fish.*—That Australians are not a fish-eating people is evidenced by the fact that the average annual consumption per head of population for the five years ended 1935–36 was estimated at 13.18 lb., inclusive of approximately 4 lb. of imported fish of which 3 lb. was in canned form. In the United Kingdom, the per capita consumption in 1937 was 49.81, compared with 23.8 lb. in New Zealand and 110 lb. in Japan.

The deficiency of fish in the Australian diet has been attributed to the abundance of food available from the soil. It is therefore regarded as an item of luxury or as a welcome change in diet rather than a valuable food. A further reason for the absence of fish from the common diet is that the fishing industry has not been developed to its capacity.

5. *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 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 developed, and small yields are obtained in South Australia, Victoria and Tasmania.

6. Pearl-shell, Pearls, Bêche-de-mer, etc.—(i) *General*. Pearl-shelling 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 tortoise-shell 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. The value of trochus-shell of Australian origin exported during 1939-40 was £37,704.

(ii) *Royal Commission on Pearl-shelling Industry*. In accordance with the "White Australia" policy it was originally determined that the employment of Asiatic labour in the pearl-shelling 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 of 1914-19, 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 pearl-shell 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 prime and customs duty.

§ 3. 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 following tables.—

GENERAL FISHERIES, 1939-40.

State or Territory.	No. of Boats Engaged.	Value of Boats and Equip-ment.	No. of Men Engaged.	Total Take of—		Gross Value of Take—	
				Fish.	Spiny Lobster (Crayfish).	Fish.	Spiny Lobster (Crayfish).
	No.	£	No.	Cwt.	Doz.	£	£
New South Wales(a)	1,779	174,000	(b)2,635	275,387	10,915	511,939	(c)50,016
Victoria..	852	109,365	1,337	106,127	5,901	245,485	6,786
Queensland ..	1,017	100,375	1,996	73,720	(d)16,646	160,404	de7,558
South Australia(a)	1,330	160,000	1,780	89,000	23,000	222,000	17,750
Western Australia(a)	333	58,488	724	55,975	(g)	183,271	25,000
Tasmania(a)(h) ..	235	59,900	349	25,000	88,661	47,500	(f)48,764
Northern Territory	10	700	15	(g)	(g)	(g)	(g)
Total ..	5,556	662,828	8,836	625,200	145,125	1,370,599	155,874

FO (a) Year ended December, 1939. (b) Fishermen's licences issued. (c) Including £33,918, the value of 9,545 cwt. of prawns and 6,435 dozen crabs. (d) Crabs. (e) Including 20 turbot valued at £27. (f) Including prawns and crabs. (g) Not available. (h) Includes oyster fisheries.

Returns for Australia for the last five years are given in the table below :—

GENERAL FISHERIES : AUSTRALIA.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
No. of boats engaged	4,589	4,555	5,002	5,462	5,556
No. of men engaged	7,963	8,237	8,342	9,081	8,836
Fish obtained—					
Quantity cwt.	540,167	556,645	574,115	612,735	625,209
Gross value £	1,180,885	1,369,332	1,334,095	1,385,281	1,370,599
Lobsters obtained—Gross value £	117,058	142,943	136,683	134,866	155,874

(a) Excluding South Australia.

(ii) *Edible Oyster Fisheries.* Edible oyster fisheries are of small dimensions outside New South Wales and Queensland. During 1939-40 the available returns show the following takes:—New South Wales, 71,191 cwt., value £101,692; Queensland, 9,902 cwt., value £13,313. In Tasmania the scallop is far more important than the oyster. In 1939 the scallops taken in Tasmania were valued at £13,650.

Returns for Australia for the last five years are given in the following table :—

EDIBLE OYSTER FISHERIES : AUSTRALIA.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Boats engaged No.	699	711	757	754	791
Men engaged "	687	712	677	850	875
Oysters obtained—					
Quantity cwt.	63,501	74,283	83,666	89,145	82,312
Gross value (a) £	89,989	102,683	124,169	132,201	129,946

(a) Including scallops in Tasmania valued at £6,650 in 1935; £7,800 in 1936; £9,500 in 1937; £14,500 in 1938; and £13,650 in 1939.

(iii) *Pearls, Pearl-shell 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. Pearl-shell (*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 1939-40 are as follows :—

PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES, (a) 1939-40.

State or Territory.	Number of Boats Engaged.	Value of boats and Equip-ment.	Number of Men Engaged.	Pearl-shell.		Gross Value of Pearls obtained. (b)	Gross Value of Bêche-de-mer obtained.	Gross Value of Tortoise-shell obtained.
				Quantity obtained.	Gross Value.			
Queensland (c)	No. 85	£ 93,750	No. 763	Tons. 1,211	£ 116,438	£ 418	£ 669	£ 7.
Western Australia (d)	73	65,706	565	807	70,392	2,202	..	..
(e)	9	5,000	80	131	11,434	..	..	..
Northern Territory								
Australia	167	164,456	1,408	2,149	198,264	2,620	669	7

(a) No pearl-shelling industry in New South Wales, Victoria, South Australia and Tasmania.
 (b) Incomplete; as returned. (c) Also trochus-shell to the value of £36,370. (d) Year ended December, 1939 (e) Also 20 cwt. trochus-shell valued at £79.

The figures for tortoise-shell 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, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES : AUSTRALIA.

Particulars.		1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Boats engaged ..	No.	215	221	204	181	167
Men engaged ..	..	1,991	2,241	1,941	1,750	1,408
Pearl-shell obtained—						
Quantity ..	tons	2,275	2,780	2,854	2,543	2,149
Value ..	£	239,952	340,244	310,655	222,281	198,264
Value of—						
Pearls obtained (a) ..	£	6,031	5,495	4,111	3,397	2,620
Bêche-de-mer obtained	£	15,082	6,495	14,237	8,145	669
Tortoise-shell exported	£	402	367	380	151	205
Trochus-shell exported	£	41,590	51,209	32,147	34,166	37,704

(a) Incomplete ; as returned.

2. Value of Production—Gross and Local.—(i) *General.* 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, 1939-40.

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 ..	664,000	156,000	508,000	52,000	456,000
Victoria ..	252,687	53,055	199,632	(b)	(b)
Queensland ..	335,000	50,000	285,000	65,000	220,000
South Australia ..	238,625	36,616	202,009	(b)	(b)
Western Australia ..	280,944	28,107	252,837	26,345	226,492
Tasmania ..	109,910	..	109,910	(b)	(b)
Total ..	(c)1,811,166	323,778	1,557,388	(b)	(b)

(a) No deduction has been made for depreciation and maintenance.
(c) Excluding production in the Northern Territory.

(b) Not available.

(ii) *States 1930-31 to 1939-40.* In the following table the local value of fisheries production and the local value per head of population are given by States for each year since 1930-31. Local value is gross value less marketing costs and is the value at the

place of production. The value of materials used in the course of production is not available for all States and consequently production is valued at that point. These values therefore overstate the net values by the extent of these costs.

LOCAL VALUE OF FISHERIES PRODUCTION.

Year.	N.S.W.	Vic.	Qld.	S.A.	W. A.	Tas.	Total.
LOCAL VALUE.(a)							
	£	£	£	£	£	£	£
1930-31 ..	635,000	166,450	269,351	149,972	239,733	80,870	1,541,376
1931-32 ..	591,000	153,099	237,684	152,740	210,596	85,140	1,430,259
1932-33 ..	544,000	151,571	255,488	152,127	212,177	75,360	1,390,723
1933-34 ..	536,000	132,452	248,375	152,041	195,985	72,080	1,336,933
1934-35 ..	536,000	140,549	261,411	151,843	181,913	71,300	1,343,016
1935-36 ..	583,000	146,946	287,000	151,800	179,405	71,040	1,419,191
1936-37 ..	650,000	161,999	336,000	184,669	224,432	80,900	1,638,000
1937-38 ..	548,000	168,095	296,000	209,234	286,580	87,050	1,594,959
1938-39 ..	620,000	176,919	277,000	220,401	269,894	90,350	1,654,564
1939-40 ..	508,000	199,632	285,000	202,009	252,837	109,910	1,557,388

LOCAL VALUE PER HEAD OF MEAN POPULATION.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1930-31 ..	5 0	1 10	5 11	5 3	11 1	7 3	4 11
1931-32 ..	4 7	1 8	5 1	5 4	9 9	7 6	4 4
1932-33 ..	4 2	1 8	5 6	5 3	9 9	6 7	4 3
1933-34 ..	4 1	1 5	5 3	5 3	8 11	6 4	4 0
1934-35 ..	4 1	1 6	5 5	5 2	8 3	6 3	4 0
1935-36 ..	4 5	1 7	5 11	5 2	8 0	6 2	4 3
1936-37 ..	4 9	1 9	6 10	6 3	9 11	7 0	4 10
1937-38 ..	4 0	1 10	5 11	7 1	12 6	7 5	4 8
1938-39 ..	4 6	1 11	5 6	7 5	11 8	7 8	4 9
1939-40 ..	3 8	2 1	5 7	6 9	10 10	9 3	4 5

(a) No deduction has been made for depreciation and maintenance.

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. As previously mentioned large quantities of fish are now being canned in Australia. The Tariff Board in its report on the fishing industry in 1941 stated that monetary grants or loans to existing processors or canners of fish were not justified at present.

4. State Revenue from Fisheries.—The revenue from fisheries in each State during the year 1939-40 is given hereunder:—

FISHERIES : REVENUE, 1939-40.

State or Territory.	Licences.	Leases.	Fines and Forfeitures.	Other Sources.	Total.
	£	£	£	£	£
New South Wales (a) ..	3,930	9,213	516	785	14,444
Victoria	1,283	87	481	37	1,888
Queensland	3,075	1,401	195	31	4,702
South Australia (a) ..	1,909	..	..	..	1,909
Western Australia (a) ..	1,320	15	172	49	1,556
Tasmania (a)	590	..	..	152	742
Northern Territory ..	75	..	..	..	75
Total	12,182	10,716	1,364	1,054	25,316

(a) Year ended December, 1939.

Similar particulars for Australia for the last five years are given in the following table :—

FISHERIES : REVENUE, AUSTRALIA.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£	£
Licences	8,445	10,120	12,706	15,563	12,182
Leases	12,517	11,552	11,988	12,446	10,716
Fines and Forfeitures	1,224	1,617	1,512	1,397	1,364
Other Sources	960	1,270	4,888	4,867	1,054
Total	23,146	24,559	31,094	34,273	25,316

§ 4. Oversea Trade in Fishery Products.

1. Imports of Fish.—The large importations of fish and fish products made each year offer further evidence of the need to develop the fishing industry of Australia. Imports for the last five years were as follows :—

FISH AND FISH PRODUCTS : IMPORTS INTO AUSTRALIA.

Classification.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
QUANTITY.					
Fish—	cwt.	cwt.	cwt.	cwt.	cwt.
Fresh or preserved by cold process	85,777	75,911	79,411	83,393	68,177
Potted or concentrated	7,426	8,349	7,733	9,435	7,300
Preserved in Tins—					
Herrings	39,461	47,254	39,819	38,917	32,800
Salmon	154,863	163,655	163,079	166,695	147,125
Sardines	39,128	40,593	31,408	29,372	29,019
Other	13,074	9,215	10,754	14,306	6,897
Crustaceans	4,008	4,300	5,793	6,829	7,677
Oysters	(a)	1,643	2,033	1,939	2,159
Smoked or dried (not salted)	6,694	9,274	9,623	8,122	5,474
Other	4,408	5,617	4,549	7,987	3,441
Oysters in the shell	4,982	2,349	893	635	1,049

VALUE IN AUSTRALIAN CURRENCY.

Fish—	£A.	£A.	£A.	£A.	£A.
Fresh or preserved by cold process	257,870	272,559	288,796	273,289	247,577
Potted or concentrated	109,943	117,189	109,685	122,250	102,918
Preserved in Tins—					
Herrings	116,277	145,001	129,576	138,391	118,256
Salmon	523,509	580,538	657,936	716,164	677,685
Sardines	230,270	208,644	192,658	182,336	181,396
Other	59,288	41,678	50,113	63,996	34,124
Crustaceans	38,864	39,369	57,451	70,328	71,225
Oysters	(a)	11,374	14,003	13,995	17,611
Smoked or dried (not salted)	18,582	26,406	27,687	23,603	17,633
Other	11,350	14,538	11,736	10,948	10,307
Oysters in the shell	4,044	1,468	881	704	1,068
Total	1,369,997	1,458,764	1,540,522	1,616,004	1,479,800

(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 1938-39; 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 5,812 cwt. of the crustaceans imported. Details for later years are not available for publication.

2. **Exports of Fish.**—The exports of fish are comparatively insignificant. During 1939-40 they were as follows:—Fresh or preserved by cold process, 1,346 cwt., £5,470; oysters, fresh, 297 cwt., £760; potted or concentrated, £912; preserved in tins, 8,605 cwt., £43,908; smoked or dried, 542 cwt., £2,274; other including salted, 502 cwt., £4,868.

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 ended 1939-40.

PEARL, TORTOISE AND TROCHUS-SHELL : EXPORTS FROM AUSTRALIA.

Article.			1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Pearl-shell ..	cwt.		56,306	52,058	53,289	52,532	48,581
	£		302,491	319,631	345,580	244,266	224,646
Tortoise-shell ..	cwt.		6	6	10	4	6
	£		402	367	380	151	205
Trochus-shell ..	cwt.		9,260	8,847	6,370	9,108	12,905
	£		41,590	51,209	32,147	34,166	37,704

The bulk of the pearl-shell exported during 1938-39 was consigned to the United States of America and the United Kingdom, the respective values of the shipments amounting to £139,921 and £90,777, and trochus-shell to the value of £31,755 was dispatched to Japan. Details for later years are not available for publication.

CHAPTER XXI.

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.**—For statistical purposes, a "factory" was defined by the Conference of Statisticians in 1902 as any factory, workshop or mill where four or more persons are employed or power is used. The statistics which follow must be read in the light of this definition. The following table gives the number of factories in each State for the last five years :—

FACTORIES : NUMBER.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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
1938-39 ..	9,464	9,250	3,087	2,067	2,129	944	26,941
1939-40 ..	9,458	9,215	3,064	2,265	2,129	980	27,111

2. **Number of Factories in Industrial Classes.**—(i) *Australia.* The next table shows the number of factories in Australia during the last five years, classified in industrial classes agreed upon by the Conference of Statisticians in 1930. This classification, which was introduced during 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. 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
I. Treatment of Non-metalliferous Mine and Quarry Products	462	517	548	564	559
II. Bricks, Pottery, Glass, etc.	450	436	459	471	452
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease	630	655	652	666	685
IV. Industrial Metals, Machines, Implements and Conveyances	6,393	6,788	7,102	7,255	7,370
V. Precious Metals, Jewellery and Plate	277	282	290	290	306
VI. Textiles and Textile Goods	589	577	591	611	650
VII. Skins and Leather	525	537	536	533	531
VIII. Clothing	4,260	4,259	4,334	4,314	4,270
IX. Food, Drink and Tobacco	4,721	4,842	4,982	5,202	5,291
X. Woodworking and Basketware	2,541	2,715	2,771	2,822	2,778
XI. Furniture, Bedding, etc.	1,057	1,092	1,113	1,149	1,152
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	1,781	1,774	1,790	1,816	1,800
XIII. Rubber	290	289	302	299	299
XIV. Musical Instruments	31	34	34	34	38
XV. Miscellaneous Products	371	390	398	413	437
Total, Classes I. to XV.	24,378	25,187	25,902	26,439	26,618
XVI. Heat, Light and Power	516	481	493	502	493
Grand Total	24,894	25,668	26,395	26,941	27,111

The number of factories in operation declined each year from 1928-29 to 1931-32, but since 1931-32 there have been substantial increases each year, the number in 1939-40 being the highest yet recorded.

(ii) *States, 1939-40.* The following table shows the number of factories in each State in 1939-40, classified according to the nature of the industry :—

FACTORIES : NUMBER IN INDUSTRIAL CLASSES, 1939-40.

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 ..	195	172	51	62	58	21	559
II. Bricks, Pottery, Glass, etc. ..	206	111	41	43	36	15	452
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	308	234	39	52	34	18	685
IV. Industrial Metals, Machines, Implements and Conveyances ..	2,677	2,497	749	598	643	206	7,370
V. Precious Metals, Jewellery and Plate ..	85	143	23	27	21	7	306
VI. Textiles and Textile Goods ..	175	393	21	39	13	9	650
VII. Skins and Leather ..	216	201	49	29	28	8	531
VIII. Clothing ..	1,585	1,778	301	320	234	52	4,270
IX. Food, Drink and Tobacco ..	1,701	1,471	791	602	458	268	5,291
X. Woodworking and Basketware ..	863	716	538	175	213	273	2,778
XI. Furniture, Bedding, etc. ..	342	414	144	99	99	54	1,152
XII. Paper, Stationery, Printing, Book-binding, etc. ..	678	673	173	117	131	28	1,800
XIII. Rubber ..	101	98	37	27	24	12	299
XIV. Musical Instruments ..	12	16	3	4	3	..	38
XV. Miscellaneous Products ..	173	181	35	25	20	3	437
Total, Classes I. to XV. ..	9,317	9,098	2,995	2,219	2,015	974	26,618
XVI. Heat, Light and Power ..	141	117	69	46	114	6	493
Grand Total ..	9,458	9,215	3,064	2,265	2,129	980	27,111

§ 2. Classification of Factories according to Number of Persons Engaged.

i. *States, 1939-40.*—The following table shows, for each State, the number of factories classified according to the number of persons engaged in 1939-40 :—

FACTORIES : CLASSIFICATION ACCORDING TO SIZE OF FACTORY, 1939-40.

No. of Persons Engaged in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF FACTORIES.							
Under 4 ..	2,832	3,136	1,070	630	1,053	286	9,007
4 ..	953	788	322	242	118	126	2,549
5 to 10 ..	2,457	2,153	767	691	488	357	6,913
11 to 20 ..	1,280	1,272	406	308	221	101	3,588
21 to 50 ..	1,111	1,055	275	246	168	71	2,926
51 to 100 ..	421	428	110	87	57	25	1,128
Over 100 ..	404	383	114	61	24	14	1,000
Total ..	9,458	9,215	3,064	2,265	2,129	980	27,111

Some marked changes have taken place during the past decade in the distribution of factories according to the number of persons engaged. 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 1939-40 the number of such factories had increased to 11,556, representing 42.62 per cent. of the total of 27,111 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 a 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 1,000 in 1939-40, the persons engaged in these factories increasing from 204,363, or 43.74 per cent. of the total number, to 293,933, or 49.5 per cent., during the same period.

The relative importance of large and small factories is conclusively illustrated by a classification of the average number of persons engaged according to the size of factory in which they work :—

FACTORIES : CLASSIFICATION OF PERSONS ENGAGED ACCORDING TO SIZE OF FACTORY, 1939-40.

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 ..	5,876	5,944	2,210	1,370	2,013	653	18,066
4 ..	3,812	3,152	1,288	968	472	504	10,196
5 to 10 ..	17,091	15,132	5,306	4,774	3,118	2,438	47,859
11 to 20 ..	18,765	18,678	5,994	4,469	3,191	1,441	52,538
21 to 50 ..	35,676	33,348	8,507	7,550	5,381	2,134	92,596
51 to 100 ..	29,648	29,783	8,036	6,048	3,972	1,649	79,136
Over 100 ..	128,484	107,800	24,836	20,678	5,506	6,629	293,933
Total ..	239,352	213,837	56,177	45,857	23,653	15,448	594,324
Av. per F'cty	25.31	23.21	18.33	20.25	11.11	15.76	21.92

2. Australia, 1935-36 to 1939-40.—In the following table factories in Australia during each of the last five years are classified according to the number of persons engaged.

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- tablism- ments.	Persons en- gaged.	Es- tablism- ments.	Persons en- gaged.	Es- tablism- ments.	Persons en- gaged.	Es- tablism- ments.	Persons en- gaged.
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
1938-39—								
Number ..	21,982	129,505	4,013	170,971	946	272,022	26,941	572,498
Average per establishment ..	..	5.89	..	42.60	..	287.55	..	21.25
Percentage on total ..	81.59	22.62	14.90	29.86	3.51	47.52	100.00	100.00
1939-40—								
Number ..	22,057	128,659	4,054	171,732	1,000	293,933	27,111	594,324
Average per establishment ..	..	5.83	..	42.36	..	293.93	..	21.92
Percentage on total ..	81.36	21.65	14.95	28.89	3.69	49.46	100.00	100.00

§ 3. Power Equipment in Factories.

1. **General.**—Statistics of power equipment in factories are now collected on a different basis to that used prior to 1936–37. Previously the statistics represented the “average horse-power used” in all factories, including Central Electric Stations, but 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. If duplication is to be avoided it is essential that some distinction should be made between Central Electric Stations and other classes of industries. In the following tables Central Electric Stations have been treated separately from other factories.

In para. 2 below, 1,387 factories are shown as using no power other than hand-power; the distribution of these factories among the various industries was as follows:—Lime, Plaster and Asphalt, 88; Other Metal Works, 76; Tailoring and Slop Clothing, 378; Dressmaking, 129; Millinery, 58; Bakeries, 186; Cabinet and Furniture Making, 45; all other industries, 427.

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, those using hand-power, and the rated horse-power of engines ordinarily in use and in reserve or idle during 1939–40:—

FACTORIES(a) : RATED HORSE-POWER OF ENGINES, 1939–40.

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 ..	9,023	336	9,359	700,344	81,123
Victoria ..	8,663	474	9,137	433,112	90,099
Queensland ..	2,848	163	3,011	200,382	25,611
South Australia ..	2,032	190	2,222	116,049	15,009
Western Australia ..	1,847	172	2,019	66,925	6,794
Tasmania ..	924	52	976	58,602	8,761
Australia ..	25,337	1,387	26,724	1,575,414	227,397

(a) Excluding Central Electric Stations.

3. **Rated Horse-power of Engines Ordinarily in Use.**—(i) *According to Type in States.* 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, 1939–40.

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.	
N.S.W. ..	105,623	48,849	4,624	3,859	12,675	109	524,605	90,687	700,344
Victoria ..	36,993	41,185	4,983	4,682	11,329	1,005	332,735	43,469	433,112
Queensland ..	80,726	11,568	8,540	3,690	15,216	..	80,642	41,419	200,382
S. Aust. ..	7,512	1,687	4,844	1,947	9,544	..	90,515	9,072	116,049
W. Australia ..	8,478	56	2,773	2,021	7,301	..	46,296	4,430	66,925
Tasmania ..	3,823	2,103	5	2,677	471	192	49,331	7,913	58,602
Australia ..	243,155	105,648	25,769	18,876	56,536	1,306	1,124,124	196,990	1,575,414

(a) Excluding Central Electric Stations.

(b) Excluding particulars in column (c).

(ii) *Australia, 1936-37 to 1939-40.*—Details of the horse-power of the various types of engines in use are given for Australia since 1936-37 in the following table :—

FACTORIES(a) : TYPES AND RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, AUSTRALIA.

Year.	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)	
1936-37 ..	244,963	63,311	27,030	15,447	46,593	1,024	798,944	147,919	1,197,312
1937-38 ..	266,939	83,542	28,372	15,926	51,053	1,510	888,919	172,130	1,336,261
1938-39 ..	268,409	84,149	32,914	17,970	55,800	1,616	1,017,911	179,889	1,478,769
1939-40 ..	243,155	105,648	25,769	18,876	56,536	1,306	1,124,124	196,990	1,575,414

(a) Excluding Central Electric Stations.

(b) Excluding particulars in column (c).

(iii) *In Classes of Industry, 1939-40.* The next table shows the rated horse-power of engines ordinarily in use in the various classes of industry in each State during 1939-40 :—

FACTORIES(a) : RATED HORSE-POWER OF ENGINES ORDINARILY IN USE, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
I. Treatment of Non-metallic ferous Mine and Quarry Products	43,331	26,330	6,849	5,520	4,618	8,918	95,566
II. Bricks, Pottery, Glass, etc. ..	25,428	17,989	3,110	4,180	3,088	841	54,636
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease	25,376	29,091	2,374	10,230	5,584	442	73,097
IV. Industrial Metals, Machines, Implements and Con- veyances	340,172	88,173	37,352	42,919	14,522	16,128	539,266
V. Precious Metals, Jewellery and Plate	1,114	2,805	125	378	56	34	4,512
VI. Textiles and Textile Goods ..	20,966	46,398	2,586	4,088	777	3,252	78,067
VII. Skins and Leather	9,529	8,646	2,110	398	783	317	21,792
VIII. Clothing	8,955	11,796	1,114	1,037	737	144	23,783
IX. Food, Drink and Tobacco ..	110,916	83,790	103,568	27,634	19,638	7,676	353,222
X. Woodworking and Basket- ware	44,372	32,083	31,041	10,030	11,838	8,222	138,486
XI. Furniture, Bedding, etc. ..	8,155	8,305	3,146	2,653	1,496	791	24,546
XII. Paper, Stationery, Printing, Bookbinding, etc.	26,745	47,786	4,975	3,561	2,918	11,499	97,484
XIII. Rubber	21,219	20,118	1,132	553	96	60	43,178
XIV. Musical Instruments	797	83	12	3	24	..	919
XV. Miscellaneous Products ..	5,042	4,083	96	349	202	160	9,932
Total, Classes I. to XV.	692,117	428,376	199,599	113,533	66,377	58,484	1,558,486
XVI. Gas Works	8,227	4,736	783	2,516	548	118	16,928
Grand Total	700,344	433,112	200,382	116,049	66,925	58,602	1,575,414

(a) Excluding Central Electric Stations.

4. Capacity of Engines and Generators installed in Central Electric Stations.—
(i) *According to Type in Australia.* Particulars of the type and the capacity of engines and generators installed in Central Electric Stations in Australia in 1939-40 are given below :—

CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT, AUSTRALIA, 1939-40.

Particulars.		Capacity of Engines and Generators.					
		Steam.		Internal Combustion.			Total.
		Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.	
Engines installed—							
Total installed	Rated H.P.	39,024	1,919,290	20,909	1,574	153,549	2,380,376
Generators installed—							
Kilowatt capacity—							
Total installed ..	K.W.	18,162	1,406,523	12,753	825	98,611	1,718,926
Effective capacity ..	"	15,253	1,197,506	12,025	744	91,992	1,474,401
Maximum load ..	"	13,116	1,005,866	9,084	654	67,819	1,240,846
Horse-power equivalent—							
Total installed ..	H.P.	24,347	1,885,514	17,096	1,106	132,193	2,304,306
Effective capacity ..	"	20,447	1,605,315	16,120	998	123,321	1,976,508
Maximum load ..	"	17,583	1,348,414	12,177	877	90,914	1,663,416

(ii) *States.* Details of the capacity of engines and generators installed in Central Electric Stations in each State are given in the next table for 1939-40.

CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT, 1939-40.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Engines installed	Rated H.P.	1,057,670	599,181	233,384	166,962	159,014	164,165	2,380,376
Generators installed—								
Kilowatt capacity—								
Total installed ..	K.W.	790,103	414,686	156,436	120,081	111,640	125,980	1,718,926
Effective capacity ..	"	679,955	352,086	122,471	119,853	98,486	101,550	1,474,401
Maximum load ..	"	524,763	343,683	96,102	112,196	68,812	95,290	1,240,846
Horse-power equivalent—								
Total installed ..	H.P.	1,059,173	555,907	209,710	160,975	149,659	168,882	2,304,306
Effective capacity ..	"	911,514	471,989	164,178	160,669	132,025	136,133	1,976,508
Maximum load ..	"	703,471	460,724	128,830	150,404	92,246	127,741	1,663,416

§ 4. Employment in Factories.

1. Number Engaged.—(i) *General.* All persons engaged in the manufacturing activities of a factory, including proprietors who work in their own business and "outworkers" (see par. 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.

(ii) *Australia*, 1928-29 to 1939-40. Particulars of the number employed, the numerical fluctuation in employment and the rate per cent. of such fluctuation are given for years 1928-29 to 1939-40 in the following table:—

FACTORIES : EMPLOYMENT, AUSTRALIA.

Year.	Males.			Females.			Persons.		
	Number Employed.	Numerical Increase on previous year.	Rate per cent. on previous year.	Number Employed.	Numerical Increase on previous year.	Rate per cent. on previous year.	Number Employed.	Numerical Increase on previous year.	Rate per cent. on previous year.
	No.	No.	%	No.	No.	%	No.	No.	%
1928-29 ..	333,110	..	..	117,372	..	..	450,482	..	..
1929-30 ..	308,235	- 24,875	- 7.47	110,959	- 6,413	- 5.46	419,194	- 31,288	- 6.95
1930-31 ..	245,944	- 62,291	- 20.21	92,899	- 18,060	- 16.28	338,843	- 80,351	- 19.17
1931-32 ..	237,915	- 8,029	- 3.26	98,743	5,844	6.29	336,658	- 2,185	- 0.65
1932-33 ..	261,515	23,600	9.92	109,212	10,469	10.60	370,727	34,069	10.12
1933-34 ..	289,249	27,734	10.60	116,660	7,448	6.82	405,909	35,182	9.49
1934-35 ..	322,465	33,216	11.48	127,133	10,473	8.98	449,598	43,689	10.76
1935-36 ..	356,554	34,089	10.57	136,217	9,084	7.15	492,771	43,173	9.60
1936-37 ..	381,412	24,858	6.97	142,536	6,319	4.64	523,948	31,177	6.33
1937-38 ..	408,602	27,190	7.13	150,558	8,022	5.63	559,160	35,212	6.72
1938-39 ..	412,591	3,989	0.98	152,515	1,957	1.30	565,106	5,946	1.06
1939-40 ..	426,934	14,343	3.48	160,729	8,214	5.39	587,663	22,557	3.99

NOTE.—Minus sign (—) indicates decrease.

(iii) *States*, 1935-36 to 1939-40. The following table shows, for each year from 1935-36 to 1939-40 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.

FACTORIES : EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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AVERAGE NUMBER ENGAGED DURING FULL YEAR (52 WEEKS).

1935-36 ..	193,200	183,390	45,128	38,471	20,993	11,589	492,771
1936-37 ..	206,497	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
1938-39 ..	228,781	201,831	54,110	43,371	23,211	13,802	565,106
1939-40 ..	236,974	212,461	55,541	45,050	22,967	14,670	587,663

PERCENTAGE ON AUSTRALIAN TOTAL.

	%	%	%	%	%	%	%
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
1938-39 ..	40.48	35.72	9.58	7.67	4.11	2.44	100.00
1939-40 ..	40.32	36.15	9.45	7.67	3.91	2.50	100.00

FACTORIES: EMPLOYMENT—*continued*.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
PER 10,000 OF POPULATION.							
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
1938-39 ..	837	1,076	537	730	502	583	816
1939-40 ..	858	1,124	546	755	493	615	840

2. Rates of Increase, 1935-36 to 1939-40.—The percentage of increase on the average number of persons engaged in the preceding year is shown below for each State from 1935-36 to 1939-40:—

FACTORIES: ANNUAL PERCENTAGE INCREASE OF PERSONS ENGAGED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	%	%	%	%	%	%	%
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
1938-39 ..	1.74	0.02	3.82	-1.62	0.34	4.80	1.06
1939-40 ..	3.58	5.27	2.64	3.87	-1.05	6.29	3.99

NOTE.—Minus sign (—) indicates decrease.

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 1935-36 to 1939-40 inclusive:—

FACTORIES: PERSONS ENGAGED IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
I. Treatment of Non-metaliferous Mine and Quarry Products ..	7,571	8,736	9,952	10,343	10,042
II. Bricks, Pottery, Glass, etc. ..	13,088	14,262	15,142	15,709	15,149
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	16,217	17,614	18,835	19,816	23,779
IV. Industrial Metals, Machines, Implements and Conveyances ..	145,481	161,512	178,019	177,677	184,469
V. Precious Metals, Jewellery and Plate ..	3,210	3,482	3,761	3,726	3,886
VI. Textiles and Textile Goods ..	42,031	43,370	45,224	46,082	50,973
VII. Skins and Leather ..	10,440	10,872	10,437	10,767	11,490
VIII. Clothing ..	81,400	82,138	85,371	86,092	87,728
IX. Food, Drink and Tobacco ..	73,265	77,498	81,785	83,846	87,046
X. Woodworking and Basketware ..	27,478	29,311	31,117	30,739	31,615
XI. Furniture, Bedding, etc. ..	13,443	14,707	15,612	15,287	14,655
XII. Paper, Stationery, Printing, Book-binding, etc. ..	35,952	37,309	39,062	39,913	40,434
XIII. Rubber ..	6,797	6,455	7,534	7,502	7,843
XIV. Musical Instruments ..	431	422	441	451	474
XV. Miscellaneous Products ..	6,591	7,370	7,798	7,727	8,325
Total, Classes I. to XV. ..	483,415	515,058	550,090	555,677	577,908
XVI. Heat, Light and Power ..	9,356	8,890	9,070	9,429	9,755
Grand Total ..	492,771	523,948	559,160	565,106	587,663

In comparison with the employment levels reached in 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 75 per cent. and 6 per cent. respectively were recorded. The greatest actual gain was 54,000 persons in "Industrial Metals,

etc.", while the greatest relative gain was in "Miscellaneous Products" where the numbers engaged rose by 185 per cent. The lowest relative gains occurred in "Furniture, Bedding, etc." and "Clothing".

(ii) *States.* Particulars of the numbers engaged in each industrial class are shown below for each State :—

FACTORIES : PERSONS ENGAGED IN INDUSTRIAL CLASSES, 1939-40.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	4,314	3,051	845	779	679	374	10,042
II. Bricks, Pottery, Glass, etc. ..	8,071	4,384	843	1,096	550	205	15,149
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	8,698	11,827	620	1,674	838	122	23,779
IV. Industrial Metals, Machines, Implements and Conveyances ..	86,841	53,963	13,884	18,759	6,796	4,226	184,469
V. Precious Metals, Jewellery and Plate ..	991	2,423	162	207	80	23	3,886
VI. Textiles and Textile Goods ..	16,848	29,379	1,095	1,515	393	1,743	50,973
VII. Skins and Leather ..	4,847	4,607	1,006	515	415	100	11,490
VIII. Clothing ..	32,622	39,442	6,884	5,051	3,173	556	87,728
IX. Food, Drink and Tobacco ..	29,244	28,112	15,782	6,893	3,893	3,122	87,046
X. Woodworking and Basketware ..	9,985	7,948	7,097	2,090	2,532	1,963	31,615
XI. Furniture, Bedding, etc. ..	5,743	4,750	1,784	1,207	772	399	14,655
XII. Paper Stationery, Printing, Bookbinding, etc. ..	17,470	13,928	3,590	2,285	1,725	1,436	40,434
XIII. Rubber ..	3,583	3,167	796	157	74	66	7,843
XIV. Musical Instruments ..	282	99	38	29	26	..	474
XV. Miscellaneous Products ..	4,233	3,058	294	384	203	153	8,325
Total, Classes I. to XV.	233,772	210,138	54,720	42,641	22,149	14,488	577,908
XVI. Heat, Light and Power ..	3,202	2,323	821	2,409	818	182	9,755
Grand Total ..	236,974	212,461	55,541	45,050	22,967	14,670	587,663

4. Persons Engaged According to Nature of Employment.—(i) *General.* In the following table the average number of persons engaged in the States during 1939-40 are classified according to the nature of their employment :—

PERSONS ENGAGED : NATURE OF EMPLOYMENT, 1939-40.

State.	Average Number of Persons Engaged.						Total.
	Working Pro-prietors.	Managers and Overseers.	Accountants and Clerks.	Engine-drivers and Firemen.	Workers, Skilled & Unskilled. (a)	Carters, Messengers and Others.	
New South Wales ..	7,620	8,405	16,302	3,081	199,063	2,503	236,974
Victoria ..	7,730	7,295	11,883	1,944	181,249	2,360	212,461
Queensland ..	2,446	2,060	3,829	1,899	44,122	1,185	55,541
South Australia ..	1,733	1,736	3,599	465	36,910	607	45,050
Western Australia ..	1,250	991	1,438	536	18,397	355	22,967
Tasmania ..	635	646	943	296	12,005	145	14,670
Australia ..	21,414	21,133	37,994	8,221	491,746	7,155	587,663

(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.
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
1938-39	201	120	6	11	7	11	356
1939-40	174	143	6	18	4	8	353

(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.

5. Monthly Employment, 1936-37 to 1940-41.—The actual number of persons employed in factories (excluding Working Proprietors) on the pay-day nearest to the 15th of each month are shown in the following table for the years 1936-37 to 1940-41.

FACTORIES : MONTHLY EMPLOYMENT, AUSTRALIA.

Month.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
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MALES.

July	343,622	374,699	387,693	391,470	421,089
August	346,209	378,278	389,979	393,076	427,112
September	350,638	381,067	391,576	395,446	434,217
October	356,643	386,612	393,977	404,730	438,885
November	359,752	390,414	395,192	409,933	448,281
December	360,595	391,614	394,438	412,509	454,126
January	351,878	383,328	385,742	407,380	451,616
February	363,568	390,363	392,056	409,120	460,459
March	367,964	396,002	395,146	413,524	471,038
April	370,221	394,230	391,005	412,465	468,684
May	371,214	393,466	393,609	407,379	478,905
June	373,246	391,619	390,973	413,157	482,522
Mean	359,631	387,641	391,780	405,849	453,078

FEMALES.

July	133,117	141,118	147,282	148,252	162,419
August	136,409	144,343	149,294	150,966	165,414
September	139,408	146,824	151,159	153,129	169,027
October	141,248	148,781	152,473	157,054	172,079
November	141,561	149,918	152,806	159,323	174,499
December	139,249	149,868	151,165	158,182	176,536
January	131,287	140,933	141,853	155,328	172,147
February	142,418	151,445	151,883	161,744	179,065
March	144,887	154,246	154,854	165,672	182,128
April	143,993	152,208	152,614	164,409	179,948
May	141,633	150,480	150,693	162,144	181,462
June	140,042	148,489	148,601	160,408	183,230
Mean	139,604	148,221	150,390	158,051	174,830

FACTORIES: MONTHLY EMPLOYMENT, AUSTRALIA—continued.

Month.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
PERSONS.					
July	476,739	515,817	534,975	539,722	583,508
August	482,618	522,621	539,273	544,042	592,526
September	490,046	527,891	542,735	548,575	603,244
October	497,891	535,393	546,450	561,784	610,964
November	501,313	540,332	547,998	569,256	622,780
December	499,844	541,482	545,603	570,691	630,662
January	483,165	524,261	527,595	562,708	623,763
February	505,986	541,808	543,939	570,864	639,524
March	512,851	550,248	550,000	579,196	653,166
April	514,214	546,438	543,619	576,874	648,632
May	512,847	543,946	544,302	569,523	660,367
June	513,288	540,108	539,574	573,565	665,752
Mean	499,235	535,862	542,170	563,900	627,908

6. **Distribution of Employees According to Age.**—(i) *States.* 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 showing the numbers actually employed in each age-group in June, 1940, are given below :—

FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, JUNE, 1940.
(Excluding Working Proprietors.)

State.	Under 16 Years.		16 and under 21 Years.		Adults.		Total.	
	No.	%	No.	%	No.	%	No.	%
New South Wales ..	13,758	5.96	60,305	26.12	156,815	67.92	230,878	100
Victoria	11,336	5.44	50,303	24.17	146,509	70.39	208,148	100
Queensland	3,447	6.37	12,152	22.45	38,538	71.18	54,137	100
South Australia ..	2,907	6.60	10,208	23.19	30,902	70.21	44,017	100
Western Australia ..	1,201	5.54	5,474	25.25	15,002	69.21	21,677	100
Tasmania	904	6.15	2,960	20.12	10,844	73.73	14,708	100
Australia	33,553	5.85	141,402	24.65	398,610	69.50	573,565	100

(ii) *Australia.* The following table shows the same age distribution in sexes for Australia since 1937 :—

FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, AUSTRALIA.
(Excluding Working Proprietors.)

During June.	Under 16 Years.		16 and under 21 Years.		Adults.		Total.	
	No.	%	No.	%	No.	%	No.	%
MALES.								
1937	16,343	4.38	72,772	19.50	284,131	76.12	373,246	100
1938	16,480	4.21	77,309	19.74	297,830	76.05	391,619	100
1939	16,109	4.12	76,418	19.55	298,446	76.33	390,973	100
1940	17,077	4.13	81,016	19.61	315,064	76.26	413,157	100

**FACTORIES: DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE,
AUSTRALIA—continued.
(Excluding Working Proprietors.)**

During June.		Under 16 Years.		16 and under 21 Years.		Adults.		Total.	
		No.	%	No.	%	No.	%	No.	%
FEMALES.									
1937	..	15,762	11.26	53,207	37.99	71,073	50.75	140,042	100
1938	..	15,975	10.76	56,721	38.20	75,793	51.04	148,489	100
1939	..	15,497	10.43	56,273	37.87	76,831	51.70	148,601	100
1940	..	16,476	10.27	60,386	37.65	83,546	52.08	160,408	100
PERSONS.									
1937	..	32,105	6.26	125,979	24.54	355,204	69.20	513,288	100
1938	..	32,455	6.01	134,030	24.81	373,623	69.18	540,108	100
1939	..	31,606	5.86	132,691	24.59	375,277	69.55	539,574	100
1940	..	33,553	5.85	141,402	24.65	398,610	69.50	573,565	100

§ 5. Sex Distribution in Factories.

1. *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, 1935-36 to 1939-40.* 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
MALES.					
New South Wales ..	140,896	152,064	164,391	167,172	172,259
Victoria ..	121,734	128,457	136,160	136,218	143,238
Queensland ..	36,411	38,970	42,337	43,941	45,026
South Australia ..	31,391	33,400	36,274	35,406	36,326
Western Australia ..	16,911	18,466	18,760	18,704	18,331
Tasmania ..	9,211	10,055	10,680	11,150	11,754
Australia ..	356,554	381,412	408,602	412,591	426,934
FEMALES.					
New South Wales ..	52,304	56,433	60,470	61,609	64,715
Victoria ..	61,656	62,926	65,633	65,613	69,223
Queensland ..	8,717	9,246	9,782	10,169	10,515
South Australia ..	7,080	7,310	7,810	7,905	8,724
Western Australia ..	4,082	4,245	4,373	4,507	4,636
Tasmania ..	2,378	2,376	2,490	2,652	2,916
Australia ..	136,217	142,536	150,558	152,515	160,729

2. *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.	1934-35— 1935-36.	1935-36— 1936-37.	1936-37— 1937-38.	1937-38— 1938-39.	1938-39— 1939-40.
MALES.					
	%	%	%	%	%
New South Wales ..	10.84	7.93	8.11	1.69	3.04
Victoria ..	8.98	5.52	5.98	0.04	5.15
Queensland ..	5.25	6.98	8.64	3.79	2.47
South Australia ..	15.11	6.40	8.60	— 2.39	2.60
Western Australia ..	18.65	9.20	1.59	— 0.30	— 1.99
Tasmania ..	10.70	9.16	6.22	4.40	5.42
Total ..	10.57	6.97	7.13	0.98	3.48
FEMALES.					
New South Wales ..	9.15	7.89	7.15	1.88	5.04
Victoria ..	4.90	2.05	4.30	— 0.03	5.50
Queensland ..	3.14	6.07	5.80	3.96	3.40
South Australia ..	13.72	3.25	6.84	1.98	9.53
Western Australia ..	15.93	3.99	3.02	3.06	2.86
Tasmania ..	6.45	— 0.08	4.80	6.51	9.95
Total ..	7.15	4.64	5.63	1.30	5.39

NOTE.—The minus sign (—) indicates decrease.

3. *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 1935-36 to 1939-40 :—

FACTORIES : MASCULINITY(a) OF PERSONS ENGAGED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1935-36 ..	269	197	418	443	414	387	262
1936-37 ..	269	204	421	457	435	423	268
1937-38 ..	271	207	433	464	429	429	271
1938-39 ..	271	208	432	445	415	420	271
1939-40 ..	266	207	428	416	395	403	266

(a) Number of males per 100 females.

For a number of years prior to 1926-27 there were on the average 300 males engaged in factories for every 100 females, but in that year the proportion of males began to fall 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 so seriously affected by the depression as the heavier industries, the proportion of males continued to fall, 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 of males per 100 females had increased to 271 in 1937-38, but fell again in 1939-40 to 266.

The decrease in masculinity in 1939-40 arose through the enlistment of men in the armed services and the expansion of industry caused by the war. In the one case it was a displacement of man-power and in the other it was the absorption of woman-power as an adjunct to the industrial effort of Australia.

4. **Employment of Females in Particular Industries.**—(i) *General.* The greater number of females in manufacturing industries are engaged in four classes, namely:—VI., Textiles; VIII., Clothing; IX., Food, Drink and Tobacco; and XII., Paper, Stationery, etc. In 1939-40 these industries accounted for 80.90 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 144 females to every 100 males and in Class VIII., Clothing, with 284 females per 100 males. The following tables show the average number of males and females engaged in each of these classes in 1939-40:—

MALES AND FEMALES ENGAGED IN PARTICULAR INDUSTRIES, 1939-40.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
MALES.							
VI. Textiles and Textile Goods ..	6,455	12,151	479	993	124	669	20,871
VIII. Clothing ..	8,446	10,746	1,510	1,165	772	208	22,847
IX. Food, Drink and Tobacco ..	19,257	20,096	14,010	5,453	3,079	2,255	64,150
XII. Paper, Stationery, etc. ..	11,833	9,875	2,583	1,626	1,264	1,100	28,281
All Other Classes ..	126,268	90,370	26,444	27,089	13,092	7,522	290,785
Total ..	172,259	143,238	45,026	36,326	18,331	11,754	426,934

FEMALES

VI. Textiles and Textile Goods ..	10,393	17,228	616	522	269	1,074	30,102
VIII. Clothing ..	24,176	28,696	5,374	3,886	2,401	348	64,881
IX. Food, Drink and Tobacco ..	9,987	8,016	1,772	1,440	814	867	22,896
XII. Paper, Stationery, etc. ..	5,637	4,053	1,007	659	461	336	12,153
All Other Classes ..	14,522	11,230	1,746	2,217	691	291	30,697
Total ..	64,715	69,223	10,515	8,724	4,636	2,916	160,729

(ii) *Females Engaged in Clothing Trade.*—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., 1939-40.

Industry.	New South Wales.			Victoria.			Other States.		
	Males.	Females.	Femininity. (a)	Males.	Females.	Femininity. (a)	Males.	Females.	Femininity. (a)
Tailoring and Slop									
Clothing ..	2,184	10,425	477	1,974	6,390	324	1,349	5,069	376
Waterproof and Oil-									
skin Clothing ..	9	37	411	103	378	367	1	2	200
Dressmaking ..	33	1,535	4,652	617	7,669	1,243	79	2,343	2,966
Millinery ..	155	1,405	906	101	1,149	1,138	52	812	1,562
Shirts, Collars and									
Underclothing ..	344	4,250	1,235	419	4,286	1,023	161	1,984	1,282
Stays and Corsets ..	57	640	1,123	177	1,004	567	9	121	1,344
Handkerchiefs, Ties									
and Scarves ..	106	851	803	41	372	907	7	25	357
Hats and Caps ..	636	884	139	687	880	128	37	188	508
Gloves ..	10	29	290	24	75	313	..	..	..
Boots and Shoes ..	2,838	3,123	110	5,099	5,392	106	1,161	974	84
Boot Repairing (in-									
cluding Bespoke									
Work) ..	1,042	29	3	683	13	2	483	31	6
Boot Accessories ..	188	107	57	157	127	81	2	..	..
Umbrellas and Walk-									
ing Sticks ..	37	72	195	19	32	168	13	24	185
Dyeworks and Clean-									
ing (including Re-									
novating and									
Repairing) ..	729	613	84	566	570	101	299	434	145
Other ..	78	176	226	79	359	454	2	2	100
Total ..	8,446	24,176	286	10,746	28,696	267	3,655	12,009	329

(a) Number of females per 100 males.

§ 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. The object of the restrictions imposed is to ensure 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, 1935-36 to 1939-40.*—In the returns for the various States, the term "child" denotes any person under sixteen years of age. Juvenile employment in factories reached a new peak in 1939-40. During the year, the number of children engaged increased in all States except Western Australia. The following table shows the average number of children of each sex employed in manufacturing industries in the years 1935-36 to 1939-40 :—

FACTORIES : CHILDREN ENGAGED.

State.	1935-36. (a)	1936-37. (b)	1937-38. (b)	1938-39. (b)	1939-40. (b)
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MALES.

New South Wales ..	4,887	5,888	6,032	5,759	6,164
Victoria ..	6,118	6,213	6,017	6,167	6,060
Queensland ..	1,543	1,680	1,835	1,790	2,068
South Australia ..	1,352	1,422	1,424	1,296	1,604
Western Australia ..	777	776	731	705	694
Tasmania ..	330	364	441	392	487
Australia ..	15,007	16,343	16,480	16,109	17,077

FEMALES.

New South Wales ..	6,485	7,539	7,499	7,084	7,594
Victoria ..	6,002	5,298	5,279	5,005	5,276
Queensland ..	1,281	1,224	1,338	1,334	1,379
South Australia ..	876	988	1,050	1,053	1,303
Western Australia ..	473	424	450	521	507
Tasmania ..	310	289	359	500	417
Australia ..	15,427	15,762	15,975	15,497	16,476

TOTAL.

New South Wales ..	11,372	13,427	13,531	12,843	13,758
Victoria ..	12,120	11,511	11,296	11,172	11,336
Queensland ..	2,824	2,904	3,173	3,124	3,447
South Australia ..	2,228	2,410	2,474	2,349	2,907
Western Australia ..	1,250	1,200	1,181	1,226	1,201
Tasmania ..	640	653	800	892	904
Australia ..	30,434	32,105	32,455	31,606	33,553

(a) Average during year.

(b) As at June of year stated.

3. **Percentage of Children on Total Number of Persons Engaged.**—The following table shows the percentage of children on the total number of persons engaged in the various States for each of the five years 1935-36 to 1939-40. In 1939-40 the percentage was highest in South Australia and lowest in Victoria.

PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF PERSONS ENGAGED.

(Excluding Working Proprietors.)

State.	1935-36. (a)	1936-37. (b)	1937-38. (b)	1938-39. (b)	1939-40. (b)
	%	%	%	%	%
New South Wales ..	6.10	6.52	6.16	5.85	5.96
Victoria ..	6.91	6.24	5.83	5.81	5.44
Queensland ..	6.55	6.06	6.27	6.01	6.37
South Australia ..	6.02	5.76	5.96	5.78	6.60
Western Australia ..	6.31	5.62	5.35	5.61	5.54
Tasmania ..	5.81	5.51	6.40	6.78	6.15
Australia ..	6.44	6.25	6.01	5.86	5.85

(a) Average during year.

(b) As at June of year stated.

4. **Industries Employing Child Labour.**—The distribution of children employed in factories in June, 1940, and the percentage on the total number employed are given in the following table according to the class of industry:—

FACTORIES : CHILDREN EMPLOYED, BY CLASSES, JUNE, 1940.

Class of Industry.	Children Employed.		Total Number Employed.(a)		Percentage of Children on Total number employed.(a)	
	Males.	Females.	Males.	Females.	Males.	Females.
	No.	No.	No.	No.	%	%
I. Treatment of Non-metalliferous Mine and Quarry Products ..	168	8	9,629	252	1.74	3.17
II. Bricks, Pottery, Glass, etc. ..	681	109	13,660	1,040	4.99	10.48
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	407	444	18,377	7,081	2.21	6.27
IV. Industrial Metals, Machines, Implements and Conveyances ..	7,198	858	172,149	11,322	4.18	7.58
V. Precious Metals, Jewellery and Plate ..	264	85	3,110	658	8.49	12.92
VI. Textiles and Textile Goods ..	1,594	3,707	21,778	31,871	7.32	11.63
VII. Skins and Leather ..	336	334	8,819	2,565	3.81	13.02
VIII. Clothing ..	1,148	7,090	19,136	62,664	6.00	11.31
IX. Food, Drink and Tobacco ..	1,779	2,004	60,251	21,732	2.95	9.22
X. Woodworking and Basketware ..	1,140	56	28,622	1,001	3.98	5.59
XI. Furniture, Bedding, etc. ..	631	215	10,547	2,650	5.98	8.11
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	1,158	1,166	26,498	11,934	4.37	9.77
XIII. Rubber ..	87	97	5,303	2,658	1.64	3.65
XIV. Musical Instruments ..	17	5	364	91	4.67	5.49
XV. Miscellaneous Products ..	441	297	5,519	2,676	7.99	11.10
Total, Classes I. to XV. ..	17,049	16,475	403,762	160,195	4.22	10.28
XVI. Heat, Light and Power ..	28	1	9,395	213	0.30	0.47
Grand Total ..	17,077	16,476	413,157	160,408	4.13	10.27

(a) Excluding Working Proprietors.

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 1939-40 was £553,322,726, of which amount the sum of £315,313,336 represented the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £16,881,467 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, namely, £221,127,923 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 1939-40 was £114,517,633. This figure, which is exclusive of amounts drawn by working proprietors, shows an increase of £7,774,571 or 7.3 per cent., as compared with the total for the previous year.

2. *Salaries and Wages Paid.*—(i) *In Classes of Industry, 1939-40.* 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, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	1,102,394	693,322	200,080	158,148	139,602	77,358	2,370,904
II. Bricks, Pottery, Glass etc. ..	1,749,949	918,583	169,415	211,626	117,233	38,177	3,204,983
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,840,621	2,533,596	128,170	348,095	196,481	22,450	5,069,413
IV. Industrial Metals, Machines, Implements and Conveyances ..	20,344,949	11,625,920	3,074,329	3,962,754	1,457,719	943,638	41,409,309
V. Precious Metals, Jewellery and Plate ..	170,433	414,043	26,689	29,736	14,754	3,594	659,249
VI. Textiles and Textile Goods ..	2,422,705	4,424,286	159,567	233,936	55,558	261,733	7,557,785
VII. Skins and Leather ..	939,725	856,588	195,663	71,037	71,037	18,502	2,152,963
VIII. Clothing ..	4,135,370	5,259,860	741,527	514,878	355,912	63,810	11,071,357
IX. Food, Drink and Tobacco ..	5,825,080	5,751,001	3,954,104	1,273,418	835,870	517,231	18,156,704
X. Woodworking and Basketware ..	1,990,645	1,638,254	1,319,841	382,624	546,411	320,527	6,198,302
XI. Furniture, Bedding, etc. ..	1,099,534	782,161	337,335	185,304	134,128	58,028	2,596,490
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,618,653	2,875,704	722,634	451,687	367,577	291,066	8,327,321
XIII. Rubber ..	779,243	645,242	109,602	21,538	10,080	6,891	1,572,596
XIV. Musical Instruments ..	55,014	19,735	7,776	5,141	6,377	..	94,043
XV. Miscellaneous Products ..	657,255	483,369	42,109	57,491	25,992	20,344	1,286,560
Total, Classes I. to XV.	46,731,570	38,921,664	11,188,841	7,907,824	4,334,731	2,643,349	111,727,979
XVI. Heat, Light and Power ..	960,981	654,629	251,820	638,976	240,449	42,799	2,789,654
Grand Total ..	47,692,551	39,576,293	11,440,661	8,546,800	4,575,180	2,686,148	114,517,633

(ii) *Totals and Averages, 1935-36 to 1939-40.* 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 1935-36 to 1939-40. The average wage paid is not comparable with that shown in similar tables in issues of the Official Year Book prior to

No. 23, 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.
		£	£	£	£	£	£	£
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	137.09	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
1938-39	Total amount paid ..	44,606,497	36,026,542	10,887,229	8,169,350	4,573,558	2,479,886	106,743,062
	Average per employee ..	201.77	185.64	210.78	195.57	207.90	188.31	196.31
1939-40	Total amount paid ..	47,692,551	39,576,293	11,440,661	8,546,800	4,575,180	2,686,148	114,517,633
	Average per employee ..	207.94	193.31	215.48	197.31	210.67	191.39	202.24

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 high percentage of women and children. The highest average wages per employee in 1939-40 were paid in Queensland, Western Australia and New South Wales in that order.

Earnings per employee reached their highest level in 1927-28 with an average of £212.12. After that year there was an almost continuous decline to 1933-34 when the average rate dropped to £166.36. Thereafter the average rose each year to £202.24 in 1939-40 but this amount is still 4.7 per cent. below that attained in 1927-28.

(iii) *Earnings of Males and Females, 1939-40.* 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 1939-40 :—

SALARIES AND WAGES : MALE AND FEMALE FACTORY EMPLOYEES, 1939-40.

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 ..	£ 1,093,521	£ 682,991	£ 197,121	£ 155,419	£ 137,716	£ 76,492	£ 2,343,260
II. Bricks, Pottery, Glass etc. ..	1,704,928	883,012	164,090	206,883	115,334	37,711	3,111,958
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,521,464	2,129,901	112,574	323,386	187,596	21,193	4,296,114
IV. Industrial Metals, Machines, Implements and Conveyances ..	19,726,619	11,259,536	3,017,984	3,864,975	1,432,839	930,244	40,232,197
V. Precious Metals, Jewellery and Plate ..	151,305	377,187	24,619	28,474	14,305	3,554	599,444
VI. Textiles and Textile Goods ..	1,335,365	2,487,740	97,092	187,094	28,010	148,928	4,284,229
VII. Skins and Leather ..	835,750	752,601	182,403	49,454	61,517	17,900	1,899,625
VIII. Clothing ..	1,642,266	2,091,060	255,447	178,930	123,920	31,898	4,323,521
IX. Food, Drink and Tobacco ..	4,686,244	4,823,060	3,768,557	1,146,983	758,542	434,867	15,618,253
X. Woodworking and Basketware ..	1,950,006	1,609,142	1,292,306	375,552	544,205	315,817	6,087,028
XI. Furniture, Bedding, etc. ..	967,392	670,979	314,956	169,356	122,978	55,514	2,301,175
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,036,398	2,418,428	610,971	386,400	316,242	261,654	7,030,093
XIII. Rubber ..	628,734	545,084	75,860	19,478	9,623	6,401	1,285,180
XIV. Musical Instruments ..	44,836	19,529	7,776	4,960	6,377	..	83,478
XV. Miscellaneous Products ..	525,399	395,890	38,033	48,324	21,648	19,469	1,048,763
Total, Classes I. to XV.	39,850,227	31,146,110	10,140,780	7,145,668	3,880,852	2,361,642	94,544,318
XVI. Heat, Light and Power ..	957,739	653,601	251,069	617,583	237,831	42,399	2,760,822
Grand Total ..	40,807,966	31,799,711	10,411,458	7,763,251	4,118,683	2,404,041	97,305,140

SALARIES AND WAGES: MALE AND FEMALE FACTORY EMPLOYEES,
1939-40—continued.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	8,873	10,331	2,959	2,729	1,886	866	27,644
II. Bricks, Pottery, Glass, etc. ..	45,021	35,571	5,325	4,743	1,899	466	93,025
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	319,157	403,695	15,596	24,709	8,885	1,257	773,299
IV. Industrial Metals, Machines, Implements and Conveyances ..	618,330	366,384	56,345	97,779	24,880	13,394	1,177,112
V. Precious Metals, Jewellery and Plate ..	19,128	36,856	2,070	1,262	449	40	59,805
VI. Textiles and Textile Goods ..	1,087,340	1,936,546	62,475	46,842	27,548	112,805	3,273,556
VII. Skins and Leather ..	103,975	103,987	13,260	21,994	9,520	602	253,338
VIII. Clothing ..	2,493,104	3,168,800	486,080	335,948	231,992	31,912	6,747,836
IX. Food, Drink and Tobacco ..	1,138,836	927,941	185,547	126,435	77,328	82,364	2,538,451
X. Woodworking and Basketware ..	40,639	29,112	27,535	7,072	2,206	4,710	111,274
XI. Furniture, Bedding, etc. ..	132,142	111,182	22,379	15,948	11,150	2,514	295,315
XII. Paper, Stationery, Printing, Book-binding, etc. ..	582,255	457,276	111,663	65,287	51,335	29,412	1,297,228
XIII. Rubber ..	150,509	100,158	33,742	2,060	457	490	287,416
XIV. Musical Instruments ..	10,178	206	..	181	..	..	10,565
XV. Miscellaneous Products ..	131,856	87,479	4,076	9,167	4,344	875	237,797
Total, Classes I. to XV.	6,881,343	7,775,524	1,029,052	762,156	453,879	281,707	17,183,661
XVI. Heat, Light and Power ..	3,242	1,028	151	21,393	2,618	400	28,832
Total ..	6,884,585	7,776,552	1,029,203	783,549	456,497	282,107	17,212,493

(iv) *Total and Average Earnings of Males and Females, 1935-36 to 1939-40.*
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.							
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	198.06	212.44
1937-38. Amount paid ..	£36,247,087	28,241,058	9,287,319	7,381,141	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
1938-39. Amount paid ..	£38,271,867	29,005,746	9,920,001	7,487,828	4,128,824	2,234,413	91,048,679
Per cent. on total ..	85.80	80.51	91.12	91.66	90.28	90.10	85.30
Average per employee ..	£239.24	224.47	238.59	220.95	235.49	212.09	231.84
1939-40. Amount paid ..	£40,807,966	31,799,741	10,411,458	7,763,251	4,118,683	2,404,041	97,305,140
Per cent. on total ..	85.56	80.35	91.00	90.83	90.02	89.50	84.97
Average per employee ..	£247.12	233.40	244.01	223.78	240.48	215.82	239.08

TOTAL AND AVERAGE SALARIES AND WAGES: MALES AND FEMALES

—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
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	86.82	85.33	91.19
1936-37. Amount paid .. £	5,191,745	6,023,008	792,423	602,413	380,669	202,766	13,193,024
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	86.58	83.21	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
1938-39. Amount paid .. £	6,334,630	7,020,796	967,228	681,522	444,734	245,473	15,694,383
Per cent. on total ..	14.20	19.49	8.88	8.34	9.22	9.90	14.70
Average per employee .. £	103.66	108.25	96.00	86.44	92.58	93.19	103.92
1939-40. Amount paid .. £	6,884,585	7,776,552	1,029,203	783,549	456,497	282,107	17,212,493
Per cent. on Total ..	14.44	19.65	9.00	9.17	9.08	10.50	15.03
Average per employee .. £	107.20	113.55	98.71	90.85	99.45	97.41	108.09

(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, 1939-40.

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-metalliferous Mine and Quarry Products ..	£	£	£	£	£	£	£
II. Bricks, Pottery, Glass, etc. ..	324,383	23,714	2,018,877	3,930	2,343,260	27,644	2,370,904
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	384,948	40,975	2,727,010	52,050	3,111,958	93,025	3,204,983
IV. Industrial Metals, Machines, Implements and Conveyances ..	845,156	182,674	3,450,958	590,625	4,296,114	773,299	5,069,413
V. Precious Metals, Jewellery and Plate ..	5,381,189	624,891	34,851,008	552,221	40,232,197	1,177,112	41,409,309
VI. Textiles and Textile Goods ..	59,023	16,840	540,421	42,965	599,444	59,805	659,249
VII. Skins and Leather ..	745,440	190,769	3,538,789	3,082,787	4,284,229	3,273,556	7,557,785
VIII. Clothing ..	226,007	31,745	1,673,618	221,593	1,899,625	253,338	2,152,963
IX. Food, Drink, and Tobacco ..	618,053	372,547	3,705,468	6,375,289	4,323,521	6,747,836	11,071,357
X. Woodworking and Basketware ..	2,938,824	491,963	12,679,429	2,046,488	15,618,253	2,538,451	18,156,704
XI. Furniture, Bedding, etc. ..	663,146	83,411	5,423,882	27,863	6,087,028	111,274	6,198,302
XII. Paper, Stationery, Printing, Book-binding, etc. ..	201,836	57,444	2,099,339	237,871	2,301,175	295,315	2,596,490
XIII. Rubber ..	1,227,970	300,671	5,802,123	996,557	7,030,093	1,297,228	8,327,321
XIV. Musical Instruments ..	275,279	41,955	1,000,901	245,461	1,285,180	287,416	1,572,596
XV. Miscellaneous Products ..	14,712	5,440	68,766	5,125	83,478	10,565	94,043
Total, Classes I. to XV. ..	185,591	49,577	863,172	188,220	1,048,763	237,797	1,286,560
XVI. Heat, Light and Power ..	14,091,557	2,514,616	80,452,761	14,669,045	94,544,318	17,183,661	111,727,979
Grand Total ..	590,258	25,625	2,170,564	3,207	2,760,822	28,832	2,789,654
Average paid per employee ..	14,681,815	2,540,241	82,623,325	14,672,252	97,305,140	17,212,493	114,517,633
	361.44	137.26	225.51	104.25	239.08	108.09	202.24

3. Power, Fuel and Light Used.—(i) *In Classes of Industry.* 1939-40. The expenditure by factories on power, fuel and light is of considerable importance; in 1939-40 it amounted to £16,881,467, an increase of £1,181,546 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 1939-40 :—

FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED (a), 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	350,107	245,896	73,500	55,128	86,816	68,304	879,751
II. Bricks, Pottery, Glass etc. ..	500,767	323,046	46,637	77,129	49,301	12,318	1,009,198
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	268,159	299,963	16,135	61,927	43,713	4,228	694,125
IV. Industrial Metals, Machines, Implements and Conveyances ..	3,374,869	663,950	214,526	290,112	98,397	239,935	4,881,789
V. Precious Metals, Jewellery and Plate ..	7,252	20,263	991	2,582	533	178	31,799
VI. Textiles and Textile Goods ..	223,490	453,216	14,083	36,264	5,915	25,227	758,195
VII. Skins and Leather ..	93,953	77,516	21,752	2,235	9,809	4,211	209,476
VIII. Clothing ..	117,908	148,061	18,848	17,268	9,567	1,938	313,590
IX. Food, Drink and Tobacco ..	1,009,110	904,964	566,809	241,800	185,618	62,224	2,970,525
X. Woodworking and Basketware ..	117,309	98,726	67,936	22,698	41,711	20,856	369,236
XI. Furniture, Bedding, etc. ..	31,084	27,462	9,407	8,756	3,991	1,784	82,484
XII. Paper, Stationery, Printing, Book-binding etc. ..	193,473	243,522	34,364	19,868	19,457	77,734	588,418
XIII. Rubber ..	101,851	139,883	10,381	3,168	1,478	881	257,642
XIV. Musical Instruments	4,443	450	44	106	44	..	5,087
XV. Miscellaneous Products ..	39,668	35,667	1,027	2,549	896	503	80,310
Total, Classes I. to XV.	6,433,443	3,682,585	1,096,440	841,590	557,246	520,321	13,131,625
XVI. Heat, Light and Power ..	1,702,171	675,834	442,342	288,547	640,948	..	3,749,842
Grand Total ..	8,135,614	4,358,419	1,538,782	1,130,137	1,198,194	520,321	16,881,467

(a) Including lubricants and water

(ii) *Values of Items,* 1939-40. The following table shows the values of the various items of power, fuel and light used in factories in each State during the year 1939-40 :—

FACTORIES : VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
Coal ..	2,489,919	1,632,492	704,719	361,916	289,952	72,399	5,551,397
Coke ..	1,506,193	187,543	37,124	48,493	30,490	4,779	1,814,622
Wood ..	141,808	208,761	149,239	78,954	210,547	78,262	867,571
Other (Charcoal, etc.)	161,628	56,176	14,468	36,878	7,679	190	277,019
Fuel Oil ..	558,081	340,190	128,742	119,194	310,822	43,749	1,500,778
Gas ..	721,709	130,519	24,354	25,963	13,009	3,886	919,240
Electricity ..	1,952,133	1,365,286	300,655	362,465	224,389	290,208	4,495,136
Water and Lubricating Oil ..	604,143	437,452	179,481	96,274	111,306	27,048	1,455,704
Total ..	8,135,614	4,358,419	1,538,782	1,130,137	1,198,194	520,321	16,881,467

(iii) *Quantities,* 1939-40. The following table shows the quantities of certain items of power, fuel and light used in factories in each State during the year 1939-40 :—

FACTORIES : QUANTITY OF POWER, FUEL AND LIGHT USED, 1939-40.

Particulars.	Unit.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Coal ..	Ton	2,419,416	3,783,805	484,880	242,271	226,062	55,026	7,211,460
Coke ..	"	1,472,155	102,761	21,595	25,657	12,922	2,043	1,637,133
Wood ..	"	185,674	444,401	253,475	122,001	365,054	130,819	1,501,424
Fuel Oil ..	Gal	21,454,222	13,265,033	3,373,085	4,341,932	9,604,602	2,172,163	54,212,027

(iv) *Total Value, 1935-36 to 1939-40.*—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.
	£	£	£	£	£	£	£
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	13,565,730
1937-38	7,123,961	4,032,190	1,440,750	919,858	1,095,225	405,721	15,047,705
1938-39	7,651,627	3,999,934	1,423,549	1,017,537	1,169,268	438,006	15,699,921
1939-40	8,135,614	4,358,419	1,538,782	1,130,137	1,198,194	520,321	16,881,467

4. *Value of Materials Used.*—(i) *In Classes of Industry, 1939-40.* 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 1939-40 was £315,076,697, representing 56.95 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, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products	2,905,326	1,267,092	376,547	197,488	214,928	158,163	5,119,544
II. Bricks, Pottery, Glass, etc.	1,143,678	485,342	81,545	190,629	69,158	29,495	1,999,847
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	9,248,465	6,378,155	651,502	1,399,698	1,098,749	137,589	18,914,158
IV. Industrial Metals, Machines, Implements and Conveyances	50,217,283	15,396,087	4,540,105	8,745,706	1,462,155	1,667,889	82,029,225
V. Precious Metals, Jewellery and Plate ..	184,770	530,481	12,158	29,367	8,450	629	765,855
VI. Textiles and Textile Goods	6,891,522	10,297,405	571,261	1,049,961	153,215	643,879	19,607,243
VII. Skins and Leather ..	3,494,263	2,971,408	1,550,021	157,018	161,065	110,603	8,444,378
VIII. Clothing	7,076,465	9,901,804	1,091,131	629,445	480,807	72,762	19,252,414
IX. Food, Drink and Tobacco	35,464,126	34,967,771	32,837,477	7,370,312	4,675,913	2,347,990	117,663,589
X. Woodworking and Basketware	5,024,125	3,262,076	2,778,160	1,200,195	879,807	521,804	13,666,167
XI. Furniture, Bedding, etc.	2,092,301	1,820,546	547,206	343,383	243,803	72,880	5,120,119
XII. Paper, Stationery, Printing, Book-binding, etc.	6,099,223	4,464,573	744,866	536,670	390,091	332,650	12,568,073
XIII. Rubber	2,326,474	2,435,906	211,023	44,396	21,492	13,865	5,053,156
XIV. Musical Instruments ..	47,046	7,779	1,760	202	587	..	57,374
XV. Miscellaneous Products	1,172,774	888,563	42,302	87,009	34,212	17,396	2,242,256
Total, Classes I. to XV ..	133,387,841	95,074,988	46,037,064	21,981,479	9,894,432	6,127,594	312,503,398
XVI. Heat, Light and Power	1,065,891	842,563	204,158	181,402	186,932	92,350	2,573,299
Grand Total	134,453,735	95,917,551	46,241,222	22,162,881	10,081,364	6,219,944	315,076,697

(ii) *Total Amount, 1935-36 to 1939-40.* 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.
	£	£	£	£	£	£	£
1935-36	98,950,321	76,494,159	30,901,341	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
1938 39	120,501,795	82,971,608	42,596,049	20,308,797	9,603,657	5,321,540	281,303,446
1939-40	134,453,735	95,917,551	46,241,222	22,162,881	10,081,364	6,219,944	315,076,697

5. **Value of Output.**—(i) *In Classes of Industry, 1939-40.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1939-40 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 power fuel and light used, and the output is the real value of factory production (see par. 6).

FACTORIES : VALUE OF OUTPUT, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	5,555,892	3,118,040	823,409	546,321	603,559	517,405	11,166,626
II. Bricks, .. Pottery, Glass, etc. ..	4,618,352	2,423,409	416,850	665,486	324,990	104,173	8,553,260
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	16,402,471	12,292,943	1,017,089	2,197,162	1,645,697	207,708	33,763,070
IV. Industrial Metals, Machines, Implements and Conveyances ..	87,922,694	33,932,842	9,900,559	14,566,998	3,854,638	3,854,654	154,032,385
V. Precious Metals, Jewellery and Plate ..	476,166	1,175,843	57,903	82,936	33,968	5,580	1,832,396
VI. Textiles and Textile Goods ..	11,478,470	18,983,926	859,748	1,509,409	280,946	1,323,877	34,436,376
VII. Skins and Leather ..	5,176,731	4,610,192	1,490,825	271,648	304,867	156,737	12,461,000
VIII. Clothing ..	13,803,726	18,294,893	2,296,193	1,407,070	1,047,314	175,591	37,024,787
IX. Food, Drink and Tobacco ..	53,656,232	49,968,975	41,471,741	10,307,014	7,206,231	3,460,187	166,070,380
X. Woodworking and Basketware ..	8,491,019	6,012,196	4,974,331	1,866,866	1,721,952	1,049,928	24,116,292
XI. Furniture, Bedding, etc. ..	3,814,773	3,216,575	1,074,836	642,374	474,321	162,742	9,385,621
XII. Paper, Stationery, Printing, Book-binding, etc. ..	13,211,713	9,882,802	1,996,318	1,295,299	1,099,173	1,029,384	28,514,689
XIII. Rubber ..	3,448,414	4,383,070	393,083	94,171	53,643	28,181	8,400,562
XIV. Musical Instruments ..	135,936	40,049	11,818	6,883	9,099	..	203,785
XV. Miscellaneous Products ..	2,506,601	1,807,711	110,004	201,275	76,025	52,997	4,754,613
Total, Classes I. to XV. ..	239,699,190	170,143,466	67,344,707	35,660,912	18,738,423	12,129,144	534,715,842
XVI. Heat, Light and Power ..	8,499,466	4,160,935	1,408,435	2,035,626	1,568,863	864,150	18,537,475
Grand Total ..	239,198,656	174,304,401	68,753,142	37,696,538	20,307,286	12,993,294	553,253,317

(ii) *Total, 1935-36 to 1939-40.* The following statement shows the value of output in each State during the five years ended 1939-40 :—

FACTORIES : VALUE OF OUTPUT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
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
1938-39 ..	218,419,313	152,967,611	63,321,073	35,005,264	19,548,511	11,158,205	500,419,977
1939-40 ..	239,198,656	174,304,401	68,753,142	37,696,538	20,307,286	12,993,294	553,253,317

6. Value of Production.—(i) *In Classes of Industry, 1939-40.* 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 £11,800,881 for 1939-40. 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 1939-40 in each State for the various classes of factories :—

FACTORIES : VALUE OF PRODUCTION, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	2,300,459	1,605,052	373,362	293,705	303,815	290,938	5,167,331
II. Bricks, Pottery, Glass, etc. ..	2,973,907	1,615,021	288,668	397,728	206,531	62,360	5,544,215
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	6,885,847	5,614,825	349,452	735,537	503,235	65,891	14,154,787
IV. Industrial Metals, Machines, Implements and Conveyances ..	34,330,542	17,872,805	5,145,928	5,531,180	2,294,086	1,946,830	67,121,371
V. Precious Metals, Jewellery and Plate ..	284,144	625,099	44,754	50,987	24,985	4,773	1,034,742
VI. Textiles and Textile Goods ..	4,363,458	8,233,305	274,404	423,184	121,816	654,771	14,070,938
VII. Skins and Leather ..	1,588,515	1,561,268	369,052	112,395	133,993	41,923	3,807,146
VIII. Clothing ..	6,609,353	8,245,028	1,186,214	760,357	556,940	100,891	17,458,783
IX. Food, Drink, and Tobacco ..	17,182,996	14,096,240	8,067,455	2,694,902	2,344,700	1,049,973	45,436,266
X. Woodworking and Basketware ..	3,349,585	2,651,394	2,128,235	643,973	800,434	507,268	10,080,889
XI. Furniture, Bedding, etc. ..	1,691,388	1,368,567	518,223	290,235	226,527	88,078	4,183,018
XII. Paper, Stationery, Printing, Book-binding, etc. ..	6,919,017	5,174,707	1,217,088	738,761	689,625	619,000	15,358,198
XIII. Rubber ..	1,020,089	1,807,281	171,679	46,607	30,673	13,435	3,089,764
XIV. Musical Instruments	84,447	31,820	10,014	6,575	8,468	..	141,324
XV. Miscellaneous Products ..	1,294,159	883,481	66,675	111,717	40,917	35,098	2,432,047
Total, Classes I. to XV.	90,877,906	71,385,893	20,211,203	12,837,843	8,286,745	5,481,229	209,080,819
XVI. Heat, Light and Power ..	5,731,401	2,642,538	761,935	1,565,677	740,983	771,800	12,214,334
Grand Total ..	96,609,307	74,028,431	20,973,138	14,403,520	9,027,728	6,253,029	221,295,153

(ii) *Total and Averages, 1935-36 to 1939-40.* 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.							
	£	£	£	£	£	£	£
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	177,684,645
1937-38 ..	85,168,133	64,889,390	18,602,958	13,820,155	8,562,294	5,445,094	196,488,024
1938-39 ..	90,265,891	65,996,069	19,301,475	13,678,930	8,775,586	5,398,659	203,416,610
1939-40 ..	96,609,307	74,028,431	20,973,138	14,403,520	9,027,728	6,253,029	221,295,153

PER PERSON ENGAGED.

	£	£	£	£	£	£	£
1935-36 ..	360	295	348	303	357	351	330
1936-37 ..	368	307	356	301	359	387	339
1937-38 ..	379	322	357	313	370	413	381
1938-39 ..	395	327	357	315	378	391	360
1939-40 ..	403	348	378	320	393	426	377

PER HEAD OF POPULATION.

	£	£	£	£	£	£	£
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	23.17	28.62
1938-39 ..	33.02	35.20	19.17	23.01	18.97	22.79	29.36
1939-40 ..	34.97	39.18	20.60	24.12	19.36	26.20	31.65

7. *Value of Output and Cost of Production.*—As the total value of the output for Australia for 1939-40 was estimated at £553,253,317, there remained, after payment of £315,076,697, the value of the materials used, of £114,517,633 for salaries and wages, and of £16,881,467 for power, fuel and light, the sum of £106,777,520 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 1939-40 :—

FACTORIES : VALUE OF OUTPUT AND COST OF PRODUCTION, 1939-40.

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
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VALUE AND COST, ETC.

	£	£	£	£	£
New South Wales ..	134,453,735	8,135,614	47,692,551	48,916,756	239,198,656
Victoria ..	95,917,551	4,358,419	39,576,293	34,452,138	174,304,401
Queensland ..	46,241,222	1,538,782	11,440,661	9,532,477	68,753,142
South Australia ..	22,162,881	1,130,137	8,546,800	5,856,720	37,690,538
Western Australia ..	10,081,364	1,198,194	4,575,180	4,452,548	20,307,286
Tasmania ..	6,219,944	520,321	2,686,148	3,566,881	12,993,294
Australia ..	315,076,697	16,881,467	114,517,633	106,777,520	553,253,317

(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, 1939-40—
continued.

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
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PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE.

	%	%	%	%	%
New South Wales ..	56.21	3.40	19.94	20.45	100.00
Victoria ..	55.03	2.50	22.71	19.76	100.00
Queensland ..	67.26	2.24	16.64	13.86	100.00
South Australia ..	58.79	3.00	22.67	15.54	100.00
Western Australia ..	49.64	5.90	22.53	21.93	100.00
Tasmania ..	47.87	4.00	20.67	27.46	100.00
Australia ..	56.95	3.05	20.70	19.30	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 1939-40 :—

FACTORIES : VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY, 1939-40.

Value of—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	58,939,150	43,791,176	12,456,458	9,539,249	6,863,468	3,775,605	135,365,106
Plant and machinery	64,801,584	40,905,886	18,217,831	11,106,194	8,025,068	6,787,888	149,844,451
Total ..	123,740,734	84,697,062	30,674,289	20,645,443	14,888,536	10,563,493	285,209,557

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, 1935-36 to 1939-40.* The appended table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries from 1935-36 to 1939-40 :—

FACTORIES : VALUE OF LAND AND BUILDINGS, AUSTRALIA.

Class of Industry.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,412,145	2,617,765	2,728,772	2,778,746	2,806,373
II. Bricks, Pottery, Glass, etc.	2,706,575	2,686,930	2,790,201	2,953,557	3,129,389
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	6,398,332	6,596,554	6,843,335	7,377,551	8,387,491
IV. Industrial Metals, Machines, Implements and Conveyances ..	27,873,261	30,061,037	32,420,428	34,841,028	35,853,507
V. Precious Metals, Jewellery and Plate ..	561,735	602,685	616,934	633,009	644,060
VI. Textiles and Textile Goods ..	5,447,503	5,558,420	5,754,347	5,999,671	6,432,183
VII. Skins and Leather ..	1,833,335	2,008,167	1,990,451	2,095,886	2,134,185
VIII. Clothing ..	9,750,733	10,282,902	10,359,944	10,623,619	10,650,856
IX. Food, Drink and Tobacco ..	28,928,977	30,166,301	31,953,396	33,273,248	34,136,115
X. Woodworking and Basketware ..	3,769,305	3,838,701	3,904,773	4,106,963	4,297,248
XI. Furniture, Bedding, etc.	2,196,782	2,370,393	2,440,997	2,533,254	2,562,861
XII. Paper, Stationery, Printing, Bookbinding, etc.	9,564,871	9,668,602	9,956,433	10,639,315	10,945,294
XIII. Rubber ..	1,842,048	1,751,707	1,790,590	1,676,043	1,708,386
XIV. Musical Instruments ..	115,948	109,531	98,947	104,838	108,594
XV. Miscellaneous Products ..	1,213,697	1,323,085	1,306,371	1,432,857	1,535,993
Total, Classes I. to XV.	104,615,247	109,642,780	115,036,919	121,069,585	125,332,535
XVI. Heat, Light and Power ..	9,994,655	9,883,357	9,597,095	9,850,829	10,032,571
Grand Total ..	114,609,902	119,526,137	124,634,014	130,920,414	135,365,106

(ii) *In Classes of Industry in States, 1939-40.* The following table gives particulars of the various classes of industry in each State.

FACTORIES : VALUE OF LAND AND BUILDINGS, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,400,154	782,555	213,651	166,284	96,042	147,687	2,806,373
II. Bricks, Pottery, Glass, etc.	1,885,630	822,681	136,114	158,257	104,883	21,824	3,129,389
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	3,057,566	3,517,205	210,192	851,677	667,051	83,800	8,387,491
IV. Industrial Metals, Machines, Implements and Conveyances ..	17,756,081	10,077,568	2,406,521	2,885,021	1,753,386	974,930	35,853,507
V. Precious Metals, Jewellery and Plate ..	186,461	352,062	27,977	43,825	25,080	8,655	644,060
VI. Textiles and Textile Goods ..	2,214,549	3,557,103	113,902	234,878	64,682	247,069	6,432,183
VII. Skins and Leather ..	836,097	962,878	122,712	65,498	126,178	20,822	2,134,185
VIII. Clothing ..	4,446,218	4,438,275	620,992	544,818	498,354	102,199	10,650,856
IX. Food, Drink and Tobacco ..	12,501,102	10,057,636	5,939,154	2,638,672	1,954,963	1,044,588	34,136,115
X. Woodworking and Basketware ..	1,934,405	1,089,672	509,785	327,321	278,042	158,023	4,297,248
XI. Furniture, Bedding, etc.	996,301	937,804	283,668	162,094	134,698	48,296	2,562,861
XII. Paper, Stationery, Printing, Bookbinding, etc.	4,676,051	3,631,443	987,487	690,235	549,175	410,903	10,945,294
XIII. Rubber ..	813,653	647,614	123,028	57,879	33,254	30,500	1,708,386
XIV. Musical Instruments ..	60,603	32,546	7,460	1,275	6,710		108,594
XV. Miscellaneous Products ..	804,083	530,837	55,948	89,406	46,130	9,589	1,535,993
Total, Classes I. to XV.	53,568,954	41,437,879	11,758,591	8,917,110	6,340,626	3,309,345	125,332,535
XVI. Heat, Light and Power ..	5,370,196	2,353,297	697,867	622,109	522,842	466,260	10,032,571
Grand Total ..	58,939,150	43,791,176	12,456,458	9,539,249	6,863,468	3,775,605	135,365,106

(iii) *Totals in each State.* The total value of land and buildings in each State from 1935-36 to 1939-40 is given hereunder :—

FACTORIES : VALUE OF LAND AND BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
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	124,634,014
1938-39 ..	57,353,625	42,026,245	12,299,089	8,710,700	6,813,653	3,717,102	130,920,414
1939-40 ..	58,939,150	43,791,176	12,456,458	9,539,249	6,863,468	3,775,605	135,365,106

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 since that year the value has risen to £135.4 million.

3. *Value of Plant and Machinery.*—(i) *Total for Australia, 1935-36 to 1939-40.* 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	5,249,528	4,881,743	6,504,872	7,028,382	6,765,086
II. Bricks, Pottery, Glass, etc. ..	2,865,499	2,858,777	3,019,476	3,144,586	3,090,862
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	5,722,327	5,923,776	6,251,926	6,754,248	7,863,905
IV. Industrial Metals, Machines, Implements and Conveyances ..	25,604,490	26,940,963	29,285,995	33,037,801	34,400,778
V. Precious Metals, Jewellery and Plate ..	175,884	187,373	196,652	197,059	209,507
VI. Textiles and Textile Goods ..	6,052,307	6,505,668	6,463,604	6,657,416	7,010,262
VII. Skins and Leather ..	898,598	902,197	900,239	973,181	1,022,965
VIII. Clothing ..	2,256,669	2,326,915	2,431,475	2,557,388	2,603,073
IX. Food, Drink and Tobacco ..	30,041,612	30,244,206	31,198,129	32,100,675	32,611,143
X. Woodworking and Basketware ..	3,629,550	3,597,835	3,759,553	3,907,551	4,079,562
XI. Furniture, Bedding, etc. ..	678,710	704,708	725,420	727,857	733,229
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	7,532,292	7,773,218	8,436,942	9,188,227	10,010,470
XIII. Rubber ..	1,464,225	1,401,645	1,470,300	1,367,859	1,393,609
XIV. Musical Instruments ..	18,157	14,800	10,750	11,702	11,422
XV. Miscellaneous Products ..	579,858	671,173	719,309	758,273	812,729
Total, Classes I. to XV.	92,769,706	94,934,997	101,374,642	108,412,205	112,618,602
XVI. Heat, Light and Power ..	32,461,385	31,742,098	31,989,944	35,249,922	37,225,849
Grand Total ..	125,231,091	126,677,095	133,364,586	143,662,127	149,844,451

In 1929-30 the amount invested in plant and machinery was £127.6 million, declining to £120.2 million during the next four years, but has since risen to the record figure of £149.8 million for 1939-40. The increase of £6 million recorded during the latter year was due to the development in the heavy industries included in Class IV. and in the Heat, Light and Power group in Class XVI, while substantial increases have occurred in Class III., Chemicals, etc., and in Class XII., Paper, Stationery, etc.

(ii) *Totals in each State.* The following table shows the value of plant and machinery in each State during the last five years. The chief increases during 1939-40 were recorded in New South Wales, Victoria and South Australia :—

FACTORIES : VALUE OF PLANT AND MACHINERY.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
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
1938-39 ..	62,692,956	38,626,743	18,095,415	9,749,679	8,095,064	6,402,270	143,662,127
1939-40 ..	64,801,584	40,905,886	18,217,831	11,106,194	8,025,068	6,787,888	149,844,451

(iii) *Value according to Industry, 1939-40.* The following table shows the value of plant and machinery used in factories in each State during 1939-40, classified according to industry :—

FACTORIES : VALUE OF PLANT AND MACHINERY, 1939-40.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metallic Mine and Quarry Products ..	4,291,304	1,611,636	293,966	282,863	144,190	141,127	6,765,086
II. Bricks, Pottery, Glass, etc. ..	1,757,085	853,810	132,460	177,821	135,616	34,070	3,090,862
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,956,272	3,304,899	168,918	1,512,451	873,360	48,005	7,863,905
IV. Industrial Metals, Machines, Implements and Conveyances ..	20,439,672	6,913,678	2,176,302	2,666,951	953,609	1,250,566	34,400,778
V. Precious Metals, Jewellery and Plate ..	52,689	135,713	4,862	10,616	3,624	2,003	209,507
VI. Textiles and Textile Goods ..	2,416,939	3,846,599	130,503	320,665	76,546	219,010	7,010,262
VII. Skins and Leather ..	440,751	369,781	106,653	19,676	64,807	21,297	1,022,965
VIII. Clothing ..	933,350	1,255,788	164,803	133,614	98,850	16,668	2,603,073
IX. Food, Drink and Tobacco ..	10,031,397	7,282,727	11,096,433	1,941,987	1,697,415	561,184	32,611,143
X. Woodworking and Basketware ..	1,397,429	940,949	795,094	205,354	438,916	301,820	4,079,562
XI. Furniture, Bedding, etc. ..	286,222	213,670	86,953	85,634	41,634	19,116	733,229
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,246,870	3,359,462	677,233	538,968	340,717	847,220	10,010,470
XIII. Rubber ..	516,238	785,749	57,000	20,077	8,662	5,883	1,393,609
XIV. Musical Instruments ..	7,471	2,928	228	402	393	..	11,422
XV. Miscellaneous Products ..	455,951	302,649	13,707	22,456	11,732	6,234	812,729
Total, Classes I. to XV.	49,229,640	31,180,038	15,905,115	7,939,535	4,890,071	3,474,203	112,618,602
XVI. Heat, Light and Power ..	15,571,944	9,725,848	2,312,716	3,166,659	3,134,997	3,113,685	37,225,849
Grand Total ..	64,801,584	40,905,886	18,217,831	11,106,194	8,025,068	6,787,888	149,844,451

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 1939-40.

ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, 1939-40.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	405,644	101,473	31,159	8,440	23,728	40,007	610,451
II. Bricks, Pottery, Glass, etc. ..	193,901	129,922	18,750	29,075	15,435	1,743	388,826
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	254,287	337,027	16,860	38,238	62,594	5,669	714,675
IV. Industrial Metals, Machines, Implements and Conveyances ..	2,065,788	664,725	196,817	233,496	56,434	121,604	3,338,864
V. Precious Metals, Jewellery and Plate ..	4,000	11,170	377	1,076	253	155	17,031
VI. Textiles and Textile Goods ..	223,696	507,647	14,236	23,113	6,292	28,187	803,171
VII. Skins and Leather ..	36,769	42,986	6,990	1,278	3,706	2,190	93,919
VIII. Clothing ..	89,918	120,478	10,310	7,889	7,283	1,729	237,607
IX. Food, Drink and Tobacco ..	787,626	688,268	693,726	187,133	130,563	49,625	2,536,941
X. Woodworking and Basketware ..	132,456	85,731	70,431	26,295	45,032	23,849	383,794
XI. Furniture, Bedding, etc. ..	28,186	20,848	13,136	10,226	10,768	1,428	84,592
XII. Paper, Stationery, Printing, Book-binding, etc. ..	334,786	356,814	69,471	49,582	34,363	64,058	909,074
XIII. Rubber ..	120,810	87,760	6,360	1,905	1,200	1,242	219,277
XIV. Musical Instruments ..	1,998	147	9	4	39	..	2,197
XV. Miscellaneous Products ..	48,340	43,686	1,179	2,356	1,528	677	97,766
Total, Classes I. to XV.	4,728,205	3,198,682	1,149,811	620,106	399,218	342,163	10,438,185
XVI. Heat, Light and Power ..	824,804	141,076	194,048	25,251	118,223	59,294	1,362,696
Grand Total	5,553,009	3,339,758	1,343,859	645,357	517,441	401,457	11,800,881

§ 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 are dealt with hereunder which are of special importance by reason of the employment which they provide for labour and capital or other features of special interest. Where there are only one or two establishments of a particular industry 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. **Cement and Cement Goods.**—(i) *Details for each State, 1939-40.* The manufacture of cement and cement goods is the most important industry included in Class I. and details for each State during 1939-40 are given in the following table :—

CEMENT AND CEMENT GOODS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	40	42	16	12	16	6	132
Number of persons engaged ..	1,183	1,310	500	263	333	177	3,766
Value of land and buildings ..	£ 611,169	329,788	158,284	71,629	36,977	112,464	1,320,311
Value of plant and machinery ..	£ 1,055,500	702,176	202,293	228,666	102,335	96,431	2,387,391
Wages paid ..	£ 286,012	288,813	119,088	63,124	73,167	34,245	864,449
Value of fuel used ..	£ 203,115	137,693	65,607	44,334	78,362	44,332	573,443
Value of materials used ..	£ 444,835	494,088	248,811	98,352	115,786	84,524	1,486,396
Total value of output ..	£ 1,538,624	1,356,614	577,965	284,880	375,496	284,471	4,418,050
Value of production ..	£ 899,674	724,833	263,547	142,194	181,348	155,615	2,358,211

(ii) *Total for Australia, 1935-36 to 1939-40.* The next table gives particulars for the last five years for Australia :—

CEMENT AND CEMENT GOODS : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	101	108	125	132	132
Number of persons engaged ..	2,698	3,214	3,832	3,932	3,766
Value of land and buildings ..	£ 1,272,985	1,347,741	1,346,013	1,350,175	1,320,311
Value of plant and machinery ..	£ 2,134,478	2,260,667	2,308,148	2,515,814	2,387,391
Wages paid ..	£ 569,092	676,738	863,016	897,426	864,449
Value of fuel used ..	£ 423,948	502,307	573,427	561,578	573,443
Value of materials used ..	£ 949,629	1,170,877	1,429,104	1,542,067	1,486,396
Total value of output ..	£ 3,201,407	3,660,862	4,313,449	4,488,891	4,418,050
Value of production ..	£ 1,827,830	1,987,678	2,310,918	2,385,246	2,358,211
Cement, portland grey, produced ..	ton 645,234	720,093	851,914	867,849	864,917
	£ 2,389,899	2,566,740	2,991,927	3,023,707	2,931,394

3. **Chemicals, Drugs and Medicines.**—(i) *Details for each State, 1939-40.* This industry is the most important in Class III. and details for each State during 1939-40 are shown in the following table :—

CHEMICALS, DRUGS AND MEDICINES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	138	65	12	13	11	4	243
Number of persons engaged ..	2,943	1,932	190	401	194	38	5,698
Value of land and buildings ..	£ 1,128,406	576,577	61,839	374,407	50,942	20,389	2,212,560
Value of plant and machinery ..	£ 632,352	363,624	35,075	690,778	154,126	12,576	1,888,531
Wages paid ..	£ 584,463	374,952	35,672	70,885	40,974	5,294	1,112,240
Value of fuel used ..	£ 74,418	40,198	3,809	18,762	10,905	661	148,753
Value of materials used ..	£ 2,275,248	1,188,634	120,334	241,589	79,014	17,724	3,922,543
Total value of output ..	£ 5,044,436	2,472,169	226,247	406,738	215,396	33,042	8,398,028
Value of production ..	£ 2,694,770	1,243,337	102,104	146,387	125,477	14,657	4,326,732

(ii) *Total for Australia, 1935-36 to 1939-40.* 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 five years :—

CHEMICALS, DRUGS AND MEDICINES : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	214	225	228	238	243
Number of persons engaged ..	4,619	4,928	5,210	5,346	5,698
Value of land and buildings ..	£ 1,556,254	1,627,073	1,677,485	1,817,727	2,212,560
Value of plant and machinery ..	£ 986,700	1,080,969	1,119,602	1,253,577	1,888,531
Wages paid ..	£ 786,211	849,254	955,677	1,011,906	1,112,240
Value of fuel used ..	£ 99,376	107,240	119,880	121,503	148,753
Value of materials used ..	£ 2,751,056	2,948,550	3,219,896	3,403,680	3,922,543
Total value of output ..	£ 5,723,675	6,362,843	6,873,053	7,351,745	8,398,028
Value of production ..	£ 2,873,243	3,307,053	3,533,277	3,826,562	4,326,732

4. White Lead, Paints and Varnish.—(i) *Details for each State, 1939-40.* The following table shows particulars of this industry for each State during 1939-40 :—

WHITE LEAD, PAINTS AND VARNISH FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	49	42	4	8	2	..	105
Number of Persons engaged ..	1,758	391	39	170	9	..	2,367
Value of land and buildings ..	£ 576,072	144,114	5,706	66,214	2,710	..	794,816
Value of plant and machinery ..	£ 216,606	51,416	3,279	43,402	2,171	..	316,874
Wages paid ..	£ 445,125	78,916	8,521	35,192	1,793	..	569,517
Value of fuel used ..	£ 38,985	6,923	1,093	2,357	114	..	49,472
Value of materials used ..	£ 2,161,241	339,823	47,234	159,452	10,793	..	2,718,543
Total value of output ..	£ 3,415,557	566,192	62,192	242,969	16,922	..	4,303,832
Value of production ..	£ 1,215,331	219,446	13,865	81,160	6,015	..	1,535,817

(ii) *Total for Australia, 1935-36 to 1939-40.* The next table gives particulars for the last five years for Australia :—

WHITE LEAD, PAINTS AND VARNISH FACTORIES : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	83	90	98	102	105
Number of persons engaged ..	1,774	1,987	2,166	2,271	2,367
Value of land and buildings ..	£ 611,386	637,535	709,515	761,345	794,816
Value of plant and machinery ..	£ 277,019	320,543	306,759	324,222	316,874
Wages paid ..	£ 360,683	412,495	487,869	535,014	569,547
Value of fuel used ..	£ 36,346	42,054	44,513	44,992	49,472
Value of materials used ..	£ 1,826,194	2,099,415	2,391,785	2,275,027	2,718,543
Total value of output ..	£ 3,126,126	3,539,735	4,000,344	3,905,104	4,303,832
Value of production ..	£ 1,263,586	1,398,266	1,564,046	1,585,085	1,535,817

5. Soap and Candle Factories.—(i) *Details for each State, 1939-40.* The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained. The following table gives particulars of soap and candle factories in each State for 1939-40 :—

SOAP AND CANDLE FACTORIES, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories ..	32	16	10	5	3	2	68
Number of persons engaged ..	1,539	713	199	184	61	26	2,722
Value of land and buildings ..	£ 361,174	207,550	35,711	58,106	(a)	(a)	(b) 686,821
Value of plant and machinery ..	£ 255,537	242,964	24,391	40,388	(a)	(a)	(b) 582,786
Wages paid ..	£ 304,496	139,712	40,639	33,845	(a)	(a)	(b) 535,578
Value of fuel used ..	£ 33,461	43,634	4,408	3,197	(a)	(a)	(b) 87,094
Value of materials used ..	£ 950,170	577,161	110,061	79,581	(a)	(a)	(b) 1,792,039
Total value of output ..	£ 2,071,515	1,398,010	213,236	161,149	(a)	(a)	(b) 3,965,660
Value of production ..	£ 1,087,884	777,215	98,767	78,371	(a)	(a)	(b) 2,086,527

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Total for Australia, 1935-36 to 1939-40.* The next table gives similar particulars for the last five years for Australia :—

SOAP AND CANDLE FACTORIES : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	66	66	65	65	68
Number of persons engaged ..	2,183	2,379	2,534	2,620	2,722
Value of land and buildings ..	£ 613,717	624,162	649,362	665,546	686,821
Value of plant and machinery ..	£ 514,845	484,225	556,427	576,732	582,786
Wages paid ..	£ 385,431	441,857	478,065	501,174	535,578
Value of fuel used ..	£ 76,340	63,368	72,670	76,283	87,094
Value of materials used ..	£ 1,689,835	1,858,810	1,787,068	1,567,999	1,792,039
Total value of output ..	£ 3,107,553	3,551,887	3,627,830	3,529,723	3,965,660
Value of Production ..	£ 1,341,378	1,629,709	1,768,092	1,885,441	2,086,527

(iii) *Raw Material Used and Production, 1935-36 to 1939-40.* 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Tallow used cwt.	491,423	518,604	511,302	535,511	603,014
Alkali used "	288,461	227,028	218,171	229,881	251,232
Coco-nut oil used, refined "	125,548	124,236	137,134	138,954	142,839
and unrefined "	954,082	986,578	952,507	986,087	1,051,618
Soap made "	39,937	37,991	26,964	27,459	26,972
Candles made "					

The output for the year 1939-40 comprised the following quantities of soap :— household, 757,686 cwt. ; toilet, 160,820 cwt. ; sand, 84,698 cwt. ; soft, 19,191 cwt. ; and woolscouring, 29,223 cwt. This excludes 2,539 cwt. of soap made in establishments not classified as Soap and Candle Factories.

6. **Chemical Fertilizers.**—(i) *Details for each State, 1939-40.* The following table gives particulars of the factories engaged in the manufacture of chemical fertilizers in each State during 1939-40. Details of the consumption, imports and exports of fertilizers will be found in Chapter XVII. "Agricultural Production".

CHEMICAL FERTILIZERS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	5	7	6	6	5	7	36
Number of persons engaged ..	233	994	97	653	380	35	2,392
Value of land and buildings £	111,662	546,577	58,308	271,881	495,028	45,763	1,529,219
Value of plant and machinery £	142,759	856,109	62,611	662,528	637,142	25,794	2,386,943
Wages paid ..	£ 65,225	246,325	23,362	155,187	106,370	7,764	604,233
Value of fuel used ..	£ 16,283	46,707	1,408	22,251	20,487	751	107,887
Value of materials used ..	£ 398,758	1,060,055	292,335	527,798	749,709	95,109	3,123,764
Total value of output ..	£ 628,944	1,663,523	369,464	829,746	1,040,289	120,318	4,652,284
Value of production ..	£ 213,903	556,761	75,721	279,697	270,093	24,458	1,420,633

(ii) *Total for Australia, 1935-36 to 1939-40.* The development of this industry since 1935-36 is set out hereunder :—

CHEMICAL FERTILIZERS : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories	33	34	32	36	36
Number of persons engaged	1,996	2,214	2,474	2,540	2,392
Value of land and buildings	£ 1,378,636	1,368,075	1,424,055	1,449,157	1,529,219
Value of plant and machinery	£ 2,127,113	2,145,237	2,214,575	2,352,819	2,386,943
Wages paid	£ 442,052	493,345	599,947	601,477	604,233
Value of fuel used	£ 88,676	94,340	108,587	113,749	107,887
Value of materials used	£ 2,726,551	2,873,015	3,239,322	3,231,053	3,123,764
Total value of output	£ 3,906,041	4,375,565	4,904,383	4,944,800	4,652,284
Value of production	£ 1,090,814	1,408,210	1,556,474	1,599,998	1,420,633

7. **Smelting, Converting, Refining and Rolling of Iron and Steel.**—The extension of the classification referred to in § 1 par. 2 above 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 1938-39 are as follows :—

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL, 1938-39.

Items.	N.S.W.	Victoria.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	170	161	..	31	1	..	363
Number of persons engaged ..	13,253	4,366	..	1,622	111	..	19,352
Value of land and buildings £	2,777,705	622,355	..	(b)	(b)	..	c 3,532,471
Value of plant and machinery £	7,945,771	555,971	..	(b)	(b)	..	c 8,611,122
Wages paid ..	3,553,180	878,739	..	(b)	(b)	..	c 4,740,444
Value of fuel used ..	2,142,229	134,947	..	(b)	(b)	..	c 2,318,248
Value of materials used £	15,048,009	1,105,270	..	(b)	(b)	..	c16,502,532
Total value of output £	25,571,297	2,682,921	..	(b)	(b)	..	c29,075,039
Value of production ..	8,381,059	1,442,704	..	(b)	(b)	..	c10,254,259

(a) Now included with Engineering. (b) Particulars not available for publication.
(c) Including South Australia and Western Australia.

NOTE.—Later particulars are not available for publication.

8. 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) 1939-40.

Items.	N.S.W.	Victoria.	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	373	395	118	85	150	20	1,141
Number of persons engaged ..	10,417	10,085	2,757	2,049	1,650	286	27,244
Value of land and buildings£	1,590,851	1,623,464	359,739	185,173	329,040	48,556	4,136,823
Value of plant and machinery ..	£ 1,515,053	1,632,491	321,042	218,322	258,219	37,856	3,982,983
Wages paid ..	£ 2,412,714	2,316,189	588,995	367,427	377,613	60,482	6,123,420
Value of fuel used £	110,872	106,117	39,782	26,814	25,608	3,780	313,063
Value of materials used £	3,289,314	3,249,474	728,886	438,386	436,606	45,737	8,188,403
Total value of putput £	7,188,153	7,157,802	1,627,691	1,036,709	1,048,974	131,370	18,190,699
Value of production £	3,787,967	3,802,211	859,023	571,509	586,670	81,853	9,689,233

(a) Excluding marine and electrical. (b) Including establishments previously included with smelting, converting, refining and rolling 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.

9. **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, 1938-39.

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 ..	1,071	62	1,152	1,197	69	1,981	5,532
Value of land and buildings £	222,188	22,646	298,352	(b)	(b)	482,544	(c) 1,177,348
Value of plant and machinery ..	£ 963,400	5,863	857,875	(b)	(b)	1,091,212	(c) 3,525,659
Wages paid ..	£ 313,143	15,389	351,873	(b)	(b)	528,167	(c) 1,613,107
Value of fuel used ..	£ 202,009	3,177	88,930	(b)	(b)	197,398	(c) 597,951
Value of materials used ..	£ 9,793,124	162,405	1,657,494	(b)	(b)	1,237,475	(c) 16,844,310
Total value of output ..	£ 11,261,700	194,697	2,568,692	(b)	(b)	2,598,052	(c) 21,333,872
Value of production ..	£ 1,266,567	29,115	822,268	(b)	(b)	1,163,179	(c) 3,891,611

(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.

NOTE.—Later particulars are not available for publication.

10. **Electrical Installations, Cables and Apparatus.**—(i) *Details for each State, 1939-40.* The following table shows particulars of this industry for each State during 1939-40 :—

ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	150	131	14	29	29	9	362
Number of persons engaged ..	6,743	3,743	160	602	148	65	11,461
Value of land and buildings ..	£ 980,003	538,066	29,914	74,180	59,475	15,095	1,696,733
Value of plant and machinery ..	£ 564,476	310,388	7,902	38,729	9,447	9,754	940,696
Wages paid ..	£ 1,377,155	727,202	31,936	104,147	24,126	8,612	2,273,178
Value of fuel used ..	£ 72,181	28,756	778	7,129	1,682	299	110,825
Value of materials used ..	£ 2,116,077	995,329	25,895	250,157	25,720	9,423	3,422,601
Total value of output ..	£ 4,518,938	2,298,888	74,211	462,220	73,024	28,329	7,455,610
Value of production ..	£ 2,330,680	1,274,803	47,538	204,934	45,622	18,607	3,922,184

(ii) *Total for Australia, 1935-36 to 1939-40.*—The increased output of electrical energy in Australia within recent years, referred to in par. 39 below, caused 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 needs, and consequently a remarkable development in the manufacture of electrical goods in Australia has resulted.

ELECTRICAL INSTALLATIONS, CABLES AND APPARATUS : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	294	318	354	360	362
Number of persons engaged ..	8,137	9,215	11,054	10,666	11,461
Value of land and buildings ..	£ 1,245,877	1,349,212	1,570,455	1,627,183	1,696,733
Value of plant and machinery ..	£ 660,504	687,740	799,283	896,553	940,696
Wages paid ..	£ 1,325,736	1,534,415	1,915,348	2,031,098	2,273,178
Value of fuel used ..	£ 173,780	85,782	101,926	104,594	110,825
Value of materials used ..	£ 2,059,502	2,383,154	3,101,308	3,195,032	3,422,601
Total value of output ..	£ 4,329,150	5,085,776	6,494,421	6,954,498	7,455,610
Value of production ..	£ 2,195,868	2,614,840	3,291,187	3,654,872	3,922,184

11. **Railway and Tramway Workshops.**—(i) *Details for each State, 1939-40.* The railway and tramway workshops which form an important item in Class IV. are chiefly State-owned institutions and their development is reflected by the growth of the railway

and tramway systems of Australia. The following table includes, in addition, municipal establishments for manufacturing and repairing rolling stock. Private institutions numbering 9 in 1939-40 have been excluded :—

TRAMCARS, RAILWAY ROLLING STOCK AND CARRIAGES, ETC. (a), 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
Number of factories ..	36	25	11	15	21	7	115
Number of persons engaged ..	11,526	5,816	3,828	3,311	2,033	506	27,020
Value of land and buildings £	3,031,897	1,513,211	538,181	936,217	479,564	94,921	6,593,991
Value of plant and machinery ..	£ 2,547,946	£ 1,142,015	£ 415,796	£ 827,770	£ 397,830	£ 51,108	£ 5,382,465
Wages paid ..	£ 2,836,019	£ 1,478,938	£ 1,017,452	£ 797,041	£ 493,379	£ 122,774	£ 6,744,603
Value of fuel used ..	£ 92,403	£ 52,946	£ 28,508	£ 33,610	£ 22,381	£ 5,789	£ 235,637
Value of materials used ..	£ 2,250,698	£ 1,178,257	£ 643,929	£ 528,511	£ 291,153	£ 23,043	£ 4,915,591
Total value of output ..	£ 5,697,015	£ 3,013,439	£ 1,881,912	£ 1,494,529	£ 973,856	£ 166,767	£ 13,227,518
Value of production ..	£ 3,353,914	£ 1,782,236	£ 1,209,475	£ 932,408	£ 660,322	£ 137,935	£ 8,076,290

(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, 1935-36 to 1939-40.* The following table shows the development of railway and tramway workshops in Australia since 1935-36 :—

**TRAMCARS, RAILWAY ROLLING STOCK AND CARRIAGES, ETC. (a) :
AUSTRALIA.**

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	115	117	116	117	115
Number of persons engaged ..	25,678	26,649	27,207	27,310	27,020
Value of land and buildings ..	£ 6,436,465	£ 6,533,264	£ 6,552,522	£ 6,736,924	£ 6,593,991
Value of plant and machinery ..	£ 5,041,663	£ 5,058,723	£ 5,109,599	£ 5,390,179	£ 5,382,465
Wages paid ..	£ 5,585,710	£ 5,967,787	£ 6,525,372	£ 6,720,990	£ 6,744,603
Value of fuel used ..	£ 236,560	£ 233,560	£ 226,493	£ 226,108	£ 235,637
Value of materials used ..	£ 4,444,903	£ 4,717,251	£ 5,032,992	£ 4,976,353	£ 4,915,591
Total value of output ..	£ 11,455,618	£ 12,002,439	£ 13,029,225	£ 13,223,114	£ 13,227,518
Value of production ..	£ 6,774,155	£ 7,051,628	£ 7,769,740	£ 8,020,653	£ 8,076,290

(a) Government and Municipal only.

12. 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 1939-40 :—

ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	1,235	977	362	227	343	123	3,267
Number of persons engaged ..	8,429	6,819	2,680	1,777	1,535	796	22,036
Value of land and buildings ..	£ 3,155,675	£ 1,990,747	£ 641,677	£ 543,191	£ 575,885	£ 254,296	£ 7,161,471
Value of plant and machinery ..	£ 645,533	£ 471,732	£ 169,568	£ 117,826	£ 126,301	£ 48,023	£ 1,578,983
Wages paid ..	£ 1,537,250	£ 1,384,222	£ 500,848	£ 299,913	£ 279,553	£ 118,182	£ 4,119,968
Value of fuel used ..	£ 81,799	£ 66,812	£ 22,867	£ 14,541	£ 17,678	£ 3,885	£ 207,582
Value of materials used ..	£ 1,531,145	£ 1,187,032	£ 485,295	£ 268,176	£ 327,774	£ 111,525	£ 3,910,947
Total value of output ..	£ 4,214,544	£ 3,366,945	£ 1,405,182	£ 732,615	£ 892,125	£ 297,245	£ 10,908,656
Value of production ..	£ 2,601,600	£ 2,113,101	£ 897,020	£ 449,898	£ 546,673	£ 181,835	£ 6,790,127

Particulars in regard to motor body building for 1939-40 are as follows :—

• **MOTOR BODY BUILDING, 1939-40.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas. (a)	Australia.
Number of factories ..	51	91	37	12	11	18	220
Number of persons engaged ..	1,395	3,005	566	5,172	171	156	10,465
Value of land and buildings £	332,551	644,852	81,293	300,478	42,763	49,107	1,451,044
Value of plant and machinery £	84,391	260,188	26,260	216,051	13,442	3,602	603,934
Wages paid ..	£ 303,787	£ 680,867	£ 98,445	£ 1,194,169	£ 33,141	£ 25,686	£ 2,336,095
Value of fuel used ..	£ 8,225	£ 18,221	£ 2,966	£ 38,981	£ 1,393	£ 454	£ 70,240
Value of materials used ..	£ 309,704	£ 1,222,446	£ 106,623	£ 1,435,780	£ 36,249	£ 20,188	£ 3,130,990
Total value of output ..	£ 770,537	£ 2,413,362	£ 244,016	£ 3,173,804	£ 82,204	£ 57,497	£ 6,741,420
Value of production ..	£ 452,608	£ 1,172,695	£ 134,427	£ 1,699,043	£ 44,562	£ 36,855	£ 3,540,190

(a) Including horse-drawn vehicles.

The output of motor bodies together with the number imported into Australia for selected years are shown in the next table :—

MOTOR BODIES : PRODUCTION AND IMPORTS, AUSTRALIA.

Items.	1926-27.	1928-29.	1931-32.	1937-38.	1938-39.	1939-40.
Motor Bodies—						
Number made ..	No. 88,876	72,193	6,323	92,245	79,436	71,487
Value ..	£ 4,830,014	£ 4,357,841	£ 450,519	£ 7,411,177	£ 6,421,142	£ 5,583,316
Number imported ..	No. 12,843	14,546	61	646	532	345
Value ..	£ 1,413,203	£ 1,471,878	£ 7,360	£ 63,810	£ 56,641	£ 27,315

13. **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 a wide range of agricultural implements for tillage, seeding and planting and the harvesting of crops. Other farm machinery made includes oil engines, windmills, chaff-cutters and machinery used in the dairying industry.

(ii) *Details for States, 1939-40.* The following table gives details respecting agricultural implement works in each State for 1939-40 :—

AGRICULTURAL IMPLEMENT WORKS, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	34	79	9	37	9	..	168
Number of persons engaged ..	1,103	3,781	545	887	63	..	6,379
Value of land and buildings ..	£ 187,243	£ 613,775	£ 27,715	£ 155,323	£ 50,116	..	£ 1,034,172
Value of plant and machinery ..	£ 107,575	£ 563,275	£ 62,542	£ 185,275	£ 2,033	..	£ 920,700
Wages paid ..	£ 231,247	£ 888,761	£ 105,301	£ 153,603	£ 14,493	..	£ 1,393,405
Value of fuel used ..	£ 9,879	£ 60,155	£ 9,393	£ 11,460	£ 599	..	£ 91,486
Value of materials used ..	£ 307,875	£ 945,407	£ 89,203	£ 177,238	£ 3,012	..	£ 1,522,735
Total value of output ..	£ 634,579	£ 2,142,634	£ 244,428	£ 373,012	£ 25,048	..	£ 3,419,701
Value of production ..	£ 316,825	£ 1,137,072	£ 145,832	£ 184,314	£ 21,437	..	£ 1,805,480

(iii) *Total for Australia, 1935-36 to 1939-40.* The fall in world prices of agricultural products resulted in a considerable slackening in employment and output in agricultural implement works during the years 1929-30 to 1934-35. With the subsequent improve-

ment in prices the industry expanded considerably, but the decline recorded during 1938-39 and 1939-40 reflects another fall in world prices of agricultural products and the disruption caused by the War. Details for each of the last five years are as follows :—

AGRICULTURAL IMPLEMENT WORKS : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories	143	148	160	161	168
Number of persons engaged	5,053	6,253	7,756	6,563	6,379
Value of land and buildings	£ 608,679	£ 689,612	£ 804,116	£ 996,949	£ 1,034,172
Value of plant and machinery	£ 600,915	£ 683,512	£ 729,771	£ 910,520	£ 920,700
Wages paid	£ 936,359	£ 1,232,838	£ 1,629,771	£ 1,373,213	£ 1,393,402
Value of fuel used	£ 66,518	£ 85,229	£ 105,175	£ 81,736	£ 91,486
Value of materials used	£ 1,121,479	£ 1,457,599	£ 1,904,156	£ 1,485,618	£ 1,522,735
Total value of output	£ 2,528,038	£ 3,150,732	£ 4,225,658	£ 3,403,091	£ 3,419,701
Value of production	£ 1,340,092	£ 1,607,904	£ 2,216,327	£ 1,836,337	£ 1,805,480

14. **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, a new classification of factories was adopted and "Wireless Apparatus" was shown as a separate industry. The industry is confined, almost entirely, to New South Wales and Victoria. The number of broadcast listeners' licences has increased from 331,128 in 1930-31 to 1,212,259 in 1939-40, and this increase is reflected in the advancement of the industry during that period, with the exception of the last two years during which the industry has remained stationary.

WIRELESS APPARATUS : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories	67	67	73	72	73
Number of persons engaged	3,943	4,613	5,519	4,828	4,860
Value of land and buildings	£ 378,103	£ 468,164	£ 549,254	£ 557,953	£ 598,092
Value of plant and machinery	£ 185,626	£ 261,341	£ 315,325	£ 305,468	£ 352,103
Wages paid	£ 493,314	£ 610,291	£ 791,907	£ 754,302	£ 785,388
Value of fuel used	£ 17,670	£ 21,354	£ 24,022	£ 23,525	£ 26,274
Value of materials used	£ 1,398,137	£ 1,590,978	£ 1,949,286	£ 1,355,683	£ 1,546,895
Total value of output	£ 2,443,159	£ 2,640,206	£ 3,247,472	£ 2,502,338	£ 2,834,628
Value of production	£ 827,352	£ 1,027,874	£ 1,274,164	£ 1,123,130	£ 1,261,459

The number of domestic receiving sets assembled in 1939-40 was 169,244, and the number of domestic chassis made was 126,027.

15. **Cotton.**—(i) *General.* Cotton has been grown in Australia since 1860, but never on a very large scale. The quantity of unginned cotton produced during the decennium ended 1938 varied between 6 million lb. in 1932 and 27 million lb. in 1934, and averaged 16 million lb. per annum. Arising out of the development in the local manufacture of cotton materials and the further expansion consequent upon the war in 1939, plans have been completed for an extension of the area devoted to the cultivation of this crop. The growing of cotton is restricted to Queensland and is referred to in some detail in Chapter XVII. "Agricultural Production".

(ii) *Ginning.* The ginning and marketing of cotton is controlled by the Queensland Cotton Board. The Board operates ginneries and processes by-products. The production of raw cotton is insufficient for local factory requirements and this is supplemented by imports from overseas, chiefly from India and the United States of America.

(iii) *Spinning and Weaving.* The recent expansion in the spinning and weaving section of the cotton industry marks an important event in its development. New factories have been or are being established in addition to those already operating. When these are in full production, Australia will be producing an extensive range of cotton goods, including duck and canvas from cotton or flax, denims, drill, etc., tyre cord and tyre cord fabric. The number of establishments treating cotton in Australia during 1939-40 was 42, the number of persons engaged 4,337, and the value of the output £3,545,538.

16. *Woollen and Tweed Mills.*—(i) *Details for each State, 1939-40.* 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 1939-40 :—

WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1939-40.

Items.	N.S.W. (a)	Victoria.	Q'land. (a)	S. Aust. (b)	W.A. (a)	Tas.	Australia.
Number of factories ..	24	56	3	9	1	3	96
Number of persons engaged ..	7,490	11,039	622	1,106	139	1,643	22,041
Value of land and buildings ..	£ 761,443	£ 1,314,754	£ 36,365	£ 121,497	£ 23,593	£ 227,129	£ 2,484,781
Value of plant and machinery ..	£ 1,204,267	£ 1,722,679	£ 87,861	£ 188,154	£ 52,840	£ 204,713	£ 3,460,522
Wages paid ..	£ 1,075,503	£ 1,790,966	£ 86,350	£ 186,678	£ 21,874	£ 251,338	£ 3,412,709
Value of fuel used ..	£ 137,730	£ 257,448	£ 9,794	£ 33,061	£ 3,800	£ 24,324	£ 466,247
Value of materials used ..	£ 3,035,882	£ 4,425,224	£ 138,938	£ 781,596	£ 38,158	£ 619,483	£ 9,039,281
Total value of output ..	£ 5,040,780	£ 7,955,722	£ 289,329	£ 1,120,252	£ 81,044	£ 1,279,803	£ 15,766,930
Value of production ..	£ 1,867,168	£ 3,273,050	£ 140,597	£ 305,595	£ 38,996	£ 635,996	£ 6,261,402

(a) Excludes Woolscouring.

(b) Includes Fellmongery.

(ii) *Total for Australia, 1935-36 to 1939-40.* The extent of the woollen and tweed milling industry in Australia in the last five years is shown in the following table :—

WOOLLEN AND TWEED MILLS (INCLUDING WOOLSCOURING) : AUSTRALIA.(a)

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	94	90	87	90	96
Number of persons engaged ..	19,693	19,239	19,103	19,608	22,041
Value of land and buildings ..	£ 2,455,141	£ 2,412,499	£ 2,435,114	£ 2,380,009	£ 2,484,781
Value of plant and machinery ..	£ 3,343,968	£ 3,474,275	£ 3,416,233	£ 3,369,517	£ 3,460,522
Wages paid ..	£ 2,612,723	£ 2,514,293	£ 2,741,729	£ 2,887,907	£ 3,412,709
Value of fuel used ..	£ 393,775	£ 357,777	£ 379,380	£ 392,537	£ 466,247
Value of materials used ..	£ 7,548,122	£ 7,734,520	£ 8,046,352	£ 7,331,117	£ 9,039,281
Total value of output ..	£ 12,545,067	£ 12,283,298	£ 12,618,132	£ 12,514,610	£ 15,766,930
Value of production ..	£ 4,603,170	£ 4,191,001	£ 4,192,400	£ 4,790,956	£ 6,261,402

(a) Excluding Woolscouring in New South Wales but including Fellmongery in South Australia.

(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 quantity of tweed and cloth manufactured in Australia in 1939-40 was 31,440,135 square yards in woollen mills and 632,347 square yards in other works. In New South Wales 13,510,161 square yards and in Victoria 15,476,062 square yards of tweed and cloth were manufactured in woollen mills. The production of flannel amounted to 4,642,149 square yards, while blankets, shawls and rugs to the number of 2,092,886 were made.

17. **Hosiery and Other Knitted Goods.**—(i) *Details for each State, 1939-40.* In addition to the woollen and tweed factories, there were 323 hosiery and knitting mills operating in Australia during 1939-40. The total number of persons engaged in these establishments was 19,073 of whom 13,395 were females. Details for each State are shown hereunder :—

HOSIERY AND OTHER KNITTED GOODS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	78	231	1	7	3	3	323
Number of persons engaged ..	5,406	13,296	116	78	91	86	19,073
Value of land and buildings ..	£ 691,203	£ 1,250,498	(a)	(a)	8,084	12,340	b 1,980,550
Value of plant and machinery ..	£ 602,963	£ 1,162,954	(a)	(a)	7,184	14,181	b 1,800,451
Wages paid ..	£ 739,573	£ 1,841,134	(a)	(a)	9,606	8,891	b 2,620,190
Value of fuel used ..	£ 36,680	£ 110,677	(a)	(a)	600	895	b 149,706
Value of materials used ..	£ 1,851,393	£ 3,551,152	(a)	(a)	25,805	21,739	b 5,499,891
Total value of output ..	£ 3,142,873	£ 6,851,475	(a)	(a)	45,094	37,376	b 10,161,729
Value of production ..	£ 1,254,800	£ 3,189,646	(a)	(a)	18,689	14,742	b 4,512,132

(a) Particulars not available for publication.

(b) Including Queensland and South Australia.

(ii) *Total for Australia, 1935-36 to 1939-40.* Comparative statistics for the five years are shown in the following table :—

HOSIERY AND OTHER KNITTED GOODS : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	314	297	306	313	323
Number of persons engaged ..	15,692	16,932	18,230	18,159	19,073
Value of land and buildings ..	£ 1,791,583	£ 1,842,228	£ 1,861,884	£ 1,962,336	£ 1,980,550
Value of plant and machinery ..	£ 1,711,536	£ 1,901,624	£ 1,926,882	£ 1,930,564	£ 1,800,451
Wages paid ..	£ 1,819,265	£ 2,017,903	£ 2,319,355	£ 2,331,536	£ 2,620,190
Value of fuel used ..	£ 113,773	£ 110,334	£ 126,949	£ 133,154	£ 149,706
Value of materials used ..	£ 3,768,336	£ 3,978,863	£ 4,508,691	£ 4,284,216	£ 5,499,891
Total value of output ..	£ 7,327,363	£ 7,700,079	£ 8,534,886	£ 8,226,468	£ 10,161,729
Value of production ..	£ 3,445,254	£ 3,610,882	£ 3,899,246	£ 3,809,098	£ 4,512,132

(iii) *Raw Material used and Production, 1939-40.* The main raw materials consumed in establishments manufacturing hosiery and other knitted goods during 1939-40 consisted of woollen yarn, 6,963,229 lb.; cotton yarn, 6,378,362 lb.; silk yarn, 865,827 lb.; and artificial silk yarn, 6,503,805 lb. Production comprised 39,307,644 garments, valued at £4,883,368; 2,375,939 dozen pairs of stockings, valued at £3,175,818; and 1,847,106 dozen pairs of socks, valued at £1,337,693.

18. **Tanning, Curryng and Leather Dressing.**—(i) *Details for each State, 1939-40.* 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, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Aust.
Number of factories ..	62	40	14	9	6	1	132
Number of persons engaged ..	1,792	2,182	393	93	100	6	4,566
Value of land and buildings ..	£ 333,640	£ 411,915	£ 34,533	(a)	37,084	(a)	b 839,251
Value of plant and machinery ..	£ 228,624	£ 237,601	£ 36,054	(a)	24,989	(a)	b 538,801
Wages paid ..	£ 390,336	£ 464,061	£ 81,058	(a)	20,776	(a)	b 973,640
Value of fuel used ..	£ 35,622	£ 51,123	£ 6,504	(a)	1,619	(a)	b 96,219
Value of materials used ..	£ 1,685,240	£ 1,679,535	£ 380,341	(a)	108,580	(a)	b 3,909,992
Total value of output ..	£ 2,430,287	£ 2,581,623	£ 529,514	(a)	163,819	(a)	b 5,788,732
Value of production ..	£ 709,425	£ 850,965	£ 142,669	(a)	53,620	(a)	b 1,782,521

(a) Particulars not available for publication.

(b) Including South Australia and Tasmania.

(ii) *Total for Australia, 1935-36 to 1939-40.* The development of the tanning industry during the years stated is shown in the following table :—

TANNING, CURRYING AND LEATHER DRESSING : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories	135	132	131	132	132
Number of persons engaged	4,433	4,467	4,400	4,375	4,566
Value of land and buildings	£ 748,897	785,191	812,051	813,713	839,251
Value of plant and machinery	£ 513,872	504,296	524,125	523,538	538,801
Wages paid	£ 810,742	858,610	911,835	919,781	973,640
Value of fuel used	£ 84,682	85,330	89,609	87,670	96,219
Value of materials used	£ 3,099,679	3,478,457	3,502,252	2,983,041	3,909,992
Total value of output	£ 4,632,662	5,091,033	5,064,188	4,592,642	5,788,732
Value of production	£ 1,448,301	1,527,246	1,472,237	1,521,931	1,782,521

(iii) *Raw Material Used and Production, 1939-40.* The quantities of raw material used and leather produced in tanneries in each State are shown in the following table. Some leather is also produced in works other than tanneries, but this is excluded :—

TANNERIES : RAW MATERIAL USED AND PRODUCTION, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Hides No.	680,267	881,031	203,313	(a)	63,153	(a)	1,870,051
Skins—							
Calf	742,983	486,110	160,519	2,089	158	..	1,391,859
Goat	934,101	190,371	(a)	430	(a)	..	1,128,237
Sheep	1,833,789	238,800	..	1,458	..	..	2,074,047
Marsupial	8,974	48,660	31,480	3,497	1,771	..	94,382
Reptile	(a)	(a)	(a)	..	..	..	(a)
Felts treated	1,575,891	(a)	(a)	..	..	..	2,252,433
Bark used—							
Wattle tons	8,698	7,963	2,488	396	(a)	(a)	19,824
Other	388	3,255	..	(a)	561	(a)	4,214
Tanning extract used .. lb.	4,669,285	2,589,650	1,339,574	(a)	1,079,349	(a)	9,712,232
Leather made—							
Sole and Belting ..	12,895,803	13,461,162	3,888,270	(a)	2,137,823	(a)	32,632,853
Harness	392,053	291,928	498,528	104,150	35,634	..	1,322,293
Upholstery sq. ft.	(a)	(a)	..	..	..	..	7,068,250
Dressed and Upper from Hides—							
Sold by Measure—							
Patent .. sq. ft.	1,607,522	5,956,077	..	..	..	..	7,563,599
All Other	6,267,969	8,014,882	2,923,938	847,756	(a)	(a)	18,351,912
Sold by Weight—							
Waxed Kip .. lb.	(a)	60,998	55,060	50,613	5,900	(a)	209,457
All Other	(a)	278,793	(a)	104,865	16,148	(a)	545,192
Dressed from skins—							
Calf sq. ft.	6,219,680	3,783,263	1,606,027	11,093	1,715	..	11,621,778
Goat	4,509,884	721,293	(a)	2,241	(a)	..	5,245,075
Sheep	7,919,702	(a)	(a)	..	..	..	10,598,091
Marsupial	21,979	129,171	207,833	3,947	(a)	(a)	371,145

(a) Not available for publication.

(b) Including particulars for States marked (a).

19. *Tailoring and Slop Clothing Factories.*—(i) *Details for each State, 1939-40.* The importance of this industry in each State is shown in the following table :—

TAILORING AND SLOP CLOTHING FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	440	367	126	123	82	24	1,162
Number of persons engaged	12,609	8,364	3,105	1,963	976	374	27,391
Value of land and buildings	£ 1,567,233	870,006	291,601	229,973	174,277	67,967	3,201,962
Value of plant and machinery	£ 181,943	140,890	32,103	22,696	13,714	5,464	396,819
Wages paid	£ 1,547,571	1,121,969	338,964	212,188	122,128	43,046	3,385,861
Value of fuel used	£ 29,261	26,355	7,416	6,008	2,863	814	72,717
Value of materials used	£ 2,413,575	2,301,337	498,934	212,690	146,590	53,211	5,626,338
Total value of output	£ 4,718,048	3,931,818	1,073,215	528,894	338,255	118,003	10,708,233
Value of production	£ 2,275,211	1,604,126	566,865	310,196	188,802	63,978	5,009,178

(ii) *Total for Australia, 1935-36 to 1939-40.* Details for the last five years are as follows :—

TAILORING AND SLOP CLOTHING FACTORIES : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories	1,157	1,263	1,172	1,177	1,162
Number of persons engaged	24,877	25,546	26,765	26,499	27,391
Value of land and buildings	£ 2,885,076	3,053,302	3,100,309	3,175,748	3,201,962
Value of plant and machinery	£ 327,333	317,812	332,814	355,503	396,819
Wages paid	£ 2,578,597	2,732,213	3,094,693	3,168,472	3,385,866
Value of fuel used	£ 58,556	61,097	66,834	72,431	72,717
Value of materials used	£ 4,826,010	4,796,324	5,123,268	4,946,519	5,626,338
Total value of output	£ 8,939,847	9,133,302	9,801,313	9,830,646	10,708,233
Value of production	£ 4,055,271	4,280,881	4,611,211	4,811,696	5,009,178

20. **Dressmaking and Millinery Establishments.**—(i) *Details for each State, 1939-40.* Particulars of dressmaking and millinery establishments are given separately in the following tables :—

DRESSMAKING ESTABLISHMENTS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories	104	445	38	54	40	5	686
Number of persons engaged	1,568	8,286	808	848	739	27	12,276
Value of land and buildings	£ 229,755	1,164,102	70,609	72,176	75,372	3,180	1,619,394
Value of plant and machinery	£ 11,631	107,940	11,559	9,762	6,179	181	147,252
Wages paid	£ 152,950	912,765	71,551	64,993	63,830	2,068	1,268,157
Value of fuel used	£ 1,980	17,213	1,414	1,678	1,067	33	23,385
Value of materials used	£ 125,442	1,702,517	94,468	67,477	87,130	1,172	2,078,206
Total value of output	£ 352,442	3,093,175	206,688	169,259	183,955	4,510	4,008,733
Value of production	£ 224,624	1,373,445	110,806	100,104	94,858	3,305	1,907,142

(a) Including Millinery.

MILLINERY ESTABLISHMENTS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories	59	60	15	13	7	..	154
Number of persons engaged	1,560	1,250	511	296	57	..	3,674
Value of land and buildings	£ 229,135	129,169	38,360	24,538	7,130	..	428,332
Value of plant and machinery	£ 16,471	14,277	6,843	2,600	1,247	..	41,438
Wages paid	£ 167,313	135,874	44,657	27,454	5,862	..	380,860
Value of fuel used	£ 4,866	3,239	830	969	123	..	10,027
Value of materials used	£ 268,171	205,504	68,111	43,004	9,439	..	594,229
Total value of output	£ 566,268	450,860	138,332	89,834	17,686	..	1,262,980
Value of production	£ 293,231	242,117	69,391	45,861	8,124	..	658,724

(a) Included in Dressmaking.

(ii) *Total for Australia, 1935-36 to 1939-40.* 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories	863	830	871	869	840
Number of persons engaged	15,683	15,635	16,426	16,398	15,950
Value of land and buildings	£ 1,897,903	2,031,277	2,023,371	2,051,611	2,043,726
Value of plant and machinery	£ 180,934	179,699	194,553	189,263	188,690
Wages paid	£ 1,391,348	1,441,226	1,588,231	1,652,808	1,649,017
Value of fuel used	£ 30,245	30,178	32,157	33,067	33,412
Value of materials used	£ 2,559,119	2,557,612	2,801,184	2,609,363	2,672,435
Total value of output	£ 4,869,311	4,965,634	5,302,983	5,234,727	5,271,713
Value of production	£ 2,279,947	2,377,844	2,469,642	2,592,297	2,565,866

21. **Shirts, Collars and Underclothing.**—(i) *Details for each State, 1939-40.* Particulars of this industry are shown in the following table :—

SHIRTS, COLLARS AND UNDERCLOTHING, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	126	96	17	28	12	..	279
Number of persons engaged ..	4,594	4,705	883	682	580	..	11,444
Value of land and buildings ..	£ 385,691	418,684	51,820	37,447	35,664	..	929,306
Value of plant and machinery ..	£ 78,492	115,582	11,516	12,144	13,375	..	231,109
Wages paid ..	£ 475,221	553,254	78,519	53,411	56,078	..	1,216,483
Value of fuel used ..	£ 8,806	12,891	1,636	1,398	868	..	25,599
Value of materials used ..	£ 1,437,649	1,322,358	132,960	69,979	70,023	..	3,032,969
Total value of output ..	£ 2,199,507	2,249,803	246,188	140,960	143,530	..	4,979,988
Value of production ..	£ 753,052	914,554	111,592	69,583	72,639	..	1,921,420

(ii) *Total for Australia, 1935-36 to 1939-40.* The following table shows the progress of the industry since 1935-36 :—

SHIRTS, COLLARS AND UNDERCLOTHING : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	308	298	289	283	279
Number of persons engaged ..	11,214	11,116	11,134	11,081	11,444
Value of land and buildings ..	£ 842,896	871,522	910,595	945,972	929,306
Value of plant and machinery ..	£ 253,736	251,396	229,797	230,579	231,109
Wages paid ..	£ 1,001,615	1,029,221	1,096,013	1,142,855	1,216,483
Value of fuel used ..	£ 22,844	23,692	23,845	23,639	25,599
Value of materials used ..	£ 2,708,887	2,599,519	2,788,667	2,650,779	3,032,969
Total value of output ..	£ 4,311,566	4,252,677	4,522,879	4,435,209	4,979,988
Value of production ..	£ 1,579,835	1,629,466	1,710,367	1,760,791	1,921,420

22. **Boot Factories.**—(i) *Boot and Shoe Factories, 1939-40.* 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, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	101	168	24	15	9	3	320
Number of persons engaged ..	5,961	10,491	896	780	396	63	18,587
Value of land and buildings ..	£ 450,607	658,803	37,598	61,823	43,896	6,000	1,258,727
Value of plant and machinery ..	£ 255,856	503,400	68,043	55,068	34,863	2,976	920,206
Wages paid ..	£ 918,185	1,701,282	131,371	110,636	57,463	8,434	2,927,371
Value of fuel used ..	£ 17,767	34,408	2,056	2,258	1,237	149	57,875
Value of materials used ..	£ 1,574,468	3,028,983	229,204	196,349	119,726	12,099	5,160,829
Total value of output ..	£ 2,900,065	5,512,542	410,415	338,792	200,914	21,872	9,384,600
Value of production ..	£ 1,307,890	2,449,151	179,095	140,185	79,951	9,624	4,165,896

(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 1939-40 the number amounted to 1,298 in which 2,281 persons were engaged in the industry. The sum of £161,210 was distributed in salaries and wages, and the output was valued at £856,237.

(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, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY.							
Boots and shoes pairs	5,046,211	8,017,701	687,134	763,146	361,006	38,442	14,913,640
Slippers .. "	3,088,360	4,212,039	452,735	(a)	(a)	..	68,172,499
Uppers (c) .. "	14,832	5,676	(a)	(a)	218	(a)	(b) 132,886
VALUE.							
Boots and shoes £	2,512,014	4,405,582	355,307	334,543	144,094	21,673	7,773,213
Slippers .. £	381,217	565,046	41,050	(a)	(a)	..	61,042,233
Uppers (c) .. £	5,453	4,960	(a)	(a)	119	(a)	(b) 25,019

(a) Not available for publication.

(b) Including particulars for States marked (a).

(c) Made for other than factory use.

23. **Grain-milling.**—(i) *Details for States, 1939-40.* The following table shows the position of the grain-milling industry in each State :—

GRAIN-MILLING, 1939-40.

Item .	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas. (a)	Australia.
Number of factories ..	53	36	10	37	20	11	167
Number of persons engaged ..	1,413	1,054	366	469	444	112	3,858
Value of land and buildings £	809,820	598,045	197,587	169,740	258,122	71,343	2,104,657
Value of plant and machinery £	706,481	501,585	138,780	246,833	209,274	26,917	1,829,920
Wages paid ..	370,594	260,082	89,387	108,837	113,806	24,284	976,080
Value of fuel used £	93,998	62,093	16,880	34,287	37,178	3,858	248,294
Value of materials used £	4,223,951	3,390,400	867,849	1,162,567	1,159,298	251,568	11,055,039
Total value of output £	5,425,182	4,007,867	1,160,244	1,381,700	1,488,865	302,864	13,766,731
Value of production .. £	1,107,233	553,368	275,515	184,855	292,389	47,438	2,462,798

(a) The manufacture of cornflour, oatmeal, etc., was also carried on in some of these establishments.

(ii) *Production of Flour and By-products, 1935-36 to 1939-40.* 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)
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
1938-39 ..	547,162	436,829	84,314	146,262	138,583	19,582	1,372,732
1939-40 ..	583,568	404,064	89,038	146,770	141,520	18,890	1,383,850

(a) Tons of 2,000 lb.

The production of flour in Australia for 1939-40, 1,383,850 tons, was valued at £10,834,256. In addition, 590,997 tons of bran and pollard, valued at £2,633,877, were made. The quantity of wheat ground was 67,427,811 bushels.

24. **Bakeries.**—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1939-40 is given in the table below. It should be noted, however, that, as explained in § 1 par. 2 above the details refer only 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 necessary.

BAKERIES (INCLUDING CAKES AND PASTRY), 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Australia.
Number of factories ..	776	597	260	156	140	78	2,007
Number of persons engaged ..	4,363	3,301	1,336	1,048	556	1,236	11,939
Value of land and buildings ..	2,406,632	1,266,693	473,648	286,894	198,246	369,133	5,001,246
Value of plant and machinery ..	640,533	451,758	152,215	120,821	60,913	118,818	1,545,058
Wages paid ..	831,643	577,202	217,020	162,285	94,752	186,053	2,068,955
Value of fuel used ..	135,169	92,947	32,041	23,692	14,034	20,533	318,416
Value of materials used ..	2,729,156	2,255,721	855,188	552,400	357,945	526,301	7,276,711
Total value of output ..	4,563,124	3,689,027	1,407,203	899,275	600,706	920,631	12,079,966
Value of production ..	1,698,799	1,340,359	519,974	323,183	228,727	373,797	4,484,839

(a) Includes Confectionery.

25. **Sugar-mills.**—(i) *Details for 1939-40.*—The following table shows the position of the cane-crushing branch of the sugar-making industry in New South Wales and Queensland in 1939-40. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XVII. "Agricultural Production".

SUGAR-MILLS, 1939-40.

Items.	N.S.W.	Queensland.	Australia.
Number of factories ..	3	33	36
Number of persons engaged ..	209	4,519	4,728
Value of land and buildings ..	246,844	1,099,833	1,346,677
Value of plant and machinery ..	958,734	7,528,113	8,486,847
Wages paid ..	87,948	1,407,846	1,495,794
Value of fuel used ..	14,618	138,214	152,832
Value of materials used ..	471,478	10,792,835	11,264,313
Total value of output ..	701,202	13,713,856	14,415,058
Value of production ..	215,106	2,782,807	2,997,913

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.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	4	3	3	3	3
Number of employees ..	469	195	260	212	209
Cane crushed .. tons	147,799	21,169	361,724	337,038	274,548
Sugar produced ..	17,299	38,158	47,077	45,106	36,938
Molasses produced gals.	796,440	1,329,660	1,754,527	1,489,090	1,338,802

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 Chapter XVII. "Agricultural Production," 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 years 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 XVII. "Agricultural Production" which relate to harvest years.

(b) *Queensland.* Details for Queensland for 1911 and the last four years are given hereunder:—

SUGAR-MILLS : QUEENSLAND.

Items	1911.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	49	33	33	33	33
Number of persons engaged ..	4,295	4,381	4,324	4,419	4,519
Cane crushed .. tons	1,534,451	5,170,571	5,132,886	5,432,193	6,038,821
Sugar produced .. "	173,296	744,676	763,242	775,064	891,738
Molasses—					
Sold to distillers and others .. gals.	2,393,669	6,086,864	7,071,109	8,275,887	9,581,241
Used as fodder .. "	789,564	4,351,822	3,914,113	4,237,196	4,727,170
Used as manure .. "	223,000	3,211,423	3,363,624	3,293,543	4,295,289
Run to waste .. "	1,847,333	560,326	466,481	498,926	457,541
Burnt as fuel .. "		6,354,841	5,576,764	3,748,590	3,834,653
Sold or used for other purposes .. "		397,080	157,496	232,049	188,889
In stock .. "	1,197,626	..	..	..	..
Total molasses .. "	6,451,192	20,962,356	20,549,587	20,286,191	23,084,783

26. *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 1939-40 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 367,157 tons, for a yield of 360,097 tons of refined sugar, valued at £11,550,972.

27. *Confectionery Factories.*—(i) *Details for each State, 1939-40.* At the close of the year 1900 there were in New South Wales 16 establishments with 706 persons engaged and in Victoria 16 establishments, with 731 persons engaged, the plant and machinery in the former State being valued at £2,815, and in the latter at £19,070. The figures for 1939-40 given hereunder show the remarkable development since 1900:—

SUGAR CONFECTIONERY FACTORIES(a), 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (b)	Australia.
Number of factories ..	73	85	23	19	10	1	211
Number of persons engaged ..	3,920	2,985	564	410	321	5	8,205
Value of land and buildings £	1,025,118	658,481	219,980	84,659	(c)	(d)	2,067,466
Value of plant and machinery £	977,855	589,179	123,804	63,099	(c)	(c)	1,828,060
Wages paid ..	£ 625,022	480,469	75,639	40,344	(c)	(c)	1,264,929
Value of fuel used ..	£ 68,419	52,685	10,350	9,029	(c)	(c)	147,086
Value of materials used ..	£ 2,017,411	1,337,122	212,993	145,960	(c)	(c)	3,837,190
Total value of output ..	£ 4,088,672	2,490,338	422,722	222,769	(c)	(c)	7,457,814
Value of production ..	£ 2,002,842	1,100,531	199,379	67,780	(c)	(c)	3,473,538

(a) Including Chocolate and Ice Cream. (b) Ice Cream factories—Other Confectionery included in Bakeries. (c) Particulars not available for publication. (d) Includes Western Australia and Tasmania.

(ii) *Total for Australia, 1935-36 to 1939-40.*—Particulars of the confectionery industry during the last five years are shown in the following table :—

SUGAR CONFECTIONERY FACTORIES(a) : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories	217	214	204	209	211
Number of persons engaged	7,516	7,975	8,235	8,276	8,205
Value of land and buildings	£ 1,774,452	1,902,059	2,042,198	2,079,601	2,067,466
Value of plant and machinery	£ 1,712,163	1,773,178	1,830,166	1,854,398	1,828,060
Wages paid	£ 1,010,775	1,063,421	1,179,223	1,231,375	1,264,929
Value of fuel used	£ 117,041	98,771	141,459	144,349	147,086
Value of materials used	£ 3,023,696	3,202,325	3,555,710	3,704,774	3,837,190
Total value of output	£ 5,662,146	5,573,148	6,660,655	7,107,045	7,457,814
Value of production	£ 2,521,409	2,272,052	2,963,486	3,257,922	3,473,538

(a) See notes to previous table.

The confectionery industry expanded rapidly during the war years of 1914-19, 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 in Australia 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.

28. **Jam and Fruit Preserving, Pickles, Sauces and Vinegar Factories.**—(i) *Details for each State, 1939-40.* The following table gives particulars of factories included in this class for 1939-40 :—

JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	32	45	14	17	8	12	128
Number of persons engaged	1,874	3,441	522	548	88	776	7,249
Value of land and buildings	£ 440,352	714,648	50,578	129,235	18,730	148,713	1,502,256
Value of plant and machinery	£ 238,331	358,401	69,957	52,919	5,184	43,131	767,923
Wages paid	£ 346,447	616,488	88,960	85,085	12,043	151,906	1,300,929
Value of fuel used	£ 28,968	53,660	6,923	7,125	1,008	11,015	108,699
Value of materials used	£ 1,325,992	2,914,409	606,195	336,270	42,599	646,422	5,871,887
Total value of output	£ 2,202,719	4,439,409	889,149	502,129	71,407	842,474	8,947,287
Value of production	£ 847,739	1,471,340	276,931	158,734	27,800	185,037	2,966,701

(ii) *Total for Australia, 1935-36 to 1939-40.* 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.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories	125	121	121	123	128
Number of persons engaged	5,773	5,906	6,596	6,476	7,249
Value of land and buildings	£ 1,125,204	1,218,132	1,309,014	1,382,150	1,502,256
Value of plant and machinery	£ 549,413	598,126	665,863	720,639	767,923
Wages paid	£ 929,792	971,768	1,143,190	1,148,991	1,300,929
Value of fuel used	£ 89,227	87,019	93,055	97,521	108,699
Value of materials used	£ 3,965,338	4,177,792	4,571,219	4,799,515	5,871,887
Total value of output	£ 6,276,112	6,298,642	6,974,291	7,230,914	8,947,287
Value of production	£ 2,221,547	2,033,831	2,310,017	2,333,878	2,966,701

The progress of the jam-making industry was very marked during the war years of 1914-19, 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 it had fallen to 90,140,000 lb. in 1920-21. During the succeeding years the production varied considerably, falling to 66,120,000 lb. in 1930-31 and subsequently improving to 121,158,000 lb. in 1939-40. The output of preserved fruit reached the record dimensions of 157,761,000 lb. in 1937-38. Production in 1939-40 was slightly lower at 148,468,000 lb. 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 1939-40 :—

JAMS, PRESERVED FRUIT, PICKLES AND SAUCES : OUTPUT, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY.							
Jams and Jellies ... '000 lb.	29,649	51,859	8,626	9,480	1,277	20,267	121,158
Fruit Pulp—							
Consumed in own works ... cwt.	9,627	65,407	8,353	15,823	(a)	(a)	b106,940
For sale or addition to stock ... cwt.	23,792	74,859	5,472	16,617	3,102	85,325	209,167
Tomato Pulp—							
Consumed in own works ... cwt.	23,677	91,979	(a)	22,094	(a)	..	b146,259.
For sale or addition to stock ... cwt.	26,756	237,901	(a)	7,480	1,797	(a)	b277,855
Fruit, preserved ... '000 lb.	24,183	88,062	24,079	8,121	62	3,961	148,468
Pickles ... '000 pints	2,054	2,474	418	1,801	(a)	(a)	(b) 7,145
Sauces	7,424	11,780	757	2,430	(a)	(a)	(b) 23,242
VALUE.							
Jams and Jellies ... £	720,367	1,207,876	200,139	180,899	26,073	488,201	2,823,555
Fruit, preserved ... £	517,299	1,529,940	525,544	133,038	833	89,342	2,795,996
Pickles ... £	95,596	85,445	19,475	66,286	(a)	(a)	b279,593
Sauces ... £	411,901	364,901	25,438	75,881	(a)	(a)	b901,985

(a) Not available for publication.

(b) Including States marked (a).

29. *Bacon-curing Factories.*—(i) *Details for each State, 1939-40.* The table hereunder gives particulars of factories engaged in bacon-curing in each State for 1939-40 :—

BACON-CURING FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	25	18	9	9	8	10	79
Number of persons engaged ..	394	553	847	261	132	62	2,249
Value of land and buildings £	171,019	227,021	233,004	93,130	29,533	27,283	780,990
Value of plant and machinery £	60,660	117,888	135,523	34,126	15,216	9,519	372,932
Wages paid ..	103,430	124,746	203,662	57,561	28,267	12,669	530,335
Value of fuel used ..	13,766	19,034	30,866	10,636	6,604	1,672	82,578
Value of materials used ..	903,387	922,472	1,671,639	396,785	389,837	120,321	4,404,441
Total value of output ..	1,153,733	1,149,538	2,021,462	492,532	486,174	146,598	5,450,037
Value of production ..	236,580	208,032	318,957	85,111	89,733	24,605	963,018

(ii) *Quantity and Value of Production.* The number of pigs cured and the quantity and value of the production of factories in each State for 1939-40 are given in the following table :—

BACON-CURING FACTORIES : PIGS CURED AND PRODUCTION, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
PIGS CURED.							
Pigs cured on own account No.	225,457	170,526	233,215	78,350	57,021	23,724	788,293
Pigs cured on commission „	1,886	379	897	289	101	418	3,970
Total .. „	227,343	170,905	234,112	78,639	57,122	24,142	792,263
PRODUCTS.							
Bacon and ham .. '000 lb.	25,630	17,386	19,950	6,643	4,642	2,559	76,810
Lard .. „	582	875	1,273	277	228	100	3,335
VALUE.							
Bacon and ham (a) £	1,254,435	899,723	933,519	326,098	246,541	96,434	3,756,750
Lard .. „ £	13,186	20,650	24,405	6,316	5,801	2,063	72,421

(a) Partly estimated.

Bacon and ham and other pig products are dealt with more fully in Chapter XVIII. "Farmyard, Dairy and Bee Products".

30. *Butter, Cheese and Condensed Milk Factories.*—(i) *Details for each State, 1939-40.* The following table gives particulars of butter, cheese and condensed milk factories in each State :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories ..	127	167	102	50	24	50	520
Number of persons engaged ..	1,587	3,194	1,361	630	241	246	7,259
Value of land and buildings £	718,173	1,207,095	694,949	225,685	90,839	77,214	3,013,955
Value of plant and machinery £	849,556	1,286,131	763,190	152,003	88,742	76,767	3,216,389
Wages paid ..	388,534	798,654	316,420	131,536	54,756	37,765	1,727,665
Value of fuel used ..	108,868	206,258	69,854	26,657	15,067	7,164	433,868
Value of materials used ..	7,394,647	12,123,800	8,849,813	1,710,150	964,394	611,516	31,654,320
Total value of output ..	8,204,786	14,741,260	9,501,911	2,013,993	1,153,089	728,504	36,343,543
Value of production ..	701,271	2,411,202	582,244	277,186	173,628	109,824	4,255,355

(ii) *Total for Australia, 1935-36 to 1939-40.* The progress of industries included in this group during the last five years is set out hereunder :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories ..	517	517	520	523	520
Number of persons engaged ..	6,062	6,226	6,655	6,851	7,259
Value of land and buildings ..	£ 2,635,863	2,733,273	2,779,663	2,880,323	3,013,955
Value of plant and machinery ..	£ 2,849,645	2,938,110	2,977,640	3,066,840	3,216,389
Wages paid ..	£ 1,265,898	1,332,911	1,486,780	1,569,531	1,727,665
Value of fuel used ..	£ 310,260	335,451	362,217	389,501	433,868
Value of materials used ..	£ 22,627,448	21,995,736	27,187,350	29,161,983	31,654,320
Total value of output ..	£ 25,869,089	25,434,496	31,656,156	33,094,851	36,343,543
Value of production ..	£ 2,931,381	3,103,309	4,106,589	3,543,367	4,255,355

(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 1939-40 :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES : PRODUCTION, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
MILK USED (,000 OMITTED).							
For the manufacture of—							
Butter .. gals.	214,162	318,604	285,548	37,095	29,130	19,176	903,715
Cheese .. "	6,721	24,274	11,676	19,544	846	3,179	66,240
Condensed, &c., Milk ..	6,893	28,189	28	722	1,241	396	37,469
PRODUCTS (,000 OMITTED).							
Butter .. lb.	112,020	161,289	139,795	19,843	14,002	9,310	456,259
Cheese .. "	6,634	24,380	(c) 12,112	20,550	843	3,124	67,643
Condensed and concentrated milk .. lb.	9,612	30,995	..	(a)	(a)	..	(b) 47,987
Powdered milk .. "	2,497	25,624	..	..	..	..	28,121
VALUE (,000 OMITTED).							
Butter .. £	7,409	10,428	8,899	1,218	997	596	29,547
Cheese .. £	244	834	(c) 401	691	38	108	2,316
Condensed and concentrated milk .. £	184	726	..	(a)	(a)	..	(b) 1,081
Powdered milk .. £	124	764	..	..	..	..	888

(a) Particulars not available for publication. (b) Includes States marked (a). (c) Excluding 1,730,965 lb. of cheese, valued at £59,920 made in establishments not classified as factories.

The butter, cheese and condensed milk industries are dealt with more fully in Chapter XVIII. "Farmyard, Dairy and Bee Products".

31. 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, and 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 chilled for frozen meat exported has already been referred to in Chapter XVI. "Pastoral Production".

MEAT AND FISH PRESERVING WORKS,(a) 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	6	9	13	..	2	3	33
Number of persons engaged ..	381	313	3,668	..	125	37	4,524
Value of land and buildings ..	74,761	88,878	1,464,119	..	(b)	(b)	(c) 2,014,200
Value of plant and machinery ..	74,916	27,458	892,906	..	(b)	(b)	(c) 1,397,631
Wages paid ..	72,991	57,944	1,059,873	..	(b)	(b)	(c) 1,268,752
Value of fuel used ..	10,274	5,609	131,969	..	(b)	(b)	(c) 155,781
Value of materials used ..	334,650	396,313	6,458,351	..	(b)	(b)	(c) 7,405,219
Total value of output ..	473,637	573,563	8,013,645	..	(b)	(b)	(c) 9,422,840
Value of production ..	128,713	171,641	1,423,292	..	(b)	(b)	(c) 1,861,840

(a) Including meat extracts. Western Australia and Tasmania.

(b) Particulars not available for publication.

(c) Includes

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 XVI. "Pastoral Production".

32. *Breweries.*—(i) *Details for each State, 1939–40.* The following table gives particulars relating to breweries in each State :—

BREWERIES, 1939–40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	6	9	6	5	6	2	34
Number of persons engaged ..	1,039	1,602	429	251	449	78	3,848
Value of land and buildings £	972,021	791,995	448,158	(a)	298,240	(a)	62,851,337
Value of plant and machinery £	784,005	934,877	388,367	(a)	386,734	(a)	62,778,290
Wages paid ..	£ 311,997	559,114	129,994	(a)	157,205	(a)	61,270,295
Value of fuel used ..	£ 92,749	88,096	32,680	(a)	29,686	(a)	6 272,821
Value of materials used ..	£ 1,057,431	1,498,691	346,172	(a)	351,653	(a)	63,566,390
Total value of output ..	£ 3,682,265	3,101,825	955,341	(a)	1,001,039	(a)	69,509,295
Value of production ..	£ 2,532,085	1,515,038	576,489	(a)	619,700	(a)	65,670,084

(a) Information not available for publication.

(b) Includes South Australia and Tasmania.

(ii) *Total for Australia, 1935–36 to 1939–40.* The next table shows the extent of this industry for the last five years :—

BREWERIES : AUSTRALIA.

Items.	1935–36.	1936–37.	1937–38.	1938–39.	1939–40.
Number of factories ..	35	35	35	34	34
Number of persons engaged ..	3,218	3,378	3,532	3,698	3,848
Value of land and buildings ..	£ 2,426,415	2,537,922	2,678,983	2,801,147	2,851,337
Value of plant and machinery ..	£ 2,440,700	2,454,576	2,642,636	2,737,042	2,778,290
Wages paid ..	£ 1,015,749	1,068,903	1,148,487	1,215,473	1,270,295
Value of fuel used ..	£ 201,527	213,412	234,923	251,286	272,821
Value of materials used ..	£ 2,542,843	2,633,863	3,217,511	3,406,572	3,566,390
Total value of output ..	£ 7,107,661	7,442,660	8,507,086	9,030,309	9,509,295
Value of production ..	£ 4,363,291	4,595,385	5,054,652	5,372,451	5,670,084

The quantity of ale, stout and beer 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 93,864,990 gallons in 1939–40. For a number of years prior to the depression the consumption of ale, stout and beer exceeded 111 gallons per head of the population ; it dropped to 7.32 gallons in 1931–32, but has since risen to more than 12 gallons.

(iii) *Materials Used and Production.* The table below shows the quantities of raw materials used and the quantity and value of ale, stout and beer brewed in each State during 1939–40.

BREWERIES : MATERIALS USED AND PRODUCTION, 1939–40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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RAW MATERIAL USED.

Malt .. bushels	1,121,827	1,036,711	277,333	(b)	308,938	(b)	(c)3,046,483
Hops .. lb.	962,912	842,939	217,871	(b)	192,939	(b)	(c)2,471,999
Sugar .. cwt.	149,660	128,060	29,800	(b)	15,000	(b)	(c)354,840

RAW MATERIAL USED PER 1,000 GALLONS OF ALE, STOUT AND BEER PRODUCED.

Malt .. bushels	30.64	32.36	33.46	31.93	38.57	41.30	32.46
Hops .. lb.	26.30	26.31	26.29	29.73	24.09	23.82	26.33
Sugar .. cwt.	4.09	4.00	3.60	3.94	1.87	2.38	3.78

ALE, STOUT AND BEER BREWED.

Quantity gallons	36,610,707	32,039,004	8,288,285	(b)	8,009,482	(b)	693,864,990
Value (a) £	3,952,635	2,944,987	953,730	(b)	975,954	(b)	6 9,291,601

(a) Exclusive of Excise duty.
States marked (b).

(b) Particulars not available for publication.

(c) Includes

33. **Distilleries.**—Distilleries are located in all the States except Western Australia and Tasmania. The following information, which has been 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 1939-40 :—
Materials used ; barley, 88,209 bushels ; barley malt, 71,702 bushels ; molasses, 1,553,160 cwt. ; wine, 9,662,351 gallons ; raisins and currants, 11,935 cwt. ; grapes, 148,765 cwt. The quantity of spirits distilled from barley, malt and grain was 348,619 gallons ; from molasses, 7,913,952 gallons ; and from wine, 1,902,971 gallons ; total 90,165,542 gallons. The quantity of spirits denatured during the year was 5,193,268 gallons.

34. **Tobacco, etc., Factories.**—(i) *Details for each State, 1939-40.* During 1939-40 there were 24 establishments in which the manufacture of tobacco, cigars or cigarettes was carried on. There are no tobacco factories in Tasmania.

TOBACCO, CIGAR AND CIGARETTE FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S Aust.	W. Aust.	Australia.
Number of factories	7	11		1	1	24
Number of persons engaged ..	3,071	2,199	26	9	168	5,473
Value of land and buildings ..	£ 633,430	345,932	(a)	(a)	(a)	(b) 1,019,160
Value of plant and machinery ..	£ 598,132	292,039	(a)	(a)	(a)	(b) 910,204
Wages paid	£ 625,269	433,110	(a)	(a)	(a)	(b) 1,085,548
Value of fuel used	£ 25,444	10,185	(a)	(a)	(a)	(b) 36,203
Value of materials used	£ 4,786,575	2,336,516	(a)	(a)	(a)	(b) 7,194,063
Total value of output	£ 6,345,864	3,769,376	(a)	(a)	(a)	(b) 10,239,867
Value of production	£ 1,533,845	1,422,675	(a)	(a)	(a)	(b) 3,009,601

(a) Not available for publication.
Australia.

(b) Including Queensland, South Australia and Western

(ii) *Total for Australia.* This industry was among the first to be established in Australia. In 1861 New South Wales had eleven 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 1939-40 comprised—manufactured tobacco 530,340 lb., cigars 5,228 lb., and cigarettes 296,425 lb., and the quantities manufactured in Australian factories were respectively 16,570,395 lb., 207,934 lb., and 7,281,828 lb. The following tables show the extent of the industry in Australia for the last five years :—

TOBACCO, CIGAR AND CIGARETTE FACTORIES : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of factories	31	32	32	30	24
Number of employees	5,155	5,447	5,644	5,544	5,473
Value of land and buildings ..	£ 936,521	1,001,236	1,030,344	1,041,798	1,019,160
Value of plant and machinery ..	£ 726,713	870,430	932,827	942,644	910,204
Wages paid	£ 950,790	996,665	1,074,196	1,095,912	1,085,548
Value of fuel used	£ 20,553	29,938	34,344	34,483	36,203
Value of materials used	£ 6,082,506	6,345,214	6,861,305	7,080,574	7,194,063
Total value of output	£ 8,529,491	8,714,581	9,510,121	9,800,413	10,239,867
Value of production	£ 2,426,432	2,339,429	2,614,472	2,685,356	3,009,601

LEAF USED AND PRODUCTION.

Leaf used {	Australian (Stemmed)	'000 lb.	3,653	4,249	4,231	4,489	4,730
	Imported (")	"	14,662	15,049	15,993	16,011	16,521
Tobacco made	"	"	15,277	15,733	16,259	16,305	16,570
Cigars made	"	"	283	262	256	238	208
Cigarettes made	"	"	5,305	5,659	6,325	6,731	7,282

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 4.7 million lb. In this connexion, see Chapter XVII. "Agricultural Production", p. 521.

35. Sawmills, etc.—(i) *Details for States, 1939-40.* The most important industry in Class X. is that of sawmilling. As separate particulars of forest sawmills are not available for some of the States, both forest and town sawmills, as well as plywood and bark mills, have been combined in the following table:—

SAWMILLS, FOREST AND TOWN ; PLYWOOD AND BARK MILLS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	461	323	438	51	136	212	1,621
Number of persons engaged ..	5,234	4,095	5,748	1,013	2,123	1,529	19,742
Value of land and buildings £	735,087	438,796	390,719	204,102	199,825	78,834	2,047,363
Value of plant and machinery ..	£ 681,469	660,086	704,846	133,147	406,480	232,475	2,818,503
Wages paid ..	£ 1,023,111	856,187	1,070,238	204,214	467,672	250,840	3,872,262
Value of fuel used ..	£ 60,189	61,854	55,487	12,028	38,041	16,931	244,530
Value of materials used ..	£ 3,118,426	1,891,770	2,338,939	836,636	757,603	413,544	9,356,918
Total value of output ..	£ 4,893,689	3,318,273	4,097,745	1,211,017	1,466,388	829,481	15,816,593
Value of production ..	£ 1,715,074	1,364,649	1,703,319	362,353	670,744	399,006	6,215,145

(ii) *Total for Australia, 1935-36 to 1939-40.* The development of forest and other sawmills, etc., since 1935-36 is shown in the following table:—

SAWMILLS, FOREST AND TOWN : PLYWOOD AND BARK MILLS : AUSTRALIA.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of establishments	1,443	1,591	1,669	1,621
Number of persons engaged	17,297	18,284	19,565	19,742
Value of land and buildings ..	£	1,974,918	2,015,040	2,025,857	2,054,611
Value of plant and machinery ..	£	2,702,063	2,671,982	2,807,747	2,784,716
Wages paid ..	£	2,927,060	3,188,000	3,601,453	3,634,627
Value of fuel used ..	£	170,705	184,038	225,537	244,530
Value of materials used ..	£	6,663,907	7,942,375	8,975,242	8,522,895
Total value of output ..	£	11,515,591	13,379,054	15,092,088	14,537,888
Value of production ..	£	4,680,979	5,252,641	5,891,309	5,789,211

The sawmill 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 depth of the depression, had recovered to 757 million super. feet in 1939-40. Further reference is made to the sawmilling industry in Chapter XIX. "Forestry".

36. Furniture, Cabinet-making, and Upholstery.—These industries constitute the principal manufactures in Class XI. The following table gives particulars for each State in 1939-40:—

FURNITURE, CABINET-MAKING AND UPHOLSTERY FACTORIES, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	248	312	115	78	88	39	880
Number of persons engaged ..	4,085	3,257	1,503	1,019	635	341	10,840
Value of land and buildings ..	£ 724,988	664,449	230,870	133,017	110,414	37,956	1,901,694
Value of plant and machinery ..	£ 226,872	140,748	70,914	79,711	29,708	14,719	562,672
Wages paid ..	£ 845,840	562,894	301,359	162,636	111,032	52,862	2,036,623
Value of fuel used ..	£ 24,880	17,662	8,119	7,079	3,169	1,358	62,267
Value of materials used ..	£ 1,348,330	975,879	460,590	273,398	178,270	60,905	3,297,372
Total value of output ..	£ 2,616,733	1,920,853	916,630	530,971	359,925	142,218	6,487,330
Value of production ..	£ 1,243,523	927,312	447,921	250,494	178,486	79,955	3,127,691

37: **Printing Works.**—Printing and bookbinding works rank high in importance among the industries of Australia, and in 1939-40 afforded employment for about 28,000 employees, and paid nearly £6,100,000 in salaries and wages, while the value of output amounted to £17,894,000. The following table gives particulars of establishments engaged in general printing in each State for 1939-40. These establishments include those engaged in lithographic printing, the printing of periodicals, excepting those which may be produced by newspapers, bookbinding, paper ruling and linotyping. Government printing works are included, but establishments producing newspapers and weekly publications are shown separately in the succeeding table :—

GOVERNMENT AND GENERAL PRINTING WORKS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	330	429	95	66	83	19	1,022
Number of persons engaged ..	7,213	6,760	1,716	1,143	923	475	18,230
Value of land and buildings £	149,270	308,136	79,233	56,426	55,577	10,546	659,188
Value of plant and machinery £	1,295,307	1,171,770	208,253	220,290	177,305	78,213	3,151,138
Wages paid ..	£ 1,383,803	£ 1,293,580	310,751	200,949	170,163	86,284	3,445,530
Value of fuel used ..	£ 42,196	£ 42,777	10,336	8,079	5,432	2,435	111,255
Value of materials used ..	£ 1,701,562	£ 1,580,132	318,771	204,004	189,605	70,664	4,064,738
Total value of output ..	£ 4,106,048	£ 3,771,200	848,159	526,548	516,308	234,031	10,002,294
Value of production ..	£ 2,362,290	£ 2,148,291	519,052	314,465	321,271	160,932	5,826,301

ESTABLISHMENTS PRODUCING NEWSPAPERS (INCLUDING WEEKLY PUBLICATIONS), 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	213	111	61	38	34	7	464
Number of persons engaged ..	4,219	2,436	1,491	711	546	350	9,753
Value of land and buildings £	1,889,933	810,050	538,610	354,330	276,066	40,923	3,909,912
Value of plant and machinery £	1,557,907	647,151	416,394	246,937	141,625	42,526	3,052,540
Wages paid ..	£ 1,155,971	£ 682,735	353,730	184,597	161,191	83,757	2,621,981
Value of fuel used ..	£ 54,561	£ 32,147	21,151	8,885	12,691	2,774	132,209
Value of materials used ..	£ 1,590,046	£ 940,094	332,498	216,514	152,388	41,042	3,272,582
Total value of output ..	£ 3,721,967	£ 2,038,666	938,368	511,236	453,782	227,834	7,891,853
Value of production ..	£ 2,077,360	£ 1,066,425	584,719	285,837	288,703	184,018	4,487,062

38. **Tyres, Motor and Cycle.**—(i) *Details for each State, 1938-39.* 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 1938-39 are shown hereunder :—

TYRES, MOTOR AND CYCLE, 1938-39.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	86	88	31	24	22	11	262
Number of persons engaged ..	2,935	2,355	160	144	73	56	5,723
Value of land and buildings £	741,152	521,280	66,301	56,760	33,487	22,151	1,441,131
Value of plant and machinery £	471,043	651,569	19,580	15,551	8,891	6,778	1,174,012
Wages paid ..	£ 636,148	£ 502,409	23,917	18,976	9,340	6,107	1,196,897
Value of fuel used ..	£ 84,563	£ 118,742	2,994	2,528	1,305	728	210,920
Value of materials used ..	£ 1,713,247	£ 1,825,247	46,534	33,009	18,711	9,051	3,645,799
Total value of output ..	£ 2,614,506	£ 3,329,652	99,744	74,621	40,171	21,994	6,186,688
Value of production ..	£ 816,696	£ 1,385,603	50,216	39,084	20,095	12,215	2,329,969

(a) Includes Boots and Shoes and Other Rubber Goods.

NOTE.—Later particulars are not available for publication.

(ii) *Total for Australia, 1934-35 to 1938-39.* Prior to 1930-31 particulars regarding this industry were included with Rubber Goods but separate details are now collected and are shown in the following table for the five years ended 1938-39 :—

TYRES, MOTOR AND CYCLE(a) : AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
Number of factories	261	260	261	267	262
Number of persons engaged	3,098	4,098	4,907	5,847	5,723
Value of land and buildings	£ 1,240,749	£ 1,257,800	£ 1,583,004	£ 1,587,808	£ 1,441,131
Value of plant and machinery	£ 895,139	£ 841,815	£ 1,281,468	£ 1,296,315	£ 1,174,012
Wages paid	£ 736,865	£ 786,713	£ 980,567	£ 1,187,061	£ 1,196,897
Value of fuel used	£ 134,335	£ 136,542	£ 192,624	£ 212,533	£ 210,920
Value of materials used	£ 2,173,447	£ 2,269,954	£ 3,751,258	£ 4,533,656	£ 3,645,799
Total value of output	£ 3,499,132	£ 3,788,333	£ 5,851,930	£ 6,849,686	£ 6,186,688
Value of production	£ 1,191,350	£ 1,381,837	£ 1,908,048	£ 2,103,497	£ 2,329,969

(a) Includes Boots and Shoes and Other Rubber Goods for Tasmania.

NOTE.—Later particulars are not available for publication.

39. *Electric Light and Power Works.*—(i) *Details for each State, 1939-40.* 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 5,180 million British units, or by 107 per cent. Particulars for the year 1939-40 are as follows :—

ELECTRIC LIGHT AND POWER WORKS, 1939-40.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	99	78	53	43	110	4	387
Number of persons engaged	2,148	1,445	587	1,790	702	129	6,801
Value of land and buildings	£ 4,611,531	£ 1,945,153	£ 508,824	£ 597,096	£ 464,671	£ 409,399	£ 8,536,674
Value of plant and machinery	£ 12,271,485	£ 7,467,138	£ 1,760,088	£ 2,038,320	£ 2,895,956	£ 3,184,496	£ 29,617,483
Wages paid	£ 668,240	£ 416,541	£ 186,602	£ 470,046	£ 210,039	£ 29,221	£ 1,980,779
Value of fuel used	£ 1,493,276	£ 651,061	£ 436,864	£ 287,096	£ 625,102	..	£ 3,493,399
Value of materials used	£ 236,845	£ 66,633	£ 45,710	£ 43,335	£ 100,696	£ 61,645	£ 554,873
Total value of output	£ 6,196,385	£ 2,673,351	£ 1,061,158	£ 1,488,071	£ 1,396,733	£ 761,711	£ 13,577,409
Value of production	£ 4,466,264	£ 1,955,657	£ 578,575	£ 1,157,640	£ 670,935	£ 700,066	£ 9,529,137

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on p. 581.

(ii) *Production, 1935-36 to 1939-40.* 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.
	'000 K.W.H.	'000 K.W.H.	'000 K.W.H.	'000 K.W.H.	'000 K.W.H.	'000 K.W.H.	'000 K.W.H.
1935-36	1,464,898	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	249,002	272,512	542,767	4,353,469
1938-39	1,948,490	1,222,505	387,368	256,283	307,002	566,691	4,668,339
1939-40	2,145,447	1,389,783	421,662	270,414	336,805	615,448	5,179,559

40. **Gas-works.**—(i) *Details for each State, 1939-40.* Gas-works are in operation in the majority of important towns in Australia. New South Wales returned seven coke factories and Queensland three, working as separate industries, but under the present classification these are included in Class I.—Treatment of Non-metalliferous Mine and Quarry Products. The following table gives particulars of gas-works in each State for the year 1939-40 :—

GAS-WORKS, 1939-40.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	42	39	16	3	4	2	106
Number of persons engaged ..	1,054	878	234	619	116	53	2,954
Value of land and buildings £	758,665	408,144	189,043	25,013	(a)	(a)	61,495,897
Value of plant and machinery £	3,300,459	2,258,710	552,628	1,128,339	(a)	(a)	67,608,366
Wages paid ..	292,741	238,088	65,128	168,930	(a)	(a)	(b) 808,875
Value of fuel used ..	208,895	24,773	5,478	1,451	(a)	(a)	(b) 256,443
Value of materials used £	829,049	775,930	158,439	138,067	(a)	(a)	62,018,426
Total value of output £	2,303,081	1,487,584	347,277	547,555	(a)	(a)	64,960,066
Value of production ..	£ 1,265,137	686,881	183,360	408,037	(a)	(a)	62,685,197

(a) Not available for publication.

(b) Includes Western Australia and Tasmania.

(ii) *Coal Used and Production, 1939-40.* The following table gives details for 1939-40 :—

GAS-WORKS : COAL USED AND PRODUCTION, 1939-40.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
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COAL USED.

Coal tons	621,164	411,554	91,702	80,779	(a)	(a)	61,246,562
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PRODUCTS.

Gas produced ,000 cubic ft.	11,208,763	7,693,470	1,513,570	1,239,588	(a)	(a)	622,504,472
Gas sold ,000 cubic ft.	9,533,170	6,906,148	1,336,316	990,383	(a)	(a)	619,509,965
Coke produced .. tons	385,450	234,669	49,207	48,642	(a)	(a)	(b) 739,047
Coke for sale .. tons	240,983	141,490	25,758	35,365	(a)	(a)	(b) 453,863

VALUE.

Gas sold .. £	1,859,641	1,975,940	523,319	466,550	(a)	(a)	b 5,117,435
Coke for sale .. £	253,641	197,582	32,574	57,839	(a)	(a)	(b) 562,818

(a) Particulars not available for publication.

(b) Includes States marked (a).

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 22,504,472 thousand cubic feet in 1939-40.

CHAPTER XXII.

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 XXIV. "Local Government".

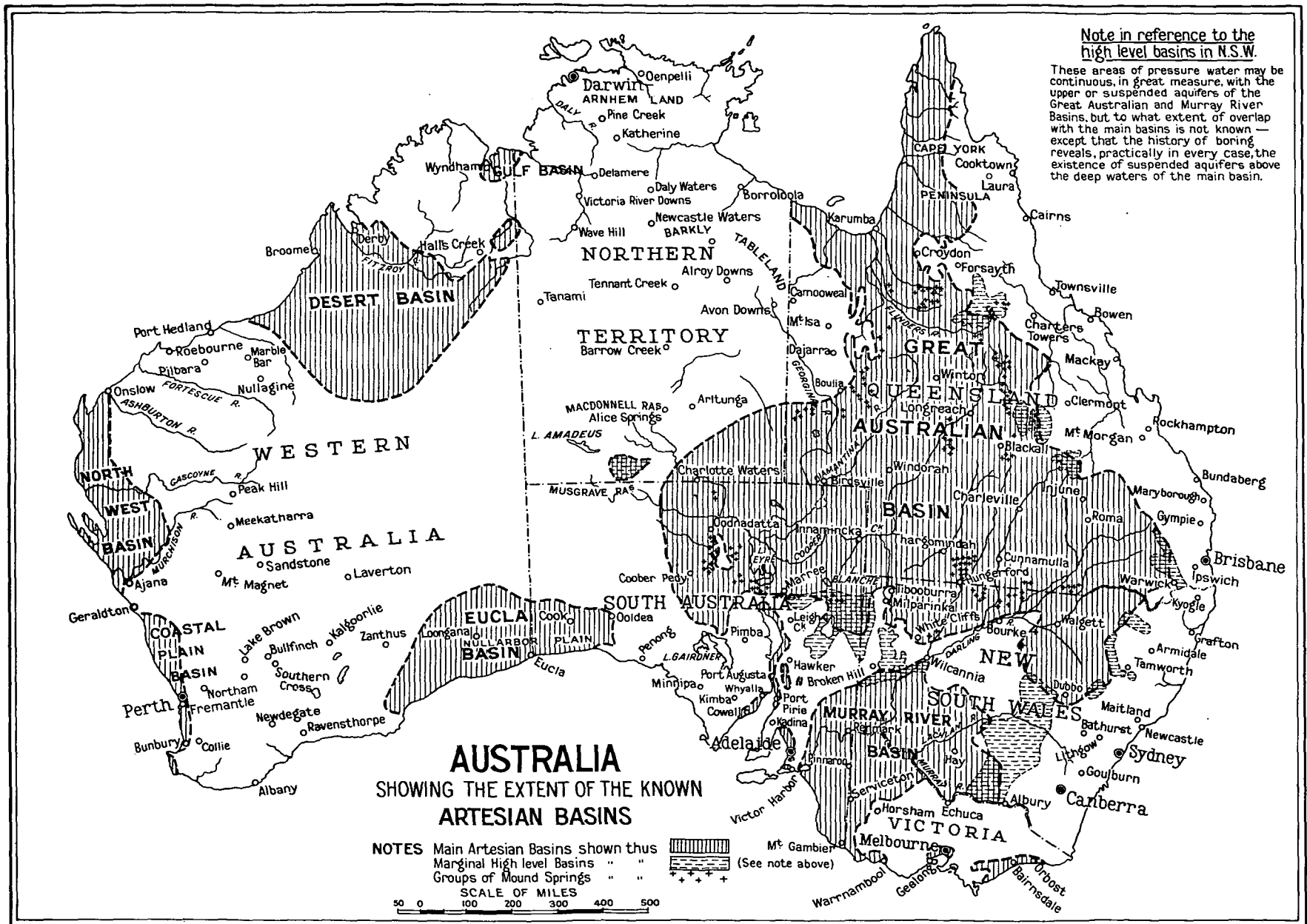
Interstate conferences on the subject of artesian water were held in 1912, 1914, 1921, 1924 and 1928, when combined Governmental action was agreed upon with reference to delimitation of the artesian basins, hydrographic surveys, reason for decrease in flow, analyses and utilization of artesian water, etc. A map showing the extent of the known artesian basins appears on pp. 633-4.

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, except 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, together with the extreme south-east corner of the Northern Territory. This basin (shown approximately by the map pp. 633-4) is said to be the largest yet discovered, and measures about 600,000 square miles, of which 376,000 are in Queensland, 118,000 in South Australia, 80,000 in New South Wales, and 25,000 in the Northern Territory. The area of the intake beds is estimated at 60,010 square miles, comprising 50,000 in Queensland and 10,010 in New South Wales. A description of the basin and its geological formation appears 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.



This map was re-drawn from that published in the Report of the Fifth Interstate Conference on Artesian Water, Sydney, 1928.

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 azoic 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. 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 issues of the Official Year Book 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, 1939-40.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W. Aust.	N. Terr.	Australia. (b)
Bores existing .. No.	763	330	6,514	162	284	191	8,244
Total depth of existing bores .. '000 feet	(c) 1,167	11	3,099	116	231	63	4,687
Daily flow .. '000 gals.	(d) 68,653	3,000	260,000	12,972	(e)	7,723	352,348
Depth at which artesian water was struck—							
Maximum .. feet	4,338	3,000	6,000	4,851	4,006	1,760	6,000
Minimum .. "	100	50	10	233	30	42	10
Temperature of flow—							
Maximum .. °Fahr.	141	160	212	208	(e)	(e)	212
Minimum .. "	75	10	78	82	(e)	(e)	10

(a) Government bores only. (b) Incomplete. (c) Total depth of all bores. (d) Flowing bores only. (e) Not available.

(ii) *Details for States.*—Considerations of space preclude the insertion of separate particulars of operations in the States during 1939-40. Details for earlier years, appear 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 is given in some detail in preceding issues of the Official Year Book (see No. 23, pp. 637-61).

* 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 1929-30 to 1939-40. 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 other States.

IRRIGATION : AREAS IRRIGATED.

Season.	N.S.W. (a)	Victoria.	Queensland.	S. Aust.	W. Aust.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
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	6,104	7,768	618,291
1932-33 ..	130,977	474,716	31,409	42,556	6,434	7,605	693,697
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	42,292	13,295	9,987	(b) 780,663
1937-38 ..	170,719	590,113	49,154	44,250	14,284	8,428	(b) 876,953
1938-39 ..	183,518	515,357	48,953	43,602	14,278	8,599	(b) 814,357
1939-40 ..	120,753	517,903	55,153	44,470	15,443	8,656	(b) 762,641

(a) Excluding pasture and fallow lands. (b) Including Australian Capital Territory, 1934-35, 26 acres; 1935-36, 123 acres; 1936-37, 70 acres; 1937-38, 6 acres; 1938-39, 50 acres; 1939-40, 263 acres.

3. **Crops on Irrigated Areas.**—A classification of the crops grown on irrigated areas in each State during 1939-40, will be found in the table below. Lucerne, grasses and green forage accounted for 31 per cent., cereals for 21 per cent., orchards and vineyards for 32 per cent., and root crops, market-gardens, etc., for 16 per cent. of the total area of crops under irrigation in 1939-40. The area in Victoria does not include 310,504 acres of pasture land and 5,417 acres of fallow land which were irrigated in 1939-40. Likewise 4,039 acres of pasture land are also omitted from the Tasmanian figures for the same year.

IRRIGATION : CROPS ON IRRIGATED AREAS, 1939-40.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Cereals ..	61,218	33,207	426	..	..	..	94,851
Lucerne, Grasses and Green Forage ..	22,220	89,081	5,563	(a) 10,040	10,345	91	137,340
Orchards and Vineyards ..	26,781	72,969	9,118	28,520	2,698	1,688	141,774
Root Crops, Market-gardens and other Crops ..	10,534	6,725	(b) 40,046	5,910	2,400	(c) 2,838	(d) 68,716
Total ..	120,753	201,982	55,153	44,470	15,443	4,617	442,681

(a) Including pasture land. (b) Including Sugar-cane, 38,612 acres; Cotton, 298 acres; and Tobacco, 1,111 acres. (c) Including Hops, 946 acres. (d) Includes 263 acres Australian Capital Territory as follows:—Cereals, 9 acres; Lucerne, etc., 182 acres; and Market-gardens, 72 acres.

CHAPTER XXIII.

TRADE.

§ 1. Introductory.

Constitutional Powers of the Commonwealth in regard to Commerce.—The powers vested in the Commonwealth Parliament by the Commonwealth Constitution 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 of the Official Year Book, No. 33).

§ 2. Commonwealth Legislation affecting Oversea Trade.

1. General.—In previous issues of the Official Year Book brief particulars of the various Commonwealth Acts and amendments thereof affecting oversea trade are 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) 1934–1939; Customs Tariff (Exchange Adjustment) Act, 1933–1939; Customs Tariff (Industries Preservation) Act, 1921–1936; Customs Tariff (Newfoundland Preference) 1939; Customs Tariff (New Zealand Preference) Agreement Act, 1933; Customs Tariff (New Zealand Preference) 1933–1934; Customs Tariff (Papua and New Guinea Preference) 1936; Customs Tariff (Southern Rhodesian Preference) 1941; Customs Tariff (Primage Duties), 1934. A complete statement of the Acts passed in 1940 appears in par. 15 below.

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 1933-1939 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, and 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*.

In pursuance of the trade diversion policy of the Commonwealth Government (see par. 9 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 is 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 is prohibited, except under special licence, 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, radium 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 and Japan is a proclaimed country for eleven items only.

In 1939–40 the value of goods from the United Kingdom admitted under British Preferential Tariff rates was, in Australian currency, £A47,668,186 and the primage duty paid, £A1,267,431. This amount is £A1,358,275 less than the amount which would have been paid if certain goods had not been subject to preferential rates of primage duty.

4. **Special War Duty.**—This duty was imposed from 3rd May, 1940, as a war taxation measure. It comprises a tax of 10 per cent. on the Amount of Duties of Customs (which include Primage) on all goods (other than goods covered by Item 229 (c) in the Schedule to the Customs Tariff 1933–1939) entered for home consumption on and after the date mentioned. The tax is not regarded as having any relationship to the Duties of Customs in the ordinary acceptation of the term, but the amounts collected appear under the heading “Customs Collections” in Chapter XXVI. “Public Finance”.

5. **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 legislation has extended the list of articles to which these rates apply. For the purpose of preferential treatment the following goods are deemed by Section 151A of the Customs Act 1901–1936 to be the produce or manufacture of the United Kingdom provided the final process of their production or manufacture was performed in that country.

- (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 25 per cent. or 50 per cent. if the Minister so determines 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.

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 and by separate Tariff legislation to the Territories of Papua and New Guinea.

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 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 foregoing 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 were subsequently 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. 7 of this section. Further reference to this trade agreement appears in the Appendix to Official Year Book No. 26, 1933.

The five years currency of the agreement terminated on 19th August, 1937, but in view of the negotiations then in progress between the Governments of United Kingdom and United States of America for a trade agreement, a review of the terms of the Ottawa Agreement became a matter of urgency. The United Kingdom Government at the time sought the concurrence of the Dominions in the modification of certain preferences granted under the Ottawa Agreements in order to facilitate the satisfactory conclusion of the agreement. As a consequence thereof a conference of United Kingdom and Australian Ministers was held in London early in 1938. A joint statement setting out the result of the conference was issued by the two Governments in the form of a Memorandum of Conclusions which was published by the United Kingdom Government on 20th July, 1938.

The Memorandum stresses the interdependence of the two countries in the matters of trade and defence. The United Kingdom is recognized as a great force for the maintenance of peace, and Australia is regarded as an important field for 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 basis for trade relationships between the two countries. It is regarded as essential in the interests of both countries that Australia should increase its population and this can best be done by the progressive development of her secondary industries. This policy however, conflicts with the position of the United Kingdom as a great oversea trader and exporter of manufactured goods to Empire and foreign countries and any diminution in the exports of United Kingdom will affect the capacity of that country to absorb foodstuffs and raw materials from countries like Australia.

While strongly adhering to the principle of preferential trade within the Empire the representatives of both countries realized that it was desirable that each country should from time to time enter into Trade agreements with foreign countries in order to make an effective contribution to the expansion of International Trade. The Ministers agreed to co-operate in every practical way.

Difficulties immediately arise when an attempt is made to reconcile the expansion of the secondary industries of Australia with that of the United Kingdom to maintain her existing trade in Australian markets. In the Ottawa Agreement, Articles 9 to 13 were framed to meet this difficulty but the results were not entirely satisfactory. It was found impracticable to revise the Articles to satisfy the requirements of both countries, and their substitution by a schedule of maximum rates of duty was suggested. This principle of making trade treaties on the basis of fixing rates of duty is common in most international arrangements but it was thought that special difficulties might arise in applying it to a young and developing country like Australia which also has a system of wage-fixing tribunals and fluctuations of industrial costs. The Australian Ministers agreed to investigate the possibility of adopting such a system after determining the possible course of development of secondary industries in Australia during the next few years.

In making the 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 ; and
- (f) the need for new markets for Australian exports and for foreign trade arrangements.

The present agreement will continue in force pending the decision of the Australian Government on this matter, and in the meantime the United Kingdom Ministers will not 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.

In conclusion the memorandum refers to considerable discussions between Ministers with regard to the marketing of primary produce in the United Kingdom. It was recognized that United Kingdom agriculture was entitled to first consideration in the home market, but that Empire products should be granted second consideration. It was felt 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 1939-40 the Customs Tariff 1933-1939 extended the application of the Preferential Tariff rates to 86.0 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 1939-40 under the Customs Tariff 1933-1939 on goods of United Kingdom origin was about 15.3 per cent., whereas the same goods under the General Tariff rates would have been called upon to pay an average rate of about 39.5 per cent.

An application of the Customs Tariff 1933-1939 to the total imports of £A56,858,624 (including outside packages) from the United Kingdom entered for home consumption during 1939-40 shows that the value of the goods of United Kingdom origin which participated in the preferential provisions of the Tariff was £A47,668,186, upon which duty to the amount of £A4,217,357 was collected. Under the General Tariff the same goods would have paid £A13,406,659 duty or £A9,189,302 more than was paid at preferential rates, representing an additional duty of 19.3 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 1939-40 were textiles, £4,475,435; metals and metal manufactures, £2,737,267; machines and machinery, £1,552,703; spirituous and alcoholic liquors, £1,325,867; drugs, chemicals, etc., £592,337; earthenware, glass, etc., £515,963; apparel, £329,393; paper, £291,919; manufactured fibres, £258,389; stationery and paper manufactures, £166,449; jewellery and fancy goods, £147,924; and optical, surgical and scientific instruments, £145,430.

If a preferential tariff had not been in operation in 1939-40 £A9,189,302 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. The total amount deducted 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 £A23,091,366 and the duty collected thereon was £A6,427,163 or £A3,925,027 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 1937-38 to 1939-40 :—

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)		
	1937-38.	1938-39.	1939-40.	1937-38.	1938-39.	1939-40.

GOODS OF A KIND WHICH WERE "FREE", IF FROM UNITED KINGDOM.

Value of goods cleared for consumption ..	£	25,040,517	19,095,649	20,157,570	12,983,535	10,530,878	9,810,413
Amount of Duty collected thereon ..	£	..	..	..	1,600,664	1,415,247	1,265,533
Average ad valorem rate of Duty collected ..	%	..	..	..	12.3	13.4	12.9
Duty which would have been collected under General Tariff rates ..	£	3,213,203	2,474,807	2,550,415	..	..	..
Average ad valorem rate of Duty which would have been collected under General Tariff rates ..	%	12.8	13.0	12.7	..	..	..

GOODS OF A KIND WHICH WERE "DUTIABLE", IF FROM UNITED KINGDOM.

Value of goods cleared for consumption ..	£	28,058,500	24,586,678	27,510,616	14,253,772	12,305,081	13,280,953
Amount of Duty collected thereon ..	£	4,312,158 ^b	3,916,726 ^b	4,217,357 ^b	5,753,250	4,988,493	5,161,630
Average ad valorem rate of Duty collected ..	%	15.4	15.9	15.3	40.4	40.5	38.9
Duty which would have been collected on United Kingdom goods under General Tariff rates ..	£	11,195,361	10,012,544	10,856,244	..	..	..
Average ad valorem rate of Duty which would have been collected under General Tariff rates ..	%	39.9	40.7	39.5	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff ..	£	..	..	..	2,358,432 ^b	2,086,998 ^b	2,502,136 ^b
Average ad valorem rate of Duty which would have been collected under British Preferential Tariff ..	%	..	..	..	16.6	17.0	18.8
Amount of Rebate on United Kingdom goods as against General Tariff rates ..	£	6,883,203 ^b	6,095,818 ^b	6,638,887 ^b	..	..	..
Average ad valorem rate of Rebate on United Kingdom goods ..	%	24.5	24.8	24.1	..	..	..
Amount of Surcharge on goods from Other Countries as against British Preferential Tariff rates ..	£	..	..	..	3,394,818 ^b	2,901,495 ^b	2,659,494 ^b
Average ad valorem rate of Surcharge on goods of Other Countries ..	%	..	..	..	23.8	23.6	20.0

(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).		
	1937-38.	1938-39.	1939-40.	1937-38.	1938-39.	1939-40.
Value of goods cleared for consumption ..	£ 53,099,017	43,682,327	47,668,186	27,237,307	22,835,939	23,091,366
Amount of Duty collected thereon ..	£ 4,312,158 ^b	3,916,726 ^b	4,217,357 ^b	7,353,914	6,403,740	6,427,163
Average ad valorem rate of Duty collected ..	% 8.1	9.0	8.9	27.0	28.0	27.8
Duty which would have been collected on United Kingdom goods under General Tariff rates ..	£ 14,408,564	12,487,351	13,406,659	..	..	..
Average ad valorem rate of Duty which would have been collected under General Tariff rates ..	% 27.1	28.6	28.1	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff ..	£ ..	..	..	2,358,432 ^b	2,086,998 ^b	2,502,136 ^b
Average ad valorem rate of Duty which would have been collected under British Preferential Tariff ..	% ..	..	..	8.7	9.1	10.8
Amount of Rebate on United Kingdom goods as against General Tariff rates ..	£ 10,096,406 ^b	8,570,625 ^b	9,189,302 ^b	..	..	..
Average ad valorem rate of Rebate on United Kingdom goods ..	% 19.0	19.6	19.3	..	..	..
Amount of Surcharge on goods from other Countries as against British Preferential rates ..	£ ..	..	..	4,995,482 ^b	4,316,742 ^b	3,925,027 ^b
Average ad valorem rate of Surcharge on goods of Other Countries ..	% ..	..	..	18.3	18.9	17.0

(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, 1940, was applicable wholly or in part to about 140 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 £A7,349,895 on which £A2,128,775 duty was collected. Under the General Tariff the same goods would have paid £A3,806,054 duty or £A1,677,279 more than was paid at intermediate rates, representing an additional duty of 22.8 per cent. on the value of the goods. At British preferential rates of duty the same goods would have paid £A831,807, or £A1,296,968 less than was paid at intermediate rates, a reduction equivalent to an ad valorem duty of 17.7 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 16½ per cent. ; or
- (b) Whether the extent of depreciation is not less than 11 1-9 per cent., and less than 16½ per cent.

If (a) applies, the deduction from the amount of duty will be—(i) one-fourth of the amount of duty ; or (ii) 12½ per cent. ($\frac{1}{8}$) 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) 6½ 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 1933-1939 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, coco-nuts, 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 1939-40 amounted to £A577,442, including gold, £A109,551, imports of goods entitled to preference to £A73,086, and duties remitted to £A50,134. Total imports from the Territory of New Guinea during 1939-40 amounted to £A3,088,699, including gold £A2,848,582, imports of goods entitled to preference to £A105,206, and the duties remitted to £A54,770.

6. *Reciprocal Tariffs.*—(i) *General.* The Customs Tariff of 1921 provided a new feature in Australian Tariffs in the form of an intermediate tariff. No provision was made in the Customs Tariff 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 par. 2 above.

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 par. 5 above and the concessions granted by the Government of the United Kingdom on goods of Australian origin are set out in par. 7 below of this chapter. A review of the trade agreement appears in the Appendix to Official Year Book No. 26.

(ii) *Union of South Africa.* 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 or 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 £A1,823,336 from New Zealand during 1939-40 it is estimated that goods otherwise dutiable amounting in value to £A465,450 were admitted free under the provisions of the Preferential Tariff and the duty thus remitted was £A169,368. In addition, goods valued at £A49,217 were admitted under the preferential rates of duty, the duty remitted on such goods being £A10,291. The total of the duties remitted on the import of New Zealand goods was thus £A179,659, representing a margin of preference of 34.9 per cent. on the value of the goods entitled to preference. The principal items which benefited under the preferential provisions were fish, valued at £A115,482, and undressed timber, £A170,463, the amounts of duty remitted being £A22,782 and £A117,601 respectively.

(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) Acts of 1931 and 1934-1939, which reaffirmed the principle of granting of preferences for the mutual advantage of the two countries and extended preferential conditions. 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 1939-40 the imports from Canada amounted in Australian currency to £A11,393,568 and imports of Canadian origin entitled to preference were valued at £A9,984,914, the principal items being printing paper, £A1,946,849; motor chassis and parts, £A1,878,301; timber, £A986,221; fish, £A531,590; and piece goods, £A429,786. The duty on the total imports of Canadian origin entitled to preference would have been £A3,197,086 under the General Tariff, but by the preferential provisions this was reduced by £A1,913,696, or by 19.2 per cent. on the value of the imports concerned.

Australian exports to Canada subject to preference amounted to approximately £A1,967,411, the principal items being fruits, dried, £A571,259; sugar, £A1,229,687; fruits, preserved, £A104,980; and tallow, £A61,485.

(v) *Newfoundland*. The Customs Tariff (Newfoundland) Preference Act 1939 which came into operation on 12th December, 1939, provided for imports of newsprinting paper, the produce or manufacture of Newfoundland to be accorded the benefits of the British Preferential Tariff and in return the Government of Newfoundland accorded exclusive Tariff preference to Australian butter and canned fruits imported into that country.

(vi) *Southern Rhodesia*. The Customs Tariff (Southern Rhodesian Preference) Act 1941 came into operation on 9th April, 1941, provided for the imports of tobacco, unmanufactured, the produce of Southern Rhodesia, to be accorded the British Preferential Tariff rates less ninepence per pound.

7. *Preferential Tariff of the United Kingdom*.—(i) *General*. The 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 principal items of interest to Australia which are accorded preferential treatment under the Preferential Tariff of the United Kingdom are—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 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 120, 1s. per 120; (b) over 14 lb. but not exceeding 17 lb., 1s. 6d.

per 120; (c) over 17 lb., 1s. 9d. per 120; 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, 5s. 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 1939 merchandise of Australian origin imported into United Kingdom amounted to £61,984,000. Of this total approximately £32,031,426 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 £5,503,227 more in duty. This represents a rebate of approximately 17.2 per cent. on the value of imports receiving preferential treatment. The main items receiving preference and the amount of the rebates were—Beef, frozen, £3,199,164 (rebate, £573,032); other meats, £1,569,246 (rebate, £172,126); sugar, £4,449,788 (rebate, £1,327,862); wine, £605,562 (rebate, £538,012); rice, £200,036 (rebate, £69,809); butter, £11,090,254 (rebate, £1,480,090); cheese, £958,333 (rebate, £63,889); apples, £1,645,285 (rebate, £300,105); raisins, £736,129 (rebate, £108,517); fruits, tinned, or bottled, £1,184,455 (rebate £296,114); lead, unwrought, £2,741,429 (rebate, £65,027); leather, £426,894 (rebate, £128,068). The above figures for imports have been obtained from the *Annual Statement of the Trade of the United Kingdom* 1939, 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 overseas 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 overseas 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 1935 to 1939 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
1935	228,000	1,468,000	1,784,000	147,000
1936	296,000	1,512,000	1,496,000	233 000
1937	452,000	1,948,000	1,883,000	234,000
1938	528,000	1,924,000	1,898,000	284,000
1939	430,000	2,029,000	1,629,000	311,000

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 applies 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 six months ended June, 1939, 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.

From 1st October, 1939, the United Kingdom Government agreed to purchase from Australia beef, mutton, lamb, veal, pork, and offals. Particulars of the contracts appear in Chapter XXVII. "Miscellaneous" (see § 14).

(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 $\frac{1}{2}$ d. per lb.; frozen beef $\frac{1}{2}$ 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 was to 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 overseas 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, namely, 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.

8. *Trade Agreements.*—(i) Trade agreements between the Commonwealth of Australia and the Governments of Belgium, Czechoslovakia and France, were in operation prior to the outbreak of war in September, 1939, but now are inoperative owing to the provisions of the Trading with the Enemy Act 1939-1940. The full texts of these agreements are shown in the previous issue of the Official Year Book.

(ii) *Brazil.* A trade agreement concluded between the Governments of Brazil and the Commonwealth of Australia came into operation on 1st January, 1940. Briefly, the agreement provided :—

- (1) Imports from Brazil would receive treatment not less favorable than that accorded to articles the produce or manufacture of any other foreign country.
- (2) Imports from Australia would receive similar treatment.

Exceptions were made in regard to preferences or privileges granted for special reasons to particular countries.

(iii) *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 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.

(iv) *Switzerland.* A trade agreement, concluded between the Governments of Switzerland and the Commonwealth of Australia, came into force on 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-nation 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.

9. *Australian Trade Diversion.*—On 22nd May, 1936, the 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 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 par. 2 above.

10. **Import Licensing Regulations, etc.**—From December, 1939, imports from non-sterling countries including Canada, Newfoundland and Hong Kong were controlled by the Customs (Import Licensing) Regulations, the main aim being to conserve resources in non-sterling exchange and to prevent the use of those resources in the purchase of unessential imports to the detriment of the more vital national needs. The restrictions have been progressively tightened since the inception of the regulations. Many goods are prohibited; others are rationed as a proportion either of the quantity or value of the imports during 1938–39.

In May, 1940, an arrangement was made with the Government of the Netherlands East Indies whereby products of this country are admitted into Australia on the same basis as goods from the sterling area. In order to qualify for this concession goods which are not typical national products of that country must be accompanied by the prescribed certificate of origin.

The importation of certain classes of goods, including jute products, metal working machines, petroleum products, aluminium, and tetraethyl lead from all countries is prohibited except under licence, and licences are issued only to applicants approved by the Department of Supply and Development.

Subsequent amendments to the regulations placed Sterling countries under Licencing control from 8th December, 1941.

11. **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.

As a result of the passing of the Lease Lend Act in the United States of America the Australian Government has taken action to obtain from the United States of America, under the provisions of this Act, essential goods which are not available in sufficient quantities in this country or from the United Kingdom.

The Division of Import Procurement of the Department of Trade and Customs is responsible for the arrangements with the Government of the United States of America for the supply of the required goods.

Requisitions will be compiled of the requirements of Australia as a whole for one year and arrangements made for the distribution of the goods on arrival. In a large range of goods the United States Government will not supply individual firms in Australia unless the orders are approved by the Division of Import Procurement.

The principal commodities affected are steel, including alloy steel, non-ferrous metals, potash, machinery (including agricultural), locomotives including equipment, industrial chemicals, abrasive grains, carbon black, fire brigade appliances, sausage casings, synthetic resins, moulding powders and sewing threads.

12. **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.

13. **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 reviews the work of the Board during the year ended 30th June, 1941. During the year the Board furnished 13 reports to the Minister for Trade and Customs, and of these reports 9 related to matters on which public inquiries had been held. The subjects dealt with comprised:—Tariff revision, 2; requests for admission under or removal of goods from by-laws, 1; establishments of new industries, 5; and 1 inquiry into questions relating to the tobacco-growing industry. At 30th June, 1941, the Board had on hand six subjects on which reports had not been furnished to the Minister and four subjects which had been referred to it by the Minister for Trade and Customs under Regulation 3A of the National Security (Inquiries) Regulations.

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.

14. 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.

15. 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.

16. Acts passed in 1940.—The following Commonwealth Acts relating to Australian production and trade were assented to during the year 1940.

- Sugar Agreement Act, No. 21 of 1940. An Act to approve an agreement made between His Majesty's Government of the Commonwealth of Australia and His Majesty's Government of the State of Queensland, and for other purposes.
- Petroleum Oil Search Act, No. 22 of 1940. An Act to amend the Petroleum Oil Search Acts 1936.
- Trade Agreement (Greece) Act, No. 28 of 1940. An Act to approve an agreement between the Government of the Commonwealth of Australia and the Government of the Kingdom of Greece.
- Trading with the Enemy Act, No. 33 of 1940. An Act to amend section three of the Trading with the Enemy Act 1939.
- Rabbit Skins Export Charges Appropriation Act, No. 34 of 1940. An Act relating to charges on the export of Rabbit skins.
- Rabbit Skins Export Charges Act, No. 35 of 1940. An Act to impose a charge on the export of Rabbit skins.
- Gold Mining Encouragement Act, No. 38 of 1940. An Act to provide for financial assistance to the States for the development of the Gold Mining Industry.
- Gold Mining Encouragement Act (No. 2), No. 46 of 1940. An Act to amend the Gold Mining Encouragement Act 1940.
- Raw Cotton Bounty Act, No. 49 of 1940. An Act to provide for the payment of a bounty on the production of raw cotton.
- Customs Tariff Validation Act, No. 53 of 1940. An Act to provide for the Validation of Collections of Duties of Customs Tariff Proposals.
- Customs Tariff (Exchange Adjustment) Validation Act, No. 54 of 1940. An Act to provide for the Validation of Adjustments in Duties of Customs under Customs Tariff (Exchange Adjustment) Proposals.
- Customs Tariff (Canadian Preference) Validation Act, No. 55 of 1940. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff (Canadian Preference) Proposals.
- Customs Tariff (New Zealand Preference) Validation Act, No. 56 of 1940. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff (New Zealand) Proposals.
- Customs Tariff (Special War Duty) Validation Act, No. 57 of 1940. An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff (Special War Duty) Proposals.
- Excise Tariff Validation Act, No. 58 of 1940. An Act to provide for the Validation of Collections of Duties of Excise under Excise Tariff Proposals.
- Wheat Tax (War-time) Assessment Act, No. 68 of 1940. An Act relating to the Assessment and Collection of a Tax upon Wheat.
- Wheat Tax (War-time) Act, No. 69 of 1940. An Act to impose a Tax upon Wheat.
- Wheat Industry (War-time Control) Act, No. 70 of 1940. An Act to amend the Wheat Industry (War-time Control) Act 1939.
- Wire Netting Bounty Act, No. 74 of 1940. An Act to amend the Wire Netting Bounty Act 1939.
- Wine Export Bounty Act, No. 92 of 1940. An Act to amend the Wine Export Bounty Act 1939.

§ 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 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 1940 the position of Australian Government Trade Commissioner for North America was created with head-quarters in New York. The Commissioner exercises supervision and general control over the trade offices in the United States of America and Canada.

In April, 1929, a Commercial Representative for Australia was appointed in the Dominion of Canada, with head-quarters at Toronto. The position has now been abolished and is administered from New York with an Assistant Trade Commissioner at Toronto.

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, and in January, 1937 a Trade Commissioner was appointed to Egypt. The Trade Commissioners are—Egypt, Mr. J. Payne, Cairo; India, Mr. H. Roy Gollan, D.S.O., M.C., Calcutta; New Zealand, Mr. J. L. Menzies (acting), Wellington; and North America, Mr. L. R. MacGregor, C.B.E., New York, with Mr. J. U. Garside, New York, as Assistant Trade Commissioner in the United States of America, and Mr. R. R. Ellen, Toronto, as Assistant Commissioner in Canada.

2. *In Australia.*—Trade Commissioners representing the undermentioned countries are located in Australia, The United Kingdom, Canada, India, New Zealand 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 India and France are located in Sydney. Trade matters affecting other overseas 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 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 Fiji, 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 1st July, 1929, the recorded value of all goods exported was taken as representing the value in the principal markets of Australia 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 Australia in the ordinary commercial acceptance of the term, less the value of any bounty or rebate. Until 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 overseas 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 Australia and these non-contiguous territories are part of the overseas trade of Australia. Such transactions are shown separately, i.e., the trade of Australia with each particular country is separately recorded and tabulated.

4. **Statistical Classification of Imports and Exports.**—Statistics of overseas imports and exports from which the summary tables in this issue of the Official Year Book have been extracted were 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, 1941, comprised approximately 2,000 separate import items and 600 export items.

5. **The Trade Year.**—From 1st July, 1914, the statistics relating to Overseas 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 1937 to 1940 inclusive. For the years 1939 and 1940 the value of merchandise only is shown.

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 overseas 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 overseas 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 1931–32 is given in § 9 below.

§ 5. Overseas Trade.

1. **Total Overseas Trade.**—(i) *Including Gold.* The following table shows the total trade (including gold) of Australia 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 Official Year Book. (See note to following table.)

TOTAL OVERSEA TRADE : AUSTRALIA.
(INCLUDING GOLD.)

Period.(a)	Recorded Value.(b)			Value per Inhabitant.			Percentage of Exports on Imports.
	Imports.	Exports.	Total.	Imports.	Exports.	Total.	
	£'000.	£'000.	£'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	18,816	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	(c) 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
1926-27 ..	164,717	144,084	308,801	26 18 1	23 10 9	50 8 10	87.5
1927-28 ..	147,945	141,206	289,151	23 13 8	22 12 0	46 5 8	95.4
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 12 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 15 0	20 5 8	..	..
(e)	102,156	112,202	214,358	14 15 0	16 3 11	30 18 11	109.8
1939-40(d)(f)	115,676	148,750	..	16 10 8	21 5 3	..	..
(e)(f)	115,676	118,762	234,438	16 10 8	16 19 6	33 10 2	102.7
1940-41(d)(f)	108,650	134,549	..	15 7 5	19 0 9	..	..
(e)(f)	108,650	107,575	216,225	15 9 11	15 6 10	30 16 9	99.0

(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) For actual values for recent years, showing merchandise and bullion and specie separately, see § 8, pars. 5 and 6. (c) Prior to 1906, ships' stores were included in the general exports. For value of goods shipped on overseas vessels each year since 1931-32 see later table, § 9. (d) Recorded values. Imports, British currency; Exports, Australian currency. (e) British currency values. (f) Merchandise only.

In previous issues of the Official Year Book fluctuations in the value of the overseas 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 1914-19 and these factors should be taken into consideration in making comparisons with earlier years.

In 1924-25 the total value of overseas 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 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 declined by nearly £14 million and total trade by more than £25 million. In 1939-40 the value of merchandise trade rose by £38,092,000, exports increasing by £21,730,000 and imports by £16,362,000. In 1940-41 however the merchandise trade declined by over £18 million, imports decreasing by £7 million and exports by £11 million, mainly due to import restrictions and scarcity of shipping.

(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 MATTE.)

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.	
	£'000. Stg.	£'000. Stg.	£'000. Stg.	£ s. d. Stg.	£ s. d. Stg.	£ s. d. Stg.	%
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
1939-40a	115,676	118,762	234,438	16 10 8	16 19 6	33 10 2	102.7
1940-41a	108,650	107,575	216,225	15 9 11	15 6 10	30 16 9	99.0

(a) Merchandise only.

2. *Balance of Trade.*—The table on page 659 shows the percentage of exports on imports (including gold) for quinquennial periods from 1826 to 1925-26 and for each year from 1926-27 to 1940-41 (owing to censorship provisions the figures for 1939-40 and 1940-41 exclude bullion and specie), while the table above shows the percentage of exports on imports (excluding gold) for each year 1935-36 to 1940-41. Reference to the first-mentioned table shows that prior to the quinquennial period 1891-95 the balance 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 1939-40 merchandise exports exceeded imports by £3,000,000, but in 1940-41 merchandise imports exceeded exports by £1,226,000.

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. Total Imports other than Gold. (Specie, Bullion and in Matte.)	B. Total Exports, other than Gold. (Specie, Bullion and in Matte.)	C. Gold produced in Australia.	D. Total of Mer- chandise Exports and Gold Production. B + C	E. Commodity Balance of Trade. D - A	F. Net Ex- ports of Gold (Specie, Bullion and in Matte) in excess of Production. F	G. Total Balance. E + F
	£'000,000	£'000,000	£'000,000	£'000,000	£'000,000	£'000,000	£'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	- 0.3	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	70.9	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 ..	99.4	97.5	11.7	109.2	9.8	0.3	10.1
1939-40 ..	115.7	119.2	14.1	133.3	17.6	(b)	(b)
1940-41 ..	108.7	107.7	13.1	120.8	12.1	(b)	(b)

NOTE.—In 1939-40 and 1940-41, the export figures relate only to merchandise actually shipped. Under contracts with the British Government, Australia receives payment for some exportable commodities (e.g., wool) irrespective of when the goods are shipped. Payments for exportable goods will be somewhat larger than the recorded value of exports and payments relating to the balance of trade may be more favorable than is indicated by the figures above for the two years mentioned.

(a) First six months only. (b) Not available for publication.

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 years 1934-35 to 1938-39 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.

Particulars for subsequent years are not available for publication.

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	650,113
Papua	716,716	128,078	191,742	165,245	208,377
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	384,127	657,178	683,742	601,870	461,559
France	862,147	790,108	865,919	964,554	1,028,133
Germany	2,145,315	2,963,049	3,596,584	4,170,624	4,131,212
Italy	557,438	444,141	410,008	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	656,161	700,709
Netherlands East Indies	4,390,327	4,928,025	6,176,385	7,530,509	7,110,785
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	126,774
Sweden	828,283	972,006	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	13,901,705	12,959,149	17,753,684	14,647,305
Other Foreign Countries	2,238,227	2,656,012	2,982,232	3,450,412	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.

Particulars for subsequent years are not available for publication.

AUSTRALIAN IMPORTS : PERCENTAGES FROM COUNTRIES OF ORIGIN.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country of Origin.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	Per cent.	Per cent.	Per cent.	Per cent.	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.

Particulars for subsequent years are not available for publication.

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	1,993,522
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	1,965,229
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	7,110,430	6,681,975
Papua	151,865	165,613	232,027	319,228	299,376
Union of South Africa	316,381	449,056	406,091	713,326	813,326
Other British Possessions	1,592,071	2,562,225	3,310,793	2,311,422	2,191,450
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	9,423,821	5,685,579	5,546,514
Chile and Peru	2,029	2,931	3,438	60,988	2,342
China	2,472,262	1,212,821	842,963	616,520	3,022,571
Manchuria, including Kwantung					
Peninsula	1,613,775	839,815	142,427	190,747	63,450
Egypt	639,654	524,066	562,135	640,727	601,019
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	995,827	689,225	5,331,528	2,644,058	1,211,326
Japan	12,095,514	17,661,232	9,705,738	5,900,098	4,865,469
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
Spain	559,912	182,952	175,801	133,448	954
Sweden	240,751	264,918	344,687	472,657	637,038
United States of America	2,754,228	5,615,372	10,935,103	3,386,567	3,614,038
U.S.S.R. (Russia) ..	84,180	10,700	20,721	1,121,262	278,460
Other Foreign Countries	1,564,676	3,280,145	3,537,599	5,402,256	2,232,255
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

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.

Particulars for subsequent years are not available for publication.

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.	Per cent.	Per cent.	Per cent.	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	1.60
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	1.79
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	2.46
Manchuria, including Kwantung Peninsula	1.56	0.67	0.10	0.14	0.05
Egypt	0.62	0.42	0.38	0.45	0.49
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
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
U.S.S.R. (Russia)	0.08	0.01	0.01	0.79	0.23
Other Foreign Countries	1.51	2.64	2.38	3.82	1.82
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.

Particulars for subsequent years are not available for publication.

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.	1937-38.	1938-39.	1937-38.	1938-39.
	£Stg.'000.	£Stg.'000.	£Stg.'000.	£Stg.'000.	£Stg.'000.	£Stg.'000.
United Kingdom	46,226	40,420	58,309	53,252	12,083	12,832
Canada	8,045	7,724	1,706	1,592	— 6,249	— 6,132
India	3,078	2,870	745	1,550	— 2,333	— 1,320
New Zealand	1,707	1,769	5,671	5,330	3,964	3,561
Other British Countries ..	4,567	4,979	6,215	5,440	1,648	461
Total, British Countries ..	63,623	57,762	72,736	67,164	9,113	9,402
Belgium	1,141	982	4,560	4,428	3,419	3,446
China	602	462	492	2,413	— 110	1,931
France	965	1,028	7,725	7,488	6,760	6,460
Germany	4,171	4,131	3,500	2,112	— 671	— 2,019
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	1,006	— 6,362	— 6,024
United States of America ..	17,759	14,647	2,695	2,877	— 15,064	— 11,770
Other Foreign Countries ..	7,193	6,093	13,192	4,603	5,999	— 1,490
Total, Foreign Countries ..	45,556	39,241	39,546	29,869	— 6,010	— 9,372

(a) Excluding outside packages.

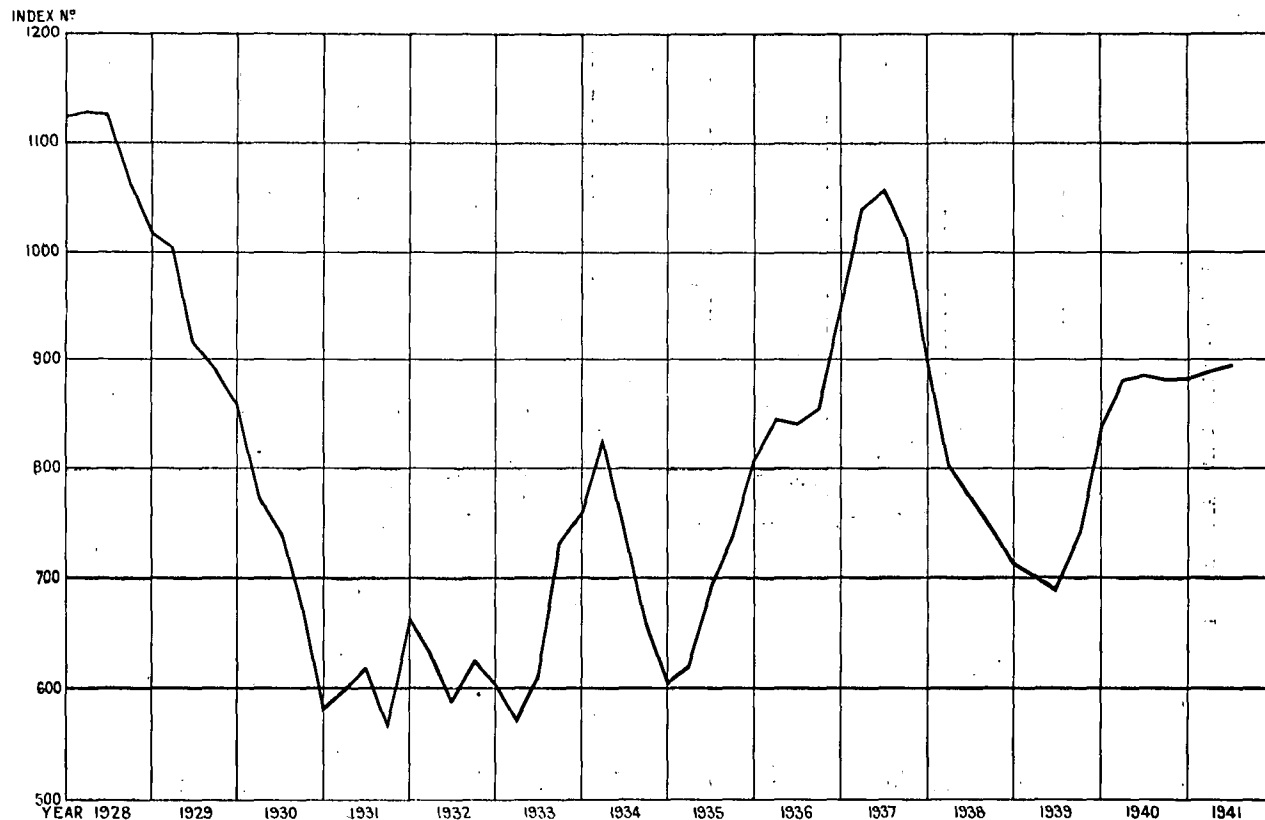
The balance of trade with single countries is of little significance, since in the first place, there is still a fair proportion of Australian produce distributed through the United Kingdom either immediately, by transhipment or re-sale, or ultimately, by incorporation in manufactures. Further, in very 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 1938-39, together with brief particulars of the principal commodities interchanged with such countries will be found in the Official Year Book, No. 33, pp. 776-781.

§ 7. Trade with Eastern Countries.

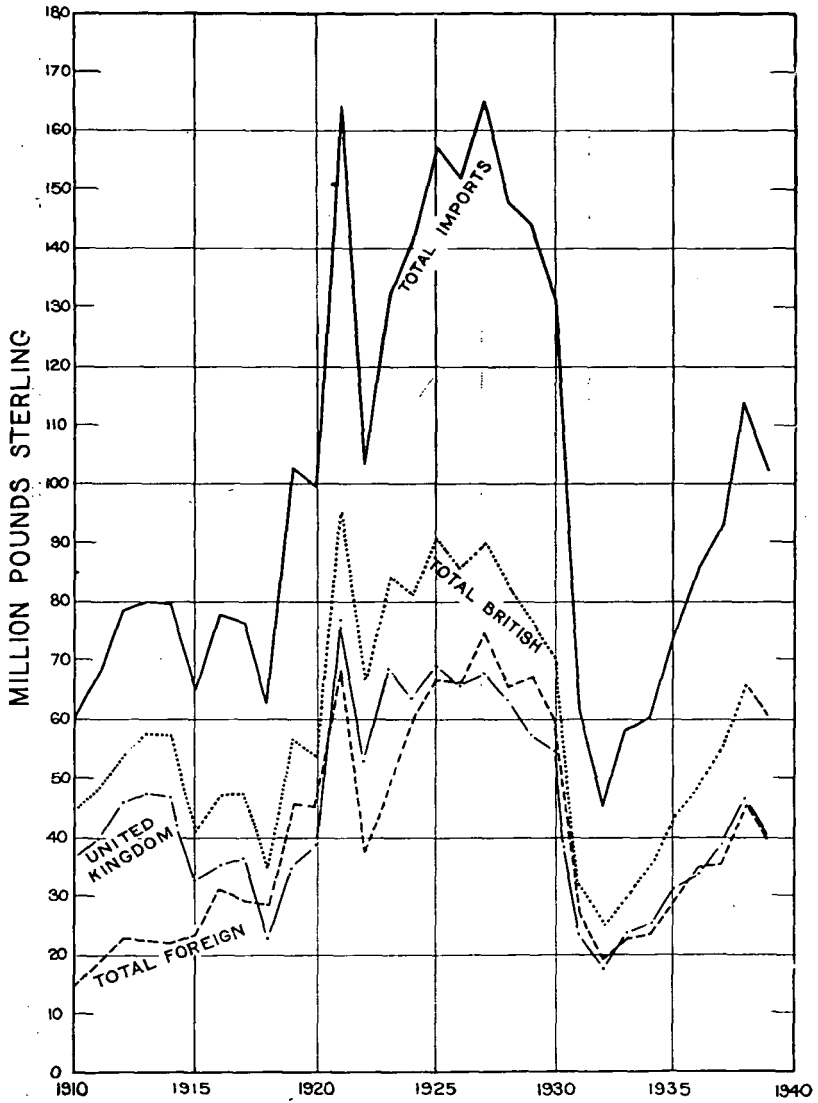
1. Principal Articles Exported.—The following table shows the value of exports of Australian and other produce from Australia to Eastern countries during the years 1934-35 to 1938-39. The countries concerned in this trade are Borneo (British), Burma, Ceylon, China, French Indo-China, Hong Kong, India, Japan, Korea, Kwantung Peninsula, Malaya (British), Manchuria, Netherlands East Indies, Philippine Islands, Siam,

EXPORT PRICES INDEX-NUMBERS—AUSTRALIA, 1928 TO 1941.

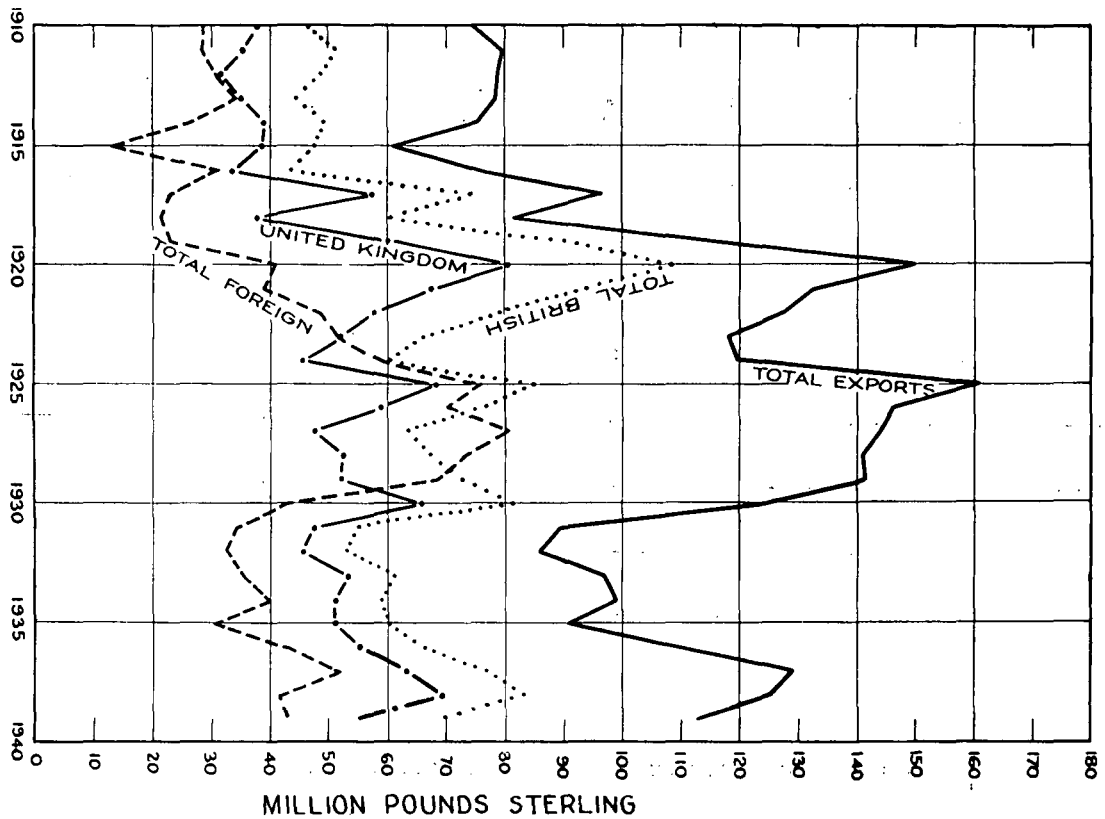


EXPLANATION.—This graph represents the Fixed Base series of Export Price Index-Numbers computed quarterly with the average for year 1928-29 as base (=1,000).

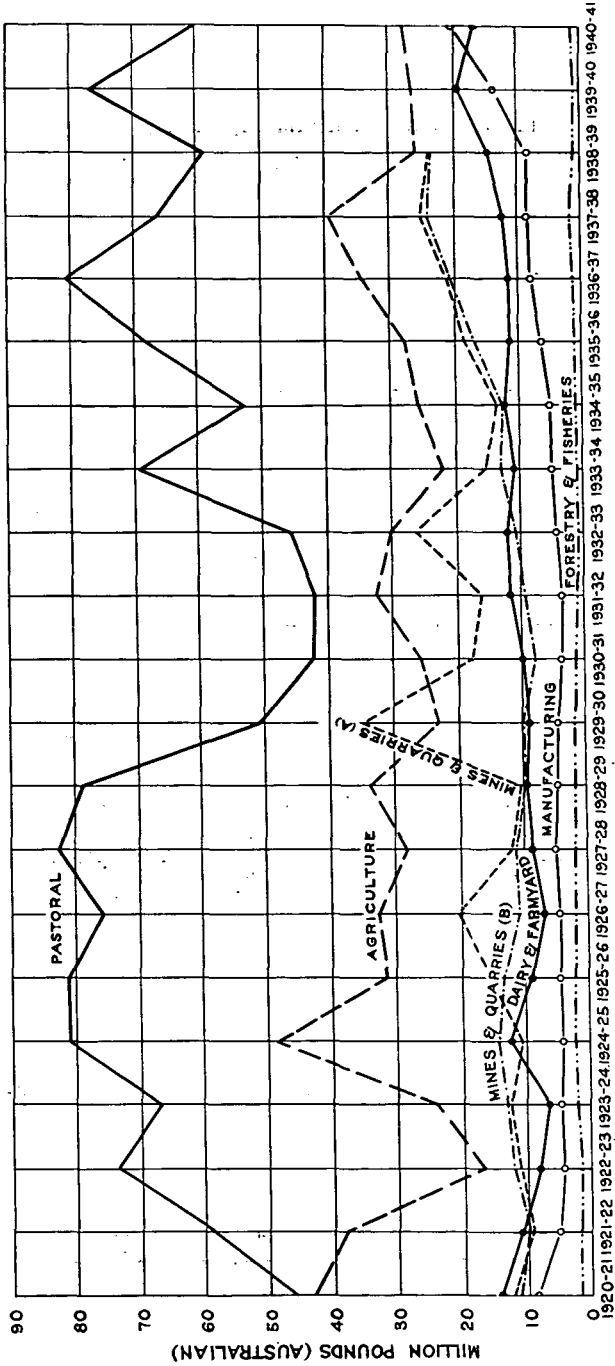
IMPORTS INTO AUSTRALIA, 1910 TO 1939.



EXPORTS FROM AUSTRALIA, 1910 TO 1939.



EXPORTS OF AUSTRALIAN PRODUCTS ACCORDING TO INDUSTRIES, 1920-21 TO 1940-41.



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.
 Later particulars for Mines and Quarries not available for publication.

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.

Particulars for subsequent years are not available for publication.

TOTAL EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.

Australian Currency Values.

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	2,402,855
Flour	3,394,000	2,789,659	2,582,600	3,090,681	3,036,957
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
Jams and jellies	42,328	42,688	49,178	46,143	44,651
Lard and refined animal fats	28,432	35,046	40,738	34,432	26,248
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	94,540
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
Pearl-shell 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	14,834,785
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	15,768,750

(a) 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. 12,571,315.

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:—

Particulars for subsequent years are not available for publication.

EXPORTS OF MERCHANDISE FROM AUSTRALIA TO EASTERN COUNTRIES.

Australian Currency Values.

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	3,022,571
Hong Kong	715,994	624,663	803,010	1,048,833	475,263
India, Burma and Ceylon	961,832	1,301,206	1,468,432	1,467,340	2,423,663
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
Thailand (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	220,790,602	224,882,561	216,939,032	213,591,810	214,834,785

(a) 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. 11,844,143.

3. Imports of Merchandise from Eastern Countries.—The values of imports into Australia from Eastern countries during the years 1934-35 to 1938-39 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, £1,160,761; Cotton and Linen Piece goods, £726,050; Netherlands East Indies—Tea, £1,622,624; Petroleum Spirit, £3,431,054; Petroleum, crude, £198,453; Kerosene, £431,823; Residual Oil, £636,288.

Particulars for subsequent years are not available for publication.

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	3,336,634	3,692,869	3,986,266	3,988,581	3,736,288
Japan	4,624,740	4,969,571	4,004,465	5,349,086	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
Thailand (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	18,819,456	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 and an excess of imports 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 INTO AUSTRALIA : CLASSES.

British Currency Values.

Classes.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
I. Animal foodstuffs, etc. ..	1,509,813	1,565,765	1,599,827	1,572,288	1,070,792
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	3,801,644	3,768,619	3,957,780	4,584,361	4,611,796
III. Alcoholic liquors, etc. ..	633,133	727,220	719,967	1,016,624	601,908
IV. Tobacco, etc. ..	1,717,677	2,011,004	1,863,887	1,926,516	495,351
V. Live animals ..	216,943	193,500	182,809	132,137	44,616
VI. Animal substances, etc. ..	1,465,533	2,260,898	1,942,284	1,787,711	1,335,941
VII. Vegetable substances, etc. ..	2,884,357	3,194,512	2,596,939	3,685,891	4,092,327
VIII. Apparel, textiles, etc. ..	18,059,604	21,016,945	17,756,098	24,586,791	24,217,002
IX. Oils, fats and waxes ..	7,634,360	9,429,257	8,697,751	(a)	(a)
X. Paints and varnishes ..	576,360	590,454	580,745	728,169	692,083
XI. Stones and minerals, etc. ..	551,967	806,815	900,904	1,112,895	1,123,680
XII. Metals, metal manufactures, and machinery ..	27,277,464	37,280,008	31,274,421	33,026,388	37,050,255
XIII. Rubber and leather, etc. ..	1,831,914	1,915,442	1,669,598	2,332,311	2,703,219
XIV. Wood and wicker, etc. ..	1,787,427	2,759,081	2,079,981	1,993,019	1,059,762
XV. Earthenware, etc. ..	1,774,183	2,047,362	1,864,984	1,915,298	1,630,334
XVI. Paper and stationery ..	5,933,131	6,609,609	6,185,576	7,242,402	5,796,741
XVII. Jewellery, etc. ..	1,256,235	1,581,455	1,431,605	1,482,193	829,646
XVIII. Optical, surgical, and scientific instruments ..	1,284,653	1,558,483	1,600,583	1,743,706	1,704,363
XIX. Drugs, chemicals, etc. ..	4,515,446	5,304,092	5,598,553	6,005,343	5,593,553
XX. Miscellaneous ..	5,879,736	7,112,733	6,788,858	118,801,462	113,996,687
XXI. Gold and silver; and bronze specie ..	2,048,882	2,241,806	2,843,202	(b)	(b)
Total ..	92,640,462	113,975,060	102,156,352	115,675,505	108,650,956

(a) Total for Class IX. is included with Class XX.

(b) Not available for publication.

(c) Merchandise only.

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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
A. AUSTRALIAN PRODUCE.					
	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc. ..	21,381,880	25,576,036	27,222,912	34,323,280	32,346,713
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	34,757,712	39,098,847	25,532,970	25,967,007	28,533,133
III. Alcoholic liquors, etc. ..	1,220,456	1,152,619	1,158,424	1,214,638	2,246,613
IV. Tobacco, etc. ..	193,911	206,528	237,948	153,084	476,533
V. Live animals ..	227,233	217,373	197,081	186,118	234,019
VI. Animal substances, etc. ..	70,350,089	53,741,716	47,192,519	61,562,131	44,180,292
VII. Vegetable substances, etc. ..	407,607	328,675	297,864	388,311	438,986
VIII. Apparel, textiles, etc. ..	534,373	582,009	446,032	718,362	1,690,335
IX. Oils, fats and waxes ..	970,379	784,601	611,633	1,192,522	927,836
X. Paints and varnishes ..	155,865	187,043	173,399	166,828	189,897
XI. Stones and minerals, etc. ..	2,486,329	3,305,551	2,667,077	2,406,965	1,652,254
XII. Metals, metal manufactures, and machinery ..	8,984,355	8,974,585	9,510,802	13,240,820	11,731,433
XIII. Rubber and leather, etc. ..	1,010,781	834,547	745,190	1,468,213	1,392,262
XIV. Wood and wicker, etc. ..	1,052,396	1,363,766	1,066,288	965,950	1,056,959
XV. Earthenware, etc. ..	160,010	191,816	209,637	167,805	224,426
XVI. Paper and stationery ..	247,136	300,098	364,928	320,677	373,042
XVII. Jewellery, etc. ..	120,327	133,625	105,803	112,310	91,113
XVIII. Optical, surgical, and scientific instruments ..	157,466	151,834	150,709	175,564	226,214
XIX. Drugs, chemicals, etc. ..	773,119	760,777	767,607	1,015,074	1,282,114
XX. Miscellaneous ..	732,288	800,749	915,711	1,152,657	3,489,682
XXI. Gold and silver; and bronze specie ..	12,495,809	14,930,762	15,951,167	(b)	(b)
Total (a) ..	158,419,521	153,623,857	135,475,761	146,894,316	132,783,856

(a) Estimated British currency value, 1936-37, £ stg. 126,501,534; 1937-38, £ stg. 122,675,991; 1938-39, £ stg. 108,188,166; 1939-40, £ stg. 117,280,891; 1940-41, £ stg. 106,015,055. (b) Not available for publication. (c) Merchandise only.

EXPORTS FROM AUSTRALIA : CLASSES—continued.

Classes.	1936-37.	1937-38	1938-39.	1939-40.	1940-41.
B. OTHER PRODUCE : RE-EXPORTS.					
<i>Australian Currency Values.</i>					
I. Animal foodstuffs, etc. ..	£ A. 19,036	£ A. 20,756	£ A. 28,537	£ A. 51,979	£ A. 27,461
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	68,814	75,378	66,886	73,818	88,779
III. Alcoholic liquors, etc. ..	33,656	31,927	42,820	51,446	74,359
IV. Tobacco, etc. ..	69,693	74,399	112,997	137,437	71,376
V. Live animals ..	23,469	31,040	19,687	20,912	3,381
VI. Animal substances, etc. ..	30,066	32,453	136,279	73,188	15,458
VII. Vegetable substances, etc. ..	15,979	11,292	9,092	9,745	10,584
VIII. Apparel, textiles, etc. ..	320,472	203,104	222,819	139,084	220,461
IX. Oils, fats and waxes ..	162,530	164,253	101,711	197,809	165,869
X. Paints and varnishes ..	6,316	4,844	4,853	8,203	5,676
XI. Stones and minerals, etc. ..	1,763	3,938	2,443	2,198	2,976
XII. Metals, metal manufactures, and machinery ..	481,294	547,326	547,549	477,052	565,018
XIII. Rubber and leather, etc. ..	15,029	7,695	10,873	14,535	6,132
XIV. Wood and wicker, etc. ..	32,972	47,543	42,987	50,830	46,885
XV. Earthenware, etc. ..	7,945	9,502	9,428	4,546	7,915
XVI. Paper and stationery ..	78,606	75,548	128,388	100,443	42,543
XVII. Jewellery, etc. ..	65,026	81,360	74,188	26,584	14,410
XVIII. Optical, surgical, and scientific instruments ..	214,395	231,123	234,004	214,866	173,749
XIX. Drugs, chemicals, etc. ..	35,808	47,397	48,518	46,413	53,829
XX. Miscellaneous ..	189,826	238,822	164,647	154,154	356,858
XXI. Gold and silver; and bronze specie ..	2,084,568	2,016,558	3,011,845	(b)	(b)
Total (a) ..	3,957,263	3,956,263	5,020,551	(c)1,855,242	(c)1,953,721

(a) Estimated British currency value, 1936-37, £ stg. 3,162,784; 1937-38, £ stg. 3,161,888; 1938-39, £ stg. 4,013,206; 1939-40, £ stg. 1,481,231; 1940-41, £ stg. 1,559,857. (b) Not available for publication. (c) Merchandise only.

C. TOTAL EXPORTS : AUSTRALIAN PRODUCE AND RE-EXPORTS.

Australian Currency Values.

	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc. ..	21,400,916	25,596,792	27,251,449	34,375,259	32,374,174
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	34,826,526	39,174,225	25,599,856	26,040,825	28,621,912
III. Alcoholic liquors, etc. ..	1,254,112	1,184,546	1,201,244	1,266,084	2,320,972
IV. Tobacco, etc. ..	263,604	280,927	359,945	290,521	547,909
V. Live animals ..	250,702	248,413	216,768	207,030	237,400
VI. Animal substances, etc. ..	70,380,155	53,774,174	47,328,798	61,635,319	44,195,750
VII. Vegetable substances, etc. ..	423,586	339,967	306,956	398,056	449,570
VIII. Apparel, textiles, etc. ..	854,845	785,113	668,851	857,446	1,910,796
IX. Oils, fats and waxes ..	1,132,909	948,854	713,344	1,390,331	1,093,705
X. Paints and varnishes ..	162,181	191,887	178,252	175,031	195,573
XI. Stones and minerals, etc. ..	2,488,092	3,309,489	2,669,520	2,409,163	1,655,230
XII. Metals, metal manufactures, and machinery ..	9,465,649	9,521,911	10,058,351	13,717,872	12,296,451
XIII. Rubber and leather, etc. ..	1,023,810	842,542	756,063	1,482,748	1,398,394
XIV. Wood and wicker, etc. ..	1,083,368	1,411,300	1,109,275	1,016,780	1,103,844
XV. Earthenware, etc. ..	167,955	201,318	219,065	168,351	232,341
XVI. Paper and stationery ..	325,742	375,646	493,316	421,120	415,587
XVII. Jewellery, etc. ..	185,353	214,985	179,991	138,894	105,523
XVIII. Optical, surgical, and scientific instruments ..	371,861	382,957	384,713	390,430	399,063
XIX. Drugs, chemicals, etc. ..	808,927	808,174	766,185	1,061,487	1,335,943
XX. Miscellaneous ..	922,114	1,039,571	1,080,358	1,306,811	3,846,140
XXI. Gold and silver; and bronze specie ..	14,580,377	16,947,320	18,963,012	(b)	(b)
Total (a) ..	162,376,784	157,580,120	140,496,312	148,749,558	134,737,577
				(c)	(c)

(a) Estimated British currency value, 1936-37, £ stg. 129,664,318; 1937-38, £ stg. 125,837,879; 1938-39, £ stg. 112,201,372; 1939-40, £ stg. 118,762,122; 1940-41, £ stg. 107,574,912. (b) Not available for publication. (c) Merchandise only.

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.		1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
Fish, preserved in tins	lb.	29,866,030	28,323,075	28,902,983	25,275,936	16,986,371
Tea	lb.	819,644	879,631	946,276	878,481	619,950
Whisky	gal.	48,657,083	45,307,019	49,530,941	(b)	(b)
Tobacco and preparations thereof	£	2,441,812	2,394,335	2,483,883	2,894,264	2,884,731
Copra	cwt.	458,327	533,689	523,346	(b)	(b)
Fibres	£	490,222	566,759	553,537	851,462	521,294
Hides and skins	£	1,717,677	2,011,004	1,863,887	1,926,516	495,351
Pulp for paper-making	£	431,589	387,580	484,181	(b)	(b)
Seeds	£	345,181	215,137	175,076	212,585	178,593
Socks and stockings	£	845,062	1,016,969	897,755	1,298,942	1,719,073
Gloves	£	599,956	828,029	695,673	593,769	237,543
Hats and caps	£	48,489	63,932	37,704	(b)	(b)
Trimnings and ornaments	£	343,153	570,218	321,547	441,770	690,272
Other apparel and attire	£	630,178	578,045	515,679	719,450	755,165
Carpets and carpeting	£	36,019	48,754	43,508	33,610	18,184
Floorcloths and linoleums	£	357,629	393,067	368,464	361,537	234,004
Piece Goods—	£	147,569	190,130	179,422	174,874	106,858
Canvas and duck	£	361,346	418,018	385,995	432,404	251,939
Cotton and linen	£	755,216	946,314	887,459	782,409	856,847
Silk and artificial silk	£	1,176,375	1,326,305	1,099,728	1,395,999	1,032,874
Woolen or containing wool	£	542,790	609,364	562,394	625,445	535,680
All other piece goods	£	506,104	751,446	569,588	685,839	1,009,084
Sewing silks, cottons, etc.	£	4,656,841	5,719,314	4,826,030	6,841,613	7,772,372
Bags and sacks	£	2,853,771	3,373,618	2,624,118	3,737,607	3,955,710
Yarns—	£	283,306	325,101	282,262	275,255	214,086
Artificial silk	£	1,745,300	1,805,914	1,578,337	2,414,359	2,272,115
Cotton	£	470,522	580,248	502,789	536,101	760,465
Woolen	£	1,656,220	1,563,251	1,509,618	2,940,623	2,992,145
Other	£	634,392	818,800	534,328	1,152,592	1,098,108
Oils, in bulk—	£	455,099	596,019	394,328	491,250	720,604
Kerosene	gal.	53,882	61,528	48,414	45,078	34,966
Lubricating (mineral)	gal.	43,350	51,982	62,760	54,028	51,060
Petroleum	gal.	45,617,564	61,189,925	54,714,472	(b)	(b)
Residual and solar	gal.	560,415	833,892	660,898	(b)	(b)
Electrical machinery and appliances	£	14,774,293	18,752,582	15,519,442	(b)	(b)
Electrical cable and wire, covered	£	752,163	989,265	780,861	(b)	(b)
Agricultural machinery	£	341,547,869	402,979,165	399,517,906	(b)	(b)
Metal-working machinery	£	5,046,456	6,106,301	5,658,530	(b)	(b)
Motive-power machinery	£	104,284,965	114,049,824	130,288,368	(b)	(b)
Iron and steel—	£	591,990	769,768	930,675	(b)	(b)
Pipes and tubes	£	2,794,707	3,524,395	3,678,755	2,966,255	2,480,973
Plate and sheet	£	254,315	276,264	258,064	(b)	(b)
Cutlery and platedware	£	1,073,068	1,437,220	1,234,413	1,420,946	1,222,034
Tools of trade	£	172,190	219,159	207,479	172,711	66,102
Motor cars, chassis, bodies, and parts	£	785,711	1,056,843	1,322,911	(b)	(b)
Rubber and rubber manufactures	£	2,774,483	3,736,542	2,495,285	2,267,471	2,836,022
Timber, undressed, including logs (a)	sup. ft.	399,483	634,267	451,144	(b)	(b)
Crockery	£	2,301,462	4,414,430	2,614,283	(b)	(b)
Glass and glassware	£	511,186	571,539	524,487	588,215	615,900
Paper, printing	£	871,285	1,122,218	852,395	903,158	824,051
Stationery and paper manufactures	£	6,534,873	8,637,341	7,523,854	6,632,259	3,654,100
Cinematograph films	lin. ft.	1,673,993	1,786,441	1,545,366	2,227,188	2,602,661
Drugs, chemicals, and fertilizers	£	318,228,941	406,782,623	348,098,462	(b)	(b)
Arms and explosives	£	1,250,500	2,007,553	1,480,987	1,490,428	720,805
Musical instruments, pianos, etc.	£	150,376	591,251	559,176	632,405	604,035
Outside packages	£	794,908	916,724	800,470	725,376	557,407
All other articles	£	2,593,305	2,468,531	2,710,334	3,122,237	2,195,465
Total Imports	£	1,767,800	1,951,580	1,908,629	1,901,038	1,367,550
	£	65,328,947	77,509,450	73,859,662	77,214,210	71,583,802
	£	508,122	569,723	565,455	573,671	500,575
	£	4,515,446	5,304,092	5,598,553	6,005,343	5,593,553
	£	582,058	540,018	1,080,108	(b)	(b)
	£	150,991	178,033	175,761	117,794	66,713
	£	2,105,362	2,554,084	2,310,204	(b)	(b)
	£	26,019,513	32,414,550	29,573,4	(b)	(b)
	£	92,640,462	113,975,060	102,156,352	115,675,505	108,650,956

(a) Exclusive of undressed timber not measured in super. ft.

(b) Not available for publication.

(c) Merchandise only.

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 period 1934-35 to 1938-39. The articles are listed in the order in which they appear in the detailed classification.

Particulars for subsequent years are not available for publication.

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	1,973,456	2,295,428
Cheese doz.	168,294	129,726	139,236	272,454	359,236
Eggs in shell centl.	21,718,740	17,365,132	16,473,894	11,287,363	10,144,344
Beef centl.	2,120,991	1,968,232	2,338,542	2,938,035	2,719,638
Lamb "	1,358,797	1,513,778	1,628,859	1,595,562	1,583,327
Mutton "	603,144	266,295	455,724	422,462	281,558
Pork "	156,361	235,777	268,165	339,594	307,164
Milk and cream "	165,495	169,610	220,724	247,163	191,039
Fruits, dried "	1,277,789	1,114,976	1,204,077	1,457,598	1,681,270
" fresh "	2,284,592	2,517,404	2,493,176	2,556,004	2,752,381
Barley "	1,450,854	1,736,042	1,302,810	2,398,234	1,309,084
Wheat "	34,575,814	46,195,876	43,066,812	56,702,254	37,877,414
Flour "	14,959,412	12,341,620	11,295,563	12,609,073	14,501,304
Sugar (cane) cwt.	6,229,140	6,013,260	8,126,240	8,563,500	8,860,280
Wine gal.	3,394,597	3,706,925	4,087,731	3,897,086	3,719,401
Tobacco, manufactured centl.	3,853	5,936	7,454	8,060	9,605
Wool (in terms of greasy wool) cwt.	9,416,661	9,117,986	9,157,858	8,554,117	9,469,604
Pearl-shell cwt.	43,467	56,306	52,058	53,289	52,532
Sandalwood "	73,420	47,043	71,115	24,813	32,962
Tallow (unrefined) ton	827,136	450,324	648,774	541,136	562,500
Coal "	305,139	307,540	340,388	392,873	382,085
Concentrates cwt.	2,212,324	4,368,544	3,629,890	5,411,613	5,916,685
Copper "	69,188	83,439	69,022	38,121	21,555
Lead "	3,673,347	3,882,745	3,480,876	4,089,895	4,099,091
Zinc—bar, block, dust "	537,850	846,269	955,502	618,858	892,630
Tin—ingots "	22,097	16,012	13,524	14,665	29,431
Timber, undressed, including logs (a) sup. ft.	74,224,502	75,121,454	76,379,339	101,933,636	77,833,352
Soap centl.	54,371	54,507	58,962	49,007	49,871

(a) Exclusive of undressed timber not measured in super. ft.

(b) *Values.* The values of the principal articles of Australian produce exported during the period 1936-37 to 1940-41 are given in the table hereunder :—

PRINCIPAL COMMODITIES EXPORTED : VALUES, AUSTRALIA.

Australian Currency Values.

Article.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£A.	£A.	£A.	£A.	£A.
Butter	8,801,643	10,781,124	12,891,837	15,894,718	11,973,485
Cheese	383,974	845,110	1,073,931	1,440,131	1,543,909
Eggs in shell	954,578	686,713	638,159	597,854	1,122,758
Meats	10,331,840	12,250,041	11,776,637	15,109,128	15,815,920
Milk and cream	849,465	963,836	791,011	1,126,017	1,528,923
Fruits, dried	2,059,358	2,683,856	2,864,676	1,993,686	2,487,608
" fresh	1,979,890	2,054,322	2,022,874	1,166,588	393,092
" preserved in liquid	1,011,994	1,287,962	1,267,070	1,349,484	802,254
Barley	504,495	805,943	341,935	520,521	141,343
Wheat	18,760,772	20,906,601	8,734,974	7,557,370	9,247,836
Flour	5,590,942	6,032,321	4,540,210	5,231,485	7,427,132
Sugar (cane)	3,707,360	4,026,576	4,177,584	6,185,797	4,880,289
Wine	1,042,969	943,241	981,143	933,767	515,551
Tobacco, manufactured	180,609	192,217	225,025	119,156	129,074
Hides and skins	7,296,498	6,180,776	4,094,754	4,157,709	4,098,016
Wool	62,502,629	46,982,679	42,629,461	56,848,399	39,645,396
Pearl-shell	319,631	345,580	244,266	224,646	196,263
Sandalwood	106,448	36,831	42,330	52,374	61,683
Tallow (unrefined)	819,597	620,869	483,034	847,073	561,660
Coal	300,457	354,754	347,054	251,055	331,532
Concentrates	1,816,776	2,289,672	1,846,931	(c)	(c)
Copper	136,629	33,369	15,656	(c)	(c)
Lead	4,817,749	4,913,762	4,266,566	(c)	(c)
Zinc—bar, block, slabs, ingots	1,314,026	752,090	887,421	(c)	(c)
Tin—ingots	193,928	167,469	370,137	(c)	(c)
Leather	890,956	703,503	626,198	1,327,057	868,793
Timber, undressed, including logs (a)	913,547	1,202,447	926,504	751,535	712,390
Soap	88,462	75,878	74,594	102,482	194,926
Gold	11,825,898	13,910,680	14,958,633	(c)	(c)
Silver	668,323	1,018,335	992,486	(c)	(c)
All other articles	8,248,078	9,555,010	10,342,670	23,105,384	28,014,023
Total Exports (Australian Produce) (b)	158,419,521	153,623,857	135,475,761	146,894,316	132,783,856
				(d)	(d)

(a) Exclusive of undressed timber not measured in super. feet. (b) Estimated British currency value—1936-37, £ stg. 126,501,534; 1937-38, £ stg. 122,675,954; 1938-39, £ stg. 107,510,655; 1939-40, £ stg. 117,280,890; 1940-41, £ stg. 106,015,055. (c) Not available for publication. (d) Merchandise only.

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 heading—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.
1936-37 ..	37,705,653	52,885,927	90,591,580	2,048,882	(a) 92,640,462
1937-38 ..	44,211,749	67,521,505	111,733,254	2,241,806	a 113,975,060
1938-39 ..	40,665,193	58,647,957	99,313,150	2,843,202	a 102,156,352
1939-40 ..	50,294,728	65,380,777	b 115,675,505	(c)	(c)
1940-41 ..	62,600,283	46,049,773	b 108,650,056		

(a) Estimated Australian currency value—1936-37, £A 116,032,180; 1937-38, £A 142,753,763; 1938-39, £A 127,950,831 (b) 1939-40, £A 144,883,570; 1940-41, £A 136,084,195. (c) Not available for publication.

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.	
	£	£	£	£	£	£	£
1936-37 {	(b) 145,923,712	1,872,695	147,796,407	12,495,809	2,084,568	14,580,377	162,376,784
	(c) 116,505,957	1,495,166	118,001,123	9,995,577	1,667,618	11,663,191	129,664,318
1937-38 {	(b) 138,693,038	1,939,762	140,632,800	14,930,762	2,016,558	16,947,320	157,580,120
	(c) 110,732,964	1,548,712	112,281,676	11,942,981	1,613,222	13,556,203	125,837,879
1938-39 {	(b) 119,524,594	2,008,706	121,533,300	15,951,167	3,011,845	18,963,012	140,496,312
	(c) 95,428,818	1,603,757	97,032,575	12,759,349	2,409,448	15,168,797	112,201,372
1939-40 {	(b) 146,894,316	1,855,242	148,749,558	(d)	(d)	(d)	(d)
	(c) 117,280,891	1,481,231	118,762,122				
1940-41 {	(b) 132,783,856	1,953,721	134,737,577	(d)	(d)	(d)	(d)
	(c) 106,015,055	1,559,857	107,574,912				

(a) Does not include the value of Ships' Stores. See later table § g. (b) Australian currency values. (c) British currency values. (d) Not available for publication.

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.				
	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£ Stg.	£ Stg.	£ Stg.	£ Stg.	£ Stg.
I. Ale, Spirits, and Beverages ..	775,444	940,419	914,006	1,258,250	750,062
II. Tobacco and preparations thereof ..	1,717,677	2,011,004	1,863,887	1,926,516	495,351
III. Sugar ..	28,326	31,545	40,034	43,961	46,791
IV. Agricultural Products and Groceries ..	6,762,587	6,438,463	6,331,568	7,522,654	6,816,246
V. Textiles, Felts and Furs, and Manufactures thereof, and Attire ..	16,221,963	18,648,002	15,921,221	21,993,120	21,310,113
VI. Metals and Machinery	19,260,713	26,736,437	22,168,275	21,920,137	25,127,592
VII. Oils, Paints, and Varnishes ..	8,367,745	10,269,721	9,559,838	13,610,874	9,886,314
VIII. Earthenware, Cement, China, Glass, and Stone ..	2,117,595	2,581,309	2,308,556	2,407,329	2,108,312
IX. Drugs and Chemicals	3,387,632	3,821,966	4,035,376	4,406,467	4,221,101
X. Wood, Wicker, and Cane ..	1,787,427	2,770,894	2,114,721	2,079,313	1,118,745
XI. Jewellery and Fancy Goods ..	1,772,176	2,203,995	2,045,947	2,120,209	1,513,943
XII. Hides, Leather, and Rubber ..	2,314,197	2,142,089	1,875,175	2,756,456	2,912,570
XIII. Paper and Stationery	6,239,326	7,133,843	6,473,254	7,638,922	6,529,865
XIV. Vehicles ..	7,988,486	10,415,428	9,263,302	11,273,138	12,058,149
XV. Musical Instruments	150,991	178,033	285,638	208,753	66,713
XVI. Miscellaneous ..	8,753,533	10,914,478	10,400,018	10,313,008	10,379,812
— Free Goods not specially mentioned in Tariff ..	2,945,762	4,495,628	3,712,334	4,196,398	3,308,377
Total Merchandise ..	90,591,580	111,733,254	99,313,150	115,675,505	108,650,056
Specie and Bullion ..	2,048,882	2,241,806	2,843,202	(a)	(a)
Grand Total ..	92,640,462	113,975,060	102,156,352	(a)	(a)

(a) Not available for publication.

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 :—1936-37, 22.0 per cent. ; 1937-38, 20.4 per cent. ; 1938-39, 21.9 per cent. ; 1939-40, 20.6 per cent. ; and 1940-41, 18.0 per cent. Primage duty was in force during these years, and adding this to net customs revenue, the percentages were as follows :—1936-37, 25.3 per cent. ; 1937-38, 23.5 per cent. ; 1938-39, 25.0 per cent. ; 1939-40, 23.7 per cent. ; and 1940-41, 20.5 per cent. The percentages of net Customs revenue, omitting primage, on the total value of dutiable goods only were—1936-37, 37.7 per cent. ; 1937-38, 33.7 per cent. ; 1938-39, 38.6 per cent. ; 1939-40, 36.4 per cent. ; and 1940-41, 42.5 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.	1937-38.			1938-39.			1939-40.		
	United Kingdom.	Other Countries.	Total.	United Kingdom.	Other Countries.	Total.	United Kingdom.	Other Countries.	Total.
	£A '000.	£A '000.	£A '000.	£A '000.	£A '000.	£A '000.	£A '000.	£A '000.	£A '000.
Dutiable Goods :—									
Protective.. ..	11,940	9,758	21,698	10,981	9,479	20,460	10,866	8,929	19,795
Revenue	16,141	43,917	60,058	13,623	38,036	51,659	16,674	43,146	59,820
Total Dutiable Goods	28,081	53,675	81,756	24,604	47,515	72,119	27,540	52,075	79,615
Free Goods	28,151 (a)	26,342 (a)	58,183	22,607 (a)	26,119 (a)	54,536	24,355 (a)	33,447 (a)	68,155
Total All Goods ..	56,232 (a)	80,517 (a)	139,939	47,211 (a)	73,634 (a)	126,655	51,895 (a)	85,522 (a)	147,770

PERCENTAGE OF TOTAL GOODS CLEARED FOR HOME CONSUMPTION.

	%	%	%	%	%	%	%	%	%
Dutiable Goods :—									
Protective.. ..	8.6	6.9	15.5	8.6	7.5	16.1	7.4	6.0	13.4
Revenue	11.5	31.4	42.9	10.3	30.0	40.8	11.3	29.2	40.5
Total Dutiable Goods ..	20.1	38.3	58.4	19.4	37.5	56.9	18.7	35.2	53.9
Free Goods	20.1	19.2	41.6	17.9	20.6	43.1	16.5	22.6	46.1
Total All Goods ..	40.2	57.5	100.0	37.3	58.1	100.0	35.2	57.8	100.0

GROSS CUSTOMS DUTY COLLECTED.

	£A '000.	£A '000.	£A '000.	£A '000.	£A '000.	£A '000.	£A '000.	£A '000.	£A '000.
Dutiable Goods :—									
Protective.. ..	2,335	4,040	6,375	2,139	3,991	6,130	1,999	3,585	5,584
Revenue	1,984	21,199	23,183	1,783	20,449	22,232	2,228	23,238	25,466
Total Dutiable Goods ..	4,319	25,239	29,558	3,922	24,440	28,362	4,227	26,823	31,050

AVERAGE AD VALOREM RATE OF DUTY ON GOODS CLEARED FOR HOME CONSUMPTION.

	%	%	%	%	%	%	%	%	%
Dutiable Goods :—									
Protective.. ..	19.6	41.4	29.4	19.5	42.1	30.0	18.4	40.2	28.2
Revenue	12.3	48.3	38.6	13.1	53.8	43.0	13.4	53.9	42.6
Total Dutiable Goods ..	15.4	47.0	36.2	15.9	51.4	39.3	15.3	51.5	39.0

(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 overseas 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 1931-32 to 1940-41, showing fuel oils separately, is given in the following table:—

VALUE OF STORES SHIPPED ON OVERSEA VESSELS—AUSTRALIA.

Period.	Fuel Oils.	All Stores (including Fuel Oils). (a)	Period.	Fuel Oils.	All Stores (including Fuel Oils). (a)
	£ A.	£ A.		£ A.	£ A.
1931-32 ..	496,603	1,559,574	1936-37 ..	493,327	1,740,437
1932-33 ..	516,653	1,621,640	1937-38 ..	610,080	2,091,249
1933-34 ..	527,683	1,620,907	1938-39 ..	606,515	2,105,619
1934-35 ..	570,920	1,712,547	1939-40 ..	921,144	2,539,848
1935-36 ..	562,927	1,808,291	1940-41 ..	1,674,133	3,528,555

(a) Estimated British currency value—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; 1939-40, £ stg. 2,027,823; 1940-41, £ stg. 2,817,210.

In addition to fuel oils, the principal items of ships' stores supplied to overseas vessels in 1940-41 were—Bunker coal, £A391,866; meats, £A285,519; ale, beer and porter, £A87,798; tobacco and cigarettes, £A83,852; vegetables, £A69,962; butter, £A55,703; fish, £A52,694; and spirituous liquors, £A35,488.

The net Customs duty collected on ships' stores carried to Australia on overseas vessels and consumed in Australian waters amounted in 1940-41 to £A1,002.

§ 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.

Particulars for subsequent years are not available for publication.

IMPORTS AND EXPORTS, SPECIE AND BULLION : AUSTRALIA.

Items.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
IMPORTS.					
Gold—Specie ..	£ Stg. 206	£ Stg. 1,093	£ Stg. 69	£ Stg. 1,070	£ Stg. 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	1,731,127	2,048,882	2,241,806	2,843,202

(a) Estimated Australian currency value—1934-35, £A2,127,357; 1935-36, £A2,168,237; 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	13,705,405	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 (a)	10,456,441	13,556,246	14,580,377	16,947,320	18,963,012

(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 :—
Particulars for subsequent years are not available for publication.

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 ..	..	..	..	..	..	..
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)			(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 1939-40 and 1940-41 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 670 of this chapter which shows the value of exports of Australian produce according to industrial groups from 1920-21 to 1940-41.

EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIAL ORIGIN.

VALUE OF EXPORTS.

Industrial Group.	1913.(a)		1939-40.		1940-41.	
	£A.	Index No.	£A.	Index No.	£A.	Index No.
Agriculture	10,677,734	100	26,798,754	251	28,082,150	262
Pastoral	42,057,346	100	79,082,128	188	60,132,922	142
Dairy and Farmyard ..	3,854,734	100	19,690,285	511	17,005,424	441
Mines and Quarries (b) ..	21,926,310	100	27,118,382	124	22,472,392	102
Fisheries	424,849	100	280,248	66	228,109	54
Forestry	1,106,549	100	974,091	88	1,053,966	95
Total, Primary Produce	80,047,522	100	153,943,888	192	128,974,963	160
Manufacturing	2,304,693	100	13,688,800	594	20,352,758	883
Total	82,352,215	100	167,632,688	204	149,327,721	181
			(c)		(c)	

(a) Base year. (b) Australian production of gold substituted for exports of gold each year. (c) Estimated British currency value, 1939-40, £ stg. 133,838,473; index-number 163; 1940-41, £ stg. 119,223,729, index-number 145.

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 47.2 per cent. in 1939-40, and 40.3 per cent. in 1940-41.

Exports of agricultural produce rank next in importance and were slightly higher in 1940-41 than in the previous year. From 13.0 per cent. of the total exports in 1913, agricultural produce increased to 18.9 per cent. in 1940-41.

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 11.4 per cent. in 1940-41. Though the products of mines and quarries declined seriously subsequently to the year 1913, a recovery has been made in more recent years, the figures for 1940-41 representing 15.1 per cent. of the total exports. The manufacturing groups of exports, which represented 2.8 per cent. in 1913, increased to 13.6 per cent. in 1940-41.

Compared with the year 1913, exports of agricultural produce in 1940-41 showed an increase of 162 per cent., pastoral produce 42 per cent., dairy and farmyard produce 341 per cent., mines and quarries 2 per cent., the manufacturing group 783 per cent., and total exports 81 per cent. The exports of the products of fisheries and forests were 16 per cent. lower in 1940-41 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, 1930–31 to 1939–40, 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 : 1930–31 TO 1939–40.

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.
	£A'000.	%	£A'000.	%	%
Agriculture	792,109	19.82	292,063	23.11	36.87
Pastoral	853,751	21.36	603,296	47.74	70.66
Dairy and Farmyard	486,483	12.17	125,002	9.89	25.70
Mining	234,218	5.86	166,653	13.19	71.15
Forestry and Fisheries	112,525	2.82	12,050	0.95	10.71
Total, Primary Produce..	2,479,086	62.03	1,199,064	94.88	48.37
Manufacturing	1,517,548	37.97	64,709	5.12	(a)4.26
Total	3,996,634	100.00	1,263,773	100.00	(a)31.62

(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 62.03 per cent. was classified as primary produce and 37.97 per cent. as manufactured articles. The main contributing groups in the primary produce section were pastoral with 21.36 per cent., agriculture with 19.82 per cent., and dairy and farmyard produce with 12.17 per cent. of the total production.

Exports of primary produce represented 94.88 per cent. of the total exports. The primary groups in order of value were pastoral 47.74 per cent., agricultural 23.11 per cent., mining 13.19 per cent., dairy and farmyard 9.89 per cent., and forestry and fisheries 0.95 per cent. The manufacturing group accounted for the other 5.12 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, 48.37 per cent. was exported. Approximately 37 per cent. of the agricultural production, 71 per cent. of the pastoral production, 26 per cent. of the dairy and farmyard production, 71 per cent. of the mining production, and 11 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 this Bureau 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 and a half years from 1st January, 1897, to 30th June, 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 and a half 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 of 1914–19, 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 closer 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 formulæ.

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 overseas 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 1940-41.
1. Wheat (and wheat equivalent of flour) ..	Bushel	101,000,000	16.67
2. Sultanas	Ton	38,200	1.21
3. Lexias	"	3,000	0.12
4. Currants	"	13,400	0.33
5. Sugar (cane)	"	305,000	3.18
6. Wool (as in the grease)	lb.	975,000,000	44.46
7. Tallow	Cwt.	600,000	0.51
8. Cattle hides	lb.	28,000,000	0.53
9. Calfskins	"	1,800,000	0.09
10. Beef (frozen)	"	182,000,000	2.57
11. Lamb (frozen)	"	138,000,000	3.11
12. Mutton (frozen)	"	44,000,000	0.50
13. Pork (frozen)	"	16,000,000	0.41
14. Butter	Cwt.	2,140,000	11.96
15. Silver	Oz. (standard)	7,300,000	0.69
16. Copper	Ton	3,600	0.18
17. Tin	"	1,300	0.31
18. Zinc	"	99,000	1.84
19. Lead	"	208,500	3.18
20. Gold (production)	Oz. (fine)	937,000	8.15
			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 1940-41, 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 December, 1941, are set out in the following table. Index-numbers are also given of the same prices in terms of English sterling for the period January, 1932, to December, 1941. Differences in the value of English and Australian currency were negligible in the eighteen months preceding July, 1929.

MONTHLY EXPORT PRICE INDEX : AUSTRALIA.

(Base : 1928 = 1,000.)

Month.	1928.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	1940.	1941.
January ..	1,036	595	548	785	580	772	957	755	653	811	815
February ..	1,036	593	518	759	567	779	934	736	651	811	821
March ..	1,052	562	510	739	564	785	988	730	635	813	825
April ..	1,058	552	516	726	605	790	1,000	722	630	814	825
May ..	1,061	547	561	676	644	790	983	725	630	815	824
June ..	998	533	607	648	652	747	946	697	648	816	825
July ..	997	550	659	620	656	769	954	710	657	814	825
August ..	975	580	661	627	664	804	952	686	653	811	827
September ..	965	604	708	581	714	790	901	661	741	813	828
October ..	936	567	676	564	749	820	880	668	769	814	831
November ..	946	553	714	557	741	893	802	656	771	815	834
December ..	936	550	710	550	736	920	796	647	776	814	834
Simple Average	1,000	566	616	653	656	805	923	699	686	813	826

(ii) IN TERMS OF ENGLISH CURRENCY.

January ..	1,036	475	438	627	463	616	764	603	521	648	651
February ..	1,036	473	414	606	453	622	746	588	520	648	655
March ..	1,052	449	407	590	450	627	789	583	507	649	659
April ..	1,058	441	412	580	483	631	798	576	503	650	659
May ..	1,061	437	448	540	514	631	785	579	503	651	658
June ..	998	426	485	517	521	596	755	556	517	651	659
July ..	997	439	526	495	524	612	762	567	525	650	659
August ..	975	463	528	501	530	642	760	548	521	648	660
September ..	965	482	565	464	570	631	719	528	592	649	661
October ..	936	453	540	450	598	655	703	533	614	650	663
November ..	946	442	570	445	592	713	640	524	616	651	666
December ..	936	439	567	439	588	735	636	517	620	650	666
Simple Average	1,000	452	492	521	524	643	737	559	548	650	660

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 1940-41.

MONTHLY EXPORT PRICE INDEX (CHANGING WEIGHTS) : AUSTRALIA.

Month.	Index-numbers Based on Quantities of 1940-41.	Index-numbers Based on Quantities of 1939-40.	Final Index-numbers (on "Ideal" Formula).	Index-numbers Based on Standard "Multipliers" (First Series).
--------	--------------------------------------------------------	--------------------------------------------------------	----------------------------------------------------	---------------------------------------------------------------------------

(i) INDIVIDUAL MONTHS.

(Base : Prices in corresponding month of previous year = 1,000.)

July	1,270	1,228	1,249	1,239
August	1,216	1,212	1,214	1,242
September	1,104	1,068	1,086	1,097
October	1,053	1,051	1,052	1,059
November	1,059	1,032	1,045	1,057
December	1,083	1,008	1,045	1,046
January	1,008	1,005	1,006	1,005
February	1,015	1,011	1,013	1,012
March	1,008	1,014	1,011	1,015
April	1,009	1,009	1,009	1,014
May	1,009	1,015	1,012	1,011
June	1,017	1,014	1,015	1,011

**MONTHLY EXPORT PRICE INDEX (CHANGING
WEIGHTS): AUSTRALIA—continued.**

Month.	Index-numbers Based on Quantities of 1940-41.	Index-numbers Based on Quantities of 1939-40.	Final Index-numbers (on "Ideal" Formula).	Index-numbers Based on Standard "Multipliers" (First Series).
(ii) PERIODS OF THE TRADE YEAR ENDING IN MONTH STATED. (Base: Prices in corresponding period of previous year = 1,000.)				
July	1,270	1,228	1,249	1,239
August	1,243	1,221	1,232	1,240
September	1,200	1,165	1,182	1,189
October	1,160	1,131	1,145	1,153
November	1,136	1,098	1,117	1,133
December	1,122	1,077	1,099	1,117
January	1,103	1,062	1,082	1,100
February	1,094	1,054	1,074	1,088
March	1,084	1,050	1,067	1,079
April	1,076	1,045	1,060	1,072
May	1,071	1,042	1,056	1,066
June	1,066	1,040	1,053	1,061

Monthly export price index-numbers are now issued 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 latest figures relating to foreign countries have been extracted from the *Statistical Year Book of the League of Nations*.

IMPORTS FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS
(MERCHANDISE ONLY) : VARIOUS COUNTRIES, 1939.

Country.	Trade.			Trade per Inhabitant.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
	£'000,000 Stg.	£'000,000 Stg.	£'000,000 Stg.	£ s. d. Stg.	£ s. d. Stg.	£ s. d. Stg.
Australia (a) ..	115.7	118.8	234.5	16 10 8	16 19 6	33 10 2
United Kingdom	885.5	439.5	1,325.0	18 12 1	9 4 8	27 16 9
Canada ..	165.2	203.5	368.7	14 13 8	18 1 7	32 15 3
India ..	124.0	145.1	269.1	0 6 9	0 7 11	0 14 8
New Zealand ..	39.5	44.8	84.3	25 13 2	29 2 3	54 15 5
Union of South Africa ..	90.4	33.9	124.3	8 18 0	3 6 8	12 4 8
Argentina Re-public ..	93.7	110.0	203.7	7 4 7	8 9 8	15 14 3
Belgium ..	135.4	150.1	285.5	16 2 11	17 18 0	34 0 11
China ..	36.0	27.7	63.7	0 1 7	0 1 3	0 2 10
Munchuria ..	100.7	38.1	138.8	2 14 6	1 0 7	3 15 1
Denmark ..	87.1	78.7	165.8	22 19 4	20 15 2	43 14 6
France ..	195.2	143.0	338.2	4 13 0	3 8 2	8 1 2
Germany ..	287.4	298.2	585.6	3 12 7	3 15 4	7 7 11
Italy ..	73.0	71.5	144.5	1 13 7	1 12 11	3 6 6
Japan ..	173.9	213.4	387.3	2 7 10	2 18 8	5 6 6
Netherlands ..	182.0	115.9	297.9	20 17 1	13 5 9	34 2 10
Netherlands East Indies ..	57.0	93.0	150.0	0 16 8	1 7 2	2 3 10
Norway ..	68.1	40.4	108.5	23 6 2	13 16 8	37 2 10
Poland ..	29.6	30.4	60.0	0 16 10	0 17 4	1 14 2
Sweden ..	134.4	101.5	235.9	21 6 0	16 1 7	37 7 7
Switzerland ..	93.6	64.8	158.4	22 4 9	15 4 0	37 8 9
U.S.A. ..	465.5	639.2	1,104.7	3 11 5	4 18 1	8 9 6
U.S.S.R.(Russia)	56.9	53.3	110.2	0 6 8	0 6 3	0 12 11

(a) Year ended 30th June, 1940.

§ 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 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 into 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 following.

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 of America. 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 following table.

Particulars for subsequent years are not available for publication.

AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES.

British Currency Values.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	United States.	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	..	64,668	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	54d	175,629	269,761	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	613,374	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	19,935,750
	1935-36	9,476,808	258,601	480,183	3,223,969	280,505	17,292,854
	1936-37	11,074,231	248,517	523,529	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	2,545,081	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	13,550,189	30,267	1,043,439	286,280	6,848,650	25,206,820
	1936-37	16,142,408	42,731	1,345,057	248,435	6,061,105	27,277,164
	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 ..	1,789,577	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	234,769	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	195,592	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	1,581,453
	1938-39	275,301	31,330	172,867	175,305	121,981	1,431,605
Earthenware, cements, glass, etc.	1913 ..	650,138	40,245	453,188	21,193	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	946,220	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	1,002,253	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	29,368	50,165	121,323	1,015,442
	1938-39	247,671	4,979	47,374	38,215	114,235	1,689,598
Total, above-mentioned imports	1913 ..	32,155,408	1,989,017	5,882,627	683,629	5,982,659	55,082,613
	1935-36	30,162,108	611,905	2,422,228	4,293,151	8,558,718	52,344,886
	1936-37	34,373,352	657,163	2,953,387	3,505,064	7,564,163	62,790,923
	1937-38	41,327,173	754,530	3,418,093	4,377,597	11,302,308	78,047,898
	1938-39	35,897,456	825,176	3,176,232	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	33,835,898	790,108	2,963,049	4,969,571	13,001,326	83,518,869
	1936-37	38,559,366	865,019	3,506,584	4,004,465	12,959,149	90,591,580
	1937-38	46,226,172	964,554	4,170,624	5,349,086	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.

Particulars for subsequent years are not available for publication.

AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES : PERCENTAGES.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	United States.	All Countries.
		%	%	%	%	%	%
Foodstuffs of animal origin	1913 ..	31.77	0.33	1.27	0.74	30.52	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
Spirituous 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	2.80	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	1.14	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	12.07	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	18.46	0.50	2.37	3.39	8.29	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	7.36	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	4.66	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	15.80	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, cement, glass, etc.; drugs, chemicals and fertilizers; rubber and leather and manufactures thereof, etc.—which showed 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 £1,160,761 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 4.66 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 and of the calendar years 1937 to 1940:—

OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA.

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£ Stg.'000.	£'000.	£ Stg.'000.	£'000.	£ Stg.'000.	£'000.
QUARTER ENDED MARCH.						
1937 ..	21,520	{ (R) 43,463 (S) 34,701 }	483	{ (R) 3,483 (S) 2,787 }	22,003	{ (R) 46,946 (S) 37,488 }
1938 ..	27,919	{ (R) 36,440 (S) 29,094 }	535	{ (R) 4,177 (S) 3,340 }	28,454	{ (R) 40,617 (S) 32,434 }
1939 ..	25,097	{ (R) 30,905 (S) 24,675 }	(a)	(a)	(a)	(a)
1940 ..	35,009	{ (R) 41,902 (S) 33,455 }	(a)	(a)	(a)	(a)

OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA—(continued).

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£ Stg.'000.	£'000.	£ Stg.'000.	£'000.	£ Stg.'000.	£'000.
QUARTER ENDED JUNE.						
1937 ..	23,367	{ (R) 36,069 (S) 28,798 }	502	{ (R) 3,962 (S) 3,168 }	23,869	{ (R) 40,031 (S) 31,966 }
1938 ..	27,024	{ (R) 33,553 (S) 26,790 }	670	{ (R) 4,022 (S) 3,217 }	27,694	{ (R) 37,575 (S) 30,007 }
1939 ..	23,522	{ (R) 26,309 (S) 21,005 }	(a)	(a)	(a)	(a)
1940 ..	33,378	{ (R) 40,332 (S) 32,201 }	(a)	(a)	(a)	(a)
QUARTER ENDED SEPTEMBER.						
1937 ..	27,261	{ (R) 29,274 (S) 23,372 }	521	{ (R) 4,343 (S) 3,474 }	27,782	{ (R) 33,617 (S) 26,846 }
1938 ..	26,051	{ (R) 25,562 (S) 20,409 }	759	{ (R) 5,166 (S) 4,132 }	26,810	{ (R) 30,728 (S) 24,541 }
1939 ..	24,883	{ (R) 24,597 (S) 19,638 }	(a)	(a)	(a)	(a)
1940 ..	30,294	{ (R) 32,485 (S) 25,936 }	(a)	(a)	(a)	(a)
QUARTER ENDED DECEMBER.						
1937 ..	29,530	{ (R) 41,366 (S) 33,026 }	516	{ (R) 4,405 (S) 3,524 }	30,046	{ (R) 45,771 (S) 36,550 }
1938 ..	24,644	{ (R) 38,758 (S) 30,944 }	657	{ (R) 4,638 (S) 3,710 }	25,301	{ (R) 43,396 (S) 34,654 }
1939 ..	22,404	{ (R) 41,918 (S) 33,467 }	(a)	(a)	(a)	(a)
1940 ..	27,282	{ (R) 34,666 (S) 27,678 }	(a)	(a)	(a)	(a)
TOTAL FOR YEAR.						
1937 ..	101,678	{ (R) 150,172 (S) 119,897 }	2,022	{ (R) 16,193 (S) 12,953 }	103,700	{ (R) 166,365 (S) 132,850 }
1938 ..	105,638	{ (R) 134,313 (S) 107,237 }	2,621	{ (R) 18,003 (S) 14,399 }	108,259	{ (R) 152,316 (S) 121,636 }
1939 ..	95,906	{ (R) 123,729 (S) 98,785 }	(a)	(a)	(a)	(a)
1940 ..	125,963	{ (R) 149,385 (S) 119,270 }	(a)	(a)	(a)	(a)

(R) Recorded values, Australian currency.

(S) Estimated British currency values.

(a) Not available for publication.

§ 16. Excise.

Although excise goods have no immediate bearing on overseas 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 XXVI. "Public Finance".

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY
WAS PAID : AUSTRALIA.

Article.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	Proof gal.	Proof gal.	Proof gal.	Proof gal.	Proof gal.
Spirits—					
Brandy	186,603	193,923	198,583	226,990	222,595
Gin	229,870	282,349	269,118	297,409	279,394
Whisky	150,238	158,515	157,705	199,157	234,642
Rum	337,484	326,249	347,648	418,073	370,738
Liqueurs	4,758	5,591	5,705	8,046	13,463
Spirits, n.e.i.	195	415	170	481	247
Spirits for Industrial or Scientific Purposes	112,498	112,594	114,129	124,707	126,118
Spirits for Fortifying Wine	804,760	786,836	770,997	867,308	1,009,173
Spirits for making Vinegar	18,464	15,496	17,965	18,640	19,810
Amylic Alcohol and Fusel Oil	39	27	23	28	50
Total, Spirits ..	1,844,909	1,881,995	1,882,043	2,160,839	2,276,230
	llq. gal.	llq. gal.	llq. gal.	llq. gal.	llq. gal.
Spirits for the manufacture of Essences, Scents, etc.	58,864	(a) 45,541	..	..	..
		proof gal.	proof gal.	proof gal.	proof gal.
Spirits for the manufacture of Essences .. ..	..	(b) 17,328	57,376	71,674	72,146
Spirits for the Manufacture of Scents, etc. .. ..	..	(b) 13,452	47,778	55,984	60,819
	gal.	gal.	gal.	gal.	gal.
Beer	70,260,813	79,246,025	83,904,645	89,973,476	96,078,168
	lb.	lb.	lb.	lb.	lb.
Tobacco — Manufactured, n.e.i.	14,948,726	15,462,073	15,734,675	15,998,628	15,354,854
Tobacco—Hand-made	40,019	47,418	41,774	21,206	14,892
Tobacco—Unmanufactured, etc. .. ..	..	887,264	5,604,256	4,226,656	4,880,818
Total, Tobacco ..	14,988,745	16,396,755	21,380,705	20,246,490	20,250,564

(a) To 31st December, 1937.

(b) From 1st January, 1938.

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY
WAS PAID: AUSTRALIA—*continued.*

Article.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	lb.	lb.	lb.	lb.	lb.
Cigars—Machine-made ..	61,088	63,613	71,051	57,368	73,929
Cigars—Hand-made ..	195,553	204,475	187,450	167,362	152,975
Total, Cigars ..	256,641	268,088	258,501	224,730	226,904
	lb.	lb.	lb.	lb.	lb.
Cigarettes—Machine-made ..	5,651,755	6,203,852	6,891,144	7,148,051	6,901,954
Cigarettes—Hand-made ..	169	272	114	2	..
Total, Cigarettes ..	5,651,924	6,204,124	6,891,258	7,148,053	6,901,954
	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.
Cigarette Tubes and Papers	86,588,851	90,046,428	101,977,824	104,986,390	107,716,324
	gross of boxes.	gross of boxes.	gross of boxes.	gross of boxes.	gross of boxes.
Matches	3,095,260	3,260,806	3,278,759	3,678,885	3,551,598
	gal.	gal.	gal.	gal.	gal.
Petrol	33,059,655	31,978,588	27,878,912	36,556,755	48,428,451
	doz. packs.	doz. packs.	doz. packs.	doz. packs.	doz. packs.
Playing Cards	122,639	109,907	117,412	142,776	134,555

§ 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. Since February, 1940, statistics in some detail have been collected by the Government Statistician of Queensland. The statistics of interstate trade for New South Wales and Victoria 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 XXIV.—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 Australia. 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 two supervising field officers are 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.

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. These returns show the rents of individual houses, all of which are inspected by the Bureau's field officers.

§ 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. 31 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 :—

RETAIL PRICES.	
Group.	Section.
I. Food and Groceries ..	{ A.—Groceries. B.—Dairy Produce. C.—Meat.
II. Housing	{ D.—House Rent. E.—Clothing—Man. F.—Clothing—Woman.
III. Clothing	{ G.—Clothing—Boy (10½ years). H.—Clothing—(Girl (7 years). J.—Clothing—Boy (3½ years). K.—Household Drapery.
IV. Miscellaneous ..	{ 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 foregoing 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* No. 31.

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 1940 was as follows:—

Group.	Section.	Percentage of Total Aggregate Cost
I. Food and Groceries	A.—Groceries	13.84
	B.—Dairy Produce	9.71
	C.—Meat	11.47
II. Housing	D.—House Rent (4 and 5 rooms) ..	22.73
	E.—Man	8.98
III. Clothing	F.—Woman	10.42
	G.—Boy, 10½ years	1.81
	H.—Girl, 7 years	1.20
	J.—Boy, 3½ years	0.71
	K.—Household Drapery	1.71
IV. Miscellaneous	L.—Household Utensils	0.55
	M.—Fuel and Light	4.88
	N.—Other Miscellaneous	11.99
		100.00

5. **Base Periods of the Indexes.**—The base periods 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 1940.**—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.	1936.	1937.	1938.	1939.	1940.
FOOD AND GROCERIES.									
Sydney	523	553	646	1,062	819	868	904	936	952
Melbourne ..	517	523	610	1,063	809	836	884	942	947
Brisbane .. .	530	569	603	1,014	791	828	838	864	889
Adelaide .. .	532	570	679	1,066	798	826	861	897	900
Perth	670	753	728	1,116	853	881	899	938	949
Hobart	565	592	678	1,133	827	870	880	923	944
Weighted Average (a) ..	533	559	640	1,064	825	851	886	927	939

HOUSING (4 AND 5 ROOMS).

Sydney	593	701	760	989	930	965	1,004	1,035	1,042
Melbourne ..	455	569	628	820	882	909	935	955	969
Brisbane .. .	283	373	466	630	766	822	841	854	857
Adelaide .. .	510	706	655	809	795	832	868	888	892
Perth	458	524	589	739	844	861	872	881	882
Hobart	405	452	518	881	908	899	913	925	933
Weighted Average (a) ..	497	612	662	862	879	912	942	965	973

FOOD, GROCERIES AND HOUSING.

Sydney	548	606	687	1,036	878	904	941	972	985
Melbourne ..	495	539	616	977	835	862	902	945	953
Brisbane .. .	442	500	554	877	781	824	838	858	875
Adelaide .. .	524	618	671	975	796	826	862	891	895
Perth	594	672	679	982	849	871	887	914	921
Hobart	508	542	621	1,044	856	879	891	922	938
Weighted Average (a) ..	520	578	648	992	844	872	906	939	950

(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 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 1941.—The following tables give 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 1934.	Year 1935.	Year 1936.	Year 1937.	Year 1938.	Year 1939.	Year 1940.	1941.	
										Mar. Qtr.	June Qtr.
NEW SOUTH WALES—											
Sydney ..	1,046	1,073	842	852	866	889	913	936	974	1,018	1,019
Newcastle ..	1,041	1,028	834	856	853	849	877	901	945	986	991
Broken Hill ..	975	1,018	819	819	848	893	940	955	981	1,041	1,044
Goulburn ..	1,033	1,108	852	860	864	867	893	916	949	990	1,001
Bathurst ..	947	979	807	814	833	842	860	883	923	963	971
Weighted Average, 5 Towns ..	1,042	1,067	841	852	865	886	911	933	972	1,015	1,017
VICTORIA—											
Melbourne ..	1,003	1,017	801	924	844	868	896	924	964	996	999
Ballarat ..	992	957	781	803	826	839	850	874	906	936	940
Bendigo ..	1,002	969	811	820	821	840	854	875	920	949	952
Geelong ..	1,019	980	782	824	848	855	884	911	941	974	974
Warrnambool ..	1,034	960	826	850	851	856	892	918	955	984	990
Weighted Average, 5 Towns ..	1,003	1,011	801	924	843	866	893	920	960	992	995
QUEENSLAND—											
Brisbane ..	923	923	762	780	804	837	852	870	908	950	954
Toowoomba ..	949	916	785	785	802	840	843	858	898	937	943
Rockhampton ..	972	904	759	776	802	840	853	867	905	947	953
Townsville ..	1,025a	939a	759a	789a	810a	883	902	918	950	991	995
Bundaberg ..	994b	931b	761b	769b	779b	809	831	847	879	921	931
Weighted Average, 5 Towns ..	941	922	764	780	803	840	854	871	909	951	955
SOUTH AUSTRALIA—											
Adelaide ..	989	1,037	806	820	839	859	888	906	936	970	981
Kadina, etc ..	998	943	758	763	765	760	786	810	833	862	872
Port Pirie ..	1,025	980	778	789	813	844	868	866	919	953	971
Mount Gambier ..	1,029	963	800	809	818	830	849	872	894	928	941
Peterborough ..	948	1,043	832	833	843	851	868	897	924	954	967
Weighted Average, 5 Towns ..	992	1,030	804	817	835	855	883	902	931	965	976
WESTERN AUSTRALIA—											
Perth, etc ..	1,008	1,026	830	834	856	869	882	901	932	965	993
Kalgoorlie, etc. ..	1,048	1,032	975	1,011	1,027	1,030	1,048	1,066	1,099	1,148	1,170
Northam ..	1,030	1,022	825	829	860	890	900	915	947	987	1,017
Bunbury ..	1,045	978	843	865	880	897	914	936	962	997	1,017
Geraldton ..	1,056	1,051	866	866	933	970	957	965	990	1,033	1,052
Weighted Average, 5 Towns ..	1,020	1,026	842	848	870	884	897	915	946	981	1,008
TASMANIA—											
Hobart ..	1,070	1,000	837	849	860	875	887	908	945	982	994
Launceston ..	1,067	967	828	834	840	856	872	888	926	963	973
Burnie ..	1,003	966	780	792	814	854	865	879	917	956	971
Devonport ..	904	948	787	801	809	833	848	861	896	935	953
Queenstown ..	1,031	972	876	873	850	857	875	903	936	976	991
Weighted Average, 5 Towns ..	1,057	986	831	841	850	866	879	898	936	973	985
Weighted Average, 30 Towns ..	1,013	1,026	816	831	848	871	894	917	954	992	998
Weighted Average, 6 Capital Cities ..	1,013	1,033	817	832	850	873	897	920	957	995	1,000

(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, 1914 TO 1920.**

(Base of each Group : Weighted Average of Six Capital Cities, 1923-27 = 1,000.)

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals.
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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.	1939.					1940.				
	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	360	255	199	186	1,000	352	248	215	185	1,000
Newcastle	386	228	201	185	1,000	376	220	219	185	1,000
Broken Hill	418	184	195	203	1,000	392	184	217	207	1,000
Goulburn	390	220	206	184	1,000	381	213	223	183	1,000
Bathurst	383	221	210	186	1,000	372	211	230	187	1,000
Weighted Average 5 Towns	363	252	198	187	1,000	355	243	215	187	1,000
VICTORIA—										
Melbourne	368	239	197	196	1,000	354	233	220	193	1,000
Balharat	387	189	214	210	1,000	371	180	239	210	1,000
Bendigo	383	194	210	213	1,000	372	185	235	208	1,000
Geelong	375	222	204	199	1,000	359	217	225	199	1,000
Warrnambool	375	232	201	192	1,000	361	226	222	191	1,000
Weighted Average 5 Towns	368	236	199	197	1,000	354	229	222	195	1,000
QUEENSLAND—										
Brisbane	357	227	213	203	1,000	352	218	230	200	1,000
Toowoomba	345	228	215	212	1,000	342	218	233	207	1,000
Rockhampton	375	201	218	206	1,000	367	192	235	206	1,000
Townsville	377	217	205	201	1,000	368	209	223	200	1,000
Bundaberg	387	175	221	217	1,000	381	170	238	211	1,000
Weighted Average 5 Towns	361	222	213	204	1,000	354	215	230	201	1,000
SOUTH AUSTRALIA—										
Adelaide	357	226	208	209	1,000	347	220	227	206	1,000
Kadina, etc.	432	111	231	226	1,000	418	108	247	227	1,000
Port Pirie	401	183	210	206	1,000	387	179	226	208	1,000
Mount Gambier	387	182	215	216	1,000	370	178	234	218	1,000
Peterborough	394	194	207	205	1,000	380	194	223	203	1,000
Weighted Average 5 Towns	361	221	208	210	1,000	350	215	227	208	1,000
WESTERN AUSTRALIA—										
Perth, etc.	375	225	203	197	1,000	367	219	219	195	1,000
Kalgoorlie, etc.	369	286	176	169	1,000	362	277	192	169	1,000
Northam	383	224	202	191	1,000	375	217	218	190	1,000
Bunbury	372	248	200	180	1,000	363	240	215	182	1,000
Geraldton	353	255	194	198	1,000	346	249	208	197	1,000
Weighted Average 5 Towns	374	233	200	193	1,000	366	225	217	192	1,000
TASMANIA—										
Hobart	366	235	207	192	1,000	360	228	222	190	1,000
Launceston	370	222	211	197	1,000	363	214	229	194	1,000
Burnie	386	199	210	185	1,000	377	214	227	182	1,000
Devonport	390	205	216	189	1,000	386	198	231	185	1,000
Queenstown	406	206	207	181	1,000	395	201	222	182	1,000
Weighted Average 5 Towns	371	228	208	193	1,000	364	221	225	190	1,000
Weighted Average for 30 Towns	365	239	202	194	1,000	355	232	220	193	1,000
Weighted Average 6 Capital Cities	363	242	201	194	1,000	353	235	219	193	1,000
CHARTERS TOWNS (Q.)										
Warwick (Q.)	395	152	215	238	1,000	377	156	233	234	1,000
Port Augusta (S.A.)	371	185	220	224	1,000	362	184	235	219	1,000
Port Augusta (S.A.)	405	175	212	208	1,000	398	170	224	208	1,000

§ 5. Retail Price Index-Numbers, 200 Towns.

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 made 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. 26-33), and details of the 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 is 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 field officers.

The tabulation of this series of index-numbers will be continued, but their publication will be suspended for the period of the war owing to the demand for economy in official publications.

§ 6. Changes in the Regimen.

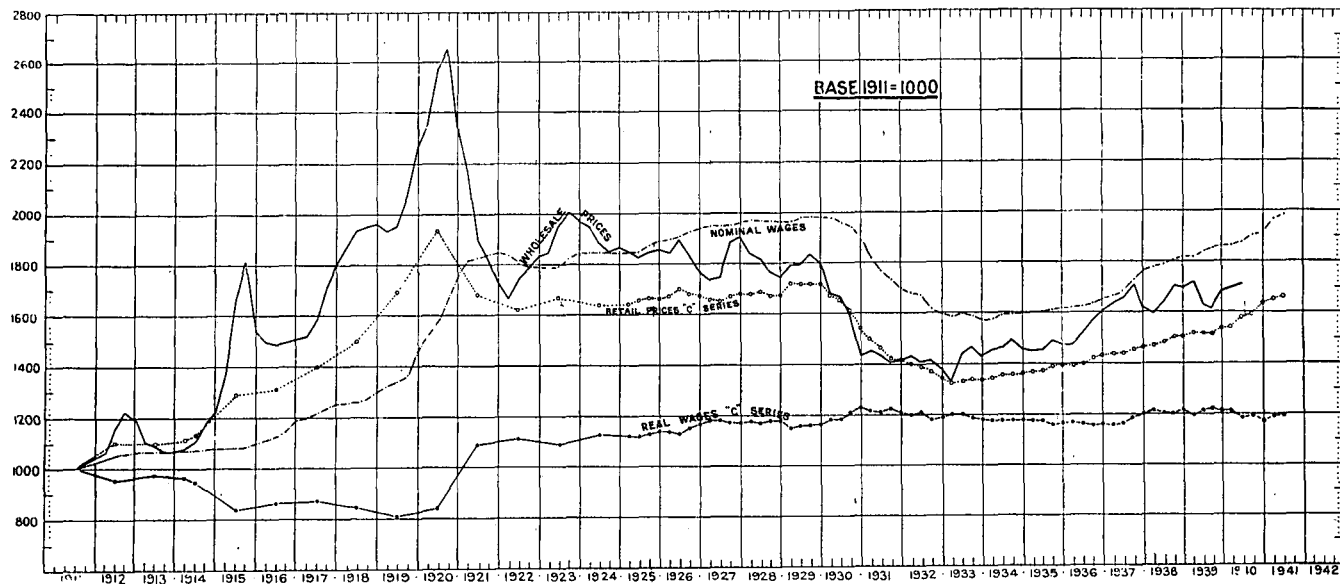
Since the original compilation of retail price indexes by the Bureau, the regimens of the several groups and sections have undergone some modifications. These are briefly referred to in the following paragraphs.

(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.

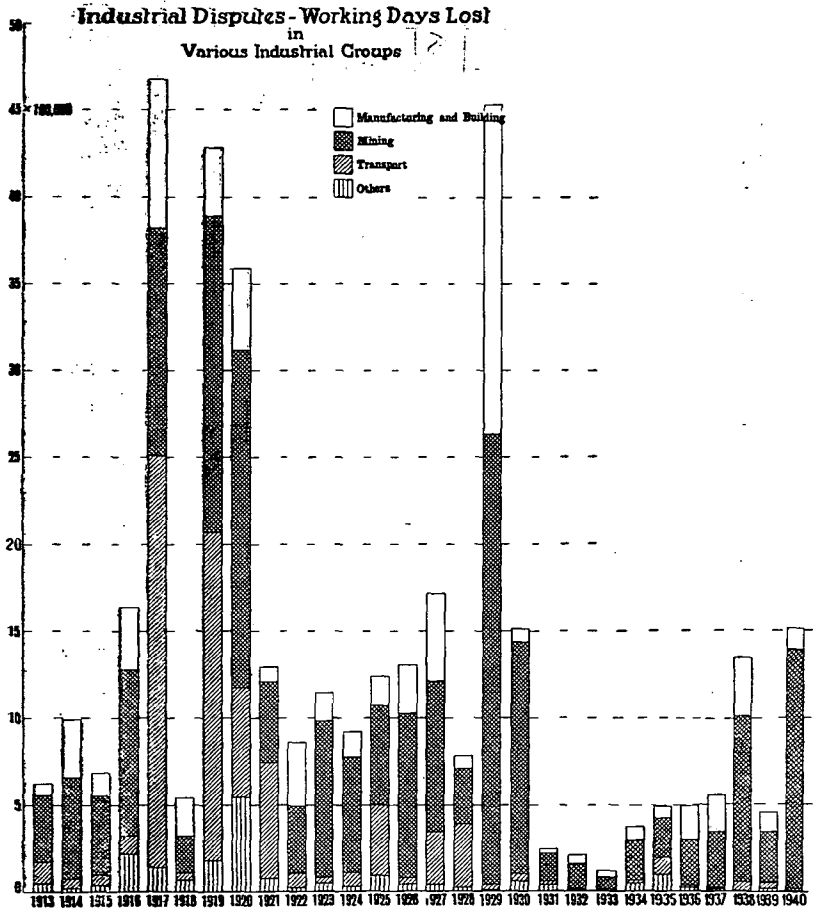
(ii) *Housing*. The housing constituent of the regimen has also been revised. Originally the rentals of all houses from "3 rooms and under" to "8 rooms and over" were tabulated, and they were continuously used in the "A" series index from 1912 to 30th June, 1938, when this series was discontinued. They 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 the greater diversity of average "quality" of houses, the level of rents in these towns has been determined from a sample of houses selected by house agents in accordance with definite standards laid down. The variations in rentals from this standard are measured in the same manner as described above for the twelve more important cities and towns.

WHOLESALE AND RETAIL PRICES, NOMINAL AND EFFECTIVE OR REAL WAGE INDEX-NUMBERS.—AUSTRALIA, 1911 TO 1941.



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 1912 to 1939 and thereafter *annually* 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 1925. Nominal Wages are shown *quarterly* from 1914, and Real Wages *quarterly* from 1925.



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 2,300,000 in Transport, and about 150,000 in other industries.

(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. Some minor alterations have since been made in the regimen.

(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 (ii) above). The resolutions of the Conference were reprinted in Appendix XI. of *Labour Report No. 27*.

(v) *Basis of Retail Price Index-Numbers.* Notwithstanding the slight modifications which, as indicated above, have occurred at intervals in respect of both the items of the regimen and the "mass units" applicable thereto, these index-numbers represent the cost from time to time of a constant regimen of specified grades. They are primarily constructed to measure fluctuations in retail prices of commodities and services which commonly enter into what is colloquially referred to as "cost of living". The regimen does not embrace all items which enter into cost of living, but includes representative items whose grade and price can be ascertained with due precision in the various cities and towns of Australia month by month and quarter by quarter. While the "C" series retail price index-numbers are used by Industrial Tribunals for purposes of assessing the amount of quarterly variation in basic wage rates, the amount of the wage itself is determined by the Court without any regard whatsoever to the retail price regimen or its cost.

B.—WHOLESALE PRICES AND PRICE INDEXES.

§ 1. Melbourne Wholesale Price Index.

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. The items included in the 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, 1851 TO 1940.

(Base of each Group : Year 1911 = 1,000.)

Year.	I. Metals and Coal.	II. Wool, Cotton, Leather, etc.	III. Agri- cultural Produce, etc.	IV. Dairy Produce.	V. Gro- ceries.	VI. Meat.	VII. Building Materials.	VIII. Chemicals.	All Groups.	
1861	..	1,438	1,381	1,583	1,008	1,963	..	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	1,131
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
1902	..	1,007	756	1,192	1,215	945	1,447	837	881	1,051
1903	..	923	834	1,209	1,059	936	1,443	875	921	1,049
1904	..	821	885	754	876	916	1,427	845	875	890
1905	..	772	850	894	980	942	1,209	801	859	910
1906	..	882	978	916	972	923	1,110	896	864	948
1907	..	1,037	1,017	973	1,020	948	1,294	968	961	1,021
1908	..	1,033	901	1,312	1,198	968	1,335	935	891	1,115
1909	..	1,014	907	1,000	1,119	978	1,088	911	815	993
1910	..	1,004	1,052	969	1,100	999	1,008	996	898	1,003
1911	..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1912	..	1,021	991	1,370	1,206	1,052	1,357	1,057	978	1,170
1913	..	1,046	1,070	1,097	1,054	1,024	1,252	1,128	995	1,088
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	1,530	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	2,851	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	1,362	1,767	2,000	1,976	2,158	2,733	2,303	1,903
1922	..	1,942	1,681	1,628	1,648	1,869	1,787	2,005	1,965	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	1,790	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	1,344	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	1,747	1,871	2,238	2,059	1,662
1939	..	1,758	1,101	1,820	1,557	1,752	1,710	2,220	2,075	1,665
1940	..	1,854	1,362	1,568	1,567	1,784	1,882	2,890	2,298	1,713

NOTE.—The figures given in this table are comparable in the vertical columns but are not directly comparable horizontally.

§ 2. Basic Materials and Foodstuffs.

1. **General.**—As mentioned above, the Melbourne wholesale price index was first computed in 1912. Neither the component items nor the weighting have been varied. Consequently the index is a measure of changes in wholesale price levels based on usages which have altered substantially since the period on which the weighting was determined. As such it is useful as an indication of long-term trends over the past eighty years which it covers, on the assumption that the relative importance of component items remained constant. But it no longer serves as a measure of price variations from month to month or from year to year of commodities weighted in accordance with present day consumption. Reference to a description of the index published in the annual *Labour Report* will indicate

that animal fodders preponderate in the "Agricultural Produce" group, while "Building Materials" include little besides imported timber. In other groups, some principal items have increased in consumption while others have decreased. It was resolved, therefore, 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 in the future. 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. The price quotations have in the main been obtained directly from manufacturers and dealers, and, with a few important exceptions, from Melbourne sources. Apart from home-produced building materials, coal and one or two minor commodities, however, the price movements may be taken as representative of fluctuations in wholesale prices of basic materials in most Australian markets. The weighting system adopted is based on average annual consumption during the years 1928-29 to 1934-35 inclusive. In the meantime, however, the original index has been continued on existing lines, as set out in § 1 on page 705.

2. *Index-numbers.*—Index-numbers for each group of commodities and for all groups combined for this new index of wholesale prices of basic materials and foodstuffs are given in the following table.

INDEX-NUMBERS: BASIC MATERIALS AND FOODSTUFFS, 1928-29 TO 1941-42.
(Base: 1928-29 = 1,000.)

Period.	Metals and Coal.	Oils, Fats and Waxes.	Tex- tiles.	Chem- icals.	Rubber and Hides.	Build- ing Ma- terials.	Food- stuffs and To- bacco.	Goods princi- pally Im- ported.	Goods princi- pally Home Pro- duced.	All Groups.
1928-29 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1932-33 ..	823	1,022	586	976	604	1,000	745	1,066	732	815
1933-34 ..	808	794	792	917	697	991	788	977	755	811
1934-35 ..	766	842	609	840	674	981	816	1,009	749	814
1935-36 ..	725	895	774	816	766	981	857	1,037	776	840
1936-37 ..	758	925	920	814	963	1,044	910	1,088	828	892
1937-38 ..	798	951	776	824	844	1,098	932	1,117	845	911
1938-39 ..	807	944	633	833	806	1,024	963	1,087	863	917
1939-40 ..	827	1,083	806	880	1,013	1,144	950	1,214	868	951
1940-41 ..	845	1,292	858	1,018	1,094	1,355	981	1,408	899	1,023
1938-39—										
July ..	801	945	655	831	750	1,019	1,001	1,086	887	936
August ..	802	944	648	831	772	1,023	1,027	1,107	899	949
September ..	803	943	624	831	773	1,016	990	1,096	876	929
October ..	806	943	635	832	847	1,028	963	1,087	865	918
November ..	806	943	643	832	840	1,028	916	1,084	833	893
December ..	803	942	621	832	809	1,028	905	1,087	822	886
January ..	811	941	624	833	821	1,028	936	1,105	840	903
February ..	795	944	635	834	812	1,028	957	1,079	860	912
March ..	814	944	624	835	819	1,028	1,017	1,077	906	947
April ..	814	945	621	835	802	1,022	990	1,077	886	932
May ..	814	946	625	835	809	1,022	928	1,081	842	900
June ..	814	947	645	835	818	1,013	927	1,080	843	900
1939-40										
July ..	815	946	663	835	805	1,013	919	1,077	838	895
August ..	816	944	659	835	825	1,013	909	1,077	830	890
September ..	816	948	787	835	931	1,098	921	1,125	848	909
October ..	816	993	850	835	986	1,099	947	1,157	859	931
November ..	829	1,039	855	835	1,046	1,134	937	1,195	856	938
December ..	829	1,087	842	839	1,085	1,140	934	1,231	852	944
January ..	829	1,066	844	922	1,082	1,139	945	1,234	866	955
February ..	830	1,097	816	923	1,098	1,200	951	1,249	871	963
March ..	833	1,140	834	923	1,089	1,201	963	1,266	882	976
April ..	849	1,152	843	924	1,063	1,203	986	1,275	901	992
May ..	835	1,274	843	924	1,084	1,201	998	1,329	910	1,012
June ..	835	1,279	838	924	1,062	1,287	985	1,352	901	1,011

**INDEX-NUMBERS : BASIC MATERIALS AND FOODSTUFFS, 1928-29 TO
1941-42—continued.**

Period.	Metals and Coal.	Oils, Fats and Waxes.	Tex- tiles.	Chem- icals.	Rubber and Hides.	Build- ing Ma- terials.	Food- stuffs and To- bacco.	Goods princi- pally Im- ported.	Goods princi- pally Home Pro- duced.	All Groups.
1940-41—										
July ..	835	1,280	836	1,006	1,052	1,287	986	1,361	900	1,012
August ..	833	1,275	823	1,014	1,050	1,359	999	1,373	916	1,027
September ..	835	1,272	830	1,014	1,051	1,359	1,006	1,368	921	1,030
October ..	841	1,282	850	1,012	1,059	1,359	1,008	1,398	917	1,034
November ..	841	1,282	848	1,019	1,112	1,359	977	1,392	900	1,020
December ..	841	1,286	852	1,019	1,106	1,359	996	1,409	908	1,030
January ..	847	1,285	853	1,020	1,092	1,354	1,002	1,409	913	1,034
February ..	848	1,283	852	1,020	1,084	1,355	956	1,415	883	1,013
March ..	848	1,284	868	1,022	1,094	1,355	956	1,415	879	1,009
April ..	857	1,325	878	1,022	1,121	1,355	957	1,436	884	1,018
May ..	859	1,325	895	1,022	1,180	1,379	957	1,457	881	1,022
June ..	859	1,326	897	1,022	1,128	1,379	960	1,459	882	1,022
1941-42—										
July ..	885	1,327	878	1,022	1,132	1,382	993	1,474	906	1,044
August ..	888	1,351	889	1,042	1,131	1,382	1,022	1,484	929	1,065
September ..	918	1,373	898	1,123	1,131	1,382	1,035	1,535	938	1,084
October ..	918	1,377	910	1,123	1,134	1,390	1,035	1,556	933	1,085
November ..	918	1,402	914	1,146	1,166	1,399	1,020	1,556	929	1,082
December ..	924	1,400	909	1,146	1,188	1,399	1,000	1,545	921	1,073

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 and Industrial Agreements.—The following table gives a summary for each of the years 1936 to 1940 :—

AWARDS AND DETERMINATIONS MADE AND INDUSTRIAL AGREEMENTS FILED.

State.	1936.		1937.		1938.		1939.		1940.	
	Awards or Determina- tions made.	Agreements Filed.	Awards or Determina- tions made.	Agreements Filed.	Awards or Determina- tions made.	Agreements Filed.	Awards or Determina- tions made.	Agreements Filed.	Awards or Determina- tions made.	Agreements Filed.
New South Wales ..	52	39	63	42	64	38	64	17	70	22
Victoria ..	141	..	121	..	99	..	173	..	170	..
Queensland ..	61	37	46	42	38	38	50	25	34	45
South Australia ..	22	17	42	16	6	4	18	7	53	7
Western Australia ..	24	26	35	32	28	31	20	25	31	21
Tasmania ..	22	..	43	..	26	..	18	..	18	..
Commonwealth Court Commonwealth Public Service Arbitrator ..	32	13	38	11	31	13	31	21	25	13
	2	..	3	..	3	..	1	..	1	..
Total ..	356	132	391	143	295	124	375	95	402	108

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	(b) 386	(c) 575	401
" " 1920 ..	475	440	1,041	972
" " 1930 ..	642	580	1,285	601
" " 1936 ..	660	583	1,443	611
" " 1937 ..	660	583	1,568	655
" " 1938 ..	678	610	1,637	696
" " 1939 ..	680	624	1,686	673
" " 1940 ..	678	625	1,706	705

(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 1940, the number of awards or determinations and industrial agreements* in force had increased by 1,131 and 304 respectively over the number in force at 31st December, 1913.

(ii) *Summary for States.* The following table gives particulars for the Commonwealth and each State of the number of Boards authorized, etc., for the years specified :—

BOARDS AUTHORIZED, AWARDS, ETC. : 1913 AND 1940.

Particulars.	At 31st Dec.	Commonwealth.		N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
		Court.	Pub. Ser. Arb.							
Industrial and Wages—										
Boards authorized ..	{ 1913 .. 1940 ..	..	..	216 (a) 323	135 190	75 ..	56 76	.. 29	23 60	505 678
Boards which have made Determinations ..	{ 1913 .. 1940 ..	..	..	123 (b) 280	123 189	74 ..	47 67	.. 29	19 60	386 625
Awards and Determinations—										
In force ..	{ 1913 .. 1940 ..	17 209	.. 53	265 582	127 215	73 275	54 134	18 178	21 60	575 1,706
Industrial Agreements—										
In force ..	{ 1913 .. 1940 ..	228 128	.. ..	75 161	.. ..	5 164	11 56	82 196	.. ..	401 705
Commonwealth Court Awards—										
In force in each State ..	{ 1913 .. 1940 ..	.. ..	.. ..	13 129	17 158	15 66	16 118	9 47	13 88	....
Commonwealth Agreements—										
In force in each State ..	{ 1913 .. 1940 ..	.. ..	.. ..	132 25	129 46	68 21	62 15	57 14	61 37	....
Commonwealth Public Service Arbitrator—										
Determinations in force in each State ..	1940 ..	..	..	47	43	37	40	37	36	..

(a) Under Industrial Arbitration Act (1926), Conciliation Committees have been appointed, and, at the end of 1940, 330 Committees were in operation. (b) Includes thirteen 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, appears in *Labour Report*. No. 30, Chapter III., § 1.

* The registration of industrial agreements is not provided for under the Victorian and Tasmanian Acts, but such agreements may be registered and filed under the provisions of the Commonwealth Conciliation and Arbitration Act, and are operative within those States.

§ 2. Rates of Wages 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 this Bureau in the early part of 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, as 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, 1936 to 1940*.—(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.	Aust.
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, 1936 ..	85	6	83	1	88	7	79	6	90	7	83	3	85	0
" " 1937 ..	92	1	88	1	92	8	85	10	93	1	87	0	90	4
" " 1938 ..	95	0	91	2	95	10	87	1	99	1	88	5	93	5
" " 1939 ..	96	7	93	6	97	5	88	11	100	6	89	5	95	3
31st March, 1940 ..	96	11	94	0	97	5	89	0	101	0	90	11	95	6
30th June, 1940 ..	97	9	94	9	97	5	89	4	101	1	91	0	96	1
30th September, 1940 ..	99	5	96	7	97	6	90	3	103	9	91	9	97	7
31st December, 1940 ..	99	7	97	0	97	9	92	11	104	0	92	7	98	1

INDEX-NUMBERS.

(Base : Weighted Average Wage for Australia (51s. 3d.), 1911 = 1,000.)

	1,668	1,621	1,729	1,552	1,768	1,625	1,659
31st December, 1936 ..	1,668	1,621	1,729	1,552	1,768	1,625	1,659
" " 1937 ..	1,797	1,719	1,808	1,674	1,816	1,697	1,763
" " 1938 ..	1,854	1,780	1,870	1,700	1,933	1,725	1,823
" " 1939 ..	1,885	1,825	1,900	1,735	1,962	1,745	1,858
31st March, 1940 ..	1,890	1,835	1,901	1,737	1,971	1,773	1,864
30th June, 1940 ..	1,907	1,849	1,901	1,744	1,972	1,776	1,875
30th September, 1940 ..	1,939	1,884	1,903	1,761	2,025	1,791	1,903
31st December, 1940 ..	1,943	1,892	1,908	1,812	2,029	1,807	1,913

Wages declined in all States during the three years 1931 to 1933, the average rates at 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 six years and the weighted average nominal rate for Australia at 31st December, 1940, was 17s. 7d. per week more than in 1933 and 1.4 per cent. above the average at 31st December, 1930. At the close of 1940, rates were highest in Western Australia, followed in the order named by New South Wales, Queensland, Victoria, South Australia and Tasmania. The highest weighted average rate for Australia was recorded at 30th September, 1929, namely, 101s. 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., 1936.	31st Dec., 1937.	31st Dec., 1938.	31st Dec., 1939.	31st Mar., 1940.	30th June, 1940.	30th Sept., 1940.	31st Dec., 1940.
I. Wood, Furniture, etc.	Wage .. 88/3 Index-No. 1,722	95/1 1,855	98/2 1,916	100/1 1,953	100/3 1,956	100/11 1,970	102/10 2,004	102/11 2,008
II. Engineering, etc.	Wage .. 86/10 Index-No. 1,694	94/11 1,852	97/8 1,906	99/3 1,936	99/6 1,942	100/3 1,957	102/2 1,993	102/5 1,998
III. Food, Drink, etc.	Wage .. 87/3 Index-No. 1,702	92/6 1,805	95/2 1,857	96/9 1,888	96/11 1,891	97/5 1,901	99/1 1,933	99/3 1,937
IV. Clothing, Boots, etc.	Wage .. 81/4 Index-No. 1,587	89/0 1,737	91/9 1,790	93/2 1,817	93/4 1,822	94/2 1,838	94/11 1,851	96/4 1,880
V. Books, Printing, etc.	Wage .. 104/4 Index-No. 2,035	108/7 2,119	112/0 2,185	114/3 2,229	114/5 2,233	115/0 2,244	116/0 2,263	116/0 2,264
VI. Other Manufacturing	Wage .. 85/2 Index-No. 1,661	91/3 1,780	94/4 1,840	95/8 1,867	96/0 1,874	96/9 1,888	98/7 1,923	99/0 1,931
VII. Building	Wage .. 95/7 Index-No. 1,866	101/7 1,982	104/6 2,039	106/5 2,076	107/1 2,090	107/9 2,103	109/7 2,138	109/11 2,145
VIII. Mining, etc.	Wage .. 101/0 Index-No. 1,971	104/11 2,046	108/2 2,111	109/10 2,142	109/6 2,136	109/10 2,143	110/6 2,155	111/10 2,182
IX. Railways, etc.	Wage .. 86/0 Index-No. 1,677	92/4 1,802	95/5 1,862	96/7 1,884	97/0 1,893	97/5 1,901	99/4 1,938	100/3 1,957
X. Other Land Transport	Wage .. 81/8 Index-No. 1,593	88/3 1,722	91/7 1,787	92/10 1,812	93/2 1,818	94/4 1,840	96/0 1,873	96/3 1,878
XI. Shipping, etc. (a)	Wage .. 86/8 Index-No. 1,690	95/6 1,863	97/6 1,902	98/6 1,922	99/8 1,944	99/8 1,945	101/6 1,980	102/6 2,001
XII. Agricultural, etc. (b)	Wage .. 75/9 Index-No. 1,478	78/9 1,537	82/3 1,604	84/0 1,639	84/5 1,648	84/7 1,650	85/5 1,666	85/8 1,671
XIII. Domestic, etc. (b)	Wage .. 79/1 Index-No. 1,543	85/3 1,663	88/3 1,722	89/11 1,755	90/2 1,760	90/10 1,772	92/3 1,799	93/0 1,815
XIV. Miscellaneous	Wage .. 82/2 Index-No. 1,603	87/6 1,707	90/5 1,764	92/10 1,811	93/0 1,814	93/11 1,833	95/9 1,868	96/3 1,878
All Industrial Groups	Wage .. 85/0 Index-No. 1,659	90/4 1,763	93/5 1,823	95/3 1,858	95/6 1,864	96/1 1,875	97/7 1,903	98/1 1,913

(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, 1940, was recorded in Group V. (Books, Printing, etc.), 116s. od. per week, followed by Groups VIII. (Mining, etc.), 111s. 10d., VII. (Building), 109s. 11d., I. (Wood, Furniture, etc.), 102s. 11d., XI. (Shipping, etc.), 102s. 6d., II. (Engineering, etc.), 102s. 5d., IX. (Railways, etc.), 100s. 3d. and III. (Food, Drink, etc.), 99s. 3d. The lowest average rate was recorded in Group XII. (Agricultural, etc.), 85s. 8d. During the year rates of wage

increased in all groups, the greatest increases occurring in the following :—Shipping, 4s. od. per week; Railways, etc., 3s. 8d.; Building, 3s. 6d.; Other Land Transport and Miscellaneous, 3s. 5d.; Other Manufacturing, 3s. 4d.; Engineering, etc. and Clothing, etc., 3s. 2d.; Domestic, etc., 3s. 1d.; Wood, Furniture, etc., 2s. 10d.; Food, Drink, etc., 2s. 6d.; Mining, 2s. od.; Books, Printing, etc., 1s. 9d., and Agricultural, etc., 1s. 8d. The increase during the year in the weighted average rate for all groups was 2s. 10d. per week. Compared with the average rates at 31st December, 1929 (10s. 2d.), the highest point recorded for that date in any year, wages at the end of 1940 showed a decrease of 3s. 1d. 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.	Aust.
No. of Occupations Included ..	85	87	37	47	24	28	308

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>	<i>s. d.</i>
31st December, 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 0	48 6	49 8
" " 1938 ..	51 10	50 7	53 6	47 9	54 4	49 8	51 3
" " 1939 ..	53 3	51 9	55 2	49 7	55 8	50 8	52 8
31st March, 1940 ..	53 3	51 11	55 2	49 7	55 8	51 10	52 9
30th June, 1940 ..	53 9	52 5	55 5	49 11	55 8	52 1	53 2
30th September, 1940 ..	54 5	52 11	55 6	50 1	57 6	52 5	53 9
31st December, 1940 ..	54 9	53 5	56 0	52 1	57 6	53 1	54 3

INDEX-NUMBERS.

Base : Weighted Average for Australia (27s. 2d.), 30th April, 1914 = 1,000.)

31st December, 1936 ..	1,677	1,722	1,780	1,594	1,873	1,661	1,708
" " 1937 ..	1,848	1,810	1,889	1,724	1,877	1,785	1,828
" " 1938 ..	1,907	1,862	1,969	1,758	2,000	1,828	1,887
" " 1939 ..	1,960	1,906	2,031	1,826	2,049	1,866	1,938
31st March, 1940 ..	1,960	1,909	2,031	1,826	2,049	1,909	1,940
30th June, 1940 ..	1,978	1,929	2,039	1,838	2,049	1,917	1,957
30th September, 1940 ..	2,004	1,948	2,043	1,843	2,116	1,930	1,977
31st December, 1940 ..	2,016	1,966	2,060	1,916	2,116	1,954	1,996

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 31st December, 1930, to 43s. 5d. at the same date in 1933, a decline of 10s. 2d., or 19 per cent. As with the rates for males increases were recorded in all States during the next six years, and the weighted average rate for Australia at 31st December, 1940, had advanced by 10s. 10d. per week over that ruling on 31st December, 1933, and was 1.2 per cent. above the average at 31st December, 1930. The highest weighted average rate for Australia was recorded during the quarter ended 31st December, 1940, namely, 54s. 3d. 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.						All Groups.
	III. Food, Drink, etc.	IV. Clothing, Boots, etc.	I., II., V., and VI. All Other Manufacturing.	XIII. Domestic, etc.(a)	XIV. Miscel- laneous.		

RATES OF WAGE.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1936..	43 1	44 9	45 8	47 1	50 9	46 5
" " 1937..	45 7	48 1	49 4	51 1	53 0	49 8
" " 1938..	47 1	49 9	50 6	52 11	54 6	51 3
" " 1939..	48 9	50 9	51 11	54 5	56 8	52 8
31st March, 1940 ..	48 9	50 10	52 0	54 6	56 8	52 9
30th June, 1940 ..	49 1	51 4	52 5	54 8	57 1	53 2
30th September, 1940	49 11	51 8	53 6	55 6	57 7	53 9
31st December, 1940..	50 0	52 6	53 8	55 10	57 11	54 3

INDEX-NUMBERS.

(Base: Weighted Average for Australia (27s. 2d.), 30th April, 1914 = 1,000.)

31st December, 1936..	1,585	1,646	1,680	1,734	1,867	1,708
" " 1937..	1,677	1,770	1,815	1,880	1,952	1,828
" " 1938..	1,732	1,831	1,859	1,947	2,004	1,887
" " 1939..	1,795	1,869	1,910	2,003	2,085	1,938
31st March, 1940 ..	1,795	1,871	1,914	2,004	2,085	1,940
30th June, 1940 ..	1,808	1,890	1,930	2,013	2,101	1,957
30th September, 1940	1,838	1,902	1,970	2,044	2,120	1,977
31st December, 1940..	1,841	1,932	1,975	2,056	2,132	1,996

(a) Including the value of board and lodging, where supplied.

During 1940 the rate of wage for female employees in each industrial group showed an increase, the greatest increases occurring in Groups I., II., V., VI., (All Other Manufacturing), 1s. 9d. per week, and IV. (Clothing, etc.), 1s. 8d. per week. The weighted average for all groups increased by 1s. 7d. per week.

3. Relative Hours of Labour and Hourly Rates of Wage, 1936 to 1940.—(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, namely, the rate of wage per hour. Particulars as at the end of the years 1936 to 1940 are given in the following table, for males and females separately in each State. 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 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 wages 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.	Aust.
MALE WORKERS.									
1936	..	Weekly Wage (a) ..	85/6	83/1	88/7	79/6	90/7	83/3	85/0
		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	2/0½	1/9½	1/11½
1937	..	Weekly Wage (a) ..	92/1	88/1	92/8	85/10	93/1	87/0	90/4
		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	2/1½	1/11	2/0½
1938	..	Weekly Wage (a) ..	95/0	91/2	95/10	87/1	99/1	88/5	93/5
		Working Hours (b) ..	44.01	45.85	43.67	46.31	44.33	46.00	44.82
		Hourly Wage (b) ..	2/3	2/0½	2/3	1/10½	2/4	1/11½	2/1½
1939	..	Weekly Wage (a) ..	96/7	93/5	97/5	88/11	100/6	89/5	95/3
		Working Hours (b) ..	43.92	44.61	43.46	45.83	44.33	45.33	44.29
		Hourly Wage (b) ..	2/3½	2/1½	2/3½	1/11½	2/4	2/0	2/2½
1940	..	Weekly Wage (a) ..	103/7	98/11	100/5	94/6	106/8	94/4	101/1
		Working Hours (b) ..	43.70	44.28	43.46	45.23	44.09	44.92	44.04
		Hourly Wage (b) ..	2/4½	2/2½	2/3½	2/1	2/5	2/1½	2/3½

FEMALE WORKERS.

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	51/0	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	54/4	49/8	51/3
		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
1939	..	Weekly Wage ..	53/3	51/9	55/2	49/7	55/8	50/8	52/8
		Working Hours ..	43.88	44.42	44.01	45.96	45.38	45.10	44.36
		Hourly Wage ..	1/2½	1/2	1/3	1/1	1/2½	1/1½	1/2½
1940	..	Weekly Wage ..	54/9	53/5	56/0	52/1	57/6	53/1	54/3
		Working Hours ..	43.88	44.19	44.01	45.47	44.00	44.00	44.15
		Hourly Wage ..	1/3	1/2½	1/3½	1/1½	1/3½	1/2½	1/2½

(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 downward tendency in hours of labour for Australia commenced in the December quarter of 1924, when the weighted averages were 46.66 for males and 46.02 for females, and, excepting for slight increases in 1929 and 1930, the reduction has continued. During 1940, there was an increasing tendency towards reduction in those States in which the 44-hour week had not become the standard. The weighted averages for Australia at 31st December, 1940, were 44.04 for males and 44.15 for females. The effect of changes in hours of labour 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.	Aust.
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MALE WORKERS.

1936..	{ Weekly Wage ..	1,552	1,508	1,609	1,444	1,645	1,512	1,544
	{ Hourly Wage (a) ..	1,731	1,567	1,787	1,500	1,776	1,552	1,670
1937..	{ Weekly Wage ..	1,672	1,599	1,682	1,558	1,690	1,580	1,641
	{ Hourly Wage (a) ..	1,878	1,676	1,875	1,602	1,804	1,643	1,779
1938..	{ Weekly Wage ..	1,725	1,656	1,740	1,581	1,799	1,605	1,696
	{ Hourly Wage (a) ..	1,935	1,741	1,934	1,638	1,968	1,671	1,840
1939..	{ Weekly Wage ..	1,754	1,696	1,768	1,614	1,825	1,624	1,729
	{ Hourly Wage (a) ..	1,963	1,834	1,979	1,692	2,001	1,717	1,903
1940..	{ Weekly Wage ..	1,808	1,761	1,775	1,686	1,888	1,682	1,781
	{ Hourly Wage (a) ..	2,038	1,920	1,986	1,796	2,080	1,805	1,973

FEMALE WORKERS.

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	1,877	1,785	1,828
	{ Hourly Wage ..	2,066	1,985	2,107	1,839	1,990	1,938	2,017
1938..	{ Weekly Wage ..	1,907	1,862	1,969	1,758	2,000	1,828	1,887
	{ Hourly Wage ..	2,134	2,050	2,196	1,878	2,164	1,991	2,084
1939..	{ Weekly Wage ..	1,960	1,906	2,031	1,826	2,049	1,866	2,038
	{ Hourly Wage ..	2,193	2,107	2,267	1,952	2,217	2,032	2,145
1940..	{ Weekly Wage ..	2,016	1,966	2,060	1,916	2,116	1,954	1,996
	{ Hourly Wage ..	2,256	2,184	2,298	2,069	2,361	2,181	2,220

(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 31st December, 1936 to 1940.

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 30th April, 1914 (48.93) = 1,000. Overtime is excluded.

31st December—	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
1936..	{ Weighted average weekly hours of labour (a) .. Index-numbers ..	44.08 901	46.41 948	43.69 893	46.55 951	45.30 926	46.33 947	45.09 922
1937..	{ Weighted average weekly hours of labour (a) .. Index-numbers ..	44.07 901	46.22 945	43.68 893	46.57 952	45.25 925	46.24 945	45.03 920
1938..	{ Weighted average weekly hours of labour (a) .. Index-numbers ..	44.01 899	45.75 935	43.67 893	46.31 946	44.34 906	46.00 940	44.82 916
1939..	{ Weighted average weekly hours of labour (a) .. Index-numbers ..	43.92 898	44.61 912	43.46 888	45.83 937	44.33 906	45.33 926	44.29 905
1940..	{ Weighted average weekly hours of labour (a) .. Index-numbers ..	43.70 893	44.28 905	43.46 888	45.23 924	44.09 901	44.92 918	44.04 900

(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 moneys 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 this 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 subsequent years.

(ii) *Nominal Weekly Wage Index-numbers 1901 to 1940—States.* The following table shows for the period 1901 to 1940 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.	1934.	1935.	1936.	1937.	1938.	1939.	1940.
New South Wales	858	1,003	1,093	1,862	2,012	1,617	1,631	1,654	1,723	1,829	1,874	1,920
Victoria ..	796	985	1,062	1,803	1,964	1,523	1,550	1,583	1,665	1,755	1,808	1,865
Queensland ..	901	997	1,035	1,879	1,976	1,727	1,731	1,728	1,774	1,854	1,885	1,903
South Australia ..	819	1,013	1,061	1,697	1,891	1,458	1,493	1,533	1,608	1,688	1,725	1,764
Western Australia	1,052	1,152	1,223	1,832	1,960	1,619	1,689	1,730	1,790	1,876	1,956	1,999
Tasmania ..	719	799	1,027	1,745	1,840	1,540	1,571	1,610	1,656	1,718	1,738	1,787
Australia ..	848	1,000	1,081	1,826	1,972	1,590	1,612	1,638	1,707	1,799	1,846	1,889

(iii) *Effective or Real Wage Index-numbers in each State, 1901–1940.* In obtaining the effective wage index-numbers in the following table 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	1,079	1,050	1,160	1,150	1,138	1,101	1,095	1,107
Victoria	915	1,037	961	1,038	1,084	1,162	1,126	1,139	1,114	1,092	1,075
Queensland	1,172	1,090	1,038	1,244	1,220	1,345	1,376	1,417	1,377	1,323	1,261
South Australia	948	957	929	1,027	1,067	1,178	1,133	1,152	1,144	1,149	1,143
Western Australia	..	1,024	1,023	1,070	1,139	1,143	1,232	1,212	1,246	1,221	1,260	1,251
Tasmania	827	838	942	977	1,064	1,104	1,067	1,094	1,086	1,099	1,094
Australia	964	1,000	948	1,076	1,082	1,185	1,168	1,178	1,148	1,135	1,121

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.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	1940.
New South Wales	925	1,073	1,130	1,206	1,186	1,157	1,153	1,150	1,168	1,207	1,207
Victoria	954	1,084	1,164	1,150	1,147	1,146	1,134	1,131	1,155	1,180	1,180
Queensland	1,022	1,227	1,290	1,366	1,382	1,366	1,338	1,296	1,277	1,311	1,306
South Australia	914	1,034	1,099	1,079	1,086	1,091	1,097	1,101	1,128	1,146	1,147
Western Australia	1,043	1,096	1,152	1,158	1,177	1,177	1,221	1,219	1,242	1,281	1,308
Tasmania	902	984	1,108	1,094	1,110	1,109	1,115	1,128	1,141	1,167	1,153
Australia	1,000	948	1,087	1,151	1,190	1,187	1,173	1,169	1,162	1,178	1,209	1,211

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 Australia, 1901-1940.* 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	1,612	1,420	1,380	1,135	1,169
1936	1,638	1,461	1,409	1,121	1,162
1937	1,707	1,507	1,448	1,133	1,178
1938	1,799	(a)	1,488	(a)	1,209
1939	1,846	(a)	1,526	(a)	1,211
1940	1,889	(a)	1,588	(a)	1,190

(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 onwards these figures, in addition to those for retail prices, are averages for the whole year.

§ 3. Basic Wages in Australia.

1. **General.**—Basic wages in Australia are fixed by various industrial tribunals operating under Commonwealth and State Arbitration Acts, and are varied from time to time according to changes in cost of living, constitution of the family unit, etc. In the industrial legislation of New South Wales, Queensland, South Australia and Western Australia, provision is made for the tribunals appointed under the Acts to determine the basic rates of wage to be paid to adult unskilled workers. In Tasmania provision for the declaration of a basic rate of wage is not included in the industrial Acts in force. The Wages Board system operates in this State, and each Wages Board determines the rate of wage to be paid to the unskilled worker when the determination for an industry or calling is under review. In Victoria, however, the same Wages Board system exists but by amendments of the Factories Act, operative from 17th October, 1934, Wages Boards are obliged to adopt the same basic wage as that determined by the Commonwealth Arbitration Court for similar industries. As the power of the Commonwealth Arbitration Court is limited by the Constitution to the settlement, by conciliation and arbitration, of industrial disputes extending beyond the limits of any one State, no similar provision is to be found in the Commonwealth Conciliation and Arbitration Act. In practice, the Court does declare a Commonwealth basic wage and uses the wage so declared as a basis for all awards made by it in the exercise of its jurisdiction. That is, upon a new basic wage being declared, the awards made in the settlement of all interstate industrial disputes are re-opened and amended accordingly. 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 1907 that the first basic wage, as such, was declared by a Court in Australia, and was made by Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration. The wage declared was defined as 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 declaration was made by way of an order in terms of Section 2 (d) of the Excise Tariff 1906 in the matter of an application by H. V. McKay, of the Sunshine Harvester Works, Victoria, from which was derived the title of the "Harvester Wage" by which it is popularly known. 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."‡ 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 rate was adopted by the Commonwealth Arbitration Court for incorporation in its awards, and practically the same rates continued until 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 the

* Mr. Justice Higgins—*A New Province of Law and Order*.

† *Ibid.*

‡ See page 723 for Court's interpretation in 1940 Basic Wage Inquiry of the "family unit".

"Harvester" rate of 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, and of basing the adjustments on the index-number for the quarter in place of that for the previous calendar year or the year ended the preceding quarter.

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 judgment of the High Court on 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 of 1914-19 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 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 30th April, 1934, when it was superseded by a judgment delivered on 17th April, 1934, full particulars of which appear in *Official Year Book* No. 29, 1936, page 545. The basic wage declared on this occasion (subsequently referred to as the "Needs" Basic Wage 1934") was as follows for the six capital cities :—

<i>s. d.</i>				<i>s. 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.							

Six Capital Cities, 65s. od.

* 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.

The following is a comparison for the capital cities of the basic rates granted by the judgment and those ruling under previous practices of the Court :—

COMPARISON OF BASIC RATES AWARDED FOR CAPITAL CITIES.

City.	New Rates Awarded 1st May, 1934; "C" Series.	Rates being paid prior to 1st May, 1934.(a)		Increase or Decrease.		
		Under "D" Series less 10 per cent. "Cut".	Under "A" Series (Full).	Over "D" Series.	Over "A" Series (Full).	Over "A" Series less 10 per cent. "Cut".
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Sydney ..	67 0	66 11	72 0	0 1	-5 0	+2 2
Melbourne ..	64 0	63 4	67 6	0 8	-3 6	+3 3
Brisbane ..	61 0	59 4	62 0	1 8	-1 0	+5 2
Adelaide ..	64 0	60 2	63 0	3 10	+1 0	+7 4
Perth ..	66 0	59 3	64 0	6 9	+2 0	+8 5
Hobart ..	67 0	64 10	70 0	2 2	-3 0	+4 0
Six Capitals	65 0	63 7	68 0	1 3	-3 0	+3 10

(a) Calculated to nearest 6d., and including "Powers' 3s." or its equivalent.

NOTE.—The vast majority of workers affected were being paid the rates shown under the "D" Series Index of Retail Prices—a combination of the "A" and "C" Series Indexes.

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" and the "D" 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" portions 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" came into operation in two instalments, viz., from the beginning of the first pay-periods commencing in July and October, 1937.

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 are reprinted in Official Year Book No. 30.

(iv) "*Lag*" in Adjustments. The Commonwealth Court on 19th December, 1939, heard an application by the unions that the date of adjustment of the basic wage in accordance with the variations in the "Court" Series of index-numbers be brought nearer to the period upon which the variation was based. In a judgment delivered on the same day, the Court directed that such adjustments be made one month earlier. The effect, therefore, was to make future adjustments operative from the beginning of the first pay-period to commence in a February, a May, an August or a November.

(v) *Basic Wage Inquiry, 1940.* On 5th August, 1940, the Full Court commenced the hearing of an application by the combined unions for an increase in the existing basic wage by raising the value of 1,000 (the base of the "C" Series index upon which the "Court" Series are based) from 81s. to 100s. per week, and the abolition of the present "Prosperity" loadings, which would be regarded as incorporated in the new rate mentioned. The hearing was interrupted for a period of ten weeks owing to the serious illness of the Chief Judge (the Hon. Sir George S. Beeby), but was completed on 28th November, 1940. Judgment was delivered on 7th February, 1941, wherein the Court unanimously refused to grant any increase, and decided that the application should not be dismissed but stood over for further consideration after 30th June, 1941. The application was refused mainly owing to the uncertainty of the economic outlook under existing war conditions.

In regard to the popular idea that the basic wage of the Commonwealth Court of Conciliation and Arbitration was identified with a specific family unit, the Chief Judge made the following statements to clarify the position: "The Court has always conceded the 'needs' of an average family should be kept in mind in fixing a basic wage. But it has never as the result of its own inquiry specifically declared what is an average family or what is the cost of a regimen of food, clothing, shelter and miscellaneous items necessary to maintain it in frugal comfort, or that a basic wage should give effect to any such finding. In the end economic possibilities have always been the determining factor What should be sought is the independent ascertainment and prescription of the highest basic wage that can be sustained by the total of industry in all its primary, secondary and ancillary forms. That, no doubt, is the object, but the adoption of something like the real average family as the unit to be provided for is not without its use in the attainment of that object. There is no clear means of measuring the general wage-paying capacity of the total industry of a country. All that can be done is to approximate, and one of the methods of approximation is to find out the actual wage upon which well-situated labourers are at the time maintaining the average family unit. We may be pardoned for saying that Mr. Justice Higgins very wisely used this criterion in the Harvester case. Moreover, if the average-sized families of such well-situated labourers have become accustomed to enjoy, and do actually enjoy, a certain standard of living in our community, it may reasonably be assumed that such a standard for all labourers is probably not beyond the capacity of industry in general to provide. Therefore in determining the amount of a living or basic wage there is sound economic warranty for the ascertainment of the real average family unit and of the cost of providing something like the standard which such families of well-employed labourers have already reached. But obviously, if the real average family unit is departed from, or a standard is sought for the likely maintenance of which experience gives no reason to hope, then an unrealizable wage-level may be ordained It may be that in the light of past experience the Court should conduct a specific inquiry as to the cost of living of an average family, but under war conditions, such an inquiry would be futile. More than ever before wage fixation is controlled by the economic outlook".

The Chief Judge further stated: "I was impressed by the new evidence and argument as to the inadequacy of the earnings of the lower-paid wage earners with families. On our accepted standards of living, looking at it from the needs point of view only, I regard the present basic wage as adequate for a family unit of three persons, but think it offers only a meagre existence for a family unit of four. When the unit gets beyond four hardship is often experienced." He suggested that the more logical system would be to grade the basic wage according to family responsibilities and that, notwithstanding the increase in aggregate wages, the benefits resulting from a re-apportionment of national income to increase the wages of those with more than one dependent child would more than offset the inflationary tendency of provision for a comprehensive scheme of child endowment, and that if a scheme of this nature were established, as recently announced by the Commonwealth Government,* future fixations of the basic wage would be greatly

* Legislation covering a scheme to become operative on 1st July, 1941, was actually passed by the Commonwealth Parliament on 3rd April, 1941—see page 729 for details.

simplified. The other two Judges (O'Mara, J., and Piper, J.), in separate judgments, agreed with that of the Chief Judge, particularly in regard to the need for a child endowment scheme as a solution of the main problem.

(vi) *Current Commonwealth Basic Wage Rates.* The basic wage rates of the Commonwealth Court for adult males, including the "loadings" granted in 1937, operative from 1st February, 1942, are as follows :—

	s.	d.		s.	d.
New South Wales—			South Australia		
Sydney ..	91	0	Adelaide ..	86	0
Newcastle (a) ..	91	0	Five Towns ..	85	0
Broken Hill ..	92	0			
Five Towns ..	91	0	Western Australia—		
Victoria—			Perth ..	86	0
Melbourne ..	89	0(b)	Kalgoorlie ..	99	0
Geelong ..			Geraldton ..	91	0
Warrnambool ..			Five Towns ..	87	0
Mildura ..					
Yallourn ..	95	6(b)	Tasmania—		
Five Towns ..	89	0	Hobart ..	87	0
Queensland—			Launceston ..	84	0
Brisbane ..	86	0	Queenstown ..	85	0
Five Towns ..	86	0	Five Towns ..	86	0
			Thirty Towns ..	88	0
			Six Capital Cities ..	88	0

(a) Based on Sydney.

(b) Based on Melbourne.

With the exception of those mentioned above, the rate for provincial towns is 3s. less than that of their respective capital cities. The rate for adult females—prescribed by the individual judges—is approximately 54 per cent. of the adult male rate.

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 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 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. With the adoption in 1937 of the Commonwealth basic wage referred to below, however, the identification of a specified family unit with the basic wage disappeared.

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. (*State Jurisdiction.*)

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
27th April, 1937 ..	(c) 3 11 6	.. ..	1 18 6

(a) Dates of declarations from 1923 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 721, the Government of New South Wales decided to make the State Basic Wage accord with the Commonwealth 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 to operate 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 in 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 latest rates applicable in the metropolitan area from 1st August, 1942, are £4 15s. for males and £2 11s. 6d. for females.

The principle of supplementing wages by a payment in respect of dependent children under fourteen years of age was operative in New South Wales, since July, 1927, until superseded by the Commonwealth Government Scheme operative from 1st July, 1941, 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 rate for Melbourne is 94s. per week (operative from 1st August, 1942), and for Hobart 91s. per week (operative from 1st August, 1942). 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. (*State Jurisdiction.*)

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
25th 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
31st March, 1941	4 9 0	2 8 0
21st April, 1942 (b)	4 11 0	2 9 6
3rd August, 1942 (b)	4 12 0	2 10 0

(a) Fixed by Basic Wage Act.

(b) Quarterly adjustments provided by judgment of 21st April, 1942.

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, 7d. 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 the South Australian Industrial Court in 1920 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. (*State Jurisdiction.*)

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
28th November, 1940 ..	4 4 0	28th November, 1940 ..	2 1 0
26th November, 1941 ..	4 7 0	26th November, 1941 ..	2 3 6

(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. (*State Jurisdiction.*)

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
" " 1929 ..	4 7 0	2 7 0	4 7 0	2 7 0	4 7 0	2 7 0
" " 1930 ..	4 6 0	2 6 5	4 5 0	2 5 11	4 5 0	2 5 11
" " 1931 ..	3 18 0	2 2 2	3 17 0	2 1 8	3 17 0	2 1 8
" " 1932 ..	3 12 0	1 18 11	3 13 6	1 19 8	3 18 0	2 2 2
" " 1933 ..	3 8 0	1 16 9	3 9 6	1 17 6	3 17 6	2 1 10
" " 1934 ..	3 9 6	1 17 6	3 10 0	1 17 10	3 19 6	2 2 11
" " 1935 ..	3 10 6	1 18 1	3 11 2	1 18 5	4 4 4	2 5 6
" " 1936 ..	3 10 6	1 18 1	3 11 9	1 18 9	4 6 0	2 6 5
" " 1937 ..	3 13 9	1 19 10	3 14 8	2 0 4	4 7 0	2 7 0
" " 1938 ..	4 0 0	2 3 2	4 1 0	2 3 9	4 13 3	2 10 4
" " 1939 ..	4 2 2	2 4 4	4 3 1	2 14 10	4 16 4	2 12 0
" " 1940 ..	4 2 8	2 4 8	4 3 3	2 4 11	4 16 3	2 12 0
" " 1941(c) ..	4 8 0	2 7 6	4 9 3	2 8 2	5 3 6	2 15 11

(a) Excluding Gold-fields areas, where rates were the same as those operating from 1st July, 1926.

(b) Applicable from 24th April, 1939.

(c) Applicable from 28th April, 1941 (*see over*).

The latest rates payable (applicable from 28th July, 1941), in accordance with the quarterly adjustments declared by the Court are—Metropolitan area, males, 90s. 5d., females, 48s. 10d.; South-West Land Division (excluding Metropolitan area), males, 90s. 10d., females, 49s. 1d.; other parts of State, males, 105s. 7d., females, 57s.

(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 15 0	(a) 2 11 6	1.8.42	(b)
Victoria (c) ..	4 14 0	2 11 0	"	(c)
Queensland ..	(d) 4 12 0	2 10 0	3.8.42	Man, wife and three children
South Australia ..	4 7 0	2 3 6	27.11.41	" "
Western Australia ..	(e) 4 10 5	(e) 2 8 10	28.7.41	Man, wife and two children
Tasmania (c) ..	4 11 0	2 9 0	1.8.42	(c)

(a) Sydney, Newcastle, Port Kembla—Wollongong; Broken Hill—males £4 18s; females £2 13s. Elsewhere, males £4 12s., females, £2 9s. 6d. (b) Commonwealth Basic Wage operative—no defined family unit. (c) None declared, but rates shown are those of Commonwealth Court which are followed to a large extent. (d) 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. (e) Metropolitan Area. Basic wage for Goldfields areas and portions of State exclusive of the South-West Land Division—males, £5 5s. 7d.; females £2 17s.; South-West Land Division (excluding Metropolitan Area)—males £4 10s. 10d.; females, £2 9s. 1d.

4. *Royal Commission on the Basic Wage, 1920.*—The Commonwealth basic wage referred to in par. 2 (i) above 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 Commonwealth 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 in 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.

* 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.

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 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. The original Act was assented to on 11th April, 1927, and 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 operated 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 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. The scheme was abolished upon the introduction of the National Scheme by the Commonwealth Government in July, 1941.

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,‡ the Commonwealth Government decided to pay a basic wage of £4 a week in certain cases and child allowances to officers at the rate of 5s. per week for each dependent child under fourteen years of age, 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 themselves provided the fund from which the allowance was paid. The deduction was originally £11 per annum, but later £12. The payment was subsequently 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. The scheme was abolished at the instance of the officers upon the introduction of the National Scheme by the Commonwealth Government in July, 1941, particulars of which appear below. The deduction of £12 per annum from salaries was consequently discontinued from 10th July, 1941.

4. **National Scheme.**—The Commonwealth Government, in June, 1927, called a conference in 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.

* 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 Commission submitted its report on 15th December, 1928. It 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 in May, 1929, the Prime Minister stated that the Commonwealth Government was not prepared to adopt the 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 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.

In 1941, the Commonwealth Government introduced a scheme of Child Endowment throughout Australia. The necessary legislation* was introduced into Parliament on 27th March, and finally passed on 3rd April, 1941. The main features of the scheme, which came into operation on 1st July, 1941, are as follows:—

(a) Payment at the rate of 5s. per week for all children under the age of sixteen in excess of one child in each family, provided the persons claiming the endowment, and the child in respect of whom the endowment is claimed, have resided in Australia for a period of twelve months preceding the date of claim.

(b) The endowment is payable to the mother of the child, or to such persons as are prescribed.

(c) Endowment is also payable to approved institutions, not wholly or mainly dependent upon the Commonwealth or a State for their revenue, in respect of all children under 16 years of age maintained therein.

(d) The scheme will be financed partly from Consolidated Revenue; partly from the abolition of the exemptions from taxation in respect of children after the first and the major part from a tax of 2½ per cent. of all pay-rolls in excess of £20 per week.

(e) The general administration of the Act is under the control of the Director-General of Social Services, and the detailed administration is carried out by the Commissioner of Pensions and other officials appointed for the purposes of the Invalid and Old-Age Pensions Act.

The scheme at the outset is estimated to cost £13,000,000 per annum and apply to approximately 1,000,000 children. The number of "first" children excluded is estimated to be approximately 830,000 or 45 per cent. of the total children under sixteen years of age. The Census of 1933 disclosed that the average number of dependent children under sixteen years of age per married male was 1.36.

Consequent upon the establishment of the National Scheme, appropriate steps were taken for the termination of the schemes operating in New South Wales and the Commonwealth Public Service.

* Act No. 8, 1941 (Child Endowment Act); Act No. 2, 1941 (Pay-roll Tax Assessment Act); and Act No. 3, 1941 (Pay-roll Tax Act).

D.—EMPLOYMENT.

§ 1. Employment.

1. *Direct Measures of Employment.*—The following estimates of the numbers of male and female wage and salary earners in employment are based on data from the Censuses of 1911, 1921 and 1933, the National Register, 1939, and Pay-roll Tax returns which commenced in July, 1941. The figures relate to wage earners who were recorded at the Censuses as employed, and may be defined as "numbers normally occupied as wage earners" as distinct from the equivalent of full time employment. Many wage earners are normally occupied as casual, part-time, intermittent and seasonal workers. Wage earners unemployed in the sense that they are not working and have no work to go to are excluded.

The figures exclude men engaged on Government relief works. The estimates for July, 1939, and July, 1941, are on comparable bases, but exclude employees absent on defence service whether at home or abroad.

ESTIMATED TOTAL EMPLOYMENT.

Wage and Salary Earners in Employment, excluding Relief Workers.

(Thousands.)

Year and Month.	New South Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Australia. (a)
MALES.							
1911—April ..	399.0	287.3	150.7	95.7	81.2	40.6	1,056.4
1921—April ..	462.1	318.9	152.7	106.0	77.6	42.7	1,162.0
1933—June ..	444.7	332.0	180.8	99.0	87.6	38.1	1,186.1
1939—July(b) ..	601.9	404.6	219.1	128.1	100.7	47.2	1,507.8
1941—July(b) ..	632.3	447.8	212.7	142.7	99.2	48.4	1,591.9
FEMALES.							
1911—April ..	102.3	105.1	35.4	26.0	15.3	10.7	295.0
1921—April ..	131.2	118.8	44.5	31.5	19.3	11.5	357.0
1933—June ..	158.5	145.1	54.2	37.2	25.7	13.1	434.7
1939—July(b) ..	220.9	175.2	71.2	47.5	33.2	16.3	565.7
1941—July(b) ..	270.2	204.7	74.3	54.3	34.4	18.4	658.1
TOTAL.							
1911—April ..	501.3	392.4	186.1	121.7	96.5	51.3	1,351.4
1921—April ..	593.3	437.7	197.2	137.5	96.9	54.2	1,519.0
1933—June ..	603.2	477.1	235.0	136.2	113.3	51.2	1,620.8
1939—July(b) ..	822.8	579.8	290.3	175.6	133.9	63.5	2,073.5
1941—July(b) ..	902.5	652.5	287.0	197.0	133.6	66.8	2,250.0

(a) Including Australian Capital Territory and Northern Territory.

(b) Subject to revision.

2. *Monthly Indexes of Employment.*—(i) *General.* The Commonwealth and the State Statisticians have been making for some years past 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. From July, 1941, these indexes have been replaced by estimates of employment based on data derived from the collection of Pay-roll Tax. The latest figures for all States are to be found in the current issue of the *Monthly Review of Business Statistics*.

(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, 1941, 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* No. 34, Part I., issued by this Bureau. Estimated employment in later months, subject to subsequent revision, may be obtained from the *Monthly Review of Business Statistics*.

The index of total factory employment, divided by the index of total population fluctuated between 104 and 100 from 1926-27 to 1928-29 (the base year). It fell 72 in 1931-32, the lowest year of the depression, and then rose steadily each year thereafter to 131.4 in 1940-41. The relative employment in factories was considerably higher in 1940-41 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 total population. The figures for 1937-38 show that this difference was reduced to 2 per cent. during that period and this margin was maintained in 1938-39. By 1939-40, however, the female rate of increase was relatively greater than the male, and compared with 1928-29, the female increase was again 4 per cent. higher than that shown by the males.

(iii) *Index of Employment in Retail Stores.* This index is published in the *Monthly Review of Business Statistics*. From July, 1933, to June, 1941, it was based on a sample of retail stores. As there is no annual census of employment in retail stores, there was no means of knowing how accurately the movement of employment in these stores represents that in the whole field. Consequently this index was much less reliable than the index of employment in factories. The Australian index was an average of the State indexes weighted by the number of persons returned as engaged in "Commerce" at the Census of June, 1933. 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 at 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 considerable part-time work.

From July, 1941, the index of employment in retail stores has been replaced by a new series based on the actual employees engaged by proprietors of retail stores who pay Pay-roll tax. The base of the new series is July, 1941, which equals 100 in each State, and the Australian average is based on the total number of employees of such Pay-roll taxpayers in all States.

(iv) *Estimates of Total Employment in 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 *Official Year Book of New South Wales*. 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.

Owing to the effect of enlistments and entry into wage-earning employment of persons not normally wage earners this index of employment and unemployment has been discontinued since April, 1940. A table showing the approximate number of persons employed in the middle of June in the years 1934 to 1941, with the figures at the Census of June, 1933, is published in the *Labour Report* issued by this Bureau.

The Queensland Index published by the Queensland Bureau of Industry is compiled from census results, unemployed insurance contributions, workers' compensation records, and shop and factory returns. Enlisted men have been excluded from the

estimates of employment and adjustments have been made to allow for the effect on employment of home-defence training. The figures shown for the three-monthly periods have been corrected for seasonal variation. Particulars up to the end of 1940-41 are published in the *Labour Report* of this Bureau, and information for later months may be found in the Queensland Bureau of Industry's monthly *Economic News*.

The Tasmanian estimate 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. Estimates to the end of 1940-41 are published in the *Labour Report* of this Bureau.

3. **Seasonal Employment in Australia.**—An investigation concerning the extent of seasonal employment in Australia was made during 1928. 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. 10.

§ 2. Unemployment.

1. **Total Persons Unemployed.**—The total number of persons unemployed has been recorded only at the dates of the various censuses. The Census records include all persons who state that they are unemployed, and distinguish between unemployment on account of sickness or accident, scarcity of work, industrial dispute, or any other cause. The following table sets out the number of unemployed recorded at the Censuses, together with the percentage which the unemployed bore to all wage and salary earners of the same sex at the time, which number is taken as the sum of those estimated to be in employment, and the unemployed. From 1½ to 2 per cent. of the total wage and salary earners are usually out of work on account of sickness and accident, and are included in the percentages.

UNEMPLOYMENT (ALL CAUSES) : AUSTRALIA.

Year and Month.	Wage and Salary Earners Unemployed.			Percentage of Wage and Salary Earners Unemployed.		
	Males.	Females.	Total.	Males.	Females.	Total.
	'000.	'000.	'000.	%	%	%
Census—						
1911—April ..	48.0	8.3	56.3	4.3	2.7	4.0
1921—April ..	139.4	21.5	160.9	10.7	5.7	9.6
1933—June (a) ..	460.3	103.1	563.4	27.9	19.1	25.8

(a) The figures shown for 1933 are in excess of those actually recorded at the Census through an allowance having been made for a number of youths and girls who would normally have been wage and salary earners, but who, on account of the economic depression, having never been employed, were not classed as wage and salary earners.

In 1939, the National Register recorded men aged 18 to 64 years who were unemployed, but these require certain adjustments on account of men who failed to make National Register returns. This information has been used, in conjunction with other data available from various sources, to make an estimate of the total number of males and females unemployed in July, 1939. An approximate estimate of total unemployed as at July, 1941, has been made, based largely on the trend since 1939 of the number of registered unemployed at the State Labour Exchanges.

The unemployed have been estimated to be approximately 12½ per cent. in July, 1939, and 4½ per cent. in July, 1941, calculated on all available wage and salary earners excluding those absent in the defence forces, but including additional persons who have become wage and salary earners as a result of war conditions.

2. *Unemployment of Members of Trade Unions.*—(i) *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 470,000, consisting predominantly of males and representing about 54 per cent. of the total trade union membership, and between 20 and 25 per cent. of all wage and salary earners. 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. Seasonal fluctuations in unemployment have been provided for by collecting returns quarterly since 1st January, 1913. The quarterly figures relate to persons who were out of work for three days or more during a specified week in each quarter and exclude persons out of work through strikes and lock-outs, except those outside the industry who are indirectly affected. The yearly figures quoted represent the average of the four quarters.

The value of the percentages of unemployment derived from trade union returns is in the indication they give of the trend of unemployment among trade unionists as reported by secretaries of trade unions.

(ii) *Summary for Australia, 1936 to 1940.* The following table gives a summary for Australia for the last five years and quarterly for the years 1937 to 1940. Particulars of unemployment percentages in 1941 will be found in the Appendix :—

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS : AUSTRALIA.

Period.	Unions.	Membership.	Unemployed.	
			Number.	Percentage.
1936 Year	392	441,311	53,992	12.2
1937 "	387	449,588	41,823	9.3
1938 "	390	466,325	40,138	8.7
1939 "	396	476,918	45,967	9.7
1940 "	394	491,352	39,116	8.0
1937 March Quarter ..	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
1939 March "	395	474,277	45,545	9.6
June "	398	477,149	45,183	9.5
September "	397	478,000	48,888	10.2
December "	392	478,245	44,253	9.3
1940 March "	394	483,806	38,307	7.9
June "	388	475,815	49,775	10.5
September "	397	496,872	36,892	7.4
December "	396	508,914	31,491	6.2

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, except those outside the industry concerned who are indirectly affected.

The highest percentage of unemployed yet recorded (30.0) was reached in the quarter ended June, 1932.

(iii) *Australia by Industrial Groups.* 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 OF MEMBERS OF TRADE UNIONS IN INDUSTRIAL GROUPS :
AUSTRALIA, 1940.**

Industrial Group.	Number Reporting.		Unemployed.	
	Unions.	Members.	Number.	Percentage.
Manufacturing—				
I. Wood, Furniture, etc. ..	16	18,854	958	5.1
II. Engineering, Metal Works, etc. ..	64	97,134	6,467	6.7
III. Food, Drink, Tobacco, etc. ..	56	42,748	6,910	16.2
IV. Clothing, Hats, Boots, etc. ..	22	45,238	3,232	7.2
V. Books, Printing, etc. ..	12	22,168	919	4.1
VI. Other Manufacturing ..	63	54,629	3,847	7.0
VII. Building ..	46	51,345	4,135	8.0
VIII. Mining, Quarrying, etc. ..	19	23,465	2,115	9.3
X. Land Transport other than Rail- way and Tramway Services ..	14	19,622	1,454	7.4
IX., XI., XII., XIII., and XIV. Other and Miscellaneous ..	82	116,149	9,079	7.8
All Groups ..	394	491,352	39,116	8.0

(iv) *States, 1940.* In making interstate comparisons of unemployment percentages, allowances must be made for the circumstance that the industries included in the returns from trade unions are not quite identical in the various States, and that for some States the returns are a more representative sample than for others. The State percentages shown below, therefore, should not be read as indicating the relative degree of unemployment amongst unionists in the individual States but as an indication of the trend of unemployment as reported by the trade unions.

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS, 1940.

State.	Unions Reporting.		Unemployed.	
	Number.	Members.	Number.	Percentage.
New South Wales ..	115	206,004	22,425	11.0
Victoria ..	77	131,105	7,573	5.8
Queensland ..	45	67,896	3,737	5.5
South Australia ..	55	41,353	2,898	7.0
Western Australia ..	67	32,954	1,851	5.6
Tasmania ..	35	12,040	632	5.2
Australia ..	394	491,352	39,116	8.0

(v) *States, 1936 to 1940.* The following table gives the percentages in each State from 1936 to 1940 :—

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS : PERCENTAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	%	%	%	%	%	%	%
1936 Year ..	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
1939 " ..	11.0	10.4	5.9	9.3	7.1	8.1	9.7
1940 " ..	11.0	5.8	5.5	7.0	5.6	5.2	8.0
1938 March Quarter	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	8.6
Sept. " ..	10.0	9.7	6.3	10.0	6.1	8.5	9.2
Dec. " ..	10.1	9.0	5.7	8.8	6.5	10.2	8.9
1939 March " ..	10.6	10.8	6.1	9.3	7.3	7.6	9.6
June " ..	10.6	10.4	5.7	9.5	6.2	9.4	9.5
Sept. " ..	11.6	11.2	5.8	9.4	8.2	8.3	10.2
Dec. " ..	11.1	9.0	5.8	9.1	6.6	7.1	9.3
1940 March " ..	9.7	6.5	5.8	8.3	6.9	4.8	7.9
June " ..	15.9	6.6	6.8	8.3	5.6	5.0	10.5
Sept. " ..	9.8	5.9	4.9	6.6	6.0	4.6	7.4
Dec. " ..	8.5	4.3	4.5	4.7	4.0	6.5	6.2

3. *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 31.

§ 3. Industrial Disputes.

1. *General.*—Information with regard to the collection of particulars and the methods of tabulation of industrial disputes involving stoppage of work are given 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, 1940.*—The following tables give particulars of industrial disputes which either commenced or were current during 1940, classified according to industrial groups.

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1940.

Class.	Industrial Group.	Num-ber.	Estab-lish-ments In-volved.	Workpeople Involved.			Working Days Lost.	Esti-mated Loss in Wages.
				Directly.	In-directly.	Total.		
NEW SOUTH WALES.								
II.	Engineering, metal works, etc. . .	16	17	6,297	2,310	8,607	48,131	£ 49,239
III.	Food, drink, etc.	3	21	719	56	775	3,410	2,418
IV.	Clothing, textiles, etc. . . .	4	4	2,112	..	2,112	9,762	4,920
V.	Books, printing, etc.	1	1	411	..	411	411	320
VI.	Other manufacturing	4	12	1,375	434	1,809	8,901	9,615
VII.	Building	1	1	194	..	194	1,746	1,783
VIII.	(a) Coal-mining	277	613	149,804	9,358	159,162	1,158,980	1,356,768
IX.	Railway and tramway services	2	2	64	..	64	2,400	1,898
XI.	Shipping, wharf labour, etc. . .	3	7	520	80	600	3,000	2,240
XIV.	Miscellaneous	2	2	270	..	270	1,420	1,215
	Total	313	680	161,766	12,238	174,004	1,238,161	1,430,416
VICTORIA.								
II.	Engineering, metal works, etc. . .	1	1	50	..	50	200	203
IV.	Clothing, textiles, etc. . . .	3	3	433	282	715	2,041	1,235
VII.	Building	7	32	2,102	103	2,205	30,830	25,561
VIII.	(a) Coal-mining	6	6	5,594	..	5,594	74,694	74,076
X.	Other land transport	1	1	70	..	70	210	229
XIII.	Domestic, hotels, etc. . . .	1	1	30	..	30	60	22
	Total	19	44	8,279	385	8,664	108,035	101,326
QUEENSLAND.								
VIII.	{ (a) Coal-mining	2	6	2,902	..	2,902	127,334	153,790
XI.	{ (b) Other mining, quarries, etc.	1	1	49	..	49	1,862	2,350
	Shipping, wharf labour, etc. . .	1	1	62	14	76	2,432	1,533
	Total	4	8	3,013	14	3,027	131,628	157,673
SOUTH AUSTRALIA.								
II.	Engineering, metal works, etc.	2	2	781	..	781	4,771	4,137
VI.	Other manufacturing	1	1	680	..	680	4,080	2,980
VII.	Building	1	1	14	21	35	105	82
IX.	Railway and tramway services	1	1	1,270	..	1,270	550	433
	Total	5	5	2,745	21	2,766	9,506	7,632
WESTERN AUSTRALIA.								
VIII.	{ (a) Coal-mining	2	2	155	285	443	3,206	3,796
XIV.	{ (b) Other mining, quarries, etc.	1	1	580	..	580	181	100
	Miscellaneous	1	150	2,000	..	2,000	4,000	2,500
	Total	4	153	2,735	288	3,023	7,387	6,396
TASMANIA.								
IV.	Clothing, textiles, etc. . . .	1	1	34	12	46	92	41
VIII.	(a) Coal-mining	1	4	182	..	182	10,374	10,600
	Total	2	5	216	12	228	10,466	10,641
NORTHERN TERRITORY.								
VII.	Building	1	1	13	..	13	65	65
XI.	Shipping, wharf labour, etc . .	1	2	154	700	854	1,932	1,900
XIV.	Miscellaneous	1	1	18	..	18	72	72
	Total	3	4	185	700	885	2,069	2,037
AUSTRALIA.								
II.	Engineering, metal works, etc.	19	20	7,128	2,310	9,438	53,102	53,579
III.	Food, drink, etc.	3	21	719	56	775	3,410	2,418
IV.	Clothing, textiles, etc. . . .	8	8	2,579	294	2,873	11,895	6,196
V.	Books, printing, etc.	1	1	411	..	411	411	320
VI.	Other manufacturing	5	13	2,055	434	2,489	12,981	12,595
VII.	Building	10	35	2,323	124	2,447	32,746	27,491
VIII.	{ (a) Coal-mining	286	629	158,482	9,358	167,840	1,371,382	1,595,234
IX.	{ (b) Other mining, quarries, etc.	3	3	204	288	492	5,068	6,146
	Railway and tramway services	4	4	1,914	..	1,914	3,131	2,431
X.	Other land transport	1	1	70	..	70	210	229
XI.	Shipping, wharf labour, etc. . .	5	10	736	794	1,530	7,364	5,673
XIII.	Domestic, hotels, etc. . . .	1	1	30	..	30	60	22
XIV.	Miscellaneous	4	153	2,288	..	2,288	5,492	3,787
	Total	350	899	178,939	13,658	192,597	1,507,252	1,716,121

3. **Industrial Disputes, Australia, 1936 to 1940.**—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 1936 to 1940 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 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 82 in 1940. In the past, five years working days lost through dislocations involving workpeople engaged in coal-mining amounted to 3,123,121, representing 72 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.

1936	30	3	171	13	3	15	235
1937	59	2	249	12	6	14	342
1938	43	3	314	6	4	6	376
1939	20	3	362	4	6	21	416
1940	36	10	286	3	10	5	350
1936-40	188	21	1,382	38	29	61	1,719

WORKPEOPLE INVOLVED.

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
1939	8,818	57	137,792	900	2,017	3,246	152,830
1940	15,986	2,447	167,840	492	3,514	2,318	192,597
1936-40	60,459	7,385	546,103	13,777	8,350	10,067	646,141

WORKING DAYS LOST.

1936	199,641	2,337	224,113	37,582	8,087	25,488	497,248
1937	214,869	180	307,699	20,736	2,959	10,668	557,111
1938	294,062	34,520	928,860	20,224	59,068	1,260	1,337,994
1939	108,709	563	291,067	3,805	35,016	19,994	459,154
1940	81,799	32,746	1,371,382	5,068	10,705	5,552	1,507,252
1936-40	899,080	70,346	3,123,121	87,415	115,835	62,962	4,358,759

ESTIMATED LOSS IN WAGES.

	£	£	£	£	£	£	£
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
1939	83,540	424	335,033	4,728	22,114	9,877	455,716
1940	75,108	27,491	1,595,234	6,146	8,333	3,809	1,716,121
1936-40	723,747	61,819	3,466,745	90,518	73,561	34,837	4,451,227

4. Summary of Disputes (involving Stoppage of Work), 1936 to 1940.—The following table gives particulars of the number of industrial disputes in each State in the years 1936 to 1940 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.	Indirectly.	Total.		
								£
New South Wales	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
	1939	386	460	139,301	9,230	148,531	1,410,183	1,419,330
	1940	313	680	161,766	12,238	174,004	1,238,161	1,430,416
Victoria	1936	10	22	1,599	224	1,823	12,251	9,899
	1937	11	11	3,770	44	3,814	70,733	57,182
	1938	19	38	7,678	2,612	10,290	104,336	87,595
	1939	10	10	1,989	180	2,169	27,313	19,946
	1940	19	44	8,279	385	8,664	108,035	101,326
Queensland	1936	12	12	1,052	194	1,246	14,653	12,325
	1937	10	11	792	203	995	15,681	15,699
	1938	5	9	2,657	..	2,657	87,539	87,379
	1939	5	6	373	2	375	1,870	1,753
	1940	4	8	3,013	14	3,027	131,628	157,673
South Australia	1936	1	1	101	..	101	505	400
	1937	6	15	1,257	52	1,309	3,951	2,464
	1938	2	2	73	52	125	249	223
	1939	2	2	170	5	175	1,880	1,416
	1940	5	5	2,745	21	2,766	9,506	7,632
Western Australia	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
	1939	7	7	1,108	145	1,253	14,100	9,578
	1940	4	153	2,735	288	3,023	7,387	6,396
Tasmania	1936	4	4	369	6	375	3,718	3,212
	1937	4	7	374	5	379	17,016	14,964
	1938	2	4	2,200	..	2,200	72,175	72,030
	1939	4	4	53	..	53	166	93
	1940	2	5	216	12	228	10,466	10,641
Northern Territory	1936	1	1	32	8	40	1,200	900
	1937	3	3	160	13	173	696	708
	1938	1	1	500	..	500	500	400
	1939	2	16	234	40	274	3,642	3,600
	1940	3	4	185	700	885	2,069	2,037
Australia	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
	1939	416	505	143,228	9,602	152,830	459,154	455,716
	1940	350	899	178,939	13,658	192,597	1,507,252	1,716,121

Detailed information in regard to the disputes during the years 1936 to 1940 and previous years is given in the *Labour Reports*, issued by this Bureau.

5. Particulars of Principal Disputes in 1940.—(i) *General*. The preceding tables show the number and effect of all disputes for 1940 classified according to Industrial Groups. Increases occurred in several of the principal groups during 1940 in respect of workpeople involved, the number of working days and the estimated loss in wages. Of the total number of disputes no less than 82 per cent. were in connexion with the coal-mining industry, mostly in New South Wales. Wages lost in this industry in New South

Wages were estimated at £1,356,768, or 79 per cent. of the total estimated loss of wages in Australia, namely, £1,716,121. Brief particulars are given in the following paragraphs of the disputes mainly responsible for losses in working days and wages in 1940.

(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 1940 one dispute of an interstate character occurred.

This dispute affected the coal-mining industry in New South Wales, Victoria, Queensland and Tasmania, the refusal by the colliery proprietors to negotiate an agreement with the unions being given as the cause.

The demands of the miners were for a uniform forty-hour working week with adjustments of rates so that there would be no reduction in wages in consequence of the shorter week and the removal of the penalty clauses provided in the awards relating to annual leave.

Hopes had been entertained that the parties would accept the offer of the Chief Judge of the Commonwealth Arbitration Court (Sir George Beeby) to preside over a compulsory conference, but neither the owners nor the unions made any move in that direction and work ceased on 11th March.

The first definite move towards a settlement was made by the Queensland Coal Owners' Advisory Committee which decided to meet the representatives of the Queensland Colliery Employees' Union on 31st March to discuss a formula for the resumption of work. However, the conference resulted in a deadlock and the coal-mining companies subsequently applied to the State Industrial Court for the deregistration of the union and cancellation of the award.

Various suggestions for a basis of settlement were made, including one that the Commonwealth Government should take over all collieries for the duration of the war.

The most promising of these moves was the suggestion by the Federal Labour leader, Mr. J. Curtin, that the Australasian Council of Trade Unions should ask the Commonwealth Arbitration Court to call a conference of the parties.

On 15th April a meeting of representatives of the combined mining unions and representatives of the A.C.T.U. was held and it was decided that in the event of the Commonwealth Government or the Commonwealth Arbitration Court convening a compulsory conference, the combined mining unions would attend.

A further conference held in Canberra at the end of April was attended by the Prime Minister (Rt. Hon. R. G. Menzies), Mr. J. Curtin and representatives of the coal-miners and the A.C.T.U.

This conference was adjourned pending the result of a delegation of mining union leaders and representatives of the A.C.T.U. which was to interview Sir George Beeby, Chief Judge of the Commonwealth Arbitration Court.

When this conference achieved no results the leaders of the combined mining unions decided to convene a meeting of their executive in Sydney for 2nd May. A general conference of all unions directly concerned in the dispute was called for the same date. Pending the result of these meetings the Prime Minister agreed to defer the promulgation of regulations to enable the Commonwealth Government to re-open coal-mines with volunteer labour. It was decided by these conferences that an aggregate vote should be taken on the question of returning to work. As the vote, when taken, favoured continuance of the dispute, steps were taken by the Commonwealth Government to implement the regulations.

Negotiations for a settlement were continued, and on 16th May it was announced that a basis for settlement had been reached at a conference attended by the union leaders, the Federal Attorney-General, the Federal Treasurer, the New South Wales Premier and the Minister for Mines.

The terms of settlement were:—(a) A conference to be held on the day of resumption of work, with the Chief Judge of the Commonwealth Arbitration Court presiding; (b) Any grievances still outstanding after the conference to be referred to the Court for immediate settlement; and (c) All "free" labour to be withdrawn from mines, and all members of the combined mining unions to be reinstated in their jobs.

Work was resumed after a stoppage of about ten weeks.

(iii) *New South Wales.* Refusal by the management to recognize a claim by a miner for a "deficient place" was given as the cause of a dispute involving coal-miners at Wongawilli Colliery, Dapto, in January, 1940. Attempts at settlement were unavailing and the dispute was still in progress when the general stoppage of coal-miners commenced in February, 1940.

Dissatisfaction with the practice (which had been in operation for several years) of sending men off for meal break at different times within the award provisions was given as the cause of a stoppage of work at the Australian Iron and Steel Ltd. works at Port Kembla in February, 1940. The employees requested the management to allow all employees to take the meal break at the same time, but this was refused. After a stoppage of about thirteen weeks, the dispute was settled by a decision of the New South Wales Industrial Commission that award conditions prevailing before the dispute be observed.

Colliery employees in the Southern District of New South Wales were idle owing to a dispute, for about eight days in October, 1940. The reason given for the stoppage was dissatisfaction with an award of the Commonwealth Arbitration Court. A compulsory conference was called under the provisions of the Commonwealth Conciliation and Arbitration Act and work was resumed pending the result of this conference.

The dismissal of an employee was reported as the cause of a stoppage of work for six days by munition workers at Lithgow in November, 1940. Approximately 2,450 workers were involved and work was resumed as the result of direct negotiations between the employers and employees' representatives, the dismissed employee being reinstated.

Reductions in wages to several classifications and minor alterations in conditions brought about as a result of appeals by the unions and employers before the full bench of the Industrial Commission was given as the cause of a dispute involving ironworkers at Port Kembla in November, 1940.

Approximately 1,400 workpeople were concerned either directly or indirectly and the dispute, which lasted about two weeks, was settled by the intervention of the New South Wales Arbitration Court, certain minor concessions being agreed to by the employers and accepted by the employees.

Coal-mining employees in the Northern districts of New South Wales were involved in a dispute in December, 1940. The cause of the dispute was the alleged infringement by the employers of a seniority custom.

A compulsory conference under the provisions of the Commonwealth Conciliation and Arbitration Act was called and as a result work was resumed after a stoppage for three days.

(iv) *Victoria.*—The refusal by the employers to grant demands for special allowances and a reversion to a five-day week was given as the cause of a dispute involving builders at Deer Park in October, 1940. The dispute which lasted for about three weeks was settled by negotiations between representatives of the employees and the Minister for Labour.

The refusal of a demand for one shilling a day above award rates was reported as the cause of a dispute in the building industry at Fishermen's Bend in November, 1940. As the result of a tribunal presided over by Judge Drake-Brockman the employees agreed to accept a smaller increase than originally demanded and work was resumed after a stoppage of about two weeks.

(v) *Queensland.* A reduction in the "darg" was given as the cause of a dispute involving persons employed in the coal-mining industry at the State Coal Mine, Collinsville, in October, 1940. After a stoppage of more than two weeks work was resumed on terms set out by the Minister of Mines. These terms were—(a) No interference by the union with the output of the mine; (b) The manager to employ new labour as required; (c) Three turnkeepers to be appointed to attend to distribution of skips; and (e) The docked wages to be refunded.

Work was resumed under protest, the matters in dispute to be submitted to the Board of Reference for final decision.

The refusal of a claim for increased wages, double time for Sunday work and work after midnight was given as the cause of a dispute involving metalliferous miners at Mount Isa in October, 1940. Negotiations between the parties concerned were successful in finding a basis for settlement, tradesmen being granted an increase and the balance of the claims to be submitted to the State Industrial Court. Work was resumed after a stoppage of about six weeks.

6. Duration of Industrial Disputes, 1940.—The following table gives particulars of industrial disputes during 1940 according to certain adopted limits of duration :—

INDUSTRIAL DISPUTES : DURATION, AUSTRALIA, 1940.

Limits of Duration.	Number.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
		Directly.	Indirectly.	Total.		
						£
1 day and less	201	106,783	8,048	114,831	113,866	135,107
2 days and more than 1 day	51	16,102	1,104	17,206	34,167	33,694
3 " " " 2 days	23	11,339	1,785	13,124	36,112	45,961
Over 3 days and less than 1 week (6 days)	20	3,871	143	4,014	17,662	17,263
1 week and less than 2 weeks	26	14,849	1,769	16,618	115,550	115,966
2 " " " 4 weeks	16	5,458	790	6,248	102,739	100,029
4 " " " 8 weeks	8	3,327	19	3,346	151,934	177,028
8 weeks and over ..	5	17,210	..	17,210	935,222	1,091,073
Total	350	178,939	13,658	192,597	1,507,252	1,716,121

7. Causes of Industrial Disputes, 1913 to 1940.—The following table shows the principal causes of the industrial disputes which occurred in 1913 and from 1935 to 1940 :—

INDUSTRIAL DISPUTES : CAUSES, AUSTRALIA.

Causes of Dispute.	1913.	1935.	1936.	1937.	1938.	1939.	1940.
	NUMBER.						
1. Wages—							
(a) For increase	42	9	16	28	10	13	16
(b) Against decrease	4	5	1	1	2	4	1
(c) Other wage questions ..	31	44	48	77	67	58	54
2. Hours of Labour—							
(a) For reduction	3	..	1	2	2	12	..
(b) Other disputes re hours ..	7	2	4	4	1	9	20
3. Trade Unionism—							
(a) Against employment of non-unionists	8	4	4	5	5	1	2
(b) Other union questions ..	5	12	16	24	43	48	34
4. Employment of particular Classes or Persons	44	53	81	80	106	107	80
5. Working Conditions	51	40	43	72	73	90	46
6. Sympathetic	5	1	5	11	4	1	7
7. Other Causes	8	13	16	38	63	73	90
Total	208	183	235	342	376	416	350

WORKPEOPLE INVOLVED.

1. Wages—							
(a) For increase	8,633	2,161	2,014	7,678	967	4,384	4,242
(b) Against decrease	563	339	40	15	914	279	296
(c) Other wage questions ..	7,160	11,804	12,930	21,588	21,399	17,094	17,841
2. Hours of Labour—							
(a) For reduction	460	..	20	429	4,050	4,150	..
(b) Other disputes re hours ..	1,819	1,601	488	1,474	36	3,383	7,635
3. Trade Unionism—							
(a) Against employment of non-unionists	5,370	581	1,612	3,542	1,659	21	254
(b) Other union questions ..	1,418	2,532	4,011	5,889	13,241	16,030	10,314
4. Employment of particular Classes or Persons	11,370	11,497	22,978	20,401	30,020	28,691	28,955
5. Working Conditions	10,785	11,298	10,985	17,854	40,206	28,092	14,614
6. Sympathetic	947	22	1,062	3,235	1,260	2,600	4,973
7. Other Causes	1,758	5,487	4,447	14,068	30,202	48,106	103,473
Total	50,283	47,322	60,587	96,173	143,954	152,830	192,597

INDUSTRIAL DISPUTES: CAUSES, AUSTRALIA—continued.

Causes of Dispute.	1913.	1935.	1936.	1937.	1938.	1939.	1940.
WORKING DAYS LOST.							
1. Wages—							
(a) For increase	100,069	72,567	33,439	144,372	32,390	24,115	25,590
(b) Against decrease ..	9,438	1,621	120	30	7,340	4,472	592
(c) Other wage questions ..	78,183	73,020	32,068	107,904	116,468	67,550	92,471
2. Hours of Labour—							
(a) For reduction	2,774	..	340	1,897	34,300	21,636	..
(b) Other disputes re hours ..	15,111	48,878	9,577	4,442	900	10,752	20,977
3. Trade Unionism—							
(a) Against employment of non-unionists	91,002	2,613	7,509	20,750	2,906	63	1,866
(b) Other union questions ..	32,388	11,696	9,616	9,569	80,280	52,086	15,553
4. Employment of particular Classes or Persons	191,723	144,453	266,310	138,428	104,454	81,101	105,766
5. Working Conditions	73,562	64,612	119,475	85,746	744,147	108,409	33,709
6. Sympathetic	24,066	44	10,209	11,230	4,440	2,600	16,796
7. Other Causes	5,212	75,618	8,585	32,743	210,369	86,370	1,195,130
Total	623,528	495,124	497,248	557,111	1,337,994	459,154	1,507,252

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 1925 the number of disputes concerning "Wages" has averaged 23 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 most of the years since 1925, averaging 30 per cent. of the total number for each year during that period. 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 last 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.
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..	94	229	18	34	24,953	75,100	6,037	36,201	90,375	149,959	45,205	1,022,521
1939..	75	302	19	20	22,517	117,445	6,233	6,635	104,192	256,602	43,569	54,791
1940(a)	99	213	12	24	36,303	128,874	1,800	25,092	162,662	443,682	6,655	885,941

(a) The following disputes in New South Wales which were incomplete at 31st December, 1940, should be added to the above figures to effect a balance with those published in the preceding tables:—2 disputes; 528 workpeople; 8,312 working days lost.

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.	1935.	1936.	1937.	1938.	1939.	1940.(a)
NUMBER.							
Negotiation—							
Direct between employers and employees or their representatives	119	130	174	265	245	277	192
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	17	3	16	9	17	17	12
Under State Industrial Act—							
By intervention, assistance, or compulsory conference ..	19	7	3	6	3	5	6
By reference to Board or Court ..	22	6	6	4	9	2	7
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference ..	4	5	2	2	9	6	25
By filling places or workpeople on strike or locked out ..	13	8	4	5	..	1	..
By closing-down establishment permanently	1	4	..	1	..	2	1
By other methods	13	18	30	48	92	106	105
Total	208	181	235	340	375	416	348
WORKPEOPLE INVOLVED.							
Negotiation—							
Direct between employers and employees or their representatives	23,357	30,360	44,251	72,430	70,481	80,195	53,084
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	3,172	285	5,061	2,764	4,845	2,489	3,520
Under State Industrial Act—							
By intervention, assistance, or compulsory conference ..	6,505	3,867	291	1,804	1,844	4,925	2,766
By reference to Board or Court ..	12,774	1,445	1,746	428	5,519	429	2,617
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference ..	659	2,017	339	480	21,289	3,268	35,203
By filling places of workpeople on strike or locked out ..	658	3,670	141	825	..	20	..
By closing-down establishment permanently	170	108	..	86	..	178	13
By other methods	2,988	5,436	8,758	16,773	38,313	61,326	92,866
Total	50,283	47,188	60,587	95,590	142,291	152,830	192,069
WORKING DAYS LOST.							
Negotiation—							
Direct between employers and employees or their representatives	94,400	192,903	234,373	396,410	203,175	245,709	152,848
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	26,335	3,211	202,949	18,517	64,220	52,943	21,018
Under State Industrial Act—							
By intervention, assistance, or compulsory conference ..	187,871	117,762	3,047	48,769	11,796	35,647	8,665
By reference to Board or Court ..	221,769	16,961	24,503	7,354	326,881	3,366	30,420
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference ..	2,105	24,601	7,152	4,120	629,075	46,450	1,032,801
By filling places of workpeople on strike or locked out ..	14,139	74,873	2,581	12,571	..	20	..
By closing-down establishment permanently	20,400	7,546	..	172	..	3,892	377
By other methods	56,509	48,943	22,643	31,162	72,913	71,127	252,811
Total	623,528	486,800	497,248	519,075	1,308,060	459,154	1,498,940

(a) See note to previous table.

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 348 disputes settled during 1940, 192 or 55 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 1940 was 11 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.

§ 4. Apprenticeship.

In Official Year Book No. 16, pp. 602-3 particulars are given of legislation relating to the question of apprenticeship. Tables are 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 appears 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 Official Year Book. The latest information available as to registrations is as follows:—New South Wales, 191 industrial unions of employers and 157 industrial unions of employees, the membership not being available in either case; Queensland, 17 industrial unions of employers with approximately 15,000 members, and 78 industrial unions of employees with approximately 195,000 members; South Australia, 33 organizations of employers with 31,000 members; Western Australia, 35 organizations of employers with 1,150 members, and 137 organizations of employees with 59,000 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, 1940, there were 37 registered organizations of employers and 153 registered organizations of employees, with a total estimated membership for the latter of 810,000.

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 are briefly outlined in *Labour Report No. 2* (pp. 7-9) 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 1940:—

TRADE UNIONS : BRANCHES AND MEMBERS, 1940.

State or Territory.	Number of Separate Unions.	Number of Branches.	Number of Members.
New South Wales	196	601	364,202
Victoria	147	387	232,288
Queensland	115	309	189,732
South Australia	118	174	73,503
Western Australia	140	209	68,271
Tasmania	77	71	24,556
Northern Territory	4	..	1,405
Australian Capital Territory ..	15	1	1,905
Total	812	1,752	955,862
Australia	381 (a)	2,183 (b)	955,862

(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, 381 distinct organizations and interstate groups of organizations in Australia, having 2,183 State branches and sub-branches, and a total of 955,862 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.	1936.	1937.	1938.	1939.	1940.
NUMBER OF UNIONS.					
Manufacturing—					
I. Wood, Furniture, etc. . .	17 (4)	17 (4)	17 (4)	17 (4)	17 (5)
II. Engineering, Metal Works, etc. . .	63 (21)	63 (22)	63 (22)	64 (22)	63 (23)
III. Food, Drink, Tobacco, etc. . .	69 (33)	70 (35)	70 (34)	72 (35)	72 (35)
IV. Clothing, Hats, Boots, etc. . .	24 (11)	24 (11)	26 (12)	26 (12)	26 (12)
V. Books, Printing, etc. . .	14 (8)	14 (7)	14 (8)	14 (8)	14 (8)
VI. Other Manufacturing . . .	73 (35)	73 (36)	73 (36)	71 (37)	70 (37)
VII. Building . . .	49 (27)	49 (27)	49 (28)	48 (28)	49 (28)
VIII. Mining, Quarrying, etc. . .	16 (13)	15 (12)	15 (12)	16 (13)	19 (13)
IX. Railway and Tramway Services . .	50 (29)	50 (28)	50 (27)	51 (29)	50 (29)
X. Other Land Transport . . .	11 (4)	12 (5)	13 (6)	13 (6)	13 (6)
XI. Shipping, etc. . .	55 (21)	55 (21)	55 (20)	60 (21)	58 (21)
XII. Pastoral, Agricultural, etc. . .	11 (7)	9 (8)	9 (6)	9 (5)	9 (5)
XIII. Domestic, Hotels, etc. . .	20 (15)	20 (15)	20 (16)	19 (18)	18 (17)
XIV. Miscellaneous—					
(i) Banking, Insurance and Clerical . .	32 (16)	32 (16)	32 (16)	33 (20)	33 (20)
(ii) Public Service . .	148 (48)	148 (47)	148 (50)	147 (50)	142 (49)
(iii) Retail and Wholesale . .	8 (8)	8 (8)	8 (8)	15 (8)	15 (8)
(iv) Municipal, Sewerage and Labouring . .	16 (11)	16 (11)	16 (12)	20 (11)	20 (11)
(v) Other Miscellaneous . .	108 (45)	108 (45)	123 (49)	124 (53)	124 (54)
Total	784 (356)	783 (358)	801 (366)	819 (380)	812 (381)

NUMBER OF MEMBERS.

Manufacturing—					
I. Wood, Furniture, etc. . .	25,365	27,465	27,831	27,990	29,520
II. Engineering, Metal Works, etc. . .	79,047	83,993	94,228	99,731	112,230
III. Food, Drink, Tobacco, etc. . .	72,120	76,702	75,753	80,328	77,229
IV. Clothing, Hats, Boots, etc. . .	62,269	66,323	66,427	68,847	73,489
V. Books, Printing, etc. . .	19,425	20,461	21,661	22,303	22,997
VI. Other Manufacturing . . .	46,832	49,333	48,410	52,074	62,185
VII. Building . . .	56,727	59,484	47,953	45,651	53,998
VIII. Mining, Quarrying, etc. . .	40,184	44,912	43,429	48,812	49,921
IX. Railway and Tramway Services . .	94,944	97,435	104,523	105,938	101,940
X. Other Land Transport . . .	10,287	15,829	18,969	19,488	18,315
XI. Shipping, etc. . .	27,346	27,611	28,780	28,760	29,773
XII. Pastoral, Agricultural, etc. . .	31,869	34,624	38,424	40,276	44,524
XIII. Domestic, Hotels, etc. . .	16,091	15,933	12,835	13,177	16,805
XIV. Miscellaneous—					
(i) Banking, Insurance and Clerical . .	35,315	36,044	37,639	39,013	42,439
(ii) Public Service . .	83,484	84,716	86,797	89,848	92,688
(iii) Retail and Wholesale . .	32,178	33,055	34,140	36,290	35,119
(iv) Municipal, Sewerage and Labouring . .	39,603	40,948	45,126	46,552	47,673
(v) Other Miscellaneous . .	41,723	41,425	52,233	50,392	45,617
Total	814,809	856,283	885,158	915,470	955,862

(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, 1936-1940. 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.

Following on tabulation of the results of the National Register of July, 1939, and a further analysis of grades of occupation of persons under age 20 years, as classified at the Census of 1933, it was found necessary to revise the estimated numbers in the wage and salary earning group. These revised estimates are shown below as at December in each year 1936 to 1940. The numbers include all who would normally be classifiable as "available" wage and salary earners (excluding unpaid helpers but including persons unemployed from any cause). They make no allowance, however, for the influx into the ranks of the workers of adult and junior males and females due to war conditions. The magnitude of this is being ascertained, and in the meantime no authoritative figures can be given.

TRADE UNIONS : NUMBER OF MALE AND FEMALE MEMBERS AND PERCENTAGE TO TOTAL EMPLOYEES, AUSTRALIA.

Particulars.	1936.	1937.	1938.	1939.	1940.
MALES.					
Estimated No. of Adult Wage and Salary Earners (20 years of age and over) ..	1,451,600	1,470,200	1,488,200	1,507,500	1,529,800
No. of Members of Unions ..	685,795	720,587	748,749	778,336	806,572
Percentage of Members on Estimated Number of Adult Wage and Salary Earners ..	47.2	49.0	50.3	51.6	52.7
Junior Wage and Salary Earners (under 20)	265,400	268,600	273,200	275,600	275,500
FEMALES.					
Estimated No. of Adult Wage and Salary Earners (20 years of age and over) ..	397,600	404,700	410,900	417,600	426,000
No. of Members of Unions ..	129,014	135,696	136,409	137,134	149,290
Percentage of Members on Estimated Number of Adult Wage and Salary Earners ..	32.4	33.5	33.2	32.8	35.0
Junior Wage and Salary Earners (under 20)	176,400	179,900	183,900	187,200	188,500

**TRADE UNIONS: NUMBER OF MALE AND FEMALE MEMBERS AND
PERCENTAGE TO TOTAL EMPLOYEES, AUSTRALIA—continued.**

Particulars.	1936.	1937.	1938.	1939.	1940.
TOTAL.					
Estimated No. of Adult Wage and Salary Earners (20 years of age and over) ..	1,849,200	1,874,900	1,899,100	1,925,100	1,955,800
No. of Members of Unions ..	814,809	856,283	885,158	915,470	955,862
Percentage of Members on Estimated Number of Adult Wage and Salary Earners ..	44.1	45.7	46.6	47.6	48.9
Junior Wage and Salary Earners (under 20)	441,800	448,500	457,100	462,800	464,000

(v) *Interstate or Federated Unions.* The following table gives particulars as to the number and membership of interstate or federated unions in 1940 :—

INTERSTATE OR FEDERATED UNIONS : AUSTRALIA, 1940.

Particulars.	Unions Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States. (a)	
Number of Unions ..	18	13	10	25	42	117
„ „ Members ..	28,730	46,757	138,840	210,020	379,085	803,432

(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 117 out of the 381 separate associations and groups of associations in Australia are organized on an interstate basis. The membership of these 117 unions was 803,432 or 84 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.

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 1940 :—

CENTRAL LABOUR ORGANIZATIONS : NUMBER, AND UNIONS AFFILIATED, 1940.

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 ..	105	177	81	50	209	57	9	688

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 is given of Labour Laws in force in Australia at the end of 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 is also included.

§ 2. Employers' Associations.

The year 1922 was the first for which information was collected in respect of employers' Associations, and detailed particulars for that and subsequent years up to 1939 appear in previous issues of the Official Year Book and in the *Labour Reports*. Owing to limitations of space, however, the publication of the tabulated results has been discontinued.

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.	Retail Price Index-numbers.				Nominal Wages, Adult Males.	Real Wages. (b)	Percentage of Unemployment among Trade Unionists.
	Food and Groceries.	Housing (4 and 5 Rooms).	Food Housing (4 and 5 Rooms) "B" Series.	All Items of Household Expenditure "C" Series.			
Year—							%
1911	1,000	1,000	1,000	(c) 1,000	1,000	(c) 1,000	4.7
1914	1,144	1,082	1,121	1,140	1,081	948	8.3
1921	1,902	1,410	1,717	1,680	1,826	1,087	11.2
1928	1,761	1,743	1,755	1,675	1,963	1,172	10.8
1929	1,866	1,754	1,824	1,713	1,972	1,151	11.1
1930	1,682	1,711	1,693	1,618	1,939	1,198	19.3
1931	1,477	1,473	1,475	1,448	1,752	1,210	27.4
1932	1,425	1,336	1,391	1,377	1,639	1,190	29.0
1933	1,342	1,314	1,332	1,335	1,584	1,187	25.1
1934	1,400	1,324	1,371	1,355	1,590	1,173	20.5
1935	1,442	1,372	1,416	1,380	1,612	1,169	16.5
1936	1,475	1,437	1,461	1,409	1,638	1,162	12.2
1937	1,521	1,488	1,510	1,448	1,707	1,178	9.3
1938	1,584	1,540	1,568	1,488	1,799	1,209	8.7
1939	1,657	1,577	1,626	1,526	1,846	1,211	9.7
1940	1,679	1,590	1,644	1,588	1,889	1,190	8.0
1941	1,693	1,595	1,654	1,673	1,997	1,194	3.7
Quarter—							
1935.							
March	1,420	1,356	1,396	1,368	1,607	1,175	18.6
June	1,425	1,363	1,402	1,371	1,609	1,174	17.8
September	1,461	1,379	1,430	1,389	1,613	1,161	15.9
December	1,460	1,390	1,434	1,391	1,620	1,165	13.7
1936.							
March	1,445	1,413	1,433	1,391	1,623	1,167	13.4
June	1,435	1,425	1,444	1,397	1,629	1,166	12.8
September	1,489	1,449	1,474	1,420	1,641	1,156	12.0
December	1,510	1,461	1,491	1,430	1,659	1,160	10.7
1937.							
March	1,510	1,470	1,495	1,433	1,662	1,160	9.9
June	1,507	1,483	1,498	1,441	1,680	1,166	9.7
September	1,526	1,499	1,516	1,454	1,721	1,184	9.3
December	1,540	1,510	1,529	1,465	1,763	1,203	8.2
1938.							
March	1,540	1,521	1,534	1,467	1,778	1,212	8.0
June	1,572	1,534	1,558	1,482	1,787	1,206	8.6
September	1,616	1,547	1,589	1,500	1,806	1,204	9.2
December	1,668	1,559	1,589	1,501	1,823	1,215	8.9
1939.							
March	1,673	1,568	1,631	1,524	1,826	1,198	9.6
June	1,654	1,575	1,623	1,522	1,847	1,214	9.5
September	1,645	1,582	1,620	1,520	1,854	1,220	10.2
December	1,657	1,584	1,628	1,536	1,858	1,210	9.3
1940.							
March	1,640	1,587	1,620	1,542	1,864	1,209	7.9
June	1,688	1,589	1,649	1,583	1,875	1,184	10.5
September	1,676	1,591	1,642	1,590	1,903	1,197	7.4
December	1,710	1,593	1,663	1,635	1,912	1,169	6.2
1941.							
March	1,713	1,595	1,666	1,651	1,966	1,191	5.3
June	1,679	1,595	1,646	1,660	1,984	1,195	3.6
September	1,673	1,595	1,643	1,675	2,002	1,195	3.2
December	1,705	1,596	1,662	1,707	2,034	1,192	2.9

(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) Index of nominal weekly wage rates divided by "C" Series index of retail prices. (c) Taken back from true base (November, 1914) by means of the Food and Rent of All Houses ("A" Series) Index.

CHAPTER XXV.

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.* (a) *General.* Under Section 51 of the Commonwealth Constitution, 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.

(b) *War-time Banking Control.* On 26th November, 1941, the National Security (War-time Banking Control) Regulations were brought into force. These regulations relate, in general, to persons or corporations (other than a bank of the Commonwealth or any State) engaged in the business of banking, and, in particular, to the fourteen trading banks, and provide for the holding of a licence in order to carry on business. The consequence of contravention of the regulations may be the withdrawal of a licence. Advances made by the trading banks must comply with the policy laid down by the Commonwealth Bank, and the purchase or subscription to loans or securities is only possible with its consent. The surplus investible funds of the trading banks are to be lodged with the Commonwealth Bank in a special account, from which they can be drawn only with the consent of the Commonwealth Bank. “ Surplus investible funds ” are defined as the amount by which the total assets in Australia at any time exceed the average of the total assets in Australia at the weekly balancing days during August,

1939. A rate of interest fixed by the Treasurer from time to time, and designed to secure that the trading profits of the trading bank shall not exceed the average of its annual trading profits for the three years ended 31st August, 1939, will be payable upon funds in this special account. The trading banks are further required to prepare and publish annual profit and loss accounts and balance sheets according to the specification of the Treasurer. In common with any other person or corporation which accepts deposits of money, they must also furnish statements in respect of business, as required by the Treasurer and the Commonwealth Bank. The Auditor-General is empowered to investigate and report periodically on the accounts, books and transactions of every trading bank.

On 14th March, 1942, by order under the National Security (Economic Organization) Regulations maximum rates of interest on fixed deposits, bank overdrafts, savings bank deposits, loans to local authorities and loans by pastoral companies, life assurance companies, building societies and co-operative societies were fixed.

(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 1905-1938, 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 appears 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. 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 1940-41.* 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 30th September, 1941. It must

be noted that in the case of some of the banks the reserve funds 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, 1940-41.

Bank.	Paid-up Capital.	Reserves.	Balance on Profit and Loss Account. (a)	Total Share-holders' Funds.	Reserve Liability of Share-holders.	Profits for year.	Dividends. (b)
£	£	£	£	£	£	£	£
Australian Joint-Stock Banks—							
Bank of New South Wales ..	8,780,000	6,150,000	361,046	15,291,046	8,780,000	547,123	526,800
Commercial Banking Co. of Sydney Ltd.	4,739,012	4,300,000	300,142	9,339,154	4,739,013	349,589	355,426
National Bank of Australasia Ltd.	5,000,000	3,300,000	293,577	8,593,577	1,800,000	281,296	300,000
Commercial Bank of Australia Ltd.	4,117,350	2,250,000	232,803	6,600,153	..	223,110	226,361
Ballarat Banking Co. Ltd.	159,000	115,000	17,619	291,619	141,000	12,792	10,335
Queensland National Bank Ltd.	1,750,000	860,000	66,173	2,676,173	..	87,835	87,500
Brisbane Permanent Building and Banking Co. Ltd.	750,000	220,000	53,310	1,023,310	..	45,746	37,500
Bank of Adelaide ..	1,250,000	1,000,000	65,628	2,315,628	1,250,000	466,520	68,750
Bank of Australasia ..	4,500,000	4,500,000	389,025	9,389,025	4,500,000	266,106	261,000
Union Bank of Australia Ltd.	4,000,000	4,850,000	270,309	9,120,309	8,000,000	196,958	194,500
English, Scottish and Australian Bank Ltd.	3,000,000	3,325,000	423,439	6,748,439	2,000,000	185,088	149,516
Total Australian Joint-Stock Banks	38,045,362	30,870,000	2,473,071	71,388,433	31,210,013	2,262,163	2,217,688
Other Cheque-paying Banks—							
Commonwealth Bank of Australia—							
General Bank ..	4,000,000	3,183,714	..	7,183,714	..	385,680	..
Rural Credits ..	2,000,000	389,454	..	2,389,454	..	48,406	..
Rural Bank of New South Wales (Rural Department only) (c)	14,555,303	2,120,227	..	16,675,530	..	36,874	..
State Bank of South Australia (General Department only) ..	(f) 2,050,000	..	..	2,050,000	..	-1,396	..
Bank of New Zealand ..	6,328,125	3,575,000	392,500	10,295,625	..	461,909	461,718
Comptoir National d'Escompte de Paris (g)	2,857,143	3,214,832	153,249	6,225,224	..	(h)	(h)
Yokohama Specie Bank Ltd. (i) ..	10,000,000	14,538,278	1,904,203	26,442,481	..	1,146,628	1,000,000

(a) Includes dividends declared but not paid at date of balance-sheet. (b) Dividends paid and payable out of profits earned during 1940-41. (c) See sub-par. (ii) below. (d) Total stocks and debentures issued including liability in respect of deposits taken over by the Commonwealth Bank December, 1931. (e) Includes £1,285,891 Special Reserve Account established under Section 12 (2) of Rural Bank of New South Wales Act 1932. (f) Capital advanced by Government of South Australia and Sale of Bonds. (g) Approximate. Figures converted at rate of 140 Francs to £. Figures relate to year ended December, 1939. Later figures are not available. (h) Not available. (i) Approximate. Figures converted at rate of 10 Yen to £.

NOTE.—Minus sign (—) indicates loss for year.

(ii) *Suspension of Payments, etc.*—Particulars of the suspension of payments by the Rural Bank Department of the Government Savings Bank of New South Wales, the amalgamation of this bank with the Commonwealth Savings Bank, the creation of the Rural Bank, and the amalgamations and absorptions of various other banks during the years 1931 to 1933 are given in previous issues of the Official Year Book.

5. *Commonwealth Bank.*—(i) *General.* A brief account of the foundation of the Commonwealth Bank is 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. One half of the profits of the Rural Credits Department is paid to Reserve Fund and one half to the Development Fund.

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 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 still controls 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 outbreak of the present war the Bank has made large advances to finance wheat and other primary products and to assist the war programme of the Commonwealth Government. In addition, it is carrying out special war-time functions in connexion with Monetary and Exchange Control and the raising of War Loans. Since 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, excluding those of the Note Issue Department, 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, 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
" 1940 ..	10,112,526	5,265,119	676,464	16,054,109
" 1941 ..	10,498,206	5,652,570	724,870	16,875,646

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, 1941, the latter fund, as shown in its Summary of Transactions, had benefited to the extent of £5,685,326.

(iii) *Liabilities in Australia.*—(a) *Year 1940-41.* The following table gives particulars of the average liabilities in Australia for each quarter of the year 1940-41 :—

**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, 1940	555,306	29,690,162	33,812,843	49,512,211	83,325,054	113,570,522
December, 1940	542,808	32,989,473	25,865,072	57,525,889	83,390,961	116,023,242
March, 1941	442,030	36,645,130	25,041,148	56,708,121	81,749,269	118,836,429
June, 1941	544,952	29,078,419	28,699,147	55,150,275	83,849,422	113,472,793

(a) Excludes Commonwealth Savings Bank. (b) Includes deposits of "Other Cheque-paying Banks". (c) Government "Set-off" Accounts (Interstate) deducted.

(b) *Quarters ended June 1937 to 1941.* The average liabilities in Australia for the quarter ended June in each of the years 1937 to 1941, are given in the table below :—

**COMMONWEALTH BANK OF AUSTRALIA : AVERAGE LIABILITIES,
QUARTERS ENDED JUNE.(a)**

Quarter Ended June—	Bills in Circulation.	Balances Due to Other Banks. (b)	Deposits.			Total Liabilities.
			Not Bearing Interest.(c)	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£
1937	274,326	24,459,313	16,534,597	37,635,236	54,169,833	78,903,472
1938	314,840	19,404,009	18,505,546	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
1940	596,807	28,968,233	30,053,407	50,169,377	80,222,784	109,787,824
1941	544,952	29,078,419	28,699,147	55,150,275	83,849,422	113,472,793

(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 1940-41.* The average assets in Australia for each quarter of the year 1940-41 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, 1940	643,626	1,141,451	2,538,687	34,923,071	602,557	517,616	223,059	35,862,089	76,452,156
December, 1940	669,763	940,423	2,415,047	34,851,696	571,040	533,616	153,762	32,108,915	72,244,262
March, 1941	753,026	916,014	2,564,506	37,071,715	563,491	1,023,012	164,502	27,148,073	70,204,339
June, 1941	846,670	679,004	2,298,588	37,975,659	522,995	1,472,564	162,942	24,625,654	68,584,076

(a) Excludes Commonwealth Savings Bank.
loans in Australia other than Treasury Bills.

(b) Includes Treasury Bills.

(c) Includes short-term
(d) Government "Set-off" Accounts (Interstate) deducted.

(b) *Quarters ended June 1937 to 1941.* 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.	Australian Notes.	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.
	£	£	£	£	£	£	£	£	£
1937 ..	740,085	330,535	4,172,308	44,362,856	762,422	91,318	29,834	11,311,802	61,065,160
1938 ..	864,415	353,039	4,020,697	41,952,657	719,234	108,051	28,288	15,159,773	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
1940 ..	874,600	824,582	2,569,450	33,086,001	624,427	1,273,658	159,620	37,411,771	76,824,109
1941 ..	846,670	679,004	2,298,588	37,975,659	522,995	1,472,564	162,942	24,625,654	68,584,076

(a) Excludes Commonwealth Savings Bank loans in Australia other than Treasury Bills.

(b) Includes Treasury Bills.

(c) Includes short-term Government "Set-off" Account (Interstate) deducted.

6. *Other Cheque-paying Banks.*—(i) *Liabilities in Australia.* (a) *Year 1940-41.* Particulars of the average liabilities in Australia of "other cheque-paying banks" for each quarter from September, 1940, to June, 1941, 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, 1940	166,856	3,324,802	1,137,961	142,179,159	210,913,368	353,092,527	357,722,146
December, 1940	166,837	3,428,097	1,061,144	154,781,633	210,559,694	365,341,327	369,998,305
March, 1941 ..	166,670	3,399,046	1,004,060	163,802,188	213,741,531	377,543,719	382,113,495
June, 1941 ..	166,766	3,625,160	1,028,378	160,943,925	213,257,947	374,201,872	379,022,176

(a) Includes Inscribed Deposit Stock of the E. S. and A. and Queensland National Banks.

(b) *Quarters ended June, 1937 to 1941.* The next table shows the average liabilities in Australia of "other cheque-paying banks" for the quarter ended June from 1937 to 1941.

**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.	
	£	£	£	£	£	£	£
1937 ..	167,360	2,850,852	1,808,872	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
1940 ..	166,877	3,679,950	1,170,227	140,725,097	218,026,271	358,751,368	363,768,422
1941 ..	166,766	3,625,160	1,028,378	160,943,925	213,257,947	374,201,872	379,022,176

(a) Includes Inscribed Deposit Stock of the E. S. and A. and Queensland National Banks.

(ii) *Assets in Australia.* (a) Year 1940-41. 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.	Austra- lian Notes. (a)	Government and Municipal Securities. (b)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances, Discounts, Over- drafts, and all Other Assets. (c)	Total Assets.
	£	£	£	£	£	£	£	£	£
September, 1940	1,825,970	235,653	38,626,256	79,979,452	11,150,325	3,858,163	2,174,183	309,649,606	447,499,308
December, 1940	1,985,246	204,074	41,693,766	93,339,923	11,184,882	4,607,705	2,218,848	304,196,052	459,490,498
March, 1941 ..	2,122,658	256,474	44,301,077	103,643,229	11,205,675	4,409,241	2,266,199	300,925,878	469,130,431
June, 1941 ..	1,913,644	241,559	35,384,007	104,951,952	11,271,231	4,501,817	2,359,599	305,908,868	466,732,677

(a) Includes Cash with Commonwealth Bank.
term loans in Australia other than Treasury Bills.

(b) Includes Treasury Bills.

(c) Includes short-

(b) *Quarters ended June, 1937 to 1941.* The average assets in Australia of "other cheque-paying banks" for the quarter ended June in each of the years 1937 to 1941 are given below:—

**OTHER CHEQUE-PAYING BANKS : AVERAGE ASSETS,
QUARTERS ENDED JUNE.**

Quarter Ended June—	Coin and Bullion.	Australian Notes. (a)	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. (c)	Total Assets.
	£	£	£	£	£	£	£	£
1937	2,299,482	36,877,295	46,004,134	9,397,590	2,775,214	2,185,774	282,962,158	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
1940	2,206,387	37,555,530	85,647,336	10,950,073	3,097,814	2,366,024	309,967,796	451,790,960
1941	2,155,203	35,384,007	104,951,952	11,271,231	4,501,817	2,559,599	305,908,868	466,732,677

(a) Includes Cash with Commonwealth Bank.
short-term loans in Australia other than Treasury Bills.

(b) Includes Treasury Bills.

(c) Includes

7. *All Cheque-paying Banks.*—(i) *General.* Particulars of the aggregate average liabilities and assets in Australia of all cheque-paying banks in Australia, including the Commonwealth Bank of Australia, are given in the following paragraphs.

(ii) *Liabilities in Australia.* (a) Year 1940-41. The average liabilities in Australia of all cheque-paying banks for each quarter of the year 1940-41 were as follows:—

ALL CHEQUE-PAYING BANKS : LIABILITIES, QUARTERLY AVERAGES.(a)

Quarter Ended—	Notes in Circula- tion.	Bills in Circula- tion.	Balances Due to Other Banks.(b)	Deposits.			Total Liabilities.
				Not Bearing Interest.(c)	Bearing Interest. (d)	Total Deposits.	
	£	£	£	£	£	£	£
September, 1940	166,856	3,880,108	30,828,123	175,992,002	260,425,579	436,417,581	471,292,668
December, 1940 ..	166,837	3,971,805	34,050,617	180,646,705	268,085,583	448,732,288	486,921,547
March, 1941 ..	166,670	3,841,076	37,649,190	188,843,336	270,449,652	459,292,988	500,949,924
June, 1941 ..	166,766	4,170,112	30,106,797	189,643,072	268,408,222	458,051,294	492,494,969

(a) Excludes Commonwealth Savings Bank. (b) Includes deposits of other Cheque-paying Banks with Commonwealth Bank. (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, 1937 to 1941.* The next table shows the average liabilities in Australia for the quarter ended June from 1937 to 1941.

**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 Liabilities.
				Not Bearing Interest.(c)	Bearing Interest.(d)	Total.	
	£	£	£	£	£	£	£
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	3,448,533	20,363,329	140,225,435	250,561,218	390,786,653	414,765,632
1940 ..	166,877	4,276,757	30,138,460	170,778,504	268,195,648	438,974,152	473,556,246
1941 ..	166,766	4,170,112	30,106,797	189,643,072	268,408,222	458,051,294	492,494,969

(a) Excludes Commonwealth Savings Bank. (b) Includes Deposits of Other Cheque-paying Banks with Commonwealth Bank. (c) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted. (d) Includes Inscribed Deposit Stock of the E. S. and A. and Queensland National Banks.

(iii) *Assets in Australia.* (a) *Year 1940-41.* Particulars of the average assets in Australia for each quarter of the year 1940-41, are given in the following table :—

ALL CHEQUE-PAYING BANKS : ASSETS, QUARTERLY AVERAGES.(a)

Quarter Ended—	Coin.	Bullion.	Australian Notes. (b)	Government and Municipal Securities. (c)	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). (d) (e)	Total Assets.
	£	£	£	£	£	£	£	£	£
September, 1940..	2,469,596	1,377,104	41,164,943	114,902,223	11,752,882	4,375,779	2,397,242	345,511,695	523,951,464
December, 1940..	2,655,009	1,204,497	44,108,813	128,191,621	11,755,922	5,141,321	2,372,610	336,304,967	531,734,760
March, 1941 ..	2,875,684	1,172,488	46,865,583	140,714,944	11,769,166	5,432,253	2,430,701	328,073,951	539,334,770
June, 1941 ..	2,760,314	920,563	37,682,595	142,927,611	11,794,226	5,974,381	2,722,541	330,534,522	535,316,753

(a) Excludes Commonwealth Savings Bank. (b) Includes Cash with Commonwealth Bank. (c) Includes Treasury Bills. (d) Includes short-term loans in Australia other than Treasury Bills. (e) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted.

(b) *Quarters ended June, 1937 to 1941.* The average assets in Australia for the quarter ended June in each of the years 1937 to 1941 were as follows :—

ALL CHEQUE-PAYING BANKS : AVERAGE ASSETS, QUARTERS ENDED JUNE.(a)

Quarter ended June—	Coin and Bullion.	Australian Notes. (b)	Government and Municipal Securities. (c)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances and all Other Assets.(d)	Total Assets.
	£	£	£	£	£	£	£	£
1937..	3,370,102	41,049,603	289,630,990	10,160,012	2,866,532	2,215,608	294,273,960	443,566,807
1938..	3,813,396	35,564,117	86,840,366	10,742,379	3,003,098	2,257,228	232,201,132	465,421,716
1939..	4,416,510	32,046,111	93,820,443	11,187,055	2,898,238	2,254,002	232,688,203	479,310,562
1940..	3,905,569	40,124,980	118,733,337	11,574,500	4,371,472	2,525,644	234,379,567	528,615,069
1941..	3,680,877	37,682,595	142,927,611	11,794,226	5,974,381	2,722,541	230,534,522	535,316,753

(a) Excludes Commonwealth Savings Bank. (b) Includes Cash with Commonwealth Bank. (c) Includes Treasury Bills. (d) Short-term loans in Australia other than Treasury Bills included. (e) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted.

(iv) *Cash Reserve Ratios.* The following table shows for the quarter ended June of each of the years 1932 to 1941 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.

(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)
	%	%	%	%
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	27.7	6.3	10.2
1939	14.5	25.4	6.6	9.3
1940	7.2	28.1	3.9	10.9
1941	6.6	23.0	3.4	9.7

(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 Treasury Bills) 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)
	%	%	%	%	%	%
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
1940.. ..	46.6	82.2	75.7	87.9	105.9	102.6
1941.. ..	29.4	77.8	68.9	74.7	105.7	100.0

(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(a) PER HEAD OF POPULATION.

Quarter Ended June—	N.S.W.(b)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total.
	£	£	£	£	£	£	£	£
1937 ..	52.5	70.7	47.9	49.1	44.8	38.1	37.1	55.5
1938 ..	54.3	72.1	51.1	49.6	46.4	39.9	41.5	57.2
1939 ..	54.9	70.3	49.8	49.2	43.5	42.5	40.5	56.6
1940 ..	62.0	79.3	50.9	51.6	47.4	42.1	54.1	62.4
1941 ..	63.7	83.2	53.3	53.7	52.6	42.9	52.5	65.2

(a) Excludes deposits with Commonwealth Savings Bank.

(b) 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 1937 to 1941. 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^(a) TO TOTAL DEPOSITS.

Quarter ended June—	N.S.W. ^(b)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total.
	%	%	%	%	%	%	%	%
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	36.0
1939 ..	39.3	30.7	41.0	28.7	41.7	43.3	65.6	35.9
1940 ..	42.8	35.8	40.5	28.9	39.3	41.8	72.3	38.9
1941 ..	47.0	38.1	43.1	30.8	39.6	44.0	71.0	41.3

^(a) Excludes deposits with Commonwealth Savings Bank.

^(b) 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.

Dates from which rates operated.	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	3½	4	4½	5
19th August, 1927	4	4	4½	5
28th January, 1930	4½	4½	5	5½
26th June, 1931	3½	3½	4	4½
27th November, 1931	3	3½	3½	4
8th March, 1932	2½	3	3½	4
May–June, 1932 ^(a)	2½	3	3½	3½
1st November, 1932 ^(b)	2½	2½	3	3½
7th February, 1933	2	2½	2½	3
12th April, 1934	2	2½	2½	2½
9th August, 1934	1½	2½	2½	2½
11th October, 1934	1½	2	2½	2½
17th December, 1934	1	1½	2½	2½
24th March, 1936 ^(c)	2	2½	2½	3
24th January, 1940	1½	2½	2½	2½
28th May, 1940	1½	2	2½	2½
22nd September, 1941	1½	1½	2	2½
14th March, 1942	1½	1½	1½	2

^(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. Bank of New South Wales from 2nd March and Bank of Adelaide from 3rd March, 1936.

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 compiled from information supplied by the Commonwealth Bank, Sydney, 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 1936 to 1940 are shown separately. A weekly average of bank clearings is published in the *Monthly Review of Business Statistics* and the *Quarterly Summary of Australian Statistics*.

CLEARING HOUSE RETURNS : VALUE OF BILLS, CHEQUES, ETC., 1870 TO 1940.

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 ..	764,546	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
1931 (b) ..	683,176	566,865	144,814	96,867	71,356	18,057	1,581,135
1932 (b) ..	588,733	592,356	141,511	106,865	75,678	19,259	1,524,402
1933 (b) ..	641,400	619,230	148,335	112,250	79,689	19,864	1,620,768
1934 (b) ..	716,084	676,407	165,555	118,656	84,628	22,463	1,783,793
1935 (b) ..	775,986	724,327	181,889	132,689	94,705	24,713	1,934,309
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
1939— Ordinary Trans- actions ..	932,367	812,563	222,988	152,334	107,089	33,898	2,261,239
Treasury Bills Transactions..	285,884	52,068	..	..	..	..	337,952
Total ..	1,218,251	864,631	222,988	152,334	107,089	33,898	2,599,191
1940— Ordinary Trans- actions ..	1,074,825	985,407	251,326	179,314	119,989	36,662	2,647,523
Treasury Bills Transactions..	289,677	28,830	..	..	..	..	318,507
Total ..	1,364,502	1,014,237	251,326	179,314	119,989	36,662	2,966,030

(a) Figures now published for these years exclude payments in coin.
Bills transactions since their introduction in 1929.

(b) Excludes Treasury

(ii) *Index of Annual Clearings.* The following index of bank clearings in each capital city for the years 1931 to 1940 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, 1931 TO 1940.

(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
1931 ..	659	708	743	572	632	657	675
1932 ..	568	740	726	632	671	701	651
1933 ..	618	774	791	603	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
1939 ..	899	1,015	1,143	900	949	1,234	966
1940 ..	1,036	1,231	1,289	1,060	1,063	1,335	1,130

10. *Rates of Exchange.*—(i) *Australia on London.* The following statement 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.

RATES OF EXCHANGE : 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	£	£ s. d.	s. d.	
20th April, 1927	100	100 plus	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	
9th 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	"	"	25 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, 1936, to December, 1941, in the following table :—

STERLING-DOLLAR RATES: AVERAGE RATE FOR EACH MONTH.

Month.	1936.	1937.	1938.	1939.	1940.	1941.
	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.
January ..	4.960	4.908	5.000	4.669	4.030	4.030
February ..	4.996	4.894	5.018	4.686	4.030	4.030
March ..	4.971	4.885	4.985	4.686	4.030	4.030
April ..	4.944	4.916	4.979	4.681	4.030	4.030
May ..	4.971	4.939	4.965	4.682	4.030	4.030
June ..	5.020	4.935	4.960	4.683	4.030	4.030
July ..	5.023	4.967	4.931	4.682	4.030	4.030
August ..	5.027	4.983	4.881	4.610	4.030	4.030
September ..	5.041	4.954	4.805	4.046	4.030	4.030
October ..	4.900	4.956	4.768	4.030	4.030	4.030
November ..	4.888	4.994	4.710	4.030	4.030	4.030
December ..	4.907	4.997	4.671	4.030	4.030	4.030

(iii) *Interstate.* Exchange rates between the several capital cities of the States at 30th June, 1941, were as follows :—

INTERSTATE EXCHANGE RATES, 30th JUNE, 1941.

Between.	And—					
	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart and Launceston.
	Rate per cent. s. d.	Rate per cent. s. d.	Rate per cent. s. d.	Rate per cent. s. d.	Rate per cent. s. d.	Rate per cent. s. d.
Sydney ..	..	2 6	2 6	5 0	7 6	5 0
Melbourne ..	2 6	..	5 0	2 6	5 0	2 6
Brisbane ..	2 6	5 0	..	7 6	10 0	7 6
Adelaide ..	5 0	2 6	7 6	..	2 6	5 0
Perth ..	7 6	5 0	10 0	2 6	..	7 6
Hobart and Launceston ..	5 0	2 6	7 6	5 0	7 6	..

§ 2. Savings Banks.

1. *General.*—The inauguration of Savings Banks in Australia dates from 1819, when a private Savings Bank was opened in Sydney. 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, and now act 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 15th July, 1912; in Queensland on 16th September, 1912; in the Northern Territory on 21st October, 1912; and in New South Wales, South Australia and Western Australia on 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 are 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. Savings Bank maximum deposit rates are now generally as high, and in some cases higher than the maximum offered by the trading banks, because of the reductions in the latter in order to avoid competition with investment in war loans.

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 above.

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 30th June, 1934 to 1941 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.
Interest-bearing Limit.		£1 to £500.	£501 to £1,000.		
	%	%	%	%	%
Rates at 30th June—					
1934	2½ ; 3 (b)	3	2½	2½ ; 3 (c)	2½ ; 3 (c)
1935	2 ; 2½ (b)	2½	2½	2½ ; 3 (c)	2½ ; 3 (c)
1936	2 ; 2½ (b)	2½	2½	2½ ; 3 (c)	2½ ; 3 (c)
1937	2 ; 2½ (b)	2½	2½	3 ; 3½ (c)	3 ; 3½ (c)
1938	2 ; 2½ (b)	2½	2½	3 ; 3½ (c)	3 ; 3½ (c)
1939	2 ; 2½ (b)	3 (d) ; 2½ (e)	2½	3 ; 3½ (c)	3 ; 3½ (c)
1940	2 ; 2½ (b)	2½ (d) ; 2½ (e)	2½	3 ; 3½ (c)	3 ; 3½ (c)
1941	2 ; 2½ (b)	2½	2½	2½ ; 3½ (c)	2½ ; 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) On balances up to £200. (e) On balances £201 to £500.

Particulars regarding the rates allowed by the Commonwealth Savings Bank are shown in the following table :—

COMMONWEALTH SAVINGS BANK : INTEREST RATES ON DEPOSITS.

Rate at 30th June—						£1 to £500.	£501 to £1,300. (a)
1934						2½	1½
1935						2	1½
1936						2	1½
1937						2	1½
1938						2	1½
1939						2	1½
1940						2	1½
1941						2	1½

(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 £1,300 (Queensland, £2,000) for the remainder.

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 one per cent. operated from 1st June, 1934, and 1st January, 1935, respectively.

From 7th April, 1942, in relation to the Savings Bank of South Australia, and from 1st April, 1942, in relation to every other savings bank, rates of interest on deposits were fixed under National Security Regulations.

For the Commonwealth Savings Banks and the State Savings Bank of Victoria maximum rates were fixed at 2 per cent. on the first £500 and 1½ per cent. on any further balance up to £1,000. On balances in excess of £1,000 no interest is to be paid, except in respect of friendly societies and similar bodies where it has been the custom to pay interest on the full balance. The rate of 2 per cent. is allowed in these cases. Maximum rates for other savings banks were fixed at one-quarter per cent. higher than those for the Commonwealth Savings Bank and the State Savings Bank of Victoria.

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 this Bureau. The information given in the following paragraphs relates to the deposits at 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 1940-41.* The following statement gives details of the business transacted by all Savings Banks for the year 1940-41 :—

ALL SAVINGS BANKS : PARTICULARS, 1940-41.

State or Territory.	Amount on Deposit at 30th June, 1940.	Excess of Deposits over Withdrawals during year.	Interest Added during year.	Amount on Deposit at 30th June, 1941.
	£	£	£	£
New South Wales	82,110,900	4,061,538	1,577,770	87,750,208
Victoria	79,145,353	4,977,246	1,566,413	85,689,012
Queensland	28,251,873	294,616	542,530	29,089,019
South Australia	26,563,288	327,385	619,038	27,509,706
Western Australia	11,860,151	434,717	226,291	12,521,159
Tasmania	8,517,364	214,621	209,365	8,941,350
Northern Territory	191,926	159,974	4,690	356,590
Australian Capital Territory ..	350,234	16,845	6,736	373,815
Total	236,991,089	10,486,937	4,752,833	252,230,859

(ii) *Deposits—(a) Years 1937 to 1941.* The table hereunder shows for all Savings Banks the amount of credit of depositors and the average deposits per head of population at 30th June, 1937 to 1941 :—

ALL SAVINGS BANKS : DEPOSITS.

30th June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	A.C.T.	Total.
TOTAL.									
	£	£	£	£	£	£	£	£	£
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
1940	82,110,900	79,145,353	28,251,873	26,563,288	11,860,151	8,517,364	191,926	350,234	236,991,089
1941	87,750,208	85,689,012	29,089,019	27,509,706	12,521,159	8,941,350	356,590	373,815	252,230,859

PER HEAD OF POPULATION.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1937	30 8 9	40 16 3	27 10 5	45 0 6	26 1 13	1 10 16	10 25 4	4 33 15	10 7
1938	31 12 9	42 4 11	28 2 4	45 19 11	26 3 23	16 11 15	5 25 5	11 34 17	7
1939	31 16 11	42 15 4	28 11 6	45 19 9	26 12 8	35 9 7	15 19 4	26 9 0	35 5 7
1940	29 11 9	41 11 6	27 10 7	44 7 11	25 7 0	35 11 10	24 5 7	27 10 7	33 14 2
1941	31 7 5	44 4 2	28 1 3	45 17 10	26 14 2	37 9 1	35 17 7	27 14 10	35 10 3

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.) From these low levels deposits rose steadily each year and at 30th April, 1940, reached the high level of £246,674,365. During the next three months withdrawals for investment in war loans and war savings certificates caused a rapid decline to £236,561,656 at the end of July, 1940. During the next twelve months deposits rose steadily (except for decreases in December, 1940, and May, 1941, when war loans were raised), and at 30th June, 1941, reached the record level of £252,230,859.

(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 1932 to 1941, 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
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	35.28	1033	39.07	1144
1940	33.71	987	35.86	1050
1941	35.51	1040	36.05	1056

(a) On the basis of the "All Items" ("C") Series of Retail Price Index-numbers for June quarter in each year.

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 1940-41.* Returns for the States and Territories for the year 1940-41 are shown in the table below:—

COMMONWEALTH SAVINGS BANK : RETURNS, 1940-41.

State or Territory.	Amount on Deposit 30th June, 1940.	Excess of Deposits over Withdrawals during year.	Interest Added during year.	Amount on Deposit 30th June, 1941.
	£	£	£	£
New South Wales	82,110,900	4,061,538	1,577,770	87,750,208
Victoria	11,784,730	1,920,046	236,896	13,942,272
Queensland	28,251,873	294,616	542,530	29,089,019
South Australia	3,093,912	354,088	61,005	3,509,005
Western Australia	11,860,151	434,717	226,291	12,521,159
Tasmania	2,297,110	82,463	43,741	2,423,314
Northern Territory	191,926	159,974	4,690	356,590
Australian Capital Territory ..	350,234	16,845	6,736	373,815
Total	139,940,836	7,324,887	2,699,659	149,965,382

(ii) *Deposits—Years 1937 to 1941.* The amount on deposit with the Commonwealth Savings Bank in each State, in the Territories of Papua and New Guinea, and in London, at 30th June in each of the years 1937 to 1941 was as follows :—

COMMONWEALTH SAVINGS BANK : DEPOSITS.

Place of Deposit.	At 30th June—				
	1937.	1938.	1939.	1940.	1941.
	£	£	£	£	£
New South Wales	81,952,399	86,015,685	87,473,789	82,110,900	87,730,208
Victoria	9,965,266	10,734,968	11,242,366	11,784,730	13,942,272
Queensland	27,304,438	28,206,457	29,044,712	28,251,873	29,089,019
South Australia	2,917,184	3,091,789	3,166,990	3,093,912	3,509,003
Western Australia	11,834,794	12,037,486	12,396,191	11,860,151	12,521,159
Tasmania	2,123,853	2,220,186	2,357,983	2,297,110	2,423,314
Northern Territory	59,127	67,921	98,814	191,926	356,590
Australian Capital Territory ..	259,127	292,461	318,804	350,234	373,815
Total	136,416,188	142,666,953	146,099,649	139,940,836	149,965,382
Papua and New Guinea (a) ..	189,251	215,864	209,570	205,885	226,369
London (a)	526,653	550,307	571,279	386,818	362,115
Grand Total	137,132,092	143,433,124	146,880,498	140,533,539	150,553,866

(a) Not included in the figures given in pars. 9 (i) and (ii) and 10 (i).

(iii) *Balance-sheet, 30th June, 1941.* The Commonwealth Savings Bank publishes a half-yearly balance-sheet, and the statement hereunder shows the position at 30th June, 1941 :—

COMMONWEALTH SAVINGS BANK.(a) : BALANCE-SHEET, 30TH JUNE, 1941.

Liabilities.	Assets.
£	£
Reserve Fund	Coin, Cash Balances and Money
Depositors' Balances	at Short Call
Other Liabilities	Australian Notes
	Government Securities
	Securities of Municipal and
	Other Public Authorities
	Bank Premises
	Other Assets
161,832,240	161,832,240

(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 £257,361 had been so provided for, the net profit of the Commonwealth Savings Bank during 1940-41 was £387,451, 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 30th June, 1941, was £5,652,570.

11. *State Savings Bank.*—(i) *Returns for 1940-41.* Particulars of the transactions of all State Savings Banks for the year 1940-41 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, 1940-41.

State.	Amount on Deposit at 30th June, 1940.	Excess of Deposits over Withdrawals during year.	Interest added during year.	Amount on Deposit at 30th June, 1941.
	£	£	£	£
Victoria	67,360,623	3,056,600	1,329,517	71,746,740
South Australia ..	23,469,376	— 26,708	558,033	24,000,701
Tasmania (a) ..	6,220,254	132,158	165,624	6,518,036
Total	97,050,253	3,162,050	2,053,174	102,265,477

(a) Trustee Savings Banks, Hobart and Launceston. The Minus sign (—) indicates excess of withdrawals over deposits.

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 1937 to 1941. The following statement shows the amount on deposit with State Savings Banks at 30th June in each of the years 1937 to 1941 :—

STATE SAVINGS BANKS : DEPOSITS.

State.	At 30th June—				
	1937.	1938.	1939.	1940.	1941.
	£	£	£	£	£
Victoria	65,755,192	68,142,032	69,218,685	67,360,623	71,746,740
South Australia ..	23,588,757	24,151,868	24,230,038	23,469,376	24,000,701
Tasmania (a) ..	5,091,024	5,471,324	6,038,364	6,220,254	6,518,036
Total	94,434,973	97,765,224	99,487,087	97,050,253	102,265,477

(a) Trustee Savings Banks, Hobart and Launceston.

(iii) *Assets*, 1940-41. At 30th June, 1941, the assets of all State Savings Banks amounted to £113,171,762, distributed as shown hereunder :—

STATE SAVINGS BANKS : ASSETS, 30th JUNE, 1941.

Particulars.	Victoria.	South Australia.	Tasmania. (a)	Total.
	£	£	£	£
Government Securities	31,467,237	12,817,952	2,382,418	46,667,607
Municipal Securities	2,640,471	400,133	1,280,784	4,321,388
Other Public Securities	16,060,389	299,061	61,458	16,420,908
Mortgages	2,414,850	5,346,958	1,800,622	9,562,430
Outstanding Interest, Dividends and Rents	700,733	209,932	66,354	977,019
Landed and House Property ..	767,462	221,255	35,691	1,024,408
Fixed Deposits	21,438,000	6,272,750	1,037,000	28,747,750
Cash in hand, in transit and on Current Account	3,818,473	1,069,276	546,878	5,434,627
All other Assets	12,939	804	1,882	15,625
Total Assets	79,320,554	26,638,121	7,213,087	113,171,762

(a) At 31st August, 1941. See par. 11 (i).

(iv) *Profit and Loss Accounts, 1940-41.* Details of the Profit and Loss Accounts of the several State Savings Banks for the year 1940-41 are given in the following table:—

**STATE SAVINGS BANKS: PROFIT AND LOSS ACCOUNTS FOR YEAR
ENDED 30th JUNE, 1941.**

Particulars.	Victoria.	South Australia.	Tasmania. (a)	Total.
<i>Dr.</i>	£	£	£	£
Interest allotted to Depositors ..	1,329,517	558,033	178,189	2,065,739
Amount carried to Reserves and				
Depreciation Funds ..	399,500	180,476	14,000	593,976
Writing off Bank Premises ..	24,500	(b)	8,801	33,301
Expenses of Management ..	572,484	165,747	41,701	779,932
All other Expenses ..	63,886	20,515	(c) 6,234	90,635
Balance carried forward ..	154,663	(d) 183,642	94,213	432,518
Total ..	2,544,550	1,108,413	343,138	3,996,101
<i>Cr.</i>				
Balance brought forward ..	182,674	(e) 186,912	93,389	462,975
Interest, Dividends, Rents, and all				
other Receipts ..	2,361,876	921,501	249,749	3,533,126
Total ..	2,544,550	1,108,413	343,138	3,996,101

(a) Year ended 31st August, 1941; see par. 11 (i). (b) Bank premises written off from Reserve Fund. (c) Payments of and provision for State Income Tax. (d) Includes £50,000, provision for interest accrued on Depositors' Balances from 7th to 30th June, 1941, carried forward. (e) Includes Reserve brought forward from 1939-40 (provision for interest accrued on Depositors' Balances from 7th to 30th June, 1940, £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 relate to two New South Wales, seven Victorian, one Queensland, four South Australian, two Western Australian, and four Tasmanian companies. The following table shows for Australia the liabilities and assets, and assets of trust funds administered for the years 1936 to 1940:—

TRUSTEES, EXECUTORS AND AGENCY COMPANIES, AUSTRALIA.

Particulars.	1936.	1937.	1938.	1939.	1940.
Number of Companies ..	20	20	20	20	21
Liabilities—	£	£	£	£	£
Capital paid-up ..	1,312,202	1,312,202	1,312,202	1,312,202	1,355,952
Reserves and undistributed Profits ..	1,167,939	1,200,904	1,221,589	1,235,750	1,310,141
Other Liabilities ..	194,181	190,869	212,201	150,960	136,122
Total Liabilities ..	2,674,322	2,703,975	2,745,992	2,698,912	2,802,215
Assets—					
Government and Municipal Securities ..	810,715	815,780	753,234	730,935	752,134
Loans on Mortgage ..	425,480	429,884	392,973	397,944	414,576
Other Loans and Advances ..	96,784	91,264	94,324	75,141	80,366
Real Property ..	1,057,042	1,067,641	1,140,669	1,148,566	1,202,612
Deposits in Banks ..	112,036	126,288	139,571	147,717	177,922
Other Assets ..	172,265	173,118	225,221	198,609	174,605
Total Assets ..	2,674,322	2,703,975	2,745,992	2,698,912	2,802,215
Assets of Trust Funds Administered—(a)	£'000	£'000	£'000	£'000	£'000
Australian Government and Municipal Securities ..	62,863	65,469	67,260	68,515	71,734
British and Foreign Government and Municipal Securities ..	1,383	1,394	1,304	1,342	1,340
Loans on Mortgage ..	31,771	31,640	30,957	30,977	32,507
Other Loans and Advances ..	2,625	2,627	2,723	2,713	2,177
Shares in Companies ..	49,277	51,920	56,750	59,351	61,972
Real Property ..	50,520	51,414	51,041	51,732	53,853
Deposits in Banks ..	8,038	8,211	8,797	8,958	8,995
Other Assets ..	13,316	14,173	13,480	13,409	15,717
Total Trust Fund Assets ..	219,798	226,848	232,312	236,997	248,295

(a) Includes particulars of trust funds administered by Public Trustees.

§ 3. Registered Building and Investment Societies.

1. **Summary.**—Returns have been received relating to 325 Societies, but the information is not exhaustive, as particulars regarding unimportant organizations are not included.

REGISTERED BUILDING AND INVESTMENT SOCIETIES : SUMMARY, 1940.

Particulars.	N.S.W. 1939-40.	Vic., 1940.	Q'land. 1939-40.	S. Aust. 1940.	W. Aust. 1939-40.	Tas. 1940.	Total.
Societies making returns—							
Permanent .. No.	7	20	7	6	7	4	51
Terminating .. No.	248	2	5	13	6	..	274
Total .. No	255	22	12	19	13	4	325
Number of Shareholders ..	(a) 41,929	10,129	14,137	10,532	20,541	5,761	103,029
„ shares ..	(b) 457,217	840,868	1,068,794	41,629	(c)	47,645	2,456,153
„ borrowers ..	(e) 6,133	14,587	7,564	2,773	5,456	1,734	38,247
Income for year from							
Interest, etc. .. £	678,354	431,339	133,584	29,705	105,456	43,367	1,421,805
Working expenses for year £	133,657	223,642	128,088	9,860	16,288	6,812	518,347
Amount of deposit during							
year .. £	379,768	2,281,167	108,560	123,589	300,977	20,048	3,214,109
Repayment of loans during							
year .. £	649,332	1,266,451	380,623	88,812	342,747	132,699	2,860,664
Loans granted during year £	3,810,552	1,200,265	373,531	86,979	334,479	158,383	5,964,139

(a) Includes 17,877 shareholders in Star Bowkett and 20,672 in other terminating societies.
 (b) Includes 154,157 shares in Star Bowkett and 264,175 in other terminating societies and excludes 2 Investment societies. (c) Not available. (d) Excludes Western Australia. (e) Permanent Societies only. (f) Includes £3,165,174 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 1940.

REGISTERED BUILDING AND INVESTMENT SOCIETIES : LIABILITIES, 1940.

State.	Paid-up Capital or Subscriptions.	Reserve Funds.(a)	Deposits.	Bank Overdrafts and other Liabilities.	Total Liabilities.
	£	£	£	£	£
New South Wales ..	2,970,813	692,147	764,619	b 9,832,182	14,259,761
Victoria ..	2,234,292	1,045,601	2,905,514	366,938	6,552,345
Queensland ..	1,971,121	70,073	19,252	94,375	2,154,821
South Australia ..	580,607	106,534	114,644	7,464	809,249
Western Australia ..	1,410,681	21,500	112,230	82,875	1,627,286
Tasmania ..	417,396	111,304	224,802	32,704	786,206
Total ..	9,584,910	2,047,159	4,141,061	10,416,538	26,189,668

(a) Includes Profit and Loss Account.

(b) Includes £9,580,297 for other terminating Societies.

REGISTERED BUILDING AND INVESTMENT SOCIETIES : ASSETS, 1940.

State.	Advances on Mortgage.	Landed and House Pro- perty, Furni- ture, etc.	Cash in Hand and on Deposit and other Assets	Total Assets.
	£	£	£	£
New South Wales ..	113,638,924	(b) 228,111	(c) 392,726	14,259,761
Victoria ..	6,068,360	181,241	302,744	6,552,345
Queensland ..	2,104,406	15,776	34,639	2,154,821
South Australia ..	715,203	25,856	68,190	809,249
Western Australia ..	1,511,874	24,807	90,605	1,627,286
Tasmania ..	635,031	9,950	141,225	786,206
Total ..	24,673,798	485,741	1,030,129	26,189,668

(a) Includes £10,688,125 for other terminating Societies.

(b) Permanent Societies only.

(c) Excludes 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 requirements. 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 1923–1938.

CO-OPERATIVE SOCIETIES ; SUMMARY, 1940.

Particulars.	N.S.W. 1939–40. (a)	Vic. 1939–40.	Q'land. 1939–40.	S.A. 1940.	W.A. 1939–40. (b)	Tas. 1939–40.	Total.
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PRODUCERS' SOCIETIES.

Number of Societies ..	129	56	114	36	36	11	382
„ Branches ..	(c)	21	60	2	25	20	128
„ Members ..	57,268	37,347	61,156	8,339	13,007	8,222	185,339
Gross Turnover (Sales) £	18,371,770	4,423,486	14,261,649	1,090,509	1,943,069	687,319	40,777,802
Other Income .. £	104,648	189,051	443,449	173,733	734,949	30,104	1,675,934
Total Income .. £	18,476,418	4,612,537	14,705,098	1,264,242	2,678,018	717,423	42,453,736
Total Purchases during Year £	15,402,266	3,700,632	11,595,291	893,595	1,707,118	526,090	33,824,992
Other Expenditure .. £	2,738,533	794,474	2,747,855	360,170	778,214	172,716	7,591,962
Total Expenditure .. £	18,140,799	4,495,106	14,343,146	1,253,765	2,485,332	698,806	41,416,954
Rebates and Bonuses ..	(e)	29,471	29,268	41,251	3,486	3,647	107,123
Dividends on Share Capital £	38,180	20,426	40,137	9,048	13,545	3,142	124,478

CONSUMERS' SOCIETIES.

Number of Societies ..	43	21	13	8	5	3	93
„ Branches ..	(c)	7	10	43	..	2	62
„ Members ..	44,933	11,280	6,363	45,015	2,711	624	110,926
Gross Turnover (Sales) £	2,832,160	824,805	386,273	1,111,654	173,154	69,160	5,397,206
Other Income .. £	52,455	20,105	5,285	22,762	3,327	562	104,496
Total Income .. £	2,884,615	844,910	391,558	1,134,416	176,481	69,722	5,501,702
Total Purchases during Year £	2,202,589	692,207	347,771	890,819	132,604	58,588	4,324,578
Other Expenditure .. £	535,161	122,337	42,673	204,036	27,449	12,627	944,283
Total Expenditure .. £	2,737,750	814,544	390,444	1,094,855	160,053	71,215	5,268,861
Rebates and Bonuses ..	185,472	35,973	1,501	52,339	14,008	14,215	303,508
Dividends on Share Capital £	18,786	5,445	1,877	16,013	1,374	..	43,495

SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

Number of Societies ..	..	8	4	3	42	..	57
„ Branches ..	..	4	9	1	12	..	26
„ Members ..	..	3,387	4,524	591	5,846	..	14,348
Gross Turnover (Sales) £	..	1,263,769	1,134,737	149,735	616,300	..	3,164,541
Other Income .. £	..	15,592	9,088	30,643	35,231	..	90,554
Total Income .. £	..	1,279,361	1,143,825	180,378	651,531	..	3,255,095
Total Purchases during Year £	..	1,106,677	998,103	149,535	550,162	..	2,804,477
Other Expenditure .. £	..	154,104	142,217	24,045	97,588	..	477,954
Total Expenditure .. £	..	1,260,781	1,140,320	173,580	647,750	..	3,222,431
Rebates and Bonuses ..	..	19,962	2,496	5,019	9,242	..	36,719
Dividends on Share Capital £	..	2,375	2,027	1,452	5,556	..	11,410

(a) Particulars relate to Societies registered under Co-operation Act 1923–1938. Particulars shown under Producers' Societies refer to Rural Societies, and under Consumers to Trading. (b) Figures are not comparable with previous years because of a reclassification of certain Societies in the “Producers” and “Producers' and Consumers'” groups. (c) Not available. (d) Excluding New South Wales. (e) Deferred payments included with purchases.

2. Liabilities and Assets.—The next table gives the liabilities and assets :—

CO-OPERATIVE SOCIETIES : LIABILITIES AND ASSETS, 1940.

Particulars.	N.S.W.(a) 1939-40.	Vic. 1939-40.	Qld. 1939-40.	S.A. 1940.	W.A. 1939-40. (b)	Tas. 1939-40.	Total.
PRODUCERS' SOCIETIES.							
Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	1,097,101	955,352	1,406,608	201,753	271,804	89,970	4,022,588
Loan Capital ..	(c)	117,177	1,008,411	264,640	369,658	41,310	(d) 1,801,196
Bank Overdrafts ..	1,029,716	653,454	994,405	165,823	7,647	65,905	2,916,950
Accumulated Profits ..	1,148,546	129,223	280,974	85,335	7,758	13,204	3,919,488
Reserve Funds ..		303,120	1,331,631	368,825	217,601	33,271	
Sundry Creditors ..		393,020	2,185,989	340,508	228,600	89,110	
Other Liabilities ..	1,660,258	144,258	191,674	491,256	352,236	2,001	6,078,910
Total Liabilities ..	4,935,621	2,695,604	7,399,692	1,918,140	1,455,304	334,771	18,739,132
Assets—							
Land and Buildings ..	2,497,189	1,197,406	1,360,861	216,357	604,333	113,872	9,326,962
Machinery, Plant and other fixed Assets ..			2,829,512	349,887	90,870	66,675	
Stocks ..	723,602	395,525	556,748	874,111	135,997	45,572	2,731,555
Sundry Debtors ..	1,086,645	819,124	2,189,470	109,586	425,759	86,810	4,717,394
Cash in hand and on deposit ..	147,299	81,126	136,443	13,827	37,388	15,064	431,147
Profit and Loss Account ..	480,886	74,412	37,953	10,425	55,378	3,021	1,532,074
Other Assets ..		128,011	288,705	343,947	105,579	3,757	
Total Assets ..	4,935,621	2,695,604	7,399,692	1,918,140	1,455,304	334,771	18,739,132

CONSUMERS' SOCIETIES.

Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	641,158	174,075	53,827	438,907	32,781	20,607	1,361,355
Loan Capital ..	(c)	51,581	8,742	102,403	..	7,277	(d) 170,003
Bank Overdrafts ..	90,529	90,700	29,181	33,411	4,002	3,418	251,241
Accumulated Profits ..	435,310	22,239	7,878	45,593	2,928	1,933	808,718
Reserve Funds ..		104,293	24,093	150,825	4,923	8,703	
Sundry Creditors ..		62,156	27,436	32,105	13,343	3,141	
Other Liabilities ..	292,102	6,777	2,103	3,660	415	2,863	446,101
Total Liabilities ..	1,459,099	511,821	153,260	806,904	58,392	47,942	3,037,418
Assets—							
Land and Buildings ..	528,704	172,165	27,352	292,171	9,583	17,657	1,105,003
Machinery, Plant and other fixed Assets ..			6,995	42,427	5,711	2,238	
Stocks ..	445,384	138,705	48,551	292,196	22,047	17,270	964,153
Sundry Debtors ..	253,018	126,140	57,931	67,809	10,663	7,712	523,273
Cash in hand and on deposit ..	98,418	45,519	5,478	34,180	8,129	513	192,237
Profit and Loss Account ..	133,575	5,783	4,702	3,075	1,034	372	252,752
Other Assets ..		23,509	2,251	75,046	1,225	2,180	
Total Assets ..	1,459,099	511,821	153,260	806,904	58,392	47,942	3,037,418

SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	..	54,837	71,513	20,219	159,224	..	305,793
Loan Capital ..	..	12,382	2,428	803	17,737	..	33,350
Bank Overdrafts ..	..	18,089	80,771	241	39,181	..	138,282
Accumulated Profits ..	..	60,115	9,077	1,982	19,497	..	90,671
Reserve Funds ..	..	68,279	44,439	20,800	99,473	..	232,991
Sundry Creditors ..	..	61,036	92,242	8,839	51,846	..	213,963
Other Liabilities ..	..	12,862	4,928	24,737	1,367	..	43,894
Total Liabilities ..	..	287,600	305,398	77,621	388,325	..	1,058,944
Assets—							
Land and Buildings ..	..	132,368	76,622	8,703	80,156	..	400,590
Machinery, Plant and other fixed Assets ..	..		67,190	10,061	25,490	..	
Stocks ..	..	65,117	60,703	16,495	152,502	..	294,817
Sundry Debtors ..	..	47,105	61,212	18,591	100,499	..	227,407
Cash in hand and on deposit ..	..	6,947	1,077	1,766	17,283	..	27,073
Profit and Loss Account ..	..	..	499	..	2,433	..	2,932
Other Assets ..	..	36,063	38,095	22,005	9,962	..	106,125
Total Assets ..	..	287,600	305,398	77,621	388,325	..	1,058,944

(a) Particulars relate to Societies registered under Co-operation Act 1923-1938. Particulars shown under Producers' Societies refer to Rural Societies, and under Consumers to Trading. (b) See note (b) to previous table. (c) Not available. (d) 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 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 Australia or in any Territory of Australia 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 Government 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, 1941 :—

DEPOSITS UNDER INSURANCE ACT, 30th JUNE, 1941.

Class of Insurance.	Deposited with Government of—		Total.
	Commonwealth.	States.	
	£	£	£
Life	455,639	849,724	1,305,363
Other	792,720	1,905,110	2,697,830
Total	1,248,359	2,754,834	4,003,193

§ 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 are shown 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 1940 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) 1940. The following table shows particulars for each class of policy in existence during 1940. The amount assured in 1940 represents an average of nearly £63 per head of population.

ORDINARY LIFE ASSURANCE : AUSTRALIAN BUSINESS, 1940.

Class of Policy.	No. of Policies.	Sum Assured.	Average per Policy.
	No.	£	£
Assurances—			
Whole Life	457,030	227,392,477	498
Endowment	744,710	180,568,563	242
Other	29,288	24,070,599	822
Endowments	54,016	10,872,056	201
Total	1,285,044	442,903,695	345
Annuities	4,497	(a) 468,195	(a) 104

(a) Amount per annum.

(b) 1936 to 1940. Similar particulars for each of the last five years are shown below. The increase in annuities in 1939 is due to the inclusion of a staff pension scheme providing deferred annuities commencing at retirement and temporary assurance in the event of death prior to retirement.

ORDINARY LIFE ASSURANCE 1936 TO 1940 : AUSTRALIAN BUSINESS.

Year.	Assurance and Endowment Policies.				Annuities.	
	Policies in Force.	Amount.	Average per Policy.	Annual Premium Income.	No.	Amount per Annum.
	No.	£	£	£		£
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
1939 ..	1,243,378	427,291,072	344	13,954,391	3,826	384,584
1940 ..	1,285,044	442,903,695	345	14,556,318	4,497	468,195

(a) Particulars of certain contingent annuities formerly included under this heading have been reclassified and excluded, commencing with this year.

(ii) *Industrial.* (a) 1940. Information in regard to industrial business in existence during 1940 is given in the following table :—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN BUSINESS 1940.

Class of Policy.					No. of Policies.	Sum Assured.	Average per Policy.
					No.	£	£
Assurances—							
Whole Life ..	..	..	..	..	169,012	4,079,940	24
Endowment ..	..	..	..	..	2,327,906	109,126,741	47
Other ..	..	..	..	..	..	..	..
Endowments ..	..	..	..	..	113,266	4,348,330	38
Total ..	..	..	..	..	2,610,184	117,555,011	45
Annuities ..					2	(a) 58	(a) 29

(a) Amount per annum.

(b) 1936 to 1940. Particulars for each of the last five years are shown below :—

INDUSTRIAL LIFE ASSURANCE 1936 TO 1940 : AUSTRALIAN BUSINESS.

Year.	Assurance and Endowment Policies.				Annuities.	
	Policies in Force.	Amount.	Average per Policy.	Annual Premium Income.	No.	Amount per Annum.
	No.	£	£	£		£
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
1939 ..	2,491,742	111,861,680	45	6,490,164	2	58
1940 ..	2,610,184	117,555,011	45	6,916,380	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, renewal and annuity—amounted to over 65 per cent., and interest, dividends and rent to nearly 35 per cent. of the Australian receipts.

ORDINARY LIFE ASSURANCE : AUSTRALIAN RECEIPTS.

Heading.	Amount.				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
Premiums—New ..	1,994,529	1,886,633	1,653,395	1,613,219	1,483,046
Renewal ..	9,917,226	10,748,338	11,625,978	12,341,172	13,073,272
Annuity Premiums ..	281,285	268,399	197,200	183,866	259,704
Interest, dividends and rents ..	6,368,726	6,778,610	7,173,402	7,546,589	7,911,152
Other receipts ..	143,327	76,238	15,374	13,192	15,328
Total Receipts ..	18,705,093	19,758,218	20,665,349	21,698,038	22,742,502

In 1940 claims accounted for 57 per cent. of the total expenditure; surrenders 14 per cent.; expenses of management 8 per cent.; commission 6 per cent.; and licence fees and taxes 3 per cent.

ORDINARY LIFE ASSURANCE : AUSTRALIAN EXPENDITURE.

Heading.	Amount.				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
Claims ..	7,111,822	7,373,965	7,417,756	7,935,462	8,042,627
Surrenders ..	1,590,232	1,574,087	1,698,860	1,842,516	1,922,695
Annuities ..	187,659	213,386	214,255	219,473	226,965
Commission ..	1,021,474	1,015,820	1,004,844	1,007,721	907,983
Expenses of management ..	1,115,843	1,132,610	1,136,674	1,178,073	1,161,726
Licence fees and taxes	272,543	246,669	264,467	316,335	367,630
Shareholders' dividends	89,273	92,319	96,963	101,437	86,129
Cash bonuses paid to policy-holders ..	246,920	242,924	259,319	260,435	279,336
All other expenditure	161,918	227,239	255,427	(a)1,185,284	(a)1,175,635
Total Expenditure	11,797,684	12,119,019	12,348,565	14,046,736	14,170,726

(a) Includes provision for taxation and other special purposes.

The excess of receipts over expenditure during the past five years was as follows :—1936, £6,907,409; 1937, £7,639,199; 1938, £8,316,784; 1939, £7,651,302; and 1940, £8,571,776. During the same years the proportions that expenditures bore to receipts were as follows :—1936, 63.1 per cent.; 1937, 61.3 per cent.; 1938, 59.8 per cent.; 1939, 64.7 per cent.; and 1940, 62.3 per cent.

(ii) *Industrial Business.* The aggregate Australian receipts for the years 1936 to 1940 of institutions transacting industrial business were as follows :—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN RECEIPTS.

Heading.	Amount.				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
Premiums—New and Renewal	5,215,624	5,691,704	6,094,667	6,490,164	6,916,380
Interest, dividends and rents	1,383,615	1,506,503	1,631,831	1,751,531	1,831,919
Other receipts ..	37,905	42,342	44,659	46,402	49,166
Total Receipts ..	6,637,144	7,240,549	7,771,157	8,288,097	8,797,465

Expenditure during 1940 totalled £6,643,469, of which claims amounted to over 52 per cent., commission to over 20 per cent., and expenses of management to over 11 per cent.

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN EXPENDITURE.

Heading.	Amount.				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
Claims	2,120,803	2,499,247	2,754,027	3,132,459	3,474,943
Surrenders	198,675	182,210	194,547	498,932	500,097
Annuities	36	36	36	33	36
Commission	1,108,600	1,212,596	1,236,077	1,353,938	1,348,888
Expenses of management	590,832	642,528	681,294	717,794	743,193
Licence fees and taxes	62,802	58,367	68,210	83,259	102,459
Shareholders' dividends	60,561	63,446	55,313	56,476	57,715
All other expenditure	85,144	123,161	128,856	(a) 243,786	(a) 416,138
Total Expenditure ..	4,227,453	4,781,591	5,118,360	6,086,677	6,643,469

(a) Includes provision for taxation and other special purposes.

The excess of receipts over expenditure for each of the last five years was :—1936, £2,409,691 ; 1937, £2,458,958 ; 1938, £2,652,797 ; 1939, £2,201,420 ; and 1940, £2,153,996.

The proportions that expenditure bore to receipts were—1936 ; 64 per cent. ; 1937, 66 per cent. ; 1938, 66 per cent. ; 1939, 73 per cent. ; and 1940, 76 per cent.

5. *Liabilities and Assets, 1936 to 1940.*—(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 government and municipal securities, mortgages, loans on policies, landed and house 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 dissection 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.				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
Shareholders' capital, paid-up	1,597,020	1,600,738	1,568,264	1,568,711	1,568,842
Assurance and annuity funds	164,693,333	175,475,050	186,397,341	195,500,270	205,716,250
Other funds	4,766,519	4,745,421	4,778,402	5,697,265	6,324,809
Claims admitted but not paid	1,754,111	1,891,573	1,816,681	1,917,989	2,077,986
All other liabilities ..	3,827,835	4,583,533	5,035,435	4,825,677	5,267,507
Total Australian Liabilities ..	176,638,818	188,296,315	199,596,123	209,509,912	220,955,394

Separate particulars of liabilities in Australia of certain companies, formerly not available, are now included in the above table. Assets and liabilities of the Liverpool and London and Globe Insurance Company Ltd. are excluded as separate details of the Australian business 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.				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
Government and municipal securities .. .	98,905,982	109,521,627	113,485,999	115,712,296	123,770,185
Mortgages	45,724,422	50,401,868	56,724,861	61,719,930	64,451,496
Loans on companies' policies	21,172,947	21,448,626	21,754,988	22,444,817	22,465,085
Landed and house property	9,945,381	10,969,919	12,231,645	12,822,673	12,684,517
Life interests and reversions	251,632	223,446	110,443	234,392	230,621
Other investments ..	6,868,756	7,900,516	8,281,378	10,019,683	10,871,078
Outstanding premiums	971,176	957,562	1,043,071	1,086,729	1,073,467
Outstanding interest, dividends and rents	1,779,555	1,686,488	1,776,593	1,811,002	1,868,161
Cash	2,086,028	2,419,171	2,536,319	2,398,869	2,960,855
Establishment and organization accounts	1,136,650	1,128,658	1,107,688	1,101,409	1,100,388
All other assets ..	1,599,355	1,758,473	1,757,204	1,718,147	1,753,881
Total Australian Assets ..	190,441,884	208,416,354	220,810,189	231,069,947	243,229,734

(a) Excludes Australian assets of Liverpool and London and Globe Coy.

(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, however, transact a large amount of business elsewhere, namely 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 of the foreign business of Australian companies appear in *Finance Bulletin* No. 32.

The total Australasian assets of all life companies operating in Australia amounted to £308,897,242 in 1940, of which government and municipal securities (£163,056,317), and mortgages (£72,153,085), represented over 76 per cent.

6. *New Policies issued in Australia, 1940.*—(i) *Ordinary Business.* During 1940 120,173 new policies were issued for £40,281,825. The average amount per policy was £335, as compared with an average of £344 per policy for all policies which were in existence at the end of 1939.

(ii) *Industrial Business.* New policies to the number of 376,967 were issued during the year, for a total of £17,776,723. The average per policy which was over £47, was in excess of the average of £45 for all industrial policies current at the end of 1939.

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.

Mode.	1938.		1939.		1940.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	21,870	5,266,062	22,662	5,626,101	23,269	5,684,032
Surrender ..	16,758	5,191,624	18,503	5,870,056	19,205	6,111,401
Forfeiture ..	39,602	13,767,082	39,433	13,410,488	36,469	12,961,699
Transfer ..	—72	—71,664	—131	—102,931	—148	—67,317
Total ..	78,158	24,153,104	80,467	24,803,714	78,795	24,689,815

Minus sign (—) denotes excess of transfers to Australian registers over transfers from Australian registers.

(ii) *Industrial Business.* The number of policies discontinued in this Branch each year is also very large. Of the total amount of discontinuances, including annuities, during 1940 only about 26 per cent. was due to death or maturity, while nearly 63 per cent. was due to forfeiture. The large increases in the number and amount of discontinuances by surrender during the last two years are due to the fact that, by the terms of the Industrial Life Assurance Act 1938 (Victoria), holders of policies, in Victoria, of six years duration were accorded the right of a cash surrender value.

In view of this statutory right being granted to policy-holders in Victoria, various offices conducting industrial assurance undertook to extend the principle throughout Australia as from 1st January, 1939. Prior to that date it was the practice to grant cash surrender values to holders of industrial policies in cases of hardship or necessity only.

The number and amount of discontinuances by forfeiture have accordingly decreased.

INDUSTRIAL LIFE ASSURANCE : POLICIES DISCONTINUED IN AUSTRALIA.

Mode.	1938.		1939.		1940.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	68,945	2,498,193	73,585	2,758,930	78,430	3,195,289
Surrender ..	14,767	677,227	33,766	1,371,696	32,906	1,315,822
Forfeiture ..	194,694	9,355,299	154,328	7,976,340	147,254	7,573,890
Transfer ..	76	7,756	417	25,131	—65	—1,604
Total ..	278,482	12,538,475	262,096	12,132,097	258,525	12,083,397

Minus sign (—) denotes excess of transfers to Australian registers over transfers from Australian registers.

8. *Conspectus of Australian Life Assurance Legislation.*—A conspectus of Australian Life Assurance Legislation as then existing appears in Official Year Book No. 18, pp. 1041-59.

§ 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 41 insurance companies having their head offices either in Australia, New Zealand, or Fiji. The business transacted in respect of premium income by these companies represents approximately 58 per cent. of the aggregate Australian business, some particulars of which are given in par. 2 below.

(ii) *Revenue and Expenditure.* The most important items of revenue and expenditure are given below. The trade surplus in 1939-40 was £1,308,237, or 13.00 per cent. of premium income.

FIRE, MARINE AND GENERAL INSURANCE COMPANIES : SUMMARY OF REVENUE AND EXPENDITURE.

Heading.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
No. of Companies ..	40	40	40	40	41
	£	£	£	£	£
Premiums, less reinsurances ..	6,970,718	7,819,726	8,864,364	9,707,920	10,066,892
Losses ..	3,767,682	4,358,863	5,027,877	5,417,153	5,568,447
Expenses, commission and taxes ..	2,390,898	2,512,992	2,719,823	2,994,069	3,190,208
Trade surplus ..	812,138	947,871	1,116,664	1,296,698	1,308,237
Interest, rent, etc. ..	691,713	755,302	828,272	1,011,208	889,256
Total surplus ..	1,503,851	1,703,173	1,944,936	2,307,906	2,197,493
Dividends and bonuses paid ..	675,541	680,269	708,576	708,944	727,895
Ratio to premium income of—	%	%	%	%	%
(a) Losses ..	54.05	55.74	56.72	55.80	55.31
(b) Expenses, etc. ..	34.30	32.14	30.68	30.84	31.69
(c) Trade surplus ..	11.65	12.12	13.60	13.36	13.00

* The statistical information in this paragraph has been extracted from the *Australasian Insurance and Banking Record*.

(iii) *Liabilities and Assets.* The liabilities and assets for the same period are set out in the following table. Comparison of the results for 1939-40 (41 companies), with those for 1935-36 (40 companies) shows that paid-up capital constituted 20 per cent. of the total liabilities in 1939-40, as compared with 25 per cent. in 1935-36. Reserves constituted 46 per cent. and 45 per cent. 1939-40 and 1935-36 respectively. Government securities and other investments constituted 67 per cent. and 66 per cent. of the total assets for the same years.

FIRE, MARINE AND GENERAL INSURANCE COMPANIES.

Heading.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
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PAID-UP CAPITAL, RESERVES AND LIABILITIES.

	£	£	£	£	£
Paid-up capital	6,566,758	6,674,188	6,676,188	6,823,065	6,859,065
Reserves and reinsurance funds (a)	11,773,597	12,623,437	14,347,012	14,184,021	15,843,818
Undivided profits	988,361	954,871	949,172	1,186,969	1,361,451
Losses unsettled	1,057,319	1,309,361	1,633,225	1,629,354	2,323,514
Sundry creditors, etc. ..	1,632,589	1,833,367	2,141,813	2,093,733	2,516,833
Dividends, etc., to pay ..	423,613	428,751	453,877	418,722	496,706
Life assurance funds (b) ..	3,594,919	3,860,147	4,153,530	4,448,233	4,793,471
Total Liabilities	26,037,156	27,684,122	30,354,817	30,784,097	34,194,858

INVESTMENTS AND OTHER ASSETS.

	£	£	£	£	£
Loans on mortgage	906,802	923,781	1,190,444	953,499	934,330
Government securities, etc. ..	16,865,834	18,186,694	19,666,290	20,287,975	22,914,015
Landed and other property ..	3,066,336	3,158,269	3,434,926	3,683,085	3,803,878
Fixed deposits, etc.	1,973,553	2,001,642	1,933,967	1,946,707	1,927,038
Loans on life policies (b) ..	307,938	347,400	380,594	423,282	457,105
Investments	234,226	252,234	176,995	55,078	(c)
Cash and bills receivable ..	966,288	996,553	1,340,647	1,241,924	1,687,421
Sundry debtors and other assets	1,716,179	1,817,549	2,230,954	2,192,547	2,471,071
Total Assets	26,037,156	27,684,122	30,354,817	30,784,097	34,194,858

(a) Including amount required as reserves against unexpired risks. (b) Some of the companies transact Life Business. (c) Included with Government securities, etc.

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 1938-39 and 1939-40.

FIRE, MARINE AND GENERAL INSURANCE : PREMIUMS AND LOSSES.

State.	Premiums, less reinsurance and returns.		Losses, less reinsurance.		Proportion of Losses on Premiums.	
	1938-39.	1939-40.	1938-39.	1939-40.	1938-39.	1939-40.
	£	£	£	£	%	%
New South Wales ..	6,942,723	7,368,575	3,841,460	3,759,770	55.33	51.02
Victoria ..	4,504,447	4,730,834	2,193,869	2,288,489	48.70	48.37
Queensland ..	2,327,293	2,371,066	1,070,895	1,109,700	46.01	46.80
South Australia ..	1,245,391	1,276,228	487,236	493,031	39.12	38.63
Western Australia ..	1,372,956	1,441,950	730,778	729,969	53.23	50.62
Tasmania ..	457,109	470,135	204,315	178,539	44.70	37.98
All States ..	16,849,919	17,658,788	8,528,553	8,559,498	50.61	48.47

(ii) *Classes of Insurance.* The following statement shows premiums and losses in respect of the principal classes of risks, with the proportions of losses on premiums for the years 1938-39 and 1939-40 :—

FIRE, MARINE AND GENERAL INSURANCE ; PREMIUMS AND LOSSES,
PRINCIPAL CLASSES OF RISK.

Class of Risk.	Premiums, less reinsurance and returns.		Losses, less reinsurance.		Proportion of Losses on Premiums.	
	1938-39.	1939-40.	1938-39.	1939-40.	1938-39.	1939-40.
	£	£	£	£	%	%
Fire ..	5,597,575	5,758,515	2,222,405	1,976,426	39.70	34.32
Workers' Compensation ..	4,360,755	4,335,577	2,972,163	3,003,233	68.16	69.27
Motor Vehicle ..	3,847,938	3,905,845	2,324,078	2,444,749	60.40	62.59
Marine ..	1,017,897	1,508,410	243,254	338,162	23.90	25.73
Personal Accident ..	554,046	589,325	203,368	254,546	47.54	43.19
All other ..	1,471,708	1,561,116	503,285	542,382	34.20	34.74
Total ..	16,849,919	17,658,788	8,528,553	8,559,498	50.61	48.47

The volume of business measured by the amounts of premium income shows that fire insurances represented about 33 per cent. of the totals during 1938-39 and 1939-40, while next in importance were workers' compensation 26 per cent. during 1938-39 and 25 per cent. during 1939-40, and motor vehicles 23 per cent. in 1938-39 and 22 per cent. in 1939-40.

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. Since then the proportion of losses on premiums has not moved much from the 50 per cent. mark.

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 is over 600,000, 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 1939-40 in respect of all States except Tasmania where they relate to the calendar year 1940, and New South Wales, where they relate to the year 1938-39, particulars for 1939-40 have not been tabulated, because of staff shortages due to the war.

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, 1939-40 (a)

State.	Number of Registered Friendly Societies.	Number of Branches.	Benefit Members at End of Year.	Average No. of Benefit Members during the Year.
New South Wales (b) ..	33	2,402	211,170	211,653
Victoria (c) ..	83	1,475	191,864	189,597
Queensland ..	23	593	72,514	72,275
South Australia (d) ..	17	(e) 874	75,481	74,984
Western Australia ..	13	368	27,877	27,755
Tasmania ..	19	186	24,600	(f) 24,613
Total ..	188	5,898	603,506	600,877

(a) See par. 1 for years covered. (b) Excludes twenty-one miscellaneous societies consisting of Medical Institutes, Dispensaries, and Burial Societies. (c) Excludes Dispensaries and Juvenile branches. (d) Excludes Juvenile Branches with 14,632 members. (e) Societies containing male and female branches counted as two branches. (f) Estimated.

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, 1939-40.(a)

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 ..	52,340	522,174	9.98	2,708	12.80
Victoria ..	50,138	511,550	10.20	2,159	11.39
Queensland ..	(b) 15,537	(b) 148,185	9.54	891	12.33
South Australia ..	21,048	223,249	10.61	955	12.74
Western Australia ..	8,015	65,521	8.18	237	8.54
Tasmania ..	5,470	54,052	9.88	309	12.55
Total ..	152,548	1,524,731	10.00	7,259	12.08

(a) See par. 1 for years covered.

(b) Females counted as half members in these totals.

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 following table to group the revenue under the main headings :—

FRIENDLY SOCIETIES : REVENUE, 1939-40.(a)

State.	Entrance Fees, Members' Contributions and Levies.	Interest, Dividends and Rents.	All other Revenue.	Total Revenue.
	£	£	£	£
New South Wales ..	767,621	208,651	29,769	1,006,041
Victoria ..	710,376	275,356	63,125	1,048,857
Queensland ..	253,474	93,259	(b)	346,733
South Australia ..	255,427	143,083	15,929	414,439
Western Australia ..	111,662	30,753	9,297	151,712
Tasmania ..	87,917	22,608	9,765	120,290
Total ..	2,186,477	773,710	127,885	3,088,072

(a) See par. 1 for years covered.

(b) 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 £451,756 for Australia, representing about 15s. per average benefit member.

FRIENDLY SOCIETIES : EXPENDITURE, 1939-40.(a)

State.	Sick Pay.	Medical Attendance and Medicine.	Sums Payable at Death of Members and Members' Wives.	Adminis- tration.	All other Expendi- ture.	Total Expendi- ture.
	£	£	£	£	£	£
New South Wales ..	278,738	306,029	89,368	164,570	27,931	866,636
Victoria ..	294,029	297,094	54,387	147,773	100,645	893,928
Queensland ..	92,536	106,209	42,968	50,380	(b)	298,093
South Australia ..	113,225	103,895	42,023	50,889	28,565	338,597
Western Australia ..	39,042	42,151	13,332	26,103	8,382	129,010
Tasmania ..	29,242	30,941	21,249	18,217	10,403	110,052
Total ..	846,812	886,319	263,327	463,932	175,926	2,636,316

(a) See par. 1 for years covered.

(b) Included in administration.

It appears from the above figures that sick pay averaged about 28s. 2d. 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. 6d. per average benefit member.

5. **Funds.**—The two foregoing tables show that the surplus of revenue over expenditure in all States amounted to £451,756 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 1940 the total funds of friendly societies amounted to £17,665,938 (£29 5s. 5d. per benefit member), 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 following particulars give some idea of the number and value of estates of deceased persons in respect of the year 1940. Owing to differences in legislation in the various States, however, the figures are not entirely comparable. The details for each State are shown in the table hereunder :—

PROBATES AND LETTERS OF ADMINISTRATION, 1940.

Particulars.		New South Wales, 1939-40. (a)	Victoria, 1940.	Queensland, 1939-40.	South Australia, 1940.	Western Australia, 1940.	Tasmania, 1940.	Total.
Probates—								
Estates	No.	10,828	6,617	1,272	1,816	1,251	b 547	22,331
Gross Value	£	(c)	23,876,091	6,215,825	5,600,166	3,279,327	b1,760,197	(d)
Net Value	£	26,598,763	21,186,983	(c)	4,669,225	2,539,260	b1,556,356	(d)
Letters of Administration—								
Estates	No.	(c)	1,764	231	200	329	b 143	(d)
Gross Value	£	(c)	(e)	478,029	268,498	358,022	b 219,095	(d)
Net Value	£	(c)	(e)	(c)	176,604	237,742	b 177,617	(d)
Total—								
Estates	No.	10,828	8,381	1,503	2,016	1,580	690	24,998
Gross Value	£	(c)	23,876,091	6,693,854	5,868,664	3,637,349	1,979,292	(d)
Net Value	£	26,598,763	21,186,983	(c)	4,845,829	2,777,002	1,733,973	(d)

(a) Total estates of deceased persons assessed for Death Duty. (b) Applications dealt with.
(c) Not available. (d) Incomplete. (e) Included with Probates.

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 1940 are given hereunder :—

INTESTATE ESTATES, 1940.(a)

Particulars.	N.S.W.	Vic.	Q'land. (b)	S. Aust.	W. Aust.	Tas.	Total.
Intestate estates administered by Curator during 1940—							
Number ..	(c)	195	671	(d) 185	454	(e) 79	(f)
Gross Value ..	(c)	103,346	209,984	(d) 108,404	29,408	(e) 10,645	(f)
Net Value ..	(c)	88,950	167,603	(d) 77,488	(c)	(c)	(f)
Unclaimed money paid into Consolidated Revenue by Curator during 1940	£	(c)	9,912	(g) 9,732	5,266	4,209	(c)
							(f)

(a) Not included above in the table of Probates and Letters of Administration granted. (b) Year ended 30th June, 1940. (c) Not available. (d) Excludes estates of persons leaving wills: number, 213; gross value, £155,659; net value, £118,654. (e) Excludes estates of persons leaving wills: number, 57; gross value, £10,645. (f) Incomplete. (g) Paid to Unclaimed Moneys Fund.

CHAPTER XXVI. PUBLIC FINANCE.

A.—GENERAL.

In early issues of the Official Year Book the plan was adopted of including a single Chapter under the general heading of "Finance". 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 § 9 "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 Commonwealth Constitution. 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, and Section 51, in outlining the powers of the Commonwealth 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 previous issues of the Official Year Book and on p. 814 of this issue a *résumé* is given of the constitutional obligations upon the Commonwealth regarding payments to the States.

The majority of the tables relating to Commonwealth Finance have been compiled from the annual Budget Papers as presented to Parliament by the Treasurer of the Commonwealth.

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 the War of 1914-19 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 consist mainly of credits arising from repayments of expenditure during previous years.

(ii) *Receipts, Expenditure, etc.* The following statement shows for the period 1924-25 to 1940-41 the receipts, expenditure and 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.		Payments from Excess Receipts.	Accumulated Result.	
			Excess Receipts.	Deficiency.		Excess Receipts.	Deficiency. (a)
	£	£	£	£	£	£	£
1924-25 ..	67,697,124	67,178,748	518,376	..	..	3,109,529	..
1925-26 ..	70,203,572	70,577,204	..	373,632	b2,450,000	285,897	..
1926-27 ..	75,544,382	72,908,785	2,635,597	..	(c)100,000	2,821,494	..
1927-28 ..	73,808,227	76,438,464	..	2,630,237	d2,820,000	..	2,628,743
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	..	e10,757,619	..	..	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	..	..	6,162,269	..
1934-35 ..	77,369,105	76,657,900	711,205	..	f6,160,000	713,474	..
1935-36 ..	82,203,341	78,635,621	3,567,720	..	(g)713,474	3,567,720	17,002,866
1936-37 ..	82,807,977	81,531,419	1,276,558	..	h3,567,720	1,276,558	15,935,146
1937-38 ..	89,458,154	85,963,421	3,494,733	..	h1,276,558	3,494,733	15,658,588
1938-39 ..	95,064,790	94,437,481	627,309	..	h3,494,733	627,309	15,658,588
1939-40 ..	111,913,784	108,985,409	2,928,375	..	(h)627,309	2,928,375	15,658,588
1940-41 ..	150,482,306	150,482,306	..	..	h2,928,375	..	15,658,588

(a) Met by temporary advance from loan fund. (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) Excludes Interest, etc., paid on behalf of New South Wales and not recovered at 30th June, 1931. (f) Defence equipment, £4,160,000 and Financial Assistance to States, £2,000,000. (g) Grants to States, £500,000 and Reduction of Deficit, £213,474. (h) See table following.

(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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Accumulated balance	3,567,720	1,276,558	3,494,733	627,309	2,928,375
Excess receipts	1,276,558	3,494,733	627,309	2,928,375	..
Total for year	4,844,278	4,771,291	4,122,042	3,555,684	2,928,375
Expenditure from excess receipts—					
Grants to States	500,000	..	..	..	..
Defence equipment	2,000,000	..	3,494,733	627,309	2,928,375
Post Office works provision .. ..	..	1,000,000	..	..	..
Reduction of deficit	1,067,720	276,558	..	..	..
Total	3,567,720	1,276,558	3,494,733	627,309	2,928,375
Accumulated balance	1,276,558	3,494,733	627,309	2,928,375	..

The transactions of the Consolidated Revenue Fund during 1940 41 resulted in a balanced budget, the whole of the revenue available after charging ordinary services having been applied for war purposes.

§ 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 (*see* Official Year Book No. 33, p. 19).

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 1936-37 to 1940-41 :—

COMMONWEALTH CONSOLIDATED REVENUE : SOURCES.

Source.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41
	£	£	£	£	£
Taxation	62,773,452	69,048,485	74,036,899	90,010,663	125,383,522
Percentage of Total .. %	75.8	77.2	77.9	80.4	83.3
Per head of population (a) ..	£9 4 6	£10 1 2	£10 13 10	£12 17 4	£17 17 8
Business Undertakings	16,247,795	17,188,881	17,892,221	18,485,141	19,975,434
Percentage of Total .. %	19.6	19.2	18.8	16.5	13.3
Per head of population (a) ..	£2 7 9	£2 10 1	£2 11 8	£2 12 10	£2 17 0
Territories (b)	300,253	330,975	355,401	415,412	506,864
Percentage of Total .. %	0.4	0.4	0.4	0.4	0.3
Per head of population (a) ..	£0 0 11	£0 1 0	£0 1 0	£0 1 2	£0 1 5
Other Revenue—					
Interest, etc. (c)	1,074,423	1,044,076	1,144,014	1,145,989	1,172,130
Coinage	295,167	362,705	127,764	180,458	752,471
Defence	41,731	29,244	151,208	166,880	303,640
Civil Aviation	4,418	5,556	5,745	11,171	137,951
Health	67,134	17,621	18,204	15,740	14,338
Patents, Trade Marks, etc. ..	62,163	61,435	67,914	61,982	57,150
Bankruptcy	30,569	36,441	30,770	35,817	32,318
Commerce and Marine—					
Wool Levy	72,805	77,523	74,396	84,361	84,279
Marine	216,406	182,463	158,137	147,315	136,706
Other	Dr. 1,104				
Net Profit on Australian Note Issue	898,585	839,883	766,730	985,993	1,461,839
Balance of Trust Accounts ..	477,048	10,940	..	..	31,476
Other	247,132	221,926	235,387	166,862	432,188
Total	3,486,477	2,889,813	2,780,269	3,002,568	4,616,486
Percentage of Total .. %	4.2	3.2	2.9	2.7	3.1
Per head of population (a) ..	£0 10 3	£0 8 5	£0 8 0	£0 8 7	£0 13 2
Grand Total	82,807,977	89,458,154	95,064,790	111,913,784	150,482,306
Per head of population (a) ..	£12 3 5	£13 0 8	£13 14 6	£15 19 11	£21 9 3
Balance of Interest on States' Debts—recoverable from States	25,081,605	25,580,374	25,584,456	26,299,098	26,416,555

(a) Based on mean population of each financial year. (b) Excluding Railways. (c) Excluding balance of Interest on States' Debts payable by States.

2. Taxation.—(i) *Total Collections.* (a) *Amount.* Collections under each heading for the years 1936-37 to 1940-41 are given below :—

COMMONWEALTH TAXATION : TOTAL COLLECTIONS.

Heading.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Customs	28,782,784	32,972,666	31,160,462	34,830,306	29,409,666
Excise	14,210,248	13,410,339	16,471,903	18,994,600	24,370,117
Sales Tax	8,008,427	8,023,886	9,308,334	12,196,175	19,792,680
Flour Tax	Dr. 12,193	3,025	1,808,972	2,486,070	1,498,595
Land Tax	1,435,405	1,368,444	1,489,436	1,645,829	3,190,822
Income Tax	8,556,014	9,398,503	11,882,440	16,430,313	39,315,548
War-time (1939-41) Company Tax and Super Tax .. .. .	..	..	..	..	3,989,691
Gold Tax .. .. .	..	..	..	1,214,621	1,452,260
Estate Duty	1,792,600	1,872,654	1,915,352	2,212,690	2,364,133
Entertainments Tax	107	1	..	59	10
War-time (1914-19) Profits Tax ..	..	Dr. 1,033	..	..	..
Total Taxation	62,773,452	69,048,485	74,036,899	90,010,663	125,383,522
Percentage on Total Revenue ..	75.8	77.2	77.9	80.4	83.3

(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 :—

COMMONWEALTH TAXATION : PERCENTAGES ON TOTAL COLLECTIONS.

Heading.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	%	%	%	%	%
Customs	45.9	47.8	42.1	38.7	23.5
Excise	22.6	22.3	22.3	21.1	19.4
Sales Tax	12.7	11.6	12.6	13.5	15.8
Flour Tax .. .. .	..	..	2.4	2.8	1.2
Land Tax	2.3	2.0	2.0	1.8	2.5
Income Tax	13.6	13.0	16.0	18.3	31.3
War-time (1939-41) Company Tax and Super Tax .. .. .	..	..	..	..	3.2
Gold Tax .. .. .	..	..	..	1.3	1.2
Estate Duty	2.9	2.7	2.6	2.5	1.9
Entertainments Tax .. .. .	..	..	..	..	..
War-time (1914-19) Profits Tax .. .. .	..	..	..	..	..
Total	100.0	100.0	100.0	100.0	100.0

(ii) *Customs Revenue.* (a) *Classified.* Particulars for the five years 1936-37 to 1940-41 are shown in the following table :—

COMMONWEALTH CUSTOMS REVENUE : CLASSIFICATION.

Classes.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Stimulants	1,157,707	1,174,494	1,165,503	1,449,899	963,841
Narcotics	3,041,660	3,243,490	3,256,496	3,379,971	4,030,766
Sugar	4,204	5,380	7,238	5,812	6,606
Agricultural products	1,286,331	1,268,440	1,365,938	1,465,400	1,149,380
Apparel and textiles	2,752,891	3,169,485	2,801,103	3,217,479	2,050,028
Metals and machinery	2,195,393	2,762,044	2,385,882	2,161,144	1,256,736
Oils, paints, etc.	8,401,394	9,631,390	9,927,346	12,305,774	11,968,756
Earthenware, etc.	460,849	534,912	509,980	448,585	274,553
Drugs and chemicals	265,068	312,532	309,984	370,991	244,158
Wood, wicker and cane	726,350	779,677	739,057	649,237	323,732
Jewellery, etc.	451,511	522,365	480,916	586,270	441,493
Leather, etc.	412,714	497,950	477,163	504,682	362,804
Paper and stationery	447,048	488,716	453,548	435,677	182,870
Vehicles	2,186,245	2,696,560	2,061,762	1,555,746	439,729
Musical instruments	30,041	27,956	31,589	19,608	7,289
Miscellaneous articles	920,854	1,173,635	1,023,556	1,140,649	734,340
Primage	3,833,165	4,450,901	3,913,578	4,623,131	3,428,344
Special War Duty .. .. .	..	..	..	395,227	1,384,170
Other receipts	209,359	232,739	249,823	205,024	160,101
Total Customs Revenue	28,782,784	32,972,666	31,160,462	34,830,306	29,409,666

(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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
New South Wales (a) ..	12,807,629	14,831,986	14,070,130	15,228,153	12,637,757
Victoria	9,338,212	10,626,241	9,970,730	11,437,572	9,947,177
Queensland	2,652,736	2,955,788	2,977,792	3,419,454	2,842,785
South Australia (b) ..	1,906,269	2,332,090	2,090,020	2,447,372	2,049,622
Western Australia ..	1,704,018	1,814,435	1,653,906	1,843,192	1,471,149
Tasmania	373,920	412,126	397,884	454,563	461,176
Total	28,782,784	32,972,666	31,160,462	34,830,306	29,409,666

(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 five years ended 30th June, 1941, are given hereunder :—

COMMONWEALTH EXCISE REVENUE : CLASSIFICATION.

Particulars.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Beer	6,109,526	6,893,739	7,288,579	8,780,470	11,228,913
Spirits (a)	1,492,318	1,579,486	1,604,220	1,899,931	2,368,572
Tobacco	3,209,263	3,414,513	3,867,983	4,059,020	4,811,701
Cigars and cigarettes	1,984,378	2,177,784	2,418,723	2,507,292	2,993,641
Cigarette papers ..	450,510	468,659	530,868	545,057	689,128
Petrol	706,884	681,870	581,978	989,869	1,802,516
Matches	77,438	81,510	81,960	91,903	244,361
Playing cards	12,231	10,006	11,432	14,252	13,240
Miscellaneous	77,694	101,872	86,160	106,806	218,045
Total Excise Revenue ..	14,210,248	15,410,339	16,471,903	18,994,600	24,370,117

(a) Includes concentrated grape must.

(b) *States.* Excise collections in each State for the last five years were as follows :—

COMMONWEALTH EXCISE REVENUE : COLLECTIONS IN EACH STATE.

State.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
New South Wales ..	6,724,164	7,373,723	6,940,301	8,479,925	11,022,450
Victoria	4,265,286	4,871,017	5,687,832	6,533,146	8,073,057
Queensland	1,250,125	1,304,390	1,538,042	1,548,510	1,974,064
South Australia (a) ..	856,021	717,676	1,018,148	1,029,912	1,494,473
Western Australia ..	957,684	972,131	1,103,481	1,186,165	1,532,825
Tasmania	156,968	171,402	184,099	216,942	273,248
Total	14,210,248	15,410,339	16,471,903	18,994,600	24,370,117

(a) Includes Northern Territory.

(iv) *Other Taxation.* (a) *Collections paid to Revenue.* The following statement shows particulars of the collections on account of Land Tax, Estate Duty, Income Tax, Entertainments Tax, Sales Tax and Flour Tax during the last ten years. War-time (1914-19) Profits Tax, which has been excluded from the statement, and Entertainments Tax are now inoperative, particulars for the last few years relate chiefly to arrears and refunds. Particulars of the Gold Tax introduced during 1939-40 and the War-time (1939-41) Company and Super Tax introduced during 1940-41 are now included. 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 ended 30th June—	Land Tax.	Estate Duty.	Income Tax.	War-time (1939-41) Company Tax and Super-tax.	Gold Tax.	Entertainments Tax.	Sales Tax.	Flour Tax.
£	£	£	£	£	£	£	£	£
1932 ..	2,156,765	1,385,811	13,481,982	..	..	133,072	8,425,067	..
1933 ..	1,650,311	1,126,996	10,878,718	..	..	134,042	9,369,276	..
1934 ..	1,325,393	1,511,296	9,314,768	..	..	51,216	9,695,689	1,253,957
1935 ..	1,281,424	1,507,827	8,761,619	..	..	Dr. 599	8,554,076	798,354
1936 ..	1,326,991	1,472,860	8,775,562	..	..	13	9,432,483	1,150,724
1937 ..	1,435,465	1,792,600	8,556,014	..	..	107	8,008,427	Dr. 12,193
1938 ..	1,368,444	1,872,654	9,398,503	..	..	1	8,023,886	3,025
1939 ..	1,489,436	1,915,352	11,882,440	..	..	..	9,308,334	1,808,972
1940 ..	1,645,829	2,212,690	16,430,313	..	1,214,621	59	12,196,175	2,486,070
1941 ..	3,190,822	2,364,133	39,315,548	3,989,691	1,152,260	10	19,792,680	1,498,595

"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 replaced by figures furnished by the Commissioner of Taxation, which refer strictly to the assessments made on account of the State specified. The totals 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 from 1933-34 to 1941-42 :—

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.
1933-34 to 1937-38	$\frac{45}{100} \left(1 + \frac{T}{18,750} \right)$	d.	d.	d.	$\frac{45}{100} \left(2 + \frac{T-5,000}{18,750} \right)$	d.	d.	d.
		2.25	4.05	.45		.45	2.7	4.5
1938-39 to 1939-40	$\left(\frac{1}{2} + \frac{T}{37,500} \right)$	2.5	4.5	.5	$\left(1 + \frac{T-5,000}{37,500} \right)$	.5	3	5
1940-41 and 1941-42b	$\left(1 + \frac{T}{18,750} \right)$	5	9	1	$\left(2 + \frac{T-5,000}{18,750} \right)$	1	6	10

(a) Absentees are not allowed an exemption of £5,000 granted to residents. (b) In addition, if the taxable value exceeds £20,000, there is payable for 1941-42 a super tax equal to the lesser amount of the following :—(i) twenty per cent. of the amount of land tax ; or (ii) one per cent. of the amount by which the taxable value of the land exceeds £20,000.

Land Tax receipts in each State and Central Office for the years 1936-37 to 1940-41 were as follows. The particulars shown differ slightly from those quoted in (a) above.

LAND TAX RECEIPTS.

State, etc.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Central Office ..	482,127	438,813	525,959	578,769	1,186,885
New South Wales ..	530,603	505,143	509,913	568,840	1,042,271
Victoria ..	277,718	277,512	290,798	333,194	653,279
Queensland ..	27,159	26,887	29,568	30,086	58,557
South Australia ..	54,878	48,295	55,280	64,865	120,681
Western Australia ..	51,835	59,074	63,854	53,351	98,949
Tasmania ..	11,530	12,237	12,879	16,388	31,216
Total ..	1,435,859	1,367,961	1,488,251	1,645,493	3,191,838

(c) *Estate Duty.* The Commonwealth Estate Duty Act 1914 and Estate Duty Assessment Acts 1914-1928 imposed a duty on the estates of deceased persons the net value of which exceeded £1,000. The rate of tax, where the value of the estate for duty did not exceed £2,000, was £1 per cent. Where the value of the estate for duty exceeded £2,000 the rate was increased by one-fifth of £1 for each £1,000 or part thereof in excess of £2,000, to a maximum rate of £15 per cent. on estates over £71,000. Where the estate passed to a widow, children or grand-children, duty was payable at two-thirds of the ordinary rate.

Under the Estate Duty Assessment Act (No. 12 of 1940) the Estate Duty Assessment Act 1914-1928 was amended to allow the following Statutory Exemption, namely :—

(a) Where the whole of the estate passes to the widow, children or grand-children of the deceased, the sum of £2,000 decreasing by £1 for every £10 by which the value exceeds £2,000 up to £10,000, and thereafter decreasing by £1 for every £2 by which the value

exceeds £10,000; (b) When no part of the estate passes to the widow, children or grand-children the sum of £1,000 decreasing by £1 for every £10 by which the value exceeds £1,000 up to £6,000, and thereafter decreasing by £1 for every £8 by which the value exceeds £6,000; and (c) Where part only of the estate passes to the widow, children or grand-children the Statutory Exemption is to be calculated proportionately under (a) and (b).

Under the Estate Duty Act (No. 13 of 1940) the following new rates were fixed: £1 to £10,000, 3 per cent.; £10,001 to £20,000, 3 per cent. to 6 per cent.; £20,001 to £100,000, 6 per cent. to 18 per cent.; £100,001 to £500,000, 18 per cent. to 20 per cent.; over £500,000, 20 per cent. By the Estate Duty Act (No. 51 of 1941) these rates were amended to the following:—£1 to £10,000, 3 per cent.; £10,001 to £20,000, 3 per cent. to 6 per cent.; £20,001 to £120,000, 6 per cent. to 26 per cent.; £120,001 to £500,000, 26 per cent. to 27.9 per cent.; over £500,000 27.9 per cent.

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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Central Office	989,688	902,266	999,202	1,165,049	1,280,052
New South Wales	324,365	396,003	422,567	391,978	444,579
Victoria	308,719	397,386	294,406	413,269	420,369
Queensland	70,784	85,335	60,041	82,153	96,000
South Australia	60,447	44,295	82,789	82,456	84,879
Western Australia	21,110	31,809	34,074	51,806	32,256
Tasmania	10,253	12,506	15,900	21,528	16,184
Northern Territory .. ..	..	119	..	..	..
Total	1,797,366	1,869,719	1,909,039	2,208,239	2,372,319

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.		1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of Estates ..	No.	8,887	8,803	9,085	9,681	10,303
Gross Value (a) ..	£,000	56,009	59,419	60,964	65,699	75,482
Dutiable Value ..	£,000	45,121	47,723	49,340	53,069	59,748
Duty Payable ..	£	1,467,355	1,836,946	1,852,956	2,002,283	2,359,428
Average dutiable value ..	£	5,077	5,421	5,431	5,482	5,799
Average duty per estate ..	£	165	209	204	207	229

(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 table shows the rate of tax on personal exertion and property incomes for the assessment years 1936-37 to 1941-42.

* "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 : RATE OF TAX PER £1 OF TAXABLE INCOME.—INDIVIDUAL.(a)

(T = Taxable Income(b).)

Assessment Year.	Personal Exertion.			
	Taxable Income £1-£6,900.	Taxable Income. Over £6,900.		
		First £6,900.	Excess over £6,900.	
1936-37 and 1937-38	$\frac{d.}{100} \left(3 + \frac{T}{160} \right)$	$\frac{d.}{35.28562}$	$\frac{d.}{68.85}$	
1938-39	$\frac{87.975}{100} \left(3 + \frac{T}{160} \right)$	40.57846	79.1775	
1939-40	$\frac{96.7725}{100} \left(3 + \frac{T}{160} \right)$	44.63632	87.09525	
1940-41	Taxable Income £1-£400.	Taxable Income £401-£1,500.	Taxable Income Over £1,500.	
			First £1,500.	Excess over £1,500.
	$\frac{d.}{16}$	$\frac{d.}{\left(16 + \frac{T-400}{25} \right)}$	$\frac{d.}{60}$	$\frac{d.}{120}$
1941-42	Taxable Income £1-£400.	Taxable Income £401-£2,500.	Taxable Income Over £2,500.	
			First £2,500.	Excess over £2,500.
	$\frac{d.}{16}$	$\frac{d.}{\left(16 + \frac{T-400}{25} \right)}$	$\frac{d.}{100}$	$\frac{d.}{200}$

Assessment Year.	Property Income.				
	Taxable Income. £1-£500.	Taxable Income. £501-£1,500.	Taxable Income. £1,501-£3,700.	Taxable Income over £3,700.	
				First £3,700.	Excess over £3,700.
1936-37 and 1937-38	$\frac{90}{100}\left(3 + \frac{T}{100}\right)$	$\frac{90}{100}\left(1 + \frac{14T}{1,000}\right)$	$\frac{90}{100}\left(4\frac{1}{2} + \frac{23T}{2,000}\right)$	$\frac{d.}{42.57}$	$\frac{d.}{81}$
1938-39	$\frac{103.5}{100}\left(3 + \frac{T}{100}\right)$	$\frac{103.5}{100}\left(1 + \frac{14T}{1,000}\right)$	$\frac{103.5}{100}\left(4\frac{1}{2} + \frac{23T}{2,000}\right)$	48.9555	93.15
1939-40	$\frac{113.85}{100}\left(3 + \frac{T}{100}\right)$	$\frac{113.85}{100}\left(1 + \frac{14T}{1,000}\right)$	$\frac{113.85}{100}\left(4\frac{1}{2} + \frac{23T}{2,000}\right)$	53.85105	102.465
1940-41	Taxable Income £1-£400.	Taxable Income £401-£1,200.	Taxable Income over £1,200.		
			First £1,200.	Excess over £1,200.	
	$\frac{d.}{20}$	$\frac{d.}{\left(20 + \frac{T-400}{20}\right)}$	$\frac{d.}{60}$	$\frac{d.}{120}$	
1941-42	Taxable Income £1-£400.	Taxable Income £401-£2,000.	Taxable Income over £2,000.		
			First £2,000	Excess over £2,000.	
	$\frac{d.}{20}$	$\frac{d.}{\left(20 + \frac{T-400}{20}\right)}$	$\frac{d.}{100}$	$\frac{d.}{200}$	

(a) Minimum Tax payable is 10s. (b) Taxable Income is the Income remaining after all deductions including the Statutory Exemption) have been made.

Where income is derived from both Personal Exertion and Property sources the rates applicable to each part are those which would apply if the whole of the income had been derived from that source.

A statutory exemption is allowed from income after concessional deductions for wife, children, State taxes paid, insurance premiums, medical and hospital expenses, etc., have been made. For the years 1936-37 to 1939-40 this statutory exemption was £250 less £1 for every £2 by which the income exceeded £250. For 1940-41 and 1941-42 the statutory exemption has been reduced to £200 less £1 for every £1 by which the income exceeds £200. The rate of tax payable by residents and non-residents is the same.

Companies are assessed at a flat rate of tax, and are not allowed the benefit of a statutory exemption. The rate for the assessment years 1936-37 and 1937-38 was 12d. per £1 of taxable income. For the year 1938-39 it was 13.8d., 24d. for 1939-40 and 1940-41 and 4s. for 1941-42. An addition to the 1940-41 and 1941-42 tax provides for the payment by non-private companies of a super tax of 1s. in £1 on all income over £5,000 and a tax of 2s. in £1 on undistributed profits.

The following table shows the receipts from income tax and super 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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Central Office	2,949,280	3,476,651	4,040,671	6,358,554	13,278,743
New South Wales	2,489,536	2,580,359	3,608,044	4,356,403	11,125,424
Victoria	1,773,769	1,952,543	2,397,469	3,276,642	8,472,206
Queensland	503,891	529,904	738,119	974,386	3,133,342
South Australia	370,895	413,877	551,129	654,190	1,907,681
Western Australia	340,369	326,144	369,314	528,296	1,242,447
Tasmania	104,684	123,902	153,671	224,506	491,195
Northern Territory	2,294	2,585	4,417	6,840	60,442
Total	8,534,718	9,405,965	11,862,834	16,379,817	39,711,480

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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	s. d.	s. d.	s. d.	s. d.	s. d.
New South Wales	18 8	19 2	26 6	31 9	80 2
Victoria	19 3	21 1	25 8	34 10	89 0
Queensland	10 3	10 8	14 9	19 2	61 1
South Australia	12 8	14 1	18 7	22 0	63 9
Western Australia	15 1	14 4	16 1	22 8	53 1
Tasmania	9 1	10 8	13 1	19 0	41 1
Six States	16 6	17 5	22 9	28 0	75 3

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 were 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 were 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.

The Income Tax Assessment Act 1936-1941 provides for the collection of income tax and war tax by deduction of instalments from salaries and wages. The rates of deduction for Income Tax and War Tax combined are fixed by regulation and range from two shillings per week if the weekly salary or wages are between £3 and £3 5s., to a maximum of 4s. in the £1 on salaries and wages exceeding £18 10s. per week. Although the deduction is made at the time of payment of the salary or wages, income tax and war tax are payable on annual assessment and provision exists for an employee, on payment of the tax assessed, to obtain a certificate of exemption which authorizes his employer to discontinue making further deductions during the currency of the certificate.

(e) *War Tax.* The War Tax Act 1941, which came into operation on 31st December, 1941, imposed a war tax on all incomes which exceed £156 per annum. The rate varies from 6d. in the £1 on incomes of £157 to 1s. in the £1 on incomes which exceed £300. For the assessment year 1941-42 the rates were fixed at half of the above rates.

War Tax is assessed on income derived during the year immediately preceding the year of assessment. Certain deductions of a concessional nature allowable from the assessable income for income tax purposes are not allowed for war tax purposes.

A rebate of £2 12s. (£1 6s. for 1941-42) for each dependant is allowed from war tax payable.

War tax is assessed and collected in a similar manner to income tax.

(f) *War-time (Company) Tax.* The War-time (Company) Tax Assessment Act 1940-41 and the War-time (Company) Tax Act 1940-41 provide for a tax on the amount by which the taxable profit, derived by any company during the preceding accounting period exceeds the statutory percentage of 5 per cent. on capital employed in the business.

The rate of tax ranges from 6 per cent. of the first 1 per cent. of profits in excess of the percentage standard to 78 per cent. of profits in excess of 12 per cent. above the percentage standard.

Provision is made in the Act to increase the statutory percentage in cases where it is considered just that the statutory percentage should be increased and to deduct from the tax payable any super tax payable under the Income Tax Act 1941.

Private and Co-operative Companies as defined by the Income Tax Assessment Act 1936-1941, Mutual Life Assurance Companies, and companies whose taxable profit does not exceed £1,000 or is derived from commissions, fees or charges for services rendered are exempted from the tax.

War-time (Company) Tax receipts at Central Office and in each State during 1940-41 were as follows:—Central Office, £1,173,687; New South Wales, £115,786; Victoria, £79,299; Queensland, £5,325; South Australia, £10,076; Western Australia, £10,044; Total, £1,394,217.

(g) *Sales Tax.* The Sales Tax was imposed in August, 1930, as part of the Budget proposals for 1930-31. 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.

Since the inception of the tax certain exemptions have been allowed. These exemptions, which have been extended from time to time, relate mainly to goods of an essential nature or used in primary production. Owing to the need for additional revenue for war purposes, certain of these exemptions were withdrawn as from 22nd November, 1940.

The following are the rates of sales tax imposed since its inception in August, 1930: 2½ per cent. to 10th July, 1931; 6 per cent. to 25th October, 1933; 5 per cent. to 10th September, 1936; 4 per cent. to 21st September, 1938; 5 per cent. to 8th September,

1939; 6 per cent. to 2nd May, 1940; 8½ per cent. to 21st November, 1940; 5 per cent., 10 per cent. and 15 per cent. to 29th October, 1941, and 5 per cent., 10 per cent. and 20 per cent. from 30th October, 1941.

The differential rates applicable as from 22nd November, 1940, relate to different classes of goods specified in Schedules in the Sales Tax (Exemptions and Classifications) Act 1935-1941. The rate of 5 per cent. applies to goods which were formerly exempt but have been brought back into the taxable field. The rate of 20 per cent. is applied to goods which may be described as being of a non-essential nature.

Particulars of the net amount of sales tax payable, and the sales of taxable, non-taxable and exempt goods in each State for 1940-41 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, 1940-41.(a)

State, etc.	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 ..	93,538	116,814	117,115	87,226	7,839	619	8,458
Victoria ..	75,857	97,912	98,476	71,216	6,356	384	6,740
Queensland ..	23,344	13,871	41,644	22,917	1,947	95	2,042
South Australia ..	16,781	14,333	24,829	14,575	1,282	84	1,366
Western Australia ..	10,208	6,428	17,451	10,028	858	52	910
Tasmania ..	3,405	3,004	7,029	2,949	273	21	294
Northern Territory ..	93	6	190	93	7	1	8
Total ..	223,226	252,368	306,734	209,004	18,562	1,256	19,818

(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 Australia as a whole for each year 1931-32 to 1940-41 are given in the following table:—

SALES TAX AND AMOUNT OF SALES, 1931-32 TO 1940-41.

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.
1931-32 ..	156,608	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	644	8,166
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
1939-40 ..	207,106	196,790	302,479	192,589	11,177	1,019	12,196
1940-41 ..	223,226	252,368	306,734	209,004	18,562	1,256	19,818

In the foregoing tables exempt sales relate to goods exempted from sales tax under the Sales Tax Exemptions Act, while non-taxable sales relate to goods on which tax is not payable at the time of sale. In this latter case the sale has been made to a registered taxpayer who has quoted his certificate. These sales, however, become taxable before passing into consumption, unless used for a purpose exempted under the Act.

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 above statistics.

(h) *Flour Tax.* A Flour Tax of £4 5s. per ton operated from 4th December, 1933 to 31st May, 1934, and of £2 12s. 6d. per ton from 7th January, 1935 to 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 tax outstanding were as follows :—

FLOUR TAX.

State, etc.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
New South Wales ..	Dr. 8,744	2,400	704,152	951,185	604,887
Victoria ..	Dr. 465	972	531,577	696,428	409,775
Queensland ..	Dr. 1,074	Dr. 329	237,854	334,040	192,760
South Australia ..	Dr. 283	Dr. 15	141,048	203,964	116,084
Western Australia ..	Dr. 1,623	Dr. 3	123,856	162,908	95,479
Tasmania ..	Dr. 4	..	55,346	72,220	38,341
Northern Territory ..	..	..	..	Dr. 8	..
Total ..	Dr. 12,193	3,025	1,793,833	2,420,737	1,457,326

(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 five years were as follows :—

WOOL LEVY.

State.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
New South Wales ..	32,616	32,689	28,889	35,175	34,229
Victoria ..	15,778	17,030	15,493	17,236	18,521
Queensland ..	11,970	13,962	14,451	15,738	15,400
South Australia ..	6,462	7,246	8,243	8,613	8,986
Western Australia ..	4,768	5,211	5,795	6,054	5,672
Tasmania ..	1,211	1,385	1,525	1,545	1,471
Total ..	72,805	77,523	74,396	84,361	84,279

(j) *Pay-roll Tax.* The Pay-roll Tax Assessment Act 1941 and the Pay-roll Tax Act 1941 imposed a Pay-roll tax of 2½ per cent. on all wages, in excess of £20 per week, paid by an employer after 30th June, 1941.

Pay-roll tax is collected in a similar manner to sales tax. Employers are required to register and to furnish a monthly return of all wages paid.

(k) *Gift Duty.* The Gift Duty Assessment Act 1941 and the Gift Duty Act 1941 imposed a Gift Duty on all gifts made after the 29th October, 1941. A gift has been defined as any disposition of property, which is made otherwise than by will, without adequate consideration in money or money's worth.

Both the donor and donee are liable to furnish returns and pay the duty.

The following rates of duty have been fixed.

Value of all Gifts made within Eighteen Months.					Rate of Duty.
Does not exceed £500	..	..	..	..	Nil.
£501 to £10,000	..	..	..	..	3%
£10,001 to £20,000	..	..	..	..	3% to 6%
£20,001 to £120,000	..	..	..	..	6% to 26%
£120,001 to £500,000	..	..	..	..	26% to 27.9%
£500,001 and over	..	..	..	..	27.9%

(l) *Gold Tax.* The Gold Tax Collection Act 1939-1940 and the Gold Tax Act 1939 impose a tax on all gold, delivered to the Commonwealth Bank of Australia or to an agent of that bank on and after 15th September, 1939, of 50 per cent. of the amount by which the price payable by the bank for each fine ounce of gold delivered exceeds £9. The amount of tax collected during 1940-41 was £1,452,260.

(m) *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. Regular conferences are held to ensure the maintenance of uniformity.

3. *Business Undertakings.*—(i) *Postal Revenue.* Particulars concerning this branch of revenue for each of the financial years from 1936-37 to 1940-41 are contained in the following table:—

COMMONWEALTH POSTAL REVENUE.

Particulars.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Private boxes and bags ..	70,589	73,039	74,235	74,799	74,371
Commission on money orders and postal notes ..	268,860	280,533	288,580	287,441	283,756
Telegraphs ..	1,370,518	1,377,623	1,372,300	1,401,204	1,481,660
Telephones ..	7,061,245	7,571,635	8,039,580	8,482,940	8,868,183
Postage ..	6,170,144	6,498,212	6,635,977	6,660,807	7,133,458
Radio ..	429,047	492,995	516,178	549,439	697,874
Miscellaneous ..	416,214	438,164	423,641	421,823	520,334
Total ..	15,786,617	16,732,201	17,350,491	17,878,453	19,059,636

The foregoing particulars do not include repayments of the States' proportion of pensions or contributions 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 Australia, the North Australia and the Australian Capital Territory lines. The following 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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Trans-Australian	270,161	267,754	330,643	368,218	462,344
Central Australia	122,698	124,417	137,521	146,921	243,701
North Australia	36,440	37,768	50,471	60,797	185,808
Australian Capital Territory	6,994	5,803	7,275	11,736	8,040
Total	436,293	435,742	525,910	587,672	899,893

Further particulars are given in Chapter V. "Transport and Communication", (part B, Railways).

4. *Other Sources of Revenue.*—Of other sources of revenue, amounting in 1940-41 to £4,616,486, Interest and Net Profit on the Australian Note Issue are the most outstanding. Interest, including interest from investments of Trust and Surplus Funds, War Service Homes advances, Nauru Island Agreement, from the British Government on Development and Migration Loans and from various advances to the States, amounted to £1,172,130, and Net Profit on the Australian Note Issue to £1,461,839.

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, namely:—

- (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 States 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, 1941, are given below.

* For an exposition of the "book-keeping system" see Official Year Book No. 6, p. 780.

COMMONWEALTH EXPENDITURE FROM CONSOLIDATED REVENUE.

Departments, etc.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
War and Repatriation (1914-19)	£	£	£	£	£
Services (a)	18,723,953	18,948,300	19,256,812	18,834,542	18,602,630
Defence and War (1939-41) Services—				15,315,993	} 65,680,207
War Services (1939-41) .. ..	..	..	..	3,770,504	
Army (including Co-ordination)	2,023,372	2,060,732	3,324,650	3,005,000	
Navy	2,580,704	2,497,783	2,755,085	2,043,839	
Air	948,671	1,289,973	1,384,971	..	
Supply and Development (including Munitions and Aircraft Production)	436,966	523,550	596,653	748,415	
Total Cost of Departments—					
Governor-General	34,245	35,067	32,765	30,787	30,587
Parliament	505,287	516,494	444,873	449,876	547,602
Prime Minister	1,263,210	1,510,259	1,355,842	1,509,582	1,282,799
External Affairs	63,104	58,263	70,168	117,782	141,751
Treasury	1,826,124	2,252,506	2,257,628	2,485,450	2,425,259
Attorney-General	252,158	263,319	281,497	276,557	298,110
Interior	972,733	1,018,526	1,275,392	1,257,593	962,999
Civil Aviation	275,563	129,043	328,150	494,060	392,038
Trade and Customs	891,292	993,503	1,064,124	1,032,890	963,269
Health	241,443	402,003	338,155	289,174	295,932
Commerce	1,122,242	1,149,511	1,208,927	1,170,951	1,139,932
Social Services	131,961	150,753	324,734	177,901	161,786
Business Undertakings—					
Postmaster-General	13,203,176	13,964,473	15,028,233	15,285,709	15,876,594
Railways	1,076,077	1,140,315	1,351,041	1,472,521	1,507,850
Total, Business Undertakings	14,279,253	15,104,788	16,379,274	16,758,230	17,384,444
Territories—					
Australian Capital Territory	585,869	615,401	637,228	656,078	679,160
Northern Territory	262,113	381,931	402,899	382,804	462,170
Papua	55,821	48,825	48,830	48,610	85,703
New Guinea	13,431	5,058	5,532	5,988	7,162
Norfolk Island	4,409	5,911	5,471	4,071	4,071
Total, Territories	921,643	1,057,126	1,099,960	1,097,551	1,238,266
New Works	4,319,562	3,551,776	6,565,268	63,036,445	63,211,764
Invalid and Old-age Pensions	13,998,793	15,798,687	15,991,782	16,459,245	17,366,365
Maternity Allowances	370,150	400,004	436,614	416,964	407,533
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	1,416,548	1,454,385	1,477,976	1,536,055	1,556,749
Special Grants	2,430,000	2,350,000	2,020,000	2,020,000	2,050,000
Federal Aid Roads	3,039,530	4,149,492	4,266,556	4,455,845	3,484,748
Other Grants	551,000	450,500	300,000	100,000	250,000
Total to or for States (c)	15,021,990	15,989,289	15,649,444	15,696,812	14,926,409
Relief to Primary Producers	327,000	262,166	2,014,713	2,509,266	3,022,624
Grand Total (d)	81,531,419	85,963,421	94,437,481	108,985,409	150,482,306
Per Head of Population	£ s. d. 11 19 8	£ s. d. 12 10 6	£ s. d. 13 12 8	£ s. d. 15 11 9	£ s. d. 21 9 3
Excess Receipts	1,276,558	3,494,733	627,309	2,928,375	..
Balance of Interest on States' Debts—payable by States	25,081,605	25,580,374	25,584,456	26,299,098	26,416,544

(a) For details see § 5. (b) Excludes Defence and War (1939-41) Services. (c) Excludes balance of interest payable on States' Debts (recoverable from States). (d) Excludes amounts expended from excess receipts of previous years (see page 790.).

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) below.

(ii) *Total 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 1936-37 to 1940-41 was as follows:—

EXPENDITURE : GOVERNOR-GENERAL AND ESTABLISHMENT.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Salary	10,000	10,000	10,000	10,000	10,000
Governor-General's Establishment ..	13,641	15,350	12,305	11,379	11,643
Contingencies (a)	5,913	5,003	5,381	4,746	4,389
Interest and Sinking Fund	4,691	4,714	5,079	4,662	4,555
Total	34,245	35,067	32,765	30,787	30,587

(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 Australia 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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Salaries of Ministers	15,130	15,782	19,325	19,941	19,738
Allowances to Senators	32,617	33,877	36,171	36,200	36,200
Allowances to Members of House of Representatives	67,283	70,058	74,900	75,211	74,631
Officers, staff, contingencies, etc.	61,591	64,183	71,120	69,958	71,978
Rent, repairs, maintenance, etc.	12,601	12,873	14,679	18,560	20,702
Printing	19,000	22,217	22,000	22,815	14,359
Travelling expenses of Members	30,472	33,347	41,429	40,215	40,254
Electoral Office	81,357	86,102	85,143	86,164	89,577
Election expenses	100,042	101,628	3,232	978	109,293
Administration of Electoral Act	28,232	29,391	20,029	30,066	23,115
Interest and Sinking Fund	38,283	38,463	41,444	38,016	37,125
Miscellaneous	18,679	8,573	15,401	11,752	10,630
Total	505,287	516,494	444,873	449,876	547,602

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 pp. 14 and 17 of the Official Year Book No. 33.

(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 below under that heading. The expenditure for the last five years is shown in the following table :—

EXPENDITURE : PRIME MINISTER'S DEPARTMENT.(a)

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Salaries, contingencies and miscellaneous	239,259	472,322	236,221	224,840	227,758
Audit Office	36,587	38,046	38,434	35,697	37,241
Rent, repairs, etc.	7,981	6,568	8,120	10,789	8,723
Public Service Board's Office	49,825	52,807	50,688	50,972	48,364
High Commissioner's Office	59,217	57,945	81,369	90,482	84,037
Interest and Sinking Fund	679,279	630,018	613,696	518,133	488,607
Mail Service, Pacific Islands	40,700	40,346	49,077	41,159	38,456
Council for Scientific and Industrial Research	140,534	177,435	197,764	242,808	319,323
Pensions and Superannuation	9,828	9,772	10,473	10,702	10,290
North Australia Survey .. .. .	..	25,000	10,000	10,000	20,000
National Oil Pty. Ltd. Agreement .. .. .	..	..	60,000	274,000	..
Total	1,263,210	1,510,250	1,355,842	1,509,582	1,282,799

(a) Excluding Territories, see page 811.

(b) Includes special appropriation of £250,000 for Science and Industry.

(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. During 1939-40 representatives of the Commonwealth were installed in Washington and Ottawa, and, during 1940-41, in Tokio. Expenditure for the years 1936-37 to 1940-41 are given in the following table :—

EXPENDITURE : EXTERNAL AFFAIRS.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Salaries and General	12,417	14,215	20,129	19,964	24,268
Legation, United States of America .. .. .	..	..	..	11,917	34,807
Legation, Japan .. .. .	..	..	..	..	23,456
High Commissioner, Canada .. .. .	..	..	..	7,254	15,517
Contribution, League of Nations Secretariat	42,929	34,112	43,329	44,870	38,823
Miscellaneous	7,758	9,936	6,710	(a) 33,777	4,880
Total	63,104	58,263	70,168	117,782	141,751

(a) Includes Grants of £10,000 to the Finnish Government for Red Cross purposes, £10,000 to the Polish Government for relief of distress and £9,597 to the Turkish Government for relief of distress caused by earthquake.

(e) *Department of the Treasury.* The sub-departments under the control of the Commonwealth Treasurer are the Treasury, the Supply and Tender Board, Taxation Office, Superannuation Fund Management Board, and the Bureau of Census and Statistics which was transferred from the Department of Home Affairs on 13th April, 1932. The Pensions and Maternity Allowance Office was transferred from the Treasury to the Department of Social Services which was created during 1940-41. Details of the expenditure of the Treasury for the last five years are given in the following table :—

EXPENDITURE : DEPARTMENT OF THE TREASURY.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Treasury	50,868	52,234	56,528	66,400	76,087
Taxation Office	579,629	595,238	618,537	631,692	779,849
Superannuation Board	6,847	7,987	8,623	7,691	7,709
Census and Statistics	37,021	47,696	60,939	62,589	66,312
Census	16,207	9,789	4,113	1,387	1,392
Rent, repairs, etc.	18,006	12,165	23,088	11,900	13,016
Interest and Sinking Fund	601,695	675,250	911,004	957,002	973,077
Exchange	445,197	579,668	514,240	482,427	194,860
Loan Conversion expenses .. ..	..	126,522	1,588	..	..
Gold Tax collection .. ..	..	..	..	182,491	227,593
Miscellaneous	69,645	(a) 145,957	58,968	81,871	85,364
Total	1,825,115	2,252,506	2,257,628	2,485,450	2,425,259

(a) Includes £96,602 Works and Services.

(f) *Attorney-General's Department.* Details for the five years 1936-37 to 1940-41 are furnished below :—

EXPENDITURE : ATTORNEY-GENERAL'S DEPARTMENT.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Attorney-General's Office	22,985	19,307	19,699	20,438	26,893
Crown Solicitor's Office	26,712	24,869	27,642	28,219	33,025
Salaries of Justices of High Court	18,500	18,500	18,500	18,500	15,928
High Court expenses	14,308	16,639	15,615	15,248	13,307
Court of Conciliation and Arbitration	19,593	22,372	24,046	26,052	32,406
Public Service Arbitrator's Office	3,501	3,721	5,919	3,932	3,459
Rent, repairs, etc.	18,333	14,539	15,131	15,137	16,782
Patents, Trade Marks, etc.	59,346	67,686	71,126	63,635	60,430
Investigation Branch	11,817	13,336	16,219	19,098	23,224
Bankruptcy	37,838	42,249	44,551	44,126	42,533
Reporting Branch	10,653	11,115	13,922	13,371	20,224
Miscellaneous	8,572	8,986	9,127	8,801	9,899
Total	252,158	263,319	281,497	276,557	298,110

(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 called 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 (n) and Territories (o) below. Expenditure in connexion with the Electoral Office, which is administered by the Department of the Interior, is included under Parliament, in (b) above.

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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Salaries, Contingencies and Miscellaneous—					
Administrative ..	175,048	204,553	380,550	462,441	220,948
Meteorological Bureau ..	44,455	60,675	80,107	43,938	(b)
Solar Observatory ..	5,600	6,587	6,816	8,793	8,095
Forestry Branch ..	6,922	8,009	10,436	10,545	12,308
Rent, repairs and maintenance ..	16,930	14,851	17,618	18,537	26,368
Pensions and Retiring Allowances (c) ..	19,069	19,985	20,567	21,033	21,623
Petroleum Prospecting ..	2,800	..	..	..	..
Interest ..	639,109	637,926	690,061	619,607	597,323
Sinking Fund ..	62,800	65,940	69,237	72,699	76,334
Total ..	972,733	1,018,526	1,275,392	1,257,593	962,999

(a) Excludes Territories, Railways and Electoral Office.
(c) Includes Superannuation.

(b) Provided under Department of Air.

(h) *Civil Aviation.* Particulars of expenditure on Civil Aviation for the years 1936-37 to 1940-41 are as follows :—

EXPENDITURE : DEPARTMENT OF CIVIL AVIATION.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Salaries and general	53,320	71,862	89,946	133,124	140,514
Development and maintenance of Civil Aviation ..	211,032	42,816	162,232	238,134	150,801
Meteorological Services ..	..	..	..	58,000	58,560
Empire Air Services ..	..	1,927	55,919	41,465	18,277
Rent, repairs and maintenance ..	5,948	6,570	8,428	12,674	13,474
Interest and Sinking Fund ..	5,263	5,868	11,625	10,663	10,412
Total ..	275,563	129,043	328,150	494,060	392,038

(i) *Department of Trade and Customs.* 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 1936-37 to 1940-41 are given in the following table :—

EXPENDITURE : DEPARTMENT OF TRADE AND CUSTOMS.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Central Office ..	62,768	71,110	70,298	80,111	76,943
Tariff Board ..	12,050	13,154	13,252	12,131	10,340
Film censorship ..	4,888	4,491	4,466	4,502	4,698
Customs—States ..	553,310	589,475	621,425	629,955	617,322
Audit (proportion) ..	11,086	12,000	11,786	11,400	11,150
Pensions and Superannuation ..	45,548	44,906	45,063	47,008	46,859
Rent, repairs, etc. ..	11,539	11,096	7,373	7,075	7,756
Bounties ..	153,878	210,485	225,636	134,809	58,737
Interest and Sinking Fund ..	31,418	31,870	34,321	31,535	30,827
Remissions of duty on materials for Commonwealth Government ship construction ..	..	..	26,702	70,419	86,022
Other remissions of duty ..	1,909	3,534	2,066	2,675	11,237
Miscellaneous ..	2,898	1,382	1,736	1,270	1,378
Total ..	891,292	993,503	1,064,124	1,032,890	963,269

(j) *Department of Health.* This department came into existence in the financial year 1921-22. Details of expenditure for the last five years are as follows:—

EXPENDITURE : DEPARTMENT OF HEALTH.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Central Administration ..	37,073	40,308	42,456	43,134	40,642
States—Salaries, General expenses, &c. ..	83,621	88,414	93,050	91,907	98,484
Interest and Sinking Fund ..	22,060	22,255	23,661	22,117	21,742
Rent and repairs ..	14,404	12,284	14,102	10,907	9,229
Pensions and Superannuation	2,673	2,664	2,870	3,015	3,209
Subsidy, Cattle Tick Control ..	48,350	69,450	69,450	59,450	61,783
Medical Research ..	4,851	30,000	30,000	10,000	20,000
Aerial Medical Services subsidy ..	4,626	5,000	5,000	7,500	7,500
Miscellaneous ..	23,785	(a) 131,628	(b) 57,566	(c) 41,144	(d) 33,343
Total ..	241,443	402,003	338,155	280,174	295,032

(a) Includes National Health Campaign, £100,000. (b) Includes reserve of essential drugs and medical equipment, £39,430. (c) Includes reserve of drugs, etc., £13,445 and Commonwealth Council for National Fitness, £18,222. (d) Includes Commonwealth Council for National Fitness, £19,547.

Other items included in "Miscellaneous" are expenses in connexion with the Commonwealth X-ray and Radium Laboratory, maternal and infant hygiene, nutrition investigations, etc.

(k) *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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Administrative ..	45,042	49,916	58,218	51,683	50,523
Marine ..	206,199	206,966	208,129	211,506	225,005
Administration of Commerce Act ..	141,313	168,216	174,876	190,274	200,691
Australian National Publicity Association ..	15,000	20,000	20,000	15,000	8,300
Oversea trade publicity ..	37,500	37,500	47,016	17,000	..
Commercial intelligence service abroad ..	32,814	38,795	47,248	49,827	58,679
Wool publicity and research	64,541	77,921	73,816	83,577	84,496
Fruit bounties ..	124,566	65,900	10,462	4,057	1,955
Rent, repairs, maintenance, etc. ..	10,118	11,679	18,386	16,461	13,810
Pensions and Retiring Allowances ..	10,778	11,714	12,959	13,008	13,385
Interest ..	191,926	191,637	198,599	189,092	186,058
Sinking Fund ..	222,589	233,718	245,404	257,669	276,897
All Other ..	19,856	35,549	(a) 93,814	(b) 71,797	20,133
Total ..	1,122,242	1,149,511	1,208,927	1,170,951	1,139,932

(a) Includes representation at New York World's Fair, £39,780, and San Francisco Exhibition, £21,335. (b) Includes representation at New Zealand Centenary Exhibition, £44,074, and New York World's Fair, £14,359.

(l) *Department of Social Services.* This Department, constituted during 1940-41, includes the Invalid and Old-age Pension and Maternity Allowance Office, formerly administered by the Treasury Department. Particulars of expenditure during the last five years are as follows :—

EXPENDITURE : DEPARTMENT OF SOCIAL SERVICES.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Administrative .. ..	..	..	..	..	1,481
Child Endowment Branch ..	..	..	..	..	8,191
Invalid and Old-age Pension and Maternity Allowance Office	125,084	133,864	138,634	140,775	140,268
Miscellaneous	7,886	16,889	186,100	37,126	11,846
Departmental Expenditure	132,970	150,753	324,734	177,901	161,786
Invalid and Old-age Pensions	13,998,793	15,798,687	15,991,782	16,459,245	17,366,365
Maternity Allowances ..	370,150	400,004	436,614	416,964	407,533
Total	14,509,913	16,349,444	16,753,130	17,054,110	17,935,684

(m) *Postmaster-General's Department.* Details of the expenditure of this department for the last five years are given in the following table :—

EXPENDITURE : POSTMASTER-GENERAL'S DEPARTMENT.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Salaries, stores and materials, mail engineering services, etc.	9,737,926	10,462,332	11,563,510	11,648,240	12,064,570
Public Works Staff—salaries, etc.	60,000	60,000	60,000	60,000	60,000
Audit (proportion) ..	10,650	10,650	11,660	12,000	12,100
Pensions and Retiring Allowances	86,029	79,035	75,113	67,782	61,729
Superannuation	283,958	301,078	316,747	333,345	347,789
Rents, repairs, etc. ..	131,603	117,352	114,183	100,306	106,791
Interest	1,498,967	1,462,843	1,398,690	1,401,196	1,426,542
Sinking Fund	1,023,673	1,075,248	1,128,933	1,213,878	1,304,360
Exchange	370,370	395,935	359,397	448,962	492,713
Total	13,203,176	13,964,473	15,028,233	15,285,709	15,876,594

(n) *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.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Working Expenses—					
Trans-Australian	292,515	381,404	493,463	527,272	547,681
North Australia	39,518	40,281	55,186	91,404	123,048
Central Australia	132,859	161,251	214,374	216,728	225,405
Australian Capital Territory ..	5,809	5,754	7,365	8,486	9,026
Interest	434,916	385,195	392,194	395,323	388,966
Sinking Fund	76,450	71,648	75,230	78,991	82,939
Exchange	68,024	55,875	62,674	83,193	88,158
Contribution to South Australia (Port Augusta-Port Pirie Rail- way) .. ..	..	20,000	20,000	20,000	20,000
Superannuation	11,775	12,977	13,467	13,982	14,405
Miscellaneous	14,211	5,930	17,088	37,142	8,222
Total	1,076,077	1,140,315	1,351,041	1,472,521	1,507,850

Additional details of the financial operations of the Commonwealth Railways are given in Chapter V. "Transport and Communication".

(o) *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, and the Prime Minister's Department controls the external territories. The expenditure has been grouped in one table for convenience. Information in greater detail will be found in the *Finance Bulletin* No. 32, issued by this Bureau.

EXPENDITURE : TERRITORIES.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Internal—					
Australian Capital (a) ..	585,869	615,401	637,228	656,078	679,160
Northern (a)	262,113	381,931	402,899	382,804	462,170
External—					
Papua	55,821	48,825	48,830	48,610	85,703
New Guinea	13,431	5,058	5,532	5,988	7,162
Norfolk Island	4,409	5,911	5,471	4,071	4,071
Total	921,643	1,057,126	1,099,960	1,097,551	1,238,266

(a) Exclusive of Railways.

(iii) *New Works.* The expenditure on additions, new works, etc., during the last five years was as follows:—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); 1938-39, £5,565,268 (excluding £3,494,733 provided from excess receipts for Defence equipment); 1939-40, £3,036,445 (excluding £627,309 provided from excess receipts for Defence equipment); and 1940-41, £3,211,764 (excluding £2,928,375 provided from excess receipts for Defence equipment). Particulars for the last two years exclude expenditure in connexion with Defence and War (1939-41) Services, which was provided for by Loan and Trust Funds.

(iv) *Defence and War (1939-41) Services.* Full details concerning the expenditure from Consolidated Revenue upon War and Repatriation (1914-19) will be found in § 5. In 1939-40 the separate Departments of Defence Co-ordination, the Navy, the Army, Air, Supply and Development, Munitions and Information were created and in 1940-41 the Departments of Labour and National Service and Aircraft Production. All are

included under the general heading of Defence and War (1939-41) Services. The table hereunder shows, for the last five years, particulars of the expenditure from revenue, trust and loan funds combined on Defence and War Services, including works. Details of expenditure for the year 1940-41 were not allotted to the various funds, and the total expenditure only, was apportioned. Particulars of expenditure from the combined funds in earlier years have been shown below for the purposes of comparison.

EXPENDITURE FROM REVENUE, TRUST AND LOAN FUNDS : DEFENCE AND WAR (1939-41) SERVICES.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Defence Co-ordination—					
Administrative	26,873	29,986	41,223	114,675	137,494
National Register .. .. .	..	..	4,410	60,828	(a)
Man-power Committee .. .. .	..	..	..	14,686	36,614
Home Security .. .. .	..	..	..	..	5,880
Medical Equipment Control Committee .. .. .	..	..	..	..	17,156
Buildings, works, etc. .. .. .	..	2,413	11,390	40,595	127,984
Rent, repairs and maintenance	4,631	2,764	3,885	2,897	6,069
Superannuation .. .. .	..	..	..	3,749	3,565
Total	31,504	35,163	60,908	237,430	334,762
Navy—					
Salaries, pay, general expenses, services, etc.	2,311,159	2,215,156	2,592,328	5,937,787	9,088,110
Auxiliary vessels for naval defence purposes .. .. .	..	..	..	828,065	773,733
Transport services .. .. .	..	..	..	812,309	6,987,106
Naval construction and additions to fleet	661,765	986,990	2,075,681	2,887,359	3,470,991
Construction of graving dock .. .. .	..	..	..	..	434,553
Other buildings, works, etc. .. .. .	..	..	..	617,899	775,027
Audit (Proportion)	2,434	2,634	2,475	2,672	2,678
Pensions and Retiring Allowances(c)	4,302	4,309	4,578	4,643	4,538
Rent, repairs, etc.	26,964	15,465	28,072	28,717	42,939
Interest and Sinking Fund	88,862	91,550	127,632	139,775	136,355
Exchange	146,983	168,669	(b)	(b)	(b)
Miscellaneous .. .. .	..	..	..	269,541	258,097
Total	3,242,469	3,484,773	4,830,766	11,528,767	21,974,127
Army—					
Salaries, pay, general expenses, services, etc.	1,556,194	1,670,933	2,941,264	13,466,482	49,850,293
Internees and prisoners of war—maintenance .. .. .	..	..	..	5,059	129,560
Arms, armament, ammunition, mechanization, etc.	310,231	400,283	1,129,542	8,537,256	30,971,766
Buildings, works, etc.	366,880	408,010	417,379	4,044,811	7,248,807
Audit (Proportion)	5,678	7,610	6,110	12,145	12,173
Pensions and Retiring Allowances (c)	48,328	52,187	54,835	49,863	49,420
Rent, repairs, etc.	61,845	46,652	65,117	117,545	102,989
Interest and Sinking Fund	167,750	170,661	207,806	214,270	209,122
Exchange	152,073	79,939	(b)	(b)	(b)
Total	2,668,979	2,836,275	4,822,053	26,447,431	88,574,130
Air—					
Salaries, pay, general expenses, services, etc.	677,073	983,008	1,303,577	2,438,215	9,454,104
Maintenance of R.A.A.F. Squadrons overseas .. .. .	..	..	..	(d)	1,140,913
Training of R.A.A.F. personnel in Canada .. .. .	..	..	..	552,869	4,111,379
Aircraft, equipment and stores	503,978	1,155,484	1,538,411	6,784,447	12,426,433
Buildings, works, etc. .. .. .	..	..	..	1,747,591	4,719,830
Audit .. .. .	..	..	..	2,186	2,300
Rent, repairs, etc.	22,736	11,772	11,777	13,433	38,998
Interest and Sinking Fund	24,745	28,297	64,119	75,295	73,470
Exchange	219,444	262,093	(b)	(b)	(b)
Superannuation	4,673	4,803	5,498	7,606	8,714
Total	1,452,649	2,445,457	2,923,382	11,621,642	31,976,141

(a) Provided under Labour and National Service. (b) Exchange charged to votes concerned.
(c) Includes Superannuation. (d) Included under Aircraft, equipment and stores.

EXPENDITURE FROM REVENUE, TRUST AND LOAN FUNDS: DEFENCE AND WAR (1939-41) SERVICES—*continued*.

Details.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Supply and Development—					
Salaries and general .. ..	..	..	35,698	182,367	849,740
Flax Mills—buildings, plant, etc. ..	..	..	..	..	98,374
Construction of oil storage tanks ..	..	..	..	..	23,129
Commonwealth Coal Board—Provision of handling and storage facilities ..	..	..	..	..	60,500
Other buildings, works, etc. .. ..	..	..	..	5,638	9,117
Rent, repairs, maintenance .. ..	..	..	354	9,950	20,685
Audit, Superannuation .. ..	..	..	..	2,429	2,646
Total .. ..	..	..	36,052	200,384	1,064,191
Munitions—					
Administrative .. ..	..	..	(a)	(a)	223,975
Munitions factories—Salaries, general expenses	375,133	459,477	477,695	778,562	572,181
Technical training .. ..	..	..	..	..	635,944
Munitions factories—					
Machinery, plant, etc.	132,934	327,670	314,021	1,043,758	4,863,778
Buildings, works, etc.	54,416	125,466	462,903	751,118	3,938,720
Armament Annexes—plant, material, etc. ..	..	2,402	340,677	413,708	1,812,756
Reserves of raw materials .. ..	..	..	43,728	624,888	2,502,116
Equipment for training tool-makers and tradesmen .. ..	..	..	..	26,882	134,770
Miscellaneous .. ..	..	..	..	653,614	173,274
Superannuation	282	484	393	1,221	1,436
Interest and Sinking Fund	61,551	63,589	82,513	84,847	82,792
Total	624,316	979,088	1,721,930	4,408,628	14,941,742
Aircraft Production—					
Salaries and general .. ..	..	..	..	..	35,036
Engine factory—					
Materials and current expenses .. ..	..	..	..	..	470,000
Construction and equipment .. ..	..	..	..	356,427	526,820
Buildings, works, etc. .. ..	..	..	..	127,379	75,090
Miscellaneous .. ..	..	..	..	..	97,483
Total .. ..	..	..	..	483,806	1,204,429
Other Services—					
Interest on loans for war purposes .. ..	..	..	..	393,362	1,895,529
Sinking fund on loans for war purposes ..	..	..	..	150,000	641,570
Exchange on interest remittances to London .. ..	..	..	..	29,186	103,233
Peace Officers .. ..	..	..	..	7,336	111,302
Information .. ..	..	..	..	43,787	182,074
Labour and National Service .. ..	..	..	..	..	51,012
Other Departments .. ..	..	..	..	163,152	813,956
Other Administrations (recoverable expenditure) .. ..	..	..	..	..	6,959,665
Total .. ..	..	..	..	787,123	10,758,341
Total, Defence and War (1939-41) Services—					
Consolidated Revenue Fund	6,950,385	6,371,719	9,410,482	21,883,751	65,680,207
Trust Fund(b)	1,076,187	1,452,250	3,072,325	2,017,414	3,566,426
Loan Fund	Gr. 6,655	1,953,787	1,912,284	28,814,046	101,581,230
Grand total	8,019,917	9,780,756	14,395,091	55,715,211	170,827,863

(a) Included under Supply and Development.

previous years appropriated for Defence Equipment Contributions Trust Account.

(b) Includes expenditure from excess receipts of Trust Account and from National Defence

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 by 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, (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 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 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 ; and
- (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 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. Grants which have been made from loan fund are indicated in the statement of loan expenditure on page 818.

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 South Australia, Western Australia and Tasmania during each year from 1933 and the recommendations of the Commission in respect of the years 1937–38 to 1941–42 were as follows :—

State.	Grant Recommended.				
	1937–38.	1938–39.	1939–40.	1940–41.	1941–42.
	£	£	£	£	£
South Australia	1,200,000	1,040,000	995,000	1,000,000	1,150,000
Western Australia	575,000	570,000	595,000	650,000	630,000
Tasmania	575,000	410,000	430,000	400,000	520,000

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 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.**—(i) 1901 to 1941. The following table shows particulars of the amounts paid to each of the States since Federation, divided into three periods, 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 XVII. "Agricultural Production".

**PAYMENTS(a) BY THE COMMONWEALTH TO OR FOR THE STATES TO
30th JUNE, 1941.**

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1900-01 to 1909-10 (b) ..	27,606	19,815	8,895	6,148	8,727	2,602	73,793
1910-11 to 1926-27 (c) ..	41,634	31,341	15,184	9,923	6,899	4,367	109,350
1927-28 to 1940-41 (d) ..	47,899	33,376	17,741	12,008	8,519	4,217	123,760
Special Grants (e) ..	..	..	..	13,145	10,340	6,986	30,471
Non-recurring Grants from Excess Receipts ..	1,188	827	433	265	201	86	3,000
Special Assistance (f) ..	718	768	314	254	262	115	2,431
Grants for Road Construction, 1922-23 to 1940-41 (g)	11,765	7,538	8,008	4,777	8,128	2,117	42,333
Total	130,810	93,665	50,575	46,522	43,076	20,490	385,138

(a) Includes non-recurring grants from excess receipts, but excludes amounts provided for relief of wheat-growers and other primary producers and other payments for medical research, etc. (b) Under Section 87 of the Commonwealth Constitution. (c) Under the several Surplus Revenue Acts. (d) Under Financial Agreement Act 1928. (e) Under various State Grants Acts. (f) Unemployment Relief, Metalliferous Mining, Forestry and Local Public Works. (g) Under Federal Aid Roads and Main Roads Development Acts.

(ii) 1940-41. For the year ended 30th June, 1941, the payments made to or for each State are given below :—

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES, 1940-41.(a)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Interest on States' Debts ..	2,917,411	2,127,159	1,096,235	703,816	473,432	266,859	7,584,912
Sinking Fund on States' Debts (b) ..	641,786	303,231	208,451	181,208	177,423	44,650	1,556,749
Special Grants ..	..	..	..	1,000,000	650,000	400,000	2,050,000
Federal Aid Roads (c) ..	979,214	609,831	665,587	386,807	669,072	174,237	3,484,748
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
Total	4,577,811	3,067,621	1,984,723	2,300,531	1,976,577	889,146	14,796,409

(a) Excludes relief to primary producers and other payments for medical research, etc. (b) Paid to National Debt Sinking Fund. (c) Paid to Trust Fund.

§ 3. Trust Funds.

The Trust Fund balances on 30th June, 1941, amounted to £33,477,484, as compared with £32,256,171 on 30th June, 1940.

§ 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 below) 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, and at 30th June, 1940, £27,216 and £6,019—a total of £33,235. During 1940-41 this remaining indebtedness was redeemed.

3. **Loan Fund for Public Works, 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 then 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. Yearly expenditure on works, etc., up to 1919-20 did not exceed £3,000,000. From 1920-21 it rose to nearly £9,500,000 in 1926-27 and it declined to about £2,000,000

in 1930-31. For the years 1931-32 to 1938-39 expenditure fluctuated between £520,000 and £4,550,000. During the last two years, due to the inclusion of expenditure on Defence and War (1939-41) Services the total expenditure from loan has risen considerably.

COMMONWEALTH EXPENDITURE FROM LOAN FUND.

Particulars.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.	Total to 30th June, 1941.
	£	£	£	£	£	£
Defence and War (1939-41) Services—						
General Services and Works ..	..	..	..	28,814,046	101,581,430	130,395,276
Additions, New Works, Buildings, etc.—						
Army Buildings, Works and Sites ..	Cr. 2,877	339,316	97,788	..	..	1,118,989
Arms, Armament and Ammunition ..	..	109,180	530,342	..	..	954,822
Naval Buildings, Works and Sites ..	Cr. 12,308	106,970	82,248	..	..	1,703,834
Fleet Construction ..	..	451,350	521,556	..	..	1,608,303
R.A.A.F. Equipment, Buildings, etc.	..	673,026	436,356	..	..	1,578,461
Munitions Production, Buildings and Works	8,530	273,945	243,994	..	..	1,729,539
Civil Aviation, Buildings and Works	65	112,550	..	..	..	214,291
Ships, Yards and Docks ..	..	..	Cr. 305,351	Cr. 14,016	Cr. 2,859	7,863,028
Lighthouses, Works and Services ..	Cr. 3,010	Cr. 1,000	Cr. 1,000	Cr. 1,000	Cr. 1,000	637,490
River Murray Waters Act ..	..	..	..	..	..	2,105,625
Postmaster-General's Department—						
Telegraph and Telephone Construction ..	300,000	..	..	1,733,113	1,689,329	35,117,640
Buildings, Works, Sites, etc. ..	2,193	Cr. 451	Cr. 1,290	120,050	220,882	3,834,803
Subscription to Capital of Amalgamated Wireless Ltd. ..	..	..	..	..	..	300,000
Radio Stations and Equipment ..	..	..	..	29,509	3,711	89,456
Serum and Health Laboratories ..	460	..	..	..	..	80,149
Other Health Buildings and Services	..	..	..	..	..	22,964
Repatriation Buildings, etc. ..	1,434	..	..	..	..	47,026
War Service Homes (a) ..	..	..	..	..	..	7,329,523
Railways—						
Trans-Australia ..	358,241	Cr. 938	Cr. 339	Cr. 102	Cr. 2,070	7,124,123
Central Australia ..	..	..	..	..	..	2,480,426
North Australia ..	..	..	..	Cr. 184	Cr. 170	1,597,375
Australian Capital Territory ..	..	..	..	..	..	28,755
Grafton-South Brisbane ..	..	..	..	..	..	2,446,005
Railways Plant and Store Suspense account ..	..	..	..	..	..	200,000
Territories—						
A.C.T. Works, Services and Acquisition of Land (b) ..	100,583	Cr. 5,514	Cr. 6,768	Cr. 10,752	Cr. 4,321	8,486,479
Northern Territory ..	19,127	Cr. 61	..	Cr. 31	..	171,870
Papua ..	..	..	..	..	..	129,749
New Guinea ..	..	..	..	..	..	40,496
Norfolk Island ..	..	..	..	..	..	2,000
London Offices ..	..	..	..	..	..	880,190
High Court Accommodation, Melbourne ..	..	..	..	..	..	19,505
Acquisition of Properties not elsewhere included ..	6,645	Cr. 263	..	..	..	137,648
Immigration ..	..	..	..	..	..	1,680,834
Subscription to Capital of Commonwealth Oil Refinery ..	..	..	..	..	..	343,751
Assistance to States—						
Unemployment Relief ..	332,880	Cr. 8,895	Cr. 3,822	Cr. 65,844	Cr. 45,284	2,455,377
Mining ..	64,000	..	..	..	..	283,750
Forestry ..	35,000	..	..	..	..	322,000
Farmers' Debt Adjustment ..	1,500,000	2,500,000	2,000,000	750,000	500,000	7,567,000
Roads ..	..	..	..	..	..	249,686
Wire and Wire Netting ..	..	..	..	..	..	608,849
Drought Relief ..	..	..	..	..	1,270,000	1,270,000
Wheat Bounty ..	..	..	..	..	..	3,429,571
Total Additions, New Works, Buildings, etc. ..	2,710,963	4,549,215	3,593,714	2,540,743	3,628,218	108,291,382
GRAND TOTAL ..	2,710,963	4,549,215	3,593,714	31,354,789	105,209,448	238,686,656

(a) In addition, £13,045,408 was expended from War Loan Fund prior to 1923-24.

(b) Includes Administration and other Public Buildings.

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, p. 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 (1914–19) Loan from the British Government.**—On the outbreak of the War of 1914–19, the Commonwealth Government obtained a loan from the British Government for the purpose of financing the prospective large military expenditure. At first, the arrangement was that the British 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 British 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 for 1931–32 and subsequent years have been suspended. The principal outstanding on 30th June, 1941, was £79,724,220.

6. **Flotation of War (1914–19) Loans in Australia.**—In addition to the advances from the British 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. **Flotation of War (1939–42) Loans.**—The amounts liable in respect of portions of several loans raised, prior to the outbreak of the present war, for defence purposes, have now been reclassified as War (1939–42) Debt. These liabilities amounted to £12,396,016 at 30th June, 1940. The following table shows particulars of loans floated since the outbreak of war. Final particulars for the last two loans shown below are not yet available.

WAR (1939-42) LOAN RAISINGS.

Date of Raising.	Amount Invited.	Number of Subscribers.	Amount Subscribed.	Purpose.	Rate of Interest.	Year of Maturity.	Price.
	£		£			(a)	
1.12.39	12,000,000	Banks	3,340,000	Commonwealth — Defence, Works, etc.	3½	1942	100
			8,660,000	States—Works, etc.		1943	
			9,085,740	Commonwealth — Defence, Works, etc.	3½(b)	1944	
1.3.40	18,000,000	14,339	9,079,000	States—Works, etc.	3½(c)	1950-56	100
			6,746,790	Commonwealth — War purposes	2½	1945	
29.5.40	20,000,000	32,792	13,835,700	Commonwealth — War purposes	3½	1950-56	100
			21,491,420	Commonwealth — War, Works, etc.	2½(d)	1945	
28.11.40	28,000,000	21,830	7,018,000	States—Works, etc.	3½(e)	1950-56	100
			29,812,340	Commonwealth — War, Works, etc.	2½(f)	1946	
30.4.41	35,000,000	57,219	6,060,000	States—Works, etc.	3½(g)	1950-56	100
			34,158,000	Commonwealth — War purposes	2½(h)	1945-46	
7.10.41	100,000,000	83,380	22,626,000	Commonwealth — Conversion	3½(i)	1950-57	100
			43,605,000	States—Conversion			
			12,860,000	Commonwealth — War purposes	2½	1945-46	
17.2.42	35,000,000	244,074	35,465,000	Commonwealth — War purposes	3½	1950-58	100

(a) £4,000,000 each year. (b) £8,957,640. (c) £9,207,100. (d) £7,692,180. (e) £20,807,240. (f) £13,642,690. (g) £22,229,650. (h) Cash, £5,386,000; Conversion, £5,329,000. (i) Cash, £28,772,000; Conversion, £60,902,000.

In addition to the above amounts, nearly £27,000,000 has been raised by War Savings Certificates (Seven Years' Series), and over £5,900,000 by Citizens' National Emergency (Interest Free) Loans.

An advance of £12,000,000 has also been made by the British Government for war purposes.

8. London Conversion Loans.—Loans aggregating £22,000,000 were due for redemption in London in 1932-33, and in addition the Government had optional rights of redemption over a further £88,000,000, 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, 1941, are shown in the following table :—

DETAILS OF LOANS CONVERTED IN LONDON, 1932 to 1941.

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. (a)	Year of Maturity.	Interest. (b)	Exchange. (c)
1932—October ..	N.S.W.	£'000. 12,361	% 5½	£ s. d. 5 15 0	% 3½	£ 97½	£ s. d. 4 1 2	1936-37	£'000. 222	£'000. 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								
	Qld.	2,000								
	S.A.	2,978	6	6 10 11	4	99	4 1 10	1943-48	65	16
	W.A.	2,716								
	C'wealth.	15,000								
September	N.S.W.	4,901	6	6 9 6	3½	98	3 17 11	1948-53	97	25
	W.A.	1,050								

(a) If redeemed at latest date of maturity. (b) Interest savings have been calculated on the yield to the investor worked on the issue prices of the old and new loans respectively. (c) Calculated at 25½ per cent.

DETAILS OF LOANS CONVERTED IN LONDON, 1932 TO 1941—continued.

When Converted.	Common- wealth or State.	Amount.	Old Loan.		New Loan.				Annual Saving.	
			Interest Rate (nominal).	Yield to Investor.	Interest Rate (nominal).	Price of Issue.	Yield to Investor. (a)	Year of Maturity.	Interest. (b)	Exchange. (c)
		£'000.	%	£ s. d.	%	£	£ s. d.		£'000.	£'000.
1933—										
December	N.S.W.	2,981	5½	5 14 1	3½	99	3 16 9	1946-49	53	14
	Vic. ..	2,950		5 10 0					119	30
	S.A. ..	3,907		5 12 2					73	19
	Tas. ..	5,633	5	5 3 3	3½	99	3 5 11	1964-74	15	4
		1,146		5 2 6					61	13
									206	52
1934—										
February..	N.S.W.	3,979	5	5 3 7	3½	97	3 13 8	1954-59	97	23
	Vic. ..	13,876		5 2 0					1	..
	Qld. ..	3,782		6 6 4					4	1
			4	3 19 6	3½	99	3 5 11	1964-74	4	1
									23	6
									-4	-1
			3½	3 13 9	3½	99	3 5 11	1964-74	1	..
				3 19 6					6	2
				3 4 2					72	18
			3½	3 7 1	3½	99	3 5 11	1964-74	1	..
				3 10 6					7	2
				5 6 9						
			4½	4 5 0	3½	99	3 5 11	1964-74	1	..
				3 18 10					7	2
1935—										
January ..	C'wealth.	17,355	5	5 2 8	3½	100	3 5 0	1956-61	316	80
	Vic. ..	807							15	4
	Qld. ..	1,328							24	6
			3	3 12 10	2½	99	2 18 6	1941-43	14	4
				5 1 6					34	9
				3 12 10					4	1
			3½	5 0 7	3½	99	3 5 11	1964-74	8	2
				3 1 7					21	5
			3	4 1 5	3½	96½	3 16 2	1950-52	37	9
				3 14 10					3	1
									1	..
			3½	3 14 10	3½	97	3 15 1	1951-54	1	..
									1	..
			3½	3 10 0	4	100	4 0 0	1955-70	-1	..
				3 10 0					-6	-2
				3 11 8					-5	-1
			3	d 3 0 0	3½	99	3 15 5	1942-44	-3	-1
				d 3 10 0					-11	-2
1937—										
June ..	N.S.W.	12,361	3½	4 1 5	3½	96½	3 16 2	1950-52	37	9
	N.S.W.	6,427		3 14 10					3	1
	S.A. ..	2,983							1	..
			3½	3 14 10	3½	97	3 15 1	1951-54	1	..
									1	..
			3½	3 10 0	4	100	4 0 0	1955-70	-1	..
				3 10 0					-6	-2
				3 11 8					-5	-1
			3	d 3 0 0	3½	99	3 15 5	1942-44	-3	-1
				d 3 10 0					-11	-2
1938—										
December	C'wealth.	160	3½	3 10 0	4	100	4 0 0	1955-70	-1	..
	S.A. ..	1,158		3 10 0					-6	-2
		1,200		3 11 8					-5	-1
			3	d 3 0 0	3½	99	3 15 5	1942-44	-3	-1
				d 3 10 0					-11	-2
1939—										
December	Tas. ..	448	3½	d 3 0 0	3½	99	3 15 5	1942-44	-3	-1
		4,137		d 3 10 0					-11	-2
Total(e)		229,407	4.87	5 1 2	..	98.3	3 11 11	..	3,273	831

(a) If redeemed at latest date of maturity. (b) Interest savings have been calculated on the yield to the investor worked on the issue prices of the old and new loans respectively. (c) Calculated at 2½ per cent. (d) Nominal. (e) Averages approximate.

Particulars to June, 1941, of the total amounts converted and the total savings on account of interest and exchange in respect of the Commonwealth and of each State are as follows :—

Commonwealth or State.	Amount Converted.	Total 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 ..	11,088,550	69,110	17,617	86,727
Total ..	229,406,798	3,272,577	830,875	4,103,452

9. **Loan Raisings, 1939-40 and 1940-41.**—In addition to those loans, particulars of which are shown on page 820, Tasmanian stock to the value of £4,604,800 was converted in December, 1939. The new rate of interest is $3\frac{1}{2}$ per cent., year of maturity 1942-44, and price 99. "Over the Counter" Sales amounted to £1,063,365 in 1939-40 and to £440,100 in 1940-41.

10. **Public Debt for Commonwealth Purposes.**—(i) *Total Debt.* Reference has already been made to the development of the Commonwealth Public Debt and the following table shows the debt of the Commonwealth (excluding that of the States) at 30th June, 1941 :—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE, 1941.

Particulars.	Maturing in—			Total. (a)
	London.	New York.	Australia.	
	£ Stg.	£ (b)	£ Aust.	£
War (1914-19) Debt—				
Stock and Bonds	11,020,160	..	171,073,056	182,093,216
Indebtedness to United Kingdom Government	79,724,220	..	..	79,724,220
War and Peace Savings Certificates and Stamps, War Gratuity Bonds .. .. .	..	..	166,968	166,968
Total	90,744,380	..	171,240,024	261,984,404
War (1939-41) Debt —				
Stock and Bonds	5,775,000	..	84,178,116	89,953,116
Advance Loan Subscriptions .. .. .	..	..	871,750	871,750
Citizens' National Emergency Loans	100,000	..	5,339,713	5,489,713
War Savings Certificates .. .. .	..	..	17,380,098	17,380,098
War Savings Stamps .. .. .	..	..	79,902	79,902
Treasury Bills, Public .. .. .	..	..	1,750,000	1,750,000
Indebtedness to United Kingdom Government	12,000,000	..	..	12,000,000
Total	17,875,000	..	109,649,579	127,524,579
Works and other Purposes—				
Stock and Bonds	61,663,936	15,876,718	28,766,348	106,307,002
Treasury Bills and Debentures	3,720,161	..	..	3,720,161
Treasury Bills, Internal .. .. .	..	..	10,692,248	10,692,248
Total, Works and other Purposes..	65,384,097	15,876,718	39,458,596	120,719,411
Total, Commonwealth Purposes ..	174,003,477	15,876,718	320,348,199	510,228,394

PER HEAD OF POPULATION.(c)

	(Stg.) £ s. d.	(b) £ s. d.	(Aust.) £ s. d.	£ s. d.
War (1914-19) Debt	12 15 6	..	24 2 3	36 17 9
War (1939-41) Debt	2 10 5	..	15 8 9	17 19 2
Works and other Purposes	9 4 1	2 4 9	5 11 1	16 19 11
Total Commonwealth Purposes ..	24 10 0	2 4 9	45 2 1	71 16 10

(a) The total "face" or "book" value of the public debt 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 £ Stg. at the rate of \$4.8665 to £1. (c) Based on population at 30th June, 1941.

(ii) *Place of Flotation.* Since 1931-32 few new loans have been raised overseas. None have been raised in New York since 1927-28. Those raised in London have been almost exclusively conversion loans, but in the last four years there have been new raisings for defence purposes.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES: PLACE OF FLOTATION.

Place of Flotation, etc.	At 30th June—				
	1937.	1938.	1939.	1940.	1941.
War (1914-19) Debt—					
London £ Stg.	90,744,381	90,744,381	90,744,381	90,744,381	90,744,380
Total Overseas .. £ Stg.	90,744,381	90,744,381	90,744,381	90,744,381	90,744,380
Australia £ Aust.	183,063,205	179,058,853	175,193,890	173,028,896	171,240,024
Total War (1914-19) Debt £ a	273,807,586	269,803,234	265,938,271	263,773,277	261,984,404
War (1939-41) Debt—					
London £ Stg.	..	..	..	5,810,000	17,875,000
Total Overseas .. £ Stg.	..	..	..	5,810,000	17,875,000
Australia £ Aust.	..	..	..	46,808,759	109,649,579
Total War (1939-41) Debt £	..	..	..	52,618,759	127,524,579
Works and other Purposes—					
London £ Stg.	65,034,246	67,619,246	72,096,566	65,779,396	65,384,097
New York £ (b)	16,201,952	16,080,972	15,913,501	15,876,718	15,876,718
Total Overseas .. £ (a)	81,236,198	83,700,218	88,010,067	81,656,114	81,260,815
Australia £ Aust.	31,755,432	37,341,609	43,302,593	37,279,030	39,458,596
Total Debt for Works, etc. £ a	112,991,630	121,041,827	131,312,660	118,935,144	120,719,411
Total Debt—					
London £ Stg.	155,778,627	158,363,627	162,840,947	162,333,777	174,003,477
New York £ (b)	16,201,952	16,080,972	15,913,501	15,876,718	15,876,718
Total Overseas .. £ (a)	171,980,579	174,444,599	178,754,448	178,210,495	189,880,195
Australia £ Aust.	214,818,637	216,400,462	218,496,483	257,116,685	320,348,199
Grand Total £ (a)	386,799,216	390,845,061	397,250,931	435,327,180	510,228,394

(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) Payable in terms of dollars. For the purposes of these tables dollars have been arbitrarily converted to £ Stg. at the rate of \$4.8665 to £1.

(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 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 p. 820 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

£3 19s. 4d. in 1941. The average rate of interest on internal loans at 30th June, 1941, was £3 11s. 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 14s. 2d. per cent. at 30th June, 1941.

The accompanying table gives particulars of rates of interest on the debt for Commonwealth purposes at 30th June, 1941 :—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES : AMOUNTS AT EACH RATE OF INTEREST, AT 30th JUNE, 1941.

Rates of Interest.	Debt Maturing in—			
	London.	New York.	Australia.	Total.
Per cent.	£ (Stg.)	£ (a)	£ (Aust.)	£ (b)
5.0	29,128,495	12,295,662	(c) 4,824	41,428,981
4.91667	(d) 79,724,220	..	..	79,724,220
4.75	5,989,400	..	..	5,989,400
4.5 .. .. .	..	3,581,056	..	3,581,056
4.2625 .. .. .	..	..	943,812	943,812
4.25 .. .. .	..	..	82,757	82,757
4.06875 .. .. .	..	..	2,679,010	2,679,010
4.0	5,775,000	..	2136,812,661	142,587,661
3.875 .. .. .	..	..	46,013,506	46,013,506
3.75	20,730,800	..	7,672,430	28,403,230
3.675 .. .. .	..	..	66,510	66,510
3.625 .. .. .	..	..	4,288,680	4,288,680
3.5 .. .. .	..	..	4,380,830	4,380,830
3.375 .. .. .	..	..	4,345,390	4,345,390
3.25	16,563,595	..	(f) 66,128,028	82,691,623
3.0	12,000,000	..	5,258,550	17,258,550
2.75	271,806	..	12,238,260	12,510,066
2.5 .. .. .	..	..	11,449,510	11,449,510
2.25	2,720,161	..	..	2,720,161
2.0	1,000,000	..	..	1,000,000
1.5 .. .. .	..	..	12,442,248	12,442,248
Citizens' National Emergency Loans (Interest Free) ..	100,000	..	5,389,713	5,489,713
Overdue .. .. .	..	..	(g) 57,362	57,362
War (1939-41) Savings Stamps ..	..	..	79,902	79,902
War (1914-19) Savings Stamps ..	..	..	14,216	14,216
Total	174,003,477	15,876,718	320,348,199	510,228,394
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Average rate per cent.	3 19 4	4 17 9	3 11 5	3 14 2

(a) Payable in terms of dollars. For the purposes of these tables dollars have been arbitrarily converted to £ Stg. at the rate of 84.8665 to £1. (b) The total "face" or "book" value of the public debt without adjustment on account of currency changes since the loans were floated. (c) War (1914-19) Savings Certificates. (d) War Debt due to Government of the United Kingdom (see par. 5, page 819). (e) Includes unconverted securities, £6,060. (f) Includes War (1939-41) Savings Certificates, £17,380,098. (g) Includes War Gratuity Bonds, £12,732.

(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 1937 to 1941 inclusive:—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES: INTEREST PAYABLE.

Interest on and where payable.	At 30th June—				
	1937.	1938.	1939.	1940.	1941.
War (1914-19) Debt—					
London £ Stg.(a)	426,008	426,008	426,008	426,008	426,008
Australia £ Aust.	7,310,325	7,149,993	6,949,706	6,868,976	6,798,034
Total War (1914-19) Debt .. £ (b)	7,736,333	7,576,001	7,375,714	7,294,984	7,224,042
Average Rate %	£3 19s. 9d.	£3 19s. 9d.	£3 19s. 3d.	£3 19s. 3d.	£3 19s. 3d.
War (1939-41) Debt—					
London £ Stg.	..	..	..	232,400	591,000
Australia £ Aust.	..	..	..	1,416,569	3,255,101
Total War (1939-41) Debt .. £	..	..	..	1,648,969	3,846,101
Average Rate .. .. %	..	..	..	£3 7s. 8d.	£3 3s. 0d.
Works and other Purposes—					
London £ Stg.	2,614,254	2,775,291	2,977,546	2,729,388	2,719,314
New York £ (c)	790,935	785,240	777,586	775,930	775,930
Total Overseas £ (b)	3,405,189	3,560,531	3,755,132	3,505,318	3,495,244
Australia £ Aust.	935,572	1,151,759	1,394,921	1,135,095	1,195,661
Total Debt for Works, etc. .. £ (b)	4,340,761	4,712,290	5,150,053	4,640,413	4,690,905
Average Rate %	£3 16s. 0d.	£3 17s. 0d.	£3 18s. 5d.	£3 18s. 0d.	£3 17s. 9d.
Total Debt—					
London £ Stg.(a)	3,040,262	3,201,299	3,403,554	3,387,796	3,736,322
New York £ (c)	790,935	785,240	777,586	775,930	775,930
Total Overseas £ (b)	3,831,197	3,986,539	4,181,140	4,163,726	4,512,252
Australia £ Aust.	8,245,897	8,301,752	8,344,627	9,420,640	11,248,796
Grand Total £ (b)	12,077,094	12,288,291	12,525,767	13,584,366	15,761,048
Average Rate %	£3 18s. 8d.	£3 19s. 0d.	£3 18s. 11d.	£3 17s. 3d.	£3 14s. 2d.

(a) Excludes suspended interest on War Debt owing to British Government. (b) The totals shown represent the nominal amount of interest, taking no account of exchange. (c) Payable in terms of dollars. For the purposes of these tables dollars have been arbitrarily converted to £ Stg. at the rate of \$4.8665 to £1.

(v) *Dates of Maturity.* The dates of maturity of the several portions of the Commonwealth debt are shown below 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, 1941.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES, AT 30th JUNE, 1941.

(CLASSIFIED ACCORDING TO LATEST DATE OF MATURITY.)

Due Dates (year ended 30th June).				Maturing in—			Total.
				London.	New York.	Australia.	
				£ (Stg.)	£ (Stg.)	£ (Aust.)	£
1942	..	..	..	3,720,161	..	41,167,778	44,887,939
1943	..	..	..	271,806	..	4,940,120	5,211,926
1944	..	..	..	..	..	2,154,830	2,154,830
1945	..	..	..	..	..	24,700,422	24,700,422
1946	..	..	..	..	..	16,583,650	16,583,650
1947	..	..	..	..	..	11,338,690	11,338,690
1948	..	..	..	..	..	21,483,277	21,483,277
1949	..	..	..	..	..	4,367,220	4,367,220
1950	..	..	..	..	..	2,880	2,880
1951	..	..	..	..	..	13,346,141	13,346,141
1952	..	..	..	..	..	1,649,140	1,649,140
1954	..	..	..	13,780,100	..	12,655,830	26,435,930
1955	..	..	..	..	..	40,578,300	40,578,300
1956	..	..	..	..	13,548,199	14,166,248	27,714,447
1957	..	..	..	6,950,700	..	52,250,770	59,201,470
1958	..	..	..	..	2,328,519	11,933,586	14,262,105
1960	..	..	..	12,000,000	..	11,843,382	23,843,382
1961	..	..	..	22,223,217	..	..	22,223,217
1962	..	..	..	..	..	11,034,335	11,034,335
1964	..	..	..	5,775,000	..	..	5,775,000
1975	..	..	..	329,778	..	..	329,778
1976	..	..	..	29,128,495	..	..	29,128,495
War (1939-41) Savings Certificates .. .. .	..	..	..	..	..	17,380,098	17,380,098
War (1939-41) Savings Stamps .. .. .	..	..	..	..	..	79,902	79,902
Citizens' National Emergency Loans .. .. .	..	..	..	100,000	..	5,389,713	5,489,713
Advance Loan Subscriptions .. .. .	..	..	..	..	..	871,750	871,750
War (1914-19) Savings Certificates .. .. .	..	..	..	..	..	4,824	4,824
Peace Savings Certificates .. .. .	..	..	..	..	..	135,196	135,196
War (1914-19) Savings Stamps .. .. .	..	..	..	..	..	14,216	14,216
Unconverted .. .. .	..	..	..	..	..	6,060	6,060
Overdue .. .. .	..	..	..	..	..	(a) 57,362	57,362
Annual repayments .. .. .	..	..	..	(b) 79,724,220	..	..	79,724,220
Half-yearly .. .. .	..	..	..	..	..	212,479	212,479
Total .. .. .	..	..	..	174,003,477	15,876,718	320,348,199	510,228,394

(a) Includes War Gratuity Bonds, £12,732.
British Government.

(b) Repayments suspended by arrangement with

PUBLIC DEBT FOR COMMONWEALTH PURPOSES, AT 30th JUNE, 1941.

(CLASSIFIED ACCORDING TO EARLIEST DATE OF MATURITY.)

Due Dates (year ended 30th June).				Maturing in—			Total.
				London.	New York.	Australia.	
				£ (Stg.)	£ (Stg.)	£ (Aust.)	£
Before 1942	..	..	..	6,261,206	..	..	6,261,206
1942	..	..	..	3,720,161	..	41,167,778	44,887,939
1943	..	..	..	..	..	4,940,120	4,940,120
1944	..	..	..	..	..	2,154,830	2,154,830
1945	..	..	..	..	..	24,700,422	24,700,422
1946	..	..	..	29,128,495	..	16,583,650	45,712,145
1947	..	..	..	..	..	11,338,690	11,338,690
1948	..	..	..	..	2,328,519	21,483,277	23,811,796
1949	..	..	..	13,780,100	..	4,367,220	18,147,320
1950	..	..	..	..	..	2,880	2,880
1951	..	..	..	..	..	65,596,911	65,596,911
1952	..	..	..	..	..	1,649,140	1,649,140
1953	..	..	..	6,950,700	9,967,143	40,578,300	57,496,143
1954	..	..	..	..	..	14,373,610	14,373,610
1956	..	..	..	28,233,817	3,581,056	12,448,468	44,263,341
1958	..	..	..	..	..	11,933,586	11,933,586
1960	..	..	..	..	..	11,843,382	11,843,382
1961	..	..	..	5,775,000	..	..	5,775,000
1962	..	..	..	..	..	11,034,335	11,034,335
1965	..	..	..	329,778	..	..	329,778
War (1939-41) Savings Certificates	..	..	..	..	..	17,380,098	17,380,098
War (1939-41) Savings Stamps	..	..	..	..	..	79,902	79,902
Citizens National Emergency Loans	..	..	..	100,000	..	5,389,713	5,489,713
Advance Loan Subscriptions	..	..	..	..	..	871,750	871,750
War (1914-19) Savings Certificates	..	..	..	..	..	4,824	4,824
Peace Savings Certificates	..	..	..	..	..	135,196	135,196
War (1914-19) Savings Stamps	..	..	..	..	..	14,216	14,216
Unconverted	..	..	..	..	..	6,060	6,060
Overdue	..	..	..	..	..	(a) 57,362	57,362
Annual repayments	..	..	..	(b) 79,724,220	..	..	79,724,220
Half-yearly	..	..	..	..	..	212,479	212,479
Total	..	..	..	174,003,477	15,876,718	320,348,199	510,228,394

(a) Includes War Gratuity Bonds, £12,732.
British Government

(b) Repayments suspended by arrangement with

11 **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 1936-37 are as follows :—

PUBLIC DEBT FOR COMMONWEALTH PURPOSES : SINKING FUND.

Items.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.	Total 1923-24 to 1940-41.
	£	£	£	£	£	£
Cr. Brought forward ..	1,780,186	1,937,295	1,252,784	1,131,163	1,525,784	..
Balance transferred to Fund on 11th August, 1923 ..	..	..	..	..	..	2,262,983
From Consolidated Revenue	3,434,219	3,681,741	3,917,825	4,269,096	4,956,791	52,313,979
Repayments of Sundry Loans ..	14,758	15,610	16,510	21,385	22,630	1,331,553
Purchase-money and Re- payments under War Service Homes Act ..	550,158	607,435	628,950	636,102	650,300	11,206,001
Half Net Profit Common- wealth Bank ..	354,090	318,752	321,448	363,719	422,030	5,685,325
Reparation Moneys ..	154	147	148	126	15	5,574,245
Interest on Investments ..	38,797	40,478	32,381	25,183	30,332	850,854
Other Contributions ..	13,453	13,453	13,453	13,453	13,453	194,891
Total ..	6,185,815	6,614,911	6,183,499	6,460,227	7,622,235	79,419,831
Dr. Redemptions ..	4,248,520	5,362,127	5,052,336	4,934,443	4,191,023	75,988,619
Carried forward ..	1,937,295	1,252,784	1,131,163	1,525,784	3,431,212	3,431,212

Particulars of repayment of the British Government loan are given on page 819.

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 (1914-1919) and Repatriation.

In view of the importance of the subject, a further reference is here made to the cost of the War of 1914-19. 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 appear in Chapter X. "Repatriation" of this issue. The total cost from both sources to 30th June, 1941, is set out in the following table:—

COMMONWEALTH WAR (1914-19) EXPENDITURE.

Year.	From Consolidated Revenue Fund.			War Loan Expenditure.(b)
	War and Repatriation Services, including War Pensions.	Interest and Sinking Fund. (a)	Total.	
	£	£	£	£
1914-15	796,190	115,145	911,335	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	15,718,650	24,695,443	43,194,764
1920-21	13,672,345	19,096,130	32,768,475	24,148,501
1921-22	10,261,471	20,284,074	30,545,545	7,576,977
1922-23	9,298,560	19,673,299	28,971,859	1,762,694
1923-24	8,161,230	19,734,736	27,895,966	691,247
1924-25	8,231,656	18,539,081	26,770,737	Cr. 32,051
1925-26	8,473,717	18,828,800	27,302,517	Cr. 7,613
1926-27	8,814,001	18,636,806	27,450,807	23,938
1927-28	8,788,037	18,203,797	26,991,834	Cr. 23,741
1928-29	9,026,749	18,938,920	27,965,669	Cr. 12,972
1929-30	9,520,750	18,530,695	28,051,445	Cr. 2,669
1930-31	10,468,748	17,284,929	27,753,677	Cr. 2,206
1931-32	8,764,848	11,024,378	19,789,226	..
1932-33	7,928,817	10,109,285	18,038,102	..
1933-34	8,187,952	9,882,546	18,070,498	..
1934-35	8,433,372	9,467,662	17,901,034	..
1935-36	8,660,427	9,580,972	18,241,399	..
1936-37	9,101,353	9,622,000	18,723,953	..
1937-38	9,342,462	9,605,838	18,948,300	..
1938-39	9,699,994	9,556,818	19,256,812	..
1939-40	9,342,577	9,491,965	18,834,542	..
1940-41	9,142,053	9,460,577	18,602,630	..
Discounts and Flotation Expenses on Loans, including Redemption and Conversion Loans	(c)	..	..	5,999,094
Indebtedness to the Government of the United Kingdom for payments made, services rendered, and goods supplied during the War .. ..	..	..	..	(d)43,398,098
War Gratuities paid in cash ..	452,295	..	452,295	27,061,668
Total to 30th June, 1941 ..	218,291,437	235,196,722	570,258,159	372,988,794

NOTE.—For particulars of expenditure relating to the present War see pages 811-813 and 818.

(a) Excludes interest on amounts raised for the States for Soldier Land Settlement. (b) Excluding expenditure on War Service Homes from 1923-24. (See page 818.) (c) Included above. (d) The total indebtedness to the Government of the United Kingdom involved in the Funding Arrangements Act 1921 was £92,480,157, the balance, £49,082,059, for cash supplied, being included above. At 30th June, 1941, the amount outstanding had been reduced to £79,724,220. (e) Interest, £300,300,636; Sinking Fund, £51,666,086.

§ 6. Invalid and Old-age Pensions.

1. **General.**—In previous issues of the Official Year Book an account is 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. Invalid pensions were first paid from 15th December, 1910. 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	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
26th December, 1940	54 12 0	87 2 0
3rd April, 1941	55 18 0	88 8 0
11th December, 1941	61 2 0	93 12 0
2nd April, 1942 (a)	62 8 0	94 18 0

(a) For later particulars see Appendix.

Subject to the conditions of the Act, every person who has attained the age of sixty-five years (in the case of females, sixty years), or who, being permanently incapacitated for work, has attained the age of sixty years, is, while in Australia, qualified to receive an old-age pension. By an amendment of the Act in November, 1941, a person is deemed to be permanently incapacitated for work if he is permanently incapable of work or if the degree of his capacity for work does not exceed 15 per cent.

Asiatics, generally, are not eligible to receive an invalid or old-age pension, but the Act was amended in November, 1941, to include those who are British subjects.

Invalid pensions were granted from 15th December, 1910. Subject to the conditions of the Act, every person above the age of sixteen years who is permanently incapacitated for work, and every permanently blind person above the age of sixteen years, provided that, in each case, an old-age pension is not being received, is, while in Australia, qualified to receive an invalid pension. 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. This amount has since been varied and become £230 2s. from 26th December, 1940, £231 8s. from 3rd April, 1941, £236 12s. from 11th December, 1941, and £237 18s. from 2nd April, 1942. A claimant for an invalid pension, or an invalid pensioner, may be required to undertake such training for a vocation or physical rehabilitation as is available.

In December, 1940, when the pension rate was increased to £54 12s. per annum, provision was made for future adjustments to be made in accordance with the variations of the "C" Series Retail Prices Index-number for the Six Capital Cities, and for the rate to be reviewed by the Commissioner of Pensions each quarter commencing with that ended 31st March, 1941, in order to determine the rate for the next succeeding quarter; but the rate not in any event to fall below £54 12s. per annum. The first adjustment under the "C" Series was made from 3rd April, 1941, when the pension rate became £55 18s. per annum.

The basis for adjustments was amended in November, 1941, which provides that if the price index-number for the quarter immediately preceding that in which the rate is reviewed exceeds 981, the rate per annum shall be £58 10s. plus £1 6s. for every 23 units, or portion thereof, by which the index-number exceeds 981. If the index-number subsequently falls, the rate shall, where necessary, be reduced to accord with the rate determined as above, provided that it shall not, in any event, be reduced to less than £58 10s.

An increase of £1 6s. per annum in the rate became due in January, 1942, but was brought forward to 11th December, 1941, the date on which the amendment came into operation. The amendment also provided for an additional increase of £3 18s. per annum, raising the rate of pension to £61 2s. per annum from that date. By the price index adjustment the pension rate was further increased to £62 8s. per annum from 2nd April, 1942.

Under the December, 1940, amendment, pensions to inmates of institutions were also increased from 6s. to 6s. 6d. per week, and provision made for their future adjustment in accordance with the variations of the price index-number to the extent of not more than half the amount of the increase in the rate of pension on a weekly basis. Pensions to inmates of institutions have since been increased as follows:—6s. 9d. from 3rd April, 1941; 7s. 9d. from 11th December, 1941; and 8s. from 2nd April, 1942.

During 1939-40 all invalid pensions in force were specially reviewed, and at 30th June, 1940, all those pensioners who had become qualified for old-age pensions by age and residence were transferred to the old-age pension list. This transference has been continued in 1940-41, though the numbers involved were naturally much smaller.

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, 1940, there were 272,896 old-age pensions in force. During 1940-41, 24,753 pensions claims were granted, and 2,226 pensioners were transferred from the invalid pension list, while 23,115 pensions expired through cancellations and deaths. The net increase for the year was 3,864 and the total in existence at 30th June, 1941, 276,760.

(ii) *Sexes of Pensioners—States.* Of the pensioners at 30th June, 1941, 110,041 (or 40 per cent.) were males, and 166,719 (or 60 per cent.) were females. Details for each State are as follows:—

OLD-AGE PENSIONS : SEXES OF PENSIONERS AT 30th JUNE, 1941.

State.	Males.	Females.	Total.	Masculinity.(a)
New South Wales	43,619	66,411	110,030	65.68
Victoria	28,560	47,811	76,371	59.74
Queensland	15,360	19,808	35,168	77.54
South Australia	9,578	15,498	25,076	61.80
Western Australia	8,541	10,882	19,423	78.49
Tasmania	4,383	6,309	10,692	69.47
Total	110,041	166,719	276,760	66.00

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Conditions of Pensioners.* The recorded ages of the 24,753 persons (10,991 males and 13,762 females) to whom pensions were granted during the year 1940-41 varied considerably, ranging from 5,274 at age 60 to 2 at age 97. The conjugal condition of these new pensioners was as follows:—Males—single, 2,050; married, 7,088; and widowed, 1,853. Females—single, 1,928; married, 6,942; and widowed, 4,892.

3. **Invalid Pensions.**—(i) *Number in force, 1940-41.* The number of invalid pensioners increased from 58,696 in 1939-40 to 58,921 in 1940-41, an increase of 225. Total pensions granted during the year were 9,779, while 7,328 pensions became inoperative through cancellations or deaths, and 2,226 were transferred to the old-age pension list.

(ii) *Sexes of Pensioners.* Of the 58,921 persons in receipt of invalid pensions on 30th June, 1941, 26,475, or 45 per cent. were males, and 32,446, or 55 per cent. were females. Details for the several States are as follows:—

INVALID PENSIONS : SEXES OF PENSIONERS AT 30th JUNE, 1941.

State.	Males.	Females.	Total.	Masculinity.(a)
New South Wales	11,938	15,310	27,248	77.98
Victoria	5,771	6,676	12,447	86.44
Queensland	4,161	4,483	8,644	92.82
South Australia	1,856	2,710	4,566	68.49
Western Australia	1,544	1,881	3,425	82.08
Tasmania	1,205	1,386	2,591	86.94
Total	26,475	32,446	58,921	81.60

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Conditions of Pensioners, 1940-41.* The recorded ages of the 9,779 persons (5,118 males and 4,661 females) to whom invalid pensions were granted during 1940-41 varied from 16 to 85, 5,158 or 53 per cent. were in the 45-59 years age-group.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows:—Males—single, 2,160; married, 2,689; and widowed, 269. Females—single, 1,885; married, 1,703; and widowed, 1,073.

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 of administering the Old-age and Invalid Pensions Department in 1940-41 was approximately £132,000, or 0.76 per cent. of the amount paid to pensioners and to Benevolent Asylums and Hospitals. The corresponding cost in 1939-40 was approximately £130,000 or 0.79 per cent. of the total payments.

The actual sum disbursed in old-age and invalid pensions in the financial year 1940-41, apart from the cost of administration and inclusive of the amount paid to asylums and hospitals for the maintenance of pensioners, was £17,366,365 (49s. 6d. per head of mean population) and in 1939-40, £16,459,245 (47s. 1d. per head).

5. *Summary.*—The following table gives details concerning the operations 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 Institutions.	Cost of Administration (approximate.)	Cost of Administration per £100 paid to Pensioners and Institutions (approximate.)	Average Fortnightly Pension as at 30th June.
	Old-age.		Invalid.	Total.					
	No.	Est. No. per 1,000 of persons eligible on age qualification. (a)							
No.		No.	No.	£	£	£	s. d.	s. d.	
1936	206,748	352	80,487	287,235	12,634,706	12,797,726	115,257	18 0	634 8
1937	215,690	361	83,396	299,086	13,827,636	13,998,793	118,851	17 0	636 8
1938	224,154	372	86,096	310,250	15,615,428	15,798,687	124,000	15 8	638 6
1939	232,836	376	88,812	321,648	15,798,038	15,991,782	128,000	16 0	38 5
1940	272,896	427	58,696	331,592	16,250,064	16,459,245	130,000	15 10	38 6
1941	276,760	428	58,921	335,681	17,147,509	17,366,365	132,000	15 2	641 5

(a) Based on an estimate of the aggregate of males aged 65 and over and females aged 60 and over at 30th June of each year. (b) Changes in rate—see par. 1 above. (c) Transfer from invalid to old-age pension list—see par. 1 above.

Separate particulars of the payments to invalid and to old-age pensioners are not available but the annual liability at 30th June, 1941, together with the total payments in 1940-41 are given hereunder:—

INVALID AND OLD-AGE PENSIONS : PAYMENTS AND ANNUAL LIABILITY.

State.	Payments Old-age and Invalid Pensions, 1940-41. (a)	Annual Liability at 30th June, 1941.		
		Old-age Pensions.	Invalid Pensions.	Total.
	£	£	£	£
New South Wales (b)	7,054,032	5,930,704	1,491,334	7,422,038
Victoria	4,655,508	4,109,690	675,896	4,785,586
Queensland	2,267,972	1,896,388	469,742	2,366,130
South Australia (c)	1,515,028	1,321,268	245,466	1,566,734
Western Australia	1,186,486	1,034,462	185,952	1,220,414
Tasmania	686,439	569,530	139,854	709,384
Total	17,366,365	14,862,042	3,208,244	18,070,286

(a) Including amounts paid to Benevolent Asylums and Hospitals for the maintenance of pensioners.
(b) Includes Australian Capital Territory. (c) Includes Northern Territory.

§ 7. Child Endowment.

1. **General.**—The Child Endowment Act, assented to on 7th April, 1941, came into operation on 1st July, 1941. For further particulars see Chapter XXIV., § 4, and for Pay-roll Tax see page 802 of this Chapter.

§ 8. Maternity Allowance.

1. **General.**—The Maternity Allowance Act 1912-1937 makes provision for the payment of maternity allowances. The scope and main provisions of the Act were given in Official 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 to aliens. The Act was amended in May, 1942, to provide for the allowance to be paid to aboriginal natives of Australia, subject to certain conditions. 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 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 1936-37 to 1940-41:—

MATERNITY ALLOWANCE : SUMMARY.

Year.	Claims Paid.	Claims Rejected.	Amount Paid.	Cost of Administration (approximate).	Cost per £100 allowance paid (approximate).
	No.	No.	£	£	£ s. d.
1936-37 ..	79,254	5,843	370,150	12,150	3 5 8
1937-38 ..	79,000	5,931	400,004	15,671	3 18 4
1938-39 ..	80,916	6,272	436,614	16,959	3 17 8
1939-40 ..	77,352	6,779	416,964	17,181	4 2 5
1940-41 ..	75,692	8,184	407,533	14,852	3 12 11
Aggregate— 1912-13 to 1940-41 ..	3,269,586	75,791	16,075,354	404,738	2 10 4

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. (a)	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
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
1940 ..	29,700	19,660	12,290	7,009	4,774	3,883	36	77,352
1941 ..	28,540	19,150	12,481	6,831	4,775	3,877	38	75,692
Total, 1912-13 to 1940-41 ..	1,297,486	853,094	485,623	284,760	207,380	140,141	1,102	3,269,586

(a) Includes Australian Capital Territory.

§ 9. Commonwealth Public Service Superannuation Fund.

This Fund, which was inaugurated on 20th November, 1922, is maintained by contributions of officers of Parliament, of employees of the Commonwealth Public Service and the Defence Departments, and by payments from Consolidated Revenue, the latter being made when the officers retire on pension. Full particulars as to the benefits, etc., will be found in Official Year Book, No. 18, p. 383. 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. During the same year a new feature, in the form of the Provident Account, was introduced. This provides for compulsory contributions in respect of those, who, through physical disabilities or failure to pass the required medical examination, are ineligible to contribute to the Superannuation Fund. Any other, whose contribution to the Superannuation Fund for the first two units of pension is in excess of the rate for age 45 years and above 5 per cent. of his salary, may elect to transfer to the Provident Account.

The number of contributors to the fund at 30th June, 1940, was 42,861, (38,066 males and 4,795 females) and the average pension contributed for was 4.732 units or £123 os. 8d. per annum.

During 1939-40 the receipts of the fund, excluding cash in hand, amounted to £1,483,063, of which officers' contributions represented £597,402, interest on investments, £313,623, investments matured, £9,049, and advances by the Treasury, £552,046. The payments from the fund for the year were £1,483,068, of which £151,619 represented pension payments and £1,071,269 investments. At 30th June, 1940, the total funds invested amounted to £8,523,284 (at cost). The average rate of interest on investments at 30th June, 1940 was £4 4s. 6d. per cent.

Pensions in force on 30th June, 1940, including contributory and non-contributory but excluding commuted pensions, numbered 6,998, with a net annual liability of £633,701, of which £478,101 represented the share payable from the Consolidated Revenue Fund.

§ 10. 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 14th May, 1855. The Melbourne branch was opened on 12th June, 1872, and the Perth branch on 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 1940 and the aggregate at each mint to the end of 1940 were as follows :—

AUSTRALIAN MINTS : RECEIPTS OF GOLD, 1940, AND TOTAL.

Mint.	Deposits during 1940.	Total to end of 1940.		
		Quantity.		Value.
		Gross.	Fine.	
	Oz.	Oz.	Oz.	£
Sydney(a) ..	..	42,082,928	36,907,045	156,771,141
Melbourne ..	487,493	45,366,520	40,819,596	173,390,510
Perth.. ..	1,544,593	43,725,657	35,292,034	149,910,933
Total ..	2,032,086	131,175,105	113,018,675	480,072,584

(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 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 1940, 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.		
	£	£	£	£	£
1940—					
Melbourne ..	..	..	..	1,508,338	1,508,338
Perth ..	..	..	..	4,770,508	4,770,508
Total, 1940	..	..	..	6,278,846	6,278,846
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	25,160,674	173,390,585
Perth ..	106,384,197	367,338	106,751,535	43,172,425	149,923,960
Total to end of 1940 ..	398,102,878	6,095,118	404,197,996	75,907,507	480,105,503

(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 1940 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 fine ounce. Considerable fluctuations have since taken place, but over the last few years the price has been steadily rising. At the outbreak of the present War the price in London was fixed at £stg. 8.4 per fine ounce. In issues of the Official Year Book prior to No. 33 the Australian prices shown were calculated from the London price, but in view of this fixation the prices shown in the following table represent the Commonwealth Bank's buying price for gold lodged at the mints in Australia.

The table shows the prices in London and Australia for 1933–34 and following years, and for each month from July, 1938 to December, 1941. Particulars are also shown for the value of the sovereign.

PRICE OF GOLD : LONDON AND AUSTRALIA, 1933–34 to 1941–42.

Period.	London.		Australia.(a)		
	Average price per fine oz.	Average value of Sovereign.	Average price per fine oz.	Average value of Sovereign.	Equivalent to a premium of—
Average for Year—	£s s. d.	£s s. d.	£A s. d.	£A s. d.	%
1933–34 ..	6 11 8	1 11 0	8 2 0	1 18 1	90.6
1934–35 ..	7 1 6	1 13 4	8 14 10	2 1 2	105.7
1935–36 ..	7 0 9	1 13 2	8 14 0	2 1 0	105.0
1936–37 ..	7 0 10	1 13 2	8 15 3	2 1 3	106.2
1937–38 ..	7 0 0	1 13 0	8 13 10	2 0 11	104.6
1938–39 ..	7 6 9	1 14 7	9 2 9	2 3 0	115.0
1939–40 ..	8 4 10	1 18 8	10 8 4	2 9 1	145.4
1940–41 ..	8 8 0	1 19 7	10 13 5	2 9 2	145.8

NOTE.—“£s” represents £'s sterling, while Australian £'s are indicated by “£A.”

(a) Based on the Commonwealth Bank's buying price for gold lodged with the mints. Particulars in previous issues calculated from the London price. The average value of sovereigns from September, 1939 onwards is the direct quotation of the Commonwealth Bank. In respect of earlier figures the value has been calculated from the gold price, one sovereign being estimated at .23542 fine ounces in weight.

PRICE OF GOLD: LONDON AND AUSTRALIA, 1933-34 to 1941-42—continued.

Period.		London.		Australia.(a)						
		Average price per fine oz.		Average value of Sovereign.		Average price per fine oz.		Average value of Sovereign.		Equivalent to a premium of—
		£s	s. d.	£s	s. d.	£A	s. d.	£A	s. d.	%
Average for Month—										
1938-39—										
July	..	7	1 3	1 13 3		8	15 5	2	1 4	106.5
August	..	7	2 6	1 13 6		8	17 4	2	1 9	108.7
September	..	7	4 5	1 14 0		9	0 2	2	2 5	112.1
October	..	7	5 9	1 14 4		9	1 8	2	2 9	113.8
November	..	7	7 8	1 14 9		9	3 9	2	3 3	116.3
December	..	7	8 11	1 15 1		9	5 3	2	3 7	118.1
January	..	7	8 11	1 15 1		9	5 6	2	3 8	118.3
February	..	7	8 4	1 14 11		9	4 8	2	3 6	117.6
March	..	7	8 5	1 14 11		9	5 2	2	3 7	117.9
April	..	7	8 6	1 15 0		9	5 1	2	3 7	117.9
May	..	7	8 6	1 14 11		9	4 11	2	3 6	117.6
June	..	7	8 6	1 14 11		9	4 10	2	3 6	117.6
1939-40—										
July	..	7	8 6	1 15 0		9	4 11	2	3 6	117.6
August	..	7	10 6	1 15 5		9	10 5	2	4 10	124.1
September	..	8	7 7	1 19 5		10	11 0	2	8 2	140.8
October	..	8	8 0	1 19 7		10	11 0	2	8 2	140.8
November	..	8	8 0	1 19 7		10	11 11	2	8 7	142.9
December	..	8	8 0	1 19 7		10	12 6	2	8 11	144.6
January	..	8	8 0	1 19 7		10	12 9	2	8 11	144.6
February	..	8	8 0	1 19 7		10	13 2	2	9 0	145.0
March	..	8	8 0	1 19 7		10	13 3	2	9 0	145.0
April	..	8	8 0	1 19 7		10	13 3	2	9 0	145.0
May	..	8	8 0	1 19 7		10	13 3	2	9 0	145.0
June	..	8	8 0	1 19 7		10	13 0	2	9 0	145.0
1940-41—										
July	..	8	8 0	1 19 7		10	11 0	2	8 6	142.5
August	..	8	8 0	1 19 7		10	12 6	2	8 11	144.6
September	..	8	8 0	1 19 7		10	13 3	2	9 0	145.0
October	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
November	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
December	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
January	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
February	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
March	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
April	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
May	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
June	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
1941-42—										
July	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
August	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
September	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
October	..	8	8 0	1 19 7		10	14 0	2	9 3	146.3
November	..	8	8 0	1 19 7		10	13 4	2	9 2	145.7
December	..	8	8 0	1 19 7		10	11 0	2	8 6	142.5

NOTE.—“£s” represents £'s sterling, while Australian £'s are indicated by “£A.”

(a) Based on the Commonwealth Bank's buying price for gold lodged with the mints. Particulars in previous issues calculated from the London price. The average value of sovereigns from September, 1930 onwards is the direct quotation of the Commonwealth Bank. In respect of earlier figures the value has been calculated from the gold price, one sovereign being estimated at .23542 fine ounces in weight.

5. **Silver and Bronze Coinage.**—(i) *Prices of Silver.* Particulars for recent years are shown on p. 410 of Chapter XV. "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 1940 London market price of 1s. 10.3d. per ounce, approximately 22s. 4d. The difference nearly represents, therefore, the gross profit or seigniorage made on the coinage of every £3 6s. Negotiations between the Imperial authorities and the Governments of New South Wales and Victoria for the coinage of silver and bronze coin in Australia extended over a number of years 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. Crowns were minted to the value of £250,200 in 1937 and £25,400 in 1938. Issues were made during 1936-37 (£200,000), 1937-38 (£50,000), 1938-39 (£25,000) and 1939-40 (£600). 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.		
	5s.	2s.	1s.	6d.	3d.	Total.	1d.	½d.	Total.
	£	£	£	£	£	£	£	£	£
1910 to 1933 ..	..	3,928,000	1,846,500	866,700	829,700	7,470,900	346,633	126,125	472,758
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
1939-40 ..	600	176,800	36,800	41,600	50,600	306,400	20,770	5,280	26,050
1940-41 ..	..	1,161,000	83,400	66,800	83,200	1,394,400	45,820	7,600	53,420
Total	275,600	6,306,100	2,191,100	1,224,200	1,210,700	11,207,700	551,033	185,785	736,818

(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. No worn silver coins were received during 1940. The total withdrawals of worn silver coin to 1940 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 the Official Year Book. 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 1936-37 to 1940-41 are given in the following table :—

AUSTRALIAN NOTE ISSUE.

Particulars.	Average of monthly statements for year—				
	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
Notes held by—	£	£	£	£	£
Banks	17,581,703	17,364,332	15,454,157	13,605,581	14,191,386
Public	29,853,103	31,940,677	33,117,633	39,115,467	49,427,607
Total	47,434,806	49,305,009	48,571,790	52,721,048	63,618,993
Gold Reserve (a) ..	16,007,335	16,007,493	16,020,486	16,055,566	17,080,494
Percentage of Reserve on Total Issue	33.8	32.5	33.0	30.6	26.9

(a) Includes English sterling.

Details of the average value of each of the several denominations of Australian Notes outstanding in 1914 and from 1936-37 to 1940-41 are given in *Finance Bulletin* No. 32 issued by this Bureau.

(iv) *Note Issue Department—Australian Notes Account at 30th June, 1941.* The following statement shows particulars of liabilities and assets of the Note Issue Department of the Commonwealth Bank as at 30th June, 1941.

AUSTRALIAN NOTES ACCOUNT : 30th JUNE, 1941.

Liabilities.		Assets.	
	£		£
Notes in circulation ..	67,864,038	Gold and English sterling ..	17,705,022
Reserve for Notes not presented	39,388	Debentures and other Securities	51,367,017
Special Reserve premium on gold	7,754,955	Other Assets (Commonwealth Government)	8,072,779
Other Liabilities	1,486,437		
Total Liabilities	77,144,818	Total Assets	77,144,818

The total profits of the Note Issue Department are paid to the Commonwealth Treasury. In 1940-41 they amounted to £1,461,839.

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 1937 to 1941.

ESTIMATED LEGAL TENDER EXTANT : AUSTRALIA.

Particulars.	1937.	1938.	1939.	1940.	1941.
Australian Note Issue(a)—	£'000.	£'000.	£'000.	£'000.	£'000.
Held by Banks	17,537	17,630	14,829	13,937	14,044
Held by Public	29,502	31,404	32,701	46,938	53,820
Notes of Trading Banks outstanding(b)	167	167	167	167	167
Coin—Gold—Held by Banks(c) ..	62	48	79	75	49
Held by Public .. .. .	..	..	..	..	..
Silver—Held by Banks(c) ..	2,325	2,601	2,508	1,925	2,444
Held by Public	6,160	6,515	6,861	7,616	8,593
Bronze—Held by Banks(c) ..	118	117	132	125	111
Held by Public	460	499	535	569	624
Total	56,331	58,981	57,812	71,352	79,852

(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 reimports 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 Chapter XIV., "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 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.

Figures relating to New South Wales represent the transactions of the Consolidated Revenue Fund, the Unemployment Relief Fund, the Social Services Fund and the Business Undertakings included in the Annual Budget Papers. These latter are as follows:—Railways, Tramways, and Omnibuses, Sydney Harbour Trust Section of the Maritime

Services Board, and Road Transport and Traffic Fund. Deductions have been made from the Budget figures, however, in order to obviate duplications caused by inter-fund payments and to maintain uniformity from year to year in the presentation of statistics. A deduction of £856,873 has thus been made from the Budget Revenue total of £60,752,444 and of £1,290,261 from the expenditure total of £61,609,297. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund and no adjustments have been made thereto.

On 16th December, 1938, it was enacted that, in order to provide for the co-ordination, regulation, control and improvement of transport in Tasmania, a Transport Commission, consisting of a Commissioner and two Associate Commissioners, should be constituted. This Commission was given control of all means of transport by road, rail or air within the State, other than those operated by private owners or by local government authorities. Revenue was provided for by allotting to the Commission receipts from the operations of the various forms of Government transport, registration and licence-fees in respect of motor vehicles, etc., motor taxation collections, etc. In addition, the State Treasurer was required to pay to the Commission all moneys made available by the Commonwealth from the proceeds of petrol taxation, and all land tax collections. This Act became effective on 1st July, 1939. The separation of the Commission's financial transactions from the Consolidated Revenue Fund has therefore occasioned considerable decreases in the figures since 1939-40 as compared with those for the previous years.

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 page 814 of this issue details are given in regard to the constitutional and other requirements 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, 1930-1935, 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.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
TOTAL COLLECTIONS.							
	£	£	£	£	£	£	£
1936-37	49,159,077	27,221,267	16,535,038	11,739,306	10,185,433	3,488,524	118,328,645
1937-38	53,545,720	27,614,982	17,339,731	12,460,936	10,819,042	3,639,755	125,420,166
1938-39	51,709,735	26,985,548	19,330,369	12,303,597	10,949,660	3,614,764	124,893,673
1939-40	54,754,626	28,102,735	20,755,504	12,755,648	11,119,943	3,055,310a	130,543,766
1940-41	59,895,571	29,182,657	21,539,749	12,924,663	11,432,068	2,921,573a	137,896,281

PER HEAD OF POPULATION.(c)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1936-37	18 6 9	14 13 11	16 16 0	19 19 1	22 10 10	15 0 6	17 8 7
1937-38	19 15 4	14 16 9	17 8 5	21 1 11	23 13 3	15 9 8	18 6 3
1938-39	18 18 3	14 7 10	19 4 0	20 14 0	23 13 4	15 5 2	18 1 6
1939-40	19 16 4	14 17 5	20 7 9	21 7 3	23 17 0	12 16 1a	18 14 5
1940-41	21 11 3	15 7 8	21 3 1	21 15 6	24 13 5	12 6 2	19 14 9

(a) See § 1 par. 2 above. (b) See § 2 par. 1 above. (c) Based on mean population of each financial year.

3. Sources of Revenue.—(i) *General.* Classifying the revenue of the several States in the manner indicated in par. 1 above, particulars for the year 1940-41 are as follows:—

STATE CONSOLIDATED REVENUE : SOURCES, 1940-41.

Source of Revenue.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Total.
TOTAL REVENUE.							
	£	£	£	£	£	£	£
Taxation(b) ..	21,609,820	10,592,348	8,140,208	4,341,716	3,159,975	1,513,528	49,357,595
Business Under-takings ..	29,748,407	13,516,986	8,245,953	5,261,891	5,721,328	5,784	62,500,349
Lands ..	1,633,413	534,109	1,614,985	291,347	318,828	71,036	4,466,720
Interest ..	438,756	1,478,083	1,288,021	912,086	381,259	452,332	4,950,537
Commonwealth payments (d) ..	2,917,411	2,127,159	1,096,235	1,583,816	1,123,432	666,859	9,514,912
Miscellaneous ..	3,547,762	933,972	1,154,347	530,807	727,246	212,034	7,106,168
Total ..	59,895,571	29,182,657	21,539,749	12,924,663	11,432,068	2,921,573	137,896,281

PER HEAD OF POPULATION.(e)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Taxation(b) ..	7 15 7	5 11 8	7 19 10	7 6 3	6 16 5	6 7 6	7 1 4
Business Under-takings ..	10 14 2	7 2 6	8 2 0	8 17 4	12 6 11	0 0 6	8 18 11
Lands ..	0 11 9	0 5 8	1 11 9	0 9 11	0 13 9	0 6 0	0 12 9
Interest ..	0 3 2	0 15 7	1 5 4	1 10 9	0 16 5	1 18 1	0 14 2
Commonwealth payments (d) ..	1 1 0	1 2 5	1 1 6	2 13 4	2 8 6	2 16 3	1 7 3
Miscellaneous ..	1 5 7	0 9 10	1 2 8	0 17 11	1 11 5	0 17 10	1 0 4
Total ..	21 11 3	15 7 8	21 3 1	21 15 6	24 13 5	12 6 2	19 14 9

(a) See § 1 par. 2 above. (b) In all States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections see next page. (c) Including £120,000 of Disabilities Grant credited direct to Railway Revenue. (d) Including special grants. (e) Based on mean population of the financial year.

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. As stated in § 1 par. 2 above, all the Tasmanian transport facilities are now controlled by a Commission.

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.* The following table shows for the year 1940-41 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 by the Government 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 "Entertainment Tax" instead of under "Stamp Duties" and "Licences" respectively :—

STATE REVENUE FROM TAXATION : TOTAL COLLECTIONS, 1940-41.

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL COLLECTIONS.							
	£	£	£	£	£	£	£
Probate and Succession Duties	2,316,161	1,433,954	550,806	280,289	164,636	127,791	4,873,637
Other Stamp Duties	1,475,192	973,711	538,131	236,334	235,666	83,314	3,542,348
Land	2,411	492,939	407,673	306,220	120,515	87,054	1,416,812
Income and Dividend	7,777,938	5,009,172	3,886,399	2,476,119	2,059,485	474,571	21,683,684
Other taxes on Income—							
Special Income and Wages						333,447	333,447
Unemployment Relief	6,316,237	1,585,491					7,901,728
State Development			2,369,883				2,369,883
Financial Emergency					284,025		284,025
Social Services	2,601,384				(b) 284,910		2,886,294
Liquor	499,968	286,504	95,314	33,977	88,478	29,697	1,033,938
Lotteries			80,000			291,637	371,637
Entertainments (d)	551,783	726,498	90,971	348,212	154,783	75,787	1,948,034
Motor	2,925,307	1,925,430	1,026,911	698,117	456,851	214,294	7,246,910
Licences, N.E.I.	67,898	98,602		33,419	15,980	10,230	
Other	848	15,344	134,345	7,234	27,899		411,799
Total	24,535,127	12,547,645	9,180,433	4,419,921	3,893,228	1,727,822	56,304,176

(a) Includes Gold Mining Profits Tax, £185,813 (8s. per head). (b) Hospital Tax. (c) Includes Income Tax on Lottery Prizes, £191,250 (16s. 1d. per head). (d) Includes Racing.

The table hereunder shows the percentage of collections under individual taxes on the total taxation revenue for the year 1940-41 :—

STATE REVENUE FROM TAXATION : PERCENTAGES ON TOTAL, 1940-41.

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	%	%	%	%	%	%	%
Probate and Succession Duties	9.44	11.43	6.00	6.34	4.23	7.40	8.66
Other Stamp Duties	6.01	7.76	5.86	5.35	6.04	4.82	6.29
Land	..	3.93	4.44	6.93	3.10	5.04	2.52
Income and Dividend	31.70	39.93	42.33	56.02	52.90	27.46	38.51
Other taxes on Income—							
Special Income and Wages	..	..	..	..	..	19.30	0.59
Unemployment Relief	25.75	12.64	..	..	..	..	14.03
State Development	..	..	25.82	..	..	..	4.21
Financial Emergency	..	..	..	..	7.30	..	0.50
Social Services	10.61	..	..	..	7.32	..	5.13
Liquor	2.04	2.28	1.04	0.77	2.27	1.72	1.84
Lotteries	..	..	0.87	..	..	16.88	0.66
Entertainments	2.25	5.79	0.99	7.88	3.98	4.39	3.46
Motor	11.92	15.34	11.10	15.79	11.73	12.40	12.87
Licences, N.E.I.	0.28	0.79	1.46	0.76	0.41	0.59	0.73
Other	..	0.11	..	0.16	0.72	..	..
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, Social Services, State Development, Wages and Financial Emergency. Motor taxation, Probate and Succession and other Stamp duties rank next in importance. In addition to these, State land taxes 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 1940-41 are given in the following table :—

STATE REVENUE FROM TAXATION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
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TOTAL COLLECTIONS.

	£	£	£	£	£	£	£
1936-37	18,726,370	10,818,800	7,730,782	3,610,431	3,077,910	1,484,808	45,449,101
1937-38	20,504,582	11,646,645	8,539,471	3,998,132	3,288,776	1,697,159	49,674,765
1938-39	20,262,919	12,023,240	8,646,453	4,199,064	3,596,603	1,778,718	50,506,997
1939-40	22,682,127	12,710,662	8,816,448	4,620,118	3,729,558	1,827,902	54,386,815
1940-41	24,535,127	12,547,645	9,180,433	4,419,921	3,893,228	1,727,822	56,304,176

PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1936-37	6 19 8	5 16 10	7 17 1	6 2 9	6 16 3	6 7 11	6 13 11
1937-38	7 11 5	6 5 2	8 11 7	6 15 4	7 3 10	7 4 5	7 5 1
1938-39	7 8 3	6 8 3	8 11 9	7 1 3	7 15 6	7 10 2	7 6 2
1939-40	8 4 2	6 14 6	8 13 3	7 14 9	8 0 0	7 13 2	7 16 0
1940-41	8 16 8	6 12 3	9 0 4	7 8 11	8 8 1	7 5 7	8 1 2

(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 XXV. "Private Finance", page 788.)

The duties collected for the last five financial years are as follows :—

STATE PROBATE AND SUCCESSION DUTIES : NET COLLECTIONS.

State.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
New South Wales ..	2,081,548	2,233,144	2,364,124	2,201,268	2,316,161
Victoria ..	1,509,693	1,431,057	1,374,355	1,456,752	1,433,954
Queensland ..	583,741	636,207	677,037	658,298	550,806
South Australia ..	299,775	244,512	366,526	563,505	280,289
Western Australia ..	93,320	101,631	123,798	122,442	164,636
Tasmania ..	73,165	107,687	94,669	135,107	127,791
Total ..	4,641,242	4,754,238	5,000,509	5,137,372	4,873,637

(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.—NET COLLECTIONS.

State.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
New South Wales ..	1,264,646	1,368,919	1,286,124	1,422,851	1,475,192
Victoria ..	917,255	952,470	959,727	978,992	973,711
Queensland ..	548,732	632,329	610,110	605,490	538,131
South Australia ..	243,372	277,843	249,729	236,427	236,334
Western Australia ..	263,630	281,417	274,995	250,728	235,666
Tasmania ..	74,189	79,193	84,832	85,626	83,314
Total ..	3,311,824	3,592,171	3,465,517	3,580,114	3,542,348

(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 1936-37 to 1940-41 :—

STATE LAND TAX : NET COLLECTIONS.

State.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
New South Wales ..	2,221	2,237	2,154	2,169	2,411
Victoria ..	492,143	498,232	482,336	490,255	492,939
Queensland ..	402,308	405,070	401,682	408,640	407,673
South Australia ..	301,660	325,499	321,482	320,316	306,220
Western Australia ..	116,894	122,856	114,623	99,348	120,515
Tasmania ..	89,927	84,380	85,069	83,769	87,054
Total ..	1,405,153	1,438,274	1,407,346	1,404,497	1,416,812

(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 1936-37 to 1940-41. 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 : NET COLLECTIONS.

State.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
New South Wales ..	5,186,972	6,367,046	6,339,215	7,031,961	7,777,938
Victoria ..	3,299,440	3,976,958	4,370,656	4,737,696	5,009,172
Queensland ..	2,565,278	2,868,864	3,157,249	3,452,653	3,886,399
South Australia ..	1,676,728	2,032,784	2,102,928	2,358,733	2,476,119
Western Australia(a) ..	708,261	756,826	870,812	1,001,906	2,059,485
Tasmania ..	269,524	388,437	429,623	452,072	474,571
Total ..	13,706,203	16,390,915	17,270,483	19,035,021	21,683,684

(a) Includes Gold-mining Profits Tax.

(f) *Other taxes on Income.* During 1930-31 special unemployment relief taxes were 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, which were in turn replaced in 1939-40 by the Unemployment Relief and Social Services Taxes. In 1941-42 these two taxes were abolished, and provision for unemployment relief and social services was made by extending the field and scope of Income Tax. In Queensland the State Development Tax replaced the Unemployment Relief Tax in 1938-39 (see C. State Finance, § 2, par. 1 above). In South Australia portion of the moneys for expenditure on unemployment relief was raised by an increment in the rate of income tax. A Hospital Tax is levied in Western Australia. The Financial Emergency Tax in that State was abolished as from 1939-40. In Tasmania Special Income and Wages Taxes have provided the funds necessary for the relief of unemployment but, commencing with 1941-42, these taxes will be consolidated with Income Tax. Further references to unemployment relief taxation appear in the *Labour Report*, Nos. 22 to 31.

(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 : NET COLLECTIONS.

State.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
New South Wales	2,354,549	2,586,811	2,762,678	2,861,342	2,925,307
Victoria	1,682,561	1,825,152	1,913,689	1,981,509	1,925,430
Queensland	761,147	818,665	939,757	1,028,247	1,026,911
South Australia	639,874	672,635	715,944	687,644	698,117
Western Australia	410,378	429,030	453,053	451,037	456,851
Tasmania	133,003	147,864	175,591	214,189	214,294
Total	5,981,512	6,480,157	6,960,712	7,223,968	7,246,910

The proceeds of motor tax and motor registration fees are now paid into special funds and the amounts do not appear in the Consolidated Revenue Funds, except in the case of South Australia. In Tasmania, prior to 1939-40, motor taxation collections were paid into the Consolidated Revenue Fund, but are now paid to the Transport Commission.

(iii) *Business Undertakings.* (a) 1940-41. 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. State Finance, § 1, par. 2 above. For the year 1940-41 the revenue from these sources was £62,500,349 or 45 per cent. of the revenue from all sources. Details of revenue are as follows :—

STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1940-41.

Source.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Total.
	£	£	£	£	£	£	£
Railways	623,215,610	111,144,935	8,242,298	43,482,404	3,573,979	..	49,659,226
Tramways and Omnibuses	4,790,086	(e)108,968	..	..	334,561	..	5,233,615
Harbours, Rivers, Lights	1,150,452	(f)188,791	..	589,750	230,540	..	2,159,533
Water Supply, Sewerage, Irrigation and Drainage .. ..	..	677,624	..	1,110,358	943,430	..	2,731,412
Electricity Supply .. ..	..	889,151	..	..	437,988	3,501	1,330,640
Other	(g)592,259	507,517	3,655	79,379	200,830	2,283	1,385,923
Total	29,748,407	13,516,986	8,245,953	5,261,891	5,721,328	5,784	62,500,349

(a) Tasmanian transport services now under separate control of Transport Commission.
 (b) Excludes £800,000 contribution from Consolidated Revenue Fund in respect of losses on country developmental railways.
 (c) Includes electric tramways operated by the Railways Department.
 (d) Includes £120,000. portion of Commonwealth Grant paid direct to Railways.
 (e) Tramway contribution to Consolidated Revenue.
 (f) Includes Harbour Trust Fund contribution £131,223.
 (g) Road Transport and Traffic Fund.

(b) 1936-37 to 1940-41. Particulars of the revenue from business undertakings for the last five years are given below :—

STATE REVENUE FROM BUSINESS UNDERTAKINGS. (a)

Source.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	£	£	£	£	£
Railways, Tramways and Omnibuses	46,252,795	48,639,567	48,154,340	49,256,971	54,892,841
Harbour Services	2,082,743	2,290,372	2,356,905	2,328,038	2,159,533
Water Supply, Sewerage, Irrigation and Drainage	2,750,233	2,857,242	2,543,046	2,702,474	2,731,412
Other	2,474,013	2,594,231	2,625,234	2,660,576	2,716,563
Total	53,559,784	56,381,412	55,679,525	56,948,059	62,500,349

(a) See notes to previous table.

(iv) *Lands.* 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 1940-41 :—

STATE LAND REVENUE, 1940-41.

Source.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Sales ..	115,404	66,968	..	65,633	3,662	1,491	253,158
Conditional Purchases	553,854	..	..	16,005	85,148	5,122	660,129
Rentals ..	760,855	136,011	1,082,566	212,687	67,177	25,262	2,284,558
Forestry ..	154,708	290,448	465,871	..	151,079	36,087	1,098,193
Other ..	48,594	40,682	66,548	22	11,762	3,074	170,682
Total ..	1,633,415	534,109	1,614,985	294,347	318,828	71,036	4,466,720

(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 1940-41 aggregated £9,634,912 (including £120,000 credited direct to Railway Revenue in South Australia) or 7 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 1940-41 interest, mainly from loans to local governing bodies and on public account balances, was responsible for £4,950,537, whilst "Miscellaneous" revenue which includes fines of the courts and fees for services amounted to £7,106,168.

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 have been the heaviest item. In the year 1940-41 the percentage represented for Public Debt Charges was 31, as compared with 30 per cent. for Railways and Tramways ; next in importance were Charitable, Public Health and Hospitals, 12 per cent ; Education, 9 per cent. ; and Law, Order and Public Safety, 4 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.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
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TOTAL.

	£	£	£	£	£	£	£
1936-37	49,081,953	27,192,344	16,815,228	11,600,138	10,556,638	3,443,618	118,689,919
1937-38	53,495,881	27,584,037	17,568,223	12,334,391	10,829,735	3,632,903	125,445,170
1938-39	54,163,064	27,772,790	19,316,323	12,700,921	11,170,102	3,640,748	128,763,948
1939-40	57,049,577	28,096,474	20,739,749	12,918,376	11,266,768	3,052,909	133,123,853
1940-41	60,319,036	29,040,357	21,511,313	13,007,598	11,420,957	3,103,204	138,402,465

PER HEAD OF POPULATION.(c)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1936-37	18 6 2	14 13 8	17 1 9	19 14 4	23 7 3	14 16 7	17 9 8
1937-38	19 15 0	14 16 6	17 13 2	20 17 5	23 13 11	15 9 2	18 6 4
1938-39	19 16 2	14 16 4	19 3 8	21 7 4	24 2 10	15 7 4	18 12 8
1939-40	20 12 11	14 17 5	20 7 5	21 12 9	24 3 4	12 15 10	19 1 10
1940-41	21 14 4	15 6 2	21 2 6	21 18 3	24 13 0	13 1 5	19 16 2

(a) See § 1, par. 2 above.
each financial year.

(b) See § 2 (Div. I.), par. 1 above.

(c) Based on mean population of

3. Details of Expenditure, 1940-41.—The following table shows the total expenditure and expenditure per head under each of the principal items:—

STATE EXPENDITURE : DETAILS, 1940-41.

Particulars.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Total.
TOTAL.							
	£	£	£	£	£	£	£
Public debt (interest, sinking fund, exchange, etc.) ..	15,371,287	8,610,865	7,091,918	5,321,870	4,553,419	1,313,078	42,262,437
Railways, Tramways and Omnibuses (working expenses)	20,940,176	8,670,912	6,521,905	2,785,241	2,992,954	5,660	41,916,848
Water Supply, Sewerage, Irrigation and Drainage ..	..	489,258	..	391,188	306,731	..	1,187,177
Education ..	5,608,975	3,182,682	1,829,073	1,085,941	890,165	406,416	13,003,254
Health and charitable Justice ..	9,680,764	3,409,988	1,791,316	978,002	(b) 537,650	393,184	16,795,904
Police ..	609,901	271,997	217,366	88,113	90,036	42,533	1,319,946
Penal establishments	1,479,728	832,214	635,621	321,758	266,731	123,132	3,659,184
All other expenditure	396,506	136,114	44,743	50,948	35,801	22,266	686,378
Total ..	60,319,036	29,040,357	21,511,313	13,007,598	11,420,957	3,103,204	138,402,465

PER HEAD OF POPULATION.(c)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Public debt (interest, sinking fund, exchange, etc.) ..	5 10 8	4 10 9	6 19 4	8 19 4	9 16 7	5 10 7	6 0 11
Railways, Tramways and Omnibuses (working expenses)	7 10 9	4 11 5	6 8 1	4 13 10	6 9 2	0 0 6	6 0 0
Water Supply, Sewerage, Irrigation and Drainage ..	..	0 5 4	..	0 13 2	0 13 3	..	0 3 5
Education ..	2 0 5	1 13 7	1 15 11	1 16 7	1 18 5	1 14 3	1 17 3
Health and charitable Justice ..	3 9 8	1 15 11	1 15 2	1 12 11	1 3 2	1 13 7	2 8 1
Police ..	0 4 5	0 2 10	0 4 3	0 3 10	0 3 11	0 3 7	0 3 9
Penal establishments	0 10 8	0 8 9	0 12 6	0 10 10	0 11 6	0 10 4	0 10 6
All other expenditure	0 2 10	0 1 5	0 0 11	0 1 9	0 1 7	0 1 11	0 2 0
Total ..	21 14 4	15 6 2	21 2 6	21 18 3	24 13 0	13 1 5	19 16 2

(a) See § 1, par. 2 above. (b) In addition £306,610 was expended from Hospital Fund.
(c) Based on mean population of financial year.

Division III.—Surplus Revenue.

The following table shows for each of the years 1936-37 to 1940-41 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.	Total.
	£	£	£	£	£	£	£
1936-37..	77,124	28,923	-280,190	139,168	-371,205	44,906	-361,274
1937-38..	49,839	30,945	-228,492	126,545	-10,693	6,852	-25,004
1938-39..	-2,453,329	-787,242	14,046	-397,324	-220,442	-25,984	-3,870,275
1939-40..	-2,294,951	6,261	15,755	-162,728	-146,825	2,401	-2,580,087
1940-41..	-423,465	142,300	28,436	-82,935	11,111	-181,631	-506,184

PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
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
1939-40..	-0 16 7	..	0 0 4	-0 5 6	-0 6 4	0 0 3	-0 7 5
1940-41..	-0 3 1	0 1 6	0 0 7	-0 2 9	0 0 5	-0 15 3	-0 1 5

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 Funds. 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 deposits accounts, superannuation funds, suspense accounts, etc., also find a place.

2. **Extent.**—The amounts of trust funds held on 30th June, 1941, were as follows :—

STATE TRUST FUNDS, 30th JUNE, 1941.

Particulars.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Amount of trust funds	16,428,634	9,599,608	4,489,641	1,817,994	5,292,756	873,810	38,502,443

(a) Special Deposits Account and Special Accounts.

§ 4. State Loan Funds.

Division I.—Loan Expenditure.

1. **General.**—As far back as 1842 revenue collections were supplemented by borrowed moneys, the earliest loan being raised 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 defence or war purposes. 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. Such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

2. *Loan Expenditure, 1940-41.*—(a) *Gross Loan Expenditure, 1940-41.* Particulars of the gross loan expenditure on Works, Services, etc., for the year 1940-41 are given in the following table :—

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1940-41.

Heads of Expenditure.	N.S.W.(a)	Victoria. (b)	Q'land.	S. Aust.	W. Aust. (a)	Tasmania.	Total.
	£	£	£	£	£	£	£
Public Works and Services—							
Railways	1,750,000	611,845	654,957	204,840	51,290	246,658	3,549,590
Tramways and Omnibuses .. ..	..	..	..	(c)20,000	9,109	..	29,109
Roads	240,235	1,179	410,193	67,000	..	..	..
Bridges	225,491	..	15,846	65,096	14,636	40,871	1,080,547
Harbours and Rivers .. ..	..	..	..	..	..	..	..
Lights and Lighthouses .. ..	..	..	..	..	..	..	..
Water Supply	162,300	471,369	274,000	797,993	82,940	..	2,040,902
Sewerage	215,043	..	..	183,000	69,390	..	739,169
Electricity Supply	659,090	415,324	530,279	93,613	15,126	509,000	2,006,913
Public Buildings .. ..	..	..	..	..	157,231	151,426	..
Loans and Grants to Local Bodies	138,127	..	913,474	..	..	..	1,081,601
Unemployment Relief Works	879,248	589,820	..	..	980,490	9,354	2,458,922
Housing	15,423	260,000	50,631	435,000	..	132,821	883,875
Other Public Works, etc.	118,039	..	30,363	177,824	3,685	254,419	584,330
Primary Production—							
Soldier Settlement	(d) 10,407	245	2,052	9,243	679	302,999	510,294
Land for Settlement .. ..	..	3,191	146,955	751	7,120	20,843	29,843
Advances to Settlers .. ..	..	..	13,600	169,955	667	168,520	355,933
Water Conservation	857,821	..	13,173	25,460	6,025	..	941,488
Irrigation and Drainage .. ..	..	..	7,180	7,511	31,829	..	..
Rabbit-proof Fencing .. ..	..	5,065	1,066	..	..	..	13,642
Agriculture(e)	193,783	..	..	..	4,737	..	198,520
Agricultural Bank .. ..	..	..	58,000	..	..	..	58,000
Forestry .. ..	..	278,742	98,090	223,244	..	..	605,076
Mines and Mineral Resources .. ..	..	25,052	14,729	..	44,982	..	81,763
Other .. ..	..	35,000	..	11	2,663	..	37,674
Other Purposes .. ..	..	17,610	..	115,000	53,739	..	186,349
Total Public Works, Services, &c., Expenditure	5,465,007	2,734,442	3,257,358	2,607,631	1,536,338	1,845,921	17,446,697
Per Head of Population	£1 19 4	£1 8 10	£3 4 0	£4 7 10	£3 6 4	£7 15 6	£2 9 11

(a) Includes expenditure from Loan Suspense Account. (b) Expenditure from Loan Funds and on account of Loans, including expenditure from Loan Funds, from Treasurer's Advance Account, and from State Loans Repayment Fund. (c) Loans to Metropolitan Tramways Trust. (d) Includes Rabbit-proof Fencing Advances. (e) Includes Grain Elevators, New South Wales.

(b) *Net Loan Expenditure, 1940-41.* For the year ended 30th June, 1941, State net loan expenditure on Works, Services, etc., was as follows :—

STATE NET LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1940-41.

Heads of Expenditure.	N.S.W. (a)	Victoria. (b)	Q'land.	S. Aust. (c)	W. Aust. (a)	Tasmania.	Total.
Public Works and Services—	£	£	£	£	£	£	£
Railways	1,297,641	618,610	529,512	188,722	47,049	33,575	2,715,109
Tramways and Omnibuses ..	Cr. 232,255			Cr. 30,000	8,724		Cr. 253,531
Roads		{ Cr. 27,230 }	358,621	52,000	Cr. 139		
Bridges	148,853	Cr. 3,136					
Harbours and Rivers	211,055	Cr. 2,741	15,720		14,363		38,612
Lights and Lighthouses ..				41,247			
Water Supply		{ 457,390 }	274,000	779,222	75,747		
Sewerage	126,539	Cr. 903		160,690	33,796		1,906,981
Electricity Supply	184,024				8,801	425,306	621,131
Public Buildings	625,270	414,567	522,183	91,478	153,047	141,043	1,947,588
Loans and Grants to Local Bodies	136,511	Cr. 2,972	466,593	Cr. 1,643	Cr. 683	Cr. 30,420	567,386
Unemployment Relief Works	825,877	478,721			980,490	Cr. 4,952	2,280,136
Housing	15,415	250,000	Cr. 37,473	203,931	Cr. 3,496	84,683	513,060
Other Public Works, etc. ..	104,188		30,363	132,777	3,685	247,073	518,086
Primary Production—							
Soldier Settlement		{ (e) 10,120 }	Cr. 390,095	{ Cr. 40,563 }	Cr. 46,001	Cr. 40,638	Cr. 41,126
Land for Settlement				96,975	Cr. 22,032	310	Cr. 7,814
Advances to Settlers		Cr. 10,530	Cr. 833	Cr. 59,408	466	Cr. 24,552	Cr. 91,857
Water Conservation				Cr. 14,034	23,908	5,722	
Irrigation and Drainage ..	798,783			2,037	30,847		847,353
Rabbit-proof Fencing		Cr. 13,561	Cr. 20,221	Cr. 3,607			Cr. 37,389
Agriculture (f)	103,728	Cr. 350,000	Cr. 5,561		3,080		Cr. 158,753
Agricultural Bank			25,033				25,033
Forestry		252,407	90,081	57,921	Cr. 3		400,406
Mines and Mineral Resources		22,437	10,112		37,949		70,498
Other		29,674	Cr. 77,831	Cr. 2,495	2,663		Cr. 47,939
Other Purposes		15,853	Cr. 51	37,940	47,034		100,776
Total Public Works, Services, &c.; Expenditure ..	4,445,749	1,738,991	2,222,626	1,606,727	1,409,314	864,428	12,287,835
Per Head of Population ..	£1 12 0	£0 18 4	£2 3 8	£2 12 2	£3 0 10	£3 12 10	£1 15 2

(a) Includes expenditure from Loan Suspense Account. (b) Expenditure from Loan Funds and on account of Loans, including expenditure from Loan Funds, from Treasurer's Advance Account, and from State Loans Repayment Fund. (c) Credits arising from the cancellation of securities redeemed from Sinking Fund not allowed for. (d) Loans to Metropolitan Tramways Trust. (e) Includes Rabbit-proof Fencing, advances. (f) Includes Grain Elevators, New South Wales and Victoria.

3. *Net Loan Expenditure on Works, Services, etc., 1936-37 to 1940-41.*—The following table gives the works net loan expenditure during each of the years 1936-37 to 1940-41 :—

STATE NET LOAN EXPENDITURE ON WORKS, SERVICES, ETC.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
TOTAL.							
	£	£	£	£	£	£	£
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	576,627	13,177,886
1939-40	5,886,266	3,141,711	2,608,727	950,166	1,812,079	852,911	15,251,860
1940-41	4,445,749	1,738,991	2,222,626	1,606,727	1,409,314	864,428	12,287,835
PER HEAD OF POPULATION.							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
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	2 8 8	1 18 2
1939-40	2 2 7	1 13 3	2 11 3	1 11 10	3 17 9	3 11 6	2 3 9
1940-41	1 12 0	0 18 4	2 3 8	2 14 2	3 0 10	3 12 10	1 15 2

The loan expenditure per head of population, which varies in the different States and in different years, was at its highest point for the five years under review in 1936-37 with £2 6s. per head, and at its lowest in 1940-41 with £1 15s. 2d. per head.

4. Total Net Loan Expenditure to 30th June, 1941.—The total net loan expenditure inclusive of revenue deficits, etc., of the States from the initiation of borrowing to 30th June, 1941, amounted to £1,028,827,338. The purposes for which this sum was expended are shown in the following table:—

TOTAL STATE NET LOAN EXPENDITURE TO 30th JUNE, 1941.

Heads of Expenditure.	N.S.W.	Victoria.(a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Public Works and Services—							
Railways ..	153,920,358	77,495,782	66,127,363	35,123,533	25,631,533	7,370,440	365,719,009
Tramways and Omnibuses ..	8,911,411			(b) 3,714,415	1,248,134	..	13,873,960
Roads and Bridges ..	20,324,467	12,642,629	4,986,572	3,891,145	3,183,340	..	45,028,153
Harbours, Rivers, Lighthouses ..	22,046,859	1,404,535	2,813,261	8,468,246	7,463,948	7,206,283	94,431,285
Water Supply ..	40,932,155	31,304,368	1,326,741	16,241,118	10,562,476	..	108,357,475
Sewerage ..	..	217,784	..	3,652,663	4,120,170	..	7,990,617
Electricity Supply ..	2,336,630	17,839,227	..	..	1,350,655	6,556,405	28,582,926
Public Buildings ..	17,223,752	7,572,323	6,983,708	4,171,884	2,721,963	2,751,854	41,425,484
Loans and Grants to Local Bodies ..	1,611,626	1,626,377	18,603,982	21,989	92,954	580,850	22,537,778
Unemployment Relief Works ..	17,441,039	13,018,567	..	..	(c) 365,801	30,825,407	30,825,407
Housing ..	1,947,557	1,190,000	3,855,598	5,907,256	805,884	450,915	14,157,210
Commonwealth Services ..	3,965,937	149,323	554,751	1,233,387	332,293	500,754	6,786,445
Other Public Works and Services (d) ..	3,863,900	763,426	2,773,123	921,777	1,845,866	2,514,214	12,782,306
Primary Production—							
Closer Settlement ..	8,475,238	..	(e) 866,055	..	8,530,575	430,058	17,871,876
Land for Settlement ..	..	41,570,934	3,283,444	1,545,367	324,662	..	46,724,407
Soldier Settlement ..	f 3,852,644	..	1,169,715	8,425,474	6,934,481	2,451,560	18,773,874
Advances to Settlers ..	..	2,485,280	301,551	2,215,981	2,063,017	319,605	7,385,434
Water Conservation ..	..	..	4,319,909	1,333,808	..	..	5,653,717
Irrigation and Drainage ..	18,995,266	..	2,000,814	4,898,605	2,384,662	..	33,933,064
Rabbit Proof Fencing ..	..	878,637	299,064	184,393	341,765	..	1,704,759
Agriculture (g) ..	7,392,936	1,150,682	53,787	..	3,788,023	..	12,386,328
Agricultural Bank ..	..	..	1,735,499	..	5,878,695	..	7,614,194
Forestry ..	..	1,176,894	1,267,786	1,294,779	961,040	..	4,700,499
Mines and Mineral Resources ..	580,687	569,383	2,072,747	..	2,879,023	..	6,101,840
Other ..	..	1,097,262	2,855,025	773,647	88,581	..	4,814,515
Other Purposes ..	..	158,800	424,055	(h) 4,082,840	3,402,162	..	8,067,857
Total Public Works, Services, &c., Expenditure ..	333,822,471	214,312,213	124,356,441	111,138,403	98,820,610	31,598,769	914,048,912
Other than Works, &c.—							
Discounts and Flotation Expenses ..	17,714,245	5,770,598	5,381,391	1,208,716	4,038,030	(i) ..	34,162,980
Revenue and General Cash Deficits ..	43,221,983	4,863,682	5,826,271	9,168,644	12,106,287	1,016,997	76,203,864
Treasury Bills Retired ..	..	..	2,857,150	..	..	..	2,857,150
Other ..	..	..	(j) 1,554,432	..	..	..	1,554,432
Grand Total ..	394,758,699	224,946,493	139,975,685	121,515,768	115,014,927	32,615,766	1,028,827,338

(a) Aggregate Gross Loan Expenditure. (b) Loans to Metropolitan Tramways Trust. (c) Not available separately. Distributed under various particular headings. (d) Includes Industrial Undertakings and Immigration. (e) Under Prickly Pear Land Act. (f) Includes advances for Rabbit-proof Fencing. (g) Includes Grain Elevators New South Wales and Victoria. (h) Includes £3,049,921 State Bank. (i) Included with Other Public Works. (j) Includes £1,200,000 contribution to Sinking Fund.

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 government 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, 1936-37 to 1940-41.—The following table gives particulars, in summary form, of the total loan expenditure in each State during each of the years 1936-37 to 1940-41 :—

STATE LOAN EXPENDITURE, SUMMARY, 1936-37 TO 1940-41.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1936-37.							
Works and Services—							
Gross Expenditure ..	7,182,523	3,303,501	3,760,113	2,966,499	2,155,199	1,907,930	21,365,765
Net Expenditure ..	6,336,078	2,616,660	2,573,593	1,245,222	2,032,224	814,051	15,618,728
Repayments ..	846,445	686,841	1,186,520	1,721,277	122,975	1,182,979	5,747,037
Other than Works—(a)							
Gross Expenditure ..	61,160,868	66,350	44,6320	48,935	522,757	..	2,245,230
Net Expenditure ..	61,115,368	66,350	44,6320	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	3,019,073	1,234,817	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
1937-38.							
Works and Services—							
Gross Expenditure ..	8,110,740	3,230,451	3,521,487	2,839,184	2,294,942	1,892,279	21,889,083
Net Expenditure ..	5,100,865	2,345,460	2,224,934	1,133,054	2,160,480	850,305	13,815,098
Repayments ..	3,009,875	884,991	1,296,553	1,706,130	134,462	1,041,974	8,073,985
Other than Works—(a)							
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	..	1,813,420
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 ..	8,786,604	3,218,531	3,392,641	2,529,562	1,783,224	1,686,647	21,399,200
Net Expenditure ..	5,407,956	2,289,535	2,041,588	1,226,096	1,636,184	576,627	13,177,886
Repayments ..	3,380,748	928,996	1,351,053	1,303,466	147,040	1,110,020	8,221,323
Other than Works—(a)							
Gross Expenditure ..	63,893,053	852,362	155,442	70,594	253,748	163,000	5,383,199
Net Expenditure ..	63,893,053	852,362	155,442	70,594	253,748	163,000	5,388,199
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

For notes see next page.

STATE LOAN EXPENDITURE, SUMMARY, 1936-37 TO 1940-41—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£

1939-40.

Works and Services—							
Gross Expenditure ..	6,945,371	3,962,647	3,862,021	2,032,415	1,939,549	1,764,197	20,506,200
Net Expenditure ..	5,886,266	3,141,711	2,608,727	950,166	1,812,079	852,911	15,251,860
Repayments ..	1,059,105	820,936	1,253,294	1,082,249	127,470	911,286	5,254,340
Other than Works—(a)							
Gross Expenditure ..	41,561,354	19,667	108,754	409,574	162,242	50,000	2,311,591
Net Expenditure ..	Cr. 238,046	19,667	108,754	409,574	162,242	50,000	511,591
Repayments ..	1,800,000	..	..	..	..	..	1,800,000
Total Loan Expenditure—							
Gross ..	8,506,725	3,982,314	3,970,775	2,441,989	2,101,791	1,814,197	22,817,791
Net ..	5,647,620	3,161,378	2,717,481	1,359,740	1,974,321	902,911	15,763,451
Repayments ..	2,859,105	820,936	1,253,294	1,082,249	127,470	911,286	7,054,340

1940-41.

Works and Services—							
Gross Expenditure ..	5,465,007	2,734,142	3,257,358	2,607,631	1,536,338	1,845,921	17,446,697
Net Expenditure ..	4,445,749	1,738,091	2,222,626	1,506,727	1,409,314	861,428	12,287,835
Repayments ..	1,019,258	995,451	1,034,732	1,000,904	127,024	981,493	5,158,862
Other than Works—(a)							
Gross Expenditure—							
Discounts and Flotation							
Expenses ..	45,666	15,350	6,226	..	9,238	88,000	164,480
Revenue and General							
Cash Deficits ..	(e) 3,240,440	..	..	162,728	..	181,631	3,584,799
Other ..	..	..	(f) 100,000	..	..	..	100,000
Total ..	3,286,106	15,350	106,226	162,728	9,238	269,631	3,849,279
Net Expenditure—							
Discounts and Flotation							
Expenses ..	45,666	15,350	Cr. 153,774	..	8,373	88,000	3,615
Revenue and General							
Cash Deficits ..	2,690,440	..	..	162,728	Cr. 11,111	181,631	3,023,688
Other ..	..	..	(f) 100,000	..	..	..	100,000
Total ..	2,736,106	15,350	Cr. 53,774	162,728	Cr. 2,738	269,631	3,127,303
Repayments ..	550,000	..	160,000	..	11,976	..	721,976
Total Loan Expenditure—							
Gross ..	8,751,113	2,740,792	3,363,584	2,770,359	1,545,576	2,115,552	21,295,976
Net ..	7,181,855	1,754,341	2,168,852	1,769,455	1,406,576	1,134,059	15,415,133
Repayments ..	1,569,258	995,451	1,194,732	1,000,904	139,000	981,493	5,880,838

(a) Includes exchange, discounts and flotation expenses, revenue and general cash deficits. (b) Includes £703,481 available towards funding deficits—Revenue Deficits Loans (Funding) Account. (c) Includes £1,110,000 short-term loans for general cash deficit and £1,691,000 available towards funding deficits. (d) Includes £1,470,254 available towards funding deficits. (e) Includes £1,305,440 available towards funding deficits. (f) Contribution to Sinking Fund.

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 raised 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, 1937 to 1941.**—The table hereunder shows the State public debts and the amounts owing per head of population at 30th June in each year from 1937 to 1941 inclusive.

As provided in the Financial Agreement (particulars of which are given on page 873), 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. "Land Tenure and Settlement" 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.	Total.
TOTAL.							
30th June, 1937	£ 350,291,499	£ 176,597,010	£ 124,808,475	£ 106,594,164	£ 92,332,855	£ 25,247,510	£ 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	359,813,990	179,698,118	127,503,251	108,887,092	95,472,600	26,366,990	897,772,041
" 1940	363,325,538	180,549,068	129,033,227	109,344,040	96,230,399	27,243,892	905,727,064
" 1941	368,974,948	181,219,188	130,094,603	109,779,725	97,791,721	28,161,858	916,022,046

PER HEAD OF POPULATION. (a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
30th June, 1937	130 1 10	95 3 9	125 17 11	181 1 6	203 5 5	108 10 0	128 10 5
" 1938	130 5 3	94 18 6	125 7 8	181 8 3	203 13 0	110 6 11	128 11 11
" 1939	131 0 0	95 10 3	125 8 8	182 15 4	205 2 7	111 8 4	129 6 3
" 1940	130 18 4	94 16 11	125 14 8	182 15 6	205 13 8	113 17 0	129 3 11
" 1941	131 18 4	93 9 10	125 10 2	183 2 9	208 11 10	117 19 5	129 8 0

(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 over £40 million or at the average rate of over £10 million per annum. The debt per head of population increased during the period by 17s. 7d. to £129 8s. per head, less than one 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. Comparison of the debts of the States is therefore difficult, but on page 871 figures showing the aggregate debts of the States including these local and semi-governmental bodies are given for the years 1938–39 and 1939–40.

3. **Place of Flotation of Loans.**—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 or various redemption and other loans locally, with very satisfactory results. Loans have also been placed in New York on account of all States. The following table gives particulars of loans outstanding on 30th June, 1941, which had been floated abroad and in Australia respectively :—

STATE PUBLIC DEBTS, 30th JUNE, 1941 : PLACE OF FLOTATION OF LOANS.

State.	Maturing Overseas.			Maturing in Australia.	Grand Total.
	London.	New York.	Total Overseas.		
	£ Stg.	£(a)	£(b)	£ Aust.	£(b)
New South Wales	158,696,920	12,316,244	171,013,164	197,961,784	368,974,948
Victoria ..	62,464,855	4,498,878	66,963,733	114,255,455	181,219,188
Queensland ..	62,788,170	6,694,247	69,482,417	60,612,186	130,094,603
South Australia ..	42,849,807	1,733,467	44,583,274	65,196,451	109,779,725
Western Australia	43,889,767	2,015,436	45,905,203	51,886,521	97,791,724
Tasmania ..	13,352,087	227,796	13,579,883	14,581,975	28,161,858
Total ..	384,041,606	27,486,068	411,527,674	504,494,372	916,022,046

PER HEAD OF POPULATION.

	£ s. d. (Stg.)	£ s. d. (a)	£ s. d. (b)	£ s. d. (Aust.)	£ s. d. (b)
New South Wales	56 14 9	4 8 1	61 2 10	70 15 6	131 18 4
Victoria ..	32 4 6	2 6 5	34 10 11	58 18 11	93 9 10
Queensland ..	60 11 6	6 9 2	67 0 8	58 9 6	125 10 2
South Australia ..	71 9 8	2 17 10	74 7 6	108 15 3	183 2 9
Western Australia	93 12 4	4 6 0	97 18 4	110 13 6	208 11 10
Tasmania ..	55 18 8	0 19 1	56 17 9	61 1 8	117 19 5
Total ..	54 5 0	3 17 8	58 2 8	71 5 4	129 8 0

(a) Payable in terms of dollars. For the purposes of these tables dollars have been arbitrarily converted to £Stg. at the rate of \$4.8665 to £1. (b) Total "face" or "book" value of the debt of each State without adjustment on account of currency changes since the loans were floated.

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 865.

4. **Rates of Interest.**—(i) *At 30th June, 1941.* 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 1½ per cent., thirty-six separate rates being involved. The average rate payable on the aggregate indebtedness is £3 14s. 8d. 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, 1941, 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 (a) above.

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 : AMOUNTS AT EACH RATE OF INTEREST PAYABLE, AT
30th JUNE, 1941.

Rate of Interest.	Place of Maturity.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
%		£	£	£	£	£	£	£
7.0 ..	New York	..	..	1,423,302	..	..	..	1,423,302
6.0 ..	New York	..	..	2,054,865	..	..	..	2,054,865
5.25 ..	London	17,870,500	..	..	..	..	..	17,870,500
5.0375 ..	Australia	..	..	..	..	250,000	261,240	511,240
5.0 ..	London	17,013,816	14,433,131	37,806,688	13,888,787	12,976,463	1,228,087	97,347,872
4.75 ..	New York	8,423,610	3,733,042	2,190,974	1,733,467	2,015,436	227,796	18,329,325
4.65 ..	London	..	5,913,200	..	..	..	..	5,913,200
4.5 ..	Australia	..	..	..	..	755,000	..	755,000
4.2625 ..	New York	3,892,634	760,836	1,025,106	..	..	..	5,678,576
4.06875 ..	Australia	2,124,060	..	..	166,140	62,797	..	2,352,997
4.0 ..	Australia	10,784,060	..	..	495,000	..	..	11,279,060
3.96667 ..	Australia	56,990,848	44,145,867	12,670,237	30,810,401	11,181,757	5,731,220	164,589,330
3.95833 ..	London	29,083,932	2,902,116	7,948,800	8,189,111	7,582,885	2,798,000	58,504,844
3.95417 ..	Australia	..	5,685,910	..	..	..	..	5,685,910
3.89167 ..	Australia	..	4,061,000	..	..	..	..	4,061,000
3.875 ..	Australia	..	1,875,750	..	..	..	..	1,875,750
3.8125 ..	Australia	23,110,600	19,485,241	7,662,212	12,736,725	7,129,765	2,559,290	72,683,833
3.79167 ..	Australia	..	..	..	200,000	..	..	200,000
3.75 ..	Australia	..	6,370,000	..	1,035,000	..	..	6,370,000
3.72917 ..	Australia	29,045,850	8,921,455	12,507,261	6,165,040	9,492,297	2,013,470	68,145,373
3.625 ..	London	7,607,932	6,852,149	1,958,800	5,413,300	1,741,801	1,076,000	24,649,682
3.5 ..	Australia	..	..	..	350,000	..	..	350,000
3.4875 ..	Australia	1,931,000	908,550	568,000	999,000	753,930	262,200	5,422,680
3.375 ..	London	9,398,150	4,702,390	2,648,698	2,540,570	2,906,383	552,350	22,749,041
3.3 ..	Australia	33,477,901	19,609,345	5,580,200	2,737,500	4,793,225	6,503,150	76,701,321
3.275 ..	London	41,700	500	5,903,591	73,400	347,210	127,244	6,583,645
3.25 ..	Australia	9,142,430	3,737,540	1,303,740	2,086,080	1,767,220	385,200	18,422,300
3.125 ..	Australia	3,152,860	4,896,235	2,723,480	2,052,000	3,044,837	1,118,330	17,288,642
3.1 ..	London	..	650,075	1,237,769	4,411,899	10,568,718	1,234,950	18,123,411
3.0 ..	Australia	2,000	1,000	70,000	190,230	..	..	173,230
2.96625 ..	Australia	4,573,310	322,549	2,449,895	..	1,566,000	163,743	9,075,997
2.75 ..	London	12,724,222	3,348,610	9,507,297	1,322,514	2,843,235	1,012,098	30,757,976
2.7125 ..	Australia	32,721,013	6,220,014	4,255,913	2,397,149	..	..	45,594,089
2.5 ..	London	..	..	..	..	..	..	5,100
2.375 ..	Australia	787,000	1,959,930	281,000	172,000	215,090	177,000	3,592,020
2.325 ..	London	10,954,600	..	..	1,996,335	3,228,661	..	16,179,596
2.25 ..	Australia	291,421	303,845	352,915	..	..	..	948,181
2.2 ..	Australia	989,000	235,000	456,000	194,000	266,000	163,000	2,304,000
2.15 ..	London	645,653	778,083	54,750	373,451	..	..	1,851,937
2.0 ..	Australia	9,965,276	5,884,825	..	2,815,726	2,998,014	..	21,663,841
1.5 ..	London	..	..	..	1,000,000	..	491,000	1,491,000
Overdue and unconverted	Australia	31,925,000	2,515,000	1,358,000	3,315,000	6,305,000	5,000	45,423,000
	London	1,220	..	10	..	..	..	1,230
	London	2,250	..	..	..	..	..	2,250
Total Debt	Australia	197,961,784	114,255,455	60,612,186	65,196,451	51,886,521	14,581,975	504,494,372
	London	158,696,920	62,464,855	62,788,170	42,849,307	43,889,767	13,352,087	384,041,606
	New York	12,316,244	4,498,878	6,694,247	1,733,467	2,015,436	227,796	27,486,068
	Total ..	368,974,948	181,219,188	130,094,603	109,779,725	97,791,724	28,161,858	916,022,046
Total Interest Payable	Australia	6,692,786	4,274,581	2,141,423	2,421,304	1,790,633	546,184	17,866,911
	London(b)	5,916,363	2,402,036	2,784,954	1,574,369	1,634,945	491,930	14,954,603
	New York	596,348	221,140	378,602	86,074	100,771	11,390	1,394,925
	Total ..	13,205,497	6,897,757	5,304,979	4,182,347	3,576,349	1,049,510	34,216,439
Average Rates of Interest Payable	Australia	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
	London	3 7 7	3 14 10	3 10 8	3 14 3	3 9 0	3 14 11	3 10 10
	New York	3 14 7	3 16 11	4 8 9	3 18 2	3 16 9	3 13 8	3 17 11
	Total ..	4 16 10	4 18 4	5 13 1	5 0 0	5 0 0	5 0 0	5 1 6

(a) Includes £220 unconverted securities. (b) Includes contributions payable by Commonwealth and British Governments towards interest on Migration Loans.

The average rate for debt maturing in Australia has been reduced from £5 4s. 11d. per cent. in 1931 to £3 10s. 10d. per cent. in 1941. 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. 11d. in 1941, while for New York loans decreased from £5 2s. 6d. per cent. in 1931 to £5 1s. 6d. in 1941.

(ii) *Variations from 1901 to 1941.*—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.	1939.	1940.	1941.
	%	%	%	%	%	%	%
Not exceeding 3 per cent. ..	18.0	17.9	10.2	5.3	19.1	17.8	18.5
Exceeding 3 per cent. but not exceeding 4 per cent. ..	78.5	81.9	45.4	17.2	62.4	64.0	63.6
Exceeding 4 per cent. but not exceeding 5 per cent. ..	3.1	0.1	15.6	36.8	16.0	15.7	15.5
Exceeding 5 per cent. but not exceeding 6 per cent. ..	0.4	0.1	23.5	38.4	2.3	2.3	2.2
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	3.7	3.7	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 "indefinite". Those terminable at "Treasurer's option" include amounts which are payable by the respective Governments after giving a specified notice, and those "indefinite" 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, the practice has been adopted 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 advantages 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 30th June, 1941, are given in the following table, the various maturities being grouped according to years ending 30th June.

STATE PUBLIC DEBTS, 30th JUNE, 1941 : LATEST DATES OF MATURITY.

Year of Maturity.	Place of Maturity.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
		£ (a)	£ (a)	£ (a)	£ (a)	£ (a)	£ (a)	£ (a)
1941-42	Australia	61,982,110	22,146,937	3,923,330	13,303,624	10,293,249	1,090,395	112,739,645
	London	22,385,389	6,934,693	..	3,815,726	2,998,014	491,000	36,624,822
	New York	..	..	1,423,302	..	..	..	1,423,302
1942-43	Australia	15,957,270	4,890,395	2,255,220	5,324,815	3,688,377	591,890	32,707,967
	London	10,954,600	..	..	1,096,335	3,228,661	..	16,179,596
1943-44	Australia	7,372,650	11,377,740	908,840	2,548,570	2,874,920	285,850	25,368,570
	London	..	..	..	..	..	4,596,400	4,596,400
1944-45	Australia	7,818,482	10,621,417	5,771,012	5,580,887	1,965,994	921,931	32,679,723
	London	..	..	3,958,800	..	..	..	3,958,800
1945-46	Australia	2,667,100	4,247,610	833,000	739,000	678,090	407,000	9,571,800
	London	989,000	230,000	1,493,928	394,000	266,000	413,000	3,791,928
1946-47	Australia	..	..	4,255,913	..	1,417,800	..	5,673,713
	New York	..	..	2,054,865	..	..	..	2,054,865
1947-48	Australia	4,774,247	4,467,995	1,904,985	2,920,283	1,838,409	665,634	16,571,553
	London	13,589,370	4,673,790	2,813,281	919,470	4,052,375	839,390	26,887,676
1948-49	Australia	12,268,190	12,022,295	2,000,000	8,301,100	2,716,302	1,076,000	38,474,187
	London	11,115,360	3,144,772	4,967,537	1,476,080	3,045,530	484,150	24,503,429
1949-50	Australia	..	6,055,545	..	..	..	..	6,055,545
1950-51	Australia	4,672,845	4,112,108	2,461,627	2,752,027	1,341,198	553,202	15,893,007
	London	11,707,278	..	5,948,800	..	..	2,798,000	20,454,078
1951-52	Australia	9,925,400	3,795,980	4,483,946	2,533,950	3,952,210	1,041,320	25,732,906
	London	7,000	..	484,718	..	..	..	491,718
1952-53	Australia	11,789,758	..	..	..	..	..	11,789,758
	London	4,511,685	4,039,194	1,812,427	2,589,478	1,238,774	873,013	15,064,601
1953-54	Australia	11,018,047	..	..	2,737,500	864,393	1,906,750	16,526,690
1954-55	Australia	12,967,810	8,923,710	7,454,768	6,867,990	3,755,750	1,759,760	41,729,788
	London	..	..	..	..	3,204,904	..	3,204,904
1955-56	Australia	13,928,901	8,808,268	2,727,892	5,560,792	3,707,568	1,187,400	35,920,821
	New York	3,892,634	2,624,319	1,723,705	734,631	1,498,444	..	10,471,773
1956-57	Australia	6,028,100	3,488,860	2,438,685	3,051,900	2,047,890	1,452,038	18,567,773
	New York	4,183,191	..	..	..	..	..	4,183,191
1957-58	Australia	4,433,964	3,828,348	1,489,361	2,561,866	1,317,055	548,256	14,178,850
	London	38,171,400	..	..	..	..	..	38,171,400
1958-59	Australia	4,240,419	1,874,559	1,492,375	1,000,836	516,992	227,796	9,352,977
	London	3,829,050	13,553,800	384,082	..	164,144	..	518,226
1959-60	Australia	3,829,050	13,553,800	3,700,750	..	..	..	21,083,600
	London	4,415,334	3,861,116	2,137,957	2,428,058	1,478,568	697,499	15,018,632
1960-61	Australia	..	2,902,116	..	..	877,408	..	3,779,524
1961-62	Australia	..	..	2,378,404	..	424,446	..	2,802,850
	London	..	6,563,275	21,305,360	3,657,347	1,739,527	174,200	33,439,718
1962-63	Australia	4,262,102	3,889,368	1,339,485	2,511,034	1,398,803	674,217	14,075,009
	London	..	..	..	..	4,866,583	..	4,866,583
1963-64	Australia	106,804	..	458,106	..	153,523	..	718,433
1964-65	Australia	10,283,396	..	..	..	..	..	10,283,396
1965-66	Australia	..	..	619,017	..	1,753,183	96,000	2,468,200
1966-67	Australia	..	..	396,533	..	129,715	..	526,248
1967-68	Australia	..	..	..	..	..	..	..
1968-69	Australia	14,055,000	..	..	..	..	..	14,055,000
1969-70	Australia	..	..	1,920,650	..	..	..	1,920,650
1970-71	Australia	..	..	..	2,272,276	..	..	2,272,276
1971-72	Australia	..	..	..	3,593,587	8,829,191	1,080,750	13,603,528
1972-73	Australia	..	..	..	..	..	..	..
1973-74	Australia	..	..	..	..	..	..	..
1974-75	Australia	..	..	..	..	..	..	..
1975-76	Australia	..	..	..	..	..	..	..
Overdue and unconverted	Australia	1,220	..	230	..	..	..	1,450
Interminable	Australia	2,250	..	..	..	..	..	2,250
Treasurer's option	Australia	363,706	..	..	98,382	..	..	462,088
Half-yearly drawings	Australia	1,000	..	..	..	..	..	1,000
Indefinite	Australia	6,070,924	..	..	530,545	..	..	6,601,469
	London	..	..	..	2,397,149	..	..	2,397,149
	London	..	..	4,623,751	..	320,750	..	4,944,501
	London	..	..	..	..	170,521	..	170,521
	Australia	..	3,431,747	..	503,700	..	..	3,935,447
Total	Australia	197,961,784	114,255,455	60,512,186	65,196,451	51,886,521	14,581,075	504,494,372
	London	158,606,920	62,464,355	62,788,170	42,849,807	43,899,767	13,352,087	384,041,606
	New York	12,316,244	4,498,873	6,694,247	1,733,467	2,015,436	227,796	27,486,068
	Total ..	368,974,948	181,219,188	130,094,603	109,779,725	97,791,724	28,161,858	616,022,046

(a) Units of currency—Australia, £A; London, £ stg.; New York, £ stg. (dollars converted at the rate of \$4.8665 to £1).

Particulars of the State Public Debts according to the year of earliest maturity are shown hereunder :—

STATE PUBLIC DEBTS, 30th JUNE, 1941 : EARLIEST DATES OF MATURITY.

Year of Maturity.	Place of Maturity.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
		£ (n)	£ (a)	£ (a)	£ (a)	£ (a)	£ (a)	£ (n)
Before 1941-42	Australia	63,322	..	595,924	..	..	..	659,246
	London	35,081,991	5,913,200	30,272,313	4,935,370	8,728,773	2,798,000	87,729,647
	New York	3,892,934	..	1,025,106	..	..	..	4,917,740
1941-42	Australia	61,977,210	22,145,937	3,923,330	13,303,624	10,293,249	1,090,395	112,734,745
	London	9,965,276	6,934,693	..	3,815,726	7,864,597	5,087,400	33,667,692
	New York	3,423,610	..	1,423,302	..	..	..	9,846,912
1942-43	Australia	16,045,324	4,890,395	2,255,220	5,324,815	3,688,377	591,890	32,796,021
	London	10,283,396	..	..	..	..	..	10,283,396
	Australia	7,360,350	11,377,740	908,840	2,548,570	2,874,920	285,850	25,363,270
1943-44	London	9,527,090	..	2,000,000	2,977,800	2,716,302	..	17,221,192
	Australia	7,815,582	10,621,417	5,771,012	5,580,887	1,965,994	921,931	32,676,823
	London	..	..	3,958,800	..	..	..	3,958,800
1945-46	Australia	2,666,800	4,247,610	833,000	739,000	678,090	407,000	9,571,500
	London	19,754,216	21,285,280	19,697,888	19,302,087	12,976,463	2,304,987	95,320,921
	Australia	980,000	236,000	1,493,928	304,000	266,000	413,000	3,791,928
1946-47	New York	..	..	2,054,865	..	..	..	2,054,865
	Australia	4,766,147	4,167,995	1,904,985	2,920,283	1,838,409	665,634	16,563,453
	London	17,870,500	..	..	..	..	..	17,870,500
1947-48	New York	..	..	1,492,375	1,000,836	516,992	227,796	3,227,999
	Australia	13,586,070	4,673,790	2,813,281	919,470	4,052,375	839,390	26,884,376
	London	4,866,232	5,170,146	..	..	864,393	..	10,900,771
1949-50	Australia	11,112,660	3,414,772	4,967,537	1,476,080	3,015,530	484,150	24,500,729
	London	..	6,055,545	1,920,650	..	..	..	7,976,195
	Australia	32,787,939	26,939,643	9,940,284	18,507,695	9,425,335	3,988,888	101,589,784
1950-51	London	17,941,573	..	..	2,737,500	..	1,906,750	22,585,823
	Australia	9,925,500	3,795,980	4,483,046	2,533,950	3,952,210	1,041,320	25,732,906
	Australia	12,965,110	8,923,710	7,140,108	6,867,990	3,755,750	1,750,760	41,112,428
1952-53	New York	..	3,738,042	693,599	732,631	1,468,444	..	6,667,716
	Australia	9,455,920	5,079,735	1,848,908	2,947,460	2,167,805	926,873	22,726,701
	London	3,829,050	13,553,800	3,700,750	..	..	..	21,083,600
1954-55	Australia	..	..	799,378	..	..	..	799,378
	London	20,300,900	..	..	..	..	..	20,300,900
	Australia	..	..	317,869	..	..	..	317,869
1955-56	London	9,273,446	650,075	1,237,769	2,990,588	1,739,527	174,200	16,065,605
	New York	..	760,836	..	..	..	..	760,836
	Australia	..	..	367,685	..	..	218,638	586,323
1956-57	Australia	..	..	284,070	..	142,896	548,256	975,222
	..	..	..	384,082	..	164,144	..	548,226
	Australia	..	7,984	886,857	..	311,563	165,000	1,371,404
1959-60	London	..	2,902,116	..	..	..	..	2,902,116
	Australia	..	..	2,378,404	..	424,446	..	2,802,850
	..	..	..	165,837	..	182,257	138,000	486,094
1962-63	Australia	..	..	458,106	..	153,523	..	611,629
	..	..	..	619,017	..	1,753,183	96,000	2,468,200
	Australia	..	..	399,533	..	129,715	..	526,248
1964-65	London	..	..	..	3,693,587	8,829,191	1,080,750	13,603,528
	Australia	..	..	50,064	..	..	..	50,064
	..	..	..	230	..	..	..	1,450
Overdue and unconverted	London	1,220	..	..	..	..	..	2,250
	Australia	363,706	..	..	98,382	..	..	462,088
	Interminable	1,000	..	..	..	..	..	1,000
Treasurer's option	Australia	6,070,924	..	..	530,545	..	..	6,601,469
	London	..	..	..	2,397,149	..	..	2,397,149
	Half-yearly drawings	..	..	4,623,751	..	320,750	..	4,944,501
	London	..	..	..	..	170,521	..	170,521
Indefinite	Australia	..	3,431,747	..	503,700	..	..	3,935,447

Total	Australia	197,961,784	114,255,455	60,612,186	65,106,451	51,886,521	14,581,975	504,194,372
	London	158,696,920	62,164,855	62,788,170	42,849,807	43,889,767	13,352,087	384,041,606
	New York	12,310,244	4,498,878	6,694,247	1,733,467	2,015,436	227,796	27,486,068
Total ..		368,974,948	181,219,188	130,094,603	109,779,725	97,791,724	28,161,858	916,022,046

(a) Units of currency.—Australia, £A ; London, £ stg. ; New York, £ stg. (dollars converted at the rate of \$4.8665 to £1.)

6. **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 Act contains provisions for the establishment of a sinking fund on States' debts (see p. 874). Some particulars of the transactions of the National Debt Sinking Fund (States' Account) for 1940-41 are shown below, and further details are given in *Finance Bulletin* No. 32 issued by this Bureau.

STATE PUBLIC DEBTS, 30th JUNE, 1941 : SINKING FUNDS.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Total Receipts, 1940-41 ..	2,781,941	1,328,382	970,507	797,707	724,970	198,140	6,801,647
Total Receipts, to 30th June, 1941..	24,659,452	12,949,265	9,455,910	7,816,456	6,977,118	1,891,691	63,749,892
Total Funds applied to Redemptions, 1940-41 ..	715,889	892,846	466,429	501,639	455,371	110,711	3,142,885
Total Funds applied to Redemptions, to 30th June, 1941	22,137,107	12,012,396	8,810,326	7,399,815	357,937	1,778,457	59,496,038
Total Funds applied to investments to 30th June, 1941(a)	..	..	(b) 21,852	..	Cr. 954,395c	..	Cr. 932,543
Total Expenditure to 30th June, 1941..	22,137,107	12,012,396	8,832,178	7,399,815	6,403,542	1,778,457	58,563,495
Balance at 30th June, 1941, not permanently invested ..	2,522,345	936,869	623,732	416,641	573,576	113,234	5,186,397
Investments at 30th June, 1941 ..	..	..	673,154	..	..	..	673,154
Total Balance at 30th June, 1941 ..	2,522,345	936,869	1,296,886	416,641	573,576	113,234	5,859,551

(a) Less amounts received on investments realized to 30th June, 1941. (b) Excess of purchases over sales of investments. (c) Excess of sales over purchases of investments.

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 1940-41, 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)	Total.
				£	£	£
1937	..	..	..	82,775,120	108,275,484	191,050,604
1938	..	..	..	89,416,077	115,393,359	204,809,436
1939	..	..	..	95,001,628	115,193,501	210,195,129
1940	..	..	..	111,850,039	120,883,672	232,733,711
1941	..	..	..	150,434,523	128,261,369	278,695,892

(a) Excludes miscellaneous receipts from States.
Government to State Consolidated Revenue Funds.

(b) Excludes payments by Commonwealth

COMMONWEALTH AND STATES : EXPENDITURE.

Year ended 30th June—	Expenditure by Commonwealth Government. (a)	Expenditure by State Governments.	Total.
	£	£	£
1937	71,445,401	118,689,919	190,135,320
1938	75,894,537	125,445,170	201,339,707
1939	84,674,147	128,763,948	213,438,095
1940	99,266,570	133,123,853	232,390,423
1941	140,799,611	138,402,465	279,202,076

(a) Excludes payments by Commonwealth Government to State Consolidated Revenue Funds and miscellaneous receipts from States.

2. **Taxation.**—The following table shows the combined Commonwealth and State taxation for each of the years 1936–37 to 1940–41, 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.	1936–37.	1937–38.	1938–39.	1939–40.	1940–41.
	£	£	£	£	£
Commonwealth—					
Customs and Excise ..	42,993,032	48,383,005	47,632,365	53,824,906	53,779,783
Sales Tax	8,008,427	8,023,886	9,308,334	12,196,175	19,792,680
Flour Tax	Dr. 12,193	3,025	1,808,972	2,486,070	1,498,595
Other	11,784,186	12,638,569	15,287,228	21,503,512	50,312,464
Total	62,773,452	69,048,485	74,036,899	90,010,663	125,383,522
State	45,449,101	49,674,765	50,506,997	54,386,815	56,304,176
Grand Total ..	108,222,553	118,723,250	124,543,896	144,397,478	181,687,698
Taxation per head—					
Commonwealth (a)—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Customs and Excise ..	6 6 4	7 1 0	6 17 7	7 14 0	7 13 5
Sales Tax	1 3 6	1 3 4	1 6 10	1 14 11	2 16 5
Flour Tax .. .. .	..	..	0 5 3	0 7 1	0 4 3
Other	1 14 8	1 16 10	2 4 1	3 1 6	7 3 7
Total	9 4 6	10 1 2	10 13 9	12 17 6	17 17 8
State (b)	6 13 11	7 5 1	7 6 2	7 16 0	8 1 2
Grand Total ..	15 18 1	17 5 11	17 19 6	20 13 0	25 18 3

(a) Based on mean population for each financial year.

(b) Based on aggregate mean population of the six States for each financial year.

3. **Public Debt.**—(i) *General.* The following table shows the public debt of the Commonwealth and of the States at 30th June, in each of the years 1937 to 1941. 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—				
		1937.	1938.	1939.	1940.	1941.
Common- wealth	Aust. £ A. ..	214,818,637	216,400,462	218,496,483	257,116,685	320,348,199
	London £ Stg. ..	155,778,627	158,363,627	162,840,947	162,333,777	174,003,477
	New York £ Stg.	16,201,952	16,080,972	15,913,501	15,876,718	15,876,718
	Total £ (a) ..	386,799,216	390,845,061	397,250,931	435,327,180	510,228,394
States ..	Aust. £ A. ..	459,579,899	459,742,248	485,179,757	493,646,681	504,494,372
	London £ Stg. ..	387,633,735	385,888,993	384,327,833	384,162,382	384,041,606
	New York £ Stg.	28,747,909	28,549,461	28,264,451	27,918,001	27,486,068
	Total £ (a) ..	875,961,543	881,180,702	897,772,041	905,727,064	916,022,046
Total, Common- wealth and States	Aust. £ A. ..	674,398,536	686,142,710	703,676,240	750,763,366	824,842,571
	London £ Stg. ..	543,412,362	544,252,620	547,168,780	546,496,159	558,045,083
	New York £ Stg.	44,949,861	44,630,433	44,177,952	43,794,719	43,362,786
	Grand Total £(a)	1,262,760,759	1,275,025,763	1,295,022,972	1,341,054,244	1,426,250,440

(a) The "face" or "book" value of the debts without adjustment on account of currency changes since the loans were floated.

(ii) *Dates of Maturity.* The particulars given in the appended table show as at 30th June, 1941, 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, 1941 : LATEST DATES OF MATURITY.

Year of Maturity.	Commonwealth and State Debts.				Annual Interest Payable at 30th June, 1941, in respect of Commonwealth and State Debts maturing in the Years stated.			
	Maturing in—				Interest Payable in—			
	Australia.	London.	New York.	Total.	Australia.	London.	New York.	Total.
	£ (Aust.)	£ (Stg.)	£ (a)	£ (b)	£ (Aust.)	£ (Stg.)	£ (a)	£ (c)
1941-42	153,997,423	40,344,983	1,423,302	195,675,708	4,702,305	1,002,559	99,631	5,804,495
1942-43	37,648,087	16,451,402	..	54,099,489	1,425,390	452,414	..	1,877,804
1943-44	27,823,400	4,596,400	..	32,419,800	1,002,520	160,874	..	1,163,394
1944-45	57,380,145	3,958,800	..	61,338,945	2,198,556	138,558	..	2,337,114
1945-46	26,155,450	..	..	26,155,450	783,705	..	..	783,705
1946-47	15,130,618	5,673,713	2,054,865	22,859,196	307,859	177,300	123,292	608,451
1947-48	38,054,830	..	..	38,054,830	1,509,597	..	..	1,509,597
1948-49	31,254,806	38,474,187	..	69,729,083	1,033,542	1,447,059	..	2,480,601
1949-50	24,506,309	6,055,545	..	30,561,854	870,236	211,944	..	1,082,180
1950-51	29,239,148	20,454,078	..	49,693,226	1,162,304	759,627	..	1,921,931
1951-52	27,382,046	..	..	27,382,046	1,025,372	..	..	1,025,372
1952-53	491,718	11,739,758	..	12,281,476	17,149	412,642	..	429,791
1953-54	27,720,431	30,306,790	..	58,027,221	1,103,617	1,100,514	..	2,213,131
1954-55	82,308,088	3,204,904	..	85,512,992	3,173,873	112,172	..	3,286,045
1955-56	50,087,069	..	24,019,932	74,107,001	1,973,829	..	1,154,698	3,128,527
1956-57	70,753,543	6,950,700	4,183,191	81,892,434	2,337,202	260,651	209,159	2,807,012
1957-58	26,112,436	38,171,400	11,681,406	75,965,332	1,043,339	1,547,228	584,975	3,174,642
1958-59	548,226	21,083,600	..	21,631,826	19,188	737,926	..	757,114
1959-60	26,862,014	15,779,524	..	42,641,538	1,063,050	508,988	..	1,572,038
1960-61	2,802,850	55,662,935	..	58,465,785	84,086	2,336,324	..	2,420,410
1961-62	25,109,344	4,866,583	..	29,975,927	999,513	104,663	..	1,104,176
1962-63	718,433	10,283,396	..	11,001,829	21,659	411,336	..	432,995
1963-64	2,468,200	5,775,000	..	8,243,200	73,612	231,000	..	306,612
1964-65	526,248	..	..	526,248	15,787	..	..	15,787
1965-66 .. .. .	..	14,055,000	..	14,055,000	..	702,750	..	702,750
1966-67 .. .. .	..	..	..	..	..	..	..	..
1967-68 .. .. .	..	..	..	..	..	..	..	..
1968-69 .. .. .	..	..	..	..	..	..	..	..
1969-70 .. .. .	..	1,920,650	..	1,920,650	..	67,223	..	67,223
1970-71 .. .. .	..	11,545,722	..	11,545,722	..	461,829	..	461,829
1971-72 .. .. .	..	..	..	..	..	..	..	..
1972-73 .. .. .	..	..	..	..	..	..	..	..
1973-74 .. .. .	..	..	..	..	..	..	..	..
1974-75 .. .. .	..	13,933,306	..	13,933,306	..	452,833	..	452,833
1975-76	50,064	94,311,567	..	94,361,631	1,552	4,715,579	..	4,717,131
War (1939-41) Savings Certificates ..	17,380,098	..	..	17,380,098	543,128	..	..	543,128
War (1939-41) Savings Stamps ..	79,902	..	..	79,902	..	..	..	..
Citizens' National Emergency Loans ..	5,389,713	100,000	..	5,489,713	..	..	..	..
Advance Loan Subscriptions ..	871,750	..	..	871,750	27,501	..	..	27,501
War (1914-19) Savings Certificates ..	4,824	..	..	4,824	291	..	..	291
Peace Savings Certificates ..	135,196	..	..	135,196	5,239	..	..	5,239
War (1914-19) Savings Stamps ..	14,216	..	..	14,216	..	..	..	..
Overdue and unconverted ..	(d) 64,872	2,250	..	67,122	251	..	..	251
Interimable ..	462,088	1,000	..	463,088	15,216	50	..	15,266
Treasurers' Option ..	6,601,469	2,397,149	..	8,998,618	190,343	71,914	..	262,257
Half-yearly drawings ..	5,156,980	170,521	..	5,327,501	167,006	5,968	..	172,974
Annual repayments ..	..	279,724,220	..	79,724,220	..	..	..	..
Indefinite ..	3,935,447	..	..	3,935,447	125,890	..	..	125,890
Total	824,842,571	558,045,083	43,362,786	1,426,250,440	29,115,707	18,690,925	2,170,855	49,977,487

(a) Payable in terms of dollars. For the purposes of this table, dollars have been arbitrarily converted at the rate of 4.8665 to £1. (b) The total "face" or "book" value of the Public Debt, leaving out of account currency changes since the loans were floated. (c) Nominal amount of interest payable takes no account of exchange. (d) Includes £6,250 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 30th June, 1941, according to the earliest year of maturity, together with the amount of interest payable yearly:—

COMMONWEALTH AND STATE PUBLIC DEBTS, 30th JUNE, 1941 : EARLIEST DATES OF MATURITY.

Year of Maturity.	Commonwealth and State Debts.				Annual Interest Payable at 30th June, 1941, in respect of Commonwealth and State Debts maturing in the Years stated.			
	Maturing in—				Interest Payable in—			
	Australia.	London.	New York.	Total.	Australia.	London.	New York.	Total.
	£ (Aust.)	£ (Stg.)	£ (a)	£ (b)	£ (Aust.)	£ (Stg.)	£ (a)	£ (c)
Before 1941-42 ..	659,246	93,990,853	4,917,740	99,567,839	22,336	3,568,848	221,298	3,812,482
1941-42 ..	153,902,523	37,387,853	9,846,912	201,137,288	4,702,115	985,493	520,811	6,208,419
1942-43 ..	37,736,141	10,283,396	..	48,019,537	1,428,007	411,336	..	1,839,343
1943-44 ..	27,520,100	17,221,192	..	44,741,292	1,002,405	688,848	..	1,691,253
1944-45 ..	57,377,245	3,958,800	..	61,336,045	2,198,455	138,558	..	2,337,013
1945-46 ..	26,155,150	124,449,416	..	150,604,566	783,694	6,021,436	..	6,805,130
1946-47 ..	15,130,618	..	2,054,865	17,185,483	397,859	..	123,202	521,151
1947-48 ..	38,046,730	17,970,500	5,566,518	61,483,748	1,509,314	938,201	278,326	2,725,841
1948-49 ..	31,251,596	24,680,871	..	55,932,467	1,033,426	886,736	..	1,920,162
1949-50 ..	24,503,609	7,976,195	..	32,479,804	870,142	270,167	..	1,149,309
1950-51 ..	167,186,695	22,585,823	..	189,772,518	6,193,211	790,504	..	6,983,715
1951-52 ..	27,382,046	..	..	27,382,046	1,025,372	..	..	1,025,372
1952-53 ..	81,990,728	6,930,700	16,634,859	105,576,287	3,159,738	260,651	831,743	4,252,132
1953-54 ..	37,100,311	21,083,600	..	58,183,911	1,449,572	737,927	..	2,187,498
1954-55 ..	799,378	20,300,900	..	21,100,278	30,946	609,027	..	639,973
1955-56 ..	12,766,337	44,299,422	4,341,892	61,407,651	510,256	1,496,324	195,385	2,201,965
1956-57 ..	586,323	..	..	586,323	21,109	..	..	21,109
1957-58 ..	12,908,808	..	..	12,908,808	515,194	..	..	515,194
1958-59 ..	348,226	..	..	348,226	19,188	..	..	19,188
1959-60 ..	13,214,786	2,902,116	..	16,116,902	517,161	116,085	..	633,246
1960-61 ..	2,802,850	5,775,000	..	8,577,850	81,086	231,000	..	315,086
1961-62 ..	11,520,429	..	..	11,520,429	455,956	..	..	455,956
1962-63 ..	611,622	..	..	611,622	18,349	..	..	18,349
1963-64 ..	2,468,200	..	..	2,468,200	75,612	..	..	75,612
1964-65 ..	526,248	13,933,306	..	14,459,554	15,787	452,833	..	468,620
1975-76 ..	50,064	..	..	50,064	1,552	..	..	1,552
War (1939-41) Savings Certificates ..	17,380,098	..	..	17,380,098	543,128	..	..	543,128
War (1939-41) Savings Stamps ..	79,902	..	..	79,902	..	..	..	..
Citizens' National Emergency Loans ..	5,389,713	100,000	..	5,489,713	..	..	..	..
Advance Loan Subscriptions ..	871,750	..	..	871,750	27,501	..	..	27,501
War (1914-19) Savings Certificates ..	4,824	..	..	4,824	291	..	..	291
Peace Savings Certificates ..	135,196	..	..	135,196	5,239	..	..	5,239
War (1914-19) Savings Stamps ..	14,216	..	..	14,216	..	..	..	..
Overdue and unconverted ..	(d) 64,872	2,250	..	67,122	251	..	..	251
Interminable ..	462,088	1,000	..	463,088	15,216	50	..	15,266
Treasurers' Option ..	6,601,469	2,397,149	..	8,998,618	190,343	74,914	..	265,257
Half-yearly drawings ..	5,156,080	170,521	..	5,327,501	167,006	5,968	..	172,974
Annual repayments ..	..	679,724,220	..	79,724,220	..	..	..	..
Indefinite ..	3,935,447	..	..	3,935,447	125,890	..	..	125,890
Total ..	824,842,571	558,045,083	43,362,786	1,426,250,440	20,115,707	18,690,925	2,170,855	40,977,487

(a) Payable in terms of dollars. For the purposes of this table, dollars have been arbitrarily converted at the rate of 4.8665 to £1. (b) The total "face" or "book" value of the Public Debt, leaving out of account currency changes since the loans were floated. (c) Nominal amount of interest payable takes no account of exchange. (d) Includes £5,280 unconverted. (e) Capital and interest payments suspended by arrangement with British Government.

(iii) *Rates of Interest, 30th June, 1941.* 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, 1941 : AMOUNTS AT EACH RATE OF INTEREST.

Rate of Interest.	Commonwealth and State Debt maturing—			
	In Australia. £ (Aust.)	In London. £ (Stg.)	In New York. £ (Stg.)	Total. £
7.0 .. ..	..	..	1,423,302	1,423,302
6.0 .. ..	..	..	2,054,865	2,054,865
5.25 .. ..	..	17,870,500	..	17,870,500
5.0375	511,240	..	..	511,240
5.0	(a)4,824	126,476,367	30,624,987	157,106,178
4.91667 .. ..	..	79,724,220	..	79,724,220
4.75 .. ..	..	11,902,600	..	11,902,600
4.65	755,000	..	..	755,000
4.5 .. ..	..	..	9,259,632	9,259,632
4.2625	3,296,809	..	..	3,296,809
4.25	82,757	..	..	82,757
4.06875	13,958,970	..	..	13,958,970
4.0	(b) 301,401,991	64,279,844	..	365,681,835
3.96667	5,685,910	..	..	5,685,910
3.95833	4,061,000	..	..	4,061,000
3.95417	1,875,750	..	..	1,875,750
3.89167	1,035,000	..	..	1,035,000
3.875	118,697,339	..	..	118,697,339
3.8125	200,000	..	..	200,000
3.79167	6,370,000	..	..	6,370,000
3.75	75,817,803	45,380,482	..	121,198,285
3.72917	350,000	..	..	350,000
3.675	66,510	..	..	66,510
3.625	9,711,360	..	..	9,711,360
3.5	27,129,871	76,701,321	..	103,831,192
3.4875	6,583,645	..	..	6,583,645
3.375	22,767,690	..	..	22,767,690
3.25	(c)83,416,670	34,687,006	..	118,103,676
3.125	173,230	..	..	173,230
3.1	9,075,997	..	..	9,075,997
3.0	36,016,526	57,594,089	..	93,610,615
2.90625	5,100	..	..	5,100
2.75	15,830,280	16,451,402	..	32,281,682
2.7125	948,181	..	..	948,181
2.5	13,753,510	..	..	13,753,510
2.325	1,851,937	..	..	1,851,937
2.25 .. ..	..	24,384,002	..	24,384,002
2.0 .. ..	..	2,491,000	..	2,491,000
1.5	57,865,248	..	..	57,865,248
Citizens' National Emergency Loans (Interest Free) ..	5,389,713	100,000	..	5,489,713
Overdue and uncon- verted	(d)58,592	2,250	..	60,842
War (1939-41) Sav- ings Stamps	79,902	..	..	79,902
War (1914-19) Sav- ings Stamps	14,216	..	..	14,216
Total	824,842,571	558,045,083	43,362,786	1,426,250,440
Average Rate of Interest Payable	£ s. d. 3 11 1	£ s. d. 3 18 2	£ s. d. 5 0 2	£ s. d. 3 14 6

(a) War (1914-19) Savings Certificates. (b) Includes unconverted securities, £6,280.
(c) Includes £17,380,098 War (1939-41) Savings Certificates. (d) Includes £12,732 War (1914-19) Gratuity Bonds.

(iv) *Interest Payable.* The following table shows the interest payable on the public debt of the Commonwealth and of the States at 30th June, in each of the years 1937 to 1941 :—

COMMONWEALTH AND STATE PUBLIC DEBTS : INTEREST PAYABLE.

Particulars.	Where Payable.	At 30th June—				
		1937.	1938.	1939.	1940.	1941.
Commonwealth ..	Australia £ A. . .	8,245,897	8,301,752	8,344,627	9,420,640	11,248,796
	London £ Stg. (a)	3,040,262	3,201,299	3,403,554	3,387,796	3,736,322
	New York £ Stg.	790,935	785,240	777,586	775,930	775,930
	Total £ (b) ..	12,077,094	12,288,291	12,525,767	13,584,366	15,761,048
States ..	Australia £ A. . .	16,333,969	16,715,028	17,240,238	17,593,171	17,866,911
	London £ Stg. (c)	15,070,888	15,010,049	14,962,882	14,958,802	14,954,603
	New York £ Stg.	1,466,264	1,456,415	1,441,476	1,420,694	1,394,925
	Total £ (b) ..	32,871,121	33,181,492	33,644,596	33,972,667	34,216,439
Total Commonwealth and States	Australia £ A. . .	24,579,866	25,016,780	25,584,865	27,013,811	29,115,707
	London £ Stg. (a)	18,111,150	18,211,348	18,366,436	18,346,598	18,600,925
	New York £ Stg.	2,257,199	2,241,655	2,219,062	2,196,624	2,170,855
	Total £ (b) ..	44,948,215	45,469,783	46,170,363	47,557,033	49,977,487
Average Rate per cent.	Australia £ A. . .	£ s. d. 3 12 11	£ s. d. 3 12 11	£ s. d. 3 12 9	£ s. d. 3 12 4	£ s. d. 3 11 1
	London £ Stg. . .	3 18 1	3 18 5	3 18 7	3 18 7	3 18 2
	New York £ Stg.	5 0 5	5 0 5	5 0 6	5 0 4	5 0 2
	Total £ (b) ..	3 16 0	3 16 1	3 16 0	3 15 8	3 14 6

(a) Excludes suspended interest on War Debt due to the British Government. (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.

(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, 1934, to 30th June, 1941, are given in the following table. These particulars are included in Public Debt tables on earlier pages.

COMMONWEALTH AND STATES : SHORT-TERM DEBT.(a)

Date.	Maturing in London.			Maturing in Australia.		
	Common-wealth.	States.	Total.	Common-wealth.	States.	Total.
	£'000 Stg.	£'000 Stg.	£'000 Stg.	£'000 Aust.	£'000 Aust.	£'000 Aust.
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 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 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
30th September, 1939	4,220	23,155	27,375	..	56,586	56,586
31st December, 1939..	3,970	23,155	27,125	..	64,368	64,368
31st March, 1940 ..	3,970	23,155	27,125	..	51,376	51,376
30th June, 1940 ..	3,970	23,155	27,125	..	45,463	45,463
30th September, 1940	3,970	23,155	27,125	..	51,701	51,701
31st December, 1940..	3,720	23,155	26,875	..	53,103	53,103
31st March, 1941 ..	3,720	23,155	26,875	5,000	51,801	56,801
30th June, 1941 ..	3,720	23,155	26,875	1,750	45,423	47,173

(a) Exclusive of overdrafts.

(b) *Interest Rates.* (i) *London.* The rates of interest payable on Treasury Bills and Debentures in London during the period 1933-34 to 1940-41 were as follows :—

Year.						Minimum Rate.	Maximum Rate.
						%	%
1933-34	..	..	..	..	..	2	3
1934-35	..	..	..	..	..	2	3
1935-36	..	..	..	..	..	2	2½
1936-37	..	..	..	..	..	2	2½
1937-38	..	..	..	..	..	2	2½
1938-39	..	..	..	..	..	2	2½
1939-40	..	..	..	..	..	2	2½
1940-41	..	..	..	..	..	2	2½

(ii) *Australia.* The Treasury Bill 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.
- 1½ per cent. from 1st January, 1935.
- 1½ per cent. from 1st May, 1940.

(vi) *Debts of States and Municipal and Semi-Governmental Bodies.* For the reasons indicated on p. 857 direct comparisons of the debts of the several States should be made with caution. The table following shows for 1939-40 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. 32 and Chapter XIV. "Local Government," § 3, p. 379 of this volume.

**PUBLIC DEBT : STATES, MUNICIPAL AND SEMI-GOVERNMENTAL BODIES,
1938-39 and 1939-40.**

State.	Debts of the States. (a)	Due to Public Creditor.(b)		Grand Total.
		Municipal.	Semi-Governmental Bodies.	
	£'000.	£'000.	£'000.	£'000.
New South Wales	363,326	38,046	57,324	458,696
Victoria	180,550	12,399	64,036	256,985
Queensland	129,033	21,222	3,611	153,866
South Australia	109,344	798	884	111,026
Western Australia	96,230	3,131	117	99,478
Tasmania	27,244	3,031	509	30,784
<hr/>				
Total. All States { 1939-40 ..	905,727	78,627	126,481	1,110,835
{ 1938-39 ..	897,772	76,582	118,506	1,092,860

DEBT PER HEAD OF POPULATION.(c)

	£	£	£	£
New South Wales	130.9	13.7	20.7	165.3
Victoria	94.9	6.5	33.6	135.0
Queensland	125.7	20.7	3.5	149.9
South Australia	182.8	1.3	1.5	185.6
Western Australia	205.7	6.7	0.3	212.7
Tasmania	113.8	12.7	2.1	128.6
<hr/>				
Total, All States { 1939-40 ..	129.2	11.2	18.1	158.5
{ 1938-39 ..	129.3	11.0	17.1	157.4

(a) Includes amounts due by Municipal and Semi-Governmental bodies, and debts due to Central Government.

(c) At 30th June, 1939 and 1940.

(b) Excluding overdrafts

4. The Financial Agreement between the Commonwealth and the States.—

The original Financial Agreement between the Commonwealth and the States was made on 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.

The Debt Conversion Agreements did not affect the wording of the main agreement, but contained provisions stating that where their provisions were not in accordance with any contained in the Financial Agreement the former should prevail. An Agreement was made between the Commonwealth and Tasmania only on 1st July, 1928. This was not an amendment, but was made under the authority of Part III, Clause 3 (l) of the original Agreement.

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 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. Loans for Defence purposes are not subject to the Agreement, and therefore the Commonwealth is not required to include borrowing for that purpose in its programme for submission to the Loan Council.

If the Loan Council decides that the total amount of the loan programmes for the year 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 State*. (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; and
- (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—

- (a) the balance then unpaid of the gross public debt of each State existing on 30th June, 1927; and
- (b) 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 bond-holders.

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 Soldiers 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	638,747,614

These amounts represent the gross debt less—

- (a) the values of properties transferred by the States to the Commonwealth as shown below.
- (b) 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 cent. 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	736,432
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 4½ 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.

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 contended that the Commonwealth could not simply by Commonwealth Act deprive a State of revenue without the interposition of some judicial tribunal. 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.

It was realized at the inception of the Loan Council that, in the interests of co-ordinated borrowing, the Council should be advised of borrowings of large amounts by semi-governmental bodies. In May, 1936, all resolutions passed by the Loan Council in connexion with semi-governmental borrowings were consolidated into one set of rules, which superseded all previous resolutions. This set of rules is regarded as the "Gentlemen's Agreement", and provides, *inter alia*, for the submission of annual loan programmes in respect of semi-governmental authorities proposing to raise £100,000 or more in a year, for the consideration of such programmes in conjunction with the loan programme of the Government concerned, and for the fixing of the terms of individual semi-governmental loans coming within the scope of the annual programme.

CHAPTER XXVII.

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. 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 1936 to 1940 is given in the following table, which also shows the number of letters patent sealed in each year:—

PATENTS : AUSTRALIA.

Particulars.	1936.	1937.	1938.	1939.	1940.
No. of applications	5,484	5,585	5,764	5,740	4,438
No. of applications accompanied by provisional specifications .. .	2,384	3,094	3,067	3,161	2,784
Letters patent sealed during each year	2,429	2,642	2,973	3,141	2,480

(iii) *Revenue.* The revenue of the Commonwealth Patent Office during the years 1936 to 1940 is shown hereunder:—

PATENTS : REVENUE, AUSTRALIA.

Particulars.	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
Fees collected under Patents Act	37,515	42,614	44,400	45,581	40,651
Receipts from publications	1,569	1,870	1,870	1,828	1,429
Total	39,084	44,484	46,270	47,409	42,080

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 1936 to 1940 :—

TRADE MARKS AND DESIGNS : AUSTRALIA.

Applications.			1936.	1937.	1938.	1939.	1940.
RECEIVED.							
Trade Marks	..	..	2,215	2,189	2,212	1,992	1,618
Designs	..	..	1,494	1,190	1,498	865	605
REGISTERED.							
Trade Marks	..	..	1,664	1,372	1,740	1,580	1,209
Designs	..	..	1,546	971	1,404	736	567

(iv) *Revenue.* The revenue of the Trade Marks and Designs Office during the years 1936 to 1940 is given hereunder :—

TRADE MARKS AND DESIGNS : REVENUE, AUSTRALIA.

Particulars.	1936.			1937.			1938.			1939.			1940.		
	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.
Fees collected under Commonwealth Acts ..	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
	16,434	1,110	19	16,580	1,006	18	17,194	1,295	21	15,951	1,082	19	13,660	885	10

No fees in respect of Trade Marks have been collected under State Acts since 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 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 revenue obtained for the years 1936 to 1940 :—

COPYRIGHT : AUSTRALIA.

Particulars.	1936.	1937.	1938.	1939.	1940.
Applications received—					
Literary	1,463	1,442	1,560	1,438	1,507
Artistic	86	92	53	53	45
International	3	2	3	3	1
Applications registered—					
Literary	1,389	1,367	1,422	1,359	1,371
Artistic	78	74	31	38	29
International	1	1	4	1	1
Revenue	£ 388	384	397	411	397

§ 3. Local Option and Reduction of Licences.

Local option concerning the sale of fermented and spirituous liquors is in force in 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 Official Year Book (see No. 22, pp. 1005–8), 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 Maōris 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. The population was 161 at the Census of 30th June, 1933, and 166 at 31st December, 1940.

§ 5. Commonwealth Council for Scientific and Industrial Research.

1. **General.**—By the Science and Industry Research Act 1920–1939, 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 1920–1939.**—This Act provides for a Council, consisting of—

- (a) Three members nominated by the Commonwealth Government ;
- (b) the Chairman and Vice-Chairman of each State Committee constituted under the Act ; and
- (c) such other members as the Council, with the consent of the Minister, co-opts 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 Australia ; (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 Australia 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 established a fund of £100,000, the income from which is 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 has since met 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 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) fisheries, (viii) physical standards, (ix) aeronautics, (x) industrial chemistry, (xi) radio research, (xii) mineragraphic investigations and ore-dressing (gold). Successful results have been obtained in many 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. During the early years of its existence, the work of the Council was directed almost exclusively to the solution of problems affecting primary industries. Recently, however, the Commonwealth Government provided funds to enable the Council to extend its activities to the field of secondary industrial research. For that purpose a National Standards Laboratory has been established in Sydney and an Aeronautical Research Laboratory in Melbourne. A Division of Industrial Chemistry has also been formed ; its central laboratory is being erected in Melbourne. An Information Section has been

established at the Council's Head Office, Melbourne; it specializes in bibliographical searches of literature and the provision of photostat copies of articles and translations. A very considerable part of the Council's activities is now directed to the solution of problems arising out of the war and to assistance and advice to various Government Departments and other institutions which are concerned with the war effort. More detailed information concerning the past work of the Council appeared in Official 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 Commonwealth Government under the Zoological Museum Agreement Act of 1924. Prior to the passing of this Act, the Commonwealth 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 Commonwealth Government his entire private collection, and this magnificent gift was acquired and provision was made for its proper housing under special legislation by the Commonwealth 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 of America, 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 the late Sir Hubert Murray, formerly 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 Professor 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.

The section devoted to the study of nutrition has been considerably enlarged and many important problems relating to nutrition of the Australian people have been studied.

§ 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 this country.

2. *History of Inauguration.*—A short account of the steps leading up to the establishment of the Observatory appears 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.

The Standards Association of Australia is the national standardizing organization of Australia and issues Australian standard specifications for materials and codes of practice.

The Association was established in July, 1929, by the amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice. It is an independent body in close touch with modern industrial requirements and has the full recognition and support of the Commonwealth and State Governments and industry.

The sole executive authority of the Association is vested in the Council on which industry is fully represented together with official representatives of the Commonwealth and State Governments and their Technical Departments, and of scientific, professional and commercial organizations. Voluntary assistance is rendered in the drafting of specifications and codes by more than 4,500 individuals who are experts in their particular fields and are organized into more than 500 committees. Among these are technical committees on: Agricultural Machinery; Aircraft Materials; Air Raid Precautions; Asbestos Cement Pressure Pipes; Bolts and Nuts; Bore Casing; Building Materials; Camouflage Paints; Cement; Coal and Coke; Colliery Equipment; Containers for the Carriage of Liquids; Creosote; Dairy Products; Electrical; Electrical Approvals; Fibrous Plaster Products; Galvanized Products; Heavy Textiles; Joiners' Glue; Locomotive and Railway Rolling Stock; Machine Belting; Machine Parts; Metal Window Frames; Non-Ferrous Metals; Paint and Varnish; Pipes and Plumbing; Producer Gas for Motor Vehicles; Railway Permanent Way Materials; Road Materials;

Road Making Machinery; Ropes and Cordage; Safety Glass; Structural Steel; Sugar Mill Machinery; Timber; Tool Steels; Tools and Gauges; Tramway Railways; and Wool Unshrinkability.

The Codes Group includes committees on: Boilers and Unfired Pressure Vessels; Concrete Structures; Cranes and Hoists; Electrical Service Rules; Electrical Wiring Rules; Explosives; Fire Protection; Interior Illumination of Buildings; Lift Installations; Pump Tests; Refrigeration; Road Signs and Traffic Signals; Steel Structures; Street Lighting; Welding; Work in Compressed Air; and X-ray Equipment. Many committees, such as the Conditions of Contract Committee and the Institutional Supplies Committee, come under the Commercial Standards Division.

The specifications of the Association provide a suitable standard of performance, quality and dimension and an equitable basis for tendering. They help to eliminate redundant qualities and sizes. They enable purchasers to obtain their requirements with greater assurance of satisfaction, with more rapid delivery and without the necessity of drafting individual specifications.

The underlying principles covering the preparation of the specifications and codes are that they shall be in accordance with the needs of industry; that the common interests of producer and consumer be maintained; that periodical revision should keep the work abreast with progress; and that standardization be arrived at by general consent without coercion.

Organizations, companies, firms and individuals interested in the work of the Association are eligible for subscription membership. Members are entitled to free copies of the publications of the Association and to the use of the library and its Special Information Service. Research is undertaken for committees, members of the Association, and industry in general. Many hundreds of inquiries were answered during the last year.

The Association has International affiliations and the standards of all British and foreign countries are filed in the library and are accessible to members. It also administers the Australian National Committees of the International Electrotechnical Commission, the World Power Conference and the International Commission on Large Dams.

The Association is also the representative of the British Standards Institution, and all British standards may be purchased from head-quarters and branch offices in the various States. British Air Ministry (D.T.D.) specifications are also on sale.

The head-quarters of the Association are at Science House, Gloucester-street, Sydney, and branches of the Association are situated at Temple Court, 422 Collins-street, Melbourne; Empire Chambers, cr. Queen and Wharf-streets, Brisbane; Alliance Building, Grenfell-street, Adelaide; Gledden Building, Hay-street, Perth; Premier's Department, Murray-street, Hobart; Department of the Interior, Canberra; and Howard Smith Chambers, Watt-street, Newcastle.

§ 9. Valuation of Australian Production.

1. *Net Value of Production.*—(i) *Australia.* The value of production for Australia is computed in accordance with the decisions reached by the Conference of Australian Statisticians and principally by the Conference held in 1935. The figures published below have been compiled by the State Statisticians. The adoption of substantially uniform methods of valuing production and of estimating elements of costs of production and marketing render the results comparable as between States.

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, power, power kerosene, petrol and other oils, 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. 34, 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. Since 1937-38, the costs for the pastoral industry in Queensland have been compiled from actual records; previously, the figures were mainly 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 (b) 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.

Tables showing the total and *per capita* value of production are published, by States, for each of the ten years ended 1939-40. The tables will be found in the chapter dealing with each industry with the exception of Trapping.

GROSS, LOCAL AND NET VALUE OF RECORDED PRODUCTION: AUSTRALIA, 1939-40.

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	..	..	94,822,240	78,688,834	60,064,131
Pastoral	..	..	94,152,439	85,257,457	81,388,004
Dairying	..	..	46,266,921	43,660,265	36,843,211
Poultry	..	..	11,163,371	10,125,009	6,978,834
Bee-farming	..	..	193,054	166,222	166,222
Total Rural (a)	..	..	246,598,025	217,897,787	185,440,402
Trapping	..	..	2,413,729	2,114,751	2,114,751
Forestry	..	..	9,262,112	8,305,620	8,132,537
Fisheries	..	..	1,881,166	1,557,388	(b) 1,557,388
Mines and Quarries	..	..	37,820,954	37,429,116	30,582,731
Total Non-rural	..	..	51,377,961	49,406,875	42,387,407
Total All Primary	..	..	297,975,986	267,304,662	227,827,809
Factories	..	..	(c) 221,127,708	(c) 221,127,708	221,127,708
Total All Industries	..	..	519,103,694	488,432,370	448,955,517

- (a) The term "Rural" is used to cover those industries ordinarily considered to be farm industries.
 (b) Local value. Production costs not available for all States. (c) Net value.

(ii) *States.* The net value of production in each State is shown hereunder :—**NET (a) VALUE OF RECORDED PRODUCTION IN STATES, 1939-40.**

Industry.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Agriculture ..	15,505	11,907	13,696	9,458	7,064	2,434	60,064
Pastoral ..	34,562	16,434	17,693	6,207	4,690	1,802	81,388
Dairying ..	10,887	12,333	9,799	2,194	905	725	36,843
Poultry ..	2,337	3,100	319	533	293	397	6,979
Bee-farming ..	42	63	14	31	12	4	166
Total Rural (net)	63,333	43,837	41,521	18,423	12,964	5,362	185,440
Trapping ..	855	871	62	158	53	116	2,115
Forestry ..	2,347	1,109	2,531	605	1,088	453	8,133
Fisheries (local) ..	508	199	285	202	253	110	1,557
Mines and Quarries	10,927	2,111	2,688	3,444	9,268	2,144	30,582
Total Non-rural (local and net)	14,637	4,290	5,566	4,409	10,662	2,823	42,387
Total All Primary ..	77,970	48,127	47,087	22,832	23,626	8,185	227,827
Factories ..	96,442	74,028	20,973	14,404	9,028	6,253	221,128
Total All Industries ..	174,412	122,155	68,060	37,236	32,654	14,438	448,955

(a) See letterpress at head of previous table.

NET (a) VALUE OF RECORDED PRODUCTION PER HEAD OF MEAN POPULATION, 1939-40.

Industry.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Agriculture ..	5 12 2	6 6 0	13 9 1	15 16 10	15 3 0	10 4 0	8 11 10
Pastoral ..	12 10 2	8 14 0	17 7 8	10 7 11	10 1 2	7 11 0	11 12 10
Dairying ..	3 18 10	6 10 6	9 12 6	3 13 6	1 18 10	3 0 9	5 5 4
Poultry ..	0 16 11	1 12 10	0 6 3	0 17 10	0 12 7	1 13 4	1 0 0
Bee-farming ..	0 0 4	0 0 8	0 0 3	0 1 1	0 0 6	0 0 4	0 0 5
Total Rural (net)	22 18 5	23 4 0	40 15 9	30 17 2	27 16 1	22 9 5	26 10 5
Trapping ..	0 6 2	0 9 3	0 1 3	0 5 4	0 2 4	0 9 8	0 6 1
Forestry ..	0 17 0	0 11 9	2 9 9	1 0 3	2 6 8	1 17 11	1 3 3
Fisheries (local) ..	0 3 8	0 2 1	0 5 7	0 6 9	0 10 10	0 9 3	0 4 5
Mining (net) ..	3 19 1	1 2 4	2 12 10	5 15 4	19 17 7	8 19 9	4 7 6
Total Non-rural (local and net)	5 5 11	2 5 5	5 9 5	7 7 8	22 17 5	11 16 7	6 1 3
Total All Primary .. (local and net) ..	28 4 4	25 9 5	46 5 2	38 4 10	50 13 6	34 6 0	32 11 8
Factories ..	34 18 1	39 3 7	20 12 0	24 2 6	19 7 3	26 4 1	31 12 6
Total All Industries ..	63 2 5	64 13 0	66 17 2	62 7 4	70 0 9	60 10 1	64 4 2

(a) See letterpress above.

2. **Productive Activity.**—In the absence of a satisfactory measure of the total *quantity* of recorded 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. On account of the discontinuance of the "A" series index-number, it is not possible to continue the measurement on the basis of this series.

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 column of the first table) had remained substantially steady with minor fluctuations since 1906. Whatever gain had been made in productive efficiency had been largely counterbalanced by the gradual change-over 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-number fell sharply from its normal level of about 100 to 78 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-number 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. This upward movement was interrupted in 1938–39 but recovered to a new high level in 1939–40. During the latter year, the rise in prices in all branches of primary production excepting agriculture coincided with a greater quantity output and increased activity in manufacturing whilst the retail price index rose but slightly. In consequence of these movements the *real* production per head of population rose by 9.93 per cent. to a peak higher than that previously attained.

The index-number of *real* production per person engaged as given in the last column of the second table shows, on the other hand, an appreciable upward tendency. It rose steeply during the War of 1914–19, as might have been expected, fell somewhat after the war and recovered again. In 1929–30, the fall was substantial, due partly to the lag in the fall of retail prices, but it rose during the next four years to 126 only to fall again in 1934–35 to 117 with the drop in wool prices during that year. Most of this loss was recovered in 1935–36 while in 1936–37 it advanced to a new level, at which it was maintained during the following year. For reasons already stated an increase of 8.96 per cent. was recorded for 1939–40, which continued the upward movement interrupted by the decline of the previous year. This 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 "number 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
1938-39 ..	464,993	67.1	163	(a)	1,512	(a)	108
1939-40 ..	527,085	75.4	183	(a)	1,547	(a)	118

(a) Not available.

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	959	223	87	96	..
1911	728	257	100	100	100
1913	756	200	113	102	..
1914	733	280	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	530	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
1938-39 ..	962	481	187	(b)	124
1939-40 ..	979	536	209	(b)	135

(a) See explanatory remarks above tables.

(b) Not available.

§ 10. Indexes of Production.

In the tables below, indexes of price and quantity production are given for the following industrial groups, namely :—Agriculture, Pastoral, Farmyard and Dairying, Gold and Other Minerals, and for all groups combined. The method used in calculating these indexes is the fixed base weighted aggregative method. Prices for any year are obtained by dividing value of production by quantity produced in that year, and the

price indexes are computed by using as fixed quantity-multipliers, for the commodities involved, the average quantities produced over the period 1923-24 to 1927-28. For the quantity indexes the multipliers are weighted average prices over the same period, which are obtained by dividing the total value of any commodity for the period by the total quantity produced. Exactly the same method is used for the combined group indexes (i.e., for All Farming and Total) as for the indexes for individual groups.

PRIMARY PRODUCTION : INDEX-NUMBERS OF PRICES, AVERAGE 1923-24 TO 1927-28 AS BASE (=1,000).

Year.	Agricultural.	Pastoral.	Farmyard and Dairying.	All Farming.	Minerals.		Total Primary.
					Gold.	Other, excluding Gold.	
1911 ..	695	455	597	560	973	482	558
1912 ..	652	537	664	597	973	525	595
1913 ..	641	524	633	581	973	523	580
1914 ..	1,083	591	680	774	973	514	754
1915 ..	753	784	836	782	973	578	767
1916 ..	728	879	881	827	973	674	816
1917 ..	848	960	860	906	973	846	901
1918 ..	1,008	963	950	976	973	832	964
1919-20 ..	1,489	1,010	1,144	1,196	1,170	861	1,167
1920-21 ..	1,285	949	1,452	1,145	1,289	919	1,127
1921-22 ..	981	666	1,008	829	1,215	912	840
1922-23 ..	1,025	880	1,070	960	1,075	905	957
1923-24 ..	902	1,117	1,023	1,028	1,014	931	1,020
1924-25 ..	1,050	1,101	901	1,052	1,066	1,020	1,049
1925-26 ..	1,095	902	1,026	988	973	1,041	992
1926-27 ..	976	866	1,024	929	973	1,044	939
1927-28 ..	977	1,015	1,025	1,004	973	964	1,000
1928-29 ..	884	893	1,043	914	973	933	916
1929-30 ..	829	724	990	803	973	902	813
1930-31 ..	574	571	792	608	973	852	632
1931-32 ..	634	491	712	575	1,372	692	593
1932-33 ..	600	480	636	546	1,672	640	566
1933-34 ..	597	715	625	660	1,768	638	670
1934-35 ..	662	532	674	599	1,948	643	617
1935-36 ..	710	685	742	702	2,006	686	715
1936-37 ..	840	765	794	795	1,984	742	803
1937-38 ..	751	705	865	747	1,990	820	766
1938-39 ..	677	608	905	680	2,019	705	696
1939-40 ..	672	707	911	728	2,228	736	744

**PRIMARY PRODUCTION : INDEX-NUMBERS OF QUANTITY PRODUCTION,
AVERAGE 1923-24 TO 1927-28 AS BASE (=1,000).**

Year.	Agricul- tural.	Pastoral.	Farmyard and Dairying.	All Farming.	Minerals.		Total Primary.
					Gold.	Other, excluding Gold.	
1911 ..	611	938	742	794	4,172	1,176	862
1912 ..	775	859	721	808	3,906	1,265	879
1913 ..	807	970	743	878	3,707	1,332	946
1914 ..	359	948	720	709	3,451	1,172	777
1915 ..	1,199	768	570	884	3,270	1,075	925
1916 ..	971	742	701	814	2,798	962	847
1917 ..	805	750	814	779	2,446	936	810
1918 ..	635	849	796	767	2,138	1,000	801
1919-20 ..	527	938	737	765	1,794	717	771
1920-21 ..	1,046	763	809	868	1,585	785	868
1921-22 ..	944	877	955	913	1,273	783	906
1922-23 ..	896	934	872	911	1,269	873	912
1923-24 ..	971	837	886	891	1,196	974	901
1924-25 ..	1,151	977	1,091	1,055	1,135	1,003	1,052
1925-26 ..	880	1,033	1,009	976	939	1,008	979
1926-27 ..	1,090	1,093	971	1,072	876	991	1,063
1927-28 ..	908	1,060	1,043	1,005	854	1,025	1,005
1928-29 ..	1,093	1,133	1,068	1,109	769	899	1,087
1929-30 ..	952	1,067	1,071	1,028	717	852	1,010
1930-31 ..	1,346	1,035	1,175	1,164	784	810	1,130
1931-32 ..	1,211	1,129	1,265	1,179	1,000	665	1,134
1932-33 ..	1,334	1,212	1,350	1,276	1,199	774	1,233
1933-34 ..	1,228	1,160	1,423	1,226	1,394	828	1,194
1934-35 ..	1,066	1,200	1,485	1,200	1,489	883	1,176
1935-36 ..	1,096	1,166	1,415	1,182	1,529	984	1,169
1936-37 ..	1,158	1,206	1,359	1,214	1,981	1,050	1,209
1937-38 ..	1,313	1,260	1,432	1,306	2,320	1,130	1,302
1938-39 ..	1,154	1,211	1,497	1,237	2,674	1,173	1,247
1939-40 ..	1,495	1,322	1,554	1,419	2,764	1,283	1,421

§ 11. 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 1914-19, 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.

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.

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	'ooo bush.	2,385	3,132	3,364	4,343	4,351
seed requirements	" "	170	336	410	499	644
Maize	" "	9,544	8,324	9,741	8,645	6,961
seed requirements	" "	84	89	90	89	86
Oats	" "	10,845	9,271	10,772	9,526	10,927
seed requirements	" "	2,472	3,311	4,217	4,471	5,536
Rice clean	'ooo cwt.	284	245	343	335	298
(paddy), seed requirements	" "				9	12
Wheat	'ooo bush.	22,883	31,903	34,258	39,767	37,222
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
seed requirements	" "	47,924	45,936	48,645	49,451	48,153
Other Crops—						
Dried grapes	" "					
Raisins	" "	9,587	{ 7,039	9,282	11,363	12,307
Currants	" "			4,195	4,308	4,137
Sugar, raw	" "	231,495	266,242	303,010	315,942	338,471
refined	" "	221,078	234,261	289,375	330,375	323,240
Dairy Produce—						
Butter	'ooo lb.	88,816	126,484	161,750	187,372	203,188
Cheese	" "	14,464	17,855	21,320	25,192	25,375
Milk	'ooo gal.	(a)	100,162	128,754	140,645	150,212
Meats—						
Beef	'ooo lb.	545,286	558,487	769,638	{ 742,577	746,162
Mutton	" "					
Lamb	" "	(a)	20,911	30,006	68,202	92,940
Pork	" "					
Bacon and ham	" "	40,161	52,483	64,652	75,149	69,885
Total Meats	" "	(a)	985,608	1,223,494	1,317,464	1,406,903
Drink and Tobacco—						
Beer	'ooo gal.	50,085	63,196	64,823	66,358	54,646
Spirits (potable)	" "	3,438	2,752	2,361	2,168	1,275
Tobacco	'ooo lb.	11,438	14,957	18,699	20,230	18,933
Other Foodstuffs—						
Biscuits	" "	(a)	87,311	76,291	60,951	53,882
Coffee	" "	2,201	2,671	3,197	3,301	3,834
Fish, fresh	" "	(a)	(a)	51,104	65,790	67,545
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	'ooo lb.	73,203	71,451	61,264	76,687	76,405
Margarine	" "	(a)	(a)	(a)	24,255	22,209
Oatmeal	'ooo cwt.	(a)	(a)	(b) 296	301	270
Sago and tapioca	'ooo lb.	(a)	9,047	9,961	8,070	8,347
Tea	" "	31,220	40,323	44,608	47,593	45,427
Other Commodities—						
Soap	'ooo cwt.	(a)	689	781	915	868
Kerosene	'ooo gal.	18,130	20,189	25,873	50,525	41,361
Motor spirit	" (c)	10,071	20,929	75,357	206,196	225,688
Cement—portland	Ton	(a)	(a)	(b) 520,622	651,618	437,300

(a) Not available, ended 1913.

(b) Average for four years ended 1925-26.

(c) Average for three years

CONSUMPTION OF COMMODITIES: ESTIMATE OF ANNUAL REQUIREMENTS
PER HEAD OF POPULATION, AUSTRALIA.

Commodity.	Ten years ended 1913.	Seven years ended 1925-21.	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
„ seed requirements	1.98	3.29	3.56	3.94	5.00
Maize	124.56	91.55	94.84	76.43	58.80
„ seed requirements ..	1.09	0.98	0.88	0.79	0.56
Oats	101.49	72.83	74.92	60.16	65.60
„ seed requirements ..	23.04	20.01	29.33	28.23	33.20
Rice (clean)	7.42	5.44	6.68	5.93	5.02
„ (paddy), seed require- ments .. ..	..	..	..	0.17	0.21
Wheat	319.99	375.93	357.00	376.80	335.40
„ 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
„ seed requirements	25.05	20.25	18.95	17.49	10.21
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
„ 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
<i>Total Meats</i>	(a)	193.57	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, fresh	(a)	(a)	8.88	10.39	10.15
„ 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
Margarine	(a)	(a)	(a)	3.83	3.34
Oatmeal	(a)	(a)	(h) 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)	(h) 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	(c) 2.13	4.11	13.10	32.55	33.92

(a) Not available.
ended 1913.

(b) Average for four years ended 1925-26.

(c) Average for three years

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.	U.S.A.
Wheat (excluding seed)	Bus.	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
<i>Total Meats</i>	"	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	2.2
Rice	"	5.0	5.3	7.3	5.2	(a)
Onions	"	13	12	(a)	(a)	(a)
Potatoes	"	98	108	(a)	241	(a)

(a) Not available.

§ 12. 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 1940 were as follows:—1,436 films of 3,530,386 feet passed without eliminations, 163 films of 612,298 feet passed after eliminations, and 31 films of 176,146 feet rejected in first instance, making a total of 1,630 films of 4,318,830 feet (one copy). The countries of origin were as follows:—United States of America, 1,121 films of 3,545,699 feet; United Kingdom, 314 films of 616,618 feet; and 195 films of 156,513 feet from other countries.

The foregoing figures relate to standard size films (35 millimetres). There were also imported during 1940, 949 miniature films (16, 9.5 and 8 millimetres) of 370,589 feet.

3. **Exports of Films.**—The number of films exported for the year 1940 was 1,013 of 1,189,883 feet, of which 876 films of 1,065,987 feet were sent to places in the British Empire including Mandated Territories.

§ 13. 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 since the outbreak of War. A brief summary of the war-time arrangements for the marketing and sale of Australian commodities is included in § 14.

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 overseas 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 overseas 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 overseas 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 Australia 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 XVIII. "Farmyard, Dairy and Bee Products" 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 appraisement 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 except 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 Australia 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 Official Year Book reference has been made to the Dried Fruits Act and its provisions outlined (see p. 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 overseas 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 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 Australia for the manufacture of wines 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 overseas 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 Australia, 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 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 Australia 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 an Australian 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.

With the acquisition of wheat by the Commonwealth Government after the outbreak of War and the payment direct to them by the Wheat Board, the provision for payment of flour tax to growers was varied by the Wheat Industry (War-time Control) Act, 1939. Flour tax proceeds under this Act are paid into the Commonwealth Bank for repayment of advances made and in this way are incorporated with the receipts of the wheat pools.

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 XVII., "Agricultural Production".

§ 14. War-time Marketing of Primary Products.

1. **General.**—Prior to the outbreak of the present War 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, the Shipping Control 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.

2. **Wool.**—The Government of the United Kingdom has arranged with the Commonwealth Government to acquire the Australian wool clip for the duration of the War and one full wool season after the cessation of hostilities.

The arrangement embraces all wool, wool tops, noils and waste, not required for use by Australian manufacturers.

The principal conditions of the arrangement are :—

- (i) The United Kingdom Government will pay 10½d. (Stg.) equivalent to 13.4375d. (Aust.) per lb. flat rate price for the wool in store at the oversea port of shipment.
- (ii) The United Kingdom Government will pay up to ¾d. (Stg.) equivalent to ¾d. (Aust.) per lb. to cover all costs from store at port of oversea shipment to ship.
- (iii) The United Kingdom Government will pay to the Commonwealth Government 50 per cent. of the profits derived from wool sold for use outside the United Kingdom, which sales shall be at the order and disposition of the United Kingdom Government.
- (iv) In May of each year the arrangement shall be subject to review at the instance of either Government.

In Australia the scheme is administered by the Central Wool Committee (with subordinate State Committees) which controls the receipt of the wool into store, its appraisalment and shipment overseas. The Central Wool Committee cables to the United Kingdom Government the appraised value of the wool comprised in each round of appraisements and the United Kingdom Government makes the necessary funds available to the Committee. These are paid to the respective growers within fourteen days of appraisalment, less a percentage retained by the Central Wool Committee to enable each grower's return to be adjusted in conformity with the flat rate price paid by the United Kingdom Government. During the first season (1939-40) of operation of the scheme the amount so retained was 10 per cent. but for the 1940-41 and 1941-42 clips only 5 per cent. will be retained.

During the 1939-40 season the issue price of wool for Australian manufacturers was the "appraised price". From 1st July, 1940 (1940-41 season) the issue price was fixed by the Central Wool Committee at the "appraised price", plus cost of delivery plus 7½ per cent., and for the 1941-42 season the surcharge of 7½ per cent. was increased to 15 per cent.

3. **Meat.**—From 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.

The contract was renewed for the year 1st October, 1940, to 30th September, 1941, and covered beef, veal, mutton, lamb, porker pork and offals and baconer pork. Under this contract certain classes of meat were not accepted and there were slight variations in some prices.

Arrangements have been made with the United Kingdom Government for the disposal of a larger proportion of Australia's meat surplus in the form of canned meats. Although this means that producers receive lower prices for their total marketed product, the scheme has made it possible for the stability of the industry to be maintained in the face of a drastic reduction in the amount of refrigerated shipping space available.

4. **Butter.**—The quantity of butter to be sold under this contract, between 13th November, 1939, and 30th June, 1940, was 75,500 tons. The contract prices per cwt. in Australian currency were: Choicest 137s. 2½d.; First Grade 135s. 7½d.; Second Grade 131s. 1¾d.; and Pastry 127s. 6d. On shipment, 90 per cent. is paid and the balance within 28 days after arrival.

In addition, the Commonwealth Ministry undertook, subject to freight being available to use its best endeavours to ship additional quantities available for export within the limit of its requirements.

Negotiations for the renewal of the contract for the year 1st July, 1940, to 30th June, 1941, were successfully concluded. The British Ministry of Food agreed to purchase at the same prices and on the same terms and conditions as those in the previous agreement.

For the year 1941-42 the quantity of butter which the United Kingdom Government undertook to accept was considerably reduced. Increased quantities of cheese were asked for, however, and efforts are being made in the industry to divert a greater proportion of milk production to the manufacture of cheese.

5. **Cheese.**—From the outbreak of war to 30th June, 1940, the United Kingdom Government contracted to take 13,000 tons of cheese. Prices per cwt. in Australian currency f.o.b. Australian port, were: Choicest and First Grade 76s. 6¾d.; Second Grade 74s. 0¾d.; and Third Grade 71. 6¾d. Payment was made on the same terms as for butter. The contract was renewed in its entirety as regards terms and conditions for a year as from 1st July, 1940.

The United Kingdom Government has accorded cheese the highest priority among foodstuffs requiring refrigerated shipping space, and is prepared to accept the maximum quantity that Australia can produce during the 1941-42 season.

6. **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.10.8¾d.; 15-lb. and 16-lb. packs 12s. 2.87d.; and 17-lb. and 18lb. packs 12.425d. On shipment, 85 per cent. was paid, and 15 per cent. within 28 days after arrival.

A further contract covering eggs shipped between 1st July, 1940, and 31st December, 1940, was made at prices which represented an increase of 1s. 3d. (Aust.) per long hundred for each pack over prices in the previous contract. In addition, the terms of payment were improved by 90 per cent. on shipment instead of the previous 85 per cent.

Negotiations for the extension of the contract to cover eggs available for shipment during the months of January and February, 1941, were successfully concluded.

Early in 1941, however, the United Kingdom Government advised that refrigerated shipping space would not be available for the export of eggs in shell, and the Commonwealth Government was asked that all eggs should be processed into dried egg powder. This process had not previously been carried out in Australia, but egg drying plants were obtained from abroad and are now in production. Consignments of the powder that have arrived in England have been very favourably received.

7. **Sugar.**—Arrangements were concluded by the Queensland Government for the sale to the British Ministry of Food of 100,000 tons of surplus production of raw sugar ex the 1941 crop at £12 12s. 6d., sterling per ton c.i.f. United Kingdom ports, basis 96 degrees polarization, which price includes the existing British tariff preference of £3 15s. on Dominion sugar. A contract for 100,000 tons of raw sugar for export to Canada

was also arranged, with a limit on the sea freight to be borne by the Government of Canada. The Government of New Zealand agreed to purchase approximately 85,000 tons at the New Zealand equivalent of the price under the United Kingdom contract. These sales contracts covered the whole of the 1941 season's surplus production.

8. **Lead.**—A contract was arranged between the British Ministry of Supply and the Broken Hill Associated Smelters Pty. Ltd. for a period of twelve months. The contract price was £15 1s. 3d. sterling or £18 16s. 7d. Australian currency per ton.

This contract has been renewed for a further period of twelve months from 1st September, 1940, on the same terms as the original contract.

9. **Zinc.**—A contract was also entered into by the British 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 contract price was £18 sterling per ton or £22 10s. Australian currency, on a basis of f.o.b. Risdon.

This contract has been renewed for a further period of twelve months from 1st September, 1940, on the same terms as the original contract.

10. **Canned Fruits.**—The United Kingdom Government agreed to take a quantity of canned apricots, peaches and pears from the 1940 season's pack. The prices payable under the purchase were fixed on f.o.b. basis Australian ports.

The terms of the contract provided that, in respect of quantities shipped prior to the conclusion of the negotiations, 90 per cent. of the value of the fruit, together with freight and other charges paid in Australia, became payable upon arrival in the United Kingdom and the balance of 10 per cent. within 28 days. For subsequent shipments, 90 per cent. of the purchase value was payable at the time of export and the remainder within 28 days after arrival at the port of destination.

A further arrangement was concluded with the United Kingdom Government under which the British Ministry of Food agreed to take over the exportable surplus of the 1941 season's pack. Under the contract for 1941, canners received payment of 100 per cent. of the agreed prices on shipment of the fruit from Australia.

11. **Apples and Pears.**—To meet the emergency conditions which confronted the apple and pear industry following the outbreak of War, the Commonwealth Government promulgated the National Security (Apple and Pear Acquisition) Regulations on 14th November, 1939, to provide for the acquisition and orderly marketing of the 1940 crop. A Marketing Committee of the Australian Apple and Pear Board was appointed to supervise the whole of the marketing arrangements and State Committees were set up to assist in the administration of the Scheme.

All growers occupying orchards of which not less than one acre was wholly or principally used for the growing of apples and/or pears were required to register under the regulations and to furnish particulars of their plantings and production. The registration of other persons growing apples or pears was not compulsory.

Until 1st March, 1940, the marketing of the crop proceeded in the usual manner but from that date the Commonwealth acquired all apples and pears in Australia, subject to minor exemptions, and the sale of any apples or pears not grown by a registered grower was prohibited.

Advances were made to the growers in respect of compensation payments at the rates of 2s. a bushel on apples and 3s. a bushel on pears on the basis of 75 per cent. of their estimated production which was determined by an official assessment of the individual crops. In addition growers received a further advance of 1s. a bushel on apples and pears of prescribed quality delivered to places or to agents of the Board. All advances in respect of compensation were on the basis of bare fruit, the costs of cases and packing, freight, storage and all marketing expenses being met by the marketing authority.

Agents have been appointed throughout Australia to receive and deal with apples and pears as directed, and a system of distribution devised to meet the particular needs of the domestic market in each State. Insofar as freight has been available, overseas shipments have been directed from those States having the largest quantities available for export.

The Acquisition Scheme was continued for the 1941 season, but an Australian Apple and Pear Marketing Board was constituted under the Regulations to administer the Scheme. The Board consisted of a Chairman, a Deputy Chairman, and six other members respectively representing each of the six States. The Chairman and Deputy Chairman constituted a full time Executive of the Board. State Committees, on lines similar to those of the previous year, were also set up to assist in the administration of the Scheme.

The acquisition arrangements for 1941 differed in several important respects from those of 1940 :—(i) Acquisition was effected on 1st January, instead of 3rd March ; (ii) Instead of making advances to growers at flat rates, a unit system was adopted which provided for differential rates as between States, and as between varieties of apples and pears produced in each State ; and (iii) Fruit had to be actually delivered to the Board before qualifying for advances, except where delivery was not required for marketing. In these cases qualifications for advances were established on the basis of an official tree measurement at the time of maturity.

The administration and marketing arrangements were, in general, along lines similar to those of 1940.

12. 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 has been established to receive, care for and market wheat acquired 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 Australia 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.

Wheat of the 1940-41 harvest was pooled in No. 4 Pool. Advances at the end of November, 1941, totalled 3s. 7d. for bagged, 3s. 5½d. for bulk wheat, less freight. The total advances paid on wheat of No. 2 pool were 3s. 6½d. bagged and 3s. 4½d. bulk. Finance for these advances was guaranteed by the Commonwealth.

The Commonwealth Government in accordance with the Wheat Industry Stabilization Plan has guaranteed payment to growers at the rate of 3s. 10d. per bushel f.o.b. basis for bagged wheat, for a marketed crop of 140 million bushels, i.e., a normal crop. The 1941-42 crop is the first crop to which this guaranteed price applies.

13. 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 was placed under the control of the Board. A pool was established from which proceeds were distributed with appropriate margins for different grades of barley.

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.

The 1939-40 crop was a record one of 15,600,000 bushels, but the 1940-41 crop because of drought was below normal. Barley of the first two pools has all been sold, and satisfactory payments have been made to growers.

14. Dried Fruits.—Contracts have been entered into with the United Kingdom Government which provide for the disposal of portion of the exportable surplus of the 1940 pack of dried vine fruits. Advances of 80 per cent. are payable to exporters on shipment and the final payment of 20 per cent. on landing weights after inspection and approval.

15. Hides and Leather.—Late in 1939 it became necessary to introduce a scheme for the control of the marketing of hides and leather and suitable action was taken by Regulations under the National Security Act. The Australian Hide and Leather Industries Board was appointed to administer the scheme.

All cattle hides and yearling and calf skins were to be submitted for appraisalment in accordance with a Table of Limits prepared by the Board. On appraisalment they were acquired by the Board acting on behalf of the Commonwealth and thereupon became the property of the Commonwealth. The owners of the hides and skins immediately prior to acquisition, received compensation at varying rates determined by the Minister from time to time. Hides and skins acquired by the Board are sold on behalf of the Commonwealth. Tanners' purchases of hides are regulated and exports of hides, skins and leather are controlled.

When the scheme commenced, hide export prices were much higher than the domestic appraised prices. About the middle of 1940, however, the oversea market for hides and skins collapsed. The scheme stood the strain of the reversed position. Appraisalment continued as before, the rates of compensation to hide owners were reduced by 25 per cent. for a time and the fund already built up by the Board acted as a cushion for the change-over period.

The export price position later improved and continued to improve to such an extent that, towards the end of 1941, the good position of the Board's funds enabled compensation to the original owners of hides to be paid at the rate of 110 per cent. of the appraised prices. The exceptionally heavy demand for hides for the production of leather necessary to produce large quantities of military boots has resulted in a demand by Australian tanners for hides which exceeds Australian hide production. A special arrangement was entered into with the New Zealand Government for the purchase of New Zealand hides, and additional quantities are being sought from other sources of supply. The exportation from Australia of leather suitable for the production of military boots is prohibited.

16. Rabbit Skins and Hats.—A marketing control scheme for rabbit skins was introduced under the National Security (Rabbit Skins) Regulations on 10th June, 1940. After the outbreak of War, rabbit skin prices rose sharply owing to the keen demand from overseas. In order that the prices of military and civilian hats in Australia might be kept at reasonable levels and that sufficient skins should be available to Australian hat manufacturers at prices which would enable them to produce hats at those price levels, a scheme of marketing control became necessary.

The Australian Rabbit Skins Board was appointed to administer the control. The basis of the scheme is the payment to hat manufacturers of compensation equivalent to the difference between appraised prices in a Table of Limits prepared by the Board, which are based on a Commonwealth Prices Commission determination, and ruling open market prices.

Funds for the payment of such compensation are provided by collections from a levy imposed on the export of rabbit skins under the Rabbit Skins Export Charges Act 1940. Skin prices rose to such extraordinary heights during 1941 that it was found necessary during the year to impose the maximum export levy of 9d. per lb. provided under the Act. In order that compensation payments should be kept as low as possible the quantities of rabbit skins, which hat manufacturers may buy at appraised prices, are closely regulated. Investigations into the operations of all Australian hat manufacturing establishments have enabled the Board to do this, although the position has been complicated by the heavy demand for military fur felt hats.

17. Sheepskins.—Negotiations for the purchase by the United Kingdom Government of Australian sheepskins, were concluded in April, 1940.

It was arranged that the British Ministry of Supply would purchase the exportable surplus of Australian sheepskins and that the period of arrangement should extend to and terminate with that of the wool arrangement.

The purchase is on the basis of skins packed and graded Australian ports and the price is based on :—

- (a) the value of the wool product of the skin in accordance with the scoured wool limits in the Central Wool Committee's Table, plus
- (b) the pelt values in accordance with an agreed table, less
- (c) the cost of fellmongering.

Charges from store to f.o.b. port of shipment, a periodical review of pelt values and adjustment of appraisement values from time to time, were provided for.

Alterations in world pelt prices have necessitated reviews of pelt values from time to time and consequent adjustments of appraisement values.

§ 15. 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 60,000 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 and has a plan for emergency night landings for aircraft in difficulties.

The Council is supported by a Government Grant, public subscription and sales of service, and is a non-profit organization. Its work is carried on by a small paid staff controlled by committees and governed by an executive. The following committees, whose work is of an entirely honorary nature, are in operation, namely, Traffic, Industrial Safety, Home, Air Safety and Propaganda.

§ 16. League of Nations.

Australia was one of the original signatories on 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 22nd 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.

The last elections to the Council were held in December, 1939. At that date only two permanent members of the Council remained, namely Great Britain and France.

In addition, eleven non-permanent members were elected for a term of three years, namely, Belgium, Bolivia, China, the Dominican Republic, Egypt, Finland, Greece, Iran, Peru, Union of South Africa and Yugoslavia.

The course of the war, especially the events of May and June, 1940, brought the political activities of the League practically to a standstill and made the maintenance of the technical sections increasingly difficult. After a period of negotiation, in the course of which the Secretary-General, M. Avenol, resigned, it was decided to transfer some of the technical branches of the League to the Western Hemisphere. Thus, while the Head-quarters of the League nominally remained at Geneva, the International Labour Organization accepted the offer of the Canadian Government to provide accommodation at the McGill University, Montreal, the Economic, Financial and Transit Department of the League moved the greater part of its staff to Princeton, United States of America, and the Permanent Central Opium Board and the Drug Control Service established branches at Washington. The Health and Social Sections of the League, however, have carried on their work from Geneva.

No meetings of the Council and Assembly of the League or the International Labour Organization were held during 1940, but in October and November, 1941, the International Labour Organization was able to hold its Twenty-sixth Conference, at which Australia was represented by a Government Delegate, an Employers' Delegate and an Employees' Delegate.

The Commonwealth Government has continued to support the League financially.

§ 17. War Service Homes.

The operations of the War Service Homes Commission at 30th June, 1941, may be briefly set out as follows :—Applications approved, 44,520; expenditure on provision of homes, purchase of land for future use, etc., £29,840,064; 21,358 houses had been completed; and 34 homes had been enlarged.

In addition, the Commission had purchased on behalf of eligible applicants, 12,995 already existing properties, and had taken over mortgages existing on 2,984 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, 37,409. Homes are insured under a comprehensive policy, the total insurances in force, including cover notes, amounting to £19,464,997. The total receipts of the Commission to 30th June, 1941, were £29,022,434, of which £11,206,001 was paid to the National Debt Sinking Fund. Arrears of instalments outstanding at the close of the year were £608,881, or 2.43 per cent. of the total instalments due.

In April, 1941, the War Service Homes Act was amended to provide for the granting of assistance to certain classes of eligible persons, and their dependants, in respect of service during the war which commenced in 1939.

§ 18. Daylight Saving.

Daylight saving during summer time was introduced throughout Australia by the Commonwealth Government under the National Security Regulations. Clocks were advanced by one hour on standard time at 2 a.m. on 1st January, 1942, and reverted to standard time at 2 a.m. on 29th March, 1942. Clocks were again advanced by one hour at 2 a.m. on 27th September, 1942.

CHAPTER XXVIII.

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 is published in Official 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 Commonwealth Statistical Bureaux, and State and Commonwealth Government Departments, is 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, press notices, 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, namely :—(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 January, 1942 :—

Australian Life Tables, 1901-1910.—*Australian Joint Life Tables, 1901-1910.*
Australian Life Tables, 1920-1922.

Australian Life Tables, 1932-1934. *Australian Joint Life Tables, 1932-1934.*

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. forming with Statistician's Report, and Australian Life Tables 1932-34, Vol. III.

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 1940–41 annually.

Labour and Industrial Statistics.—Memoranda and Reports, various, to 1913.

Labour Report, annually, 1913 to 1940.

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 (1941).

Oversea Trade, annually, 1906 to 1938–39.

Pocket Compendium of Australian Statistics (formerly Statistical Digest), 1913, 1914, 1916, and 1918 to 1941 annually.

Population and Vital Statistics.—Bulletins and Reports, various, 1906–1910. Commonwealth Demography, 1911 to 1940 annually.

Production.—Bulletin, annually, 1906 to 1939–40. From 1936–37 issued in two parts: Part I. Secondary Industries; Part II. Primary Industries and Total Recorded Production.

Professional Papers.—Various. A full list appears 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 Nos. 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 1940 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 appear 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); Stateman'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; Stateman'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, 1940, to 31st December, 1941. 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.

Where known the retail price in the country of publication is given, but this is subject to fluctuation owing to war conditions.

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 person.

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.
 ELDERSHAW, M. Barnard (*i.e.*, M. F. Barnard and F. S. P. Eldershaw). *My Australia*. (Jarrolds, 8s. 6d.) London, 1939.
 HASKELL, A. L. *Walzing Matilda: a background to Australia*. (Black, 12s. 6d.) London, 1940.
 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.
 WALKABOUT: *Australia and the South Seas*. (Australian National Publicity 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, 3s. 6d.) London, 1934.

RECENT PUBLICATIONS.

- AUSTRALIAN NATIONAL PUBLICITY ASSOCIATION. *Australia: official handbook*. (The Association, 2s. 6d.) Melbourne, 1941.
 BANK OF NEW SOUTH WALES. *Australia for the tourist*. (Bank of New South Wales, 5s.) Sydney, 1940.
 BARRETT, C. L. *Coast of adventure*. (Robertson & Mullens, 9s.) Melbourne, 1941.
 HASKELL, A. L. *Australia*. (Collins, 3s. 6d.) London, 1941.
 IDRIESS, I. L. *The great boomerang*. (Angus & Robertson, 8s. 6d.) Sydney, 1941.
 TAYLOR, T. G. *Australia: a study of warm environments and their effect on British settlement*. (Methuen, 21s.) London, 1940.

Territories Outside Australia.

- AUSTRALIA: Committee . . . [on] the possibility of establishing a combined administration of the territories of Papua and New Guinea, etc. Report. (Government Printer, 3s.) Canberra, 1939.
 AUSTRALIA:—*External Affairs, Department of*. Handbook and index to accompany a map of Antarctica produced by the Department of the Interior, 1939: by E. P. Bayliss and J. S. Cumpston. (Government Printer, 5s.) Canberra, 1940.
 EGGELESTON, F. W., *editor*. *The Australian Mandate for New Guinea*. (Melbourne University Press, 5s.) Melbourne, 1928.
 OFFICIAL HANDBOOK OF NEW GUINEA. (Government Printer, 2s.) Canberra, 1937.
 OFFICIAL HANDBOOK OF PAPUA: 5th ed. (Government Printer, 2s.) Port Moresby, 1938.
 See also the annual reports of the Administrators of the various Territories.

RECENT PUBLICATIONS.

- ARCHBOLD, R. and RAND, A. L. *New Guinea expedition: Fly River area, 1936-1937*. (McBride, \$3.50.) New York, 1940.
 CLUNE, F. P. *D'air devil: the story of "Pard" Mustar, Australian air ace*. (Angus & Robertson, 6s.) Sydney, 1941.

History.

- CAMBRIDGE HISTORY OF THE BRITISH EMPIRE, vol. 7, pt. 1: Australia. (Cambridge University Press, 31s. 6d.) Cambridge, 1933.
- FITZPATRICK, B. C. British imperialism and Australia, 1783-1833: an economic history of Australasia. (Allen & Unwin, 18s.) London, 1939.
- HARRIS, H. L. Australia in the making. (Angus & Robertson, 4s.) 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.)
- HISTORICAL STUDIES: Australia and New Zealand. (Melbourne University Press, 10s. *per annum.*) Melbourne, 1940 to date.
- 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, 15s.) London, 1937.
- SHANN, E. O. G. An economic history of Australia. (Cambridge University Press, 18s.) Cambridge, 1930. 2nd impression, 1938.
- WOOD, G. A. The Discovery of Australia. (Macmillan, 25s.) London, 1922.

RECENT PUBLICATIONS.

- FERGUSON, J. A. Bibliography of Australia: vol. 1, 1784-1830. (Angus & Robertson, 63s.) Sydney, 1941.
- FITZPATRICK, B. C. The British Empire in Australia: an economic history, 1834-1939. (Melbourne University Press, 21s.) Melbourne, 1941.
- MAXWELL, Mrs. C. B. Wooden hookers. (Angus & Robertson, 7s. 6d.) Sydney, 1940.
- UREN, M. J. L. Sailormen's ghosts: the Abrolhos Islands in three hundred years of romance, history and adventure. (Robertson & Mullens, 9s.) Melbourne, 1940.

Military and Naval History.

- 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.)
- OFFICIAL HISTORY OF THE AUSTRALIAN ARMY MEDICAL SERVICES IN THE WAR OF 1914-18: *editor* Col. A. G. Butler (in progress). (Australian War Memorial, 21s. *per vol.*) Canberra, 1930 to date.
(Vols. 1 and 2 have so far appeared.)

RECENT PUBLICATIONS.

- BELFORD, W. C. "Legs-eleven": being the story of the 11th battalion (A.I.F.). (Imperial Printing Co., 10s.) Perth, 1940.
- HARVEY, N. K. From Anzac to the Hindenburg line: the history of the 9th battalion, A.I.F. (9th Battalion A.I.F. Association, 10s.) Brisbane, 1941.
- JOHNSTON, G. H. Grey gladiator: H.M.A.S. *Sydney* with the British Mediterranean fleet. (Angus & Robertson, 8s. 6d.) Sydney, 1941.

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: 11th edition: *edited by* J. A. Alexander. (Herald Press, 21s.) Melbourne, 1941.

RECENT PUBLICATIONS.

- BASSETT, M. The Governor's Lady: [Mrs. P. G. King]. (Oxford University Press, 13s. 6d.) London, 1940.
- BAVIN, Sir T. R. Sir Henry Parkes: his life and work. (Angus & Robertson, 3s. 6d.) Sydney, 1940.
- CLUNE, F. P. Chinese Morrison. (Bread & Cheese Club, 10s. 6d.) Melbourne, 1941.
- FAIRFAX, J. F. The story of John Fairfax. (John Fairfax & Sons, 10s. 6d.) Sydney, 1941.
- PALMER, V. National portraits. (Angus & Robertson, 8s. 6d.) Sydney, 1940.
- ULLATHORNE, W. B. *archbishop of Cabasa*. From cabin boy to archbishop: the autobiography of Archbishop Ullathorne: *ed. by* Shane Leslie. (Burns Oates, 15s.) London, 1941.

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 AND SUPPLEMENT 1934-39: being a digest of the reported decisions of the Australian courts and of Australian appeals to the Privy Council; with table of cases: *editors*, B. Sugerman and others: 25 vols. (Law Book Co., 60s. *per vol.*) Sydney, 1934 to 1940. Annual supplements, 21s.
- KERR, D. The law of the Australian Constitution. (Law Book Co., £2.) Sydney, 1925.

* It should be noted that several important books on this subject are out of print, and have therefore not been included.

Constitution and Administration—continued.

- KNOWLES, Sir 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.
- LAW BOOK COMPANY'S WAR LEGISLATION SERVICE: containing the emergency war legislation of the Commonwealth of Australia with rules, proclamations, etc., thereunder, with articles and notes of a practical nature. *General editor: J. D. Holmes.* (Law Book Co., 42s. *per annum.*) Sydney, 1939 to date.
- 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—

- DENNING, W. E. *ed.* Australian national war council: a brief account of its formation together with relevant official documents. (W. E. Denning, 1s.) Canberra, 1940.

OFFICIAL PUBLICATIONS.

- LAWS, STATUTES, ETC. Manual of national security legislation: being the National security act 1939-1940 and regulations and certain orders, etc., made thereunder and in force on the 1st April, 1941. (Government Printer, 8s.) Canberra, 1941.

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 INSTITUTE OF INTERNATIONAL AFFAIRS. Australian supplementary papers: [British Commonwealth Relations Conference, Lapstone, 1938.] *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.
- 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.
- DENNING, W. E. Caucus crisis: the rise and fall of the Scullin government. (Cumberland Argus, 1s. 6d.) Parramatta, 1937.
- DUNCAN, W. G. K., and JAMES, C. V., *editors.* The future of immigration into Australia and New Zealand. (Angus & Robertson, 6s.) Sydney, 1937.
- EVATT, H. V. Australian labour leader: the story of W. A. Holman and the labour movement. (Angus & Robertson, 21s.) Sydney, 1940.
- SHEPHERD, J. Australia's interests and policies in the far east. (Institute of Pacific Relations, \$2.) New York, 1940.
- SMITH, A. N. Thirty Years: The Commonwealth of Australia, 1901-1931. (Brown, Prior, 12s. 6d.) Melbourne, 1933.

RECENT PUBLICATIONS.

- ALEXANDER, F. Australia and the United States. (World Peace Foundation, 25c.) Boston, 1941.
- AUSTRALIAN INSTITUTE OF INTERNATIONAL AFFAIRS:—*Research Section.* Australian home front: a war-time record, 1939-41. (The Institute, 1s.) Melbourne, [1941].
- DAILY TELEGRAPH, newspaper. You, me—and this war . . . a critical account of some problems in Australia's organization for defence. (Consolidated Press, 2s.) Sydney [1941].
- FITZPATRICK, B. C. A short history of the Australian labor movement. (Rawson, 2s. 6d.) Melbourne, 1940.
- NATION BUILDING IN AUSTRALIA: the life and work of Sir Littleton Ernest Groom: [by L. F. Fitzhardinge and others]. (Angus & Robertson, 12s. 6d.) Sydney, 1941.
- TSAO, W. Y. Two Pacific democracies: China and Australia. (Cheshire, 8s. 6d.) Melbourne, 1941.

OFFICIAL PUBLICATIONS.

- INFORMATION, DEPARTMENT OF. Australia's war effort: some facts and figures: July, 1941. (Department of Information.) Melbourne, 1941.

Economic and Social Conditions.

- AUSTRALIAN STANDARDS OF LIVING: studies by F. W. Eggleston and others. (Melbourne University Press, 10s.) Melbourne, 1939.
- BRIGDEN J. B. and others. The Australian Tariff: An Economic Enquiry. (Melbourne University Press, 3s. 6d.) Melbourne, 1929.
- 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. I. Australia's national interests and national policy (Melbourne University Press, 5s.) Melbourne, 1938.

RECENT PUBLICATIONS.

- COPLAND, D. B. The Australian economy: simple economic studies: 4th ed. (Angus & Robertson, 6s.) Sydney, 1941.
- COPLAND, D. B. and CLARK, Sir R. M. Profits and price control. (Angus & Robertson, 1s.) Sydney, 1941.
- DAVIDSON, Sir A. C. The economics of peace. (Angus & Robertson, 3s. 6d.) Sydney, 1941.
- ISLES, K. S., and WILLIAMS, B. R. The truth about compulsory savings. (Robertson & Mullens, 1s. 6d.) Melbourne, 1941.

Economic and Social Conditions—continued.

OFFICIAL PUBLICATIONS.

- AUSTRALIA:—*Commonwealth grants commission*. Ninth report (1942) . . . on the applications made by the States of South Australia, Western Australia and Tasmania for financial assistance in 1941-42 from the Commonwealth under section 96 of the constitution. (Government Printer, 5s. 3d.) Canberra, 1942.
- VICTORIA:—*Parliament: Legislative assembly: Select committee on child endowment*. Report . . . and minutes of evidence. (Government Printer.) Melbourne, 1940.

Industrial Organization.

- SUTCLIFFE, J. T. *History of Trade Unionism in Australia*. (Macmillan, 6s.) Melbourne, 1921.

RECENT PUBLICATIONS.

- FOENANDER, O. de K. *Solving labour problems in Australia*. (Melbourne University Press, 15s.) Melbourne, 1941.

OFFICIAL PUBLICATIONS.

- NEW SOUTH WALES:—*Parliament: Select Committee . . . upon the employment of youth 'in industry*. Report . . . and minutes of the proceedings of the committee together with progress report from the select committee of session 1938-39-40 and minutes of the proceedings of, and evidence and appendices presented to, that committee. (Government Printer, 13s. 6d.) Sydney, 1940. (P.P. 30 of 1940.)
- NEW SOUTH WALES:—*Royal commission inquiring into . . . the compulsory retirement of employees in coal and oil shale mines in New South Wales at the age of sixty years*. Report . . . together with appxs. (Government Printer, 7s. 6d.) Sydney, 1941. (P.P. 66 of 1940-41.)

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.
- WOOL REVIEW: [annual]. (National Council of Wool Selling Brokers of Australia.) Melbourne, 1938 to date.

OFFICIAL PUBLICATIONS.

- AUSTRALIA:—*Power Alcohol Committee of Inquiry*. Report: [appxs.]. (Government Printer, 3s. 6d.) Canberra, 1941. (P.P. 43 of 1940-41.)
- AUSTRALIA:—*Tariff Board*. Report on fishing industry, 23rd June, 1941: [appxs.]. (Government Printer, 1s. 6d.) Canberra, 1941. (P.P. 37 of 1940-41.)
- DODD, ALAN PARKHURST. *The biological campaign against prickly-pear*. (Government Printer.) Brisbane, 1940.
- TASMANIA:—*Board of inquiry on the hydro-electric commission*. Report. (Government Printer.) Hobart, 1941. (P.P. 1 of 1941.)
- TASMANIA:—*Parliament: Joint committee on the development of the fish canning industry in Tasmania*. Report . . . with minutes of proceedings and appx. (Government Printer.) Hobart, 1941. (P.P. 12 of 1941.)
- VICTORIA:—*Rivers and water supply commission*. *State*. River control in New Zealand and Victoria: by H. G. Strom. (Government Printer.) Melbourne, 1941.

Natural History.

- AUDAS, J. W. *Native 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.
- CHAPMAN, F. *The book of fossils*. (Robertson & Mullens, 3s. 6d.) [Melbourne] (Sydney), 1934.
- DAVID, Sir T. W. E. *Explanatory Notes to accompany a New Geological Map of the Commonwealth of Australia*. (Angus & Robertson, 6s.) Sydney, 1932.
- EWART, A. J. *Flora of Victoria*. (Melbourne University Press, 30s.) Melbourne, 1930.
- HARRIS, T. Y. *Wild flowers of Australia*. (Angus & Robertson, 7s. 6d.) Sydney, 1938.
- LEACH, J. A. *An Australian bird book: a complete guide to identification of the Australian species: revised and edited by C. Barrett*: 8th ed. (Whitcombe & Tombs, 8s. 6d.) Melbourne, 1939.
- WHITLEY, G. P. *The fishes of Australia*, pt. 1: the sharks, rays, devil-fish and other primitive fishes of Australia and New Zealand. (Royal Zoological Society of N.S.W., 7s. 6d.) Sydney, 1940.

RECENT PUBLICATIONS.

- JACKSON, A. A. *Sea shore, swamp and bush*. (Robertson & Mullens, 7s. 6d.) Melbourne, 1941.
- TROUGHTON, E. LE G. *Furred animals of Australia*. (Angus & Robertson, 14s. 6d.) Sydney, 1941.

OFFICIAL PUBLICATIONS.

- AUSTRALIA:—*Meteorology, Bureau of*. Climatological atlas of Australia. (Government Printer.) Melbourne, 1940.
- BRITISH SCIENCE GUILD:—*South Australian Branch*. The molluscs of South Australia: by Bernard C. Cotton and Frank K. Godfrey: pt. 2: Scaphopoda, Cephalopoda, Aplousophora and Crepidopoda. (Government Printer, 7s. 6d.) Adelaide, 1940.

Aborigines.

- BATES, Daisy, *Mrs.* The passing of the aborigines. (John Murray, 7s. 6d.) London, 1938.
 ELKIN, *Rev.* A. P. The Australian aborigines. (Angus & Robertson, 8s. 6d.) Sydney, 1938.
 KABERRY, P. M. Aboriginal women. (Routledge, 15s.) London, 1939.
 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. and 2s. 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, 1930 to date.
 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.

- FOXROFT, E. J. B. Australian native policy: its history especially in Victoria. (Melbourne University Press, 10s.) Melbourne, 1941.

Education.

- 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.
 REVIEW OF EDUCATION IN AUSTRALIA [annual]: by K. S. Cunningham and others. (Melbourne University Press, 8s. 6d. *per annum*.) Melbourne, 1939 to date.
 SPENCER, F. H. A report on technical education in Australia and New Zealand. (Carnegie Corporation.) New York, 1939.
 For records of specialized research, see the various publications of the Australian Council for Educational Research, Melbourne.

OFFICIAL PUBLICATIONS.

- QUEENSLAND:—*Public instruction, Department of.* State education in Queensland. (Government Printer.) Brisbane, 1941.

Literature.***CRITICAL AND ANTHOLOGIES.**

- ANNUAL CATALOGUE OF AUSTRALIAN PUBLICATIONS. (Commonwealth National Library, 2s. *per issue*.) Canberra, 1936 to date.
 COWLING, G. H., and MACRICE, F. (i.e., F. L. 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.
 MACKANESS, G., *compiler*. Australian Short Stories. (Dent, 4s.) 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 3s.) Sydney, 1934.
 SERLE, P., WILMOT, F. L. T. and CROLL, R. H. An Australasian anthology. (Collins, 3s. 6d.) London, 1929.

RECENT PUBLICATIONS.

- MILLER, E. M. Australian literature from its beginnings to 1935. (Melbourne University Press, 42s.) Melbourne, 1940.
 STEPHENS, A. G. A. G. Stephens, his life and work: ed. by Vance Palmer. (Robertson & Mullens, 5s.) Melbourne, 1941.

Poetry.**RECENT PUBLICATIONS.**

- AUSTRALIAN POETRY, 1941. Selected by Douglas Stewart. (Angus & Robertson, 4s. 6d.) Sydney, 1941.
 HARFORD, L. The poems . . . (Melbourne University Press, 3s. 6d.) Melbourne, 1941.
 MUDIE, I. Corroboree to the sun. (Hawthorn Press, 5s.) Melbourne, 1940.
 O'DOWD, B. P. Poems: collected ed. (Lothian, 7s. 6d.) Melbourne, 1941.
 STEWART, D. Sonnets to the unknown soldier. (Angus & Robertson, 3s. 6d.) Sydney, 1941.

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* 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.

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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.

The principal economic events for the years 1931 to 1938 were given on pp. 968 to 977 of the Official Year Book No. 33. The diary given in the following pages relate to happenings leading to the present war and subsequent events.

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.

7th February.—Internal loan of £8,525,710, 3½ per cent., issued at par, maturing in 1953–55, for public works and other purposes.

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 Governments 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—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 furnish returns.

10th June.—Parramatta, the new 1,400-ton sloop for the Royal Australian Navy, launched at Cockatoo Dock.

22nd June.—Loan Council agreed 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 £1,295,022,972 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 £245,548,615 at 30th June, 1939, equal to £35 5s. 7d. per head of population.

15th August.—Commonwealth Arbitration Court decided that in general the standard working week for Australian industry should be 44 hours.

26th August.—Commonwealth Government assumed wide powers to safeguard national interests.

28th August.—Commonwealth control of oversea exchange transactions and export of money.

29th August.—Commonwealth took over a number of Australian ships.

3rd September.—Australia declared war on Germany.

4th September.—Board set up for the control of shipping. Captain G. D. Williams appointed Controller of Shipping.

5th September.—Britain bought 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 providing 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.

9th September.—National Security and Trading with Enemy Acts passed.

13th September.—Status of official representative in Canada raised to that of High Commissioner. The Canadian Government announced intention of appointing a High Commissioner in Australia.

Australian wheat crop during war period acquired by Commonwealth Government and marketed through a compulsory Federal Wheat Pool.

21st September.—Australia offered 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 13.4375d. per lb. for current wool clip and also one-half of profit on resales by Britain.

5th October.—Commonwealth 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.

21st October.—Compulsory military training for home defence to be introduced from January, 1940.

31st October.—Plans for the Australian Air Expeditionary Force recast in view of unprecedented Empire Air Scheme.

1st November.—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 Commonwealth Budget for 1939-40 increased defence expenditure from £33,137,000 to £62,014,000. No increase in taxation.

1st December.—Internal loan of £12,000,000, arranged by the Commonwealth Bank in conjunction with the trading banks, interest 3½ per cent., issued at par; £4,000,000 repayable in each of the years 1942-44, for purposes of defence and public works.

Introduction of Import Licencing Regulation to control exports from non-sterling countries.

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.

19th December.—The Commonwealth Arbitration Court reduced by one month the "lag" of its automatic adjustments of wages—to operate from first pay-period in a February, May, August or November.

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.

1940.

4th January.—Production of crude oil at Glen Davis, New South Wales.

8th January.—Right Hon. R. G. Casey, Minister for Supply and Development, appointed His Majesty's Envoy Extraordinary and Minister Plenipotentiary to the United States of America.

9th January.—Mr. C. E. Gauss, American Consul-General at Shanghai, appointed Envoy Extraordinary and Minister Plenipotentiary of the United States of America to Australia.

11th January.—Britain agreed to purchase large quantity of Australian wheat.

15th January.—Special committee appointed to direct all shipping between Australia and Great Britain.

24th January.—Commonwealth Bank and private trading banks reduced rates on fixed deposits by 5s. per cent.

31st January.—Agreement with Australian Consolidated Industries Ltd. for manufacture of motor cars in Australia suspended by Commonwealth Government.

7th February.—Recruiting for reinforcements for Second Australian Imperial Force to begin on 1st March, at rate of about 2,400 per month.

29th February.—Appointment of Aircraft Production Commission to supervise local production and maintenance of aircraft required in Australia for Empire Air Scheme.

1st March.—Internal loan of £18,164,740, 3½ per cent. for five years, or 3½ per cent. for ten to sixteen years, issued at par, for defence and public works.

6th March.—Additional troops to be recruited in Australia for service abroad; Second Australian Imperial Force to consist of existing Sixth Division, a Seventh Division and Corps troops totalling in all 48,000 men; further 42,000 reinforcements to be recruited before June, 1941; Army Co-operation Squadron of Royal Australian Air Force also to go abroad.

11th March.—General coal strike began after failure of proposal that colliery owners or mining unions should apply to Commonwealth Court of Conciliation and Arbitration for compulsory conference.

14th March.—New Commonwealth Ministry sworn in; Country Party represented by three Ministers and two Assistant Ministers.

18th March.—Sale of war savings certificates began.

29th March.—New regulations governing private investment of money and interest rates.

30th March.—Further restrictions on imports from non-sterling countries; import of more than £2,000,000 worth of goods a year prohibited.

11th April.—Commonwealth Government ordered immediate compulsory census of coal stocks throughout Australia.

1st May.—Commonwealth Bank reduced interest rate on Treasury Bills from 1½ to 1¼ per cent.

2nd May.—Commonwealth Treasurer announced proposals to increase taxation revenue by £20,000,000 in next financial year.

3rd May.—Regulations issued empowering Commonwealth Government to re-open coal-mines and protect all free labour engaged.

9th May.—Commonwealth Government decided to re-open coal-mines; volunteer labour to be sought.

10th May.—Gas restrictions imposed in Sydney owing to coal strike.

13th May.—New South Wales Premier signed proclamation calling for volunteer labour for coal-mines. Age-limit for Australian Imperial Force volunteers increased from 35 to 40 years.

20th May.—Coal strike ended; dispute to be referred immediately to Commonwealth Court of Conciliation and Arbitration.

22nd May.—Plans for acceleration of war effort announced by Prime Minister; a third Australian Imperial Force division for service abroad to be raised; Brigadier-General H. W. Lloyd appointed Director-General of Recruiting; Mr. Essington Lewis appointed Director-General of Munition Supplies; naval graving dock for capital ships to be constructed at Sydney at cost of nearly £3,000,000.

28th May.—Commonwealth Bank and private trading banks reduced interest rates on fixed deposits by $\frac{1}{4}$ per cent. Newsprint rationing plan announced. Loan Council appointed a Co-ordinator-General of Works to make recommendations to the Loan Council on the relative merits of civil loan works.

20th May.—Internal war loan of £20,582,490, $2\frac{3}{4}$ per cent. for five years, or $3\frac{1}{4}$ per cent. for ten to sixteen years.

31st May.—Commonwealth Parliament passed Bill concluding agreement between Government and Australian Consolidated Industries Ltd. for manufacture of motor cars in Australia, but clause granting monopoly to company deleted.

6th June.—Commonwealth Government to spend £2,032,000 on training aircraft and bomber 'planes; order for 500 trainers placed in Australia.

10th June.—Italy declared war on Allies.

11th June.—Announcement of petrol rationing scheme to effect reduction of one-third of petrol consumption.

21st June.—National Security Act amended giving Commonwealth Ministry widest powers ever held by an Australian Government.

23rd June.—Mass production of anti-tank guns planned by Commonwealth Government. Importance to the war effort of salvage of all waste metals and paper stressed by Minister for Supply.

25th June.—Arrival of New Zealand Minister for Supply to discuss industrial co-operation between Australia and New Zealand.

26th June.—Plans prepared by Ministry of Munitions for expenditure of £50,000,000 to expand munitions production.

28th June.—Further non-sterling import restrictions on goods valued at £2,650,000.

6th July.—Prime Minister stated 150,000 persons will be employed directly and indirectly in making munitions within twelve months.

8th July.—Commonwealth Treasurer announced surplus of £2,928,000 for year ended 30th June, 1940.

12th July.—San Francisco—Auckland air service inaugurated.

19th July.—Australian Imperial Force strength in Australia fixed at 80,000; recruiting temporarily interrupted. Imports from Netherlands East Indies to be given similar treatment to that given to countries within sterling area.

26th July.—Prime Minister announced establishment of Trade Unions Advisory Panel; invited A.C.T.U. to be represented; six other unions joined panel.

31st July.—Proclamation issued for the calling up of four new age-groups (20, 22, 23 and 24) of men in Australia for military training under plan to maintain home defence force of 250,000.

1st August.—Introduction of compulsory system of tax collection by instalments announced by Commonwealth Treasurer.

2nd August.—War Cabinet plans to expand production of power alcohol; committee to be appointed to explore possibilities of producing fuel from molasses and wheat.

9th August.—Australian motor-car importers agreed to cease importing motor chassis for nine months.

13th August.—Air crash at Canberra ; three Commonwealth Ministers killed.

14th August.—Loan Council approved of gross loan works expenditure in 1940-41 of £19,729,000, compared with £23,267,000 in 1939-40.

16th August.—Amended petrol rationing proposals announced.

18th August.—Sir John Latham appointed first Envoy Extraordinary and Minister Plenipotentiary to Japan.

20th August.—Commonwealth Treasurer estimated cost of war to be £177,000,000 for 1940-41. Unemployed number lowest on record.

26th August.—First Australian petrol produced on commercial scale distilled.

29th August.—Record Australian butter production for 1939-40.

1st September.—Record Australian wool production for 1939-40.

3rd September.—Extension of Empire Air Training Scheme announced by Minister for Air ; another 1,200 aeroplanes to be acquired.

18th September.—Australian price of gold reached record peak at £10 14s. a fine ounce.

21st September.—Commonwealth elections held.

1st October.—Petrol rationing began.

9th October.—Amendment to Commonwealth Investment Control Regulations.

10th October.—Arrangements made for storage in United States of America of 250,000,000 lb. of Australian wool as strategic reserve to be held by British Government.

11th October.—Commonwealth Government loan of £1,000,000 to States for drought relief.

22nd October.—Australian political leaders agreed on establishment of National Advisory War Council.

6th November.—Departure of Sir John Latham, Envoy Extraordinary and Minister Plenipotentiary for Japan.

8th November.—Sinking of British oversea vessel in Bass Strait, attributed to enemy mine ; Bass Strait temporarily closed to shipping.

Wheat stabilization scheme announced ; guaranteed price of 3s. 6d. per bushel f.o.r., ports, bagged wheat, and licensing of growers to ensure rigid control over production. Commonwealth Government approved loan of £2,770,000 for drought relief.

Action taken by Commonwealth Government to control by licence release of dutiable goods in order to prevent abnormal clearances in anticipation of higher duties.

12th November.—Australian war expenditure rose to £153,000,000 a year ; £98,000,000 more than previous year.

18th November.—Revised wheat stabilization plan providing for payment of 3s. 10d. per bushel f.o.b., ports, bagged wheat.

21st November.—Commonwealth Treasurer introduced record war-time Budget, providing for increases in direct and indirect taxation. For 1940-41 revenue estimated at £150,100,000, expenditure, omitting War Services, at £84,853,000, and War Services expenditure charged to the Budget at £65,220,000, making total expenditure of £150,073,000. In addition loan expenditure estimated at £119,731,000, comprising £117,231,000 for defence and war purposes.

28th November.—Internal war and works loan of £28,499,420, 2½ per cent. for five years and 3½ per cent. for ten to sixteen years.

5th December.—Commonwealth Government effected compromise with Labour Party on Budget proposals.

Building control regulations—approval of Commonwealth Treasurer necessary for erection of new buildings and alterations costing over £5,000.

8th December.—Payment of third advance of 3d. per bushel on wheat of 1939-40 crop.

11th December.—Revised scheme for applying War-time Company Tax accepted by Commonwealth Government.

13th December.—Ten more age-groups liable for military service in Australia ; all single men and widowers without children, aged 19 years and in the 25 to 33 age-groups (inclusive) affected.

16th December.—Prime Minister announced establishment of Central Reference Board for conciliation in coal industry.

31st December.—Broken Hill Pty. Co. Ltd. applied to Commonwealth Treasurer for permission to raise £2,500,000 by issue of 2,500,000 shares at par; extra capital to be used for shipbuilding.

1941.

8th January.—Decision to form Australian Armoured Corps of 10,000 men.

10th January.—Another Army Co-operation Air Squadron to be offered Great Britain for service in Middle East.

22nd January.—Royal Commission in, New South Wales, recommended compulsory retirement of coal and shale miners at 60 years on pension to be provided—one-half by mine owners, one-quarter by mine workers and one-quarter by the State.

30th January.—Commonwealth Shipping Control Board appointed.

1st February.—At Premier's Conference, Acting Prime Minister submitted proposals for uniform income taxation.

7th February.—Applications for increase in Basic Wage refused by Commonwealth Arbitration Court. Quota for motor-car imports reduced.

8th February.—United States Congress passed "Lend-lease" Bill.

13th February.—Further restriction of petrol from 1st April. Appointment of Commonwealth Coal Board.

14th February.—Fall in prices in Australian Stock Exchange.

20th February.—Announcement that militia troops would spend alternative periods of 90 days in and 90 days out of camp to ensure that 125,000 troops would be under arms for home defence. Commonwealth Government to provide £6,000,000 for Merchant Shipbuilding.

22nd February.—Newsprint production began at Boyer, Tasmania.

28th February.—Government war risk insurance of ships on Australia register begun.

14th March.—Japanese Envoy, Mr. Tashouo Kawai, presented credentials to the Governor-General, Canberra.

19th March.—Further revision of petrol ration.

20th March.—Commonwealth Government to plan three months emergency storage of household goods costing approximately £6,000,000.

21st March.—War service Moratorium Regulations revised.

25th March.—Commonwealth Government fixed rents at rates ruling on 31st December, 1940, in States where Fair Rents Boards were operating (Victoria, Queensland and Tasmania).

4th April.—Government plan announced for the stabilization of mutton and lamb industry by acquisition and encouragement of home consumption. British Government agreed to purchase exportable surplus of season's canned fruits.

22nd April.—United Kingdom Government contract meat purchases from Australia for year ended 30th September, 1941, restored to 198,000 tons after reduction to 144,000 tons in January.

29th April.—Commonwealth Loan of £35,000,000 opened. Terms 2½ per cent., maturing 1946 or 3½ per cent., maturing 1950–56 issued at par. Closed 19th May, oversubscribed by £860,000.

2nd May.—New petrol rations announced to operate from 1st June.

10th May.—New South Wales Labour Party successful at State elections.

16th May.—Closing of Commonwealth £13,500,000 Conversion Loan in London; £8,200,000 converted balance to be redeemed on 1st October.

27th May.—New regulation restricting the transfer of skilled workers from one job to another.

9th June.—Five-year merchant shipbuilding plan announced. Sixty ships to be built of 5,000 tons gross in four States: South Australia, New South Wales, Queensland and Victoria.

13th June.—Extension of Moratorium Regulations protecting members of the forces and their dependants.

18th June.—Second advance of 4d. a bushel on 1940–41 season's wheat, making total advance 3s. 4d. for bagged and 3s. 7½d. for bulk both less freight, also a final advance of 1½d. bushel on 1939–40 pool, making the total advanced 3s. 6½d. for bagged and 3s. 4½d. for bulk wheat.

19th June.—Newsprint rationed to 55 per cent. of pre-war level.

26th June.—Prime Minister announced plans for more effective war effort with re-organization of Commonwealth Cabinet and administration; Cabinet divided into a War Cabinet and Economic and Industrial Committee; five new Departments formed—Aircraft Production, Transport, War Organization of Industry, Home Security, and External Territories; seven Parliamentary Committees appointed—War Expenditure, Social Security, Profits, Man-power and Resources, Broadcasting, Taxation and Rural Industries.

27th June.—Commonwealth Government's proposal for uniform taxation rejected by State Governments.

30th June.—Further restrictions on imports from non-sterling countries.

1st July.—Commonwealth Child Endowment commenced. Restrictions on imports from sterling countries.

4th July.—Capital Issues Regulations restricting the sale of land.

9th July.—Commonwealth Revenue in 1940-41 amounted to £150,482,000.

15th July.—Petrol—Government control of imports, storage and distribution.

21st July.—Visit of Australian delegation to the United States to discuss trade proposals.

22nd July.—Commonwealth £3,000,000 Conversion Loan closed in London.

25th July.—Returned members of A.I.F. awaiting employment to receive for maximum period of three months, £2 2s. per week for single and £3 per week for married men plus 7s. 6d. per week for each child with maximum of £4 2s. 6d. per week.

26th July.—Application of sanctions against Japan; Japanese balances in Australia "frozen" under exchange control regulations.

29th July.—First payment of Commonwealth Child Endowment.

7th August.—Division of import procurement established in Sydney in connexion with lend-lease goods from the United States of America.

9th August.—Loan Council decision to reduce State's loan quotas from £24,000,000 to £20,000,000.

12th August.—Atlantic Charter signed by Mr. Roosevelt and Mr. Churchill.

26th August.—War-workers Housing Trust established.

28th August.—Honorable A. Fadden succeeded Right Honorable R. G. Menzies as Prime Minister. Sir Frederic Eggleston left Australia as first Australian Minister to China.

17th September.—Commonwealth Grants Commission recommended grants for 1941-42; South Australia £1,150,000, Western Australia £630,000 and Tasmania £520,000.

22nd September.—Commonwealth Bank and trading banks reduced by 5s. per cent. all fixed deposit rates excepting for three monthly period.

25th September.—Commonwealth Budget for 1941-42 introduced by Mr. Fadden provided for total expenditure of £322,000,000 including £217,000,000 for war purposes. Revenue estimated at £170,000,000 including £7,000,000 from increased taxation and postal charges; Expenditure on non-war services estimated at £102,000,000. Loan expenditure estimated at £152,000,000 of which £25,000,000 was compulsory loan, designed to make the total levy on incomes uniform in the States.

3rd October.—Fadden Government defeated on Budget.

7th October.—Mr. Curtin formed Labour Ministry. Opening of Commonwealth £100,000,000, cash and conversion loan, terms 2½ per cent., maturing 1945-46 and 3½ per cent., maturing 1950-57.

29th October.—Revised Budget introduced by Mr. Chifley provided for total expenditure of £325,000,000 including £221,000,000 for war purposes. Revenue estimated at £186,000,000 including £22,000,000 from increased taxation and postal charges. Expenditure on non-war services estimated at £103,480,000, Loan expenditure estimated at £139,000,000, Service pay and invalid and old-age pensions increased, Income Tax increased (on incomes over £1,500), increases in war-time company tax, sales tax, customs and excise duties and a gift duty introduced.

Regulations announced for war-time banking control—All trading banks to be licensed and all surplus investible funds to be lodged with Commonwealth Bank, profits to be limited and full statements of accounts to be furnished to Commonwealth Bank.

12th November.—Report of Board of inquiry into Hire purchase and Cash order transactions.

17th November.—£100,000,000 loan filled : £66,000,000 converted out of £73,000,000 ; Cash amounted to £34,000,000.

26th November.—Trading Banks War-time control : £20,000,000 Surplus funds to be deposited with Commonwealth Bank.

27th November.—Loss of £1,500,000 on Apple and Pear acquisition scheme for 1941 season.

28th November.—Rent control regulations provided that no dwelling house let at less than £4 4s. per week be at rental greater than that paid on 31st August, 1939 ; evictions subject to approval of Fair Rents Court.

5th December.—First advance on 1941-42 season's wheat crop announced ; 3s. bushel for bagged and 2s. 10d. for bulk, both less freight.

7th December.—War in the Pacific launched by Japanese attack upon the American Naval Base at Pearl Harbour, Hawaii, followed by declaration of war by Japan upon Great Britain and the United States of America.

8th December.—All Japanese Nationals in Australia handed over to Military authorities for internment. Total prohibition of imports of 643 items from all sterling areas excepting New Zealand and British and French Pacific Islands. Transport services placed on emergency basis.

9th December.—Proclamation issued declaring Australia at war with the Japanese Empire as from 5 p.m., 8th December.

11th December.—Late shopping nights abolished.

16th December.—War-tax estimated to yield £20,000,000 in full year imposed at flat rate of 1s. in £ on income of £300 per annum and over falling to 6d. in £ on income of £156 per annum. Company tax increased by 1s. in £.

19th December.—Postponement of State Public Works not essential to war effort pending report by Co-ordinator-General of Works.

20th December.—Compulsory scheme of property insurance against war damage announced.

22nd December.—Commonwealth authority to control all forms of transport.

27th December.—Industrial Relations Council established to advise on industrial matters to consist of eight employers and eight employees representatives with independent chairman.

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.

2. Governors-General and Ministries, p. 46.

Recent changes in the Commonwealth and State Ministries are as follows :—

COMMONWEALTH MINISTRY (17TH OCTOBER, 1942).

Minister for Supply and Shipping (a) .. *The Hon. J. A. Beasley.*

Assistant Minister for Supply and Shipping .. *Senator the Hon. J. M. Fraser.*

(a) Previously Minister for Supply and Development.

QUEENSLAND (16TH SEPTEMBER, 1942).

Premier, Chief Secretary and Treasurer .. *The Hon. F. A. Cooper.*

Secretary for Health and Home Affairs .. *The Hon. E. M. Hanlon.*

Secretary for Agriculture and Stock .. *The Hon. F. W. Bulcock.*

Secretary for Public Works .. *The Hon. H. A. Bruce.*

Secretary for Labour and Industry .. *The Hon. T. A. Foley.*

Minister for Transport .. *The Hon. J. Larcombe.*

Attorney-General .. *The Hon. D. A. Gledson.*

Secretary for Public Lands .. *The Hon. E. J. Walsh.*

Secretary for Public Instruction .. *The Hon. A. Jones.*

Secretary for Mines .. *The Hon. V. C. Gair.*

Minister without Portfolio .. *The Hon. W. Forgan Smith.*

TASMANIA (CHANGES) (1ST OCTOBER, 1942).

Minister for Lands and Works .. *The Hon. J. I. Madden.*

Minister for Mines .. *The Hon. C. E. Culley.*

Honorary Minister .. *The Hon. W. P. Taylor, M.C.*

CHAPTER V.—TRANSPORT AND COMMUNICATION.

B. RAILWAYS.

§ 1. General.

9. *Summary of Operations*, p. 98.—A summary of the working of all Government railways open for general traffic during 1940-41 is given hereunder :—

GOVERNMENT RAILWAYS, 1940-41.

Particulars.	C'wealth.	N.S.W.	Vic.	Q'land. (a)	S. Aust.	W. Aust.	Tas.	Aust.
Route Miles Open ..	2,201	6,127	4,759	6,567	2,557	4,381	642	27,234
Gross Revenue—								
Coaching .. £'000	356	8,499	5,436	2,235	976	826	187	18,515
Goods and Live-stock ..	421	12,415	4,860	5,808	2,261	2,651	393	28,809
Miscellaneous ..	194	3,102	943	372	275	95	20	5,001
Total Revenue ..	971	24,016	11,239	8,415	3,512	3,572	600	52,325
Working Expenses ..	903	17,162	8,959	6,708	3,062	2,758	761	40,313
Train-miles Run .. '000	1,234	32,285	17,767	14,603	5,892	6,144	2,167	80,692
Gross Revenue per train-mile .. d.	188.86	178.53	151.82	138.30	143.07	139.53	66.45	156.80
Working expenses per train-mile ..	175.65	127.58	121.02	110.26	124.72	107.74	84.28	120.80
Working Expenses per cent. on Gross Revenue .. %	93.00	71.46	79.71	79.72	87.18	77.21	126.82	77.04
Passenger-journeys .. '000	194	194,146	159,219	26,219	20,360	11,518	2,792	414,448
Coal, Coke and Shale carried .. '000 tons	8	9,340	296	894	155	257	69	11,019
Other Minerals ..	24	1,607	167	503	536	192	310	3,339
Live-stock ..	52	766	741	567	185	119	29	2,459
Other Goods ..	127	6,319	5,419	3,714	1,866	2,036	547	20,028
Total Freight ..	211	18,032	6,623	5,678	2,742	2,604	955	36,845

(a) Including Uniform Gauge Railway.

D. MOTOR VEHICLES.

5. Motor Vehicles on the Register, p. 115.—Motor vehicles registered at 30th June, 1941, were as follows:—

MOTOR VEHICLES REGISTERED AT 30th JUNE, 1941.

(Excluding Defence Service Vehicles.)

State or Territory.	Motor Cars.	Commercial Vehicles.	Motor Cycles.	All Vehicles.	
				No.	Per 1,000 of Population.
New South Wales ..	203,960	76,142	20,759	300,861	107.6
Victoria	148,481	(a) 85,068	23,576	257,125	132.6
Queensland	74,537	45,773	8,129	128,439	123.8
South Australia ..	54,943	23,619	8,345	86,907	145.0
Western Australia ..	37,018	24,887	6,706	68,611	146.4
Tasmania	17,343	5,528	3,183	26,054	109.1
Northern Territory ..	488	1,026	137	1,651	166.1
Australian Capital Territory	1,757	441	87	2,285	169.5
Australia	538,527	262,484	70,922	871,933	122.8

(a) Includes vehicles registered as primary producers' vehicles.

6. New Vehicles Registered, p. 116.—New vehicles registered in the various States during the year 1940-41 were as follows:—

REGISTRATIONS OF NEW VEHICLES DURING THE YEAR ENDED JUNE, 1941.

(Excluding Defence Service Vehicles.)

Vehicles.	N.S.W.	Vic.	Q'land.	S.A.(b)	W.A.	Tas.	A.C.T.	Total.
Motor Cars	6,253	5,529	2,361	1,936	1,096	553	37	17,765
Commercial Vehicles, etc. ..	3,022	(a) 3,305	1,863	923	691	359	5	10,168
Motor Cycles	939	735	273	334	216	90	2	2,589
Total	10,214	9,569	4,497	3,193	2,003	1,002	44	30,522

(a) Includes vehicles registered as primary producers' vehicles.

(b) Excluding Northern Territory.

F. AVIATION.

4. Statistical Summary, pp. 122-3.—The following table gives a summary of operations for Australia and New Guinea in 1940-41:—

CIVIL AVIATION, 1940-41.

Registered Aircraft Owners. (a)	Registered Aircraft. (a)	Licensed Pilots.(a)		Hours Flown.	Approx. Mileage.	Passengers Carried.	Weight of Goods Carried.	Weight of Mails Carried.	Accidents.	
		Private.	Commercial.							
No.	No.	No.	No.	No.	'000 Miles.	No.	'000 lb.	lb.	Killed.	Injured.
AUSTRALIA.										
120	202	502	187	79,164	9,700	154,259	2,115	5549,200	3	1
NEW GUINEA.										
11	41	5	16	11,965	1,095	13,988	19,855	100,956	2	1

(a) At 30th June, 1941.

(b) Including gross weight of oversea mails.

G. POSTS, TELEGRAPHS AND TELEPHONES.**§ 6. Radio Telegraphy and Telephony.**

2. Wireless Licences, p. 144.—The following table shows the number of each class of licence issued in each State and Territory at 30th June, 1941 :—

WIRELESS LICENCES IN FORCE AT 30th JUNE, 1941.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Coast ..	1	1	6	1	5	3	1	..	18
Ship ..	77	86	16	9	2	1	1	..	192
Aircraft ..	8	11	2	4	3	1	1	..	30
Land (a) ..	24	4	66	38	80	9	61	1	283
Broadcasting (b) ..	34	19	19	6	11	8	..	1	98
Broadcast Lis- teners ..	492,504	362,790	168,216	130,895	91,368	44,716	397	2,380	1,293,266
Portable ..	14	2	9	4	8	..	5	2	44
Special ..	66	26	23	7	12	4	1	..	139
Total ..	492,728	362,939	168,357	130,964	91,489	44,742	467	2,384	1,294,070

(a) In addition to the licensed stations there is one operated by the Postmaster-General's Department at Camooweal (Q.). (b) There are also 29 stations operated by the National Broadcasting Service, including 2 short-wave stations (VLR, Lyndhurst, Vic.; and VLW, Perth, Western Australia).

CHAPTER XII.—POPULATION.**§ 4. Distribution and Fluctuation of Population.**

2. Growth and Distribution, p. 252.—The population of Australia at 31st December, 1941, was estimated at 7,137,222 persons distributed amongst the States and Territories as follows :—

ESTIMATED POPULATION AT 31st DECEMBER, 1941.

State or Territory.	Males.	Females.	Persons.
New South Wales ..	1,410,344	1,401,977	2,812,321
Victoria ..	969,037	983,116	1,952,153
Queensland ..	538,416	498,414	1,036,830
South Australia ..	302,022	303,667	605,689
Western Australia ..	242,040	225,042	467,082
Tasmania ..	121,778	119,393	241,171
Northern Territory ..	7,217	2,398	9,615
Australian Capital Territory ..	6,593	5,768	12,361
Total ..	3,597,447	3,539,775	7,137,222

CHAPTER XV.—MINERAL INDUSTRY.**§ 1. The Mineral Wealth of Australia.**

3. Value of Production, p. 398.—The value of gold production and the total value of mineral production in Australia for 1940 are given in the following table :—

MINERAL PRODUCTION.—VALUE, 1940.

Mineral.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	Total.
	£	£	£	£	£	£	£	£
Gold ..	1,068,692	1,924,396	1,351,654	34,892	12,697,219	204,248	238,849	17,519,950
Other Minerals ..	11,722,601	671,721	3,753,975	3,183,345	533,333	2,545,569	72,175	22,482,719
Total ..	12,791,293	2,596,117	5,105,629	3,218,237	13,230,552	2,749,817	311,024	40,002,669

CHAPTER XVI.—PASTORAL PRODUCTION.**NUMBER OF PRINCIPAL LIVE STOCK.**

31st Dec.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	A.C.T. (a)	Australia.
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Pigs, pp. 443, 539.

1940 ..	507,738	397,945	436,447	190,068	217,910	46,713	407	593	1,797,821
1941(b)	454,102	285,227	380,000	115,000	163,418	(c)	400	854	1,445,000

HORSES, p. 447.

1940 ..	531,776	318,441	441,770	182,206	130,057	29,406	30,716	1,244	1,665,616
1941(b)	525,697	302,401	460,000	171,000	124,472	(c)	30,000	1,278	1,645,000

CATTLE, p. 450.

1940 ..	2,769,061	1,922,336	6,210,810	376,654	788,928	259,108	922,308	6,636	13,255,841
1941(b)	2,878,450	1,986,544	6,400,000	400,000	832,484	(c)	922,000	7,432	13,687,000

SHEEP, p. 457.

1940 ..	55,567,576	20,412,362	23,936,099	10,263,423	9,516,272	2,682,375	33,703	281,791	122,693,601
1941(b)	56,737,000	20,598,201	25,500,000	10,246,000	9,715,821	(c)	33,700	262,563	125,776,000

(a) March, year following. (b) Subject to revision. (c) Not yet available.

WOOL (AS IN THE GREASE) PRODUCED, (lb.) p. 462.

Season 1940-41	539,035,404	187,831,364	214,704,450	106,646,992	76,170,000	17,078,157	308,128	..	1,141,774,495
	(c)		(b)		(b)				

(a) Including A.C.T. (b) For year ended previous December.

CHAPTER XVII.—AGRICULTURAL PRODUCTION.**WHEAT, (Bushels.) p. 477.**

Season 1941-42a	48,500,000	46,953,840	3,000,000	30,507,043	37,500,000	192,300	..	22,824	166,676,007
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(a) Subject to revision.

CHAPTER XVIII.—FARMYARD, DAIRY AND BEE PRODUCTS.**BUTTER, PRODUCTION (lb.) p. 542.**

1940-41	108,563,400	156,345,602	119,939,865	21,379,639	15,237,737	10,595,122	..	21,557	432,082,922
1941-42a	89,600,000	141,400,000	98,600,000	20,600,000	17,100,000	10,600,000	..	14,500	378,414,500

CHEESE, (lb.) p. 542.

1940-41	6,470,136	18,376,904	11,733,147	19,427,828	960,197	3,036,228	..	..	60,004,440
1941-42a	5,100,000	22,300,000	16,300,000	18,600,000	1,300,000	3,000,000	..	..	66,700,000

BACON AND HAM, (lb.) p. 542.

1940-41	31,564,332	20,039,929	22,469,768	7,492,948	5,160,199	2,045,233	..	710	88,773,119
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(a) Subject to revision.

CHAPTER XXI.—MANUFACTURING INDUSTRY.

SUMMARY FOR 1940-41, p. 576.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1. Factories . . . No.	9,019	9,121	2,972	2,230	2,056	1,002	27,300
2. Hands employed (a) . . .	265,751	237,636	57,269	50,844	22,734	15,839	650,073
3. Wages paid (b) . . . £	57,759,532	49,796,607	12,163,763	10,418,901	4,720,563	3,059,702	137,919,068
4. Value of fuel used . . . £	9,620,123	5,138,787	1,655,937	1,400,683	1,309,748	597,429	19,722,707
5. „ materials used . . . £	161,252,339	115,209,347	46,936,189	25,283,544	11,498,304	6,978,129	367,157,852
6. „ production . . . £	115,044,388	89,000,711	21,644,338	16,916,102	9,016,922	6,291,888	257,914,349
7. „ output of fact's . . . £	285,916,850	209,348,845	70,236,464	43,600,329	21,824,974	13,867,446	644,794,908
8. „ land & buildings . . . £	61,886,528	47,092,751	12,594,215	11,480,505	6,802,488	4,237,169	144,093,656
9. „ plant & machinery . . . £	68,533,346	44,985,756	18,501,758	14,391,653	7,394,680	7,549,041	161,356,234

(a) Including working proprietors.

(b) Excluding amounts drawn by working proprietors.

CHAPTER XXIV.—LABOUR, WAGES AND PRICES.**D.—EMPLOYMENT.****§ 2. Unemployment.**

2. Unemployment of Members of Trade Unions, p. 736.—The following are the percentages of unemployment in each State for the four quarters of 1941 and the first two quarters of 1942.

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS, PERCENTAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1941—							
March Quarter	7.0	3.2	5.9	3.9	4.3	3.6	5.3
June „	4.5	2.4	4.2	2.8	3.1	2.4	3.6
September „	4.0	2.2	4.1	2.3	2.4	2.6	3.2
December „	3.5	2.1	3.8	1.8	1.8	4.5	2.9
1942—							
March „	2.0	1.4	3.2	1.0	1.7	0.7	1.8
June „	1.9	1.2	2.6	1.3	1.7	0.6	1.7

CHAPTER XXVI.—PUBLIC FINANCE.**§ 6. Invalid and Old-age Pensions.**

1. General. p. 830.—The Invalid and Old-age Pensions Act 1908-1941 has been further amended by Act No. 3 of 1942. This Act was assented to on 18th May, 1942, and came into operation on 9th July, 1942. The chief amendments are :—

- Rate of pension increased to £65 per annum (25s. per week).
- New rate of £65 per annum related to "C" Series price index-number (1053) for the quarter ended 31st March, 1942.
- Quarterly adjustments retained—the rate of pension to be £65 per annum plus £1 6s. for every 21 units by which the price index-number exceeds 1053.
- Rate as varied by price index adjustments not to fall below £65 per annum.
- Rate of pension payable to inmates of institutions increased to 8s. 6d. per week.

- (f) Permissible income for pensioners other than blind persons remains at £32 10s. per annum (limit of income plus pension £97 10s.), but blind pensioners are permitted to have an income equal to the "Federal basic-wage" without the pension being affected. The limit of income plus pension for a blind pensioner will thus become £299 per annum from 9th July, 1942 (Federal basic-wage £4 10s. per week plus pension £1 5s. per week).
- (g) The benefits of the Act are extended to aboriginal natives of Australia who are exempt from the provisions of the law of the State or Territory in which they reside relating to the control of aboriginal natives or, where the law of the State or Territory makes no provision for such exemption, to those natives whose character, standard of intelligence and development, renders them, in the opinion of the Commissioner, eligible to receive pensions.
- (h) The benefits of the Act are also extended to aboriginal natives of the Islands of the Pacific known as "Kanakas".
- (i) The provisions of the Act requiring the pension to be suspended when a pensioner is admitted to a hospital have been repealed.
- (j) The above amendments came into operation on 9th July, 1942, but, by a special provision of the Amending Act, the increased rates of pension (ordinary pensioners £65 per annum, institutional pensioners 8s. 6d. per week) applied retrospectively from 2nd April, 1942.

WIDOWS' PENSIONS.

1. **General.**—On 3rd July, 1941, the Commonwealth Parliament appointed a Joint Committee on Social Security "to inquire into and, from time to time, report upon ways and means of improving social and living conditions in Australia and of rectifying anomalies in existing legislation."

Among the recommendations made by this Committee in its first Interim Report issued on 24th September, 1941, was a recommendation that pensions be paid to widows with dependent children, widows over 50 years of age, widows in ill-health, widows in destitute circumstances immediately after the death of their husbands, deserted wives, and wives whose husbands are inmates of mental hospitals, and to dependent children under the age of sixteen years.

2. **Legislation.**—(i) *Widows' Pensions Act, 1942.* Following consideration of this report and examination of the evidence the Commonwealth Government proceeded with a scheme for payment of pensions to widows. The bill was introduced into Parliament on 14th May, 1942. The Widows' Pensions Act No. 19 of 1942 was assented to on 5th June, 1942, payments under which commenced on 30th June, 1942. The main features of the Act are as follows:—

(ii) *Classes of Widows.* Any woman who comes within one of the following classes is eligible to apply for a pension or allowance provided she is resident in Australia and is not disqualified for any of the reasons indicated in the Act, such as absence from Australia, or the possession of property or income above certain specified amounts:—

Class A.—Widow maintaining one or more children under the age of sixteen years.

Class B.—Widow, 50 years of age or more, not maintaining a child under the age of sixteen years.

Class C.—Widow, under 50 years of age, not maintaining a child under the age of sixteen years, whose husband has died within the last six months, and who is in necessitous circumstances. (An allowance granted to a widow in this class will continue for not more than 26 weeks immediately after her husband's death.)

(iii) *Special classes.* Any woman the circumstances of whose case comes within the following categories is deemed to be a "widow" for the purposes of the Act :—

(i) *De facto* widow (i.e., a woman who, for not less than the three years immediately prior to the death of a man, was wholly or mainly maintained by him and, although not legally married to him, lived with him as his wife on a permanent and bona fide domestic basis).

(ii) Woman who has been deserted by her husband for not less than six months (provided action has been taken to obtain maintenance).

(iii) Woman whose marriage has been dissolved and who has not re-married.

(iv) Woman whose husband is an inmate of a hospital for the insane.

(iv) *Rates of Pension.* The maximum rates of widow's pension or allowance are as follows :—

Class A.—£78 per annum (30s. per week).

Class B.—£65 per annum (25s. per week).

Class C.—25s. per week for not more than 26 weeks immediately following death of husband.

These rates are subject to variation in accordance with variations in the retail price "C" series index-number, but they cannot fall below the amounts stated above.

(v) *Means Test.*—In assessing the rates of pension the following provisions apply :—

Class A.—The amount by which the claimant's net income exceeds £32 10s. per annum (12s. 6d. per week) is deducted from the maximum annual rate of pension. If the net income amounts to £110 10s. per annum or more no pension is payable.

Class B.—The amount by which the claimant's net income exceeds £32 10s. per annum (12s. 6d. per week) is deducted from the maximum annual rate of pension. The amount of pension is subject to further reduction by £1 for every complete £10 by which the net value of the claimant's property (excluding her home, furniture, etc.) exceeds £50. If the net income (or the net income plus the "property deduction") amounts to £97 10s. per annum or more, no pension is payable.

Class C.—The determination of whether a widow in this class is in "necessitous circumstances" is a matter for the discretion of the Commissioner or Deputy Commissioner.

(vi) *Property.* A claimant who possesses money or other property of any kind, the total net value of which (excluding the claimant's home, furniture and personal effects) exceeds :—

(i) in the case of a widow in Class A—£1,000 ;

(ii) in the case of a widow in Class B—£400 is not eligible to receive a pension.

3. *Payment.*—Pensions and allowances are paid at Post Offices each four weeks on production of a pension certificate issued by the Department. The first payment was made on 28th July, 1942, for the four weeks ended 27th July, 1942.

4. *Number of Widows and Cost.*—It is expected that the Widows' Pension Scheme will benefit 30,000 widows. The annual cost is estimated to be £1,600,000.

5. *Administration.*—The general administration of the Act is under the control of the Director-General of Social Services, and the detailed administration is carried out by the Commissioner of Pensions and other officials appointed for the purposes of the Invalid and Old-age Pensions Act.

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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*Reconstruction and
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