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COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,  
CANBERRA.

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OFFICIAL

YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA

---

No. 28.—1935.

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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 twenty-eighth Official Year Book issued under the authority of the Commonwealth Government.

The synopsis on pp. vii to xx 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, production and industry. The need for economy hampers the collection of this material, and the need for abbreviation precludes adequate presentation of some that is available. The editing of the Year Book has, therefore, become particularly difficult, involving as it does the continual balancing of the claims of old material and new. Some progress has been made in the later volumes towards bringing closer to present day requirements the Chapters dealing with production, trade, finance, population and vital statistics, etc., while the Appendix furnishes a summary, brought up to the latest available date, of the chief events in connexion with the financial crisis. It is not proposed to refer here to the whole of the new matter or to the new treatment of existing matter, incorporated in the present volume, but attention may be drawn to the following:—

- Chapter XVI. Public Finance—Debts of States and Municipal and Semi-Governmental Bodies.
- Chapter XVII. Population—Incorporation of details relating to the general characteristics of the Australian people as disclosed by the recent Census.
- Chapter XXVIII. Miscellaneous—Valuation of Australian production on lines defined by the Conference of Statisticians in 1924. Revision of data relating to the marketing of Australian commodities.

All rates, etc., based on the mean population in the various chapters of this volume have been revised in accordance with the results of the Census of the 30th June, 1933.

Later information which has come to hand since the various Chapters were sent to press has been incorporated in the Appendix (pp. 905 to 929).

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

My best thanks are due to the State Statisticians, who have collected and compiled the data on which the greater part of the information given in the Year Book is based. Thanks are also due to the responsible officers of the various Commonwealth and State Departments, and to others, who have kindly, and often at considerable trouble, supplied information.

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

E. T. MCPHEE,

Commonwealth Statistician.

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# STATISTICAL SUMMARY.

## STATISTICAL SUMMARY, AUSTRALIA.

Heading.		Year.						
		1881.	1891.	1901.	1911.	1921.	1931.	1934.
Population(a)	Males	1,247,059	1,736,617	2,004,836	2,382,232	2,799,462	3,332,577	3,401,079
	Females	1,059,677	1,504,368	1,820,077	2,191,554	2,711,532	3,220,029	3,304,598
	Persons	2,306,736	3,240,985	3,824,913	4,573,786	5,510,994	6,552,606	6,705,677
Births	No.	80,004	110,187	102,945	122,193	136,198	118,509	109,475
	Rate	35.26	34.47	27.16	27.21	24.95	18.16	16.39
Deaths	No.	33,327	47,430	46,330	47,869	54,076	56,560	62,229
	Rate	14.69	14.84	12.22	10.66	9.91	8.67	9.32
Marriages	No.	17,244	23,862	27,753	39,482	46,869	38,882	51,465
	Rate	7.60	7.47	7.32	8.79	8.59	5.96	7.71
		1881-82.	1891-92.	1901-02.	1911-12.	1921-22.	1931-32.	1933-34.
Agriculture—	Area, acs.	2,995,814	3,334,957	5,115,965	7,427,834	9,719,042	14,741,313	(f) 12,498,894
	Yld., bshl.	21,443,862	25,675,265	38,561,619	71,636,347	129,088,806	190,612,188	(f) 133,699,797
Wheat	Area, "	7.16	7.70	7.54	9.04	13.28	12.93	(f) 10.70
	Yld., bshl.	194,816	246,129	461,430	616,794	733,466	1,085,489	1,373,921
Oats	Area, acs.	4,795,897	5,726,256	9,789,854	9,561,833	12,147,433	15,194,680	16,922,031
	Yld., bshl.	24.62	23.27	21.22	15.50	16.56	14.00	12.32
Barley	Area, acs.	75,864	68,068	74,511	116,466	298,910	342,396	464,959
	Yld., bshl.	1,353,380	1,178,560	1,519,819	2,056,836	6,085,685	6,290,672	7,959,018
Maize	Area, acs.	17.84	17.31	20.40	17.66	20.36	18.37	17.12
	Yld., bshl.	165,777	284,428	294,849	340,065	305,186	269,448	303,761
Hay	Area, acs.	768,388	942,166	1,688,402	2,518,351	2,994,519	7,062,383	7,494,080
	Yld., tons	767,194	1,067,255	2,024,608	2,867,973	3,902,189	3,167,459	3,582,748
Potatoes(b)	Area, acs.	1.00	1.13	1.14	1.14	1.30	1.20	1.16
	Yld., tons	76,265	112,884	109,685	130,463	149,144	145,111	139,692
Sugar Cane	Area, acs.	243,216	380,477	322,524	388,091	388,091	397,102	327,775
	Yld., tons	3.19	3.37	2.94	2.31	2.60	2.72	2.35
(c)	Area, acs.	19,708	45,444	86,950	101,019	128,356	241,576	238,169
	Yld., tons	349,627	737,573	1,367,802	1,682,250	2,436,890	4,213,453	4,898,040
Vineyards	Area, acs.	17.74	16.23	15.73	16.65	18.99	17.44	20.57
	Wine, gal.	14,569	48,882	63,677	60,602	92,414	112,961	116,271
Total gross value all agricultural production		£ 15,519,000	£ 16,988,000	£ 23,835,000	£ 38,774,000	£ 81,890,000	£ 74,489,000	£ 70,732,000
Pastoral, dairying, etc.—								
Live Stock	(a) Sheep No.	65,092,719	106,421,068	72,040,211	96,886,234	86,119,068	110,618,893	(f) 114,732,587
	Cattle "	8,010,991	11,112,112	8,491,428	11,828,954	14,441,309	12,260,955	13,512,486
(a)	Horses "	1,088,029	1,584,737	1,620,420	2,278,226	2,438,182	1,775,550	1,763,225
	Pigs "	703,188	845,888	931,309	1,110,721	960,385	1,167,845	1,046,867
Wool prod. lb. (greasy)		319,649,000	634,046,000	539,395,000	798,391,000	723,059,000	1,007,455,847	(f) 1,031,000,000
Butter production lb.		(d)	42,314,585	103,747,295	11,828,954	267,071,340	390,654,070	(f) 468,550,000
Cheese production p.e.,		(d)	10,130,945	11,845,153	15,886,712	32,653,003	31,422,973	38,476,493
Bacon and ham "		(d)	16,771,886	34,020,629	53,335,092	58,626,469	71,121,740	71,490,279
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	£ 135,230,000
		1881.	1891.	1901.	1911.	1921.	1931.	1934.
Mineral production—								
Gold		£ 5,194,390	£ 5,281,861	£ 14,017,538	£ 10,551,624	£ 4,018,685	£ 3,563,519	£ 7,536,674
Silver and lead		£ 45,622	£ 3,736,352	£ 2,248,598	£ 3,022,177	£ 1,539,992	£ 1,443,897	£ 2,922,683
Copper		£ 714,003	£ 367,373	£ 2,215,431	£ 2,564,278	£ 803,957	£ 567,558	£ 397,118
Tin		£ 1,145,889	£ 560,502	£ 448,234	£ 1,209,973	£ 418,418	£ 216,205	£ 746,997
Zinc		£ 200	£ 2,979	£ 4,067	£ 14,415,169	£ 283,455	£ 512,795	£ 208,511
Coal (black)		£ 637,865	£ 1,912,353	£ 2,602,733	£ 3,927,360	£ 10,983,757	£ 6,103,735	£ 5,869,605
Total value of all mineral production		£ 7,820,290	£ 12,074,106	£ 21,816,772	£ 23,302,878	£ 20,029,107	£ 13,352,316	£ 19,953,975
Forestry production—								
Quantity of local timber sawn or hewn—								
1,000 sup. ft.		(d)	(d)	452,131	604,794	590,495	236,707	369,897

(a) At 31st December. (b) Partly estimated for 1881. (c) Area of productive cane. (d) Information not available. (e) Years ended December, except for last two columns which refer to years ended June. (f) 1934-35 figures. (g) Estimate for 1935-36, 140,000,000 bushels.

## STATISTICAL SUMMARY, AUSTRALIA—continued.

Heading.	Year.						
	1881.	1891.	1901.	1911.	1921-22.	1931-32.	1933-34.
Manufactories—							
No. of factories ..				14,455	18,023	21,657	23,297
Hands employed No.				311,710	378,540	336,658	405,909
Wages paid .. £	(a)	(a)	(a)	27,528,377	68,050,861	55,931,810	64,444,660
Value of production .. £				51,259,004	121,674,119	110,981,830	129,091,915
Total value of output .. £				133,022,090	320,340,765	281,645,785	330,134,060
Shipping—							
Oversea vessels { No. ent. & cleared } tons	3,284	3,778	4,028	4,174	3,111	3,057	3,139
Commerce—	2,549,364	4,726,307	6,541,991	9,984,801	9,081,278	11,395,784	11,889,044
Imports, oversea .. £	29,067,000	37,711,000	42,434,000	66,967,488	103,066,436	44,712,868	74,119,496
.. per head .. £	12/16/2	11/16/0	11/3/11	14/18/2	18/14/1	6/16/6	11/1/2
Exports oversea .. £	27,528,000	36,043,000	49,696,000	79,482,258	127,846,535	85,348,607	90,225,168
.. per head .. £	12/2/8	11/5/6	13/2/2	17/13/0	23/4/1	13/9/3	13/9/3
Total oversea trade .. £	56,595,000	73,754,000	92,130,000	146,449,746	230,912,971	130,061,475	164,344,664
.. per head .. £	24/18/10	23/1/6	24/6/1	32/12/0	41/18/2	19/16/11	24/10/5
Customs and Excise duties .. £	4,800,326	7,440,869	8,656,530	13,515,005	27,565,199	28,524,996	38,029,595
.. per head .. £	2/2/5	2/6/7	2/5/8	2/19/2	5/0/1	4/7/1	5/13/6
Principal Oversea Exports (c) .. £							
Wool { lb. (greasy) } .. £	328,369,200	619,259,800	518,018,100	720,364,900	927,833,700	893,644,148	941,732,995
.. cental .. £	13,173,026	19,940,029	15,237,454	26,071,193	47,977,044	32,102,246	39,263,282
Wheat .. £	3,218,792	5,876,875	12,156,035	33,088,731	59,968,334	76,440,603	45,575,814
.. £	1,189,762	1,938,864	2,774,643	9,641,608	28,644,155	19,220,203	11,612,368
Flour .. £	49,549	33,393	96,814	1,75,891	359,734	610,858	697,970
Butter .. £	1,298,805	4,39,800	34,607,400	101,722,100	127,347,400	201,639,404	262,518,906
.. £	39,383	206,868	1,451,168	4,637,362	7,968,978	10,250,002	9,586,776
Skins and hides .. £	316,878	873,695	1,250,938	3,227,236	3,136,810	2,315,594	3,455,732
Tallow .. £	644,149	571,069	677,745	1,935,836	1,441,795	831,435	928,838
Meats .. £	362,965	460,894	2,611,244	4,303,159	5,542,102	6,370,012	9,747,820
Timber (undressed) .. £	118,117	38,448	731,301	1,023,960	1,758,166	432,593	781,774
Gold .. £	6,445,365	5,703,532	14,375,741	12,045,766	3,483,239	12,664,786	9,816,598
Silver and lead .. £	57,954	1,932,278	2,250,253	3,212,584	2,697,130	3,061,927	3,250,540
Copper .. £	676,515	47,687	1,619,145	2,345,961	705,358	469,634	141,655
Coal .. £	361,081	645,972	986,957	900,622	1,099,899	341,800	273,305
Govt. Railways—							
Lgh. of line open, mls.	3,832	9,541	12,579	16,078	23,502	26,959	27,130
Capital cost .. £	42,741,350	99,764,090	123,223,779	152,194,603	244,353,233	323,365,450	327,093,814
Gross revenue .. £	3,910,122	8,654,085	11,038,468	17,847,837	38,194,630	37,579,965	37,295,957
Working expenses .. £	2,141,735	5,630,182	7,133,617	10,945,727	29,817,970	28,141,984	26,916,168
Per cent. of working expenses on earnings %	54.77	65.06	64.63	61.33	78.07	74.88	72.17
Postal—							
Letters and postcards dealt with No.	67,640,000	157,297,000	220,853,000	453,063,000	561,973,105	731,134,500	790,165,500
.. per head ..	29.61	49.07	58.26	100.90	102.01	111.62	118.73
Newspapers dealt with No.	38,063,000	85,280,000	102,727,000	141,638,000	140,477,184	139,502,100	142,039,700
.. per head ..	16.66	26.61	27.10	31.54	25.50	21.30	21.34
Cheque-paying Banks—							
Note circulation .. £	3,978,711	4,417,269	3,399,462	3,718,458	213,868	197,121	169,063
Coin & bullion held .. £	9,108,243	16,712,923	19,780,528	33,470,770	21,626,832	2,882,026	2,719,214
Advances .. £	57,732,824	129,741,583	86,352,832	108,578,774	193,435,760	260,917,515	280,631,436
Deposits .. £	53,849,455	98,345,338	91,487,148	143,446,910	273,866,737	319,241,333	343,348,862
Savings Banks (j)—							
Total deposits .. £	7,854,480	15,536,592	30,882,645	59,393,682	154,396,051	197,966,308	217,972,000
Aver. per head of population .. £	3/10/5	4/18/7	8/3/0	13/8/5	28/0/4	30/1/11	32/8/3
State Schools—					1921.	1931.	1933.
Number of Schools ..	4,494	6,231	7,012	8,060	9,445	10,097	10,343
Teachers .. No.	9,028	12,564	14,500	16,971	26,120	33,762	32,581
Enrolment ..	432,320	561,153	638,478	638,850	819,042	936,901	929,200
Aver. attendance ..	255,143	350,773	450,246	463,759	666,498	817,262	805,334

(a) Owing to variation in classification and lack of information, effective comparison is impossible.  
 (b) British currency values. The recorded values were—Exports, 1931-32, £A08,404,318; and 1934-35, £A12,986,037.  
 (c) Australian produce, except gold, which includes re-exports.  
 (d) Includes packets.  
 (e) Figures for the first three years are averages for the December quarter; the remainder for the June quarter.  
 (f) 1934-35 figures.  
 (g) Decrease due to prohibition of re-issue.  
 (h) Includes Commonwealth Savings Bank Deposits.  
 (i) Government "Set-off" accounts, Interstate (Commonwealth Bank) excluded.  
 (j) First three years at 31st December, remainder, 30th June.

## 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 "The Sydney Gazette," first Australian newspaper. Vic.—Attempted settlement at Port Phillip by Collins. Discovery of Yarra by Grimesd 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 overseas 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 "Now Holland." Creation of Civil Courts.
- 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.

## Year.

- 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. Cotton first grown in Sydney Botanical Gardens. 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.
- 1934 N.S.W.—First settlement at Twofold Bay. Vic.—Settlement formed at Portland Bay by Henty Bros. Qld.—Leichhardt reached Gulf of Carpentaria. S.A.—Formation of the South Australian Association. W.A.—Severe reprisals against natives at Pinjarrah.
- 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.

- Year.
- 1836 N.S.W.—Mitchell's overland journey from Sydney to Cape Northumberland. Vic.—Proclamation of Port Phillip district as open for settlement. S.A.—Settlement founded at Adelaide under Governor Hindmarsh.
- 1837 N.S.W.—Appointment in London of Select Committee on Transportation. Vic.—Melbourne named by Governor Bourke. First overlanders from Sydney arrived at Port Phillip.
- 1838 N.S.W.—Discontinuance of assignment of convicts. Qld.—Settlement of German missionaries at Brisbane. S.A.—“Overlanding” of cattle from Sydney to Adelaide along the Murray route by Hawden and Bonney. Settlement at Port Essington, Northern Territory, formed by Captain Bremer.
- 1839 N.S.W.—Gold found at Vale of Clwydd by Count Strzelecki. S.A.—Lake Torrens discovered by Eyre. Port Darwin discovered by Captain Stokes. W.A.—Murchison River discovered by Captain Grey.
- 1840 N.S.W.—Abolition of transportation to New South Wales. Land regulations—proceeds of sales to be applied to payment for public works and expenditure on immigration. Vic.—Determination of northern boundary. Qld.—Penal settlement broken up and Moreton Bay district thrown open. S.A.—Eyre began his overland journey from Adelaide to King George's Sound.
- 1841 N.S.W.—Gold found near Hartley by Rev. W. B. Clarke. W.A.—Completion of Eyre's overland journey from Adelaide to King George's Sound. Tas.—Renewal of transportation.
- 1842 N.S.W.—Incorporation of Sydney. Vic.—Incorporation of Melbourne. S.A.—Discovery of copper at Kapunda.
- 1843 N.S.W.—First Representative Constitution (under Act of 1842). First manufacture of tweed. Qld.—Moreton Bay granted legislative representation.
- 1844 Qld.—Leichhardt's expedition from Condamine River to Port Essington. S.A.—Sturt's last expedition inland.
- 1845 N.S.W.—Mitchell's explorations on the Barcoo. Qld.—Explorations by Mitchell and Kennedy. S.A.—Discovery of the Burra copper deposits. Sturt discovered Cooper's Creek.
- 1846 N.S.W.—Initiation of meat preserving. Qld.—Foundation of settlement at Port Curtis. S.A.—Proclamation of North Australia. W.A.—Foundation of New Norcia (Benedictine) Mission.
- 1847 N.S.W.—Iron smelting commenced near Berrima. Overland mail established between Sydney and Adelaide. Vic.—Melbourne created a City. Qld.—Explorations by Leichhardt, Burnett, and Kennedy.
- 1848 Qld.—Leichhardt's last journey. Kennedy speared by the blacks at York Peninsula. Chinese brought in as shepherds.
- 1849 N.S.W.—Indignation of colonists at arrival of convict ship *Hashemy*. Exodus of population to goldfields of California. Vic.—*Randolph* prevented from landing convicts. Qld.—Assignment of convicts per *Hashemy* to squatters on Darling Downs. W.A.—Commencement of transportation to Western Australia.
- 1850 N.S.W.—Final abolition of transportation. First sod of first Australian railway turned at Sydney. Sydney University founded. Vic.—Gold discovered at Clunes by Hon. W. Campbell. Representative government granted. S.A.—Representative government granted. W.A.—Pearl oysters found by Lieut. Helpman at Saturday Island Shoal. Tas.—Representative government granted.
- 1851 N.S.W.—Payable gold discovered by Hargraves at Lewis Ponds and Summerhill Creek. Telegraph first used. Vic.—Separation of Port Phillip—erected into independent colony under the name of Victoria. Discovery of gold in various localities. “Black Thursday,” 6th Feb., a day of intense heat. W.A.—Proclamation of Legislative Council Act.
- 1852 N.S.W.—Arrival of the *Chusan*, first P. and O. mail steamer from England. S.A.—First steamer ascended the Murray River to the junction with the Darling. Tas.—Meeting of first elective Council protests against transportation. Payable gold discovered at The Nook, near Fingal, and at Nine Mile Springs.



- Year.
- 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. Gregory's expedition in search of Leichhardt.
- 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.
- 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.

- Year.
- 1878 Qld.—Restriction of Chinese immigration.  
Introduction of telephone into Australia.
- 1879 N.S.W.—First artesian bore at Killara. International Exhibition at Garden Palace, Sydney. First steam tramway. W.A.—A. Forrest's explorations in the Kimberley district, and discovery of the Fitzroy pastoral country.
- 1880 N.S.W.—Public Instruction Act passed. Vic.—Opening of first Victorian International Exhibition at Melbourne. First Australian Telephone Exchange opened in Melbourne.  
Federal Conference at Melbourne and Sydney.
- 1881 N.S.W.—Further restrictions on Chinese immigration.  
Visit to Australia of T.R.H. Prince Albert Victor and Prince George.
- 1882 W.A.—Nugget of gold found between Roebourne and Cossack.
- 1883 N.S.W.—Discovery of silver at Broken Hill. Completion of railway between New South Wales and Victoria. Qld.—Annexation of New Guinea—repudiated by Imperial authorities.  
Federal Conference held at Sydney. Federal Council created.
- 1884 Federation Bill passed in Victoria and rejected in New South Wales. British protectorate declared over New Guinea.
- 1885 N.S.W.—Military contingent sent to the Sudan. Opening of the Broken Hill Proprietary Silver Mines. W.A.—Gold found by prospectors on the Margaret and Ord Rivers in the Kimberley district. Tas.—Silver-lead discovered at Mount Zeehan.
- 1886 Tas.—Discovery of gold and copper at Mount Lyell.  
First session of Federal Council met at Hobart on the 26th January.
- 1887 N.S.W.—Disaster at Bulli coal mine (81 lives lost). S.A.—International Exhibition at Adelaide. W.A.—Cyclone destroyed nearly the whole pearling fleet off the Ninety-Mile Beach—200 lives lost. Gold discovered at Southern Cross.  
First "Colonial" Conference in London. Australasian Naval Defence Force Act passed.
- 1888 N.S.W.—Centennial celebrations. Restrictive legislation against Chinese, imposing poll-tax of £100. Vic.—Second Victorian International Exhibition held at Melbourne. Qld.—Railway communication opened between Sydney and Brisbane.  
Conference of Australian Ministers at Sydney to consider question of Chinese immigration. First meeting of the Australasian Association for the Advancement of Science held in Sydney.
- 1889 Qld.—Direct railway communication established between Brisbane and Adelaide.  
W.A.—Framing of new Constitution. Tas.—University of Tasmania founded.
- 1890 W.A.—Responsible Government granted.  
Meeting at Melbourne of Australasian Federation Conference.
- 1891 N.S.W.—Election to Legislative Assembly of 35 Labour members. Arrival of Australian Auxiliary Squadron. Cessation of assisted immigration. W.A.—Discovery of gold on the Murchison.  
First Federal Convention in Sydney: draft bill framed and adopted.
- 1892 W.A.—Discovery of gold by Messrs. Bayley and Ford at Coolgardie.
- 1893 N.S.W.—Departure by the *Royal Tar* of colonists for "New Australia."  
Financial crisis, chiefly affecting the eastern States.
- 1895 N.S.W.—Free-trade tariff. Land and income taxes introduced.  
Conference of Premiers on Federation at Hobart.
- 1896 N.S.W.—People's Federal Convention at Bathurst.
- 1897-8 Sessions of Federal Convention at Adelaide, Sydney, and Melbourne.
- 1898 N.S.W.—First surplus of wheat for export.  
Draft Federal Constitution Bill submitted to electors in Victoria, New South Wales, South Australia, and Tasmania. Requisite statutory number of votes not obtained in New South Wales.

- Year.
- 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 Federal Capital. Visit of U.S.A. fleet to Australia.
- 1909 Imperial Defence Conference in London—Commonwealth ordered two destroyers and one first-class cruiser for fleet unit. Visit of Lord Kitchener to report and advise on Commonwealth military defence. Queensland University founded.
- 1910 Referendum on financial relations between the Commonwealth and the States. Penny Postage. Arrival of the *Yarra* and *Parramatta*, 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 Federal Capital Territory and Northern Territory to Commonwealth. Introduction of compulsory military training. Launch of destroyer *Warrego* at Sydney. 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 Arrival of battle cruiser *Australia*, and cruisers *Melbourne* and *Sydney*. Federal 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, Mouquet Farm, Flers). 3rd Division, formed in Australia, landed in France. First proposal for compulsory military service defeated by referendum.
- 1917 National Ministry formed. Kalgoorlie-Port Augusta railway completed.  
German withdrawal from Somme; Arras offensive (Bullecourt, 11th April and 3rd May); Messines, 7th June; Third Battle of Ypres, 1st July-10th November (Menin Road, Polygon Wood, Broodseinde, Passchendaele). Palestine—Gaza, 26th March, 19th April, 31st October, (Beersheba). Australian Flying Corps operating with R.F.C. in Palestine and France. Second proposal for compulsory military service defeated by referendum.
- 1918 Population of Australia reached 5,000,000. Australia House (Strand, London) opened by the King.  
Five Australian divisions in France formed into army corps, 1st January. Sir William Birdwood succeeded by Sir John Monash, 30th May. Defensive campaign on Somme, 21st March-25th April (Dernancourt, Villers-Bretonneux); Battles of the Lys, 9th-29th April (Hazebrouck); Hamel, 4th July; Battle of Amiens, 8th August; Mont St. Quentin, 31st August; Hindenburg Line, 18th September-5th October. Palestine—Megiddo, 19th September; Damascus, 1st October. Armistice with Germany, 11th November. Repatriation Department created.
- 1919 Mr. Hughes and Mr. Cook represented Australia at Peace Conference. Return of Australian troops. Aerial flight England to Australia by Capt. Sir Ross Smith and Lieut. Sir Keith Smith. Visit to Australia of General Sir W. R. Birdwood. Visit of Admiral Lord Jellicoe. 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 H.M.A.S. *Australia* sunk in accordance with Washington Treaty. 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. "Paterson" butter marketing plan came into operation.
- 1927 Transfer of Seat of Federal Government from Melbourne to Canberra. New Parliament House opened by H.R.H. the Duke of York. Beam Wireless established.

- Year.
- 1928 Aerial flights from England to Australia by Mr. Bert Hinkler (solo); from America to Australia, and from Australia to New Zealand and return by Messrs. Kingsford Smith and Ulm. 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 Arrival of H.M.A.S. *Canberra*. Beginning of fall in export prices. Commonwealth Bank empowered to mobilize gold reserves. Substantial export of gold reserves towards end of year. Number of telephones connected in Australia reached 500,000.
- 1930 Wireless phone service with other countries inaugurated. Miss Amy Johnson, first woman to fly solo from United Kingdom to Australia. East to west Trans-Atlantic flight of Capt. Kingsford Smith and an international crew in "Southern Cross" plane. Export prices fell to half 1928 level. Cessation of overseas 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, i.e., by conversion of internal loans at lower interest rates, economy in governmental expenditure, etc.; bank deposit rates lowered. 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. Death of General Sir John Monash.
- 1932 Sydney Harbour Bridge opened. Australian Broadcasting Commission established. New South Wales Government default in interest payments made good by Commonwealth Government; conflict of Commonwealth and New South Wales governments. Lang Ministry dismissed in New South Wales. Emergency restrictions on imports relaxed. Legislation passed enabling note reserve to be held in sterling securities, and subsequent shipping of gold to the United Kingdom. Imperial Economic Conference at Ottawa, with consequential tariff agreements. Sugar Agreement modified. Taxation reductions and assistance to wheat-growers. Government deficits reduced to £19,500,000 for 1931-32. Strike in Textile Industry.
- 1933 Third Commonwealth Census. Imperial Air-mail "Astraea" arrived. World Economic Conference in London. Rt. Hon. S. M. Bruce appointed High Commissioner for Australia in London. Australia elected as Member of League of Nations. Secession Referendum (Western Australia). Referendum for reduction and limitation of number of members of Legislative Council (New South Wales). Disarmament Conference in London. Record wheat harvest (213,927,000 bushels). Antarctica and Ashmore and Cartier Islands taken over by the Commonwealth. Government deficits reduced to £4,500,000 for 1932-33.

## Year.

- 1934 Visit of H.R.H. the Duke of Gloucester to open Victorian Centenary Celebrations. Goodwill Mission to the East—Leader Rt. Hon. J. G. Latham. New Governors in Victoria and South Australia. Deaths of Sir Robert Gibson and Sir Edgeworth David. Record flight from England to Australia by Messrs. Scott and Black (Centenary Air Race) in 71 hours. Inauguration of England-Australia Air Mail Service.
- 1935 Silver Jubilee of His Majesty the King. 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. Wheat prices touched 4s. a bushel, the highest price for five years. Appointment of Royal Commission to inquire into banking system of Australia. Construction of submarine telephonic cable between mainland and Tasmania.

# OFFICIAL YEAR BOOK

OF THE

## COMMONWEALTH OF AUSTRALIA, 1934,

AND EARLIER YEARS.

### CHAPTER I.

#### DISCOVERY, COLONIZATION, AND FEDERATION OF AUSTRALIA.

##### § 1. General.

Previous issues of the *Official Year Book*, up to and including No. 22, contained in this Chapter some account of the traditional ideas regarding the existence of a "Terra Australis," together with brief details relating to the discovery and annexation of the Australian continent, but it is not proposed to repeat this information in the present volume. (It may be noted here that Captain Cook's arrival and landing at Botany Bay took place on the same day, i.e., 29th April, 1770.)

##### § 2. Establishment of the Commonwealth of Australia.

1. **General.**—On the 1st January, 1901, the six colonies (now known as States) and the Northern Territory were federated under the name of the "Commonwealth of Australia." The dates of creation and the areas of its component parts, as determined on the final adjustment of their boundaries, are shown in the following table :—

##### 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 Federal Capital Territory embracing an area of 912 square miles, and 28 square miles at Jervis Bay. See par. 3, page 2.

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

3. **Transfer of the Federal Capital Territory to the Commonwealth.**—On the 18th October, 1909, the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 912 square miles as the seat of Government of the Commonwealth. In December, 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on the 5th December, 1910, a proclamation was issued vesting the Territory in the Commonwealth on and from the 1st January, 1911. By the Jervis Bay Territory Acceptance Act 1915, which was assented to on 12th July, 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.

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

5. **Transfer of Norfolk Island.**—Although administered for many years by the Government of New South Wales, this island was, until 1st July, 1914, a separate Crown colony. On that date it was taken over by the Federal Parliament as a territory of the Commonwealth.

6. **Territory of New Guinea.**—The Commonwealth was given a mandate by the League of Nations in December, 1920, over that portion of "German New Guinea" situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159.25° E. The area, now known as the Territory of New Guinea, comprises about 93,000 square miles.

7. **Nauru.**—Jointly with the British Government and the Government of New Zealand the Commonwealth administers the island of Nauru under mandate approved by the League of Nations in December, 1920. The island has an area of about 5,400 acres, and is situated in longitude 166° E., 26 miles south of the Equator.

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.

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.

### § 3. The Exploration of Australia.

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

### § 4. 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. In this issue the Constitution of the Commonwealth as at present amended is printed in full, together with the Financial Agreement of 1928 between the Commonwealth and States, made under the provisions of Section 105A of the Constitution.

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



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

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

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

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

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

1. This Act may be cited as the Commonwealth of Australia Constitution Act.

2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.

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

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

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

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

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

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

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

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

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

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

#### THE CONSTITUTION.

This Constitution is divided as follows :—

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

#### CHAPTER I.—THE PARLIAMENT.

##### PART I.—GENERAL.

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

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

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

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

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

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

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

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

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

##### PART II.—THE SENATE.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

15. If the place of a Senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

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

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

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

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

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

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

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

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

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

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

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

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

#### PART III.—THE HOUSE OF REPRESENTATIVES.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen :
- (ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, of a colony which has become or becomes a State, or of the Commonwealth, or of a State.

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

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

\* The franchise qualification was determined by the Commonwealth Franchise Act 1902.

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

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

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

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

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

#### PART IV.—BOTH HOUSES OF THE PARLIAMENT.

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

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

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

44. Any person who—

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

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

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

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

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

his place shall thereupon become vacant.

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

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

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

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

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

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

#### PART V.—POWERS OF THE PARLIAMENT.†

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

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

\* By the Parliamentary Allowances Act 1907, the amount of the allowance was increased to £600 a year ; and by the Parliamentary Allowances Act 1920 to £1,000 a year. (The latter Act also apportioned special allowances to the President of the Senate ; the Speaker of the House of Representatives ; the Chairman of Committees in each House ; and the Opposition Leader in each House.) The Income Tax (Salaries) Act 1930, provided for a tax of 10 per cent. on each periodical payment of the allowance. This Act was repealed by the Financial Emergency Act 1931, which reduced the amount of the allowance to £800 a year. The Financial Emergency Act 1932 further reduced the amount of the allowance to £750 a year. The Financial Relief Act 1933 increased the amount of the allowance to £825 a year.

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

#### CHAPTER II.—THE EXECUTIVE GOVERNMENT.

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

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

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

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

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

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

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

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

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

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

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

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

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

\* By the Ministers of State Acts 1915 and 1917, the Ministers of State may exceed seven, but shall not exceed nine. £15,300 annually was allotted by these Acts for their salaries; and £800 per annum each was added by the Parliamentary Allowances Act 1920. The Income Tax (Salaries) Act 1930 provided for a tax of 15 per cent. on each periodical payment of salary and allowance. This Act was repealed by the Financial Emergency Act 1931, which reduced the abovementioned amounts to £11,857 10s. od. and £620 respectively. The Financial Emergency Act 1932 reduced the last mentioned amounts to £10,710 and £600 respectively. The Financial Relief Act 1933 increased the amounts to £12,240 and £640 respectively.

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

### CHAPTER III.—THE JUDICATURE.

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

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

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

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

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

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

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

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

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

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

\* See note\* on page 17.

75. In all matters—

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

the High Court shall have original jurisdiction.

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

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

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

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

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

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

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

#### CHAPTER IV.—FINANCE AND TRADE.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

89. Until the imposition of uniform duties of customs—

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

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

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

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

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

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

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

- (i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State :
- (ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

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

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

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

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

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

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

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

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

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

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

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

103. The members of the Inter-State Commission—

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

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

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

\* The Commission was brought into existence in 1913, under Act No. 33 of 1912, by the appointment of Commissioners for seven years. When this period expired no fresh appointments were made.

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

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

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

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

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

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

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

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

#### CHAPTER V.—THE STATES.

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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#### CHAPTER VI.—NEW STATES.

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

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

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

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

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#### CHAPTER VII.—MISCELLANEOUS.

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

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

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

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

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

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#### CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

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

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

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

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

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

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

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#### SCHEDULE.

##### OATH.

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

##### AFFIRMATION.

I, A.B., do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.)

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

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

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

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

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

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

GOD SAVE THE QUEEN.

### § 5. The Financial Agreement between the Commonwealth and the States.

The Financial Agreement Act, No. 5 of 1928, namely, “An Act to approve the agreement made between the Commonwealth and the States” was passed by the Commonwealth Parliament and assented to on 2nd April, 1928. Legislative approval was also given by the Parliaments of the States. The agreement, which was made on the 12th December, 1927, with effect from the 1st July, 1927, is set out below.

#### FINANCIAL AGREEMENT, 1928.

Whereas with a view to making provision for the adjustment of Commonwealth and State financial relations the general principle of a draft scheme was affirmed by a Conference of Commonwealth and State Ministers in Melbourne which commenced on the sixteenth day of June One thousand nine hundred and twenty-seven;

And whereas permanent effect cannot be given to the proposals contained in the said scheme unless the Constitution of the Commonwealth is altered so as to confer on the Parliament of the Commonwealth power to make laws for carrying out or giving permanent effect to such proposals;

And whereas pending the submission to the electors of a proposed law for the alteration of the said Constitution as aforesaid and in order to obtain immediately some of the advantages which would result from united action by adoption of the said scheme the Commonwealth and the States have agreed that for the period commencing on the first day of July One thousand nine hundred and twenty-seven and ending on the thirtieth day of June One thousand nine hundred and twenty-nine certain of the proposed provisions of the said scheme shall be temporarily adopted:

Now this Agreement Witnesseth :

PART I.

1. This Agreement shall have no force or effect and shall not be binding on any party unless and until it is approved by the Parliaments of the Commonwealth and of the States.

2. DEFINITIONS.

In this Agreement—

“*Net Public debt of a State existing on 30th June, 1927,*” means in respect of each State the amount of debt set forth hereunder opposite to the name of that State, viz. :—

	£
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
	641,345,397

The said amount of the net public debt of each State includes the debts of that State secured by—

- (i) Inscribed Stock, including Local Inscribed Stock and Government Inscribed Stock ;
  - (ii) Instalment Stock ;
  - (iii) Registered Stock ;
  - (iv) Funded Stock ;
  - (v) Stock payable to bearer ;
  - (vi) Bonds, including registered bonds ;
  - (vii) Debentures, including registered debentures and instalment debentures ;
  - (viii) Treasury Bills not repayable within twelve months from the date of issue ; or
  - (ix) Fixed deposit receipts or special deposit receipts for moneys borrowed for other than temporary purposes ;
- issued or created by the State or by or on behalf of a Colony the predecessor of the State in respect of moneys borrowed by the Colony or State together with debts of the State to the Commonwealth of the amount set out respectively hereunder opposite to the name of the State so far as those last-mentioned debts are not included by being secured in manner aforesaid :—

	£
New South Wales .. .. .	12,553,698
Victoria .. .. .	23,688,269
Queensland .. .. .	16,082,583
South Australia .. .. .	18,446,197
Western Australia .. .. .	16,739,872
Tasmania .. .. .	3,948,613
	91,459,232

after deducting therefrom the amount for which the Commonwealth by this Agreement assumes liability under Part III., Clause 4, of this Agreement and the amount of any moneys or securities standing to the credit of a sinking fund, redemption fund, or a fund of a like nature of the State as on 30th June, 1927, and does not include any moneys raised by the State by way of overdraft, fixed deposit, or special deposit for temporary purposes only.

The said sum of £234,088,501 (being the amount of the debt of New South Wales above-mentioned) comprises the debts referred to in, and has been computed in the manner shown in, the statement signed by representatives of the Commonwealth and of New South Wales.

“*Gross Public Debt of a State existing on 30th June, 1927,*” means in respect of each State the amount of debt set forth hereunder opposite to the name of that State, viz. :—

	£
New South Wales .. .. .	239,441,363
Victoria .. .. .	144,844,530
Queensland .. .. .	105,259,916
South Australia .. .. .	87,614,005
Western Australia .. .. .	70,705,913
Tasmania .. .. .	24,254,688
	672,120,415

The said amount of the gross public debt of each State includes the net public debt of that State together with the amount for which the Commonwealth by this Agreement assumes liability under Part III., Clause (4), of this Agreement and the amount of any moneys or securities standing to the credit of any sinking fund redemption fund or fund of a like nature of the State as on 30th June, 1927.

“*Transferred Properties*” means the properties mentioned or specified in the Schedule of Transferred Properties signed by representatives of the Commonwealth and the States as revised to the 30th June, 1927, being properties which became vested in the Commonwealth pursuant to Section 85 (i) of the Constitution of the Commonwealth.

“*The Loan Council*” means the Australian Loan Council created in pursuance of this Agreement.

“*Bondholder*” means an owner of any—

- (i) Inscribed Stock, including Local Inscribed Stock and Government Inscribed Stock ;
  - (ii) Instalment Stock ;
  - (iii) Registered Stock ;
  - (iv) Funded Stock ;
  - (v) Stock payable to bearer ;
  - (vi) Bonds, including registered bonds ;
  - (vii) Debentures including registered debentures and instalment debentures ;
  - (viii) Treasury Bills not repayable within twelve months from the date of issue or
  - (ix) Fixed deposit receipts or special deposit receipts for moneys borrowed for other than temporary purposes ;
- issued or created by a State or by or on behalf of a Colony the predecessor of the State in respect of borrowed moneys but does not include the Commonwealth.

### 3. AUSTRALIAN LOAN COUNCIL.

(a) There shall be an Australian Loan Council, which shall consist of one Minister of State of the Commonwealth to be appointed in writing from time to time by the Prime Minister of the Commonwealth to represent the Commonwealth, and one Minister of State of each State to be appointed in writing from time to time by the Premier of that State to represent that State. Provided that, if in the opinion of the Prime Minister or of any Premier of a State, special circumstances exist at any time which make it desirable so to do, a person who is not a Minister may instead of a Minister be appointed by the Prime Minister or the Premier as the case may be to represent the Commonwealth or a State as a member of the Loan Council. The name of each person appointed to represent a State shall be notified in writing by the Premier of that State to the Prime Minister.

(b) The member representing the Commonwealth on the Loan Council shall hold office during the pleasure of the Prime Minister of the Commonwealth and a member representing a State shall hold office during the pleasure of the Premier of the State which the member was appointed to represent.

(c) A decision in which all the members for the time being of the Loan Council concur shall be a unanimous decision of the Loan Council notwithstanding any vacancy then existing in its membership.

(d) A meeting of the Loan Council may at any time be convened by the member representing the Commonwealth, and shall be so convened upon the request of at least three members representing States.

(e) A majority of the members of the Loan Council shall constitute a quorum of the Loan Council for the exercise of its powers at any meeting. Provided that—

- (i) a member may at any time appoint in writing a deputy to act in his absence ; and any deputy so appointed may in the absence of the member exercise all the powers and functions of the member and his presence shall be deemed the presence of the member ; and
- (ii) an absent member who has not appointed a deputy may vote by letter or by telegram, and in such case that member shall be counted as being present in relation only to the questions on which he has voted.

(f) The Loan Council may make rules of procedure including rules relating to places, times, and notices of meetings, and conduct of business at meetings, and from time to time may alter such rules.

(g) The Commonwealth and each State will from time to time while Part II. of this Agreement is in force, and while Part III. of this Agreement is in force, submit to the Loan Council a programme setting forth the amount it desires to raise by loans for each financial year for purposes other than the conversion, renewal or redemption of existing loans or temporary purposes. Each programme shall state the estimated total amount of such loan expenditure for the year, and the estimated amount of repayments which will be available towards meeting that expenditure. Any revenue deficit to be funded shall be included in such loan programme, and the amount of such deficit shall be set out. Loans for Defence purposes approved by the Parliament of the Commonwealth shall not be included in the Commonwealth's loan programme or be otherwise subject to this agreement.

(h) If the Loan Council decides that the total amount of the loan programme for the year cannot be borrowed at reasonable rates and conditions it shall decide the amount to be borrowed for the year, and may by unanimous decision allocate such amount between the Commonwealth and the States.

(i) If the members of the Loan Council fail to arrive at a unanimous decision under the last preceding sub-clause allocating the amount to be borrowed for any year, the amount to be borrowed for that year shall be allocated as follows :—

- (i) The Commonwealth shall, if it so desires, be entitled to have one-fifth or any less proportion of such amount allocated to the Commonwealth ; and
- (ii) Each State shall be entitled to have allocated to it a sum (being a portion of the balance of such amount) bearing to the balance of such amount the same proportion which the net loan expenditure of that State in the preceding five years bears to the net loan expenditure of all the States during the same period. Provided that any State may, if it so desires, have allocated to it a sum less than the sum to which it is entitled under this sub-clause or no sum, and that when a less sum or no sum has been allocated to any State or States in manner aforesaid the amount then remaining available for allocation shall be allocated to the other States in the proportion which the net loan expenditure of each of such other States in the preceding five years bears to the net loan expenditure of all such other States during the same period. For the purposes of this sub-clause net loan expenditure does not include

expenditure for the conversion, renewal, or redemption of loans, but means the gross other loan expenditure of a State less any amounts of such expenditure repaid to the State other than moneys repaid to the State in manner stated in Part II., clause 4 (e), or Part III., clause 3 (i), of this Agreement.

(j) If the total amount to be borrowed as aforesaid for any year is to be borrowed by means of more than one loan the Loan Council may by unanimous decision apportion between the Commonwealth and the States the amount to be borrowed by each such loan other than the loan by means of which the balance of the total amount to be borrowed as aforesaid for the year is borrowed.

(k) If the members of the Loan Council fail to arrive at a unanimous decision under the last preceding sub-clause apportioning the amount to be borrowed as aforesaid by any loan the amount to be borrowed by that loan shall be apportioned between the Commonwealth and the States in proportion to the amount then to be borrowed as aforesaid for the Commonwealth and for each State for the year.

(l) The Commonwealth and each State will also from time to time, while Part II. of this Agreement is in force and while Part III. of this Agreement is in force, submit to the Loan Council a statement setting out the amount it requires for each financial year for the conversion, renewal or redemption of existing loans.

(m) If the members of the Loan Council fail to arrive at a unanimous decision on any matter other than the matters referred to in sub-clauses (h) and (j) of clause 3 and sub-clause (b) of clause 4 of this part of this Agreement, the matter shall be determined by a majority of votes of the members.

On every question for decision by the Loan Council the member representing the Commonwealth shall have two votes and a casting vote, and each member representing a State shall have one vote.

(n) A decision of the Loan Council in respect of a matter which the Loan Council is by this Agreement empowered to decide shall be final and binding on all parties to this Agreement.

(o) In this clause the expressions "Prime Minister" and "Premier" include the persons for the time being respectively acting as such.

#### 4. FUTURE BORROWINGS OF COMMONWEALTH AND STATES.

(a) Except in cases where the Loan Council has decided under sub-clause (b) of this clause that moneys shall be borrowed by a State, the Commonwealth, while Part II. or Part III. of this Agreement is in force, shall, subject to the decisions of the Loan Council and subject also to clauses 5 and 6 of this Part of this Agreement, arrange 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 at any time the Loan Council by unanimous decision so decides, a State may in accordance with the terms of the decision borrow moneys outside Australia in the name of the State, and issue securities for the moneys so borrowed. The Commonwealth shall guarantee that the State will perform all its obligations to bondholders in respect of the moneys so borrowed. For all the purposes of this Agreement, including the making of sinking fund contributions, the moneys so borrowed shall be deemed to be moneys borrowed by the Commonwealth for and on behalf of that State.

(c) If any State after the 30th June, 1927, and before this Agreement has been approved by the Parliaments of the Commonwealth and of the States, has borrowed moneys in the name of the State and issued securities for the moneys so borrowed, such moneys shall for all the purposes of this Agreement, including the making of sinking fund contributions, be deemed to be moneys borrowed by the Commonwealth for and on behalf of that State.

(d) While Part II. or Part III. of this Agreement is in force, moneys shall not be borrowed by the Commonwealth or any State otherwise than in accordance with this Agreement.

#### 5. BORROWING BY STATES.

For any purpose (including the redemption of securities given or issued at any time for moneys previously borrowed or used in manner stated in this clause) a State may, while Part II. or Part III. of this Agreement is in force :—

- (a) Subject to any maximum limits decided upon by the Loan Council from time to time for interest, brokerage, discount and other charges, borrow moneys within the State from authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice and from the public by counter sales of securities, and
- (b) use any public moneys of the State which are available under the laws of the State.

Any securities that are issued for moneys so borrowed or used shall be Commonwealth securities, to be provided by the Commonwealth upon terms approved by the Loan Council.

Where any such borrowing or use is solely for temporary purposes, the provisions of this Agreement, other than this clause, shall not apply.

Where any such borrowing or use is not solely for temporary purposes, and Commonwealth securities are issued in respect thereof, the moneys borrowed or used shall be deemed to be moneys borrowed by the Commonwealth for and on behalf of the State, and may be retained by the State. A State may convert securities given or issued at any time by that State for moneys previously borrowed or used in manner stated in this clause. New securities issued on any such conversion shall be Commonwealth securities to be provided by the Commonwealth upon terms approved by the Loan Council. The amount for which such new securities are issued shall be deemed to be moneys borrowed by the Commonwealth for and on behalf of the State.

If the moneys deemed under this clause to be moneys borrowed by the Commonwealth on behalf of a State, together with the amounts raised by the Commonwealth for and on behalf of the State exceed the total amount of loan moneys decided upon by the Loan Council as the moneys to be raised for and on behalf of the State for the financial year in which the money is deemed to be borrowed, the excess shall, unless the Loan Council otherwise decides, be deemed to be moneys received by the State in the following year on account of its loan programme for that year.

For the purposes of this clause counter sales of securities shall be deemed to mean sales of securities made at the office of the State Treasury, and at such other places as may be decided upon by the Loan Council.

The Commonwealth shall not be under any obligation to make sinking fund contributions in respect of moneys borrowed or used pursuant to this clause to meet a revenue deficit of a State, but the provisions of clause 4 (d) of Part II. and of clause 3 (j) of Part III. of this Agreement shall apply respectively to all moneys borrowed or used for that purpose.

Except in cases where the Loan Council has otherwise decided under sub-clause (b) of clause 4 of Part I. of this Agreement a State shall not have the right to invite loan subscriptions by the issue of a public prospectus.

Notwithstanding anything contained in this Agreement, any State may use for temporary purposes any public moneys of the State which are available under the laws of the State, or may, subject to maximum limits (if any) decided upon by the Loan Council from time to time for interest, brokerage, discount, and other charges, borrow money for temporary purposes by way of overdraft, or fixed, special, or other deposit, and the provisions of this Agreement other than this paragraph shall not apply to such moneys.



## 6. BORROWING BY COMMONWEALTH.

For any purpose (including the redemption of securities given or issued at any time for moneys previously borrowed or used in manner stated in this clause) the Commonwealth may—while Part II. or Part III. of this Agreement is in force—

- (a) Subject to any maximum limits decided upon by the Loan Council from time to time for interest, brokerage, discount and other charges, borrow moneys within the Commonwealth from authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice and from the public by counter sales of securities, and
- (b) use any public moneys of the Commonwealth which are available under the laws of the Commonwealth.

Any securities that are issued for moneys so borrowed or used shall be Commonwealth securities, to be provided by the Commonwealth upon terms approved by the Loan Council.

Where any such borrowing or use is solely for temporary purposes, the provisions of this Agreement, other than this clause, shall not apply.

Where any such borrowing or use is not solely for temporary purposes, and Commonwealth securities are issued in respect thereof, the moneys borrowed or used may be retained by the Commonwealth. The Commonwealth may convert securities given or issued at any time by the Commonwealth for moneys previously borrowed or used in manner stated in this clause. New securities issued on any such conversion shall be Commonwealth securities to be provided by the Commonwealth upon terms approved by the Loan Council.

If the moneys so borrowed or used are not borrowed or used solely for temporary purposes and Commonwealth securities are issued in respect thereof, and such moneys, together with other moneys borrowed by the Commonwealth for and on behalf of the Commonwealth as part of the total amount of loan moneys decided upon by the Loan Council as the moneys to be raised for and on behalf of the Commonwealth for the financial year in which the securities are issued, exceed such total amount the excess shall unless the Loan Council otherwise decides be deemed to be moneys received by the Commonwealth in the following year on account of its loan programme for that year.

For the purposes of this clause counter sales of securities shall be deemed to mean sales of securities made at the offices of the Commonwealth Treasury, and at such other places as may be decided upon by the Loan Council.

Notwithstanding anything contained in this Agreement, the Commonwealth may use for temporary purposes any public moneys of the Commonwealth which are available under the laws of the Commonwealth or may, subject to maximum limits (if any) decided upon by the Loan Council from time to time for interest, brokerage, discount, and other charges, borrow money for temporary purposes by way of overdraft, or fixed, special or other deposit, and the provisions of this Agreement other than this paragraph shall not apply to such moneys.

## 7. PAYMENT OF INTEREST AND SINKING FUNDS.

[*Not reprinted.*—This section which is obsolete provided for payment of interest and sinking fund on certain loans in the event of Part III. of the Agreement not coming into force.]

## PART II.

[*Not reprinted.*—This Part which is obsolete provided for interest and sinking fund during the period 1st July, 1927, up to the actual taking over of States' debts by the Commonwealth on 1st July, 1929. The intention was to carry out the permanent arrangements proposed in Part III. so far as they were applicable to the interim period.]

## PART III.

This Part of this Agreement shall not come into force or be binding upon any party hereto unless before the 1st July, 1929, the Constitution of the Commonwealth has been altered in accordance with the proposals referred to in Part IV. of this Agreement and a law of the Parliament of the Commonwealth has been made thereunder validating this Agreement, but shall come into full force and effect if and when before the said date the Constitution is so altered and this Agreement is so validated.

When this Part of this Agreement comes into force every matter or thing done and payment made under or in pursuance of Part II. of this Agreement shall be deemed, so far as is practicable, to have been done or made under this Part of this Agreement to the same extent as if this Part had then in fact been in force, and all necessary adjustments shall be made in respect of moneys so paid in order to ensure that no party hereto shall be liable for or make double payments in respect of the same matter.

#### PERMANENT PROVISIONS.

##### 1. TAKING OVER STATES' PUBLIC DEBTS.

Subject to the provisions of this Part of this Agreement the Commonwealth will take over on the 1st July, 1929 :—

- (i) the balance then unpaid of the gross public debt of each State existing on 30th June, 1927 ; and
- (ii) all other debts of each State existing on the 1st July, 1929, for moneys borrowed by that State which by this Agreement are deemed to be moneys borrowed by the Commonwealth for and on behalf of that State—

and will in respect of the debts so taken over assume as between the Commonwealth and the States the liabilities of the States to bondholders.

##### 2. PAYMENT OF INTEREST.

(a) Subject to this clause the Commonwealth will pay to bondholders from time to time interest payable on the Public Debts of the States taken over by the Commonwealth as aforesaid other than debts due by the States to the Commonwealth.

(b) The Commonwealth will in each year during the period of 58 years, commencing on 1st July, 1927, provide by equal monthly instalments the following amounts in respect of each State as shown hereunder towards the interest payable by that State :—

					£
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
					£7,584,912

(c) Each State shall in each year during the same period of 58 years pay to the Commonwealth the excess over the amounts to be provided by the Commonwealth under the last preceding sub-clause necessary to make up as they fall due the interest charges falling due in that year on the public debt of that State taken over by the Commonwealth as aforesaid and then unpaid, and on any moneys borrowed by the Commonwealth on behalf of that State and then unpaid, and after the expiration of the said period each State shall in each year pay to the Commonwealth, as they fall due, the whole of the interest charges on any debt then unpaid and included in the public debt of that State taken over by the Commonwealth as aforesaid, and on any moneys borrowed by the Commonwealth on behalf of that State and then unpaid.

(d) The method by which payments shall be made by a State under sub-clause (c) of this clause shall be arranged from time to time between the Commonwealth and that State.

(e) The rate of interest payable under sub-clause (c) of this clause in respect of moneys borrowed by the Commonwealth on behalf of a State shall be the full rate of interest payable by the Commonwealth in respect of the loan by which such moneys were borrowed or such other rate of interest as may be payable by the State to the Commonwealth under any Agreement made or to be made between the Commonwealth and that State in respect of such moneys and such interest shall be payable by the State for the full term of that loan.

## 3. 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, shall be established in the manner hereinafter set forth.

(b) During the period of fifty-eight years commencing on the 1st July, 1927, the Commonwealth shall pay from revenue annually a sinking fund contribution at the rate of 2s. 6d. for each £100 of the net public debts of the States existing on 30th June, 1927, and each State (other than the State of New South Wales) shall in each year during the said period pay from revenue a sinking fund contribution at the rate of 5s. for each £100 of the net public debt of such State existing on 30th June, 1927. The State of New South Wales during the period of fifty-eight years commencing on the 1st July, 1928, shall in each year pay from revenue a sinking fund contribution at the rate of 5s. for each £100 of the net public debt of that State existing on 30th June, 1927.

(c) Where in respect of any debt included in the gross Public Debt of a State existing at the 30th June, 1927, there is under laws or contracts existing at that date an obligation to provide a sinking fund at a rate in excess of 7s. 6d. per annum for each £100, any amount to be so provided in excess of 7s. 6d. per annum for each £100 shall be provided out of the National Debt Sinking Fund, established under the laws of the Commonwealth. Provided that if any law imposing such an obligation is repealed or is amended so as to reduce the rate of sinking fund to be provided the only amount (if any) to be provided out of the National Debt Sinking Fund pursuant to this sub-clause in respect of that debt shall as from the date of such repeal or amendment be the amount (if any) by which the reduced rate of sinking fund for the time being exceeds 7s. 6d. per annum for each £100.

(d) When a loan is issued for the conversion, renewal, or redemption of any debt of a State included in the gross Public Debt of that State existing on 30th June, 1927, the only sinking fund contributions to be made by the Commonwealth and that State in respect of the debt so converted, renewed, or redeemed shall be sinking fund contributions at the same rate and for the same period and upon the same amount as if such debt had not been converted, renewed, or redeemed.

(e) Subject to sub-clauses (h) and (j) of this clause a sinking fund at the rate of 10s. per annum for each £100 of the amount of each new loan raised by a State or by the Commonwealth for and on behalf of a State after 30th June, 1927, shall be established.

(f) Subject to sub-clauses (h) and (j) of this clause, in each year during the period of fifty-three years from the date of the raising after 30th June, 1927, of any new loan by a State or by the Commonwealth for and on behalf of a State the Commonwealth and that State shall each pay from revenue a sinking fund contribution of a sum equal to 5s. for each £100 of the amount of the new loan.

Provided that the period of fifty-three years during which the State of New South Wales shall make sinking fund contributions in respect of new loans raised in the financial year beginning on the 1st July, 1927, shall commence on the 1st July, 1928.

(g) For the purpose of the last two preceding sub-clauses a loan issued after the 30th June, 1927, to meet a revenue deficit which accrued on or before that date shall be deemed to be a new loan, but a loan issued for the conversion, renewal or redemption of a debt shall not be deemed to be a new loan, and where a loan is issued partly for the conversion, renewal, or redemption of a debt and partly for other purposes, so much only of the loan as has been issued for other purposes shall be deemed to be a new loan.

(h) Where it is agreed between the Commonwealth and a State that a loan or any portion of a loan raised after 30th June, 1927, and expended or to be expended upon wasting assets should be redeemed within a shorter period than fifty-three years, the annual sinking fund contributions of the State in respect of that loan or the portion thereof, shall be increased to an amount which with the sinking fund contributions of the Commonwealth in respect of that loan or the portion thereof will provide for the

redemption of that loan or the portion thereof within such shorter period. All sinking fund contributions of the State in respect of that loan or the portion thereof shall cease on the expiration of the shorter period, but the Commonwealth contributions in respect of that loan shall continue for the remainder of the period of fifty-three years from the date of the raising of that loan, and during such remainder of the period the State contributions to the sinking fund in respect of other loans of that State shall be reduced by the amount of the Commonwealth contributions during that remainder of the period in respect of such redeemed loan or the portion thereof. For the purposes of this sub-clause the sinking fund contributions of the Commonwealth and the State shall be deemed to accumulate at the rate of  $4\frac{1}{2}$  per centum per annum compounded.

(i) Where loan moneys have been advanced by a State under terms providing for the repayment of such moneys the State shall as and when such moneys are repaid pay such moneys either to the State Loan Fund or to the account or fund from which such moneys were advanced, or to the sinking fund and shall in addition make from revenue its sinking fund contributions in respect of the loan or loans from which the moneys so advanced were provided.

Provided that when loan moneys have been advanced by a State to a Public or Local Authority or body constituted by the State or under the laws of the State and the Authority or body repays such moneys out of its revenue the State may out of moneys so repaid make its sinking fund contributions in respect of the loan moneys so advanced.

(j) In respect of any loan raised after the 30th June, 1927, by a State or by the Commonwealth for and on behalf of a State to meet a revenue deficit accruing after that date no sinking fund contributions shall be payable by the Commonwealth, but that State shall for a period sufficient to provide for the redemption of that loan pay from revenue in each year during such period a sinking fund contribution at a rate of not less than 4 per centum per annum of the amount of that loan. For the purposes of this sub-clause the sinking fund contributions of the State shall be deemed to accumulate at the rate of  $4\frac{1}{2}$  per centum per annum compounded.

(k) All sinking fund contributions to be made in pursuance of this part of this Agreement shall be debts payable to the National Debt Commission as follows:—

(i) As regards the net public debt of a State existing on 30th June, 1927—by half-yearly instalments on 30th September and 31st March in each financial year or on such other dates as may be agreed between the Commonwealth and that State.

(ii) As regards loans raised after 30th June, 1927—by equal instalments on the dates on which interest on such loans is payable or on such other dates as may be agreed upon between the Commonwealth and the State concerned.

(l) Subject to the next succeeding sub-clause all moneys and securities standing to the credit of sinking funds, redemption funds and funds of a like nature of a State existing on 30th June, 1929, shall forthwith be transferred by the States to the National Debt Commission. Nothing in this sub-clause contained shall be deemed to limit the power of a State to cancel before 30th June, 1929, any such securities.

(m) Where the conditions relating to sinking funds, redemption funds, and funds of a like nature as aforesaid held by a State on trust or by trustees under statutory or contractual obligations preclude the transfer of those funds to the National Debt Commission, such funds shall remain under the control of the State or those trustees, and the National Debt Commission will either directly or through the State concerned make all future payments to the State or to those trustees from the sinking fund.

(n) The sinking funds to be established under this Agreement shall be controlled by the National Debt Commission. The National Debt Commission may arrange with any State to act as its agent in connexion with payments due to bondholders.

(o) Sinking Fund contributions made under this Agreement in respect of the debts of a State and funds of that State transferred to the National Debt Commission under sub-clause (l) of this clause will not be accumulated, but (subject to sub-clauses (m)

and (p) of this clause) will be applied to the redemption of the public debts of that State and of loans raised by the Commonwealth for and on behalf of that State, or to the purchase of securities issued in respect thereof.

(p) If at any time it is deemed inexpedient by the National Debt Commission to apply sinking funds in the manner set forth in sub-clause (o) of this clause, such funds may be temporarily invested in any securities in which the National Debt Commission is from time to time by law authorized to invest moneys.

(q) When a security issued in respect of a public debt of a State or of a loan raised by the Commonwealth for and on behalf of a State is repurchased or redeemed by the National Debt Commission such security shall be cancelled—

- (i) if a repurchased security—on the last day of September, December, March, or June next ensuing after the date of repurchase, or on the date of maturity of the security whichever shall first occur ; and
- (ii) if a redeemed security—on the date of redemption.

In addition to the sinking fund contributions otherwise payable in respect of that debt or loan the State concerned shall—

- (i) as from the date of cancellation of each security and for the full period during which the said sinking fund contributions are payable make from revenue a further sinking fund contribution at the rate of  $4\frac{1}{2}$  per centum per annum of the face value of the cancelled security ; and
- (ii) also pay to the National Debt Commission interest on the face value of each repurchased security at the rate provided by the security from the last date preceding the repurchase upon which interest was payable under the terms of the security up to the date of cancellation of the security.

#### 4. TRANSFERRED PROPERTIES.

It is agreed that all questions between the Commonwealth and the States relating to State properties transferred to the Commonwealth or acquired by the Commonwealth under section 85 of the Constitution shall be settled as follows :—

The States will as from 1st July, 1929, and as between the Commonwealth and the States be completely free and discharged from all liability whether in respect of principal, interest or sinking fund, or otherwise, which liability shall be assumed by the Commonwealth in respect of so much of the public debts of the States bearing interest at the rate of 5 per centum per annum, taken over by the Commonwealth as aforesaid as amounts to the agreed value of transferred 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

The particular portion of the public debt of each State in respect of which the States shall become free and discharged from liability shall be determined by the Commonwealth.

Each State will issue to the Commonwealth freehold titles (or, if the laws of any State do not permit of the issue of freehold titles, then titles as near to freehold as the laws of that State will permit) for transferred properties consisting of land or interests in land in that State, and all liability of the Commonwealth to the State in respect of transferred properties shall as from the 1st July, 1929, be extinguished.

The provisions of clauses 2 and 3 of this Part of this Agreement shall not apply to the said amount of £10,924,323.

## PART IV.—MISCELLANEOUS.

## I. EXPENSES OF LOAN FLOTATION.

Each State shall repay to the Commonwealth all expenses incurred or payments made by the Commonwealth in the performance of this Agreement in relation to the State including the following expenses and payments :—

- (i) Loan flotation charges ;
- (ii) Management charges ;
- (iii) Stamp duties on transfer of securities ;
- (iv) Commission on payment of interest ;
- (v) Expenses incurred in the conversion, renewal, redemption, or consolidation of loans ;
- (vi) Exchange on transference of moneys.

Unless it is otherwise agreed between the Commonwealth and a State the Commonwealth will not do anything in connexion with a loan of that State existing on the 30th June, 1927, or raised thereafter pursuant to this Agreement which if done by that State would be a breach of any now existing agreement by that State with any Bank.

A certificate by the Auditor-General of the Commonwealth stating the amount to be repaid by a State to the Commonwealth and the matter in respect of which the repayment is to be made shall in the event of a dispute be conclusive as to the amount and matter stated.

## 2. ALTERATION OF THE CONSTITUTION.

The Commonwealth will take the necessary action to submit to the Parliament of the Commonwealth and to the electors proposals for the alteration of the Constitution of the Commonwealth in the following form :—

“ 105A. (1) The Commonwealth may make agreements with the States with respect to the public debts of the States, including—

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

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

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

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

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

(6) The powers conferred by this section shall not be construed as being limited in any way by the provisions of section 105 of this Constitution.”

[For result of referendum see Chapter III., § 2.]

### 3. INDEMNITY.

Each State agrees with the Commonwealth that it will by the faithful performance of its obligations under this Agreement indemnify the Commonwealth against all liabilities whatsoever in respect of the public debt of that State taken over by the Commonwealth as aforesaid (other than the liabilities of the Commonwealth under this Agreement to pay interest and to make sinking fund contributions and under clause 4 of Part III. of this Agreement), and in respect of all loans of that State in respect of which this Agreement provides that sinking fund contributions shall be made.

### 4. ACCOUNTS.

Separate accounts shall be kept by the Commonwealth for each State in respect of Debt, Interest, and Sinking Funds.

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[*Note re Validity of Act.*—Consequent upon the failure of the State of New South Wales to provide certain interest payments on its public debts in accordance with the Financial Agreement, the Commonwealth Parliament passed a *Financial Agreement Enforcement Act* (No. 3 of 1932). The State of New South Wales attacked the validity of this Act as being *ultra vires* the Commonwealth Parliament and an infringement of State rights in respect to the appropriation of public moneys for specific services. The High Court by a majority decision of four to two held that this was a valid law and dismissed the action, subsequently refusing leave to appeal to the Privy Council.]

## CHAPTER 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 1934 was  $23^{\circ} 26' 52.10''$ ), the areas within the tropical and temperate zones are approximately as follow :—

## AUSTRALIA—AREAS OF TROPICAL AND TEMPERATE REGIONS.

(STATES AND TERRITORY PARTIALLY WITHIN TROPICS.)

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

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

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



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

## AREA OF AUSTRALIA AND OF OTHER COUNTRIES.

Country.	Area.	Country.	Area.
<b>Continental Divisions—</b>	Sq. miles.	<b>AFRICA—continued.</b>	Sq. miles.
Europe .. .. .	4,408,000	Belgian Congo .. ..	918,000
Asia .. .. .	16,177,000	Algeria .. .. .	847,552
Africa .. .. .	11,566,000	Angola .. .. .	476,712
North and Central America and West Indies .. ..	8,648,000	Union of South Africa .. ..	472,347
South America .. .. .	7,004,000	Egypt .. .. .	383,000
Australasia and Polynesia	3,301,000	Nigeria and Protectorate .. ..	372,674
Total, exclusive of Arctic and Antarctic Confs. . . .	51,104,000	Tanganyika Territory .. ..	360,000
		Abyssinia .. .. .	350,000
<b>Europe—</b>		Tripolitania .. .. .	347,500
Soviet Union (Russia) .. ..	2,316,214	South-West Africa .. ..	318,099
France .. .. .	212,659	Portuguese East Africa .. ..	297,657
Spain (inc. possessions) .. ..	196,607	Northern Rhodesia .. ..	288,000
Germany .. .. .	181,738	Bechuanaland Protectorate .. ..	275,000
Sweden .. .. .	173,349	Madagascar .. .. .	241,094
Poland .. .. .	149,274	Kenya Colony and Protec- torate .. .. .	224,960
Finland .. .. .	132,589	Cyrenaica .. .. .	212,000
Norway .. .. .	124,556		
Rumania .. .. .	122,282	<b>North and Central America—</b>	
Italy .. .. .	119,713	Canada .. .. .	3,684,463
Yugoslavia .. .. .	95,558	United States of America .. ..	3,026,789
Great Britain and Northern Ireland .. .. .	94,633	Mexico .. .. .	767,198
		Alaska .. .. .	586,400
<b>Asia—</b>		Newfoundland and Labra- dor .. .. .	162,734
Soviet Union (Russia) .. ..	5,859,840	Nicaragua .. .. .	51,660
China and Dependencies .. ..	4,277,655		
British India and Adminis- tered Territories .. ..	1,318,346	<b>South America—</b>	
Arabia and Autonomous States .. .. .	1,000,000	Brazil .. .. .	3,275,510
Persia .. .. .	628,000	Argentine Republic .. ..	1,079,965
Dutch East Indies .. .. .	572,604	Bolivia .. .. .	514,465
Feudatory Indian States .. ..	490,333	Peru .. .. .	482,133
Turkey .. .. .	285,159	Colombia (exc. of Panama)	447,536
Japan and Dependencies .. ..	260,644	Venezuela .. .. .	352,051
Afghanistan .. .. .	245,000	Chile .. .. .	285,133
Siam .. .. .	200,234	Ecuador .. .. .	275,936
<b>Africa—</b>		<b>Australasia and Polynesia—</b>	
French West Africa .. ..	1,604,159	Commonwealth of Australia	2,974,581
Anglo-Egyptian Sudan .. ..	1,008,100	Dutch New Guinea .. ..	160,692
French Equatorial Africa	912,049	New Zealand and Depen- dencies .. .. .	104,751
		Territory of New Guinea .. ..	93,000
		Papua .. .. .	90,540
		<b>British Empire .. .. .</b>	<b>13,355,426</b>

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

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

AUSTRALIA—AREA OF STATES AND TERRITORIES.

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

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

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

AUSTRALIA—COAST LINE AND AREA PER MILE THEREOF.

State.	Coast-line.	Area 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 Federal Capital Territory.

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

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

(iii) *Historical Significance of Coastal Names* It is interesting to trace the voyages of some of the early navigators by the names bestowed by them on various coastal features—thus Dutch names are found on various points of the Western Australian coast, in Nuyts' Archipelago, in the Northern Territory, and in the Gulf of Carpentaria:

Captain Cook can be followed along the coasts of New South Wales and Queensland; Flinders' track is easily recognized from Sydney southwards, as far as Cape Catastrophe, by the numerous Lincolnshire names bestowed by him; and the French navigators of the end of the eighteenth and the beginning of the nineteenth century have left their names all along the Western Australian, South Australian, and Tasmanian coasts.

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

6. **Fauna, Flora, Geology, and Seismology of Australia.**—Special articles dealing with these features have appeared in previous Year Books, but limits of space naturally preclude their repetition in each volume. As pointed out in 5 *supra*, however, the nature and position of these articles can be readily ascertained from the special index. A reference to Barisal Guns will be found in Vol. IX., p. 56.

## § 2. Climate and Meteorology of Australia.\*

1. **Introductory.**—In Year Book No. 3, pp. 79, 80, some account was given of the history of Australian meteorology, including reference to the development of magnetic observations and the equipment for the determination of various climatological records. In Year Book No. 4, pp. 84 and 87, will be found a short sketch of the creation and organization of the Commonwealth Bureau of Meteorology, and a résumé of the subjects dealt with at the Meteorological Conference in 1907. Space will not permit of the inclusion of this matter in the present issue.

2. **Meteorological Publications.**—Reference to publications issued by the Central Meteorological Bureau will be found in Official Year Book No. 22, pp. 40, 41. The following publications have since been issued:—Volume of "Results of Rainfall Observations made in Western Australia," for all years of record to 1927; Map of Normal Meteorological Conditions in Australia affecting Aviation; and a Paper "A Basis for Seasonal Forecasting", by H. A. Hunt.

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

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

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

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

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

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

SPECIAL CLIMATOLOGICAL STATIONS—AUSTRALIA.

Locality.	Height above Sea Level.	Latitude.		Longitude.		Locality.	Height above Sea Level.	Latitude.		Longitude.	
	Feet.	deg. min.	deg. min.	deg. min.	deg. min.		Feet.	deg. min.	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	1,926	23	38	133	37
Sydney ..	138	33	52	151	12	Dubbo ..	870	32	18	148	35
Melbourne ..	115	37	49	144	58	Laverton, W.A.	1,530	28	40	122	23
Hobart ..	177	42	53	147	20	Coolgardie ..	1,389	30	57	121	10

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

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

The extreme range of shade temperatures in summer and winter in a very large part of Australia amounts to probably only 81°. In Siberia, in Asia, the similar range is no less than 171°, and in North America 153°, or approximately double the Australian range.

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

Coming southward, the extreme range of temperature increases gradually on the coast, and in a more pronounced manner inland.

(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. An exact knowledge of temperature disposition cannot be determined until the interior becomes more settled, but from data procurable it would appear that the hottest area of the

continent is situated in the northern part of Western Australia about the Marble Bar and Nullagine goldfields, where the maximum shade temperature during the summer sometimes exceeds  $100^{\circ}$  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  $100^{\circ}$  even in the hottest of seasons.

Tasmania as a whole enjoys a most moderate and equable range of temperature throughout the year, although occasionally hot winds may cross the Straits and cause the temperature to rise to  $100^{\circ}$  in the low-lying parts.

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

6. *Humidity.*—After temperature, humidity is the most important element of climate, as regards its effect on human comfort, rainfall supply, and in connexion with engineering problems generally.

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

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

The normal monthly values of vapour pressure, it should be noted, combine to make the annual curve for this element which 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 vapour pressure is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, Hobart and Alice Springs, while the relative humidity diminishes in the order, Sydney, Canberra, Darwin, Melbourne, Brisbane, Hobart, Perth Adelaide, and Alice Springs.

7. *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 96 inches at Alice Springs in the centre of the continent. 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.

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

(ii) *Monthly Evaporation Curves.* The curves showing the mean monthly evaporation in various parts of Australia disclose how characteristically different are the amounts for the several months in different localities. The evaporation for representative places is shown on the diagram herein.

(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.

8. *Rainfall.*—(i) *General.* As even a casual reference to climatological maps indicating the distribution of rainfall and prevailing direction of wind would clearly show, 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 the physiological features generally.

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 upon which the rain-laden winds blow from the New South Wales northern border to Thursday Island. 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 very reliable, although generally light to moderate, rains enjoyed by the south-western portion of Western Australia, by the south-eastern agricultural areas of South Australia, by a great part of Victoria, and by the whole of Tasmania.

(ii) *Factors determining Distribution and Intensity of Rainfall.* (iii) *Time of Rainfall.* In Official Year Book No. 6 (see pp. 72 to 74) some notes were given of the various factors governing the distribution, intensity, and period of Australian rainfall.

(iv) *Wettest and Driest Regions.* The wettest known part of Australia is on the north-east coast of Queensland, between Port Douglas and Cardwell, where three stations situated on, or adjacent to, the Johnstone and Russell Rivers have an average annual rainfall of between 142 and 165 inches. The maximum and minimum falls there are :—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 48 years.

Harvey Creek, in the shorter period of 28 years, has four times exceeded 200 inches, the total for 1921 being 254.77 inches, and at the South Johnstone Sugar Experiment Station, where a gauge was established fifteen years ago, 202.52 inches were recorded in 1921.

In Tasmania the wettest part is in the West Coast region, the mean annual rainfall at Lake Margaret being 145.03 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 settled districts in the east of that State show that the annual average is from 10 to 12 inches.

(v) *Quantities and Distribution of Rainfall.* The departure from the normal rainfall increases progressively from the southern to the northern shores of the continent, and similarly also at all parts of the continent subject to capricious monsoonal rains, as the comparisons hereunder will show. The general distribution is best seen from the rainfall map herein, which shows the areas subject to average annual rainfalls lying between certain limits. The areas enjoying varying quantities of rainfall determined from the latest available information are shown in the following table :—

AVERAGE ANNUAL RAINFALL DISTRIBUTION.

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

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

Referring first to the capital cities, the records of which are given in the next table, it will be seen that Sydney, with a normal rainfall of 47.84 inches, occupies the chief place; Brisbane, Perth, Melbourne, Hobart, Canberra, and Adelaide following in that order, Adelaide with 21.14 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 (10.48 inches).

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

On the coast of New South Wales, the first six months of the year are the wettest, with a maximum in the autumn; the averages during the last six months are fair, and moderately uniform. Generally it may be said that approximately one-third of the

area of the continent, principally in the eastern and northern parts, enjoys an annual average rainfall of from 20 to 50 or more inches, the remaining two-thirds averaging from 5 to 20 inches.

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

(vii) *Tables of Rainfall.*—(a) *Years 1902 to 1934.* 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. The capitals are dealt with in the order in which they occur in the adopted meteorological divisions.

### RAINFALL—AUSTRALIAN CAPITAL CITIES.

Year.	CANBERRA. (a)		PERTH.		ADELAIDE.		BRISBANE.		SYDNEY.		MELBOURNE.		HOBART.	
	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.
	in.		in.		in.		in.		in.		in.		in.	
1902 ..	..	..	27.06	93	16.02	123	16.17	87	43.07	180	23.08	102	21.85	150
3 ..	..	..	35.69	140	25.47	134	49.27	136	38.62	173	28.43	130	25.86	130
4 ..	..	..	34.35	125	20.31	117	33.23	124	45.93	158	29.72	128	22.41	130
5 ..	..	..	34.61	116	22.28	131	36.76	108	35.03	145	25.64	129	32.09	168
6 ..	..	..	32.37	121	26.51	127	42.85	125	31.89	160	22.29	114	23.31	155
7 ..	..	..	40.12	132	17.78	125	31.46	119	31.32	132	22.26	102	25.92	166
8 ..	..	..	30.52	106	24.56	125	44.01	125	45.65	167	17.72	130	16.50	148
9 ..	..	..	39.11	107	27.69	138	34.06	111	32.45	177	25.86	171	27.29	170
1910 ..	..	..	37.02	135	24.62	116	49.00	133	46.91	160	24.61	167	25.22	205
11 ..	..	..	23.38	108	15.99	127	35.21	128	50.24	155	36.61	168	26.78	193
12 ..	19.27	76	27.85	123	19.57	116	41.30	114	47.51	172	20.37	157	23.14	181
13 ..	16.38	71	38.28	141	18.16	102	40.81	115	57.70	141	21.17	157	19.36	165
14 ..	18.49	81	20.21	128	11.39	91	33.99	141	56.42	149	18.57	129	15.42	154
15 ..	22.31	87	43.61	164	19.38	117	25.66	93	34.83	117	20.95	167	20.91	196
16 ..	31.26	119	35.16	128	28.16	142	52.80	136	44.91	161	38.04	170	43.39	203
17 ..	29.70	144	45.64	146	28.90	153	40.92	127	52.40	151	30.57	171	30.62	214
18 ..	18.27	85	39.58	138	17.41	107	24.95	121	42.99	149	27.13	160	26.04	179
19 ..	16.31	85	30.66	120	17.21	108	19.36	96	58.71	152	24.89	141	22.48	153
20 ..	29.30	107	40.35	124	26.70	119	39.72	122	43.42	159	28.27	162	18.00	182
21 ..	..	..	41.09	135	22.64	100	54.31	167	43.34	140	29.76	154	18.04	159
22 ..	..	..	31.86	135	23.20	117	35.82	109	59.35	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	168
24 ..	25.95	68	33.79	119	23.44	143	41.08	114	37.01	136	36.48	171	28.76	197
25 ..	33.71	59	31.41	126	21.91	118	53.10	139	50.35	145	17.57	144	22.40	171
26 ..	20.53	97	49.22	167	22.20	116	30.82	111	37.07	127	20.81	149	25.79	187
27 ..	21.40	83	36.59	133	16.92	101	62.08	130	48.56	138	17.98	135	20.02	183
28 ..	17.82	96	44.88	140	19.43	107	52.64	145	40.07	130	24.09	151	30.23	205
29 ..	22.34	88	36.77	172	17.51	110	39.78	118	57.90	129	28.81	168	26.55	194
30 ..	16.52	86	39.80	129	18.65	116	41.22	144	44.47	141	25.41	145	19.38	152
31 ..	24.25	105	39.18	118	22.26	146	66.72	136	49.22	153	28.63	164	27.17	179
32 ..	19.13	107	39.40	107	25.04	141	24.79	97	37.47	146	31.08	179	30.29	155
33 ..	20.30	88	32.47	116	22.12	130	49.71	118	42.71	153	22.28	136	23.18	173
34 ..	35.89	118	40.61	120	20.24	125	54.26	117	64.91	183	33.53	157	23.17	194
Average	22.96	93	34.92	121	21.14	123	45.28	127	47.84	153	26.16	139	23.97	152
No. of Years	40	20	59	59	96	96	85	75	95	95	91	79	92	91

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

NOTE.—The above average rainfall figures for Brisbane, Sydney and Melbourne differ slightly from the mean annual falls given in the Climatological Tables and on page 54, which are for a less number of years. Annual totals from 1860 to 1901 inclusive will be found in Official Year Book No. 15, page 53.



(b) *Ten Years' Means, 1908 to 1928.* The mean rainfall for the decennia ended 1908, 1918 and 1928, respectively, is given hereunder:—

**RAINFALL—AUSTRALIAN CAPITAL CITIES, TEN YEARS' MEANS.**

Ten Years ended—	Canberra.	Perth.	Adelaide.	Brisbane.	Sydney.	Melbourne.	Hobart.
	in.	in.	in.	in.	in.	in.	in.
1908 ..	(a)	34.05	21.15	36.55	43.41	25.36	23.29
1918 ..	(b)22.24	34.98	21.13	37.87	46.64	26.39	25.82
1928 ..	(c)23.57	38.43	22.34	41.22	43.49	24.75	24.69

(a) Not available.

(b) Seven years ended 1918.

(c) Years 1919, 1920, and 1924 to 1931.

9. **Remarkable Falls of Rain.**—The following are the most remarkable falls of rain in the various States and in the Northern Territory which have occurred within a period of twenty-four hours. In New South Wales and Queensland falls of less than 20 inches in the twenty-four hours have not been included. For other very heavy falls at various localities reference may be made to Official Year Book No. 14, pp. 60 to 64 and No. 22, pp. 46 to 48:—

**HEAVY RAINFALLS—NEW SOUTH WALES, UP TO 1934, INCLUSIVE.**

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Broger's Creek ..	14 Feb., 1898	20.05	South Head (near Sydney)	29 Apr., 1841	20.12
" ..	13 Jan., 1911	20.83	" ..	16 Oct., 1844	20.41
Cordeaux River ..	14 Feb., 1898	22.58	Towamba ..	5 Mar., 1893	20.00
Morpeth ..	9 Mar., 1893	21.52			

**HEAVY RAINFALLS—QUEENSLAND, UP TO 1934, INCLUSIVE.**

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Babinda (Cairns) ..	1 Feb., 1913	20.51	Kuranda (Cairns) ..	2 Apr., 1911	28.80
" ..	24 Jan., 1916	22.30	Mackay ..	21 Jan., 1918a	24.70
Buderim Mountain ..	11 .. 1898	26.20	Macnade Mill ..	6 .. 1901	23.33
Cairns ..	2 Apr., 1911	20.16	" ..	4 Mar., 1915	22.00
Carbrook ..	23 Jan., 1918	22.66	Mooloolah ..	13 .. 1892	21.53
Cardwell ..	24 Jan., 1934	20.75	Mount Callon West ..	6 Feb., 1931	20.04
Conway ..	29 Mar., 1930	21.82	Mount Molloy ..	31 Mar., 1911	20.00
" ..	30 .. 1930	21.82	" ..	1 Apr., ..	20.00
Crohamhurst ..			" ..	2 .. ..	20.00
(Blackall Range)	2 Feb., 1893	35.71	Nambour ..	9 Jan., 1898	21.00
Deeral ..	9 Nov., 1933	20.97	Plane Creek ..		
Dungeness ..	16 Mar., 1893	22.17	(Mackay)	26 Feb., 1913	27.73
Goondi ..	30 Jan., 1913	24.10	Port Douglas ..	1 Apr., 1911	31.53
Harvey Creek ..	3 .. 1911	27.75	Sarina ..	23 Jan., 1918	22.60
" ..	31 .. 1913	24.72	Tomewin ..	6 Feb., 1931	20.00
Innisfail (formerly Geraldton) ..	29 Dec., 1903	21.22	Tully ..	12 Feb., 1927	23.86
" ..	7 Apr., 1912	20.50	" ..	19 Jan., 1932	27.20
" ..	31 Jan., 1913	20.91	Woodlands (Yepp'n)	31 Jan., 1893	23.07
Kamerunga (Cairns)	2 Apr., 1911	21.00	Yandina ..	1 Feb., 1893	20.08
Koumala ..	23 Jan., 1918	22.31	Yarrabah ..	2 Apr., 1911	30.65
" ..	24 .. ..	20.65	" ..	24 Jan., 1916	27.20
Kuranda (Cairns) ..	1 Apr., 1911	24.30	Yeppoon ..	31 .. 1893	20.05
			" ..	8 Oct., 1914	21.70

(a) 37½ hours.

## HEAVY RAINFALLS—WESTERN AUSTRALIA, UP TO 1934, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Balla Balla ..	21 Mar., 1899	14.40	Obagama ..	24 Dec., 1920	13.02
Beagle Bay ..	19 May, 1931	13.00	" ..	15 Feb., 1930	10.60
Boodarie ..	21 Jan., 1896	14.53	Pilbara ..	2 Apr., 1898	14.04
Broome ..	6 " 1917	14.00	Point Torment ..	17 Dec., 1906	11.86
Cossack ..	3 Apr., 1898	12.82	Port George IV. ..	17 Jan., 1915	11.24
" ..	16 " 1900	13.23	Roebourne ..	3 Apr., 1898	11.44
Croydon ..	3 Mar., 1903	12.00	Roebuck Plains ..	5 Jan., 1917	14.01
Derby ..	29 Dec., 1898	13.09	" ..	6 " "	22.36
" ..	7 Jan., 1917	16.47	Springvale ..	14 Mar., 1922	12.25
" ..	23 Jan., 1931	12.25	Tambray ..	6 " 1900	11.00
Exmouth Gulf ..	2 Feb., 1918	12.50	Thangoc ..	17-19 Feb., '96	24.18
Fortescue ..	3 May, 1890	23.36	" ..	28 Dec., 1898	11.15
Frazier Downs ..	3 Mar., 1916	11.25	Whim Creek ..	3 Apr., 1898	29.41
" ..	26 Jan., 1931	12.50	" ..	21 Mar., 1899	18.17
Gnaraloo ..	20 Mar., 1923	11.00	Winderrie ..	17 Jan., 1923	14.23
Kerdiadary ..	7 Feb., 1901	12.00	Woodstock ..	21 " 1912	13.00
Lulingui ..	3 Feb., 1932	10.02	Wyndham ..	27 " 1890	11.60
Minilya ..	15 Jan., 1923	11.50	" ..	4 Mar., 1919	12.50
Mundabullangana ..	12 Feb., 1929	12.05	Yeeda ..	7 Jan., 1917	11.75
Obagama ..	28 Feb., 1910	12.00			

## HEAVY RAINFALLS—NORTHERN TERRITORY, UP TO 1934, INCLUSIVE.

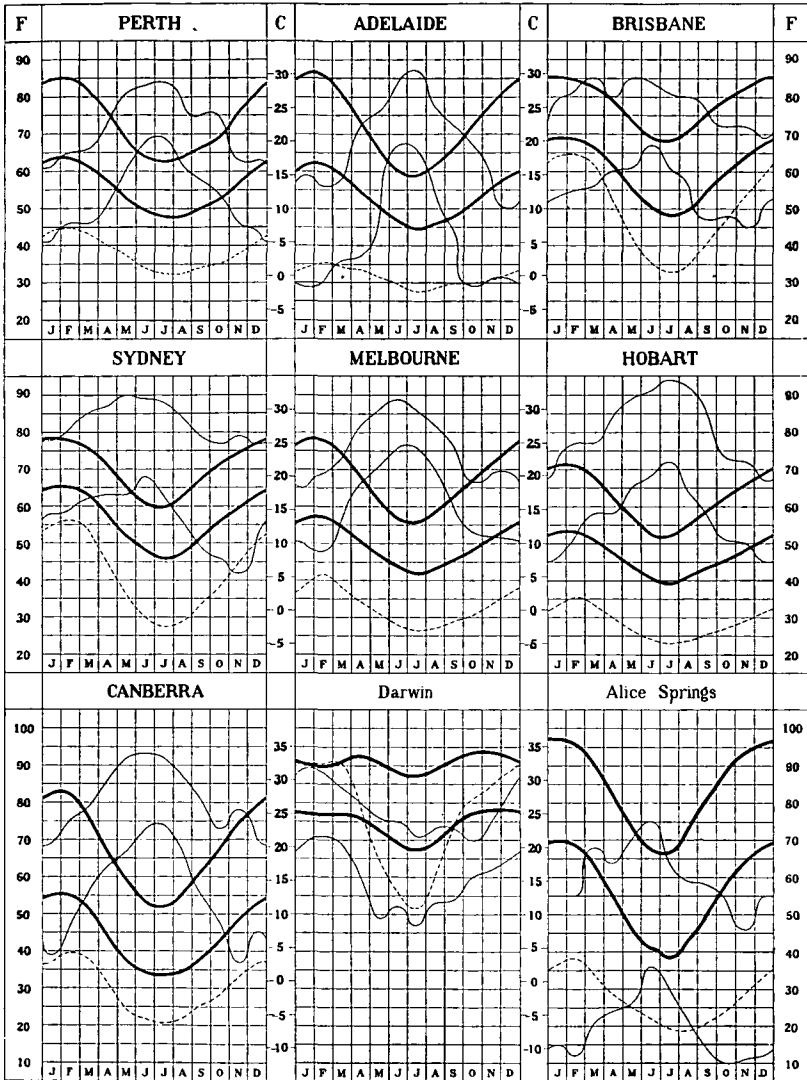
Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Bathurst Island ..			Darwin ..	7 Dec., 1915	11.67
Mission ..	7 Apr., 1925	11.85	Groote Eylandt ..	30-31 Mar., '23	12.004
Bonrook ..	24 Dec., 1915	10.60	Koolpinyah ..	6 Mar., 1930	10.35
Borrooloola ..	14 Mar., 1899	14.00	Lake Nash ..	21 Mar., 1901	10.25
Brock's Creek ..	4 Jan., 1914	10.68	Pine Creek ..	8 Jan., 1897	10.35
" ..	24 Dec., 1915	14.33	South Goulburn ..		
Burrundie ..	4 Jan., 1914	11.61	Island ..	7 Jan., 1934	10.48
Cape Don ..	13 Jan., 1934	13.58			
Cosmopolitan Gold Mine ..	24 Dec., 1915	10.60			

(a) Approximate only, as gauge was washed away.

## HEAVY RAINFALLS—SOUTH AUSTRALIA, UP TO 1934, INCLUSIVE.

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

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

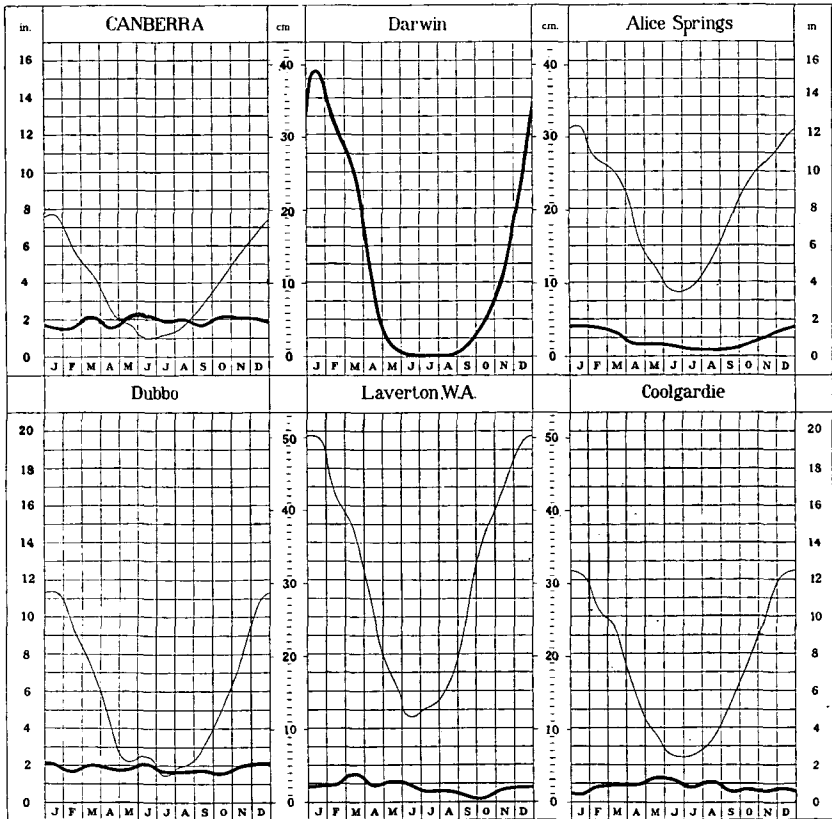
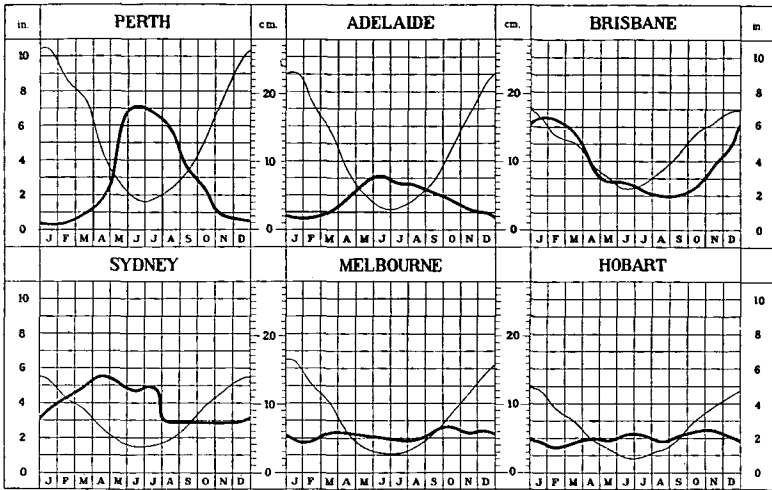
The upper and lower fine lines join the greatest and the least monthly means of relative humidity respectively, the figures under the outer columns "F" indicating percentage values.

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

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

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

MEAN MONTHLY RAINFALL AND EVAPORATION.



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

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

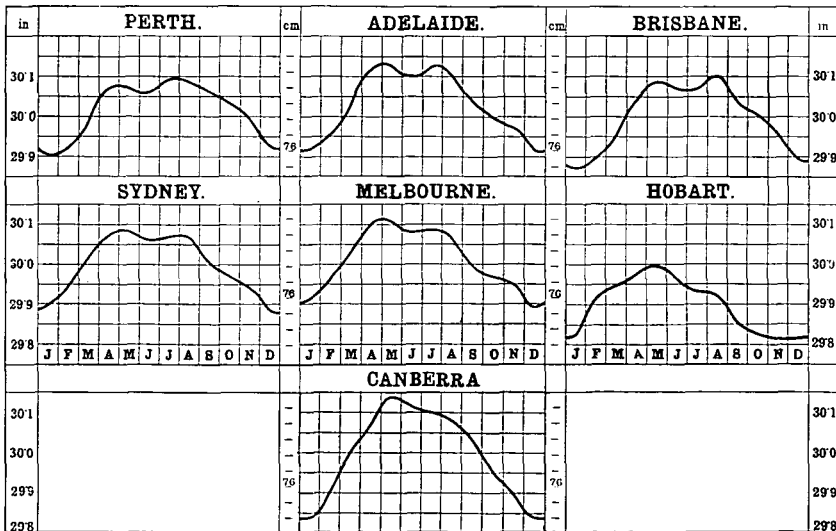
The distance for any date from the zero line to the curve represents the average number of inches, reckoned as per month, of rainfall at that date. Thus, taking the curves for Adelaide in the middle of January, the rain falls on the average at the rate of about three-fourths of an inch per month or, 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.	Evapora- tion.	Place.	Rainfall.	Evapora- tion.
	In.	In.		In.	In.
Perth ..	34.92	66.22	Canberra ..	22.96	45.93
Adelaide ..	21.14	55.12	Darwin ..	59.92	—
Brisbane ..	45.44	55.60	Alice Springs ..	10.60	96.36
Sydney ..	47.54	39.21	Dubbo ..	22.14	66.37
Melbourne ..	25.66	39.07	Laverton, W.A.	9.24	145.17
Hobart ..	23.97	31.14	Coolgardie ..	10.20	84.99

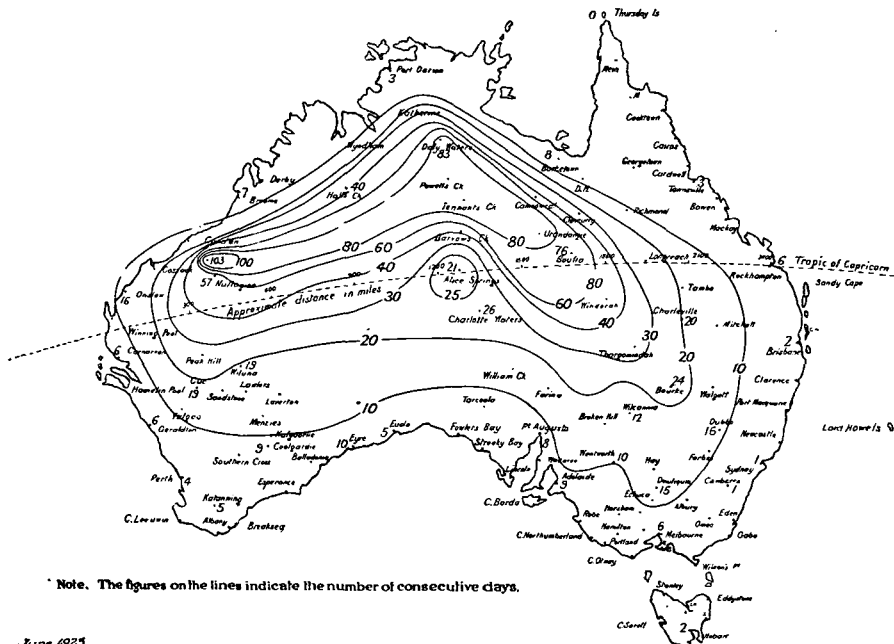
MEAN BAROMETRIC PRESSURE.—CAPITAL CITIES.



**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.

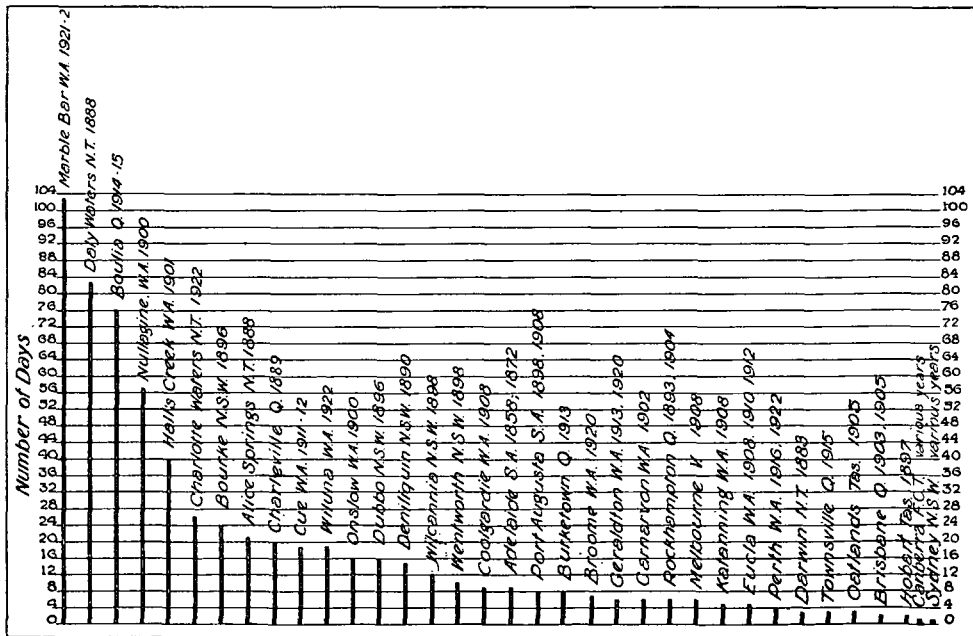
Taking the Brisbane graph for purposes of illustration, it will be seen that the mean pressure in the middle of January is about 29.87 inches, and there are maxima in the middle of May and August of about 30.09 inches.

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



June 1923.

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

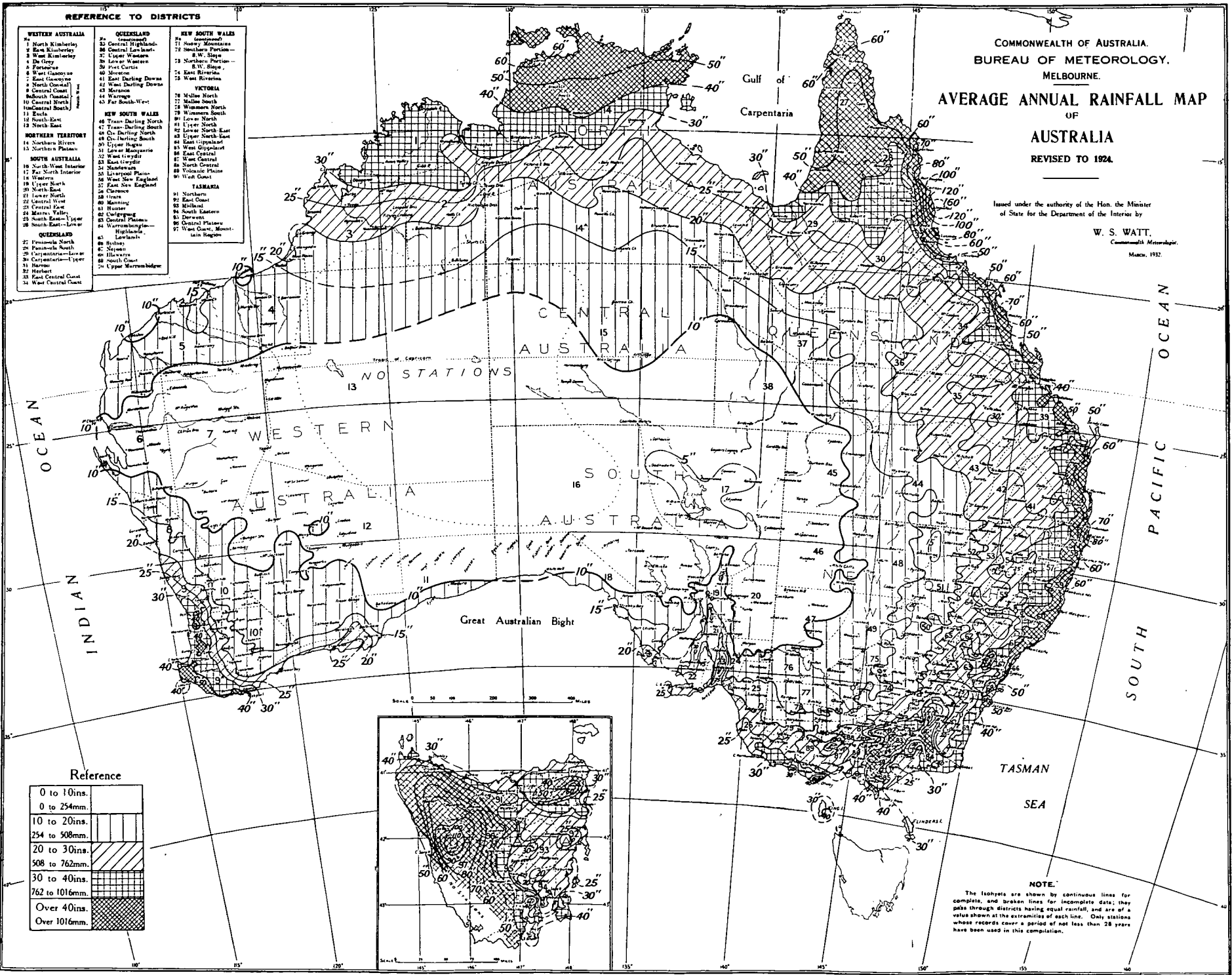


REFERENCE TO DISTRICTS

<b>WESTERN AUSTRALIA</b>	<b>QUEENSLAND</b>	<b>NEW SOUTH WALES</b>
1 North Kimberley	21 Snowy Mountains	71 Snowy Mountains
2 East Kimberley	22 Central Highlands	72 Northern Plains—
3 West Kimberley	23 Central Lowlands	S.W. Slopes
4 De Grey	24 Upper Western	73 Northern Plains—
5 Fitzroy	25 East Coast	E.W. Slopes
6 West Flinders	26 Lower Western	74 East Riverina
7 East Flinders	27 East Darling Downs	75 West Riverina
8 North Coastal	28 West Darling Downs	<b>VICTORIA</b>
9 Central Coastal	29 Maroon	76 Mallee North
10 South Coastal	30 Warrego	77 Mallee South
11 Central North	31 Far South West	78 Wimmeran North
12 Central South	32 Trans Darling North	79 Wimmeran South
13 North East	33 Trans Darling South	80 Lower North
14 North West	34 Trans Darling North	81 Upper North
<b>NORTHERN TERRITORY</b>	35 Cyn. Darling South	82 Lower North East
15 Northern Plains	36 Upper Murrumbidgee	83 Upper North East
<b>SOUTH AUSTRALIA</b>	37 Lower Murrumbidgee	84 West Gippsland
16 North West Flinders	38 West Flinders	85 East Gippsland
17 East North Interior	39 East Flinders	86 West Central
18 Flinders	40 Upper Murrumbidgee	87 East Central
19 Upper North	41 Lower Murrumbidgee	88 West Central
20 Lower North	42 West Flinders	89 North Central
21 Central West	43 Upper Murrumbidgee	90 Volcanic Plains
22 Central East	44 West Flinders	91 West Coast
23 Mallee Valley	45 Upper Murrumbidgee	92 West Coast
24 South Coast—Upper	46 West Flinders	93 West Coast
25 South Coast—Lower	47 Upper Murrumbidgee	94 West Coast
26 North East—Lower	48 West Flinders	95 West Coast
27 West Central Coast	49 Upper Murrumbidgee	96 West Coast
28 West Central Coast	50 Upper Murrumbidgee	97 West Coast

COMMONWEALTH OF AUSTRALIA.  
 BUREAU OF METEOROLOGY,  
 MELBOURNE.  
**AVERAGE ANNUAL RAINFALL MAP**  
 OF  
**AUSTRALIA**  
 REVISED TO 1924.

Issued under the authority of the Hon. the Minister  
 of State for the Department of the Interior by  
**W. S. WATT,**  
 Commonwealth Meteorologist.  
 March, 1925.



Reference

0 to 10ins.	
0 to 254mm.	
10 to 20ins.	
254 to 508mm.	
20 to 30ins.	
508 to 762mm.	
30 to 40ins.	
762 to 1016mm.	
Over 40ins.	
Over 1016mm.	

**NOTE.**  
 The isohyets are shown by continuous lines for complete, and broken lines for incomplete data; they pass through districts having equal rainfall, and are of a value shown at the extremities of each line. Only stations whose records cover a period of not less than 25 years have been used in this compilation.

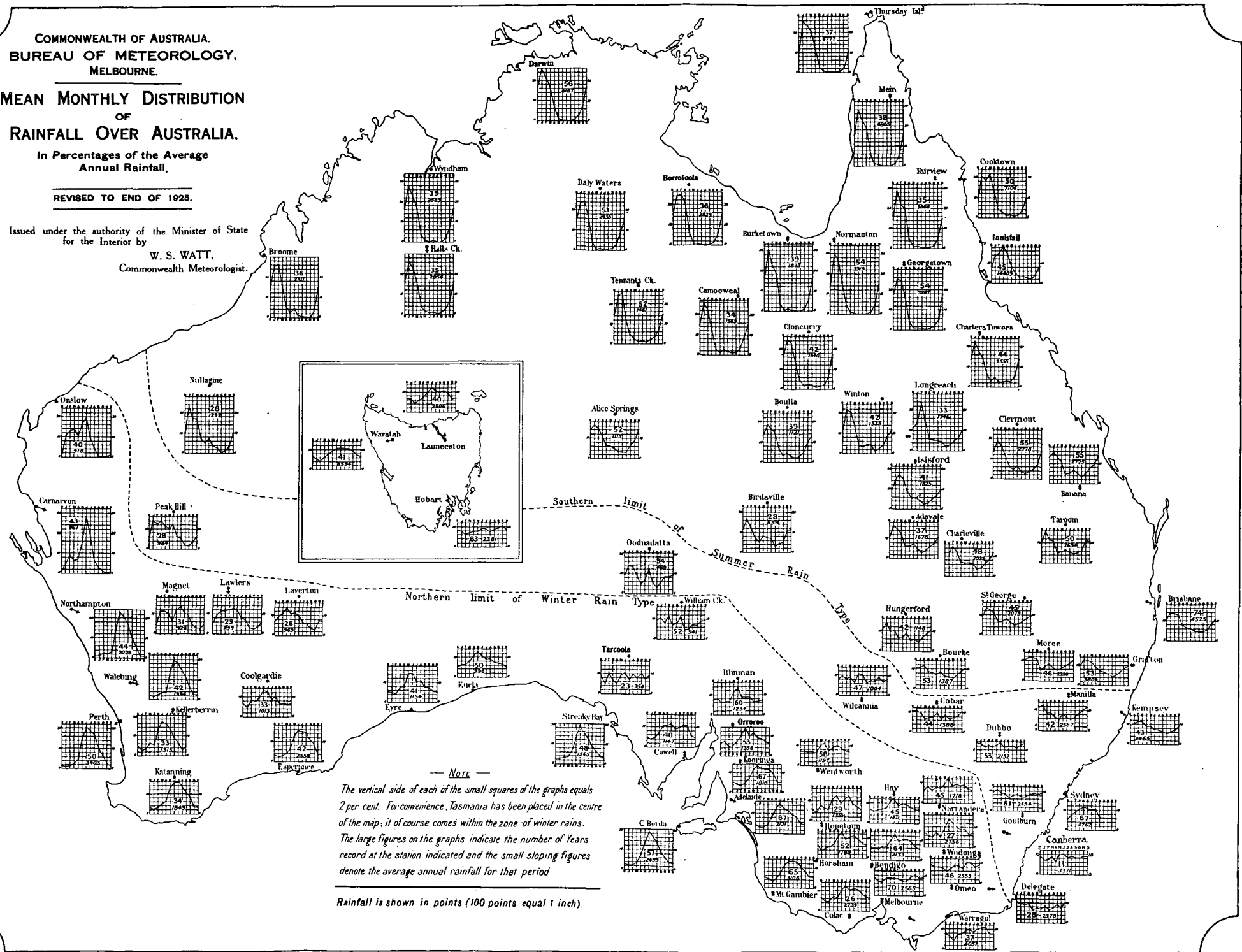
COMMONWEALTH OF AUSTRALIA.  
BUREAU OF METEOROLOGY.  
MELBOURNE.

MEAN MONTHLY DISTRIBUTION  
OF  
RAINFALL OVER AUSTRALIA.  
In Percentages of the Average  
Annual Rainfall.

REVISED TO END OF 1925.

Issued under the authority of the Minister of State  
for the Interior by

W. S. WATT,  
Commonwealth Meteorologist.



— NOTE —  
The vertical side of each of the small squares of the graphs equals 2 per cent. For convenience, Tasmania has been placed in the centre of the map; it of course comes within the zone of winter rains. The large figures on the graphs indicate the number of Years record at the station indicated and the small sloping figures denote the average annual rainfall for that period

Rainfall is shown in points (100 points equal 1 inch).



## HEAVY RAINFALL—VICTORIA, UP TO 1934, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Apollo Bay ..	28 Mar., 1932	11.08	Mallacoota ..	14 Mar., 1911	7.95
Balook ..	27 Sept., 1916	7.23	Montrose ..	1 " "	7.48
Black's Spur ..	1 Dec., 1934	7.45	Mt. Buffalo ..	6 June, 1917	8.53
Blackwarry ..	12 May, 1925	7.65	" "	5 Apr., 1929	7.47
Bruthen ..	28 Jan., 1920	7.00	Murrungowar ..	7 Sept., 1908	8.81
Buchan ..	17 July, 1925	8.45	" "	10 July, 1932	14.65
Cann River ..	27 Feb., 1919	9.56	" "	4 Jan., 1934	7.57
Drouin West ..	1 Dec., 1934	7.80	Nerrim South ..	1 Dec., 1934	8.12
Garfield ..	1 " "	7.21	Olinda ..	1 " "	9.10
Gembrook ..	1 " "	8.08	Omeo Valley ..	22 Mar., 1926	7.90
Hazel Park ..	1 " "	10.50	Peechelba ..	7 Jan., 1934	7.25
Healesville ..	1 " "	7.12	Reedy Flat ..	28 Jan., 1920	7.08
Hotham Heights ..	8 Jan., 1926	8.40	Sarsfield ..	13 July, 1925	7.05
Kallista ..	1 Dec., 1934	8.25	Silvan ..	1 Dec., 1934	8.05
Kalorama ..	1 " "	10.05	Tambo Crossing ..	13 July, 1923	8.89
Korumburra ..	1 " "	8.51	" "	29 Jan., 1920	7.80
Labertouche ..	1 " "	8.06	Tonghi Creek ..	27 Feb., 1919	9.90
Longwarry ..	1 " "	7.10	Warragul ..	1 Dec., 1934	7.47
Madalya ..	1 " "	7.80	Wroxham ..	27 Aug., 1919	7.65

## HEAVY RAINFALLS—TASMANIA, UP TO 1934, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Cullenswood ..	5 June, 1923	10.50	Lottah ..	3 Mar., 1931	9.98
" ..	5 Apr., 1929	11.12	Mathinna ..	8-10 " 1911	15.79
" ..	3 Mar., 1931	7.03	" ..	5 Apr. 1929	13.25
Gormanston ..	3 " 1931	6.85	Riana ..	5 " 1929	11.08
Gould's Country ..	8-10 Mar., '11	15.33	Riversdale ..	27 " 1928	5.90
" ..	5 Apr., 1929	12.13	The Springs ..	30-31 Jan., '16	10.75
Lottah ..	8-10 Mar., '11	18.10	Triabunna ..	5 June, 1923	10.20

## HEAVY RAINFALLS—FEDERAL CAPITAL TERRITORY, UP TO 1934, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Canberra ..	27 May, 1925	6.84	Land's End ..	27 May, 1925	6.35
Cotter Junction ..	" "	7.13	Uriarra ..	16 Jan., 1891	5.35
Duntroon ..	" "	5.87	" ..	27 May, 1925	6.57
Fairlight ..	" "	6.25			

10. Snowfall.—Light snow has been known to fall occasionally so far north as latitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds of the State of New South Wales, and has extended at times along the whole of the Great Dividing Range, from its southern extremity in Victoria so far north as Toowoomba in Queensland. During the winter, for several months, snow covers the ground to a great extent on the Australian Alps, where also the temperature falls below zero Fahrenheit during the night. In the ravines around Kosciusko and similar localities the snow never entirely disappears.

The antarctic "V"-shaped disturbances are always associated with the most pronounced and extensive snowfalls. The barometric gradients are very steep where the "trough line" extends northward, and the apexes are unusually sharp-pointed, and protrude into very low latitudes, sometimes even to the tropics.

11. **Hail.**—Hail falls most frequently along the southern shores of the continent in the winter, and over south-eastern Australia during the summer months. The size of the hailstones generally increases with distance from the coast, a fact which lends strong support to the theory that hail is brought about by ascending currents. 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. They are almost invariably associated with tornadoes or tornadic tendencies, and on the east coast the clouds from which the stones fall are generally of a remarkable sepia-coloured tint.

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

13. **Wind.**—Notes on the distinctive wind currents in Australia were given in preceding Year Books (see No. 6, page 83), but, owing to limitations of space, have not been included herein.

14. **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 coastline, or cross the continent to the Great Australian Bight. When they take

the latter course, their track is marked by torrential rains, as much as 29.41 inches, for example, being recorded in 24 hours at Whim Creek from one such occurrence. Falls of 10 inches and over have frequently been recorded in the northern interior of Western Australia from similar storms.

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

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

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

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

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

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

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

**16. Rainfall and Temperatures, Various Cities.**—The following table shows rainfall and temperature for various important cities throughout the world, for the Federal 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.	Ins.	Ins.	Ins.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.	Fahr.
Amsterdam (Gardens) ..	3	31.26	38.39	20.24	61.3	37.4	93.2	3.2	64.0	37.0
Auckland ..	160	44.85	74.15	26.32	65.8	52.3	85.0	35.0	66.6	51.6
Athens ..	351	15.48	33.33	4.56	79.2	49.1	109.4	19.6	81.0	47.4
Bergen ..	116	73.43	107.32	54.33	56.1	34.7	86.0	7.3	57.4	34.2
Berlin (Central) ..	161	22.72	30.04	14.25	64.8	33.0	98.6	-13.4	66.0	31.8
Berne ..	1,877	36.30	58.23	24.69	62.2	30.1	91.4	-3.6	64.4	28.0
Bombay ..	32	70.54	114.89	33.42	82.7	74.7	100.2	-53.2	84.3	73.9
Breslau ..	410	22.60	32.51	15.91	64.2	30.9	99.9	-25.6	64.2	30.9
Brussels ..	328	28.35	41.18	17.73	62.6	36.0	95.4	-4.4	63.7	34.5
Budapest ..	425	24.96	37.05	16.81	69.3	32.2	101.7	-10.1	71.2	30.2
Buenos Ayres ..	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	63.7
Chicago ..	823	33.28	45.86	24.52	70.0	26.1	103.0	-23.0	72.4	23.7
Christchurch ..	22	25.21	35.30	13.54	60.8	43.5	95.7	21.3	61.6	42.7
Christiania (Oslo) ..	82	25.39	36.18	16.24	61.0	25.5	95.0	-13.4	63.1	24.4
Colombo ..	24	88.53	123.96	53.56	81.6	78.7	97.2	61.6	82.0	78.6
Constantinople ..	245	28.75	42.74	14.78	74.0	43.5	103.6	13.0	75.7	42.0
Copenhagen ..	43	22.80	32.52	14.02	60.9	32.7	91.4	-13.0	62.6	31.8
Dresden ..	115	24.22	34.42	11.73	64.6	33.2	93.4	-15.3	66.0	31.6
Dublin (City) ..	54	27.66	35.56	16.60	59.1	42.8	87.0	13.0	60.4	42.5
Dunedin ..	300	36.92	54.51	21.86	57.3	43.5	94.0	23.0	58.0	42.5
Durban ..	260	40.79	71.27	27.24	75.6	64.4	110.6	41.1	76.7	63.8
Edinburgh (Leith) ..	441	25.21	32.05	16.44	55.9	39.0	90.0	6.0	57.3	38.7
Geneva ..	1,332	32.13	47.60	18.73	64.0	33.4	100.0	-13.5	65.8	31.8
Genoa ..	157	51.29	108.22	28.21	73.0	46.8	84.9	16.7	75.4	49.5
Glasgow ..	139	38.49	56.18	20.05	57.0	39.5	90.0	6.6	63.3	39.3
Greenwich ..	149	23.59	35.54	16.38	61.7	40.4	100.0	4.0	63.0	40.1
Hong Kong ..	109	85.61	119.75	45.81	81.5	60.5	97.0	32.0	82.0	58.8
Johannesburg ..	5,750	31.63	50.00	21.66	65.4	54.4	93.6	20.8	68.2	48.0
Leipzig ..	394	24.60	31.37	17.10	63.9	31.6	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 ..	373	26.97	52.82	16.34	70.0	52.9	102.9	29.3	71.1	51.8
London (Kew) ..	18	23.80	38.18	12.16	60.8	39.9	94.0	9.0	62.3	39.1
Madras ..	22	49.85	78.92	21.74	89.0	76.8	113.0	57.5	89.9	76.1
Madrid ..	2,149	16.23	27.48	9.13	73.0	41.2	107.1	10.5	75.7	39.7
Marseilles ..	246	22.10	43.04	11.11	70.4	45.5	101.5	6.3	72.0	44.3
Moscow ..	526	18.94	29.07	12.07	63.4	14.7	95.0	-41.4	66.1	11.9
Naples ..	489	34.00	56.58	21.75	73.6	48.0	99.1	-23.9	75.4	46.8
New York ..	314	44.63	58.68	33.17	71.4	31.8	102.0	-13.0	73.5	30.2
Ottawa ..	236	33.51	51.25	25.63	66.6	14.0	98.0	-33.0	69.1	11.8
Paris (Parc-St. Maur) ..	164	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	48.0
Zürich ..	1,542	45.15	78.27	29.02	63.3	31.3	94.1	-0.8	65.1	29.5

## FEDERAL CAPITAL.

Canberra ..	1,837	22.96	33.71	16.31	(a) 67.9	(b) 43.9	104.2	14.0	68.7	42.8
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## STATE CAPITALS.

Perth ..	197	34.92	49.22	20.21	(a) 73.1	(b) 56.0	112.2	34.2	74.2	55.3
Adelaide ..	140	21.44	30.87	11.39	73.0	53.1	116.3	32.0	74.0	51.9
Brisbane ..	137	45.14	88.26	16.17	76.6	59.8	108.9	36.1	77.2	58.6
Sydney ..	138	47.54	82.76	21.49	71.0	54.3	108.5	35.7	71.6	52.9
Melbourne ..	115	25.66	38.04	15.61	66.6	50.1	111.2	27.0	67.6	48.8
Hobart ..	177	23.97	43.39	13.43	61.4	46.9	105.2	27.0	62.2	45.8

(a) Mean of the three hottest months.

(b) Mean of the three coldest months.

17. Climatological Tables.—The means, averages, extremes, totals, etc., for a number of climatological elements have been determined from long series of observations at the Australian capitals up to and including the year 1934. These are given in the following tables:—

CLIMATOLOGICAL DATA—CANBERRA, FEDERAL 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. at Sea Level and Standard gravity from 9 a.m. and 3 p.m. readings.	Wind.						Mean Amount of Evaporation (inches).	No. of Days Lightening.	Mean Amount of Clouds, 9 a.m. to 3 p.m. and 9 p.m. to 9 a.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.		Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
		17	17			9 a.m.	3 p.m.				
No. of yrs. over which observation extends.	17	17	17	17	13	13	13	7	9	9	
January .. .. .	29.836	306	30/13	0.05	3,083	N W	N W	7.69	3	3.8	11
February .. .. .	29.898	465	20/21	0.04	2,459	S E	W N W & N W	5.98	5	4.4	9
March .. .. .	30.000	434	8/13	0.03	2,334	S E	N W	4.59	5	4.7	8
April .. .. .	30.068	279	27/13	0.02	1,933	S E	N W & S E	2.70	2	4.7	7
May .. .. .	30.137	283	15/13	0.02	1,953	S E	N W & S E	1.75	1	4.6	9
June .. .. .	30.114	360	10/15	0.03	2,092	S E & N W	N W	1.02	1	5.4	6
July .. .. .	30.102	282	7/31	0.02	2,091	N W	N W	1.18	1	5.1	7
August .. .. .	30.080	276	23/25	0.03	2,220	N W	N W	1.65	2	4.6	7
September .. .. .	30.034	374	10, 16/12	0.04	2,601	N W	N W	2.82	2	4.3	10
October .. .. .	29.949	376	10/12	0.04	2,755	N W	N W	4.13	3	4.5	7
November .. .. .	29.902	410	18/24	0.04	2,735	N W	N W	5.58	5	4.5	7
December .. .. .	29.843	289	7/24	0.04	2,795	N W	N W	6.84	7	4.8	6
Year { Totals .. .. .	—	—	—	—	—	—	—	45.93	37	—	94
Year { Averages .. .. .	29.997	—	—	0.03	2,421	N W	N W	—	—	4.6	—
Year { Extremes .. .. .	—	465	20/21	—	—	—	—	—	—	—	—

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.				
	18	18	18	18	18		(a)	16				
No. of yrs. over which observation extends.	18	18	18	18	18	18	(a)	16	11			
January .. .. .	82.3	55.1	68.7	104.2	28/32	38.8	25/28	65.4	—	33.2	17/33	236.7
February .. .. .	82.3	55.1	68.7	102.6	16/19	33.0	21/33	69.6	—	26.8	21/33	198.6
March .. .. .	76.1	51.3	63.7	97.0	18/27	32.2	22/20	64.8	—	25.5	24/17	215.9
April .. .. .	66.8	44.0	55.4	83.0	1/25	26.5	29/17	56.5	—	17.5	29/17	195.3
May .. .. .	59.3	37.5	48.4	74.7	9/19	19.0	30/24	55.7	—	12.0	28/20	155.3
June .. .. .	53.3	34.5	43.9	66.2	5/17	18.2	(d)	48.0	—	12.1	15/29	128.7
July .. .. .	51.9	33.6	42.8	65.0	8/19	14.0	19/24	51.0	—	10.0	19/24	143.5
August .. .. .	55.3	34.5	44.9	73.0	(b)	18.0	5/19	55.0	—	11.8	5/19	169.7
September .. .. .	61.3	38.4	49.8	83.2	27/19	25.0	1/28	58.2	—	18.5	25/27	202.2
October .. .. .	67.5	42.8	55.2	93.8	31/19	27.0	2/18	66.8	—	20.0	(e)	232.0
November .. .. .	74.4	48.3	61.4	96.6	1/19	28.1	24/15	68.5	—	25.8	2/18	221.8
December .. .. .	70.3	53.0	66.2	98.0	(c)	32.0	3/24	66.0	—	31.0	(f)	235.0
Year { Averages .. .. .	67.5	44.0	55.8	—	—	—	—	—	—	—	—	(g)2,334.7
Year { Extremes .. .. .	—	—	—	104.2	28/1/32	14.0	19/7/24	90.2	—	10.0	19/7/24	—

(a) Not available. (b) 28/1923 and 23/1924. (c) 12/1914 and 31/1931. (d) 15 and 16/1929.  
 (e) 1 and 3/1923. (f) 1/1923, 15 and 16/1931 and 3/1924. (g) Yearly total.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).		Rel. Hum. (%).				Rainfall (inches).				Dew. Mean No. of Days Dew.		
	Mean 9 a.m.	Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest In One Day.				
	16	16	16	16	20	20	20	20	20				
No. of yrs. over which observation extends.	16	16	16	16	20	20	20	20	20	2			
January .. .. .	0.370	54	69	39	1.58	6	5.08	1934	0.07	1919	2.92	6/27	3
February .. .. .	0.396	60	75	47	1.55	6	3.73	1924	0.00	1933	2.75	23/16	4
March .. .. .	0.377	68	79	56	2.18	7	5.81	1914	0.21	1924	1.86	7/20	9
April .. .. .	0.311	75	86	63	1.54	7	2.87	1916	0.20	1925	1.94	8/21	9
May .. .. .	0.243	82	92	67	2.11	8	13.37	1925	0.06	1934	6.84	27/25	15
June .. .. .	0.217	85	93	73	2.20	9	5.86	1931	0.45	1927	3.95	22/25	14
July .. .. .	0.205	84	92	74	1.88	10	4.15	1933	0.25	1913	2.40	13/34	10
August .. .. .	0.218	81	87	67	2.02	10	3.78	1934	0.01	1914	1.90	18/25	6
September .. .. .	0.253	72	81	55	1.67	9	5.26	1915	0.36	1928	2.18	20/15	7
October .. .. .	0.282	63	73	48	2.13	10	7.50	1934	0.64	1914	2.74	25/34	15
November .. .. .	0.331	59	78	37	2.08	8	6.95	1924	0.09	1918	2.38	5/23	14
December .. .. .	0.366	57	70	45	2.02	8	4.49	1919	0.11	1925	2.10	28/29	8
Year { Totals .. .. .	—	—	—	—	22.96	98	—	—	—	—	—	—	4
Year { Averages .. .. .	0.297	70	—	—	—	—	—	—	—	—	—	—	—
Year { Extremes .. .. .	—	—	93	37	—	—	13.37	5/25	0.00	2/33	6.84	27/5/25	—

CLIMATOLOGICAL DATA—PERTH, WESTERN AUSTRALIA.

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

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

Month.	No. of yrs. over which observation extends.	Bar. corrected to 32° F. W. 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.	
			Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
		50	37	37	37	36	37	27	38		
January	29.907	797	27/08	0.65	11,003	ESE	E	10.44	1.7	2.9	14.5
February	29.923	650	6/08	0.59	9,550	ESE	W	8.63	1.5	3.1	12.0
March	29.984	651	6/13	0.51	9,787	E	W	7.61	1.4	3.6	12.1
April	30.070	955	25/00	0.38	8,130	E NE	W	4.73	1.4	4.3	8.2
May	30.068	825	29/32	0.35	8,079	N E	W	2.76	2.2	5.5	5.6
June	30.058	914	19/37	0.35	7,949	N NE	W N W	1.76	2.3	5.9	3.8
July	30.087	1,015	20/26	0.39	8,554	N NE	W	1.75	2.1	5.6	5.1
August	30.087	966	15/03	0.41	8,705	N NE	W S W	2.34	1.6	5.6	5.4
September	30.061	864	11/05	0.44	8,807	N E	W S W	3.37	1.2	4.9	9.2
October	30.030	809	6/16	0.51	9,709	S SE	S W	5.30	1.0	4.8	6.4
November	29.993	777	18/07	0.57	9,957	S E	S W	7.08	1.4	3.9	8.6
December	29.925	776	6/22	0.62	10,769	S E	S S W	9.85	1.8	3.1	12.6
Year	{ Totals	30.016	—	—	—	E	S W	66.22	19.6	—	100.5
	{ Averages	—	—	—	—	—	—	—	—	—	—
	{ Extremes	—	1,015	20/7/26	0.48	9,250	—	—	—	4.4	—

TEMPERATURE AND SUNSHINE.

Month.	No. of yrs. over which observation extends.	Mean Temperature (Fahr.).		Extreme Shade Temperature (Fahr.).			Extreme Temperature (Fahr.).		Mean Hours of Sunshine.					
		Mean Max.	Mean Min.	Mean.	Highest.	Lowest.	Extreme Range.	Highest in Sun.		Lowest on Grass.				
		38	38	38	38	38	38	36	36	37				
January	81.7	63.3	74.0	110.2	12/34	48.6	20/25	61.6	177.3	22/14	40.4	1/21	322.9	
February	84.9	63.4	74.2	112.2	8/33	47.7	1/02	64.5	169.0	4/99	39.8	1/21	271.3	
March	81.4	61.5	71.4	106.4	14/22	45.3	8/03	60.6	167.0	19/18	36.7	8/03	268.0	
April	76.1	57.3	66.7	99.7	19/10	39.3	20/14	60.4	157.0	8/16	31.0	20/14	217.6	
May	68.9	52.7	60.8	90.4	2/07	34.3	11/14	56.1	146.0	4/25	25.3	11/14	175.9	
June	64.1	49.6	56.8	81.7	2/14	35.0	30/20	46.7	135.5	9/14	26.5	30/20	143.8	
July	62.7	47.9	55.3	76.4	21/21	34.2	7/16	42.2	132.9	25/13	25.1	30/20	165.0	
August	63.8	48.2	56.0	81.0	12/14	35.4	31/08	45.6	145.1	29/21	28.0	27/18	185.3	
September	66.4	50.3	58.1	90.9	30/18	38.8	18/00	52.1	153.6	29/16	29.0	21/16	207.4	
October	69.1	52.5	60.8	95.3	30/22	40.0	16/31	55.3	164.0	29/14	29.8	16/31	249.9	
November	75.6	56.8	66.2	104.6	24/13	42.0	1/04	62.6	167.0	30/15	35.4	6/10	288.7	
December	81.2	60.9	71.0	107.9	20/04	48.0	2/10	59.9	168.8	11/27	39.0	(a)	324.8	
Year	{ Averages	73.3	55.4	64.4	—	—	—	—	—	—	—	—	—	2811.0
	{ Extremes	—	—	—	112.2	8/2/33	34.2	7/7/16	78.0	177.3	22/1/14/25.1	30/7/20	(b)	—

(a) 2/1910 and 12/1920.

(b) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	No. of yrs. over which observation extends.	Vapour Pressure (Inches).	Rel. Hum. (%).				Rainfall (Inches).			Dew. Mean No. of Days Dew.				
			Mean 9 a.m.	Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.		Least Monthly.	Greatest In One Day.		
		38	38	38	38	59	59	59	59	59	38			
January	0.438	51	61	41	0.34	3	2.17	1879	Nil	(a)	1.74	27/79	2.7	
February	0.445	53	65	46	0.41	3	2.98	1915	Nil	(a)	1.03	26/15	3.9	
March	0.430	57	66	46	0.86	5	5.77	1934	Nil	(a)	3.03	9/34	6.5	
April	0.397	61	73	51	1.68	7	5.85	1926	Nil	1920	2.82	30/04	10.2	
May	0.374	73	81	61	5.11	14	12.13	1879	0.98	1903	2.80	20/79	12.8	
June	0.339	77	83	68	7.08	17	12.80	1923	2.16	1877	3.90	10/20	12.9	
July	0.327	79	84	69	6.73	17	12.28	1926	2.42	1876	3.00	4/91	13.3	
August	0.323	74	79	62	5.74	18	12.21	1928	0.46	1902	2.79	7/03	12.0	
September	0.341	68	75	58	3.44	15	7.84	1923	0.34	1916	1.82	4/31	10.5	
October	0.349	62	75	54	2.22	12	7.87	1890	0.49	1892	1.73	3/33	6.4	
November	0.379	54	63	46	0.76	6	2.78	1916	Nil	1891	1.11	30/03	3.8	
December	0.411	50	63	44	0.55	4	3.05	1838	Nil	{ 1886 1924	1.72	1/88	2.9	
Year	{ Totals	—	—	—	—	—	—	—	—	—	—	—	—	97.9
	{ Averages	0.374	62	—	—	34.92	121	—	—	—	—	—	—	—
	{ Extremes	—	—	84	41	—	—	12.80	6/1923	Nil	(b)	3.90	10/6/20	—

(a) Various years.

(b) Jan., Feb., March., April, Nov. and Dec., various years.

CLIMATOLOGICAL DATA—ADELAIDE, SOUTH AUSTRALIA.

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

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

Month.	Bar. corrected to 32° F. Mm. Sea level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.					Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m. and 9 p.m.	No. of Clear Days.	
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.						
					9 a.m.	3 p.m.					
No. of yrs. over which observation extends.	78	57	57	57	57	57	65	63	67	53	
January ..	29.917	758	19/99	0.33	7,856	S W	S W	9.08	2.4	3.5	8.7
February ..	29.952	691	22/96	0.28	6,615	N E	S W	7.39	2.0	3.5	7.6
March ..	30.038	628	9/12	0.23	6,581	S	S W	5.92	2.2	4.0	7.1
April ..	30.119	773	10/96	0.21	6,070	N E	S W	3.50	1.6	5.0	4.5
May ..	30.124	760	9/80	0.20	6,277	N E	N W	2.05	1.7	6.8	2.8
June ..	30.101	750	12/78	0.24	6,474	N E	N	1.26	1.9	6.2	1.3
July ..	30.123	674	25/82	0.24	6,672	N E	N W	1.29	1.6	5.9	1.9
August ..	30.097	773	31/97	0.27	7,116	N E	S W	1.88	2.1	5.6	2.5
September ..	30.041	720	2/87	0.30	7,218	N N E	S W	2.87	2.3	5.2	3.5
October ..	29.996	768	28/98	0.33	7,816	N N E	S W	4.78	3.3	5.0	3.9
November ..	29.978	677	2/04	0.32	7,487	S W	S W	6.61	3.3	4.6	5.4
December ..	29.920	675	12/91	0.33	7,842	S W	S W	8.49	2.6	3.9	7.3
Year { Totals	—	—	—	—	—	—	—	55.12	27.0	—	56.5
Year { Averages	30.034	—	—	0.27	6,997	N E	S W	—	—	—	—
Year { Extremes	—	773	(a)	—	—	—	—	—	—	4.8	—

(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.					
										78	78	78	78
January ..	86.1	61.5	73.8	116.3	26/58	45.1	21/84	71.2	180.0	18/82	36.5	14/79	309.8
February ..	86.1	62.0	74.0	113.6	12/99	45.5	23/18	68.1	170.5	10/00	35.8	23/26	264.0
March ..	80.8	58.9	69.9	110.5	9/34	43.9	21/33	66.6	174.0	17/83	32.1	21/33	189.3
April ..	73.3	54.5	63.9	98.0	10/66	39.6	15/59	58.4	155.0	1/83	30.2	16/17	181.1
May ..	65.8	50.3	58.0	89.5	4/21	36.9	(a)	52.6	148.2	12/79	25.6	19/28	149.5
June ..	60.4	46.7	53.6	76.0	23/65	32.5	27/76	43.5	138.8	18/79	22.9	12/13	123.6
July ..	59.0	44.7	51.9	74.0	11/06	32.0	24/08	42.0	134.5	26/90	22.1	30/29	137.3
August ..	61.9	45.9	53.9	85.0	31/11	32.3	17/59	52.7	140.0	31/92	22.8	11/29	163.6
September ..	66.4	48.0	57.2	90.7	23/82	32.7	4/58	58.0	160.5	23/82	25.0	25/27	185.1
October ..	72.4	51.4	61.9	102.9	21/22	36.0	-57	66.9	162.0	30/21	27.8	(c)	226.9
November ..	78.6	55.4	67.0	113.5	21/65	40.8	2/09	72.7	166.9	20/78	31.5	2/09	263.6
December ..	83.2	58.9	71.1	114.6	29/31	43.0	(b)	71.6	175.7	7/99	32.5	4/84	302.1
Year { Averages	72.8	—	—	—	—	—	—	—	—	—	—	—	—
Year { Extremes	—	53.2	63.0	116.3	26/1/58	32.0	24/7/08	84.3	180.0	18/1/82	22.1	30/7/29	2545.9

(a) 26/1895 and 24/1904.

(b) 16/1861 and 4/1906.

(c) 2/1918 and 4/1931.

(d) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%).				Rainfall (inches).					Dew. Mean No. of Days.		
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest In One Day.				
										96		96	96
January ..	0.337	38	59	29	0.72	4	4.00	1850	Nil	(a)	2.30	2/89	3.6
February ..	0.354	40	56	30	0.72	4	6.09	1925	Nil	(a)	5.57	7/25	5.6
March ..	0.343	46	58	36	1.02	6	4.60	1878	Nil	(a)	3.50	5/78	10.4
April ..	0.334	55	72	37	1.72	9	6.78	1853	0.03	1923	3.15	5/60	13.8
May ..	0.315	67	76	49	2.73	14	7.75	1875	0.10	1934	2.75	1/53	16.0
June ..	0.297	76	84	67	3.09	16	8.58	1916	0.42	1886	2.11	1/20	16.1
July ..	0.277	76	87	66	2.64	16	5.38	1865	0.37	1899	1.75	10/65	17.3
August ..	0.285	69	77	54	2.54	16	6.24	1852	0.35	1914	2.23	19/51	16.6
September ..	0.296	60	72	44	2.09	14	5.83	1923	0.45	1896	1.59	20/23	15.6
October ..	0.298	51	67	29	1.72	11	3.83	1870	0.17	1914	2.24	16/08	12.9
November ..	0.307	42	57	31	1.15	7	4.10	1934	0.04	1885	2.08	7/34	6.7
December ..	0.321	39	50	31	1.00	6	3.98	1861	Nil	1904	2.42	23/13	4.4
Year { Totals	—	—	—	—	21.14	123	—	—	—	—	—	—	—
Year { Averages	0.309	53	—	—	—	—	8.58	6/16	Nil	(b)	5.57	7/2/25	—
Year { Extremes	—	—	87	29	—	—	—	—	—	—	—	—	—

(a) Various years.

(b) January, February, March, December, various years.

CLIMATOLOGICAL DATA—BRISBANE, QUEENSLAND.

LAT. 27° 28' S., LONG. 153° 2' E. HEIGHT ABOVE M.S.L. 137 FT.

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

Month.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. to 3 p.m. and 9 p.m.	No. of Clear Days.	
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
					9 a.m.					3 p.m.
No. of yrs. over which observation extends.	48	24	24	24	48	48	26	48	43	26
January ..	29.868	361 1/22	0.12	4,769	S E	E & N E	6.647	7.3	5.7	3.3
February ..	29.904	503 5/31	0.12	4,383	S & S E	N E & E	5.437	5.7	5.7	2.4
March ..	29.964	488 1/29	0.10	4,333	S E	E & E	5.664	4.5	5.3	4.9
April ..	30.043	400 3/25	0.09	3,904	S E	E & E	3.912	3.9	4.6	7.8
May ..	30.086	363 7/16	0.07	3,811	S W & S	S & W	3.048	3.2	4.3	8.7
June ..	30.072	455 14/28	0.08	3,891	S & S W	S W	2.355	2.6	3.7	12.7
July ..	30.072	359 2/23	0.07	3,794	S & S W	S W	2.355	2.6	3.7	12.7
August ..	30.099	331 6/31	0.08	3,888	S & S W	S W & N E	3.409	3.9	3.4	12.5
September ..	30.043	329 4/31	0.08	3,839	S & S W	N E & E	4.315	6.0	3.5	12.2
October ..	30.005	325 25/18	0.10	4,350	S	N E	5.625	6.9	4.1	8.9
November ..	29.961	371 10/28	0.11	4,524	S E & N E	N E	6.203	8.9	4.9	6.1
December ..	29.887	467 15/26	0.12	4,748	S E	N E	6.912	9.5	5.3	3.8
Year { Totals ..	—	—	—	—	S	N E	55.596	64.9	—	92.3
Year { Averages ..	30.000	—	0.10	4,191	S	N E	—	—	4.6	—
Year { Extremes ..	—	503 5/2/31	—	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.)			Extreme Shade Temperature (Fahr.)			Extreme Temperature (Fahr.)			Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.	Extreme Range.	Highest in Sun.	Lowest on Grass.		
									No. of yrs. over which observation extends.	
January ..	85.4	68.9	77.2	108.9 14/02	58.8 4/93	50.1	166.4 10/17	49.9 4/93	230.4	
February ..	84.5	68.5	76.5	105.7 21/25	58.5 23/31	47.2	165.2 6/10	49.1 22/31	208.6	
March ..	82.4	66.4	74.4	99.4 5/19	52.4 29/13	47.0	161.7 4/25	45.4 29/13	216.2	
April ..	79.0	61.6	70.3	95.2 (a)	44.4 25/25	50.8	153.8 11/16	36.7 24/25	209.5	
May ..	73.6	55.4	64.5	90.3 21/23	41.3 24/99	49.0	147.0 1/10	29.8 8/97	203.2	
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	181.7	
July ..	68.5	48.6	58.6	83.4 28/98	36.1 (b)	47.3	146.1 20/15	23.9 11/90	210.5	
August ..	71.2	49.0	60.6	88.5 25/28	37.4 6/87	51.1	141.9 20/17	27.1 9/99	236.6	
September ..	75.6	54.3	65.2	95.2 16/12	40.7 1/96	54.5	155.5 26/03	30.4 1/89	239.7	
October ..	79.5	59.9	69.7	101.4 18/93	43.3 3/99	58.1	157.4 31/18	34.9 8/89	255.1	
November ..	82.5	64.2	73.4	106.1 18/13	48.5 2/05	57.6	162.3 7/89	38.8 1/05	242.4	
December ..	84.9	67.4	76.2	105.9 26/93	56.4 13/12	49.5	161.7 27/26	49.1 3/94	247.9	
Year { Averages ..	78.0	59.7	68.9	—	—	—	—	—	—	
Year { Extremes ..	—	—	—	108.9 14/1/02	36.1 (c)	72.8	166.4 10/1/17	23.9 11/7/90	2681.8 (d)	

(a) 9/96 and 5/03.

(b) 12/94 and 2/96.

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

(d) Total for year.

HUMIDITY, RAINFALL AND DEW.

Month.	Vapour Pressure (inches).		Rel. Hum. (%).				Rainfall (inches).				Dew. Mean No. of Days Dew.
	Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest In One Day.			
									No. of yrs. over which observation extends.	48	
January ..	0.639	66	79	53	6.45	13	27.72 1895	0.32 1919	18.31 21/87	8.8	
February ..	0.646	69	82	55	6.41	13	40.39 1893	0.58 1849	10.61 6/31	8.9	
March ..	0.614	72	85	56	5.65	15	34.04 1870	Nil 1849	11.18 14/08	12.3	
April ..	0.523	72	80	60	3.86	12	15.28 1867	0.05 1897	4.97 19/28	14.7	
May ..	0.424	73	85	61	2.78	10	13.85 1876	Nil 1846	5.62 9/79	15.9	
June ..	0.359	74	84	67	2.75	8	14.03 1873	Nil 1847	6.01 9/93	14.0	
July ..	0.328	72	81	61	2.24	8	8.46 1889	Nil 1841	3.54 (c)	15.3	
August ..	0.349	69	80	56	1.99	7	14.67 1879	Nil (a)	4.89 12/87	14.3	
September ..	0.410	64	76	47	2.02	8	5.43 1886	0.10 1907	2.46 2/94	13.4	
October ..	0.472	60	72	48	2.54	9	9.99 1882	0.14 1900	3.75 3/27	12.4	
November ..	0.536	60	72	45	3.80	10	12.41 1917	Nil 1842	4.46 16/86	8.6	
December ..	0.595	61	69	51	4.95	12	13.99 1910	0.35 1865	6.60 28/71	8.3	
Year { Totals ..	—	—	—	—	45.44	125	—	—	—	146.9	
Year { Averages ..	0.491	68	—	—	—	—	—	—	—	—	
Year { Extremes ..	—	—	85	45	—	—	40.39 2/93	Nil (b)	18.31 21/1/87	—	

(a) 1862, 1869, 1880. and 16/89.

(b) March, May, June, July, August, and November, various years.

(c) 15/76



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 35° F. M.S. Sea Level and Standard Gravily from hourly readings.	Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Wind.*		Total Miles.	Prevailing Direction.		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.
				9 a.m.	3 p.m.		9 a.m.	3 p.m.				
No. of yrs. over which observation extends.	76	68	68	68	21	21	55	75	73	24		
January ..	29.895	627 3/93	0.27	7,023	N E to E	E N E	5.394	5.0	5.9	5.0		
February ..	29.942	697 12/60	0.24	6,045	N E to E	E N E	4.243	4.4	5.0	5.6		
March ..	30.013	754 20/70	0.19	5,858	W	E N E	3.641	4.1	5.0	5.6		
April ..	30.070	642 6/82	0.17	5,339	W	N E to E	3.604	3.7	5.1	5.5		
May ..	30.083	682 6/98	0.17	5,485	W	W	1.819	2.0	4.9	7.8		
June ..	30.063	642 12/68	0.20	5,892	W	W	1.434	2.1	4.4	8.6		
July ..	30.069	744 17/79	0.20	6,081	W	W	1.522	2.3	4.4	10.3		
August ..	30.069	649 22/72	0.19	5,900	W	N E to E	1.931	3.2	4.0	10.9		
September ..	30.009	771 6/74	0.22	6,154	W	E N E	2.712	3.9	4.4	9.7		
October ..	29.968	741 4/72	0.24	6,686	W	E N E	3.897	4.9	4.4	7.6		
November ..	29.941	583 12/87	0.25	6,558	N E to E	E N E	4.613	5.5	5.6	5.6		
December ..	29.882	750 3/84	0.26	6,960	N E to E	E N E	5.402	5.8	5.7	5.1		
Year { Totals ..	—	—	—	—	—	—	—	—	—	—	—	
{ Averages ..	30.000	—	0.22	6,165	W	E N E	39.212	47.9	5.1	89.4		
{ Extremes ..	—	771 6/9/74	—	—	—	—	—	—	—	—	—	

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends.	76	76	76	76	76	76	73	76	14†
January ..	78.4	64.9	71.6	108.5 13/96	51.2 14/65	57.3	164.3 26/15	43.7 6/25	231.4
February ..	77.7	65.0	71.3	107.8 8/26	49.3 28/63	58.5	161.2 8/26	42.8 22/33	203.7
March ..	75.7	63.0	69.3	102.6 3/69	48.3 14/86	53.8	158.3 10/26	39.9 17/13	198.3
April ..	71.3	58.0	64.6	91.0 20/22	44.6 27/64	46.4	144.1 10/77	33.3 24/09	180.7
May ..	65.0	52.2	58.9	86.0 1/19	40.2 22/59	45.8	129.7 1/96	29.3 25/17	172.5
June ..	61.2	48.3	54.7	80.4 11/31	35.7 22/32	44.7	125.5 2/23	28.0 22/33	157.0
July ..	59.8	46.0	52.9	78.3 22/26	35.0 12/90	42.4	124.7 19/77	24.0 4/93	185.1
August ..	62.8	47.5	55.2	82.0 31/84	36.8 3/72	45.3	149.0 30/78	26.1 4/09	219.8
September ..	67.0	51.4	59.2	92.3 27/19	40.8 18/64	51.5	142.2 12/78	30.1 17/05	218.8
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	239.8
November ..	74.3	59.6	67.0	102.7 21/78	45.8 1/05	56.9	158.5 28/99	36.0 8/06	231.2
December ..	77.0	62.8	69.9	107.5 31/04	48.4 3/24	59.1	164.5 27/89	41.4 3/24	227.3
Year { Averages ..	70.2	56.2	63.2	108.5	35.7	72.8	164.5	24.0	2,465.6
{ Extremes ..	—	—	—	131/96	22/6/32	—	27/12/89	4/7/93	—

(a) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%).					Rainfall (inches).				Dew. Mean No. of Days Dew.
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest In One Day.		
No. of yrs. over which observation extends.	76	76	76	76	76	76	76	76	76	74	
January ..	0.546	67	78	58	3.58	14	15.26 1911	0.25 1932	7.08 13/11	1.4	
February ..	0.562	70	81	59	4.27	13	18.56 1873	0.23 1933	8.90 25/73	2.5	
March ..	0.533	73	85	62	4.89	15	18.70 1870	0.42 1876	6.52 9/13	4.4	
April ..	0.447	76	87	63	5.56	14	24.49 1861	0.06 1868	7.52 29/60	6.9	
May ..	0.359	79	90	63	5.16	15	23.03 1919	0.18 1860	8.36 28/89	7.8	
June ..	0.302	78	89	68	4.72	12	16.30 1885	0.19 1904	5.17 16/84	6.6	
July ..	0.275	76	88	63	4.90	12	13.21 1900	0.12 1862	7.80 7/31	7.2	
August ..	0.290	71	84	56	2.90	11	14.89 1899	0.04 1885	5.33 2/60	6.7	
September ..	0.334	66	79	49	2.92	12	14.05 1879	0.08 1882	6.69 10/79	4.6	
October ..	0.382	63	77	46	2.86	12	11.14 1916	0.21 1867	5.37 13/02	3.3	
November ..	0.444	63	79	42	2.85	12	9.88 1865	0.07 1915	4.23 19/00	2.2	
December ..	0.505	65	77	52	2.93	13	15.82 1920	0.23 1913	4.75 13/10	1.6	
Year { Totals ..	—	—	—	—	47.54	155	—	—	—	—	
{ Averages ..	0.403	70	—	—	—	—	—	—	—	—	
{ Extremes ..	—	90	42	—	—	—	24.49 4/1861	0.04 8/1885	8.00 25/2/73	—	

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

CLIMATOLOGICAL DATA—MELBOURNE, VICTORIA.

LAT. 37° 49' S., LONG. 144° 58' E. HEIGHT ABOVE M.S.L., 115 FT.

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

Month.	Bar. corrected to 32° F. M. Sea Level and Standard 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.
		Greatest Number of Miles in One Day.		Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
		77	61	61	61	9 a.m.	3 p.m.				
No. of yrs. over which observation extends.	77	61	61	61	61	61	62	27	77	27	
January ..	29.910	583	10/97	0.26	6,953	S W	S E	6.443	1.9	5.1	7.2
February ..	29.959	566	8/68	0.24	6,011	S S W	S S E	5.050	2.3	4.9	6.7
March ..	30.033	677	9/81	0.20	6,005	S W	S E	4.004	1.8	5.5	5.3
April ..	30.102	597	7/68	0.17	5,421	S W	N W	2.411	1.1	5.8	4.6
May ..	30.107	693	12/65	0.17	5,542	S W	N E	1.483	0.6	6.5	3.0
June ..	30.081	761	13/76	0.20	5,931	S W	N E	1.122	0.5	6.6	2.6
July ..	30.087	755	8/74	0.20	6,016	N W	N E	1.085	0.4	6.3	2.9
August ..	30.064	637	14/75	0.22	6,441	N W	N E	1.492	1.0	6.3	2.8
September ..	29.998	617	11/72	0.25	6,597	S W	S W	2.324	1.2	6.1	3.3
October ..	29.965	899	5/66	0.26	6,903	S W	N W	3.367	1.9	6.0	3.6
November ..	29.952	734	13/66	0.26	6,650	S W	S E	4.539	2.5	5.9	3.8
December ..	29.899	655	1/75	0.27	7,087	S W	S E	5.751	2.0	5.5	4.6
Year { Totals ..	—	—	—	—	—	—	—	39.071	17.2	—	50.4
Year { Averages ..	30.013	—	—	0.23	6,296	S W	N W	—	—	5.9	—
Year { Extremes ..	—	899	5/10/66	—	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.				
	Mean	Mean	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.					
	79	79	79	79	79		74	75					
No. of yrs. over which observation extends.	79	79	79	79	79	79	74	75	53				
January ..	78.0	56.7	67.4	111.2	14/62	42.0	28/85	69.2	178.5	14/62	30.2	28/85	259.4
February ..	78.0	57.2	67.6	109.5	7/01	40.2	24/24	69.3	167.5	15/70	30.9	6/91	237.9
March ..	74.5	54.7	64.6	105.5	2/93	37.1	17/84	68.4	164.5	1/68	28.9	(b)	205.3
April ..	68.2	50.7	59.4	94.0	(a)	34.8	24/88	59.2	152.0	8/61	25.0	23/97	161.3
May ..	61.5	46.8	54.2	83.7	7/05	29.9	29/16	53.8	142.6	2/59	21.1	26/16	137.7
June ..	56.8	43.9	50.4	72.2	1/07	28.0	11/66	44.2	129.0	11/61	19.9	30/29	110.9
July ..	55.6	41.9	48.8	69.3	22/26	27.0	21/69	42.3	125.8	27/80	20.5	12/03	130.5
August ..	58.6	43.3	51.0	77.0	20/85	28.3	11/63	48.7	137.4	29/69	21.3	14/02	153.0
September ..	62.7	45.6	54.1	88.6	28/28	31.1	16/08	57.5	142.1	20/67	22.8	8/18	171.6
October ..	67.1	48.3	57.7	98.4	24/14	32.1	3/71	66.3	154.3	28/68	24.8	22/18	200.9
November ..	71.4	51.3	61.3	105.7	27/94	36.5	2/96	69.2	159.6	29/65	24.6	2/96	232.4
December ..	75.3	54.4	64.8	110.7	15/76	40.0	4/70	70.7	170.3	20/69	33.2	1/04	248.0
Year { Averages ..	67.3	49.6	58.4	—	—	—	—	—	—	—	—	—	—
Year { Extremes ..	—	—	—	111.2	27.0	84.2	178.5	19.9	—	—	—	—	62,249.4

(a) 6/1865 and 17/1922.

(b) 17/1884 and 20/1897.

(c) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (Inches).	Rel. Hum. (%)				Rainfall (Inches).				Dew. Mean No. of Days Dew.			
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Itain.	Greatest Monthly.	Least Monthly.	Greatest In One Day.				
											79	79	79
No. of yrs. over which observation extends.	27	27	27	27	79	79	79	76	27				
January ..	0.385	58	65	50	1.88	8	5.68	1904	0.01	1932	2.97	9/97	2.6
February ..	0.417	62	69	48	1.74	7	6.24	1904	0.03	1870	3.37	18/19	4.0
March ..	0.382	64	73	57	2.24	10	7.50	1911	0.14	1934	3.55	5/19	7.8
April ..	0.343	72	82	66	2.24	11	6.71	1901	Nil	1923	2.28	22/01	9.4
May ..	0.311	79	86	71	2.13	13	4.31	1862	0.14	1934	1.85	7/91	10.2
June ..	0.278	83	89	76	2.05	14	4.51	1859	0.73	1877	1.74	21/04	8.8
July ..	0.265	82	86	76	1.86	14	7.02	1891	0.57	1902	2.71	12/91	8.8
August ..	0.270	76	82	70	1.90	15	4.04	1924	0.48	1903	1.94	26/24	7.8
September ..	0.289	68	76	60	2.33	14	7.93	1916	0.52	1907	2.62	12/80	6.7
October ..	0.305	62	67	53	2.66	13	7.61	1869	0.29	1914	3.00	17/69	5.6
November ..	0.335	60	69	52	2.27	11	6.71	1916	0.25	1895	2.57	16/76	2.1
December ..	0.367	59	69	51	2.36	9	7.18	1863	0.11	1904	3.20	1/34	1.9
Year { Totals ..	—	—	—	—	25.66	139	—	—	—	—	—	—	75.7
Year { Averages ..	0.324	69	—	—	—	—	—	—	—	—	—	—	—
Year { Extremes ..	—	89	48	—	—	—	7.93	9/1916	Nil	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.	Bar. corrected to 32° F. Mm. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Wind.		Total Miles.	Prevailing Direction.		Mean Amount of Evaporation (inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. 3 p.m. and 9 p.m.	No. of Clear Days.
				9 a.m.	3 p.m.		9 a.m.	3 p.m.				
No. of yrs. over which observation extends.	50	24	24	24	29	29	24	27	72	28		
January ..	29.826	500 30/16	0.19	5,988	N to N W	S E	4.821	0.9	6.0	2.4		
February ..	29.914	605 4/27	0.15	4,778	N & N N W	S E	3.686	1.1	6.0	2.4		
March ..	29.946	443 19/27	0.13	4,964	N to N W	S E	2.990	1.4	5.9	2.4		
April ..	29.972	533 27/26	0.13	4,815	N to N W	N W & S E	1.956	0.6	6.2	1.6		
May ..	29.994	423 15/27	0.12	4,729	N W to N	N to N W	1.376	0.5	6.1	2.2		
June ..	29.963	569 27/20	0.12	4,498	N W & N	N to N W	0.904	0.5	6.1	2.2		
July ..	29.930	489 22/29	0.13	4,848	N W to N	N to N W	0.933	0.5	5.8	2.2		
August ..	29.922	612 19/26	0.13	4,990	N to N W	N W to N	1.272	0.4	5.9	2.0		
September ..	29.848	516 26/15	0.19	5,659	N to N W	N W & S E	1.953	0.7	6.1	1.5		
October ..	29.826	461 8/12	0.20	6,074	N to N W	S E & N W	3.020	0.6	6.4	1.2		
November ..	29.813	508 18/15	0.19	5,743	N to N W	S E	3.814	0.7	6.4	1.5		
December ..	29.814	562 1/34	0.18	5,703	N to N W	S E	4.417	0.8	6.3	1.3		
Year { Totals ..	—	—	—	—	—	—	31.142	8.7	—	—	—	22.9
{ Averages ..	29.897	—	0.16	5,232	N to N W	S E & N W	—	—	—	—	—	—
{ Extremes ..	—	612 19/8/26	—	—	—	—	—	—	—	—	—	—

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extremes Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of yrs. over which observation extends.	64	64	64	88	88	88	47	67	14*
January ..	71.0	52.8	61.9	105.0 (a)	40.0 3/72	65.0	160.0 (b)	30.6 19/97	240.2
February ..	71.2	53.3	62.2	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 -/87	199.0
March ..	67.9	50.9	59.4	99.0 -/61	35.2 31/26	63.8	150.0 3/05	27.5 30/02	200.0
April ..	62.5	47.7	55.1	90.0 1/56	30.0 25/56	60.0	142.0 18/03	25.0 -/86	143.0
May ..	57.4	43.9	50.6	77.8 5/21	29.2 20/02	48.6	128.0 (c)	20.0 19/02	140.1
June ..	52.7	41.0	46.8	75.0 7/74	28.0 22/79	47.0	122.0 12/04	31.0 6/87	118.7
July ..	53.1	39.5	45.8	72.0 22/77	27.0 18/66	45.0	121.0 12/03	18.7 16/86	129.6
August ..	55.0	41.1	48.0	77.0 3/76	30.0 10/73	47.0	129.0 -/87	20.1 7/00	160.4
September ..	58.8	43.3	51.0	81.7 23/26	30.0 12/41	51.7	138.0 23/03	18.3 16/26	171.7
October ..	62.6	45.5	54.0	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (d)	188.9
November ..	66.0	48.2	57.1	98.0 23/88	35.2 5/13	62.8	154.0 19/02	26.0 1/08	221.5
December ..	69.1	51.2	60.2	105.2 30/97	38.0 13/06	67.2	157.0 30/18	27.2 -/86	225.2
Year { Averages ..	62.2	46.5	54.3	—	—	—	—	—	2138.3
{ Extremes ..	—	—	—	105.2 30/12/97	27.0 18/7/66	78.2	165.0 24/2/98	18.3 16/9/26	(e)

(a) 27/49 and 1/00.

(b) 5/86 and 13/05.

(c) -/89 and -/93.

(d) 1/86 and -/99.

(e) Total for year.

\* Early records discarded owing to faulty instrument.

CHAPTER II.—PHYSIOGRAPHY.  
CLIMATOLOGICAL DATA—HOBART, TASMANIA—*continued.*

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches). Mean 9 a.m.	Rel. Hum. (%).			Rainfall (inches)			Dew. Mean No. of Days Dew.		
		Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.		Least Monthly.	Greatest In One Day.
No. of yrs. over which observation extends.	48	48	48	48	92	91	92	92	68	25
January ..	0.330	58	72	46	1.84	10	5.91 1893	0.03 1841	2.96 30/16	0.6
February ..	0.355	63	77	52	1.47	9	9.15 1854	0.07 1847	4.50 27/54a	1.3
March ..	0.332	67	77	58	1.74	10	7.60 1854	0.02 1843	3.27 11/32	5.2
April ..	0.299	72	84	58	1.93	12	6.50 1909	0.07 1904	5.02 20/09	9.4
May ..	0.265	78	89	65	1.86	13	6.37 1905	0.10 1843	3.22 14/58	13.0
June ..	0.241	80	91	68	2.21	14	8.15 1889	0.22 1852	4.11 13/89	8.7
July ..	0.230	80	94	72	2.16	14	6.02 1922	0.30 1850	2.51 18/22	8.6
August ..	0.238	75	92	64	1.82	14	10.16 1858	0.23 1854	4.35 12/58	8.6
September ..	0.255	67	85	58	2.10	15	7.14 1844	0.39 1847	2.75 18/44	5.1
October ..	0.270	63	73	51	2.33	15	6.67 1906	0.26 1850	2.58 4/06	2.8
November ..	0.292	59	72	50	2.45	14	8.94 1849	0.16 1868	3.97 7/49	1.1
December ..	0.313	57	67	45	2.06	12	9.00 1875	0.11 1842	2.82 21/29	0.9
Year { Totals ..	—	—	—	—	23.97	152	—	—	—	65.5
Year { Averages ..	0.281	67	—	—	—	—	10.16 8/1858	0.02 3/1843	5.02 20/4/09	—
Year { Extremes ..	—	—	94	45	—	—	—	—	—	—

(a) 4.18 on 28/54.

## CHAPTER III.

## GENERAL GOVERNMENT.

## § 1. Scheme of Parliamentary Government.

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

2. **Powers and Functions of the Governor-General and of the State Governors.**—A detailed statement of the powers and functions of the Governor-General and of the State Governors will be found in preceding issues of the *Official Year Book* (see No. 18, pp. 78 to 80).

3. **Governor-General and State Governors.**—The present Governor-General is the Right Honorable SIR ISAAO ALFRED ISAACS, G.C.M.G. He assumed office on the 22nd January, 1931.

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

New South Wales ..	Brigadier-General the Hon. SIR ALEXANDER GOBE ARKWRIGHT HORE-RUTHVEN, V.C., K.C.M.G., C.B., D.S.O.
Victoria ..	.. Captain the Rt. Hon. WILLIAM CHARLES ARCEDECKNE BARON HUNTINGFIELD, K.C.M.G.
Queensland ..	.. Colonel the Rt. Hon. SIR LESLIE ORME WILSON, G.C.S.I., G.C.I.E., C.M.G., D.S.O.
South Australia ..	.. Major-General SIR WINSTON JOSEPH DUGAN, K.C.M.G., C.B., D.S.O.
Western Australia ..	Lieut.-Governor—The Hon. SIR JAMES MITCHELL, K.C.M.G.
Tasmania ..	SIR ERNEST CLARK, K.C.B., 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 the majority of the States is practically co-extensive with a group of departmental chiefs, who are usually spoken of as the Cabinet, and who change with the rise and fall of party majorities. In the Commonwealth Government, however, as well as in the States of Victoria and Tasmania, the Cabinet on leaving office remain members of the Executive Council, though they no longer attend its meetings, and it is in fact an essential feature of the Cabinet system of Government that they should not do so, except to assist the Governor in transacting purely formal business, or to advise on non-political questions.

(ii) *The Executive Council.* This body is composed of the Governor and the Ministers of State holding office for the time being. The latter are sworn both as Executive Councillors and as Ministers controlling the different administrative departments. It should be observed that all persons living who have held Ministerial office under former Governments are also technically members of the Executive Council, and are thus liable to be specially summoned for attendance at meetings of that body. The meetings are official in character; they are presided over by the Governor-General (or Governor) and are attended by the clerk, who keeps a formal record of the proceedings. At these meetings the decisions of the Cabinet are put into official form and made effective, appointments are confirmed, resignations accepted, proceedings ordered, and notices and regulations published.

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

(iv) *Ministers in Upper and Lower Houses.* The subjoined table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in October, 1935.

AUSTRALIAN PARLIAMENTS—MINISTERS IN UPPER OR LOWER HOUSES,  
1935.

Ministers with Seats in --	C'wealth.	N.S.W.	Vict.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
The Upper House ..	3	3	4	(a)	2	2	2	16
The Lower House ..	11	11	8	10	4	7	6	57
Total ..	14	14	12	10	6	9	8	73

(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, pages 82 and 83.

(c) *State Ministries.* A list of the members of the Ministry in each State in October, 1935, 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 October, 1935 :—

**MEMBERS OF COMMONWEALTH AND STATE PARLIAMENTS, AND ANNUAL SALARIES, 1935.**

Members in—	C'wealth.	N.S.W.	Vict.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
<b>MEMBERS.</b>								
Upper House ..	36	60	34	(a)	20	30	18	198
Lower House ..	75	90	65	62	46	50	30	418
<b>Total ..</b>	<b>111</b>	<b>150</b>	<b>99</b>	<b>62</b>	<b>66</b>	<b>80</b>	<b>48</b>	<b>616</b>
<b>ANNUAL SALARY.</b>								
	£	£	£	£	£	£	£	
Upper House ..	825	..	183	(a)	360	538	(b)278-375	..
Lower House ..	825	670	(c) 427-460	500	360	538	(b)300-375	..

(a) Abolished in 1922. (b) According to area of electorate and distance from the Capital. (c) £427 for metropolitan members and £460 for country members.

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

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

**§ 2. Parliaments and Elections.**

1. Qualifications for Membership and for Franchise.—The conspectus in § 4 of "General Government" in Year Book No. 13 contains particulars, as in 1920, relating to the legislative chambers in the Commonwealth and State Parliaments, and shows concisely the qualifications necessary for membership and for the franchise in each House. (These are, in the main, applicable in 1935, 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 Federal Government.**—The Senate consists of 36 members, six being returned by each of the original federating States. Members of this Chamber are elected for a term of six years, but by a provision in the Constitution half the members retire at the end of every third year, although they are eligible for re-election. In accordance with the Constitution, the total number of members of the House of Representatives must be as nearly as possible double that of the Senate. In the House of Representatives the States are represented on a population basis, and the numbers in October, 1935, are as follow :—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. 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 purposes 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. Members of both Houses are paid at the rate of £825 per annum. Further information regarding the Senate and the House of Representatives is given in earlier issues.

3. **Federal Elections.**—There have been thirteen complete Parliaments since the inauguration of Federation. The fifth Parliament, which was opened on the 9th July, 1913, was dissolved on the 30th July, 1914, in somewhat unusual circumstances. Under Section 57 of the Constitution, it is provided that, should the Senate fail to pass, or pass with amendments, any proposed law previously passed by the House of Representatives, and should the latter House, after an interval of three months, again pass the proposed law, with or without the amendments of the Senate, and the Senate for a second time reject it or pass it with amendments to which the lower House will not agree, then the Governor-General may dissolve the two Houses simultaneously. For the first time in the history of the Commonwealth this deadlock between the Senate and the House of Representatives occurred in the second session of the fifth Parliament, and, in accordance with the section of the Constitution referred to above, both Houses were dissolved by the Governor-General. Until 1927 the Parliament met at Melbourne ; it now meets at Canberra, the first meeting at Parliament House, Canberra, being opened by H.R.H. the Duke of York, on the 9th May, 1927. The first session of the fourteenth Parliament opened on the 23rd October, 1934. Particulars regarding Commonwealth elections since 1922 will be found in the following table.

#### FEDERAL ELECTIONS.

Date.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Fem.	Total.	Males.	Fem.	Total.	Males.	Fem.	Total.
THE SENATE.									
16th December, 1922	1,494,508	1,487,916	2,982,424	966,551	761,695	1,728,246	64.67	51.19	57.95
14th November, 1925	1,656,286	1,645,730	3,302,016	1,515,608	1,499,345	3,014,953	91.51	91.11	91.31
17th November, 1928	1,723,552	1,721,214	3,444,766	1,617,752	1,606,748	3,224,500	93.86	93.35	93.61
12th October, 1929	1,773,014	1,769,936	3,542,950						
19th December, 1931	1,827,079	1,822,875	3,649,954	1,741,163	1,727,140	3,468,303	95.30	94.75	95.02
15th September, 1934	1,954,339	1,948,338	3,902,677	1,862,749	1,845,829	3,708,578	95.31	94.74	95.03

\* No election.

#### THE HOUSE OF REPRESENTATIVES.

##### (CONTESTED ELECTORATES.)

16th December, 1922	1,396,020	1,378,254	2,774,274	920,177	726,686	1,646,863	65.91	52.72	59.36
14th November, 1925	1,635,842	1,632,897	3,268,739	1,499,006	1,488,194	2,987,200	91.63	91.14	91.39
17th November, 1928	1,450,202	1,403,951	2,914,153	1,362,675	1,366,137	2,728,812	93.96	93.32	93.64
12th October, 1929	1,557,525	1,560,505	3,118,030	1,479,100	1,478,447	2,957,547	94.96	94.74	94.85
19th December, 1931	1,724,730	1,733,343	3,458,073	1,643,604	1,642,870	3,286,474	95.30	94.78	95.04
15th September, 1934	1,930,418	1,934,021	3,864,439	1,843,949	1,833,774	3,677,723	95.52	94.82	95.17



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

4. **Federal 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. Several referenda have been held from time to time, but in three cases only has any proposed law been assented to by the required majority of the electors. A statement dealing with the various referenda up to and inclusive of the year 1919, and the voting thereon was given in previous issues of the Official Year Book (see No. 18, pp. 87 to 89), but space will not permit of the incorporation of this information in the present volume. In the year 1926 a referendum was held in relation to proposed laws entitled respectively "Industry and Commerce" and "Essential Services." The result of the voting was: Industry and Commerce, votes in favour, 1,247,088; votes not in favour, 1,619,655. Essential Services, votes in favour, 1,195,502; votes not in favour, 1,597,793.

A referendum was taken in 1928 in respect of a proposed law entitled "State Debts 1928" and a majority of votes was cast in each State in favour of the proposal, the voting for the Commonwealth being as follows: in favour, 2,237,391; not in favour, 773,852.

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 recently the Council was a nominee chamber which might theoretically contain an unlimited number of members. An Act for the reformation of the Council by reducing and limiting the number of members was passed on the 16th December, 1932. This Act also provided for a referendum on the question which was taken on the 13th May, 1933, and resulted in favour of the proposed reforms. The reconstituted Council consists of 60 members ordinarily elected for a term of 12 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. Ballots for the election of members of the first House were taken on the 2nd November, 1933, 16th November, 1933, 30th November, 1933, and the 14th December, 1933. On each occasion 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 a member of either House.

(ii) *Particulars of Elections.* Since the introduction of responsible government in New South Wales there have been thirty complete Parliaments, the first of which opened on the 22nd May, 1856, and was dissolved on the 19th December, 1857, while the thirtieth was dissolved on the 12th April, 1935. The thirty-first Parliament opened on the 12th June, 1935. 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 1922 to 1935 are given on the next page.

## LEGISLATIVE ASSEMBLY ELECTIONS, NEW SOUTH WALES.

Year.	Electors Qualified to Vote.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1922	636,662	614,361	1,251,023	466,949	408,515	875,464	73.34	66.49	69.98
1925	678,749	660,331	1,339,080	489,126	435,853	924,979	72.06	66.00	69.07
1927	714,886	694,607	1,409,493	591,820	558,957	1,150,777	83.79	81.25	82.54
1930	724,471	716,314	1,440,785	682,747	673,676	1,356,423	95.09	94.79	94.94
1932	739,009	725,999	1,465,008	690,094	676,993	1,367,087	96.42	96.37	96.39
1935	769,220	759,493	1,528,713	654,383	640,369	1,294,752	96.08	95.58	95.83

The principle of one elector one vote was adopted in 1894, and that of compulsory enrolment in 1922. Compulsory voting was introduced at the 1930 election, and, as the above table shows, the percentage of electors who voted in contested electorates rose to over 96 in 1932.

The franchise was extended to women (Women's Franchise Act) in 1902, and was exercised for the first time at a State election 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 34, and in the Lower House, 65. 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, except in the case of a dissolution, when one-half of the newly-elected members hold their seats for three years only. Members of the Legislative Assembly are elected for the duration of Parliament, which is limited to three years. An elector for the Legislative Assembly may vote once only, plurality of voting having been abolished in 1899; an elector, however, qualified in more than one district, may select the one for which he desires to record his vote. A preferential system of voting (see Year Book No. 6, page 1182) was adopted for the first time in Victoria at the election held in November, 1911.

(ii) *Particulars of Elections.* Since the introduction of responsible government in Victoria there have been thirty-one complete Parliaments, the first of which opened on the 21st November, 1856, and closed on the 9th August, 1859, while the thirty-first was dissolved on the 1st February, 1935. The thirty-second Parliament was opened on the 20th March, 1935. The election for the Legislative Assembly in 1927 was the first held since the institution of compulsory voting. At the Legislative Council elections held on the 9th June, 1934, only six of the seventeen seats were contested. Particulars of voting at elections during the years 1919 to 1935 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.
1919	.. ..	317,593	133,058	40.35
1922	.. ..	353,440	161,731	47.00
1925	.. ..	399,510	172,875	56.03
1928	.. ..	444,278	268,164	85.37
1931	.. ..	470,349	239,975	93.24
1934	.. ..	469,395	160,980	47.37

VICTORIAN ELECTIONS—continued.

LEGISLATIVE ASSEMBLY.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1921	414,818	456,638	871,456	167,812	158,415	326,227	61.29	53.53	57.26
1924	433,357	467,070	900,427	190,153	180,810	370,963	63.02	55.72	59.24
1927	480,485	512,726	993,211	377,941	402,458	780,399	92.02	91.51	91.76
1929	496,996	532,174	1,029,170	308,532	330,836	639,368	94.11	93.36	93.72
1932	510,809	544,492	1,055,301	335,512	351,530	687,042	94.60	93.82	94.20
1935	532,619	566,632	1,099,251	415,081	438,889	853,470	95.00	93.82	94.39

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

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

(ii) *Particulars of Elections.* Since the establishment of responsible government in Queensland there have been twenty-six complete Parliaments, the last of which was dissolved on the 9th April, 1935. Opinions differ regarding the opening date of the first Queensland Parliament. According to the Votes and Proceedings of the Legislative Assembly the House met for the first time on 22nd May, 1860, when the members were sworn and the Speaker elected. The Governor, however, was unable to be present on that date, but he duly attended on the 29th May, 1860, and delivered the Opening Address.

At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. Of the number of electors enrolled at the 1935 elections, 92.71 per cent. went to the polls. Statistics regarding elections during the years 1920 to 1935 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.
1920	238,750	206,931	445,681	187,575	168,651	356,226	78.57	81.50	79.93
1923	257,001	219,476	476,477	194,287	174,980	369,267	80.72	83.96	82.23
1926	253,571	224,526	478,097	209,139	191,916	401,055	89.77	90.13	89.94
1929	270,327	239,672	509,999	228,601	209,647	438,248	89.69	91.45	90.52
1932	274,986	250,958	525,944	236,266	220,628	456,894	92.59	93.14	92.86
1935	303,018	272,270	575,288	245,331	225,427	470,758	92.55	92.89	92.71

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

8. **The Parliament of South Australia.**—(i) *Constitution.* In this State there is a Legislative Council composed of twenty members and a House of Assembly with forty-six members, both chambers being elective. The State is divided into five districts, which return four members each to the Legislative Council. For the House of Assembly, eight districts return three members each, and eleven districts two members each.

(ii) *Particulars of Elections.* Since the inauguration of responsible government in South Australia there have been twenty-seven complete Parliaments, the first of which was opened on the 22nd April, 1857. The twenty-eighth Parliament opened on the 6th July, 1933. The duration of the present Parliament has been extended from three to five years by the Constitution (Quinquennial Parliament) Act 1933. 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.
<b>LEGISLATIVE COUNCIL.</b>									
1918	71,510	23,461	94,971	42,987	11,800	54,787	60.11	50.30	57.69
1921	69,986	23,062	93,048	38,597	11,309	49,906	64.23	53.96	61.57
1924	67,429	22,018	89,447	36,626	10,492	47,118	65.79	54.94	63.02
1927	100,376	37,395	137,771	46,686	17,742	64,428	67.55	59.91	65.26
1930	(a)	(a)	133,274	(a)	(a)	100,040	(a)	(a)	75.06
1933	(a)	(a)	133,152	(a)	(a)	25,309	(a)	(a)	64.21

## HOUSE OF ASSEMBLY.

1918	126,669	132,043	258,712	71,501	62,742	134,243	56.45	47.52	51.89
1921	134,091	137,931	272,022	91,451	77,600	169,051	70.10	57.64	63.77
1924	141,944	147,899	289,843	87,712	73,453	161,165	69.65	56.05	62.71
1927	152,997	156,591	309,588	110,127	104,611	214,738	80.64	74.31	77.43
1930	(a)	(a)	325,244	(a)	(a)	222,819	(a)	(a)	71.30
1933	(a)	(a)	338,576	(a)	(a)	182,693	(a)	(a)	59.45

(a) Not available.

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

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

(ii) *Particulars of Elections.* Since the establishment of responsible government in Western Australia there have been fourteen complete Parliaments, the first of which was opened on the 30th December, 1890, while the fifteenth Parliament was elected on the 8th April, 1933. The preferential system of voting in use in Western Australia is described in Year Book No. 6, page 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.									
1924	43,897	14,904	58,801	16,552	4,569	21,121	47.06	39.25	45.12
1926	39,566	15,120	54,686	23,956	8,136	32,092	60.55	53.80	58.68
1928	54,822	19,076	73,898	24,877	8,151	33,028	51.99	46.75	50.59
1930	54,651	18,927	73,578	20,198	6,252	26,450	51.58	48.50	50.81
1932	57,454	19,889	77,343	17,145	5,508	22,653	56.29	48.29	54.16
1934	62,168	22,323	84,491	31,590	10,189	41,779	53.39	47.23	51.75

LEGISLATIVE ASSEMBLY.									
1917	93,106	73,845	166,951	45,453	40,167	85,620	59.46	65.51	62.15
1921	89,523	75,165	164,688	54,747	44,211	98,958	69.16	65.22	67.34
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

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.

(iii) *Secession Referendum.* Under the provisions of the "Secession Referendum Act, 1932," a referendum was taken on the 8th April, 1933, when the following questions were submitted to the electors:—

- (1) "Are you in favour of the State of Western Australia withdrawing from the Federal Commonwealth established under the Commonwealth of Australia Constitution Act (Imperial)?"
- (2) "Are you in favour of a Convention of Representatives of equal number from each of the Australian States being summoned for the purpose of proposing such alterations in the Constitution of the Commonwealth as may appear to such Convention to be necessary?"

The result of the voting was: Secession, votes in favour, 138,653; votes not in favour, 70,706. Convention, votes in favour, 88,275; votes not in favour, 119,031.

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 for three years under a system of proportional representation which first came into force at the 1909 elections (See Year Book No. 6, page 1185). The annual salaries of members of the House of Assembly range from £300 to £375, and of the Legislative Council from £278 to £375 according to the area of the electorate and the distance from the capital.

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-four complete Parliaments since the inauguration of responsible government. Particulars of the voting at the last six elections for the House of Assembly are given hereunder :—

#### TASMANIAN ELECTIONS, HOUSE OF ASSEMBLY.

Year.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted in Contested Electorates.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1919	53,205	54,336	107,541	37,037	34,027	71,064	69.61	62.62	66.08
1922	54,958	55,591	110,549	38,457	31,295	69,752	69.96	56.30	63.09
1925	56,667	58,234	114,901	41,322	35,959	77,281	72.92	61.81	67.25
1928	55,058	56,898	111,956	46,769	44,910	91,679	84.94	78.94	81.90
1931	59,024	59,706	118,730	56,674	56,105	112,779	96.02	93.97	94.99
1934	63,841	63,840	127,681	60,623	59,999	120,622	94.96	93.98	94.47

The present members of the Legislative Council have been elected at various dates and the following particulars are given of the last contested election in each case :— Number of electors on the roll, 46,747; number of votes recorded, male 23,646, female 7,510, total 31,156; percentage of persons who voted to the number on the roll, 66.64.

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 the 9th May following by H.R.H. the Duke of Cornwall and York, who had been sent to Australia for that purpose by His Majesty the King, the Rt. Hon. Sir Edmund Barton, G.C.M.G., K.C., being Prime Minister.

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

#### COMMONWEALTH PARLIAMENTS.

Number of Parliament.	Date of Opening.	Date of Dissolution.
First .. .. .	9th May, 1901 .. .. .	23rd November, 1903
Second .. .. .	2nd March, 1904 .. .. .	5th November, 1906
Third .. .. .	20th February, 1907 .. .. .	19th February, 1910
Fourth .. .. .	1st July, 1910 .. .. .	23rd April, 1913
Fifth .. .. .	9th July, 1913 .. .. .	30th July, 1914 (a)
Sixth .. .. .	8th October, 1914 .. .. .	23rd March, 1917
Seventh .. .. .	14th June, 1917 .. .. .	31st October, 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 .. .. .	.. .. .

(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 first occasion since Federation on which a dissolution of both Houses had occurred.

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

(a) **GOVERNORS-GENERAL.**

- Rt. Hon. EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), K.T., G.C.M.G., G.C.V.O. From 1st January, 1901, to 9th January, 1903.  
 Rt. Hon. HALLAM BARON TENNYSON, G.C.M.G. From 17th July, 1902, to 9th January, 1903 (Acting).  
 Rt. Hon. HALLAM BARON TENNYSON, G.C.M.G. From 9th January, 1903, to 21st January, 1904.  
 Rt. Hon. HENRY STAFFORD BARON NORTHCOTE, G.C.M.G., G.C.I.E., C.B. From 21st January, 1904, to 9th September, 1908.  
 Rt. Hon. WILLIAM HUMBLE EARL OF DUDLEY, G.C.B., G.C.M.G., G.C.V.O., &c. From 9th September, 1908, to 31st July, 1911.  
 Rt. Hon. THOMAS BARON DENMAN, G.C.M.G., K.C.V.O. From 31st July, 1911, to 18th May, 1914.  
 Rt. Hon. SIR RONALD CRAUPURD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITHI), 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.

(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**, 17th August, 1904, to 5th July, 1905.  
 (v) **DEAKIN MINISTRY**, 5th July, 1905, to 13th November, 1908.  
 (vi) **FISHER MINISTRY**, 13th November, 1908, to 2nd June, 1909.  
 (vii) **DEAKIN MINISTRY**, 2nd June, 1909, to 29th April, 1910.  
 (viii) **FISHER MINISTRY**, 29th April, 1910, to 24th June, 1913.  
 (ix) **COOK MINISTRY**, 24th June, 1913, to 17th September, 1914.  
 (x) **FISHER MINISTRY**, 17th September, 1914, to 27th October, 1915.  
 (xi) **HUGHES MINISTRY**, 27th October, 1915, to 14th November, 1916.  
 (xii) **HUGHES MINISTRY**, 14th November, 1916, to 17th February, 1917.  
 (xiii) **HUGHES MINISTRY**, 17th February, 1917, to 10th January, 1918.  
 (xiv) **HUGHES MINISTRY**, 10th January, 1918, to 9th February, 1923.  
 (xv) **BRUCE MINISTRY**, 9th February, 1923, to 22nd October, 1929.  
 (xvi) **SCULLIN MINISTRY**, 22nd October, 1929, to 6th January, 1932.

(c) **LYONS GOVERNMENT, from 6th January, 1932.**

DEPARTMENTS.	MINISTERS (1935).
Prime Minister .. .. .	The Rt. Hon. JOSEPH ALOYSIUS LYONS.
Minister for Commerce .. .. .	The Rt. Hon. EARLE CHRISTMAS GRAFTON PAGE.
Minister for External Affairs and Minister-in-Charge of Territories	Senator the Rt. Hon. SIR GEORGE FOSTER PEARCE, K.C.V.O.
Attorney-General and Minister for Industry .. .. .	The Hon. ROBERT GORDON MENZIES, K.C.
Minister for Defence .. .. .	The Hon. ROBERT ARCHDALE PARKHILL.
Vice-President of the Executive Council, Minister for Health and Minister for Repatriation	The Rt. Hon. WILLIAM MORRIS HUGHES, K.C.
Minister for the Interior .. .. .	The Hon. THOMAS PATERSON.
Postmaster-General and Minister-in-Charge of Development, and Scientific and Industrial Research	Senator the Hon. ALEXANDER JOHN MCLACHLAN.
Minister for Trade and Customs .. .. .	The Hon. THOMAS WALTER WHITE, D.F.C., V.D.
Treasurer .. .. .	The Hon. RICHARD GARDINER CASBY, D.S.O., M.C.
Ministers without Portfolios .. .. .	The Hon. SIR HENRY SOMER GULLETT, K.C.M.G. Senator the Hon. THOMAS CORNELIUS BRENNAN, K.C. The Hon. HAROLD VICTOR CAMPBELL THORBY. The Hon. JAMES AITCHISON JOHNSTON HUNTER.

3. *State Ministries.*—The names of the members of the Ministries in each State in October, 1935, are shown in the following statement. The date on which each Ministry was sworn in is stated in parentheses :—

STATE MINISTRIES, 1935.  
NEW SOUTH WALES (16th May, 1932).

<i>Premier and Colonial Treasurer</i> — HON. B. S. B. STEVENS.	<i>Assistant Minister in the Legislative Council</i> — HON. J. RYAN, M.L.C.
<i>Deputy Premier and Minister for Transport</i> — LIEUT.-COL. THE HON. M. F. BRUXNER, D.S.O.	<i>Minister for Local Government and Secretary for Public Works</i> — HON. E. S. SPOONER.
<i>Attorney-General and Vice-President of the Executive Council</i> — HON. H. E. MANNING, K.C., M.L.C.	<i>Secretary for Mines and Minister for Forests</i> — HON. R. S. VINCENT.
<i>Secretary for Lands</i> — HON. E. A. BUTTENSCHAW.	<i>Minister of Justice</i> — HON. L. O. MARTIN.
<i>Colonial Secretary</i> — CAPT. THE HON. F. A. CHAFFEY.	<i>Minister for Health</i> — HON. H. P. FITZSIMONS.
<i>Minister for Education</i> — HON. D. H. DRUMMOND.	<i>Minister for Social Services</i> — HON. H. M. HAWKINS, M.L.C.
<i>Minister for Labour and Industry</i> — HON. J. M. DUNNINGHAM.	<i>Minister without Portfolio</i> — MAJOR THE HON. J. B. SHAND, V.D.
<i>Minister for Agriculture</i> — HON. H. MAIN.	

VICTORIA (2nd April, 1935).

<i>Premier and Treasurer</i> — HON. A. A. DUNSTAN.	<i>Minister of Water Supply, and Minister-in-Charge of Electrical Undertakings</i> — HON. F. E. OLD.
<i>Chief Secretary and Minister of Labour</i> — BRIGADIER THE HON. M. W. J. BOURCHIER, C.M.G., D.S.O., V.D.	<i>Minister of Public Instruction and Minister of Public Health</i> — HON. J. R. HARRIS, M.L.C.
<i>Minister of Agriculture, Minister of Mines, and a Vice-President of the Board of Land and Works</i> — HON. E. J. HOGAN.	<i>Commissioner of Public Works, Minister-in-Charge of Immigration, and a Vice-President of the Board of Land and Works</i> — HON. G. L. GOUDIE, M.L.C.
<i>President of the Board of Land and Works, Commissioner of Crown Lands and Survey, and Minister of Forests</i> — HON. A. E. LIND.	<i>Ministers without Portfolios</i> — HON. G. J. TUCKETT, M.L.C. HON. H. PYE, M.L.C. HON. H. S. BAILEY. HON. E. J. MACKRELL.
<i>Minister of Transport, Attorney-General, Solicitor-General, and a Vice-President of the Board of Land and Works</i> — HON. A. L. BUSSAU.	

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

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



## SOUTH AUSTRALIA (18th April, 1933).

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

## WESTERN AUSTRALIA (26th April, 1933). (Labour.)

<i>Premier, Treasurer and Minister for Forests—</i> HON. P. COLLIER.	<i>Minister for Water Supplies, Education and Police—</i> HON. H. MILLINGTON.
<i>Minister for Justice and Railways—</i> HON. J. C. WILLCOCK.	<i>Minister for Public Works, Labour and Employment—</i> HON. J. J. KENNEALLY.
<i>Chief Secretary—</i> HON. J. M. DREW, M.L.C.	<i>Minister for Agriculture and North-West—</i> HON. F. J. S. WISE.
<i>Minister for Mines and Health—</i> HON. S. W. MUNSIE.	<i>Minister without Portfolio—</i> HON. W. H. KITSON, M.L.C.
<i>Minister for Lands and Immigration—</i> HON. M. F. TROY.	

## TASMANIA (22nd June, 1934). (Labour.)

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

4. **The Course of Legislation.**—The actual legislation by the Commonwealth Parliament up to the end of the 1934 session is indicated in alphabetical order in "Vol. XXXII. of the Acts of the Parliament of the Commonwealth of Australia, passed during the year 1934, with Tables, Appendix, and Indexes." A "Chronological Table of Acts passed from 1901 to 1934, showing how they are effected by subsequent legislation or lapse of time" is also given, and further "A Table of Commonwealth Legislation," for the same period, "in relation to the several provisions of the Constitution," is furnished. Reference should be made to these for complete information. In previous issues of the Official Year Book an analytic table was included showing the nature of Commonwealth legislation in force at the end of the latest year available. A classification of legislation, according to its relation to the several provisions of the Constitution, up to the end of the year 1928 will be found in No. 22, pp. 76 to 84.

## § 4. Cost of Parliamentary Government.

The following statement shows the cost of parliamentary government in the Commonwealth and in each State, as well as the cost per head of population, for the year ended 30th June, 1934. In order to avoid incorrect conclusions as to the cost of the Governor-General's or Governor's establishment, it may be pointed out that a very large part of the expenditure (with the exception of the item "Governor's salary") under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interests, and carried out at the request of the Government.

## COST OF PARLIAMENTARY GOVERNMENT, 1933-34.

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.	
<b>1. Governor-General or Governor—</b>									
Governor's salary .. .. .	£ 8,900	m 5,000	£ 658	£ 2,700	(j) 4,403	£ ..	£ 2,166	£ 23,827	
Lieut.-Governor's salary .. .. .	.. .. .	.. .. .	3,473	.. .. .	444	1,946	71	5,934	
Official Secretary's salary .. .. .	.. .. .	626	(c) ..	.. .. .	80	28c	.. .. .	986	
Clerks, etc. .. .. .	300	.. .. .	155	1,398	{ ..	128	.. .. .	} 3,345	
Orderlies .. .. .	.. .. .	287	482	.. .. .	{ 315	280	.. .. .		
Other messengers .. .. .	.. .. .	175	.. .. .	.. .. .	{ 315	.. .. .	.. .. .		
Wages—Housemaids, stewards, gamekeepers, etc. .. .. .	(k) 2,598	} 1,523	{ 1,005	770	13	833	642	} 7,899	
Wages—Country residence .. .. .	.. .. .		{ 263	.. .. .	252	.. .. .	.. .. .		
Furniture, stores, and stationery .. .. .	864	231	546	} 2,583	{ 833	2	} 1,185	} 10,308	
Postal, cables, etc. .. .. .	701	270	30		{ 57	29			.. .. .
Travelling expenses and conveyance of officers .. .. .	887	61	(e) ..		.. .. .	.. .. .			1,139
Incidental expenses (country residences) .. .. .	.. .. .	771	30	.. .. .	83	.. .. .	.. .. .	} 18,900	
Other expenses .. .. .	h 12,975	895	2,958	319	1,248	274	231		
<b>Total .. .. .</b>	<b>27,225</b>	<b>9,839</b>	<b>9,606</b>	<b>7,770</b>	<b>8,043</b>	<b>4,911</b>	<b>4,295</b>	<b>71,689</b>	
<b>2. Executive Council—</b>									
Salaries of Officers .. .. .	(a)	562	384	26	.. .. .	97	(f)	1,069	
Other expenses .. .. .	(a)	57	53	68	.. .. .	.. .. .	(f)	180	
<b>Total .. .. .</b>	<b>(a)</b>	<b>619</b>	<b>439</b>	<b>94</b>	<b>.. .. .</b>	<b>97</b>	<b>(f)</b>	<b>1,249</b>	
<b>3. Ministry—</b>									
Salaries of Ministers .. .. .	11,730	16,724	7,768	10,300	6,200	6,355	3,932	63,009	
Ministerial functions .. .. .	(b)	978	(b)	.. .. .	19	4,018	185	5,200	
Special Reports for Cabinet .. .. .	(b)	30	(b)	.. .. .	.. .. .	.. .. .	.. .. .	30	
Premiers' Conference .. .. .	709	146	(b)	.. .. .	(b)	506	.. .. .	1,361	
Travelling expenses .. .. .	2,355	.. .. .	(b)	.. .. .	(b)	2,306	734	5,395	
<b>Total .. .. .</b>	<b>14,794</b>	<b>17,878</b>	<b>7,768</b>	<b>10,300</b>	<b>6,219</b>	<b>13,185</b>	<b>4,851</b>	<b>74,995</b>	
<b>4. Parliament—</b>									
<b>A. Upper House :</b>									
President and Chairman of Committees .. .. .	1,418	1,580	916	.. .. .	678	1,440	225	6,257	
Allowance to members .. .. .	28,363	.. .. .	5,299	.. .. .	6,120	13,249	5,827	58,858	
Railway passes .. .. .	5,760	20,423	(d) 9,000	.. .. .	1,212	4,489	1,028	41,912	
Postage for members .. .. .	1,770	60	90	.. .. .	29	120	(b)	2,069	
<b>B. Lower House :</b>									
Speaker and Chairman of Committees .. .. .	1,418	2,056	1,671	1,700	1,188	1,418	235	9,686	
Allowance to members .. .. .	59,164	52,397	24,309	20,762	14,340	22,620	9,207	208,799	
Railway passes .. .. .	12,160	18,233	(e) ..	12,330	2,788	8,443	1,712	55,666	
Postage for members .. .. .	3,700	2,701	610	1,218	223	300	(b)	8,752	
<b>Carried forward, Parliament</b>	<b>113,753</b>	<b>97,450</b>	<b>41,895</b>	<b>42,010</b>	<b>26,578</b>	<b>52,079</b>	<b>18,234</b>	<b>391,999</b>	

COST OF PARLIAMENTARY GOVERNMENT—continued.

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£	£	£	£	£	£	£	£
4. Parliament—continued.								
Brought forward ..	113,753	97,450	41,895	42,010	26,578	52,079	18,234	391,999
C. Both Houses:								
Standing Committee on Public Works—								
Remuneration of members ..	..	..	..	..	1,595	..	242	1,837
Salaries of Staff and contingencies ..	..	1,135	616	..	2,184	..	40	3,975
Printing—								
Hansard ..	6,730	3,290	4,819	3,382	3,044	2,350	..	23,615
Other ..	8,497	6,923	5,051	1,241	5,756	877	2,745	31,090
Parliamentary reporting staff—								
Salaries ..	9,237	6,029	4,885	2,169	4,264	3,810	..	31,294
Contingencies ..	188	117	29	..	303	93	..	730
Library—								
Salaries ..	4,723	2,559	1,626	907	700	39	..	10,554
Contingencies ..	1,994	1,010	425	722	292	220	69	4,732
Salaries of other officers and staff ..	25,061	20,396	12,746	5,804	5,743	6,113	2,369	78,232
Travelling expenses of officers and staff ..	407	..	..	..	..	..	(g)	407
Other ..	9,490	..	..	..	223	271	(g)	9,984
D. Miscellaneous—								
Fuel, light, heat, power, water ..	1,639	884	1,238	749	1,091	..	..	..
Posts, telegraphs, telephones ..	718	2,816	..	445	702	..	..	..
Furniture, stores, and stationery ..	2,553	1,833	833	430	676	..	..	..
Other ..	52,658	2,430	93	6,886	1,633	3,915	692	84,914
(i)								
Total ..	237,648	147,772	74,256	64,745	54,784	69,767	24,391	673,363
5. Electoral—								
Salaries ..	68,759	2,277	1,012	2,541	2,584	2,674	(f)	79,847
Cost of elections, contingencies, etc. ..	19,936	3,641	5,634	6,855	2,291	4,377	4,557	47,291
Total ..	88,695	5,918	6,646	9,396	4,875	7,051	4,557	127,138
6. Royal Commissions, Select Committees, etc., including fees and other expenses of Commissioners, fees of counsel, costs incurred by Ministers, cost of overtime worked by Departments preparing information, bonuses, etc. ..	21,575	8,930	6	458	1,268	3,256	..	35,493
Total ..	21,575	8,930	6	458	1,268	3,256	..	35,493
GRAND TOTAL ..	389,937	190,956	98,721	92,763	75,189	98,267	38,094	983,927
(l)								
Cost per head of population ..	1s. 2d.	1s. 6d.	1s. 1d.	1s. 11d.	2s. 7d.	4s. 6d.	3s. 4d.	2s. 11d.

(a) Included under Governor-General. (b) Not available separately. (c) Included under Executive Council. (d) Both Houses. (e) Included under Upper House. (f) Duties performed by Chief Secretary's Department. (g) Included under Miscellaneous, etc. (h) Includes rent of buildings, Melbourne, £5,277. (i) Includes interest and sinking fund, Parliament House, Canberra, £38,178. (j) £750 was repaid to revenue by His Excellency the Governor. (k) Maintenance of house and grounds. (l) Includes the following items, charged to the Prime Minister's Department, which are excluded from the table dealing with Expenditure—Commonwealth Parliament in Chapter on Public Finance: Premiers' Conferences, £709; travelling expenses of Commonwealth Ministers, £2,355; and salaries and travelling allowances of officers acting as Secretaries to Leaders of Opposition in Senate and House of Representatives and to Leader of Country Party, £1,638, and Salaries of Secretary to the Representatives of the Government in the Senate and Assistant, £756. (m) £1,250 was repaid to revenue by His Excellency the Governor.

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

## COST OF PARLIAMENTARY GOVERNMENT.

Year.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
TOTAL.								
1929-30	£ 602,529	£ 254,513	£ 148,552	£ 118,770	£ 95,072	£ 127,425	£ 45,330	£ 1,392,191
1930-31	451,226	248,894	116,353	107,198	83,404	107,931	43,684	1,158,689
1931-32	480,857	219,327	117,050	134,541	78,520	91,331	33,239	1,154,865
1932-33	366,802	234,389	90,017	95,102	82,359	98,223	32,728	990,620
1933-34	389,937	190,956	98,721	92,763	75,189	98,267	38,094	983,927

## PER HEAD OF POPULATION.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1929-30	1 10	2 0	1 8	2 8	3 4	6 0	4 2	4 4
1930-31	1 5	1 11	1 3	2 4	2 11	5 0	3 11	3 7
1931-32	1 6	1 8	1 3	2 11	2 9	4 3	2 11	3 6
1932-33	1 1	1 10	1 0	2 0	2 10	4 6	2 10	3 0
1933-34	1 2	1 6	1 1	1 11	2 7	4 6	3 4	2 11

## § 5. Strength of the Civil Service.

The strength of the permanent Civil Service at a definite point of time is not available as the dates to which annual records are made up vary in different State Departments. The following table excludes temporary (except railways and Government tramways) and part-time officers (registrars of births and deaths, postal contractors, etc.); naval, air, and military employees; and certain others, such as those employed in State trading undertakings:—

## CIVIL SERVICE—NUMBER OF PERMANENT OFFICERS, 1933-34.

State, etc.	Railways and Tramways (a).		Police.		Teachers.		Other Departments.		Total Persons.
	M.	F.	M.	F.	M.	F.	M.	F.	
Commonwealth	1,280		13	8	5,628	6,851	23,581	3,396	28,270
New South Wales	47,657		3,592	8	3,987	5,125	6,427	1,827	71,990
Victoria	25,853		2,140	8	2,127	2,124	3,060	833	41,006
Queensland	17,384		1,251	2	1,384	1,818	1,500	1,275	27,868
South Australia	6,736		726	14	795	1,466	1,245	260	12,316
Western Australia	9,284		554	5	395	868	556	171	13,609
Tasmania	1,335		259	1	4	9	(b)	(b)	3,585
Northern Territory	(b)		40	..					53
Australia	(c)   (c)	8,575	38	14,320	18,261	40,074	7,900	198,697	
	109,529	8,613	32,581	47,974					

(a) Salaried and wages staff; includes temporary employees—Municipal Tramways excluded.

(b) Included with Commonwealth.

(c) Not available.

§ 6. Consular Representatives of Foreign Countries in Australia.

The following tabular statement shows the number of consular representatives of foreign countries in each State for the year 1935 :—

CONSULAR REPRESENTATIVES IN AUSTRALIA, 1935.

Country.	Number of Consular Representatives in—						Total, Aust.
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	
Argentine Republic .. .. .	2	2	..	I	..	I	6
Austria .. .. .	I	I	..	..	..	..	2
Belgium .. .. .	3	I	I	I	I	I	8
Bolivia .. .. .	..	..	I	..	..	..	I
Brazil .. .. .	2	2	..	..	..	I	5
Chile .. .. .	I	I	..	I	..	..	3
China .. .. .	2	..	..	..	..	..	2
Colombia .. .. .	I	I	..	..	..	..	2
Costa Rica .. .. .	I	..	..	..	..	..	I
Czechoslovakia .. .. .	2	I	I	I	I	..	6
Denmark .. .. .	2	2	3	2	2	I	12
Dominican Republic .. .. .	..	2	..	..	..	..	2
Ecuador .. .. .	2	..	..	..	..	..	2
Finland .. .. .	I	I	..	I	I	..	4
France .. .. .	3	..	I	I	I	I	7
Germany .. .. .	3	I	I	..	I	..	6
Greece .. .. .	3	2	I	2	2	..	10
Honduras .. .. .	2	..	..	..	..	..	2
Italy .. .. .	2	I	3	I	I	2	10
Japan .. .. .	2	2	I	I	I	..	7
Latvia .. .. .	I	I	I	I	..	..	4
Liberia .. .. .	..	..	..	I	..	..	I
Mexico .. .. .	I	..	..	..	..	..	I
Netherlands .. .. .	3	I	4	I	I	I	11
Nicaragua .. .. .	I	..	..	..	..	..	I
Norway .. .. .	3	2	3	3	3	2	16
Panama .. .. .	I	I	I	..	..	..	3
Paraguay .. .. .	I	..	..	..	I	..	2
Peru .. .. .	I	I	..	I	..	..	3
Poland .. .. .	I	I	..	..	..	..	2
Portugal .. .. .	I	I	I	I	I	..	5
Rumania .. .. .	I	..	..	..	..	..	I
Salvador .. .. .	..	I	..	..	..	..	I
Siam .. .. .	I	..	..	..	..	..	I
Spain .. .. .	I	I	I	I	I	..	5
Sweden .. .. .	3	2	3	3	I	I	13
Switzerland .. .. .	I	I	I	..	..	..	3
United States of America .. .. .	4	3	2	I	..	..	10
Uruguay .. .. .	I	I	..	..	..	..	2
Venezuela .. .. .	I	..	..	..	..	..	I
Yugoslavia .. .. .	I	I	..	..	I	..	3
<b>Total .. .. .</b>	<b>63</b>	<b>38</b>	<b>30</b>	<b>25</b>	<b>20</b>	<b>11</b>	<b>187a</b>

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

Countries having Consuls-General in Sydney are Belgium, Chile, China, Costa Rica, Denmark, Ecuador, France, Germany, Greece, Honduras, Italy, Japan, Netherlands, Nicaragua, Norway, Paraguay, Siam, Spain, Sweden, and United States. Those having Consuls-General in Melbourne are Argentine Republic and Peru.

## CHAPTER IV.

## LOCAL GOVERNMENT.

## § 1. Introduction.

1. **General.**—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 Government do not properly come under the heading of "Local Government," they have been included in this chapter for the sake of convenience. The following statistics relating to "Local Government" are somewhat incomplete and otherwise unsatisfactory, but, hitherto, it has not been possible to obtain more complete information. A defect in the figures is due to inconsistency in some cases in the treatment of proceeds of loans and the expenditure thereof. These are sometimes included with the general revenue and expenditure, at others they are shown separately, and in still further cases particulars of loan receipts and expenditure have not been supplied.

2. **Municipalities, Shires, etc.**—A description of the various systems of municipal government in the different States, and their development from the earliest date, was published in 1919 by the Commonwealth Bureau of Census and Statistics in a separate work entitled "Local Government in Australia."

3. **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.

4. **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.

5. **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. Government Roads, Bridges, Etc.

1. **New South Wales.**—(i) *General.* The control of all roads, bridges and ferries with the exception of those proclaimed as "National" and of those in the unincorporated areas of the Western Division, which still remain under its jurisdiction, was transferred, in 1920, from the Public Works Department to local authorities. The Government has also adopted the policy of assisting municipal and shire councils to recondition certain main roads by doing the work in the first instance, and recovering in instalments from the councils concerned portion of the cost.

(ii) *Roads, Bridges and Ferries.* At the 30th June, 1934, the "National" works consisted of 91 bridges with a total length of 33,523 feet, and 5 ferries, while in the unincorporated areas of the Western Division, under the control of the Public Works Department, there were 6,154 miles of roads (of which 401 miles were metalled or ballasted, 884 formed only, and 2,190 cleared only), 148 bridges of a total length of 16,691 feet, 1,099 culverts, 1,553 causeways and 5 hand punts.

(iii) *Expenditure on Roads, Bridges and Ferries.* The total expenditure by the Government during 1933-34 was £4,456,972, comprising expenditure from votes of the Public Works Department £286,001, from funds of the Main Roads Board £2,148,855 and endowments and grants to Councils from votes of the Local Government Department £2,022,116.

The Government expenditure in connexion with the Sydney Harbour Bridge, £472,962 in 1933-34 and £10,107,300 to the 30th June, 1934, is not included in the above figures. Of the total sum expended on the bridge to date, £8,431,187 was provided by General Loan Account, £1,665,444 from proceeds of municipal and shire rates and £10,669 from the Unemployment Relief Fund. Interest and exchange accounted for £1,535,071, and resumpions for £1,341,849. A reduction in the total cost of the bridge will be effected by the sale of surplus resumed lands estimated at £498,789.

2. *Victoria.*—With the object of improving the main roads of the State the Country Roads Board was established by legislation passed in 1912. The principal duties of the board are to determine the main roads, to enquire 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. Funds created under the Act are the Country Roads Board Fund, the Loan Account, and the Developmental Roads Loan Account.

(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 are credited to this fund. The total receipts for the year 1933-34 were £1,671,476 made up as follows:—Motor registration and licence fees £1,151,719; contributions by municipalities for permanent works £140,366, and for maintenance works £108,415; sale of stores and material £187,840; and other sources £83,136. The expenditure for the year was £1,678,592, comprising maintenance and reconditioning of main roads and State highways, £870,013; interest, stores, administration, etc., £804,511; and other expenses £4,068. Interest and sinking funds on loan expenditure, apart from the payments by the municipalities, are charged to this fund.

(b) *Country Roads Board Loan Account.* Loans to the amount of £4,922,000 have been authorized from time to time for permanent works on main roads and State highways under the Country Roads Acts. One half of the amount expended on permanent works and one-third of the amount expended on maintenance of main roads must be refunded by the municipalities affected, 6 per cent. of the amount due in respect of permanent works being payable annually, and the cost of maintenance allocated to each municipality must be paid before the 1st of July in each year. A special rate, not exceeding 6d. in the pound, may be levied in any ward or riding of a municipality for the purpose of such repayment. Expenditure for the year ended 30th June, 1934, was £55,092, and the total to that date £4,720,510.

(c) *Developmental Roads Loan Account.* For the purpose of constructing and maintaining subsidiary or developmental roads, the Government has been authorized to borrow sums aggregating £6,475,000. The municipalities are required to bear a proportion of the interest on the outlay during the period of the loan and to maintain the roads when constructed. The amount expended during the year ended 30th June, 1934, was £88,033, and the total expenditure to that date was £6,315,705.

In addition an amount of £37,825 was directly expended by the Government through the Public Works Department on roads and bridges during 1933-34.

3. **Queensland.**—Under "The Main Roads Act of 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 or tourist tracks, or on arterial roads declared under the Federal Aid Roads Act. They are, however, responsible for up to 50 per cent. of maintenance of the former and 33½ per cent. of the latter roads. 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.; 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 public works and maintenance where the rate required to produce the annual repayment exceeds 1d. in the pound on the property valuation of the whole area. He has also power to grant relief in exceptional circumstances.

At 30th June, 1934, there were 10,569 miles of roads gazetted in the State, comprising 7,838 miles of main, 293 miles of developmental, 174 miles of tourist roads, and 2,264 miles of State Highways; 2,645 miles of roadway and 45,594 lineal feet of bridges had been completed at that date, and 541 miles of road and 3,307 lineal feet of bridges were in the course of construction, including 26 miles of roads in course of construction under the State Unemployment Relief Scheme.

During the year ended 30th June, 1934, the receipts of the Commission amounted to £2,183,503, including £424,580 from the Treasury Loan Fund, £511,008 from motor fees, £412,347 from the Commonwealth for works under the Federal Aid Roads Scheme and £642,902 from the State Unemployment Relief Scheme. Disbursements amounted to £1,963,223, including £660,782 on permanent works, £150,535 on the maintenance of roads and £642,910 on works under the State Unemployment Relief Scheme.

4. **South Australia.**—The Highways Act 1926 created a Commissioner of Highways and provided for a Main Roads Fund. The Commissioner is virtually empowered to determine upon which 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.

The Main Roads Fund is to be credited with (a) licence fees and registration fees under the Road Traffic Act 1934; (b) fines, penalties, and forfeitures in respect of convictions for offences against the same Act (exclusive of any sum received for costs); (c) fees for hawkers' licences; (d) contributions from Councils; (e) all sums appropriated



by Parliament for main roads ; (f) all loans raised and appropriated for main roads. In accordance with legislation passed in the years 1930 to 1934 a considerable portion of these receipts is temporarily payable into general revenue. 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 expenditure from the Main Roads Fund for the year ended 30th June, 1934, was £310,301, including £135,798 for interest on loans ; the amount received from the Commonwealth Government for expenditure on Federal Aid Roads was £255,360 ; the amount allocated for roads in newly settled areas, etc., was £21,329 ; and grants in aid of rates collected paid to Councils amounted to £27,251. In sparsely-settled districts outside the incorporated areas, the roads and bridges are constructed and maintained by the Engineering and Water Supply Department under arrangement with the Commissioner of Highways. The amount expended during the same period was £8,984.

5. **Western Australia.**—In Western Australia the construction, maintenance, and management of main and developmental roads throughout the State are under the control of the Commissioner of Main Roads, appointed under the Main Roads Act 1930. Minor roads are controlled by Municipalities and District Road Boards.

6. **Tasmania.**—(i) *Construction.* In Tasmania the cost of construction of roads and bridges is borne almost entirely by the State Government.

Up to the 30th June, 1934, the loan expenditure on these works was £5,130,020 (roads, £4,215,852 ; tracks, £233,127 ; bridges, £681,041). In addition, 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. Under this provision £689,850 has been expended. 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.

The Government loan expenditure during the year 1933-34 on the construction of roads and bridges was £63,240, and expenditure from the Crown Lands Fund £2,204. In addition, the sum of £91,184 provided by the Commonwealth Government was expended on roads. New-road mileage completed during the year was 36 miles metalled and gravelled under State votes, and 12½ miles of new construction and 52 miles of reconstruction under Federal Aid Roads Scheme.

(ii) *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 length of "State highways" is 1,156 miles and the expenditure thereon for 1933-34 was £60,043.

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 subjoined statement, however, gives the amounts of net loan expenditure by the State Governments up to the 30th June, 1934.

ROADS AND BRIDGES.—GOVERNMENT NET LOAN EXPENDITURE TO THE  
30th JUNE, 1934.

Expenditure.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
Total to 30/6/34	16,401,310	11,995,940	4,512,437	3,127,902	2,182,484	5,130,020	43,350,093

The following table shows the annual net loan expenditure on roads and bridges by the central Governments in each State during the years 1929-30 to 1933-34 :—

**ROADS AND BRIDGES.—NET LOAN EXPENDITURE.**

Year ended 30th June—	N.S.W.	Victoria.(a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1930 ..	1,615,873	716,111	356,967	Cr. 31,419	315,325	168,531	3,141,388
1931 ..	1,593,202	216,784	181,758	Cr. 16,446	..	67,706	2,043,004
1932 ..	1,277,197	99,073	188,799	Cr. 36,472	..	27,040	1,555,637
1933 ..	233,504	123,951	270,321	Cr. 8,933	83,004	51,336	753,183
1934 ..	Cr.37,927	144,113	430,454	Cr. 12,701	123,814	63,240	710,993

(a) Represents expenditure from loan and on account of loan.

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 and Federal grants and further account must be taken of expenditure on maintenance which is mainly defrayed from the current revenues.

**§ 3. Municipalities, Shires, Etc.**

1. **New South Wales.**—(i) *General.* 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 1933 being 184,003 square miles, of which 2,402 square miles are included in the former and 181,601 in the latter. The areas incorporated comprise the whole of the Eastern and Central Divisions of the State (with the exception of Lord Howe Island, the islands in Port Jackson and the quarantine station at Port Jackson) and a small portion of the Western Division consisting of the whole of six and part of two municipalities.

The operations of the City of Sydney are governed by the Sydney Corporation Act, 1932-1934, and those of other local governing areas known as municipalities and shires by the Local Government Act.

In the tables which follow the revenue and expenditure transactions of the City of Sydney are shown separately from those of municipalities and shires because of differences in the form of accounts. An exception is made, however, in the summary appearing on page 96, total figures for New South Wales including both the City of Sydney and municipalities and shires.

**LOCAL GOVERNING AREAS, NEW SOUTH WALES.—SUMMARY, 1933.**

Local Area.	Number.	Area.	Population, 31st December, 1933.	Unimproved Capital Value.	Improved Capital Value.	Length of Roads.(c)
				£	£	
		Acres.		£	£	Miles.
Metropolitan—						
City of Sydney ..	1	3,244	88,400	448,929,602	4143,791,020	136
Municipalities ..	48	151,444	1,143,640	94,173,841	280,853,934	3,295
<b>Total</b> ..	<b>49</b>	<b>154,688</b>	<b>1,232,040</b>	<b>143,103,443</b>	<b>424,644,954</b>	<b>3,431</b>
Country—						
Municipalities ..	131	1,382,677	574,830	32,212,958	109,026,314	7,427
Shires ..	138	116,224,640	782,950	143,700,144	(b)	101,737
<b>Total</b> ..	<b>269</b>	<b>117,607,317</b>	<b>1,357,780</b>	<b>175,913,102</b>	<b>(b)</b>	<b>109,164</b>
<b>Grand Total</b> ..	<b>318</b>	<b>117,762,005</b>	<b>2,589,820</b>	<b>319,016,545</b>	<b>(b)</b>	<b>112,595</b>

(a) Excludes Federal Government and other non-ratable properties.

(b) Not available.

(c) Figures for year 1930, later particulars not available.

(ii) *Revenue and Expenditure.*—(a) *City of Sydney.* Revenue from rates and from fines, fees, rents, etc., in connection with ordinary local services rendered by the City Council are credited to the City Fund, of which the Public Markets Account and Resumptions Account are subsidiary accounts. Expenditures on road maintenance, parks and recreation, health, street lighting and other services are made from the City Fund. In addition, the Council finances comprise an Electricity Trading Fund, an Insurance Fund, and, though not usually treated as forming part of the City's accounts, rates levied to meet contributions payable to authorities controlling the main roads and Sydney Harbour Bridge.

A statement of the revenue and expenditure of the City of Sydney for the year ended 31st December, 1933, is shown below:—

## CITY OF SYDNEY.—REVENUE AND EXPENDITURE, 1933.

Particulars.	City Fund.			Total.
	Public Markets.	Resump-tions.	Other.	
Revenue—	£	£	£	£
Rates (contributions in lieu and rent of mains) .. .. .	..	..	905,278	905,278
Rents and hire .. .. .	56,900	137,405	17,902	212,207
Licences, fines, fees, etc. .. .. .	63,996	..	50,828	114,824
Sundries .. .. .	678	340	29,256	30,274
<b>Total City Funds .. .. .</b>	<b>121,574</b>	<b>137,745</b>	<b>1,003,264</b>	<b>1,262,583</b>
Electricity Works Fund .. .. .	..	..	..	2,514,686
Insurance Fund .. .. .	..	..	..	35,479
Main roads and harbour bridge rates .. .. .	..	..	..	109,058
<b>Total Revenue .. .. .</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>3,921,806</b>
Expenditure—	..	..	68,191	68,191
Administration .. .. .	..	..	..	..
Works, Services, etc. .. .. .	73,937	71,763	374,544	520,244
Interest .. .. .	55,319	386,140	123,456	564,915
Loan Redemption, Sinking Funds, etc. .. .. .	18,179	69,953	44,301	132,433
Other .. .. .	..	..	38,431	38,431
<b>Total City Funds .. .. .</b>	<b>147,435</b>	<b>527,856</b>	<b>648,923</b>	<b>1,324,214</b>
Electricity Works Fund .. .. .	..	..	..	2,306,980
Insurance Fund .. .. .	..	..	..	11,791
Main roads and harbour bridge (rate) contributions .. .. .	..	..	..	109,058
<b>Total Expenditure .. .. .</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>3,752,043</b>

Loan expenditure by the City of Sydney during 1933 amounted to £459,038, an amount of £25,478 being expended on works, £287,078 on resumptions, and £146,482 on assets of the electricity fund.

(b) *Municipalities and Shires.* In the accounts of municipalities and shires operating under the Local Government Act, 1919, expenditure chargeable to revenue includes, in addition to normal recurring items of expenditure, cost incurred in respect of construction works, such as roads and bridges, and other objects having long life not being realisable assets or for use in performing works or rendering services over a period of time even though financed from loan funds. It excludes payments made in the redemption of indebtedness.

A summary of the revenue accounts of municipalities and shires for 1933, compiled on the foregoing basis, is shown in the following table :—

**MUNICIPALITIES AND SHIRES (EXCLUDING CITY OF SYDNEY), NEW SOUTH WALES.—REVENUE AND EXPENDITURE, 1933.**

Particulars.	Municipalities.		Shires.	Total.
	Metropolitan.	Country.		
<b>REVENUE.</b>				
	£	£	£	£
Ordinary Services—				
Rates and extra charges .. .. .	2,064,668	787,060	1,249,471	4,101,199
Government endowment .. .. .	..	..	148,544	148,544
Works .. .. .	553,458	338,933	1,199,290	2,091,681
Health .. .. .	209,334	241,702	134,279	585,315
Services .. .. .	31,739	34,630	16,280	82,649
Property .. .. .	24,799	53,024	31,000	108,823
Other .. .. .	36,459	24,181	14,920	75,560
Total Ordinary Services .. .. .	2,920,457	1,479,530	2,793,784	7,193,771
Trading Undertakings .. .. .	92,043	1,074,353	250,856	1,417,252
Water and Sewerage Funds .. .. .	..	437,175	46,581	483,756
Total Revenue .. .. .	3,012,500	2,991,058	3,091,221	9,094,779
<b>EXPENDITURE CHARGEABLE TO REVENUE.</b>				
Ordinary Services—				
Administration .. .. .	163,522	125,648	200,451	489,621
Works .. .. .	1,106,302	649,204	2,080,783	3,836,289
Health .. .. .	439,929	279,295	138,902	858,126
Services .. .. .	260,453	161,199	92,955	514,607
Property .. .. .	41,170	29,687	16,003	86,860
Interest .. .. .	290,578	76,790	75,828	443,196
Other .. .. .	45,085	33,639	55,170	133,894
Main Roads Board and Harbour Bridge Contribution .. .. .	199,677	7,021	25,350	232,048
Total Ordinary Services .. .. .	2,546,716	1,362,483	2,685,442	6,594,641
Trading Undertakings .. .. .	72,254	940,473	216,187	1,228,914
Water and Sewerage Funds .. .. .	..	338,208	27,261	365,469
Total Expenditure .. .. .	2,618,970	2,641,164	2,928,890	8,189,024

The total amount of Government assistance to municipalities in 1933 amounted to £886,840 and to shires £1,317,587, including £148,544 by way of endowment in aid of general revenues. The bulk of such assistance appears under works revenue, though small amounts were credited under other heads, including trading and water and sewerage accounts. A complete statement of revenue from rating, which in the foregoing table is allotted to the various accounts, is presented in a later table.

(iii) *Capital Transactions.* The following table shows the capital expenditure, debt redemptions and loan expenditure of Councils during 1933 :—

**MUNICIPALITIES AND SHIRES (EXCLUDING CITY OF SYDNEY), NEW SOUTH WALES.—CAPITAL TRANSACTIONS.**

Particulars.	Municipalities.		Shires.	Total.
	Metropolitan.	Country.		
	£	£	£	£
Assets purchased .. .. .	153,278	381,563	136,099	670,940
Loan repayments .. .. .	381,227	202,451	114,508	698,186
Payments off deferred payment debts ..	41,749	86,461	64,011	192,221
Expenditure from Loan Funds ..	90,206	45,528	22,323	158,057
Balances owing on deferred payment debts incurred during year ..	103,104	251,029	99,519	453,652

(iv) *Rates Levied—City of Sydney, Municipalities and Shires.* Rates levied by local authorities may be four kinds, viz., general, special, local and loan. In the following table are shown particulars of all rates levied during 1933 :—

**CITY OF SYDNEY, MUNICIPALITIES AND SHIRES, NEW SOUTH WALES.—RATES LEVIED, 1933.**

Area.	Rates levied on behalf of—						Extra Charges on Overdue Rates.
	Ordinary Services.(a)	Electricity Works.	Gas Works.	Water Supply.	Sewerage.	Total.	
	£	£	£	£	£	£	£
Metropolitan—							
Sydney .. .. .	1,014,336	..	..	..	..	1,014,336	6,103
Municipalities .. .. .	2,008,624	7,517	..	..	..	2,016,141	56,044
Total .. .. .	3,022,960	7,517	..	..	..	3,030,477	62,147
Country—							
Municipalities .. .. .	753,211	28,872	3,135	225,315	83,691	1,094,224	33,849
Shires .. .. .	1,212,196	28,505	..	24,123	..	1,264,824	37,275
Total .. .. .	1,965,407	57,377	3,135	249,438	83,691	2,359,048	71,124
Grand Total .. .. .	4,988,367	64,894	3,135	249,438	83,691	5,389,525	133,271

(a) Including Main Roads and Harbour Bridge Rates.

(v) *Assets and Liabilities. City of Sydney, Municipalities and Shires.* A statement of the assets and liabilities as at 31st December, 1933, of local authorities in New South Wales is shown below:—

**CITY OF SYDNEY, MUNICIPALITIES AND SHIRES, NEW SOUTH WALES.—ASSETS AND LIABILITIES, 1933.**

Particulars.	City of Sydney.	Municipalities.		Shires.	Total.
		Metropolitan.	Country.		
<b>ASSETS.</b>					
	£	£	£	£	£
Bank balances and cash	1,053,817	247,333	703,484	345,084	2,349,718
Outstanding rates and extra charges	704,942	1,085,113	720,719	792,401	4,288,316
Sundry debtors ..		293,194	484,443	207,534	
Stores and materials ..		40,445	122,000	64,540	
Land, buildings, plant and furniture ..	23,306,595	2,190,687	8,640,209	2,081,121	36,445,597
Other ..	5,147,826	34,115	71,360	62,498	5,315,799
<b>Total Assets ..</b>	<b>30,213,180</b>	<b>3,890,887</b>	<b>10,742,215</b>	<b>3,553,178</b>	<b>48,399,460</b>
<b>LIABILITIES.</b>					
Loans, interest accrued and sundry creditors ..	26,746,263	5,628,638	2,706,330	1,468,541	36,549,772
Debts due to Government and interest accrued ..	..	296,970	4,418,632	565,699	5,281,301
Bank overdraft ..	1,143,736	694,564	421,646	398,148	2,658,094
Other ..	..	94,835	132,014	128,141	354,990
<b>Total Liabilities ..</b>	<b>27,889,999</b>	<b>6,715,007</b>	<b>7,678,622</b>	<b>2,560,529</b>	<b>44,844,157</b>

In the City of Sydney it is not possible to dissect capital expenditure on resumptions to show the cost of resumptions used in roadworks and those portions retained as assets in the form of land and buildings; in all other instances capital expenditure on road and bridge construction has not been included as an asset.

2. **Victoria.**—(i) *General.* Local Government is established throughout the State, the various divisions being termed cities, towns, boroughs, or shires. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, and except in a few details are not subject to the provisions of the Local Government Act.

The financial years of the cities of Melbourne and Geelong end on the 31st December and the 31st August respectively ; those of all other municipalities on the 30th September.

(ii) *Municipalities. (a) Summary.* The following table shows the number of cities, towns, boroughs, and shires, with estimated population, number of ratepayers and dwellings, and value of rateable property for the year 1933 :—

## MUNICIPALITIES, VICTORIA.—SUMMARY.

Year ended 30th September—	Number of Municipalities.	Population at Census, 30.6.1933.	Number of Ratepayers.	Occupied Dwellings, 30.6.1933.	Estimated Value of Rateable Property.	
					Total.	Annual.
<b>CITIES, TOWNS, AND BOROUGHS.</b>						
1933 .. ..	No. 56	No. 1,137,409	No. 341,078	No. 271,141	£ 336,119,812	£ 18,231,285
<b>SHIRES.</b>						
1933 .. ..	140	681,274	265,802	161,731	268,671,521	13,491,680

(b) *Revenue and Expenditure.* The table hereunder shows the revenue from various sources, and the expenditure under various heads, of municipalities during the year 1933 :—

## MUNICIPALITIES, VICTORIA.—REVENUE AND EXPENDITURE, 1933.

Items.	Revenue.	Items.	Expenditure from Revenue.
	£		£
Taxation Rates—		Salaries, etc. .. ..	385,063
General .. ..	3,246,528	Sanitary work, street cleaning, etc. .. ..	360,696
Other .. ..	66,162	Health .. ..	118,661
Licences .. ..	111,178	Lighting .. ..	179,164
Sanitary Charges .. ..	155,229	Contributions to Fire Brigades .. ..	61,287
Dog fees .. ..	28,775	Public Works—	
Government grants .. ..	119,199	Roads, Streets and Bridges—	
Licensing fund payments .. ..	60,691	Construction .. ..	184,182
Contributions for streets, etc. .. ..	277,023	Maintenance .. ..	1,043,348
Market and weighbridge dues .. ..	127,832	Other .. ..	579,065
Rents .. ..	129,679	Formation of private streets, etc. .. ..	75,176
Electric light and gas works .. ..	1,305,704	Electric light and gas works .. ..	928,056
Interest .. ..	108,796	Redemption of loans .. ..	468,016
Other sources .. ..	416,591	Payments to sinking funds .. ..	109,142
		Interest on loans .. ..	649,306
		Interest on bank overdrafts .. ..	57,463
		Charities .. ..	30,860
		Other expenditure .. ..	744,227
<b>Total Revenue .. ..</b>	<b>6,153,387</b>	<b>Total from Revenue .. ..</b>	<b>5,979,712</b>

## MUNICIPALITIES, VICTORIA.—LOANS—RECEIPTS AND EXPENDITURE, 1933.

Items.	Receipts.	Items.	Expenditure.
	£		£
Proceeds of loans—		Roads and bridges ..	59,740
From Government ..	73,530	Water and irrigation ..	7,549
From other sources ..	93,745	Sewerage and drainage ..	22,945
Other receipts ..	157,601	Electric light and gas ..	103,713
		Public buildings ..	42,301
		Other purposes ..	21,223
<b>Total Receipts ..</b>	<b>324,876</b>	<b>Total Expenditure ..</b>	<b>259,477</b>

(c) *Assets and Liabilities.* The assets of municipalities may be classified under three heads—(a) the municipal fund, (b) the loan fund and (c) property; the liabilities under two heads—(a) the municipal fund, and (b) the loan fund. The following table shows the amount of municipal assets and liabilities for the year 1933 :—

## MUNICIPALITIES, VICTORIA.—ASSETS AND LIABILITIES, 1933.

Items.	Assets.	Items.	Liabilities.
	£		£
<b>MUNICIPAL FUND—</b>		<b>MUNICIPAL FUND—</b>	
Uncollected rates ..	1,096,733	Due on current contracts ..	48,182
Streets formed, etc., payments outstanding ..	1,245,931	Overdue interest ..	27,008
Rents and interest outstanding ..	91,217	Bank overdrafts ..	879,480
Cash in hand or in bank ..	902,390	Other liabilities ..	1,034,113
Other assets ..	391,011	<b>LOAN FUND—</b>	
<b>LOAN FUND—</b>		Loans outstanding—	
(a) Sinking funds—		Country Roads Board	
Amount at credit ..	552,049	Loans ..	1,883,997
(b) Unexpended balances ..	490,974	Other Loans ..	13,048,452
<b>PROPERTY—</b>		Due on loan contracts ..	14,696
Buildings, markets, tramways, etc. ..	5,339,820		
Waterworks ..	350,640		
Gasworks ..	251,040		
Electric light works ..	2,599,300		
Plant and machinery ..	642,600		
Other assets ..	193,060		
<b>Total ..</b>	<b>14,146,765</b>	<b>Total ..</b>	<b>16,935,923</b>

3. *Queensland.*—(i) *General.* The whole of the State (except islands along the coast and 606 square miles in area) is incorporated into cities, towns, and shires under the Local Authorities Act of 1902 and its amendments.



(ii) *Municipalities.*—(a) *Summary.* The following table gives particulars of the area, population, number of inhabited dwellings, and assets and liabilities of cities and towns and of shires for the year 1933, except for the City of Brisbane for which financial particulars relate throughout to the year ended 30th June, 1934 :—

## MUNICIPALITIES, QUEENSLAND.—SUMMARY.

Year.	No.	Area.	Popula- tion, 30.6.1933.	Occupied Dwellings, 30.6.1933.	Rateable Value.	Assets.	Liabilities.	
							Govern- ment Loans.	Total.
<b>CITIES AND TOWNS.</b>								
1933(a) ..	23	sq. miles. 779	No. 498,892	No. 114,524	£ 29,469,878	£ 22,061,266	£ 6,847,753	£ 25,075,340
<b>SHIRES.</b>								
1933(a) ..	121	669,062	443,027	101,389	44,544,787	2,094,481	2,077,897	2,893,105

(a) Figures relating to assets and liabilities include waterworks, sewerage works, electric light works, and railways and tramways controlled by local authorities.

(b) *Revenue and Expenditure.* The revenue and expenditure (including loan moneys) of cities and towns, and of shires for the year 1933 are given hereunder :—

## MUNICIPALITIES, QUEENSLAND.—REVENUE AND EXPENDITURE.

Year.	Revenue.			Expenditure.			
	Rates.	Govern- ment Loans and Subsidies. (a)	Total.	Public Works and Services. (b)	Govern- ment Loan Redemp- tion.	Office Expenses and Salaries.	Total.
<b>CITIES AND TOWNS.</b>							
1933 ..	£ 1,386,715	£ 944,703	£ 5,064,280	£ 2,758,651	£ 114,903	£ 239,718	£ 5,037,515
<b>SHIRES.</b>							
1933 ..	880,886	655,569	1,821,453	1,298,251	72,413	131,236	1,841,111

(a) Includes Main Road Receipts.

(b) Includes Expenditure on Main Roads.

The figures in the foregoing tables cover all the activities of the local authorities throughout Queensland such as :—Road repairs, street lighting, etc. ; waterworks, electric light, and railways and tramways controlled by local bodies.

4. *South Australia.*—(i) *General.* The settled portion of South Australia is incorporated, being under municipal corporations in the larger cities and towns, and district councils in the agricultural areas. With the exception of the Corporation of Adelaide, grants are allocated to these bodies by the Commissioner of Highways for the maintenance and construction of main and other roads.

(ii) *Local Authorities.*—(a) *Summary.* The number of corporations and district councils was reduced by amalgamations, etc., by the Local Government Commission in 1933, from 172 to 167, of which 12 corporations and 9 district councils are in the metropolitan area, and 20 corporations and 126 district councils in outside areas. According to the latest available information there are about 1,295 miles of roads in use

for general traffic under the control of corporations, and about 49,055 miles under the control of district councils, and of these totals, 18 miles are wood-blocked, 147 miles are bitumen and concrete and 14,601 miles are tar-paved, metalled or gravelled. The following table gives the area, population, number of occupied dwellings, capital and assessment values and outstanding loans for corporations and district councils separately for the year 1933 :—

**LOCAL AUTHORITIES, SOUTH AUSTRALIA.—SUMMARY.**

Year.	Area.	Population, 30.6.1933.	Occupied Dwellings, 30.6.1933.	Capital Value.	Assessment Value.	Outstanding Loans.
<b>MUNICIPAL CORPORATIONS.</b>						
1933	Acres. 75,033	No. 232,068	No. 56,825	£ 74,138,655	£ 3,617,651	£ 747,281
<b>DISTRICT COUNCILS.</b>						
1933	33,750,185	336,580	80,000	95,183,663	4,815,045	(a) 380,716

(a) Includes advances through District Councils to settlers for vermin-proof fencing, etc., amounting to £274,504.

(b) *Revenue and Expenditure.* The next table gives the revenue and expenditure of corporations and district councils for the year 1933, showing in separate columns the receipts and expenditure on main roads. The figures differ slightly from those shown in the Summary Table in § 4 hereinafter, which exclude transfers between the Government Grants and General Accounts. The financial year of municipal corporations ends on the 30th November and that of district councils on the 30th June.

**LOCAL AUTHORITIES, SOUTH AUSTRALIA.—REVENUE AND EXPENDITURE.**

Year.	Local Government (exclusive of Government Grants Account).						Government Grants Account (Main Roads).	
	Revenue (including Loans).			Expenditure.			Revenue.	Expenditure.
	Rates.	Subsidies.	Total.	Roads.	Other Public Works and Services.	Total.		
<b>MUNICIPAL CORPORATIONS.</b>								
1933	£ 450,593	£ 16,021	£ 646,980	£ 206,107	£ 239,576	£ 638,846	£ 17,209	£ 16,950
<b>DISTRICT COUNCILS.</b>								
1933	335,609	28,914	487,233	260,572	98,775	493,111	276,438	277,208

5. *Western Australia.—(i) General.* 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 personnels of which, in most cases, coincide with those of the municipalities and district road boards.

The financial year of municipalities and municipal boards of health terminates on the 31st October, and that of road boards and other local boards of health on the 30th June.

(ii) *Municipalities. (a) Summary.* The following table gives various particulars regarding municipalities for the year ended 31st October, 1933 :—

**MUNICIPALITIES, WESTERN AUSTRALIA.—SUMMARY.**

Year ended 31st October—	Municipalities.	Area.	Population (a)	Occupied Dwellings (a)	Valuation of Rateable Property.		Length of Roads and Streets.
					Capital Value.	Annual Value.	
1933 ..	No. 21	Acres. 59,517	No. 188,381	No. 42,612	£ 42,824,383	£ 2,313,757	Miles. (b) 807

(a) At census of the 30th June, 1933.

(b) Exclusive of cleared roads.

(b) *Revenue and Expenditure.* Revenue and expenditure of municipalities during the year 1933 are given hereunder :—

**MUNICIPALITIES, WESTERN AUSTRALIA.—REVENUE AND EXPENDITURE.**

Year ended 31st October—	Revenue.				Expenditure.			
	Rates.	Govt. Grants.	Other Sources.	Total.	Works and Improvements.	Interest and other Charges on loans.	Other Expenses.	Total.
1933 ..	£ 290,309	£ 28,163	£ 821,699	£ 1,140,171	£ 224,902	£ 287,743	£ 616,957	£ 1,129,602

(c) *Assets and Liabilities.* The table below shows the assets and liabilities of municipalities at the 31st October, 1933 :—

**MUNICIPALITIES, WESTERN AUSTRALIA.—ASSETS AND LIABILITIES.**

31st October —	Assets.				Liabilities.	
	Balance in Hand.	Value of Property.	Accrued Sinking Funds.	Total.	Outstanding Debentures and Bonds.	Total.
1933 ..	£ 94,169	£ 2,827,519	£ 529,826	£ 3,728,849	£ 2,486,103	£ 2,695,979

(iii) *District Road Boards. (a) Summary.* The method of valuation is not identical in the case of all District Road Boards, in some the assessment being based on the unimproved capital values and in others on the annual values. The unimproved capital value given in the following table is, therefore, only approximate. At the census of 30th June, 1933, the population was 247,273, and the number of occupied dwellings, 60,966.

## DISTRICT ROAD BOARDS, WESTERN AUSTRALIA.—SUMMARY.

Year ended 30th June—	Number of Road Districts.	Area.	Unimproved Capital Value (Approximate).	Length of Roads in Existence.	Assets.	Liabilities.	Out-standing Loans.
	No.	sq. miles.	£	miles.	£	£	£
1933 ..	126	975,828	22,697,499 <i>a</i>	22,601 <i>b</i>	1,042,762	868,321	714,381

(a) Rated partly on unimproved capital value and partly on annual value. (b) Exclusive of unformed roads used for general traffic.

(b) *Revenue and Expenditure.* The revenue and expenditure of district road boards are shown in the following table for the year ended 30th June, 1933 :—

## DISTRICT ROAD BOARDS, WESTERN AUSTRALIA.—REVENUE AND EXPENDITURE.

Year ended 30th June—	Revenue.				Expenditure.			
	Rates.	Government Grants.	Other.	Total.	Admin-istration.	Works.	Other.	Total
	£	£	£	£	£	£	£	£
1933 ..	221,999	135,261	313,850	671,110	59,680	384,697	199,019	643,396

(iv) *Local Boards of Health.* (a) *General.* During 1933 there were 127 local boards of health, of which six were inactive during the year.

(b) *Finances.* The appended table shows the number of boards, their revenue and expenditure, and the assets and liabilities of such as were active during 1933. The financial year of municipal boards ends on the 31st October, and that of other boards on the 30th June.

## LOCAL BOARDS OF HEALTH, WESTERN AUSTRALIA.—FINANCES.

Year.	Number.	Revenue.			Expenditure.		Assets.	Liabilities.
		Rates.	Sanitary Charges and Rubbish Fees.	Total.	Sanitary and Rubbish Service.	Total.		
		£	£	£	£	£		
1933 ..	127	58,663	64,934	143,263	84,089	142,461	129,227	14,443

6. *Tasmania.*—(i) *General.* The whole State is divided into municipal districts, Hobart and Launceston being incorporated under separate Acts.

(ii) *Municipalities.* (a) *Summary.* The following table gives the number of municipalities, valuations, outstanding loans and length of roads for the year 1933-34. The number of occupied dwellings in Tasmania at the census of 30th June, 1933, was 52,484.

## MUNICIPALITIES, TASMANIA.—SUMMARY.

Year ended 30th June—	Number of Municipali- ties.	Valuations.			Outstanding Loans.	Length of Roads.
		Annual Value.	Unimproved Value.	Total Capital Value.		
<b>HOBART AND LAUNCESTON.</b>						
1934 .. ..	No. 2	£ 1,166,143	£ 6,962,237	£ 19,034,953	£ 2,598,881	Miles. 194
<b>COUNTRY MUNICIPALITIES.</b>						
1934 .. ..	47	1,496,378	15,136,695	31,772,118	575,217	12,493

(b) *Revenue and Expenditure.* The next table gives the revenue and expenditure of all municipalities for the year 1933-34 :—

## MUNICIPALITIES, TASMANIA.—REVENUE AND EXPENDITURE.

Year ended 30th June—	Revenue.			Expenditure.			
	Rates.	Government Grants.	Total.	Adminis- tration.	Works and Services.	Interest and Sinking Fund.	Total.
<b>HOBART AND LAUNCESTON.</b>							
1934 ..	£ 268,940	£ 830	£ 576,008 <sup>a</sup>	£ 39,365	£ 338,826 <sup>a</sup>	£ 189,515	£ 568,125 <sup>a</sup>
<b>COUNTRY MUNICIPALITIES.</b>							
1934 ..	168,292	16,825	287,893 <sup>a</sup>	33,868	176,027 <sup>a</sup>	36,408	287,376 <sup>a</sup>

(a) Excluding loans.

7. *Basis for Municipal Rating and Limits for Rates.*—These matters were dealt with at some length in *Official Year Book*, No. 17, pp. 124-25.

## § 4. Summary of Local Government Finance.

1. *General.*—In the preceding parts of this chapter certain particulars have been given regarding local authorities in each individual State. In this paragraph, comparative figures are given for each State regarding the financial operations of the local governing bodies referred to in § 3. The particulars in the next two tables refer to financial years as follow :—New South Wales : 31st December, 1933. Victoria : 30th September, 1933, except Melbourne, 31st December, and Geelong, 31st August, 1933. Queensland : 31st December, 1933, except Brisbane, 30th June, 1934. South Australia : corporations, 30th November, and district councils, 30th June, 1933. Western Australia : municipalities, 31st October, 1933, district road boards, 30th June, 1933. Tasmania : 30th June, 1934.

2. Number, Revenue, Expenditure, and Valuation of Local Authorities.—The subjoined table shows the number, revenue, and expenditure, including loan money, and valuation of local authorities in each State and in Australia during the years indicated above. It should be noted that, excepting in Queensland and Tasmania, the metropolitan water supply and sewerage systems are not under municipal control: the particulars given of revenue and expenditure for the four States other than Queensland and Tasmania do not, therefore, include revenue and expenditure on account of these systems.

LOCAL AUTHORITIES (a) IN EACH STATE.—FINANCIAL SUMMARY, 1933.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.(b)	Tasmania.	Total.
No. of local authorities(a)	318	196	144	167	147	49	1,021

RECEIPTS.

	£	£	£	£	£	£	£
Rates--							
General ..	4,157,189	3,216,528	1,671,231	786,202	311,191	154,066	12,705,558
Other ..	1,232,336	66,162	596,370				
Government grants, etc. . .	2,204,427	119,199	1,227,599	314,210	163,424	17,655	4,046,514
Loans and other sources ..	(c) 6,493,380	3,046,374	3,390,533	304,542	1,135,549	504,633	14,875,011
Total ..	14,087,332	6,478,263	6,885,733	1,401,954	1,811,281	959,520	31,627,083

EXPENDITURE.

Works, services, etc. . .	8,840,950	3,789,112	4,056,902	1,098,144	609,599	514,853	18,909,560
Interest on loans and overdrafts	1,983,756	706,769	1,245,058	56,419	171,199	225,923	6,887,119
Redemptions, sinking funds, etc. . .	1,149,430	577,158	525,629	61,660	184,118		
Administration ..	557,812	385,003	370,954	113,600	131,949	73,233	1,632,611
Other ..	1,429,504	781,087	680,083	95,448	676,133	108,744	3,770,999
Total ..	13,961,452	6,239,189	6,878,626	1,425,271	1,772,998	922,753	31,200,289

VALUATIONS.

Capital value of property ..	d 533,671,268	604,791,333	f74,014,665	169,322,318	g 42,824,383	50,807,071	(h)
Annual value of property ..	(e) 35,231,950	31,722,965	(h)	8,432,696	(g) 2,313,757	2,662,521	(h)

(a) Including particulars for all areas controlled by local governing bodies responsible for the construction and maintenance of roads and streets, such areas being variously known in the several States as cities, towns, boroughs, shires, municipalities, and road board districts, etc.

(b) Exclusive of Local Boards of Health.

(c) The amount included as loan receipts, £617,095, represents the amount of loan expenditure during the year. In general practice the two amounts would correspond closely as large loans, when floated, are frequently drawn upon in instalments which are regulated by the rate of spending.

(d) Excluding Shires.

(e) Assessed annual value, excluding Shires.

(f) Rateable value.

(g) Municipalities only. District Road Boards are rated on unimproved capital value and/or annual value, the total of the unimproved capital value being £22,697,499; and the annual value £308,552.

(h) Not available.

3. Local Government Loans, 1933.—The following table shows the amount of loans raised by local authorities during the year 1933, of loans current at the end of that year, the liability on account of interest and sinking fund, and the loans redeemed during 1933 :—

LOCAL AUTHORITIES.—LOANS, 1933.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
Loans from General Government—	£	£	£	£	£	£	£
Raised during year ..	..	73,530	372,673	6,120	..	9,880	462,203
Current at end of year ..	5,251,301	944,657	8,925,650	360,718	..	438,588	15,950,914
Loans from other Sources—							
Raised during year ..	221,803	93,745	205,431	3,423	89,500	71,584	685,486
Current at end of year ..	34,061,294	12,103,795	14,034,443	767,279	3,200,484	2,735,510	67,502,805
Total—							
Raised during year ..	221,803	167,275	578,104	9,543	89,500	81,464	1,147,689
Current at end of year ..	39,342,595	13,048,452	23,500,093	1,127,997	3,200,484	3,174,098	83,453,719
Current Loans, exclusive of those obtained from General Government, raised within Australia ..	24,776,266	12,014,495	5,303,403	767,279	2,648,684	1,550,510	47,060,637
Annual Liability on account of Interest ..	61,617,757	649,306	1,188,792	54,038	176,403	161,122	3,847,418
Total Sinking Fund at end of year ..	63,911,347	552,049	2,057,563	29,424	648,485	544,019	7,742,887
Amount of Loans redeemed during year ..	(c) 957,209	(a)	368,411	56,974	158,301	78,804	(a)

(a) Not available. (b) Relating to loans other than Government. (c) Including contributions to Sinking Funds but excluding redemptions from Accumulated Sinking Funds.

§ 5. 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 Supply and Sewerage Board. In country districts, both waterworks and sewerage works are constructed by the Public Works Department, and, when completed, handed over to the local government authority affected, by which the cost must be repaid.

(ii) *Waterworks.* (a) *Metropolitan.—General.* The catchment area of the metropolitan water system, covering an area of 347 square miles, is drained by the Nepean, Cataract and Cordeaux Rivers. At 30th June, 1934, there were in the system 79 reservoirs with a total capacity of 113,660,088,844 gallons. Storage facilities are provided chiefly by four reservoirs, viz., Avon, 47,153,000,000 gallons; Cataract, 20,743,000,000 gallons; Cordeaux, 20,597,000,000 gallons; and Nepean, 18,100,000,000 gallons. The total length of mains is 4,376 miles and the maximum day's consumption during 1933-34 was 148,685,000 gallons.

(b) *Newcastle.—General.* The supply is drawn from the Chichester Reservoir, and is piped about 50 miles to Newcastle. The storage reservoir capacity is 5,000 million gallons. In addition to supplying Newcastle, water is reticulated in Maitland, 20 miles distant from Newcastle, and in the Cessnock coalmining field, as well as in areas adjoining these centres. The supply also extends to the farming areas of Miller's Forest and the lakeside resorts of Belmont and Toronto. Water can also be supplied from the Hunter River at Maitland if required. Reservoirs distributed throughout the Water Supply District number 36, with a total storage capacity of 60,480,510 gallons. The net addition to lengths of water-mains laid was 7 miles, bringing the total length of mains to 867 miles.

(c) *Water Supplied, etc.* The following table gives the number of houses, the estimated population supplied, and other details for the year ended 30th June, 1934 :—  
**WATERWORKS, SYDNEY AND NEWCASTLE.—WATER SUPPLIED, 1933-34.**

System.	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Supply.	Total Supply for the Year.	Average Daily Supply.		Mains Laid.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
Sydney ..	319,607	1,369,835	88,427	31,546,000	271	63.09	188
Newcastle	43,110	215,550	8,361	3,043,379	193	38.68	7

(iii) *Sewerage and Drainage. (a) Metropolitan.—General.* The Sydney sewerage system consists of three main out-falls, discharging into the Pacific Ocean. During 1933-34, new sewers laid measured 104 miles and 6,477 million gallons of sewerage were pumped. Stormwater drains constructed by the Board in 1933-34 were less than one mile in length.

(b) *Newcastle Sewerage Works. General.* The sewerage works for Newcastle and suburbs as originally designed were completed by the Department of Public Works and vested in the Board.

The amplification, extension, and improvement of such sewerage works were authorized by "The Newcastle and Suburbs Sewerage Amplification Act 1928", passed on the 21st May, 1928. The estimated cost of the work, which is still under construction, is £761,625. The Cessnock sewerage work authorized by the "Cessnock Sewerage Act 1931", was partly completed at a cost of £251,156 to 30th June, 1934. The major portion of the undertaking has been transferred to the Board, but a sewerage rate has not yet been struck.

The Stockton sewerage work was authorized by the "Stockton Sewerage Act 1932", which was assented to on 21st December, 1932. The estimated cost of the scheme, which is now under construction, is £115,000. Schemes for the sewerage of West Maitland, Kurri Kurri and Weston are being investigated.

The stormwater drainage of Newcastle and adjoining areas is divided into two catchment areas, viz., the works in the Cottage Creek Stormwater Area and the works in the Throsby Creek Stormwater Area. The capital expenditure on the Cottage Creek stormwater drainage works and the Throsby Creek stormwater drainage works to 30th June, 1934, amounted to £272,368 and £697,449 respectively. The major portion of the former works has been transferred to the Board, but a drainage rate has not yet been struck. The latter works are still under construction.

(c) *Particulars of Services.* The following table supplies details of sewerage services and stormwater drains as at 30th June, 1934.

**SEWERAGE AND DRAINAGE, SYDNEY AND NEWCASTLE, 1933-34.**

System.	Houses Drained.	Population Served.	Length of Sewers.	Length of Stormwater Drains.
	No.	No.	Miles.	Miles.
Sydney .. .. .	215,013	925,845	2,040.64	76.82
Newcastle .. .. .	21,920	(a)	246.18	(a)

(a) Not available.



(d) *Finances.* The following statement shows the revenue and expenditure on account of the services of waterworks, sewerage and drainage during the year 1933-34 :—

**WATERWORKS, SEWERAGE, AND DRAINAGE, SYDNEY AND NEWCASTLE, 1933-34.**

Item.	Revenue.	Working Expenses, Sinking Fund Contribution, Renewals, and Exchange. (a)	Interest.	Surplus or Deficit.	Percentage of Working Expenses and Sinking Fund Contribution, etc. on Revenue.	Capital Debt.	Percentage of Revenue on Capital Debt.
	£	£	£	£	%	£	%
Sydney—							
Water ..	1,516,295	582,407	948,771	— 14,883	38.41	24,476,811	6.19
Sewerage ..	900,875	343,062	584,723	— 26,910	38.08	15,150,416	5.95
Drainage ..	39,119	15,273	28,388	— 4,542	39.04	749,042	5.22
<b>Total ..</b>	<b>2,456,289</b>	<b>940,742</b>	<b>1,561,882</b>	<b>— 46,335</b>	<b>38.30</b>	<b>40,376,269</b>	<b>6.08</b>
Newcastle—							
Water ..	213,020	95,260	113,930	+ 3,830	44.72	2,889,654	7.37
Sewerage ..	72,233	42,935	27,583	+ 1,715	59.44	2,708,842	2.67
<b>Total ..</b>	<b>285,253</b>	<b>138,195</b>	<b>141,513</b>	<b>+ 5,545</b>	<b>48.45</b>	<b>5,598,496</b>	<b>5.10</b>

(a) Sinking fund contributions totalling £126,879 in the case of the Sydney system amounted to £74,841 for water, £49,829 for sewerage and £2,209 for drainage, the distribution of exchange aggregating £160,259, being £93,465, £64,026 and £2,768 respectively. In the Newcastle system sinking fund contributions totalled £15,606 and exchange £21,374, the charges to water account being £9,841 and £17,208, and to sewerage £5,765 and £4,166 respectively.

(iv) *Water Supply and Sewerage in Country Towns.\** (a) *General.* Under the *Local Government Act 1919*, the Public Works Department may, upon application by any municipal or shire council, construct out of moneys voted therefor by Parliament, waterworks or sewerage works, and when completed transfer the control thereof to the council. In each case the cost with interest is repayable by instalments spread over a period corresponding to the probable life of the work.

(b) *Waterworks, Sewerage, and Stormwater Drainage Works.* The capital indebtedness of country towns' water and sewerage schemes was reviewed by a special committee appointed in 1933 and substantial remissions were made in some instances. At the 30th June, 1934, public water supplies having a capital debt of £3,760,655, were in operation in 90 towns outside the Metropolitan and Hunter River districts. Sixteen towns were sewered and 16 towns had stormwater channels constructed by the Public Works Department. The capital debt of the sewerage schemes and stormwater channels was £1,304,121.

Two water supply systems, viz., Broken Hill and Junee, are administered by the Public Works Department under special Acts. These services entailed capital expenditure amounting respectively at 31st December, 1933, to £477,478 and £226,256.

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 a further portion of the Shire of Dandenong, but excluding 11 square miles in the Shires of Keilor and Braybrook under the control of the Keilor and St. Albans Waterworks Trust, is included within the metropolitan area for water supply, sewerage, main drainage and river improvement purposes. This territory covers 434 square miles of land area, and in 1934 embraced 26 cities, and parts of 12 shires, or a total of 38 municipalities or portions thereof. In addition, the Board supplies water to certain municipalities outside the metropolitan area.

The Board's liability on the 30th June, 1934, for loans raised was £25,044,984. The Board was then still empowered to borrow £2,094,950 before reaching the limit of its borrowing powers.

\* Excluding the area of operations of the Hunter District Water Supply and Sewerage Board (Newcastle).

(b) *Revenue and Expenditure.* The ordinary receipts and expenditure for the year 1933-34 were £1,810,675 and £1,645,007 respectively, and the loan receipts and expenditure, £1,348,162 and £1,578,518 (including loan redemption £1,125,090) respectively.

In the following tables showing the finances of the various services, charges against General Revenue Account amounting to £229,456 have not been included.

B. *Melbourne Water Supply.* (a) *Number of Houses, Population, and Quantity of Water Supplied.* The following table gives particulars of services for the year 1933-34. The rate levied was sixpence in the pound on the net annual value of the property served.

#### WATER SUPPLY, MELBOURNE.—PARTICULARS OF SERVICES.

Year ended 30th June—	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Water Consumption for the Year.	Average Daily Consumption.		Length of Mains, Reticulation, etc.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1934 ..	258,797	1,027,424	66,234	24,175,557	255.93	64.46	2,875

(b) *Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The total cost of construction, revenue, working expenses, percentage of working expenses on revenue, interest and surplus for the year ended 30th June, 1934, are given below. The total capital cost to that date was £11,240,056.

#### WATER SUPPLY, MELBOURNE.—FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
	£	£	£	%	£	£
1934 ..	111,179	762,389	123,967	16.26	532,343	106,079

(a) Includes interest on renewals and payments to sinking funds.

C. *Melbourne Sewerage.* (a) *Number of Houses Connected, etc.* Particulars of services for the year 1933-34 are given below. The rate levied was one shilling in the pound on the net annual value of the property served.

#### SEWERAGE, MELBOURNE.—PARTICULARS OF SERVICES.

Year ended 30th June—	Number of Houses for which Sewers are Provided.	Estimated Population for which Sewers are Provided.	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.
					Per House.	Per Head of Estimated Population.	
	No.	No.	1,000 Gallons.	1,000 Gallons.	Gallons.	Gallons.	Miles.
1934 ..	242,594	963,098	44,378	16,198,050	183.0	46.0	2,469

(b) *Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The total cost of construction, revenue, working expenses, percentage of working expenses on revenue, interest and surplus for the year ended 30th June, 1934, are given below. The total capital cost to that date was £13,113,292.

**SEWERAGE, MELBOURNE.—FINANCES.**

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
	£	£	£	%	£	£
1934 ..	224,286	835,539	133,926	16.03	679,638	21,975

(a) Includes interest on renewals and payments to sinking funds.

(c) *Metropolitan Sewage Farm.* The total area of the farm at the 30th June, 1934, was 22,634 acres. The following table gives details in connexion therewith for the year 1933-34. The total capital cost to the 30th June, 1934, was £1,163,012.

**METROPOLITAN SEWAGE FARM.—FINANCES.**

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses. (a)	Interest.	Net Cost of Sewage Purification.	Trading Profit.
	£	£	£	£	£	£
1934 ..	9,666	30,293	31,366	54,429	55,502	20,602

(a) Exclusive of renewals.

(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 742,550 for the year 1933-34.

*D. Melbourne Drainage and Rivers—Capital Cost, Revenue, Working Expenses, Interest and Surplus.* The following table gives details in connexion therewith for the year ended 30th June, 1934. The total capital cost to that date was £1,077,062.

**DRAINAGE AND RIVERS, MELBOURNE.—FINANCES.**

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
	£	£	£	%	£	£
1934 ..	7,144	78,929	13,636	17.28	58,157	7,136

(a) Includes interest on renewals and payments to sinking funds.

(ii) *Geelong Waterworks and Sewerage Trust.* (a) *General.* The Geelong Waterworks and Sewerage Trust, constituted in 1908, consists of five commissioners. The amount of loan money which may be raised is limited to £900,000 for water supply undertaking, £760,000 for sewerage undertaking, and £270,000 for sewerage installation to properties under the deferred payment system. The population supplied is about 46,023.

(b) *Water Supply.* The catchment area is about 16,000 acres. The storage capacity of all the reservoirs is 2,738,119,800 gallons. In addition, the State Rivers and Water Supply Commission has made available a supplementary supply of a minimum quantity of 550 million gallons of water per annum from the upper reaches of the river Barwon. There are 277 miles of reticulation mains within the city of Geelong and its suburbs. The total expenditure on waterworks to the 30th June, 1934, was £704,039, and the revenue for the year 1933-34 was £53,502; the sinking fund for redemption of loans amounted to £57,649.

(c) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 141 miles of reticulation mains have already been laid. The drainage area is 9,538 acres, and the number of buildings within the drainage area is 11,400, and within the sewered areas 11,132, while 11,106 buildings have been connected with the sewers. The total expenditure to 30th June, 1934, on sewerage works was £644,127, and on the cost of sewerage installations under deferred payment conditions £256,493, of which £21,016 is outstanding. The revenue in 1933-34 amounted to £37,780 and the sinking fund for redemption of loans to £55,781.

(iii) *The Ballarat Water Commission and the Ballarat Sewerage Authority.* (a) *General.* The Ballarat Water Commission was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on the 30th November, 1920. The members of the Water Commission are the Sewerage Authority. The Commissioners number seven; three (one of whom is chairman) being appointed by the Government, and four being elected by the Council of the City of Ballarat.

(b) *Water Supply.* The Water Supply District embraces an area of about 27 square miles, containing a population of about 43,000. The total storage capacity of the six reservoirs is 2,215,558,000 gallons.

The capital cost of construction of the waterworks is £668,606. The liabilities are loans due to the Government amounting to £295,060 as at 31st December, 1934. The revenue for the year 1934 was £32,394.

(c) *Sewerage.* The scheme as designed provides for a population of 90,000 persons. The capital cost of construction to 31st December, 1934, was £375,880. The method of sewage disposal is by sedimentation, oxidation, and sludge digestion. Seventy sewered areas have been declared as at 1st January, 1935, comprising 7,927 tenements.

The scheme is being financed by debenture issue loans from various financial institutions, £426,000 having been provided up to 31st December, 1934, of which £48,632 has been redeemed, leaving a loan liability of £377,368 for constructional works. An expenditure of £162,028 has been incurred for house connexions, of which £113,370 has been redeemed, the balance outstanding being £48,658.

(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 31st December, 1934, was £327,641 for sewerage scheme and £181,765 for house connexions, excluding those tenements connected privately. The number of tenements connected to sewers is 5,863.

(v) *Sewerage in other Country Districts.* Sewerage authorities have been constituted in the following districts:—Colac, Echuca, Horsham, Mildura, Swan Hill, Wangaratta, and Warrnambool.

(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 1934 :—

**COUNTRY WATERWORKS, VICTORIA.—FINANCES.**

Year.	Under Waterworks Trusts.				Under Municipal Corporations.			
	Number of Trusts.	Capital Cost.	Capital Indebtedness.	Current Interest Outstanding.	Number of Corporations.	Capital Cost.	Capital Indebtedness.	Current Interest Outstanding.
	No.	£	£	£	No.	£	£	£
1934 ..	106	1,785,229	1,349,208	1,409	28	885,121	572,054	525

3. Queensland.—(i) *Water Supply and Sewerage Department, 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 7,000 million gallons, and the catchment area 28.5 square miles. The capacity of Enoggera and Gold Creek reservoirs is 1,000 million gallons and 407 million gallons respectively, and the catchment area 12.8 and 3.8 square miles respectively.

The total capacity of the service reservoirs on Tarragindi Hill, Eildon Hill, Bartley's Hill, Highgate Hill, Roles Hill, Wickham Terrace, and Paddington (elevated tank) is approximately 27,356,000 gallons.

(b) *Waterworks. Summary.* The following table gives a summary of operations for the year ended 30th June, 1934 :—

**WATERWORKS, BRISBANE.—SUMMARY.**

Year ended 30th June—	Length of Reticulation Mains.	Number of Tenements Connected. (a)	Estimated Population Supplied.	Quantity Supplied.	Average Daily Supply.	Average Daily Supply per Head of Estimated Population.
	Miles.	No.	No.	1,000 Gallons.	Gallons.	Gallons.
1934.. ..	843	65,763	279,493	4,068,180	11,145,698	40.13

(a) Exclusive of Ipswich, which is a bulk supply.

The total length of the trunk mains is 206½ miles.

(c) *Sewerage.* At the 30th June, 1934, 16,239 premises were connected to the Council's sewerage system, the estimated population served being 73,075 persons. The total length of sewers in operation is 432½ miles, consisting of 245 miles of sewers within premises, and 187½ miles of main and reticulation sewers.

(d) *Waterworks and Sewerage Works Finances.* The subjoined table gives particulars regarding finance during the year ended 30th June, 1934 :—

**WATER AND SEWERAGE WORKS, BRISBANE.—FINANCES.**

Year ended 30th June—	Capital Cost.	Net Revenue from Rates.	Management and Working Expenses.	New Works Construction.	Interest and Redemption of Loans, including Sinking Fund.
	£	£	£	£	£
1934 .. ..	8,338,104	642,671	145,707	184,587	(a) 564,327

(a) Exclusive of the sum of £53,017 paid as exchange.

(ii) *Country Towns Water Supply.* In addition to the city of Brisbane, there were at the end of the year 1933, fifty-three country towns in Queensland provided with water supply systems constructed by municipalities chiefly from Government loans. The subjoined statement gives particulars of all water supply systems, exclusive of Brisbane, for the year 1933 :—

**COUNTRY WATER SUPPLY SYSTEMS.—QUEENSLAND.**

<i>Cost of Construction to 31st December, 1933—£2,593,359.</i>					
<i>Receipts.</i>		£	<i>Expenditure.</i>		£
Rates and sales of water ..	239,224		Office and salaries .. ..	17,147	
Government and other loans ..	108,896		Construction .. ..	167,620	
Other .. ..	65,340		Maintenance .. ..	100,830	
			Interest and redemption ..	110,674	
			Other expenses .. ..	9,942	
<b>Total .. ..</b>	<b>413,460</b>		<b>Total .. ..</b>	<b>406,213</b>	
<b>Assets .. ..</b>	<b>2,078,333</b>		<b>Liabilities .. ..</b>	<b>1,715,535</b>	

4. *South Australia.*—(i) *General.* The water supply and sewerage systems in this State are constructed and maintained by the Public Works Department.

(ii) *Adelaide Waterworks.* (a) *Summary.* The following table gives particulars for the year 1933-34, the figures for consumption being recorded by gaugings taken at the reservoirs and including evaporation and absorption. There are 56,740 meters in the Adelaide District.

**ADELAIDE WATERWORKS.—SUMMARY.**

Year ended 30th June—	Number of Assessments.	Annual Value.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
	No.	£	Acres.	Million Gallons.	Miles.	Million Gallons.
1934 .. ..	129,096	4,875,766	115,966	7,774	1,307	8,596

(b) *Finances.* Particulars for the year 1933-34 are given below :—

**ADELAIDE WATERWORKS.—FINANCES.**

Year ended 30th June—	Capital Cost.	Revenue.		Expenses.			Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Engineering Branch.	Revenue Branch.	Total.	
	£	£	£	£	£	£	%
1934 .. ..	3,993,900	340,060	403,366	81,607	11,861	93,468	7.76

(iii) *Adelaide Sewerage.* Particulars for the year 1933-34 are given hereunder :—

## ADELAIDE SEWERAGE.—SUMMARY.

Year ended 30th June—	Length of Sewers.	Number of Connexions.	Capital Cost of Revenue-Producing Works.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates, etc.	Total.	Maintenance, etc.	Total.	
1934 ..	Miles. 515	No. 52,241	£ 1,535,844	£ 166,970	£ 174,022	£ 25,757	£ 34,342	% 9.09

During the year 1933-34, 46 miles of sewers, 4,801 connexions and a capital cost of £110,789 were transferred to suburban systems.

(iv) *Country Water Supply.* (a) *Summary.* The chief items of information regarding these undertakings are set forth in the table below for the year 1933-34. There are 32,500 meters in country districts.

## COUNTRY WATERWORKS, SOUTH AUSTRALIA.—SUMMARY.

Year ended 30th June—	Number of Assessments.	Area Supplied.	Capacity of Reservoirs.	Length of Mains.	Annual Consumption.
1934 ..	No. 48,440	Acres. 11,838,961	Million Gallons. 9,147	Miles. 4,829	Million Gallons. 4,300

(b) *Finances.* The next table gives financial information for the year 1933-34 :—

## COUNTRY WATERWORKS, SOUTH AUSTRALIA.—FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.		Working Expenses.			Percentage of Net Revenue on Capital Cost.
		Rates.	Total.	Engineering Branch.	Revenue Branch.	Total.	
1934 ..	£ 9,448,948	£ 181,917	£ 215,368	£ 101,395	£ 9,113	£ 110,508	% 1.11

(v) *Other Sewerage Systems.* Information in summarized form is given below regarding the two suburban sewerage systems, viz., the Glenelg system and the Port Adelaide and Semaphore system, for the year 1933-34 :—

## SUBURBAN SEWERAGE SYSTEMS, SOUTH AUSTRALIA.—SUMMARY.

Year ended 30th June—	Length of Sewers.	Number of Connexions.	Capital Cost.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates.	Total.	Maintenance.	Total.	
1934 ..	Miles. 323	No. 17,832	£ 1,460,356	£ 56,552	£ 58,147	£ 25,133	£ 26,598	% 2.16

5. **Western Australia.**—(i) *General.* The water supply and sewerage systems of Western Australia are principally under the management of Government Departments, and are divided into the following categories :—(a) Metropolitan Water Supply, Sewerage and Drainage, covering Perth, Fremantle, Claremont, Guildford, Midland Junction, and Armadale District ; (b) Goldfields Water Supply ; (c) Water Supply of other towns ; (d) Agricultural Water Supply ; and (e) Artesian and sub-artesian waters.

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Victoria Reservoir, Mundaring Reservoir, Churchman Brook Reservoir, fifteen bores, and the Armadale, Canning River, and Wungong pipe head dams. During the year 1933-34, the construction of the Canning Dam was commenced. The sewerage system consists of septic tanks and percolating filters for Perth, and septic tanks and ocean outfalls for Fremantle and Subiaco. At the 30th June, 1934, the number of premises connected with sewers was 25,399.

(b) *Summary.* The following table gives particulars regarding water supply for the year 1933-34 :—

**METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA.—SUMMARY.**

Year ended 30th June—	Estimated Population Supplied.	Number of Services.	Water Supplied.	Average Daily Supply.		Number of Meters.	Length of Mains.
				Per Head.	Per Service.		
	No.	No.	1,000 Gallons.	Gallons.	Gallons.	No.	Miles.
1934 .. ..	214,141	53,577	4,077,716	52.17	208.52	34,244	864

(c) *Finances.* The table hereunder gives separate information for the water supply and sewerage and drainage branches for the year 1933-34 :—

**METROPOLITAN WATER SUPPLY, AND SEWERAGE AND DRAINAGE,  
WESTERN AUSTRALIA.—FINANCES.**

Year ended 30th June—	Water Supply.			Sewerage and Drainage.		
	Capital Cost.	Revenue.	Expendi- ture.	Capital Cost.	Revenue.	Expendi- ture.
	£	£	£	£	£	£
1934 .. ..	3,463,188	242,418	240,607	1,831,976	100,429	110,137

(iii) *Goldfields Water Supply.* The source of supply for the Coolgardie and adjacent goldfields, as well as for towns and districts on or near the pipe-line, is the Mundaring Reservoir, which has a capacity of 4,650 million gallons. There are three classes of consumers—the railways, the mines, domestic and other—and in 1933-34 the railways consumed 5 per cent., the mines 28 per cent., and domestic, etc., 67 per cent. of the supply. The following table gives details for the year 1933-34 :—

**GOLDFIELDS WATER SUPPLY, WESTERN AUSTRALIA.—SUMMARY.**

Year ended 30th June—	Total Con- sumption.	Number of Services.	Length of Water Mains.	Capital Cost.	Revenue.	Expendi- ture.
	1,000 gallons.	No.	Miles.	£	£	£
1934 .. ..	1,277,000	11,342	1,532	4,098,090	186,617	185,890



(iv) *Water Supply of Other Towns.* During the year 1933-34 water supplied to other towns and districts amounted to 262,406,335 gallons distributed as follows:— Railways, 29,950,528 gallons; mines, 53,418,800 gallons; and 179,037,007 gallons to domestic and other consumers.

(v) *Agricultural Water Supply.* During the year 1933-34, no wells were sunk but one tank was excavated. During the twenty-four years from the 1st July, 1910, to the 30th June, 1934, 495 tanks were built, 368 wells sunk, and 3,455 bores put down to a total depth of 153,331 feet. Of the bores mentioned, 519 yielded fresh and 287 stock water.

(vi) *Artesian and Sub-artesian Waters.* Up to the 30th June, 1934, the total number of bores put down in search of artesian or sub-artesian water was 257, including 51 sunk in the metropolitan area, ranging in depth from 30 to 4,006 feet.

6. *Tasmania.*—(i) *Hobart Water Supply.* The cost of this undertaking to the 30th June, 1934, was £466,679, 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, 1934, amounted to £350,682. At the same date the number of tenements supplied in the city and suburbs was 10,885 and the length of reticulation mains was 133½ miles. The revenue for the year 1933-34 was £39,107.

(ii) *Hobart Sewerage System.* The revenue for the year ended 30th June, 1934, was £34,907. Up to that date 81¾ miles of sewers had been laid in connexion with the original city system at a cost of £215,764 and 8,492 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 27¾ miles of sewers, connecting with 1,549 tenements, have been constructed at a cost of £128,475. In New Town a total of 37½ miles of sewers has been laid, and 1,505 properties connected. The cost to 30th June, 1934, including surveys and sewerage outfall, was £112,981.

## § 6. Harbour Boards and Trusts.

1. *New South Wales.*—(i) *Sydney Harbour Trust.* (a) *General.* The Sydney Harbour Trust, which consists of three Commissioners appointed by the Government, controls the whole of the wharves resumed by the Government in 1901. The Commissioners also provide and maintain the lighting and marking of the harbour, and carry out all necessary dredging. The whole of what might be termed city wharves is owned by the Commissioners and leased to various shipping companies, but the Trust directly operates and maintains a certain number of unleased wharves. Outside the city area the wharves are, to a large extent, privately controlled, but all structures beyond high-water mark are held under leases issued by the Trust. The extent of wharfage accommodation now available for use totals 76,993 lineal feet, inclusive of 9,498 lineal feet privately owned, 4,693 lineal feet of cross wharf and 3,427 lineal feet of ferry wharves.

The depth of water at the entrance to the port is not less than 80 feet, and in the channels there are 40 feet at low-water spring tides. The foreshores of Sydney Harbour are 183 miles in length. The area of the water in the port is 14,284 acres, of which 3,000 acres have a depth ranging from 35 to 160 feet.

During the year 1933-34, 6,498 vessels entered the port as compared with 6,315 the previous year. The gross tonnage amounted to 16,354,219 and 16,303,678 in the years 1933-34 and 1932-33 respectively.

Since its inception, the Trust has incurred capital expenditure of £7,848,259 on the reconstruction and extension of the wharfage and improvements to the port and vested area. The properties maintained by the Trust at 30th June, 1934, were as follow:— 188 commercial wharves representing 64,000 lineal feet, 25 ferry wharves of 3,427 feet. 2 million square feet of wharf area, nearly 3 million square feet of shed area, and 745 buildings consisting of stores, bonds, shops, hotels, etc.

During the year 1933-34, 231,820 tons of material were dredged at a cost of £5,218.

(b) *Finances.* The subjoined table gives particulars concerning the finances of the Trust for the year 1933-34 :—

**SYDNEY HARBOUR TRUST.—FINANCES.**

Year ended 30th June	Revenue.				Working Expenditure.	Interest.	Surplus.	Total Capital Debt.
	Wharfage and Harbour Rates.	Tonnage Rates and Berthing Charges.	Other Sources.	Total.				
	£	£	£	£	£	£	£	£
1934	551,182	30,318	274,459	855,959	6306,217	4533,397	16,345	11,585,907

(a) Includes £12,287 sinking fund contributions.

(b) Includes £72,915 exchange.

2. *Victoria.*—(i) *Melbourne Harbour Trust.* (a) *General.* Information regarding the origin and constitution of this Trust will be found in Official Year Book No. 12, pp. 970 *et seq.* At the 31st December, 1934, the sheds available for wharfage accommodation had a length of 18,938 feet, covering an area of 1,247,713 square feet. The area of water in the bay and River Yarra under the control of the Trust is approximately 5,325 acres and the total length of wharves, piers, and jetties in the port is 63,419 feet, giving an area of over 62 acres of wharfage of which 53,806 feet is effective berthing space. During 1934 the quantity of material raised by dredging and excavation in the river and bay amounted to 2,332,074 barge yards at a cost of £74,548. The Trust has expended £354,174 in reclaiming land within its jurisdiction by depositing 16,641,381 barge yards of material thereon.

(b) *Finances.* During the year ended 31st December, 1934, the revenue (excluding refunds) of the Trust amounted to £632,830, and expenditure to £629,844 (including the amount of £120,779 paid to Consolidated Revenue and Geelong Harbour Trust). There was a net surplus on revenue account of £2,986. Appropriation for sinking fund and charges for depreciation, renewals and insurance against revenue account for the year amounted to £81,496. The capital expenditure for the year was £138,022. Up to the 31st December, 1934, the total capital expenditure amounted to £9,019,912. The loan indebtedness at the 31st December, 1934, was £4,461,015.

(ii) *Geelong Harbour Trust.* The Geelong Harbour Trust was reconstituted in 1934 under the provisions of the Melbourne and Geelong Harbour Trusts Act 1934. The Trust is under the control of three Commissioners appointed by the Governor in Council. Revenue for the year 1934 was £73,509. Expenditure from revenue was £65,435 and from loans £5,941, while loans outstanding at the end of that year amounted to £612,402.

(iii) *Harbour Boards.* The Harbour Boards Act 1927 provides for the constitution 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 Department of Ports and Harbours of Victoria. Up to September, 1934, the only board to be constituted under this Act was the Warrnambool Harbour Board. The total income of this Board for the year ended 30th September, 1934, was £1,652, and the total expenditure £1,082. The loans outstanding on 30th September, 1934, amounted to £4,668.

3. *Queensland.*—(i) *Bowen Harbour Board.* The Bowen Harbour Board consists of seven members, of whom two are appointed by the Governor in Council and the remainder elected by the electors of the town of Bowen and adjacent shires. The district under its jurisdiction comprises the area within the boundaries of the town of Bowen, the shires of Proserpine and Wangaratta, and division I. of the Shire of Ayr. The capital expenditure for the year 1934 was £214, while for the same period the revenue was £13,167 and the expenditure £12,894.

(ii) *Bundaberg Harbour Board.* The Bundaberg Harbour Board consists of nine members, of whom one is appointed by the Governor in Council, four elected by the electors of the city of Bundaberg, and two each by the electors of the shires of Gooburrum and Woongarra.

Revenue for the year 1934 amounted to £8,673 as compared with £5,191 in 1933, while expenditure for corresponding periods totalled £6,124 and £5,324 respectively.

(iii) *Cairns Harbour Board.* The Cairns Harbour Board consists of thirteen members, representing the city of Cairns and six adjoining shires. The wharves, which are all under the control of this Board, consist of 1,900 lineal feet, all reinforced ferro-concrete structures, 1,500 feet of which form an unbroken quay line. Railway facilities are provided on the wharves together with mechanical sugar handling equipment. The total tonnage of outward cargo from the port for 1934 was 106,908 tons, of which sugar comprised approximately 61 per cent. The revenue of the Board, derived from harbour, berthage, and miscellaneous dues, etc., for the year 1934, was £48,443, and expenditure £55,360. The capital expenditure for the year 1934 was £569, and the total to the end of 1934 was £440,620.

(iv) *Gladstone Harbour Board.* The Gladstone Harbour Board is composed of seven members, two of whom are appointed by the Governor in Council and five elected by the electors of the town of Gladstone and the shires of Calliope and Miriam Vale.

The capital expenditure for the year 1934 was £3,028 and the total to the end of 1934 amounted to £95,137. The revenue for 1934 was £11,820, and the expenditure £10,467.

(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. Capital expenditure for the year 1934 was £23,693 and the total expenditure £53,119; receipts were £46,038.

(vi) *Rockhampton Harbour Board.* The Rockhampton Harbour Board consists of eleven members, of whom seven are elected by the electors on the rolls for the city of Rockhampton, and the shires of Mount Morgan, Fitzroy and Livingstone. The remaining four are elected by the councillors of groups of inland shires.

The revenue for the year 1934 was £58,190; and the expenditure £51,451. The capital expenditure for the year 1934 was £6,612, and the total to the end of 1934 was £766,488.

(vii) *Townsville Harbour Board.* The Townsville Harbour Board is composed of nine members, of whom two are appointed by the Governor in Council and the remaining seven are elected by the electors of Townsville and adjacent towns and shires. All harbour works and conveniences for the use of shipping are under the control of the Board. The capital expenditure for the year 1934 was £3,406; the receipts for the year 1934 were £63,638, and the expenditure £60,080.

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.		
	£	£	£	£	£	£	£	£	£
1934 ..	169,755	249,969	32,552	45,200	128,491	43,252	249,495	1,279,911	1,711,493

4. *Western Australia.*—(i) *Fremantle Harbour Trust.* (a) *General.* Fremantle Harbour is controlled by a Board of five Commissioners appointed by the Governor in Council. A description of the works was given in a previous Year Book (see No. 12

p. 973). Since that account was written, the inner harbour and entrance channel have been dredged to a depth of 36 feet below the lowest known low water. The berthage accommodation at all the quays has also been deepened to 36 feet.

(b) *Finance.* The following table gives financial data for the year 1933-34 :—

**FREMANTLE HARBOUR TRUST.—FINANCES.**

Year ended 30th June—	Revenue.	Expenditure.						Total.
		Working Expenses.	Interest.	Sinking Fund.	Renewals Fund.	Capital Expendi- ture.	Surplus Revenue. (a)	
1934 ..	£ 385,239	£ 163,936	£ 119,010	£ 10,581	£ 2,000	£ 1,900	£ 87,261	£ 384,688

(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 2,700 feet on the west side and 3,000 feet on the east side, and is electrically lighted.

(b) *Finances.* Details for the year 1933-34 are given hereunder. Surplus revenue is paid into Consolidated Revenue Fund to meet interest and sinking fund :—

**BUNBURY HARBOUR BOARD.—FINANCES.**

Year ended 30th June—	Capital Account.	Revenue.	Expenditure.
1934 .. .. .	£ 482,334	£ 18,264	£ (a)33,500

(a) Includes interest on Capital Account £22,491, only £8,000 of which was contributed from the earnings of the Board.

5. *Tasmania.*—(i) *Marine Board of Hobart.* (a) *General.* The Marine Board of Hobart consists of nine wardens elected by the ship-owners of the Port of Hobart and the importers and exporters of goods into or from any port within the jurisdiction of the Board.

(b) *Finances.* The following table gives details for the year ended 30th June, 1934 :—

**MARINE BOARD OF HOBART.—FINANCES.**

Year ended 30th June—	Capital Debt.	Revenue.		Expenditure.		
		Taxes, Dues, etc.	Total.	Interest and Sinking Fund.	Works, Services, etc.	Total.
1934 .. .. .	£ 53,814	£ 40,245	£ 43,413	£ 2,948	£ 38,424	£ 41,372

(ii) *Marine Board of Launceston.* (a) *General.* The Marine Board of Launceston consists of five wardens, three elected by the ratepayers of the city of Launceston and two by ratepayers of the municipalities within the Tamar District.

(b) *Finances.* The following table gives details for the year ended 30th June, 1934 :—

MARINE BOARD OF LAUNCESTON.—FINANCES.

Year ended 30th June—	Total Capital Debt.	Revenue.	Expenditure.
	£	£	£
1934 .. .. .	303,920	50,555	48,059

(iii) *Marine Board of Burnie.* The length of the breakwater is 1,250 feet, with a depth up to 42 feet at low water, and a wharf alongside, 630 feet in length by 91 feet wide, with a depth at low water from 24 to 40 feet. There are two other timber wharves 600 feet and 400 feet long respectively. The receipts for the year ending 30th June, 1934, were £20,111, and the expenditure £18,657, including £14,030 interest on loans, etc.

### § 7. Fire Brigades.

1. New South Wales.—(i) *General.* Under the Fire Brigades Act of 1909–1927, a Board of Fire Commissioners consisting of eight members operates, and 110 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 rateable land in the fire district: provided that the Board, with the consent of the Minister, and at the special request of the councils of the municipalities or shires constituting or forming part of a fire district or a majority in number of such councils may, as to that district, exceed the limit above provided.

(ii) *Board of Fire Commissioners of New South Wales.* At the 31st December, 1934, the Board had under its control 78 fire stations in the Sydney fire district and 136 fire stations in the country fire districts. The Sydney fire district includes the City of Sydney and suburbs, comprising a total area of 255 square miles. The revenue for the year 1934 was £373,549, made up as follows:—From the Government, £91,543; municipalities and shires, £91,543; fire insurance companies and firms, £183,086; and from other sources, £7,377. The disbursements for the year were £372,552.

2. Victoria.—(i) *General.* The Fire Brigades Act of 1928 provides for a Metropolitan Fire Brigades Board, and a Country Fire Brigades Board, each consisting of nine members, with local committees in country districts. The income of each board is derived in equal proportions from the Treasury, the municipalities, and insurance companies.

(ii) *Metropolitan Fire Brigade Board.* On the 30th June, 1934, the Board had under its control 43 stations. The total receipts for the year 1933–34 were £193,162, comprising contributions £157,462, receipts for services £21,317, and interest and sundries £14,383. The expenditure was £189,620, made up as follows:—Salaries (permanent staff) £100,622, interest and repayments of principal £17,949, and other expenditure £71,049. There was no loan expenditure during the year—the loan indebtedness at the end of the year being £204,917.

(iii) *Country Fire Brigades Board.* At 30th June, 1934, there were 121 municipal councils and 103 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 39 of the larger provincial cities and townships. There were 146 registered brigades at the end of June, 1934. For the year 1933–34 the revenue was £28,870 and the expenditure £28,420. The loan expenditure for the year amounted to £8,378, and at the close of the year the loan indebtedness was £42,978.

3. **Queensland.**—(i) *General.* The Act of 1920 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 Treasurer two-sevenths, insurance companies three-sevenths, and local authorities two-sevenths. All volunteer fire brigades in a district must be registered.

(ii) *Fire Brigades Boards.* At the 30th June, 1934, there were fire brigades in 31 towns. The total revenue for the year 1933–34 was £78,257, received mainly from the following sources:—Government £18,390, local authorities, £18,704, insurance companies £27,659 and loans (Government and other), £9,587. The total expenditure for the year was £75,714, the chief items being salaries and wages £47,062, buildings, repairs, etc., £10,112, plant, stores, etc., £4,213, and interest and redemption of loans, £6,727.

4. **South Australia.**—(i) *General.* The Fire Brigades Act of 1913 and amendments provide 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.

(ii) *Fire Brigades Board.* At the end of 1934 there were altogether 27 fire brigade stations. The total revenue for the year 1934 was £41,073.

5. **Western Australia.**—(i) *General.* Under the 1916 Act every municipal or road board district is constituted a fire district 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 39. The revenue and expenditure for the year ended 30th September, 1934, were £50,296 and £50,755 respectively. The estimated value of land and buildings was £70,200 and of plant £31,140.

6. **Tasmania.**—(i) *General.* The municipal council of any municipality may, under the Act of 1920, petition the Governor to proclaim the municipality or any portion of it to be a fire district, each district to have a Board of five members. The expenses of each Board are borne in equal proportions by contributions from the Treasurer, the municipality concerned, and insurance companies insuring property within the district.

(ii) *Hobart Fire Brigade Board.* The revenue of the Board for the year 1934 amounted to £5,629.

## CHAPTER V. LAND TENURE AND SETTLEMENT.

### § 1. Introduction.

1. **General.**—A comprehensive description of the land tenure systems of the several States was given in Official Year Book No. 4 (pp. 235 to 333), while later alterations were referred to in subsequent issues. In this chapter a summary is given of the principal features of existing land legislation. In previous issues an account of the various tenures under which Crown lands may be taken up was given. (See Year Book No. 22, pp. 133-195; also par. 2 hereunder for a conspectus of legislation at present in force.) Special sections are devoted to 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.
<b>CROWN LANDS ACTS.</b>		
Crown Lands Act 1913-1935; Western Lands Act 1901-1934; Prickly Pear Act 1924-1934.	Land Act 1928, 1932, 1933, 1934.	Land Acts 1910-1934. Upper Burnett and Callide Land Settlement Act 1923-1932. Prickly Pear Land Acts 1923-1932. Sugar Workers' Selections Acts 1923-1932.
<b>CLOSER SETTLEMENT ACTS.</b>		
Closer Settlement Act 1904-1935; Closer Settlement and Returned Soldiers' Settlement (Amendment) Act 1927-1935.	Closer Settlement Act 1928-1929, 1930, 1931, 1932, 1933, 1934.	Closer Settlement Acts 1906-1932.
<b>MINING ACTS.</b>		
Mining Act 1906-1935; Mining Leases (Validation) Act 1924.	Mines Act 1928.	Mining Acts 1898-1930; Mining for Coal and Mineral Oil Act 1912; Petroleum Acts 1923-1929; Miners' Homestead Leases Act 1913-1930; Coal Mining Act 1925-1930.
<b>SOLDIERS' SETTLEMENT ACTS.</b>		
Returned Soldiers' Settlement Act 1916-1935.	Closer Settlement Act (Part II.) 1928-1929, 1930, 1931, 1932, 1933, 1934.	Discharged Soldiers' Settlement Act 1917-1932.
<b>ADVANCES TO SETTLERS ACTS.</b>		
Government Savings Bank Act 1906-1932; Returned Soldiers' Settlement Act 1916-1935; Rural Bank Agency Act 1934.	State Savings Bank Act 1915-1922; Primary Products Advances Act 1919-1922; Closer Settlement Act 1928-1929, 1930, 1931, 1932, 1933, 1934; Fruit and Vegetable Act 1928; Cultivation Advances Act 1931, 1932, 1933, 1934.	State Advances Act 1916; Co-operative Agricultural Products and Advances to Farmers Act 1914-1919; Agricultural Bank Act 1923-1929.

STATE LAND LEGISLATION—*continued.*

South Australia.	Western Australia.	Tasmania.
<b>CROWN LANDS ACTS.</b>		
Crown Lands Act 1929-1933: Pastoral Act 1904-1929.	Land Act 1933-1934.	Crown Lands Act 1911-1924- 1931.
<b>CLOSER SETTLEMENT ACTS.</b>		
Crown Lands Act 1929-1933.	Closer Settlement Act 1927.	Closer Settlement Act 1913-1924, 1929.
<b>MINING ACTS.</b>		
Mining Act 1930-1931.	Mining Act 1904-1933: Sluicing and Dredging for Gold Act 1899	Mining Act 1917-1929: Aid to Mining Act 1924.
<b>RETURNED SOLDIERS' SETTLEMENT ACTS.</b>		
Discharged Soldiers' Settlement Act 1917-1931.	Discharged Soldiers' Settlement Act 1918.	Returned Soldiers' Settlement Act 1916-1923.
<b>AGRICULTURAL GRADUATES SETTLEMENT ACTS.</b>		
Agricultural Graduates Act 1922.	..	..
<b>ADVANCES TO SETTLERS ACTS.</b>		
Irrigation Act 1930-1933: Dis- charged Soldiers' Settlement Act 1917-1931: State Bank Act 1925-1928: Advances to Settlers Act 1930: Agri- cultural Graduates Act 1922: Loans for Fencing and Water Piping Act 1930.	Agricultural Bank Act 1934.	State Advances Act 1907-1927: Closer Settlement Act 1913- 1929: Returned Soldiers' Settlement Act 1916-1923. Unemployed (Assistance to Primary Producers) Relief Act 1930-1931.

3. **Northern Territory Land Legislation.**—In the Northern Territory of Australia the legislation relating to Crown lands is embodied in the Crown Lands Ordinance 1931-1934, that relating to mining in the Northern Territory Mining Act 1903, the Gold Dredging Act 1899, the Tin Dredging Ordinance 1911-1920, the Mineral Oil and Coal Ordinance 1922-1923, and the Encouragement of Mining Ordinance 1913-1926; and that relating to advances to settlers in the Encouragement of Primary Production Ordinance 1931.

4. **Federal Capital Territory Land Legislation.**—In the Federal Capital Territory the Ordinances relating to Crown lands are the Leases Ordinance 1918-1933, the Public Parks Ordinance 1928, the City Area Leases Ordinance 1924-1935, the Church Lands Leases Ordinance 1924-1932, and the Leases (Special Purposes) Ordinance 1925-1932.



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

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 Federal 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.
<b>LEASES AND LICENCES UNDER LAND ACTS.</b>		
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.	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.	Perpetual Lease Selections : Perpetual Lease Prickly Pear Selections : Perpetual Lease Prickly Pear Development Selections : Pastoral Leases : Preferential Pastoral Leases : Stud Holdings : Prickly Pear Leases : Occupation Licences : Special Leases : Grazing Selections : Development Grazing Selections : Prickly Pear Development Grazing Selections : Auction Perpetual Leases : Pastoral Development Leases.
<b>CLOSER SETTLEMENT.</b>		
Sales by Auction and Tender : After-auction Sales and Tenders : Settlement Purchases.	Sales of Land : Conditional Purchase Leases : Conditional Purchase Leases in Mountainous Areas.	Perpetual Lease Selections : Settlement Farm Leases : Perpetual Town, Suburban and Country Leases.
<b>LEASES AND LICENCES UNDER MINING ACTS.</b>		
Holdings under Miners' Rights : Gold Mining Leases : Mineral Leases : Coal and Oil Mining Leases : Business Licences : Residence Areas.	Holdings under Miners' Rights : Gold Mining Leases : Mineral Leases : Business Areas : Residence Areas.	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.
<b>SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.</b>		
Soldiers' Group Purchases : Returned Soldiers' Special Holding Leases : Returned Soldiers' Special Holding Purchases : also Purchases and Leases under Crown Lands Act of lands set apart for application by discharged soldiers exclusively.	(Same Tenures as under the Land and Closer Settlement Acts.)	Perpetual Lease Selections : Perpetual Town and Suburban Leases.

STATE CROWN LANDS—TENURES—*continued.*

South Australia.	Western Australia.	Tasmania.
<b>FREE GRANTS AND RESERVATIONS.</b>		
Free Grants : Reservations.	Free Grants : Reservations.	Free Grants : Reservations.
<b>UNCONDITIONAL PURCHASES OF FREEHOLD.</b>		
Auction Sales. By Private Contract (Land passed at Auction).	Auction Sales.	Auction Sales : After-auction Sales : Sales of Land in Mining Towns.
<b>CONDITIONAL PURCHASES OF FREEHOLD.</b>		
Agreements to Purchase : Special Agreements to Purchase (40 years' term) : Homestead Blocks.	Conditional Purchases with Resi- dence : Conditional Purchases without Residence : Conditional Purchases by Direct Payment : Conditional Purchases of Land for Vineyards, etc. : Condi- tional Purchases by Pastoral Lessees : Conditional Pur- chases of Grazing Lands : Homestead Farms : Working- men's Blocks : Special Settle- ment Leases.	Selections for Purchase : Addi- tional Selections for Purchase : Homestead Areas : Selections in Mining Areas : Sales by Auction : Sales by Private Contract : After-auction Sales : Special Settlement Areas.
<b>LEASES AND LICENCES UNDER LAND ACTS.</b>		
Perpetual Leases : Special Per- petual Leases (Free Period) : Perpetual Leases of Homestead Blocks : Miscellaneous Leases : Licences : Pastoral Leases : Irrigation Blocks : Town Allotments in Irrigation Areas : Forest Leases.	Pastoral Leases : Special Leases : Leases of Town and Suburban Lands : Cropping Leases.	Grazing Leases : Pastoral Leases : Leases of Land covered with Button Grass, etc. : Leases of Mountainous Land : Miscel- laneous Leases : Temporary Licences : Occupation Licen- ces : Residences Licences : Business Licences : Forest Leases, Licences and Permits.
<b>CLOSER SETTLEMENT.</b>		
Sales by Auction : Agreements to Purchase : Perpetual Leases : Miscellaneous Leases.	Conditional Purchases : Town and Suburban Areas.	Leases with Right of Purchase : Special Sales.
<b>LEASES AND LICENCES UNDER MINING ACTS.</b>		
Holdings under Miners' Rights : Search Licences : Occupation Licences : Gold Leases : Mineral 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.
<b>SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.</b>		
Perpetual Leases : Pastoral Leases : Agreements to Pur- chase : Miscellaneous Leases.	Ordinary Tenure : Special Tenure.	Free Grants : Ordinary Tenure : Special Tenure.
<b>AGRICULTURAL GRADUATES SETTLEMENT ACTS.</b>		
Agreements to Purchase.	..	..

## § 2. Free Grants and Reservations.

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

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

(iii) *Areas Granted and Reserved.* During the year 1933-34 the total area for which free grants were prepared was 1,121 acres, including grants of 862 acres of land resumed under the 12th clause of the Public Roads Act 1902. During the same period 556 acres were dedicated and permanently reserved, the number of separate dedications being 79.

On the 30th June, 1934, the total area reserved, including temporary reserves, was 16,692,542 acres, of which 5,317,589 acres were for travelling stock, 2,140,113 acres for forest reserves, 930,111 acres for water and camping, 1,754,655 acres for mining, and the remainder for temporary commons, railways, recreation reserves and parks, reserves for aborigines, and miscellaneous purposes.

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 or for residence or business under any miner's right or business licence.

(iii) *Areas Granted and Reserved.* During the year 1933, 11 acres were granted without purchase, and reservations of both a permanent and temporary nature, comprising a net area of 7,300 acres, were made. At the end of 1933, the total area reserved was 8,005,600 acres, consisting of roads, 1,794,218 acres; water reserves, 310,197 acres; agricultural colleges, etc., 88,650 acres; permanent forests and timber reserves under Forests Act, 4,692,820 acres; forests and timber reserves under Land Acts, 330,135 acres; reserves in the Mallee, 410,000 acres; and other reserves, 379,580 acres.

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

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

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

(iii) *Areas Granted and Reserved.* During the year 1933 the area granted in fee-simple without payment was 1,614 acres, the area set apart as reserves 576,258 acres, and reserves cancelled 168,715 acres. The total area reserved at the end of 1933 was 18,174,366 acres, made up as follows:—timber reserves, 3,476,938 acres; State forests and national parks, 2,513,876 acres; for use of aborigines, 6,203,602 acres; and general, 5,979,950 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 (a) the use and benefit of aborigines; (b) military defence; (c) forest reserves; (d) railway stations; (e) park lands; or (f) any other purpose that he may think fit.

(iii) *Areas Granted and Reserved.* During the year 1934 free grants were issued for a total area of 93 acres. During the same year reserves comprising 13,536 acres were proclaimed. At the 30th June, 1934, the total area reserved was 16,455,429 acres, including 14,016,000 acres in the north-west of the State set apart as an aboriginal reserve in 1921.

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

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

(iii) *Areas Granted or Reserved.* During the year ended 30th June, 1934, a few small areas of land were granted in fee-simple, and approximately 24,203 acres were reserved for various purposes. At the 30th June, 1934, the total area reserved was 40,460,118 acres, comprising State forests, 2,971,712 acres, timber reserves, 1,436,980 acres, and other reserves, 36,051,426 acres.

6. *Tasmania.*—(i) *Free Grants.* The only mention in the Crown Lands Act respecting free grants of land is that the Governor may agree with the Governor-General of the Commonwealth for the grant of any Crown land to the Commonwealth, 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, are eligible to receive free grants of Crown land not exceeding £100 each in value, but these grants are 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.* During the year ended 31st December, 1933, the area granted free was 1,566 acres, all of which was granted to soldiers under the Returned Soldiers' Settlement Act, while during the same year, free leases were issued to 2 local bodies for municipal purposes, and 9 acres were reserved. The total area reserved to the end of 1933 was 4,988,717 acres.

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

(ii) *Areas Reserved.* The total area of reserves at the 30th June, 1934, was 71,019 square miles, comprising aboriginal native, 68,124 square miles; mission station, 1,225 square miles; and other reserves, 1,670 square miles.

### § 3. Unconditional Purchases of Freehold.

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

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

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

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

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

(v) *Areas Sold.* During the year ended 30th June, 1934, the total area sold was 515 acres, of which 84 acres were sold by auction and 156 acres as after-auction purchases, while 6 acres were sold as improvement purchases and 269 acres as special purchases. The amount realized for the sale of the whole area was £16,690.

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

(ii) *Areas sold at Auction and by Special Sales.* During the year 1933, a total of 1,087 acres was disposed of under this tenure, 506 acres being country lands, while 581 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) *Sales by Auction.* Consequent upon an amendment made by the Act of 1932, Crown land cannot now be offered for sale by auction on a freehold basis.

(iii) *Areas Sold, etc.* During the year 1933, 14 acres under a freehold tenure were sold at auction, and 38 unconditional selections comprising 8,203 acres were made freehold.

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

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

(ii) *Areas Sold, etc.* During the year ended 30th June, 1934, the area of town lands and special blocks sold by auction was 63 acres. In addition, 13,941 acres were sold at fixed prices, and the purchases of 20,747 acres on credit were completed, making a total of 34,751 acres.

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

(ii) *Areas Sold.* During the year ended 30th June, 1934, the area of town and suburban allotments sold was 1,145 acres in 387 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.

(iv) *Areas Sold.* During the year 1933 the area sold by auction or by special sale amounted to 108 acres.

### § 4. Conditional Purchases of Freehold.

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

2. *New South Wales.*—At the 30th June, 1934, the total number of conditional purchases in existence was 60,344, covering an area of 19,704,897 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, 1934, 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.
1934 .. ..	230	Acres. 20,756	173	Acres. 14,882	Acres. 450,520	Acres. 25,111,508

(a) Exclusive of conversions from other tenure

3. **Victoria.**—Exclusive of selection in the Mallee country, the total area purchased conditionally in 1933 was 38,120 acres, comprising 36,074 acres with residence and 2,046 acres without residence. The number of selectors was 184.

The total area of Mallee country purchased conditionally in the same year was 18,991 acres, all with residence, the number of selectors being 54.

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

(ii) *Lands Acquired.* During the year 1933 the following new selections were acquired:—Agricultural farms to the number of 13 comprising an area of 2,503 acres and one prickly pear selection of 2,708 acres, one agricultural homestead of 183 acres, and 25 prickly pear development selections with an area of 71,868 acres. No free homesteads were acquired.

5. **South Australia.**—The land allotted under agreements to purchase during the year 1933-34 was 35,914 acres, comprising Eyre's Peninsula Railway Lands 19,633 acres, Murray Railway Lands 49 acres, Pinnaroo Railway Lands 5,280 acres, Closer Settlement Lands 383 acres, Buckleboo Railway Lands 1,004 acres, Soldier Settlement Lands 3,629 acres, and other Crown lands 5,936 acres.

6. **Western Australia.**—During the year ended the 30th June, 1934, the number of holdings for which Crown grants were issued was 1,181, covering free homestead farms 19,400 acres and conditional purchases 343,024 acres. The number of holdings conditionally alienated during the year was 583, the total area involved being 350,062 acres, comprising conditional purchases by deferred payments with residence and without residence of 320,697 and 12,364 acres respectively, conditional purchases by direct payments (without residence) 200 acres, and free homestead farms 16,801 acres. Under the heading "Deferred payments (with residence)" are included conditional purchases of grazing lands.

7. **Tasmania.**—During the year 1933, conditional purchases of 15,061 acres were completed. The total area sold conditionally was 12,224 acres, comprising selections for purchase 12,116 acres, auction sales on credit 18 acres, and town and suburban allotments 90 acres. The numbers of applications received and confirmed during the year were 436 and 207 respectively.

## § 5. Leases and Licences under Land Acts.

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

2. **New South Wales.**—On the 30th June, 1934, the area of leases and licences under the control of the Department of Lands, the Water Conservation and Irrigation Commission, and the Western Land Board, comprised 108,942,096 acres of Crown lands, compared with 108,756,359 acres at the close of the previous year.

The following table shows the areas which were granted under lease or licence during the year 1933-34, 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, 1933-34.(a)**

Particulars.	Area taken up during the year.	Area occupied at end of the year.
<i>Areas taken up under Crown Lands Act.</i>		
Outgoing pastoral leases .. .. .	..	58,252
Occupation licences—ordinary .. .. .	..	1,080,028
preferential .. .. .	..	411,668
Conditional leases .. .. .	19,351	11,571,931
Conditional purchase leases .. .. .	..	174,569
Settlement leases .. .. .	..	2,756,516
Improvement leases .. .. .	1,250	352,329
Annual leases .. .. .	55,669	672,986
Scrub leases .. .. .	..	136,443
Snow leases .. .. .	60,248	376,586
Special leases .. .. .	115,974	847,362
Inferior land leases .. .. .	..	50,431
Residential leases (on gold and mineral fields) .. .. .	196	7,936
Church and school lands .. .. .	..	11
Permissive occupancies .. .. .	226,258	1,171,849
Prickly-pear leases .. .. .	14,493	108,909
Crown leases .. .. .	154,794	6,146,054
Homestead farms .. .. .	117,861	4,324,441
Homestead selections and grants .. .. .	572	1,541,918
Suburban holdings .. .. .	2,226	53,644
Week-end leases .. .. .	13	249
Leases of town lands .. .. .	..	71
Returned soldiers' special holdings .. .. .	..	16,305
Irrigation farms and blocks .. .. .	11,390	372,393
<i>Areas taken up under Western Lands Act.</i>		
Leases .. .. .	198,874	76,299,685
Permissive occupancies .. .. .	46,201	409,620
Total .. .. .	1,025,370	108,942,096

(a) See also § 7 (2) hereinafter.

3. **Victoria.**—During 1933 the area of Crown lands taken up under leases and licences was 57,111 acres, comprising Mallee lands, 18,991 acres, and other lands, 38,120 acres. The area of Crown lands occupied under leases and licences in 1933 was 5,595,754 acres (an increase of 405,781 acres compared with the previous year), comprising grazing licences (exclusive of Mallee) 3,515,671 acres, Mallee lands 1,959,432 acres, auriferous lands (licences) 31,200 acres, swamp lands (leases) 2,053 acres, perpetual leases (other than Mallee) 4,977 acres, and perpetual leases (Mallee) under Land Act 1928, 82,421 acres.

4. **Queensland.**—The total area taken up under lease or licence during the year 1933 was 20,410,801 acres, made up as follows:—Pastoral leases 14,489,160 acres; occupation licences 535,120 acres; grazing farms (all classes), 2,451,308 acres; grazing homesteads (all classes), 1,975,031 acres; perpetual lease selections 122,321 acres; perpetual lease prickly-pear selections 34,960 acres; agricultural farms 2,503 acres; agricultural homesteads 183 acres; prickly-pear selections 2,708 acres; perpetual lease prickly-pear development selections 692,990 acres; auction perpetual leases—town 92 acres, suburban 64 acres, and country 2,852 acres; special leases 36,406 acres; leases of reserves 59,103 acres, and prickly-pear leases 6,000 acres.

The gross area held at the end of the year 1933 under pastoral tenure was 374,149 square miles.

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

5. **South Australia.**—The total area leased during 1933–34 under the different forms of lease tenure was 3,490,439 acres, made up as follows:—Perpetual leases—irrigation and reclaimed lands 844 acres, non-irrigable land in irrigation areas 7,990 acres, and other Crown lands 110,446 acres; pastoral leases 2,998,400 acres; and miscellaneous leases—grazing and cultivation 363,022 acres, and forest lands 9,737 acres.

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

6. **Western Australia.**—The number of leases issued by the Lands Department during the year ended 30th June, 1934, was 624, and the total area of leases issued 7,544,059 acres, comprising pastoral leases 7,530,930 acres, special leases 1,128 acres, and leases of reserves 12,001 acres.

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

7. **Tasmania.**—The area of pastoral leases during the year 1933 was 151,717 acres.

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

8. **Northern Territory.**—The total area held under lease, licence and permit at the 30th June, 1934, was 219,131 square miles, comprising pastoral leases 194,263 square miles, pastoral permits 1,429 square miles, grazing licences 22,913 square miles, agricultural leases 128 square miles and miscellaneous leases, including water leases, 398 square miles.

9. **Federal Capital Territory.**—At the 30th June, 1934, the area of acquired lands was 213,830 acres; of lands alienated, 73,080 acres; of lands in process of alienation, 34,098 acres; of leases, 312,881 acres; and unoccupied (including Cotter River catchment area, roads, reserves, etc.), 163,601 acres. These figures are exclusive of 17,920 acres in the Jervis Bay area.

The number of leases granted under the City Area Leases Ordinance 1924–1935 to the 30th June, 1935 (excluding leases surrendered and determined) was 303, representing a capital value of £168,860.

Seven leases for church purposes have been granted under the Church Lands Leases Ordinance 1924–1932, which requires the lessees to submit a definite building programme within a specified period.

Nine leases have been granted to date under the Leases (Special Purposes) Ordinance 1925–1932 for church and scholastic purposes.

## § 6. 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 Year Books (see No. 22, pp. 163–9).

2. **New South Wales.**—Up to the 30th June, 1934, 1,845 estates, including 953 single farm propositions acquired for discharged soldiers or sailors, had been acquired for closer settlement.

The number of farms allotted under the Promotion Sections of the Closer Settlement Acts to date is 3,960, the area 1,823,333 acres, and the amount advanced by the Crown £8,480,135.

The following statement gives particulars of the aggregate areas made available to the 30th June, 1934 :—

**CLOSER SETTLEMENT AREAS (a).—NEW SOUTH WALES.**

To 30th June—	Areas made available.			Values.		
	Acquired Lands.	Adjoining Crown Lands.	Total.	Cost of Acquired Lands.	Value of Adjoining Crown Lands.	Total.
	Acres.	Acres.	Acres.	£	£	£
1934.. ..	4,028,694	205,173	4,233,867	14,568,595	353,370	14,921,965

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

The total area is now embraced in 9,188 holdings, comprising 4,123,882 acres, the remaining area being reserved for public purposes (roads, stock routes, schools, etc.).

The following table gives particulars regarding the disposal of the farms by closer settlement purchase at the 30th June, 1934 :—

**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.	£	
1934 .. ..	8,863	4,115,204	14,413,437	£ 8,766,083

3. **Victoria.**—The following statement shows the operations under the provisions of the Closer Settlement Acts to the 30th June, 1934 :—

**CLOSER SETTLEMENT.—VICTORIA.**

(INCLUDING IRRIGATED AREAS.)

To 30th June—	Total Area Acquired by Government.	Total Cost.	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. (a)	Roads and Reserves.				
	Acres.	£	Acres.	Acres.	Acres.	Acres.	Acres.	No.	£	£	Acres.
1934	1,360,106	9,633,101	1,178,789	796	3,498	54,837	8,712	8,537	11,047,557	4,155,289	30,630

(a) Includes all land sold other than under Conditional Purchase Lease.

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

5. **South Australia.**—The following table shows the area of land acquired for the purposes of closer settlement, and the manner in which it had been dealt with to the 30th June, 1934 :—

**CLOSER SETTLEMENT.—SOUTH AUSTRALIA.**

To 30th June—	Area of Lands Repurchased.	Agreements with Covenants to Purchase.	Total Area Leased as Homestead Blocks.		Perpetual Leases.	Miscellaneous Leases.	Sold.	Remainder Un-occupied (including Roads and Land in Irrigation Areas).
			Right of Purchase.	Perpetual Lease.				
1934 ..	Acres. 786,625	Acres. 493,737	Acres. 301	Acres. 1,294	Acres. 32,799	Acres. 56	Acres. 215,419	Acres. 43,019

The total area repurchased at 30th June, 1934, was 786,625 acres. The purchase money was £2,532,440. Of the total area, 743,606 acres have been allotted to 2,721 persons, the average area to each being 273 acres.

6. **Western Australia.**—The total area acquired for closer settlement up to the 30th June, 1934, was 907,823 acres, costing £1,180,443. Of this area, 26,580 acres have been set aside for roads, reserves, etc., leaving a balance of 881,243 acres available for selection. Particulars of operations under the Act for the year ending 30th June, 1934, are as follow :—Area selected during the year 6,829 acres ; number of farms, etc., allotted to date 1,479 ; total area occupied to date 758,542 acres ; balance available for selection 122,701 acres ; and total revenue £817,503.

7. **Tasmania.**—Up to the 30th June, 1934, 36 areas had been opened up for closer settlement. The total purchase money paid by the Government was £366,099, and the total area acquired amounted to 101,231 acres, including 10,000 acres of Crown lands.

The number of farms allotted was 310.

8. **Summary.**—The following table gives particulars of operations under the Closer Settlement Acts at the 30th June, 1934 :—

**CLOSER SETTLEMENT.—TOTAL AREAS ACQUIRED AND ALLOTTED AT 30th JUNE, 1934.**

Particulars.	N.S.W.	Victoria.	Q'land. (d)	S. Aust.	W. Aust.	Tas.	Total.
Area acquired (a) acres	4,233,867	1,360,106	970,778	786,625	907,823	101,231	8,360,430
Purchase price (b) £	14,568,595	9,576,966	2,292,881	2,532,440	1,180,443	366,099	30,517,424
Farms, etc., { No.	8,863	(c) 8,537	3,048	2,726	1,479	310	24,963
alotted { acres	4,115,204	1,320,764	915,690	743,606	758,542	101,231	7,955,037

(a) Includes Crown lands—New South Wales, 205,173 acres ; Victoria, 113,559 acres ; Tasmania, 10,000 acres. (b) Private lands only. In Victoria, the purchase money includes £3,507,114 for land taken over from Discharged Soldiers' Settlement. (c) Includes 710 allotments of a total area of 82,844 acres granted to discharged soldiers under the Discharged Soldiers' Settlement Acts. (d) As at 31st December, 1934.

**§ 7. 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 1933-34 :—

**AREAS TAKEN UP UNDER MINING ACTS.—NEW SOUTH WALES, 1933-34.**

Purposes for which Issued or Occupied.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining .. .. .	5,390	10,400
Mining for other minerals .. .. .	4,823	163,638
Authorities to prospect .. .. .	29,000	56,832
Other purposes .. .. .	880	24,048
<b>Total .. .. .</b>	<b>40,093</b>	<b>254,918</b>

3. **Victoria.**—During the year 1934, 537 leases, licences, etc., were issued covering an area of 57,483 acres, the rent, fees, etc., for which amounted to £4,120. The area occupied at the end of the year was 127,732 acres.

4. **Queensland.**—During the year 1934, the number of miners' rights issued was 7,583, and of business licences 13. The following table gives particulars regarding the areas of lands taken up under lease or licence, and the total areas occupied for the year 1934. In addition, an area estimated at 30,000 acres was at the end of 1934 held under miners' rights and dredging claims.

**AREAS TAKEN UP UNDER MINING ACTS.—QUEENSLAND, 1934.**

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining .. .. .	4,303	9,364
Mining for other minerals .. .. .	2,452	23,780
Miners' homestead leases .. .. .	5,844	342,077
Petroleum-prospecting permits .. .. .	105,060	218,436
<b>Total .. .. .</b>	<b>117,659</b>	<b>593,657</b>

5. **South Australia.**—The following table gives particulars of operations for the year 1934 :—

**AREAS TAKEN UP UNDER MINING ACTS.—SOUTH AUSTRALIA, 1934.**

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining leases .. .. .	1,248	2,811
Mineral and miscellaneous .. .. .	12,798	45,803
Claims .. .. .	9,252	8,456
Search licences and permits .. .. .	12,800	34,560
Occupation licences .. .. .	2	50
<b>Total .. .. .</b>	<b>36,100</b>	<b>91,680</b>

6. **Western Australia.**—The following table gives particulars of operations for the year 1934, the figures being exclusive of holdings under miners' rights and mineral oil licences. Of the areas shown as taken up in 1934, the area under lease was 18,602 acres for gold-mining, 1,340 for mining for other minerals, 962 for miners' homesteads, and 1,292 for miscellaneous—a total of 22,196 acres. The balance was taken up under licences.

**AREAS TAKEN UP UNDER MINING ACTS.—WESTERN AUSTRALIA, 1934.**

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining .. .. .	94,425	84,746
Mining for other minerals .. .. .	4,106	47,359
Other purposes .. .. .	3,514	36,279
<b>Total .. .. .</b>	<b>102,045</b>	<b>168,384</b>

7. **Tasmania.**—During the year 1934, the number of leases issued was 272, of which 45 were for gold-mining, covering 839 acres; and 126 for tin, covering 2,747 acres. The following table gives particulars for the year 1934 :—

**AREAS TAKEN UP UNDER MINING ACTS.—TASMANIA, 1934.**

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining .. .. .	1,428	3,604
Mining for other minerals .. .. .	3,149	26,862
Licences to search for coal or oil .. .. .	3,200	3,670
Other purposes .. .. .	371	2,511
<b>Total .. .. .</b>	<b>8,148</b>	<b>36,647</b>

8. **Northern Territory.**—At the 30th June, 1934, there existed 23 mineral leases comprising 396 acres, and 18 gold-mining leases comprising 720 acres. There were also 339 protected gold-mining lease applications for 11,042 acres, 72 protected mineral lease applications for 3,000 acres, and 1 protected dredging lease application for 100 acres. In addition, 48 exclusive prospecting licences covering 137 square miles, and 9 mineral oil and coal licences covering 9,000 square miles were issued.

9. **Summary.**—The following table shows the areas under leases and licences for mining purposes and the total areas occupied for the years 1923, 1928, 1933 and 1934 :—

**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)
<b>AREAS FOR WHICH LEASES AND LICENCES ISSUED DURING YEAR.</b>							
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1923 ..	40,143	9,207	67,754	610,377	37,567	47,535	812,583
1928 ..	25,372	8,302	1,793,028e	196,521	47,975	23,910	2,095,108
1933 ..	38,885	33,960	111,117	72,897	66,800	4,811	328,470
1934 ..	40,093	57,483	117,659	36,100	102,045	8,148	361,528
<b>TOTAL AREAS OCCUPIED AT END OF YEAR.</b>							
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1923 ..	307,336	47,361	444,586	653,899	127,829	77,627	1,658,638
1928 ..	293,265	39,904	2,810,262	242,688	132,536	54,362	3,573,017
1933 ..	290,928	113,870	520,346	116,608	122,780	31,397	1,195,929
1934 ..	254,918	127,732	593,657	91,680	168,384	36,647	1,273,018

(a) Year 30th June. (b) Exclusive of lands held under miners' rights only. (c) Exclusive of holdings under miners' rights and mineral oil licences. (d) Exclusive of Northern Territory. (e) Mainly Petroleum-prospecting permits.

## § 8. Settlement of Returned Soldiers and Sailors.

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

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

2. **New South Wales.**—At the 30th June, 1934, the area set apart exclusively for soldiers was 9,754,969 acres, of which 1,710,272 acres comprised acquired land purchased at a cost of £8,113,956. The number of settlers to whom farms, etc., had been allotted up to the 30th June, 1934, was 9,598. Farms, etc., occupied at that date numbered 5,544 with an area of 7,900,031 acres, of which 6,276,655 acres were Crown lands (including 3,912,637 acres in the Western Division taken up under the Western Lands Act), 1,521,296 acres acquired lands, and 102,080 acres within Irrigation Areas.

3. **Victoria.**—At the 30th June, 1934, the area acquired or set apart for soldier settlement was 2,514,446 acres, of which 1,763,240 acres comprised private land purchased at a cost of £13,361,241. Up to the 30th June, 1934, the number of settlers to whom farms, etc., had been allotted was 11,639, and the number of farms, etc., allotted was 9,712 (including 747 farms originally purchased for Closer Settlement purposes) containing 2,425,921 acres. In addition, 963 share-farmers and holders of leasing agreements and private land had received assistance. The number of farms, etc., occupied at the 30th June, 1934, was 9,204 (including 651 originally purchased for Closer Settlement) containing 2,315,853 acres.

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

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

5. **South Australia.**—At the 30th June, 1934, the area of land acquired or set apart for soldier settlement was 1,336,612 acres, of which 1,202,653 acres comprised private land purchased at a cost of £3,863,572. These figures are exclusive of mortgages discharged, £494,770 on 360,403 acres representing 300 farms, etc., and 314 settlers. The number of soldiers to whom assistance had been granted under the Discharged Soldiers' Settlement Acts up to the 30th June, 1934, was 4,180, and the area of farms, etc. (including mortgages discharged), on which assistance had been granted was 2,746,744 acres. At the 30th June, 1934, farms, etc., occupied numbered 2,153 containing 1,757,424 acres.

6. **Western Australia.**—At the 30th June, 1934, the area of land acquired or set apart for soldier settlement was 14,287,643 acres, of which 345,110 acres comprised private land purchased at a cost of £605,076. Up to the 30th June, 1934, assistance had been given to 5,213 returned soldiers, and the Agricultural Bank held 3,531 properties as security for advances. The area held, including pastoral leases, was approximately 25,830,000 acres, and advances approved amounted to £6,639,185. The number of farms, etc., occupied by returned soldiers at the 30th June, 1934, was 2,325.

7. **Tasmania.**—At the 30th June, 1934, the area acquired or set apart for soldier settlement was 339,592 acres, of which 270,227 acres comprised private land purchased at a cost of £2,017,043. Up to the 30th June, 1934, the number of settlers to whom farms, etc., had been allotted was 2,378, and the number of farms, etc., allotted 2,200 containing 339,592 acres. The number of farms, etc., occupied at the 30th June, 1934, was 2,047 containing 322,141 acres.

8. **Summary.**—The following table gives a summary of the area acquired, the purchase price thereof, the number of settlers assisted, and the number and area of farms occupied in all the States to the 30th June, 1934 :—

**SOLDIER SETTLEMENT.—AREAS ACQUIRED, SETTLERS ASSISTED AND FARMS OCCUPIED—30th JUNE, 1934.**

Particulars.	New South Wales.	Victoria.	Queensland.(a)	Sth. Australia.	Western Australia.	Tasmania.	Total.
Area acquired or set apart—							
(i) Private land acquired acres	1,710,272	1,763,240	41,101	1,202,653	345,110	270,227	5,332,603
(ii) Crown lands set apart acres	8,044,697	751,206	536,532	133,959	13,942,533	69,365	23,478,292
Total land acquired or set apart acres	9,754,969	2,514,446	577,633	1,336,612	14,287,643	339,592	28,810,895
Price paid by Government for private land acquired £	8,113,956	13,361,241	270,480	3,863,572	605,076	2,017,043	28,231,368
Number of settlers to whom farms, etc., had been allotted up to the 30th June, 1934	9,598	(c) 11,639	(d)	(e) 4,180	5,213	2,378	(d)
Farms, etc., occupied at the 30th June, 1934	5,544	(f) 9,204	1,148	2,153	2,325	2,047	22,421
No. of acres	7,900,031	2,315,853	440,992	1,757,424	(d)	322,141	(d)

(a) At 30th June, 1929; later information not available. (b) Excludes mortgages discharged, £494,770 on 360,403 acres representing 300 farms, etc., and 314 settlers. (c) In addition 963 share farmers and holders of leasing agreements and private land have received assistance. (d) Not available. (e) Number of soldiers to whom assistance had been granted under the Discharged Soldiers' Settlement Acts. (f) Includes 651 farms originally purchased for Closer Settlement purposes.



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

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

(ii) *Report by Mr. Justice Pike.* In addition to this expected loss of interest other losses have occurred in connexion with soldier settlement, and in 1927 Mr. Justice Pike, of the Land Valuation Court of New South Wales, was commissioned to report, not only on the losses, but on the principles on which financial responsibility should be divided. His report in 1929, to which reference should be made for fuller information, found that in all the negotiations concerning soldier settlement on the land the States insisted on undivided control, and that financial responsibility went along with control except so far as the Commonwealth definitely promised to give assistance. The undertaking of the Commonwealth to share equally with the States the cost of lower interest rates to soldier settlers was made the basis of a practical compromise, and the report recommended that the total loss should be shared equally between the two parties.

The following table from Mr. Justice Pike's report shows the losses as found by him, the amount contributed at that date by the Commonwealth, and the further amount to be written off by the Commonwealth:—

#### LOSSES ON SOLDIER SETTLEMENT.

State.	Gross losses as found by Mr. Justice Pike.	Commonwealth half share thereof.	Amount already contributed by Commonwealth.	Further amount to be written off by Commonwealth.
	£	£	£	£
New South Wales ..	7,003,950	3,501,975	2,612,215	889,760
Victoria ..	7,721,891	3,860,945	3,331,193	529,752
Queensland ..	1,853,315	926,657	817,272	109,385
South Australia ..	3,565,829	1,782,914	977,927	804,987
Western Australia ..	2,059,368	1,029,684	1,477,688	Nil
Tasmania ..	1,321,169	660,585	546,688	113,897
<b>Total ..</b>	<b>23,525,522</b>	<b>11,762,760</b>	<b>9,762,983</b>	<b>2,447,781</b>

The report refers to a further small loss in certain States consequent upon providing home maintenance areas. The Commonwealth's share of this loss was subsequently fixed at £150,000.

According to the report the chief loss was in interest on capital cost, which amounted to more than half the total loss. Loss of advances came next, due to inflated values of improvements and stock when settlement was taking place. The loss due to administration expenses was defined as the excess costs above ordinary closer settlement costs, and this excess was found to be about £3,000,000, or 12½ per cent. of the total loss.

10. **Advances by Commonwealth to States.**—The following table shows the total advances to the States, repayments made to the Commonwealth, remissions of advances made by the Commonwealth and the loans outstanding at the 30th June, 1934. The remissions agreed upon and ratified by the Commonwealth and State Governments include an amount of £5,000,000 made by the Commonwealth in 1925, and the Commonwealth's share of losses, other than for interest, as recommended by Mr. Justice Pike (including the £150,000 for home maintenance areas).

**ADVANCES TO STATES FOR SOLDIER SETTLEMENT, AT 30th JUNE, 1934.**

State.	Total Advances.	Repayments by States.	Remissions by Commonwealth.	Loans Outstanding.
	£	£	£	£
New South Wales ..	9,826,203	20,219	2,274,722	7,531,262
Victoria ..	11,968,176	174,101	2,160,960	9,633,115
Queensland ..	2,717,697	17,114	612,233	2,088,350
South Australia ..	2,857,780	24,775	1,371,988	1,461,017
Western Australia ..	5,463,782	32,580	796,000	4,635,202
Tasmania ..	2,168,303	38,740	381,880	1,747,683
<b>Total ..</b>	<b>35,001,941</b>	<b>307,529</b>	<b>7,597,783</b>	<b>27,096,629</b>

**§ 9. Tenure of Land by Aliens.**

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

**§ 10. Advances to Settlers.**

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

2. **New South Wales.**—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1934 :—

**ADVANCES TO SETTLERS.—NEW SOUTH WALES.**

Particulars.	Advances made during 1933-34.	Total Advances at 30th June, 1934.	Amount outstanding at 30th June, 1934.	
			Number of Persons.	£
	£	£		
Rural Bank Advances .. ..	485,750	27,778,615	17,470	13,393,549
Soldier Settlement Advances ..	7,319	45,679,534	4,599	2,394,362
Advances for Purchase of Wire Netting	82,515	1,286,710	4,958	495,543
Advances to Necessitous Farmers ..	118,370	5,591,789	4,216	1,260,664
Advances to Civilian Settlers on Irrigation Areas .. ..	5,852	368,816	277	236,634
Shallow Boring Advances .. ..	21,391	673,214	1,338	249,277
Unemployment Relief Loans ..	336,728	688,280	3,755	678,917
<b>Total .. ..</b>	<b>1,057,925</b>	<b>42,066,958</b>	<b>36,613</b>	<b>18,708,946</b>

(a) In addition, the sum of £3,496,474 has been expended on developmental works on soldiers' settlements.

3. Victoria.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1934 :—

ADVANCES TO SETTLERS.—VICTORIA.

Authority Making Advances.	Advances made to —	Advances made during 1933-34.	Total Advances at 30th June, 1934.	Amount outstanding at 30th June, 1934.	
				Number of Persons.	£
		£	£		
Credit Foncier	Civilians .. .. .	38,911	10,206,374	5,031	4,584,960
Closer Settlement Commission	Discharged soldiers .. .. .	1,352	835,774	503	511,432
	Closer Settlement settlers .. .. .	484,980	20,923,140	6,942	212,254,406
	Soldier settlers .. .. .	183,066	27,060,466	6,059	17,358,296
Treasurer .. .. .	Cultivators of land .. .. .	146,047	1,224,087	1,135	511,255
	Cool stores, canneries, etc. .. .. .	..	615,182	(b) 21	346,755
<b>Total</b> .. .. .	.. .. .	854,356	60,865,023	19,691	35,567,108

(a) Represents Consolidated Debts of settlers (Section 30, Act 4091). (b) Companies and Co-operative Societies.

4. Queensland.—The following table gives particulars of advances, etc., under State Authorities to 30th June, 1934 :—

ADVANCES TO SETTLERS.—QUEENSLAND.

Act under which Advances were made.	Advances made during 1933-34.	Total Advances at 30th June, 1934.	Amount outstanding at 30th June, 1934.	
			Number of Persons.	£
	£	£		
Agricultural Bank Acts .. .. .	200,570	6,794,861	6,018	1,888,055
Discharged Soldiers' Settlement Act (a) .. .. .	6,385	2,430,677	2,112	836,242
Water Facilities .. .. .	4,936	(d) 91,713	367	76,305
Wire Netting, Marsupial Proof Fencing, etc. .. .. .	28,979	822,315	3,760	453,580
Seed Wheat .. .. .	10,235	(b) 76,405	(c)	13,039
Drought Relief .. .. .	..	67,381	1,469	44,322
<b>Total</b> .. .. .	251,105	10,283,352	13,726	3,311,543

(a) Includes advances to group settlements through the Lands Department, as well as advances through the Agricultural Bank. (b) Includes accrued interest. (c) Not available. (d) Net amount.

5. South Australia.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1934 :—

ADVANCES TO SETTLERS.—SOUTH AUSTRALIA.

Particulars.	Advances made during 1933-34.	Total Advances at 30th June, 1934.	Amount outstanding at 30th June, 1934.	
			Number of Persons.	£
Department of Lands—	£	£		
Advances to soldier settlers ..	51,434	5,187,599	1,405	3,616,342
Advances to blockholders ..	..	41,451	8	50
Advances for sheds and tanks ..	..	75,693	348	57,753
Advances in drought-affected areas	298	2,043,808	3,708	1,148,767
Advances under Farmers Relief Acts (b) ..	485,664	1,670,924	3,175	621,258
Advances under Closer Settlement Acts ..	4,042	2,396,567	1,411	1,459,027
Advances under Agricultural Graduates Settlement Act ..	..	22,563	11	22,074
Irrigation Branch—				
Advances to Civilians ..	1,425	259,656	410	125,865
Advances to Soldier Settlers ..	2,542	11,087,985	750	989,789
State Bank of South Australia (C. F. Department) ..	36,188	4,769,919	2,248	1,187,839
Advances to settlers for improvements ..	15,431	850,734	1,466	377,150
Advances under Vermin and Fencing Acts ..	11,914	1,318,695	6,885	477,267
Advances under Loans to Producers Act ..	31,665	295,765	284	250,467
Total ..	640,603	20,021,359	22,109	10,333,648

(a) Since June, 1927, a considerable sum has been written off advances to soldier settlers under Section 8 of the Discharged Soldiers' Settlement Relief Act 1925. (b) Previously shown under Advances in drought-affected areas.

6. Western Australia.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1934 :—

ADVANCES TO SETTLERS.—WESTERN AUSTRALIA.

Particulars.	Advances made during year 1933-34.	Total Advances at 30th June, 1934.	Amount outstanding at 30th June, 1934 (inclusive of interest).	
			Number of Persons.	£
	£	£		
Development loans ..	87,913	9,234,030	8,340	6,621,254
Soldier settlement loans ..	1,199	5,991,215	3,531	5,130,847
Advances to rural industries ..	..	31,017	7	42,560
Cropping advances ..	19,891	13,069,434	1,393	1,904,924
Group Settlement advances ..	85,270	2,274,635	1,711	2,713,314
Total ..	194,273	30,600,331	14,982	16,412,905

7. Tasmania.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1934 :—

ADVANCES TO SETTLERS.—TASMANIA.

Authority making Advances.	Particulars.	Advances made during 1933-34.	Total Advances to 30th June, 1934.	Amount outstanding at 30th June, 1934.	
				Number of Persons.	£
		£	£		
Agricultural Bank	State Advances Act and Rural Credits Orchardists' Relief, 1926 .. ..	26,576	521,611	1,008	327,242
"	" Unemployed (Assistance to Primary Producers) Relief Act, 1930-1931	..	46,832	148	7,878
"	" Bush Fire Relief, 1934 .. ..	19,765	84,205	886	72,395
Minister for Agriculture	" Soldier Settlers ..	14,879	14,879	543	14,879
"	" Closer Settlers ..	10,991	721,464	1,272	(a) 181,813
"	"	1,247	36,540	138	17,096
Total ..	.. ..	73,458	1,425,531	3,995	621,303

(a) Exclusive of £46,203 advances capitalized and £61,476 advances written off to bad debts.

8. Northern Territory.—During the financial year 1933-34 the amount of £4 was advanced, the total amount advanced to 30th June, 1934, being £22,772 (approximately). The balance outstanding from 75 settlers, at 30th June, 1934, including interest, was £12,969.

9. Summary of Advances.—The following table gives a summary for each State and the Northern Territory to the 30th June, 1934 :—

ADVANCES TO SETTLERS.—AUSTRALIA.

State.	Advances made during 1933-34.	Total Advances made to 30th June, 1934.	Amount outstanding at 30th June, 1934.	
			Number of Persons.	£ (a)
	£	£		
New South Wales .. ..	1,057,925	42,066,958	36,613	18,708,946
Victoria .. ..	854,356	60,865,023	19,691	35,567,108
Queensland .. ..	251,105	10,283,352	13,726	3,311,543
South Australia .. ..	640,603	20,021,359	22,109	10,333,648
Western Australia .. ..	194,273	30,600,331	14,982	16,412,905
Tasmania .. ..	73,458	1,425,531	3,995	621,303
Northern Territory .. ..	4	22,772	75	12,969
Total .. ..	3,071,724	165,285,326	111,191	84,968,422

(a) Amounts shown for Victoria, South Australia and Western Australia include balance of payments on long-term land purchases.

### § 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 Federal Capital Territory during the latest year for which information is available. Particulars for each year from 1923 onward will be found in Commonwealth Production Bulletin, No. 28, 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, 22.8 per cent. had been alienated at the 30th June, 1934, 11.6 per cent. was in process of alienation, 55.1 per cent. was held under leases and licences, and the remaining 10.5 per cent. was unoccupied.

The following table gives particulars for the year ended 30th June, 1934 :—

#### ALIENATION AND OCCUPATION OF CROWN LANDS.—NEW SOUTH WALES, 1933-34.(a)

Particulars.	Acres.	Particulars.	Acres.
		<i>2. In Process of Alienation.</i>	
<i>1. Alienated.</i>		Conditional purchases .. ..	19,704,897
Granted and sold prior to 1862 ..	7,146,579	Closer settlement purchases .. ..	2,786,153
Sold by auction and other sales, 1862 to date .. ..	15,031,239	Soldiers' group purchases .. ..	418,951
Conditionally sold, 1862 to date ..	25,111,508	Other forms of sale .. ..	25,237
Granted under Volunteer Land Regulations, 1867 to date .. ..	172,198	Total .. ..	22,935,238
Granted for public and religious purposes .. ..	260,253	<i>3. Held under Leases and Licences.</i>	
		Total under Lands Department, Water Conservation and Irriga- tion Commissioner, and Western Lands Commissioners ..	108,942,096
		Mineral and auriferous leases and licences (Mines Department) ..	254,918
		Total .. ..	109,197,014
Less lands resumed or reverted to Crown .. ..	47,721,777	<i>4. Unoccupied (b) (approximate)</i>	
	2,585,449		20,764,700
<b>Total .. ..</b>	<b>45,136,328</b>		

Area of State—198,036,500 acres.

(a) Exclusive of Lord Howe Island, 3,220 acres.

(b) Of this area only 4,731,114 acres are available for selection, the balance being comprised within reservations for various public purposes, roads, and river and lake surfaces.

3. **Victoria.**—The total area of the State of Victoria is 56,245,760 acres, of which 47.1 per cent. had been alienated up to the end of the year 1933; 12.3 per cent. was in process of alienation under deferred payments and closer settlement schemes; 10.2 per cent. was occupied under leases and licences; while 30.4 per cent. was unoccupied.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—VICTORIA, 1933.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> .. .. .	26,515,976	3. <i>Leases and Licences held—</i>	
2. <i>In Process of Alienation—</i>		Under Lands Department—	
Exclusive of Mallee and Closer		Perpetual Leases ..	87,398
Settlement Lands ..	1,633,551	Other Leases and Licences	41,273
Mallee Lands (exclusive of		Temporary (Yearly) Graz-	
Closer Settlement Lands) ..	4,624,418	ing Licences .. ..	5,475,103
Closer Settlement Lands ..	668,362	Under Mines Department ..	114,000
Village Settlements .. ..	29	Total .. .. .	5,717,774
Total .. .. .	6,926,360	4. <i>Occupied by the Crown or</i>	
		<i>Unoccupied (a)</i> .. .. .	17,085,650

Total area of State—56,245,760 acres.

(a) These Crown lands comprise the following acreage :—Permanent forests (under Forests Acts) 3,956,931; timber reserves (under Forests Acts) 735,889; State forests and timber reserves (under Land Act) 330,135; water reserves 310,197; reserves for agricultural colleges, experimental farms, etc., 88,650; reserves in the Mallee 410,000; roads 1,794,218; other reserves 379,580; water frontages, beds of rivers, lakes, etc., unsold land in cities, towns and boroughs 3,609,145; and other lands (unoccupied) 5,470,905.

4. *Queensland.*—The total area of this State is 429,120,000 acres, of which, on the 31st December, 1933, 4.5 per cent. was alienated; 2.0 per cent. was in process of alienation; and 75.6 per cent. was occupied under leases and licences. The remainder 17.9 per cent. was either unoccupied or held as reserves or for roads.

The distribution is shown in the following table :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—QUEENSLAND, 1933.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated—</i>		3. <i>Occupied under Leases and</i>	
By Purchase .. .. .	19,188,774	<i>Licences—</i>	
Without Payment .. .. .	90,618	Pastoral Leases .. .. .	225,496,200
Total .. .. .	19,279,392	Occupation Licences .. .. .	10,945,200
		Grazing Selections and Settle-	
		ment Farm Leases .. .. .	79,091,381
		Leases—Special Purposes .. .. .	844,841
		Under Mines Department .. .. .	375,278
		Perpetual Lease Selections	4,798,321
		Auction Perpetual Leases .. .. .	17,486
		Prickly-pear Leases .. .. .	3,013,760
		Total .. .. .	324,582,467
2. <i>In Process of Alienation</i> .. .. .	8,688,589	4. <i>Reserves, Surveyed Roads and</i>	
		<i>Surveyed Stock Routes (a)</i> .. .. .	21,046,588
		5. <i>Unoccupied</i> .. .. .	55,522,964

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

(a) Includes reserves of a total area of 18,174,366 acres, comprising timber 3,476,938 acres, State forests and national parks 2,513,876 acres, aboriginal 6,203,602 acres, and general 5,979,950 acres; and streets, surveyed roads and surveyed stock routes 2,872,222 acres.

5. *South Australia.*—The area of the State of South Australia is 243,244,800 acres, and at the end of the year 1934, 5.0 per cent. was alienated; 1.7 per cent. in process of alienation; 49.7 per cent. occupied under leases and licences; and 43.6 per cent. unoccupied.

The subjoined table shows the distribution :—  
**ALIENATION AND OCCUPATION OF CROWN LANDS.—SOUTH AUSTRALIA,  
 1934.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> —		3. <i>Held under Lease and Licence</i> —	
Sold .. .. .	11,900,691	Right of Purchase Leases ..	1,543,663
Granted for Public Purposes ..	233,344	Perpetual Leases, including	
		Irrigation Leases ..	15,588,508
		Pastoral Leases ..	101,714,834
		Other Leases and Licences ..	1,900,461
		Mining Leases and Licences ..	91,680
Total .. .. .	12,134,035	Total .. .. .	120,839,146
2. <i>In Process of Alienation</i> ..	4,030,219	4. <i>Area Unoccupied (a)</i> ..	106,241,400

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

(a) Includes surveyed roads, railways, and other reserves, 16,455,429 acres (of which 14,016,000 acres comprises an aboriginal reserve in the north-west corner of the State); salt water lakes and lagoons, 7,680,000 acres; and fresh water lakes, 224,000 acres.

6. **Western Australia.**—The total area of Western Australia is 624,588,800 acres, of which, at the 30th June, 1934, 2.6 per cent. was alienated; 3.0 per cent. was in process of alienation; while 32.1 per cent. was occupied under leases and licences issued either by the Lands or the Mines Departments. The balance of 62.3 per cent. was unoccupied.

The following table shows the distribution :—  
**ALIENATION AND OCCUPATION OF CROWN LANDS.—WESTERN AUSTRALIA,  
 1933-34.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> .. .. .	16,325,689	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 ..	198,339,935
Free Homestead Farms ..	753,751	Special Leases ..	21,634
Conditional Purchases ..	5,821,506	Leases of Reserves ..	920,331
Selections from the late W. A. Company ..	5,297	Residential Lots ..	5,127
Selections under the Agricultural Lands Purchase Act ..	469,226	(ii) Issued by Mines Department—	
Special Occupation Leases and Licences ..	300	Gold-mining Leases ..	17,302
Homestead or Grazing Leases ..	11,635,914	Mineral Leases ..	45,512
Poison Land Leases or Licences ..	23,135	Miners' Homestead Leases ..	31,846
Village Allotments ..	46	(iii) Issued by Forests Department—	
		Timber Permits ..	1,207,061
Total .. .. .	18,763,975	Total .. .. .	200,587,868
		4. <i>Area Unoccupied (a)</i> ..	388,911,268

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

(a) These Crown lands comprise the following :—State forests, 2,971,712 acres; timber reserves, 1,436,980 acres; other reserves, 36,051,426 acres; and vacant Crown land, 348,451,150 acres.

7. **Tasmania.**—At the end of the year 1934, 34.6 per cent. of the total area had been alienated; 2.8 per cent. was in process of alienation; 16.1 per cent. was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement; the remainder (46.5 per cent.) was unoccupied or occupied or reserved by the Crown.



The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—TASMANIA, 1934.

Particulars.	Acres.	Particulars.	Acres.
1. Alienated .. .. .	5,803,915	3. Leases and Licences—continued.	
2. In Process of Alienation ..	468,011	(i) Issued by Lands Department—continued.	
3. Leases and Licences—		Soldier Settlement ..	110,009
(i) Issued by Lands Department—		Other Leases ..	130,500
Islands .. .. .	104,500	(ii) Issued by Mines Department	36,647
Ordinary Leased Land ..	2,003,458	Total .. .. .	2,704,066
Land Leased for Timber	238,915	4. Area Occupied by the Crown or	
Closer Settlement ..	80,037	Unoccupied .. .. .	7,802,008

Total area of State—16,778,000 acres.

8. Northern Territory.—The area of Northern Territory is 335,116,800 acres, of which, at the end of 1934, only 0.14 per cent. was alienated; 55.27 per cent. was held under leases and licences; while the remaining 44.59 per cent. was unoccupied.

The following shows the mode of occupancy of areas at the 30th June, 1934 :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—NORTHERN TERRITORY, 1934.

Particulars.	Acres.
1. Alienated .. .. .	477,867
2. Leased—	
Pastoral .. .. .	124,328,800
Other leases, licences, reserves and mission stations ..	60,895,567
Total .. .. .	185,224,367
3. Unoccupied .. .. .	149,414,566
4. Total area .. .. .	335,116,800

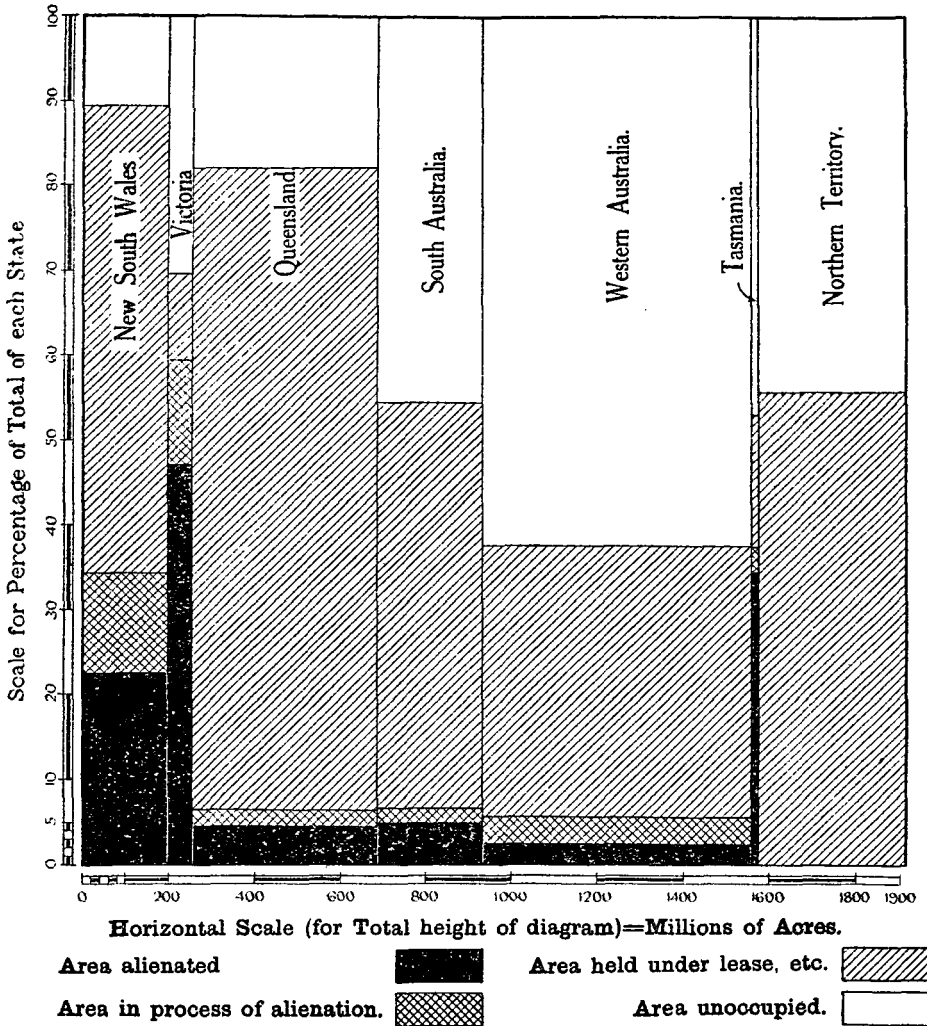
9. Federal Capital Territory.—Particulars of the alienation and occupation of Crown lands in the Territory (exclusive of Jervis Bay area) for the year 1934 are as follow :—Alienated 73,080 acres; in process of alienation 34,098 acres; leased 312,881 acres; and unoccupied 163,601 acres. The area of acquired lands was 213,830 acres. The total area of the Territory (exclusive of Jervis Bay area, 17,920 acres) is approximately 583,660 acres.

Alienated land in 1934 comprised 12.5 per cent. of the total area, land in process of alienation 5.9 per cent., land held under lease 53.6 per cent., and unoccupied land 28.0 per cent. of the total area.

10. Diagram showing Condition of Public Estate.—The following diagram shows the condition of the public estate at the end of the year 1933. The square itself represents the total area of Australia, while the relative areas of individual States are shown by the vertical rectangles. The areas alienated from the State; those in process of alienation

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

**LAND TENURE**



Horizontal Scale (for Total height of diagram)—Millions of Acres.

Area alienated  Area held under lease, etc.   
 Area in process of alienation.  Area unoccupied.

**§ 12. Classification of Alienated Holdings According to Size.**

The classification of private holdings according to their area is of interest chiefly in relation to the efforts made by the several States in recent years to promote settlement on the land on blocks of suitable size, especially by means of the Closer Settlement Acts.

CLASSIFICATION OF ALIENATED HOLDINGS ACCORDING TO SIZE. 141

The following table gives particulars of the number and areas of holdings of alienated land and land in process of alienation at the latest date for which the information has been compiled.

CLASSIFICATION OF HOLDINGS (ONE ACRE AND OVER) IN AREA SERIES, 1933-34.

Size of Holdings.	N.S.W. (d)	Victoria.	Q'land. (b)	S. Aust. (c)	W. Aust.	Tasmania.	Fed.Cap. Ter.	Total (a)
<b>NUMBER.</b>								
1 and under 50 acres	12,431	19,348	9,627	6,409	4,953	2,839	2	55,600
50 " 100 "	6,174	8,475	9,206	1,883	715	2,130	2	28,675
100 " 500 "	23,737	26,635	33,522	5,787	3,997	4,842	8	98,528
500 " 1,000 "	12,281	12,245	5,972	4,513	2,470	713	12	38,206
1,000 " 5,000 "	14,059	7,357	3,252	5,266	9,285	616	16	39,851
5,000 " 10,000 "	1,512	298	152	134	536	93	4	2,729
10,000 " 20,000 "	552	81	55	34	122	51	1	896
20,000 " 50,000 "	225	16	15	9	23	17	..	305
50,000 and over	55	..	6	..	7	4	..	72
<b>Total</b>	<b>71,026</b>	<b>74,455</b>	<b>61,897</b>	<b>24,035</b>	<b>22,108</b>	<b>11,305</b>	<b>45</b>	<b>264,871</b>

**AREA.**

	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1 and under 50 acres	255,470	374,948	225,079	118,847	60,873	64,245	66	1,099,528
50 " 100 "	439,042	610,113	602,935	144,657	51,507	151,286	160	2,089,700
100 " 500 "	5,982,107	6,499,014	7,687,339	1,662,229	929,183	995,080	2,123	23,757,075
500 " 1,000 "	8,702,171	8,680,358	4,119,953	3,339,608	1,963,422	484,550	8,874	27,298,941
1,000 " 5,000 "	28,207,833	12,524,655	5,599,131	9,401,700	18,542,088	1,287,530	29,452	75,592,389
5,000 " 10,000 "	10,219,337	2,013,454	1,051,319	929,107	3,397,890	613,434	32,124	18,256,665
10,000 " 20,000 "	7,543,238	1,105,170	724,794	459,199	1,624,872	694,975	11,002	12,163,250
20,000 " 50,000 "	6,496,667	456,843	430,372	237,112	586,559	448,620	..	8,656,173
50,000 and over	4,659,864	..	1,680,110	..	496,075	321,404	..	7,157,453
<b>Total</b>	<b>72,505,729</b>	<b>32,264,555</b>	<b>22,211,037</b>	<b>16,292,459</b>	<b>27,652,469</b>	<b>5,061,124</b>	<b>83,801</b>	<b>176,071,174</b>

(a) Information not available for the Northern Territory. (b) The figures for Queensland refer to freehold land and leased and crown lands held in conjunction with freehold which are used for general farm purposes. Holdings used solely for pastoral purposes are not included. (c) Year 1930-31. (d) Including 6,030,087 acres under perpetual lease.

## CHAPTER VI.

## TRANSPORT AND COMMUNICATION.

## A. SHIPPING.

## § 1. System of Record.

The system of recording statistics of oversea shipping treats Australia as a unit, and counts, therefore, only one entry and one clearance for each voyage, without regard to the number of States visited.

On the arrival at, or departure from, a port in Australia, whether from or for an oversea country or from another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers, and cargo. At the end of each month the information so obtained is forwarded to the Commonwealth Bureau of Census and Statistics. Similar documents furnish information regarding oversea migration and interstate migration by sea. The arrangement referred to has been in operation since the 1st July, 1924.

From the 1st July, 1914, the statistical year for the record of Trade and Shipping of Australia was altered from the calendar year to the fiscal year ending 30th June.

In all instances the tonnage quoted is net tonnage.

## § 2. Oversea Shipping.

1. **Total Movement.**—The following table gives the number and tonnage of oversea steam and sailing vessels entering Australian ports during the years 1924-25 to 1933-34 :—

## TOTAL OVERSEA SHIPPING, ENTERED.—AUSTRALIA.

Year.	Steam.		Sailing.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1924-25 .. ..	1,675	5,535,871	51	60,529	1,726	5,596,400
1925-26 .. ..	1,537	5,245,222	46	58,583	1,583	5,303,805
1926-27 .. ..	1,598	5,512,840	26	46,030	1,624	5,558,870
1927-28 .. ..	1,544	5,373,485	33	45,560	1,577	5,419,045
1928-29 .. ..	1,564	5,521,725	18	29,858	1,582	5,551,583
1929-30 .. ..	1,499	5,413,192	23	31,254	1,522	5,444,446
1930-31 .. ..	1,517	5,562,230	17	19,287	1,534	5,581,517
1931-32 .. ..	1,497	5,653,731	22	33,167	1,519	5,686,898
1932-33 .. ..	1,531	5,891,878	23	41,446	1,554	5,933,324
1933-34 .. ..	1,356	5,308,584	24	43,987	1,380	5,352,571

The average tonnage per vessel entered has risen from 3,242 tons per vessel in 1924-25 to 3,879 tons in 1933-34.

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. **Shipping Communication with various Countries.**—Records, as they are invariably made, of the number and tonnage of vessels arriving from and departing to particular countries may be misleading for the reason that the tonnage of a vessel can be recorded against one country only, notwithstanding that the same vessel on the same

voyage may carry cargo or passengers to or from Australia for 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.

OVERSEA SHIPPING, AUSTRALIA—DIRECTION.

Countries.	Cargo and Ballast.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
<b>TONNAGE ENTERED.</b>						
United Kingdom and European Countries	Cargo	2,043,137	1,632,252	1,524,673	1,549,889	1,644,837
	Ballast	19,840	248,998	503,997	946,342	485,391
New Zealand .. .. .	Cargo	457,812	400,623	426,704	448,684	469,343
	Ballast	166,948	157,029	97,781	110,559	92,913
Asiatic Countries and Islands in the Pacific .. .. .	Cargo	1,329,505	1,196,313	1,182,212	1,291,014	1,313,042
	Ballast	121,907	765,805	895,825	441,286	149,376
Africa .. .. .	Cargo	42,394	34,543	7,836	19,129	13,394
	Ballast	52,103	261,442	226,226	144,699	143,275
North and Central America	Cargo	1,194,358	861,415	802,672	966,985	1,041,000
	Ballast	8,305	12,987	..	..	..
South America .. .. .	Cargo	8,227	2,821	2,821	2,649	..
	Ballast	..	7,289	16,151	..	..
	Cargo	5,075,343	4,127,967	3,946,918	4,278,350	4,481,616
	Ballast	369,103	1,453,550	1,739,980	1,654,974	870,955
<b>Total .. .. .</b>	<b>..</b>	<b>5,444,446</b>	<b>5,581,517</b>	<b>5,686,898</b>	<b>5,933,324</b>	<b>5,352,571</b>

TONNAGE CLEARED.

United Kingdom and European Countries .. .. .	Cargo	2,247,735	2,457,125	2,673,463	2,496,405	2,495,377
	Ballast	5,537	..	5,659	11,784	8,447
New Zealand .. .. .	Cargo	544,643	469,806	385,088	460,037	512,100
	Ballast	43,584	19,121	66,739	93,613	40,816
Asiatic Countries and Islands in the Pacific .. .. .	Cargo	1,061,434	1,651,536	1,647,769	1,657,465	1,199,738
	Ballast	594,732	311,894	249,981	440,372	440,489
Africa .. .. .	Cargo	45,114	(a)169,060	42,096	33,567	22,220
	Ballast	4,205	..	56	2,627	2,627
North and Central America	Cargo	633,692	450,702	488,134	542,663	536,061
	Ballast	306,629	120,786	130,270	146,511	148,268
South America .. .. .	Cargo	12,356	18,643	19,631	23,272	5,077
	Ballast	..	..	..	..	..
	Cargo	4,544,974	5,216,872	5,256,181	5,213,409	4,770,663
	Ballast	954,707	451,801	452,705	694,907	640,647
<b>Total .. .. .</b>	<b>..</b>	<b>5,499,681</b>	<b>5,668,673</b>	<b>5,708,886</b>	<b>5,908,316</b>	<b>5,411,310</b>

(a) Includes 23 vessels of 71,801 tons cleared to Las Palmas and 13 vessels of 40,966 tons cleared to Port Said for orders, all of which were subsequently diverted to ports in the United Kingdom and Europe.

3. Nationality of Oversea Shipping.—The greater part of the shipping visiting Australia is of British nationality. The proportion of British tonnage during 1933-34 as compared with the three years immediately preceding showed some recovery which was due to the smaller amount of Japanese tonnage in consequence of the reduction in the exports of wheat. During the years 1930-31 to 1932-33 much Japanese tonnage entered Australia in ballast to load wheat.

Particulars of the nationality of oversea shipping for the last five years are given in the following table:—

**OVERSEA SHIPPING, AUSTRALIA—NATIONALITY OF VESSELS ENTERED.**

Nationality.	Tonnage.				
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
<b>BRITISH—</b>					
Australian .. ..	211,890	227,550	230,996	264,848	289,172
United Kingdom .. ..	3,244,561	3,086,586	3,138,330	3,218,273	2,788,464
Canadian .. ..	57,282	38,683	42,032	54,228	79,268
New Zealand .. ..	399,209	320,822	260,628	291,329	335,513
Other British .. ..	84,928	62,398	59,905	115,681	221,647
Cargo .. ..	3,726,326	2,924,814	2,680,856	2,831,378	3,032,040
Ballast .. ..	271,544	811,225	1,051,035	1,112,481	682,024
Total British .. ..	3,997,870	3,736,039	3,731,891	3,944,359	3,714,064
Per cent. on total .. ..	73.43	66.94	65.62	66.48	69.39
<b>FOREIGN—</b>					
Danish .. ..	72,431	44,693	46,061	107,052	75,753
Dutch .. ..	154,036	147,425	156,617	185,342	164,460
French .. ..	106,939	102,641	90,552	108,032	114,715
German .. ..	105,435	114,922	116,004	117,589	121,829
Italian .. ..	63,840	68,220	68,220	76,674	83,055
Japanese .. ..	207,910	671,742	688,712	546,088	333,109
Norwegian .. ..	307,943	339,695	395,269	394,470	335,775
Swedish .. ..	86,540	114,244	111,196	136,059	110,927
United States .. ..	267,827	186,800	205,485	245,530	247,959
Other Foreign .. ..	73,675	55,096	76,891	72,129	50,916
Cargo .. ..	1,349,017	1,203,153	1,266,062	1,446,472	1,449,576
Ballast .. ..	97,559	642,325	688,945	542,493	188,931
Total Foreign .. ..	1,446,576	1,845,478	1,955,007	1,988,965	1,638,507
Per cent. on total .. ..	26.57	33.06	34.38	33.52	30.61
Cargo .. ..	5,075,343	4,127,967	3,946,918	4,278,350	4,481,616
Per cent. on total .. ..	93.22	73.96	69.40	72.11	83.73
Ballast .. ..	369,103	1,453,550	1,739,980	1,654,974	870,955
Per cent. on total .. ..	6.78	26.04	30.60	27.89	16.27
<b>Grand Total .. ..</b>	<b>5,444,446</b>	<b>5,581,517</b>	<b>5,686,898</b>	<b>5,933,324</b>	<b>5,352,571</b>

The Australian tonnage which entered Australia from overseas during the year 1933-34 represented 5.40 per cent. of the total tonnage entered and was mainly confined to the New Zealand and Pacific Island trade.

### § 3. Shipping of Ports.

The total shipping tonnage—oversea, interstate, and coastwise—which entered the more important ports of Australia during the year 1933-34, together with similar information in regard to some of the ports of New Zealand and of Great Britain for the year 1933, will be found in the next table:—

#### SHIPPING OF PORTS, AUSTRALIA, NEW ZEALAND, AND THE UNITED KINGDOM.

Port.	Tonnage Entered.	Port.	Tonnage Entered.
<b>AUSTRALIA—</b>		<b>ENGLAND AND WALES—</b>	
Sydney (N.S.W.) ..	9,232,777	London .. ..	28,095,284
Melbourne (Vic.) ..	6,941,695	Liverpool (including	
Adelaide (S.A.) ..	4,221,988	Birkenhead) ..	16,376,057
Newcastle (N.S.W.) ..	3,944,925	Southampton ..	12,080,154
Brisbane (Qld.) ..	3,680,219	Tyne Ports .. ..	8,468,561
Fremantle (W.A.) ..	3,419,161	Plymouth .. ..	6,650,086
Townsville (Qld.) ..	1,233,983	Cardiff .. .. .	6,584,198
Hobart (Tas.) .. ..	976,383	Hull .. .. . . .	5,744,417
Geelong (Vic.) .. ..	765,645	Swansea .. .. .	3,746,611
Kembla (N.S.W.) ..	751,248	Manchester (including	
Cairns (Qld.) .. ..	685,279	Runcorn) .. ..	3,524,406
Pirie (S.A.) .. .. .	667,727	Bristol .. .. .	3,189,784
Mackay (Qld.) .. ..	403,500	Harwich .. .. .	2,806,292
Launceston (Tas.) ..	401,047	Blyth .. .. . . .	2,687,435
Burnie (Tas.) .. ..	393,979	Sunderland .. ..	2,668,088
Rockhampton (Qld.) ..	389,547	Dover .. .. . . .	2,499,604
Lincoln (S.A.) .. ..	368,931	Middlesbrough ..	2,459,679
Whyalla (S.A.) .. ..	363,601	Grimsby (including	
Devonport (Tas.) ..	346,054	Immingham) ..	2,214,823
Albany (W.A.) .. ..	315,992	Newport .. .. .	2,091,775
Bowen (Qld.) .. ..	309,534	Portsmouth .. ..	2,042,278
Thursday Island (Qld.) ..	300,842		
<b>NEW ZEALAND—</b>		<b>SCOTLAND—</b>	
Wellington .. .. .	3,570,977	Glasgow .. .. .	5,120,184
Auckland .. .. . .	2,584,263	Greenock .. .. .	3,202,913
Lyttleton .. .. . .	2,028,675	Leith .. .. . . .	2,160,285
Dunedin .. .. . . .	974,099	<b>NORTHERN IRELAND—</b>	
		Belfast .. .. . .	6,194,062

### § 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 1930 to 1934, 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. As the Shipping Registers are the source of information, it follows that the figures given below will be subject to additions in the future, inasmuch as vessels already built may be added to the register at some future date.

## VESSELS BUILT IN AUSTRALIA.

## NUMBER.

Year.	Steamers built of—					Oil Motor Vessels.	Sailing.	Pontoons, Dredges, etc.	Total.
	Wood.	Iron.	Steel.	Com- posite.	Total.				
1930 ..	..	..	..	..	..	11	2	..	13
1931 ..	..	..	..	..	..	4	..	..	4
1932 ..	..	..	..	..	..	8	2	..	10
1933 ..	..	..	..	..	..	4	2	I	7
1934 ..	..	..	..	..	..	9	1	..	10

## TONNAGE.

Year.	Steamers.		Oil Motor Vessels.		Sailing.		Pontoons, Dredges, etc.		Total.	
	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.
1930 ..	..	..	310	219	12	12	..	..	322	231
1931 ..	..	..	60	43	..	..	..	..	60	43
1932 ..	..	..	166	109	15	15	..	..	181	124
1933 ..	..	..	144	118	20	18	779	645	943	781
1934 ..	..	..	363	192	9	9	..	..	372	201

2. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing, and other vessels on the registers of the States and of the Northern Territory on the 31st December, 1934 :—

## VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1934.

States and Territory.	Steam.				Sailing.				Barges, Hulks, Dredges, etc., not Self-propelled.		Total.	
	Dredges and Tugs.		Other.		Fitted with Auxiliary Power.		Other.		No.	Net Tons.	No.	Net Tons.
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.				
New South Wales ..	47	1,178	301	64,218	264	4,736	211	6,732	48	11,782	871	88,646
Victoria ..	40	4,135	132	135,465	53	1,259	45	677	59	25,141	329	166,677
Queensland ..	16	2,429	33	4,679	56	888	93	1,351	27	4,002	225	13,349
South Australia ..	11	337	60	9,649	57	2,562	53	3,107	21	4,743	202	20,398
Western Australia ..	9	173	28	5,810	30	599	291	4,545	11	4,370	379	15,497
Tasmania ..	5	530	43	4,858	66	1,653	65	2,446	1	382	180	9,860
Northern Territory ..	..	..	..	..	3	44	15	145	..	..	18	180
Total ..	128	8,782	597	224,679	529	11,741	773	19,003	177	50,420	2,204	314,625

## § 5. Interstate Shipping.

1. **System of Record.**—*Interstate Shipping* comprises two elements, viz. :—(a) Vessels engaged solely in interstate trade; and (b) Vessels trading between Australia and oversea countries and in the course of their voyage proceeding from one State to another. (It should be mentioned that these vessels, except under special circumstances, do not now engage in interstate carrying.) No complexity enters into the record of those in category (a), but with regard to the method of recording the movements of the overseas vessels (b) some explanation is necessary. Each State desires that its



shipping statistics (which are prepared in the Commonwealth Bureau of Census and Statistics) shall show in full its shipping communication with oversea countries, but at the same time it is necessary to avoid any duplication in the statistics for Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an overseas country—say United Kingdom—*via* another State, is recorded in the second State as from United Kingdom, *via States*, thus distinguishing the movement from a *direct* oversea entry. Continuing the voyage, the vessel is in the third State again recorded for the statistics of the State concerned as from United Kingdom *via* other States. On an inward voyage the *clearance* from the first State to the second State is a *clearance* interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movements, must for the individual States be recorded as “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* the States of South Australia and Victoria. From the terminal port the vessel will commence the outward voyage, and retrace its inward track.

ITINERARY OF AN OVERSEAS VESSEL ON AUSTRALIAN COAST.

Particulars.	Recorded as—	
	For the State and for Australia.	For the States.
<b>Inward Voyage—</b>		
Enters Fremantle from United Kingdom	Oversea direct	
Clears Fremantle for Adelaide .. ..	.. ..	Interstate direct
Enters Adelaide from United Kingdom <i>via</i> Fremantle .. ..	.. ..	Interstate direct .. .. Oversea <i>via</i> States
Clears Adelaide for Melbourne .. ..	.. ..	Interstate direct .. .. Oversea <i>via</i> States
Enters Melbourne from United Kingdom <i>via</i> Adelaide .. ..	.. ..	Interstate direct .. .. Oversea <i>via</i> States
Clears Melbourne for Sydney .. ..	.. ..	Interstate direct .. .. Oversea <i>via</i> States
Enters Sydney from United Kingdom <i>via</i> Melbourne .. ..	.. ..	.. .. Oversea <i>via</i> States
<b>Outward Voyage—</b>		
Clears Sydney for United Kingdom <i>via</i> Melbourne .. ..	.. ..	.. .. Oversea <i>via</i> States
Enters Melbourne from Sydney .. ..	.. ..	Interstate direct .. .. Oversea <i>via</i> States
Clears Melbourne for United Kingdom <i>via</i> Adelaide .. ..	.. ..	Interstate direct .. .. Oversea <i>via</i> States
Enters Adelaide from Melbourne .. ..	.. ..	Interstate direct .. .. Oversea <i>via</i> States
Clears Adelaide for United Kingdom <i>via</i> Fremantle .. ..	.. ..	Interstate direct .. .. Oversea <i>via</i> States
Enters Fremantle from Adelaide .. ..	.. ..	Interstate direct .. .. Oversea <i>via</i> States
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. (c) From the example given in the table it may be noticed that for every entry “Oversea *via* States” there is a corresponding clearance “Interstate,” so that according to the purpose for which the figures are required, the movements of “oversea ships *via* States” can be added to the recorded interstate shipping, and thus furnish figures showing the total interstate *movement* of shipping, or a similar deduction may be made from the recorded interstate shipping to give the total movement of shipping engaged solely in interstate trade.

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 1929-30 to 1933-34. The shipping of the Murray River, between the States of New South Wales, Victoria and South Australia, is not included :—

**INTERSTATE SHIPPING.—NUMBER AND TONNAGE OF VESSELS ENTERED.**

States and Territory.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
<b>NUMBER.</b>					
New South Wales ..	1,588	1,564	1,483	1,656	1,679
Victoria ..	1,739	1,534	1,494	1,678	1,777
Queensland ..	490	469	483	485	508
South Australia ..	753	606	598	644	694
Western Australia ..	387	395	311	309	326
Tasmania ..	1,022	941	933	984	1,008
Northern Territory ..	26	21	19	20	23
<b>Total ..</b>	<b>6,005</b>	<b>5,440</b>	<b>5,321</b>	<b>5,776</b>	<b>6,015</b>
<b>TONNAGE.</b>					
New South Wales ..	4,079,399	3,996,976	3,947,128	4,583,979	4,664,917
Victoria ..	3,552,904	3,274,609	3,154,197	3,594,992	3,791,060
Queensland ..	1,164,183	1,061,560	1,123,578	1,184,471	1,281,334
South Australia ..	2,504,065	2,143,692	2,176,155	2,191,498	2,335,796
Western Australia ..	1,915,695	1,653,953	1,643,755	1,695,267	1,763,371
Tasmania ..	1,207,640	1,134,113	1,094,767	1,255,877	1,282,947
Northern Territory ..	64,075	62,570	51,570	53,553	56,694
<b>Total ..</b>	<b>14,487,961</b>	<b>13,327,473</b>	<b>13,191,150</b>	<b>14,559,637</b>	<b>15,176,128</b>

3. **Oversea Vessels Moving Interstate.**—(*Oversea via States.*) To ascertain the aggregate movement of shipping between the States during the year 1933-34, including the total interstate movements of oversea vessels, the figures in the following table, which give the number and tonnage of vessels entered from or cleared for oversea countries via other Australian States, must be added to those in the table preceding :—

**SHIPPING ENTERED AND CLEARED FROM AND TO OVERSEA COUNTRIES VIA OTHER AUSTRALIAN STATES, 1933-34.**

States and Territory.	Entered.		Cleared.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales ..	453	2,312,139	515	2,721,497	968	5,033,636
Victoria ..	430	2,351,721	480	2,054,911	910	5,006,632
Queensland ..	220	1,378,213	258	1,575,707	478	2,953,920
South Australia ..	282	1,633,132	264	1,595,431	546	3,228,563
Western Australia ..	23	79,806	9	35,161	32	114,967
Tasmania ..	39	182,541	109	665,798	148	848,339
Northern Territory ..	1	1,201	..	..	1	1,201
<b>Total ..</b>	<b>1,448</b>	<b>7,938,753</b>	<b>1,635</b>	<b>9,248,505</b>	<b>3,083</b>	<b>17,187,259</b>

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 voyage.

4. **Vessels engaged Solely in Interstate Trade.**—Eliminating all interstate movements of oversea vessels, the number and tonnage of vessels engaged solely in the interstate trade for Australia as a whole during the years 1929-30 to 1933-34 were as follow :—

**NUMBER AND TONNAGE OF VESSELS ENGAGED SOLELY IN INTERSTATE TRADE ENTERED AND CLEARED.—AUSTRALIA.**

Year.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
1929-30 .. .. .	4,396	6,218,634	4,373	6,091,994
1930-31 .. .. .	4,054	5,761,940	4,074	5,838,626
1931-32 .. .. .	3,958	5,512,175	3,999	5,557,763
1932-33 .. .. .	4,208	5,771,627	4,170	5,789,251
1933-34 .. .. .	4,380	5,927,623	4,379	6,095,043

5. **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 1929-30 to 1933-34 :—

**TOTAL INTERSTATE MOVEMENT OF SHIPPING.—AUSTRALIA.**

Year.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
1929-30 .. .. .	7,851	23,616,739	7,828	23,490,099
1930-31 .. .. .	6,916	20,987,466	6,936	21,065,052
1931-32 .. .. .	6,631	20,475,864	6,672	20,521,452
1932-33 .. .. .	7,226	22,397,933	7,188	22,415,557
1933-34 .. .. .	7,463	23,114,881	7,462	23,282,301

(ii) *States.* The following table shows the number and tonnage of vessels which entered and cleared each State from and for other States during 1933-34, including the coastal movements of oversea vessels :—

**INTERSTATE SHIPPING OF EACH STATE, 1933-34.**

States and Territory.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales .. .. .	2,132	6,977,056	2,140	7,018,172
Victoria .. .. .	2,207	6,142,790	2,215	6,286,254
Queensland .. .. .	728	2,659,547	746	2,761,342
South Australia .. .. .	976	3,968,928	974	3,945,122
Western Australia .. .. .	349	1,843,177	317	1,693,116
Tasmania .. .. .	1,047	1,465,488	1,050	1,529,075
Northern Territory .. .. .	24	57,895	20	49,220
<b>Total, Australia .. .. .</b>	<b>7,463</b>	<b>23,114,881</b>	<b>7,462</b>	<b>23,282,301</b>

6. *Interstate and Coastal Services.*—The subjoined table gives particulars, so far as they are available, of all steamships engaged in regular interstate or coastal services at the end of each of the years 1930 to 1934 :—

INTERSTATE AND COASTAL STEAMSHIP SERVICES.—AUSTRALIA.

Particulars.	1930.	1931.	1932.	1933.	1934.
Number of companies making returns .. ..	22	23	23	22	23
Number of steamships .. ..	173	162	154	154	155
Tonnage { Gross .. ..	349,163	319,756	306,878	309,309	302,897
Net .. ..	196,342	178,549	171,089	172,334	168,056
Horse-power (Nominal) .. ..	36,230	34,357	33,340	34,514	33,510
Number of passengers for which licensed					
1st class .. ..	7,686	7,278	7,222	7,230	7,105
2nd class and steerage .. ..	1,784	1,775	1,755	1,755	1,755
Complement of Crew { Masters and officers .. ..	563	524	498	512	505
Engineers .. ..	576	538	514	529	419
Crew .. ..	4,630	4,232	4,072	4,193	4,045

§ 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 1929–30 to 1933–34. Cargo which was stated in cubic feet has been converted to tons measurement on the basis of 40 cubic feet to the ton.

CARGO MOVEMENT.

Year.	Oversea Cargo.				Interstate Cargo.	
	Discharged.		Shipped.		Shipped.	
	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.
1929–30 ..	4,348,396	2,298,101	3,954,893	643,373	3,460,428	1,111,355
1930–31 ..	2,375,412	1,037,889	5,802,593	639,032	3,295,051	805,314
1931–32 ..	2,072,334	894,380	5,951,914	726,040	3,002,327	1,007,351
1932–33 ..	2,679,800	1,217,218	5,641,926	778,579	3,819,654	1,047,954
1933–34 ..	2,606,101	1,395,291	4,260,182	738,846	4,278,159	1,201,617

(ii) *Principal Ports.* The following table shows the tonnage of Oversea and Interstate Cargo discharged and shipped at principal ports, 1933-34 :—

**TONNAGE OF CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1933-34.**

Port.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sydney .. ..	1,365,498	865,189	2,230,687	1,059,481	619,751	1,679,232
Newcastle .. ..	89,047	771,423	860,470	242,038	1,672,330	1,914,368
Kembla .. ..	30,528	230,104	260,632	70,966	136,961	207,927
Other .. ..	..	310	310	11,941	32,489	44,430
<b>Total, New South Wales .. ..</b>	<b>1,485,073</b>	<b>1,867,026</b>	<b>3,352,099</b>	<b>1,384,426</b>	<b>2,461,531</b>	<b>3,845,957</b>
Melbourne .. ..	1,203,001	1,572,562	2,776,463	742,119	751,848	1,493,967
Geelong .. ..	119,060	150,582	269,642	186,277	41,512	227,789
Other .. ..	12,056	10,810	22,866	14,659	2,399	17,058
<b>Total, Victoria .. ..</b>	<b>1,335,017</b>	<b>1,733,954</b>	<b>3,068,971</b>	<b>943,055</b>	<b>795,759</b>	<b>1,738,814</b>
Brisbane .. ..	222,684	340,150	562,834	185,339	146,629	331,968
Cairns .. ..	6,627	38,737	45,364	104,161	102,076	206,237
Townsville .. ..	29,402	57,565	86,967	111,938	46,582	158,520
Other .. ..	11,357	43,049	54,406	166,484	77,749	244,233
<b>Total, Queensland .. ..</b>	<b>270,070</b>	<b>479,501</b>	<b>749,571</b>	<b>567,922</b>	<b>373,036</b>	<b>940,958</b>
Adelaide .. ..	331,205	560,507	891,712	384,915	267,552	652,467
Pirie .. ..	64,959	196,424	261,383	329,088	137,243	466,331
Wallaroo .. ..	25,328	489	25,817	133,624	16,321	149,945
Whyalla .. ..	..	25	25	69,590	806,628	876,218
Other .. ..	6,920	10,260	17,180	122,337	10,658	132,995
<b>Total, South Australia .. ..</b>	<b>428,412</b>	<b>767,705</b>	<b>1,196,117</b>	<b>1,039,554</b>	<b>1,238,402</b>	<b>2,277,956</b>
Fremantle .. ..	369,652	254,410	624,062	524,749	33,400	558,149
Bunbury .. ..	28,423	279	28,702	161,926	31,114	193,040
Geraldton .. ..	25,967	5,781	31,748	125,876	5	125,881
Other .. ..	3,391	6,714	10,105	66,530	10,612	77,142
<b>Total, Western Australia .. ..</b>	<b>427,433</b>	<b>267,184</b>	<b>694,617</b>	<b>879,081</b>	<b>75,131</b>	<b>954,212</b>
Hobart .. ..	49,241	249,178	298,419	148,405	175,648	324,053
Launceston .. ..	3,721	90,042	93,763	28,384	60,626	89,010
Other .. ..	1,163	68,899	70,062	8,117	229,814	306,260
<b>Total, Tasmania .. ..</b>	<b>54,125</b>	<b>408,119</b>	<b>462,244</b>	<b>184,906</b>	<b>534,417</b>	<b>719,323</b>
Darwin (Northern Territory) .. ..	1,262	9,183	10,445	84	1,500	1,584
<b>Total, AUSTRALIA .. ..</b>	<b>4,001,392</b>	<b>5,532,672</b>	<b>9,534,064</b>	<b>4,999,028</b>	<b>5,479,776</b>	<b>10,478,804</b>

(a) Includes Devonport, 197,430 tons.

2. **Nationality.**—The following table shows the total overseas cargo discharged and shipped according to the nationality of the vessels carrying during the years 1929-30 to 1933-34 :—

**OVERSEA CARGO DISCHARGED AND SHIPPED.—TONS.(a)**

Vessels Registered at Ports in -	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
<b>British—</b>					
Australia .. .. .	237,792	219,168	223,841	229,930	257,497
United Kingdom .. .. .	6,861,323	5,528,848	5,429,998	5,644,962	4,796,937
Canada .. .. .	135,154	86,775	64,169	88,733	115,125
New Zealand .. .. .	441,593	357,258	260,988	317,821	357,087
Other British .. .. .	163,949	98,492	134,739	221,606	403,757
<b>Total British .. .. .</b>	<b>7,839,811</b>	<b>6,290,541</b>	<b>6,113,735</b>	<b>6,503,052</b>	<b>5,930,403</b>
Per cent. on Total .. .. .	69.72	63.83	63.39	63.03	65.89
<b>Foreign -</b>					
Denmark .. .. .	227,779	133,777	137,378	296,265	184,626
France .. .. .	119,533	92,460	76,666	95,977	108,736
Germany .. .. .	269,783	241,868	248,983	258,915	276,821
Italy .. .. .	108,605	90,412	73,962	107,503	103,921
Japan .. .. .	436,747	1,146,557	1,161,303	1,071,568	635,142
Netherlands .. .. .	299,949	234,897	254,768	313,188	280,509
Norway .. .. .	876,701	868,346	876,991	883,810	814,447
Sweden .. .. .	355,621	360,373	313,986	418,101	325,114
United States of America .. .. .	512,923	282,383	232,182	226,033	246,858
Other Foreign .. .. .	206,311	113,312	154,714	143,111	93,843
<b>Total Foreign .. .. .</b>	<b>3,404,952</b>	<b>3,564,385</b>	<b>3,530,933</b>	<b>3,814,471</b>	<b>3,070,017</b>
Per cent. on Total .. .. .	30.28	36.17	36.61	36.97	34.11
<b>Grand Total .. .. .</b>	<b>11,244,763</b>	<b>9,854,926</b>	<b>9,644,668</b>	<b>10,317,523</b>	<b>9,000,420</b>

(a) Tons weight and tons measurement combined.

## § 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 was also included in Transport and Communication Bulletin No. 14.

3. **Shipping Freight Rates.**—The Quarterly Summary of Australian Statistics gives a list of the ruling freight rates for general merchandise both in respect of overseas and interstate shipments. The latest figures available, which give the rates current at 30th June, 1935, show that the rate for general merchandise from Australia to United Kingdom and Continent was 63s. per ton weight or measurement, while the rates for wheat and wool (greasy) were respectively 23s. 9d. per ton weight and 1½d. per lb. plus 5 per cent. less 10 per cent. The charter rate for wheat was 23s. per ton.

4. **Depth of Water at Main Ports.**—A table compiled from information supplied by the Director of Navigation showing the depth of water at the main ports of Australia at 1st January, 1935, was included in the Transport and Communication Bulletin No. 25, published by this Bureau.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a Magistrate assisted by skilled assessors, and when necessary are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping casualties reported on or near the coast during the year 1934 are shown in the Transport and Communication Bulletin No. 25. This information also was furnished by the Director of Navigation.

6. **Commonwealth Navigation and Shipping Legislation.**—(i) *General.* An account in some detail of the Commonwealth Navigation and Shipping Legislation was published in Official Year Book No. 17 (pp. 1053-5).

(ii) *Amending Acts.* Under an amendment of the Principal Act made by the Navigation Act 1926 (March, 1926) permission may be granted by the Governor-General in Council to unlicensed British ships to engage in the carriage of passengers between any Commonwealth ports where injury is being done to the tourist traffic. By Order in Council under this provision, British vessels of not less than 10,000 tons gross register and of a speed of not less than 15 knots (reduced in December, 1928, to 14 knots) were granted permission—as exempt from the coasting trade provisions of the Act—to engage in the carriage of passengers between the port of Hobart and the ports of Brisbane, Sydney, and Melbourne during certain specified periods in the tourist seasons.

The principal Act was further amended by the Navigation (Maritime Conventions) Act 1934 to implement, and to enable the Commonwealth Government to ratify, a number of International Maritime Conventions, the principal of which were the International Convention for the Safety of Life at Sea, 1929, and the International Convention Respecting Load Lines, 1930.

By the Navigation Act of 1935 Section 7 of the Principal Act was amended to permit British ships of not less than 10,000 tons gross tonnage and a sea speed of not less than 14 knots to carry passengers between ports in Australia not connected by rail without being deemed to engage in the coasting trade within the meaning of the Navigation Act, subject to the condition that such carriage of passengers is without break of journey, transhipment, or second call at any intermediate port. Section 231 of the Principal Act was also amended by the Act of 1935 to make provision for the carriage of wireless telegraphy installation by the smaller cargo steamships engaged in interstate trade.

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.**—In the following pages statistics relating to State-owned lines are, in the main, dealt with separately from those under the control of the Commonwealth Government. The railways owned by the different States are referred to throughout as "State" and those owned by the Commonwealth as "Federal" railways.

2. **Improvement of Railway Statistics.**—Earlier issues of the Year Book contain a condensation of the report issued in 1909 by the Commonwealth Statistician to the Minister for Home Affairs on the subject of *The Desirability of Improved Statistics of Government Railways in Australia* (see Year Book No. 7, page 598).

Considerable improvement, both as regards the volume of information and the mode of presentation thereof in the statistical tables appearing in the reports of the several Railway Commissioners, has been made during recent years.

3. **Railway Communication in Australia.**—An account of the progress of railway construction in Australia since the opening of the first line in 1854 will be found in Year Book No. 6, p. 681. Further information regarding railway communication in Australia and proposals for unification of gauge in the various systems are given in Year Book No. 22, pp. 259 to 261.

4. **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 is the first step towards uniform gauge railway communication between the capitals of the mainland States. It was constructed under agreement between the Commonwealth and the States of New South Wales and Queensland, and is of 4 ft. 8½ in. gauge. The work consisted of regrading and relaying the existing New South Wales line between Grafton and Kyogle and the construction of a new line 94.82 miles in length from Kyogle (New South Wales) to South Brisbane (Queensland). Under the agreement, the Commonwealth in the first instance provided the cost of the work, of which one-fifth was deemed to have been on behalf of the Commonwealth, and four-fifths on behalf of the five mainland States of the Commonwealth collectively on a population basis. The agreement also provides that if in any financial year the earnings from the line exceed the working expenses, the excess shall be applied in paying to the Commonwealth the interest on the money provided by it on behalf of the States and the Commonwealth. The order in which such excess shall be applied is laid down in the agreement, and provides that the interest on the quotas of Victoria, South Australia, and Western Australia shall be paid first, then the interest on the quotas of Queensland and New South Wales, and lastly the interest on the quota of the Commonwealth. Any balance remaining after payment of interest will be returned to Queensland and New South Wales. The States of Victoria, South Australia and Western Australia did not enter into the agreement, and the quotas of these States were assumed by the Commonwealth. To 30th June, 1934, the total expenditure by the Commonwealth was £4,371,000, the interest charge for the year 1933-34 being £202,057. During the same period, the working of the line, which is the responsibility of the New South Wales and Queensland Railways Commissioners, resulted in a loss of £46,870 being shown on the New South Wales section and a profit of £14,816 on the Queensland section. In addition, the following amounts were paid as interest:—New South Wales £71,967, and Queensland £26,939, the remainder, £103,151, being borne by the Commonwealth. Figures relating to the operation, etc., of the line are incorporated as far as possible with those for New South Wales and Queensland in the tables in Section 3, State Railways.

5. **Mileage Open for Traffic, all Lines.**—(i) *General.* In all the States the principle that the control, construction, and maintenance of the railways should be in the hands of the Government has long been adhered to, excepting in cases presenting unusual circumstances. In various parts of Australia lines have been constructed and managed by private companies, but at the present time nearly the whole of the railway traffic is in the hands of the State or Commonwealth Governments. A large proportion of the private lines has been laid down for the purpose of opening up forest lands, mining districts, or sugar areas, and these lines are not generally used for the conveyance of passengers or the public conveyance of goods.

The subjoined table shows the route mileage of Federal, State, and private lines open for general traffic (exclusive of sidings and cross-overs) in each State for each of the years 1929-30 to 1933-34. The railway mileage given for each State includes both Federal, State, and private railways in that State.



## RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE OPEN.

State or Territory.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales .. ..	6,089.93	6,159.70	6,208.30	6,246.61	6,246.53
Victoria .. ..	4,737.65	4,741.69	4,745.71	4,745.71	4,745.71
Queensland .. ..	6,728.30	6,796.81	6,823.31	6,836.41	6,836.55
South Australia .. ..	3,765.45	3,759.10	3,775.81	3,775.81	3,775.81
Western Australia .. ..	4,841.89	4,911.37	4,966.06	5,068.72	5,090.87
Tasmania .. ..	821.01	806.45	786.45	786.45	786.45
Federal Capital Territory ..	4.94	4.94	4.94	4.94	4.94
Northern Territory .. ..	489.73	489.73	489.73	489.73	489.73
<b>Australia .. ..</b>	<b>27,478.90</b>	<b>27,669.79</b>	<b>27,800.31</b>	<b>27,954.38</b>	<b>27,976.59</b>

In previous issues of the Year Book particulars of mileage open were given for different periods from 1855 onwards. (See No. 15, p. 537.)

(ii) *Government and Private Lines Separately.* The next table shows for each State (a) the length of lines owned by the State Government, and by the Commonwealth Government in that State, all of which lines are open for general use by the public, and (b) the length of private lines available for general use by the public. The mileages specified in the case of Government and private lines are to the 30th June, 1934 :—

## RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE CLASSIFIED, 1933-34.

State or Territory.	Government Lines—		Private Lines available for General Traffic.	Total Open for General Traffic.
	State.	Federal.		
	Miles.	Miles.	Miles.	Miles.
New South Wales .. ..	6,163.83	..	82.70	6,246.53
Victoria .. ..	4,720.77	..	24.94	4,745.71
Queensland .. ..	6,566.65	..	269.90	6,836.55
South Australia .. ..	2,529.26	1,196.04	50.51	3,775.81
Western Australia .. ..	4,359.88	453.99	277.00	5,090.87
Tasmania .. ..	644.89	..	141.56	786.45
Federal Capital Territory ..	..	4.94	..	4.94
Northern Territory .. ..	..	489.73	..	489.73
<b>Australia .. ..</b>	<b>24,985.28</b>	<b>2,144.70</b>	<b>846.61</b>	<b>27,976.59</b>

6. *Comparative Railway Facilities.*—The mileage of line open to the public for general traffic (including both Government and private lines) is shown in the subjoined statement in relation to population and area respectively at the 30th June, 1934 :—

## RAILWAYS.—GOVERNMENT AND PRIVATE.—COMPARISON OF FACILITIES, 1934.

Particulars.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	Fed. Cap. Ter.	Nor. Ter.	Aust.
Mileage of Railway—									
Per 1,000 of population ..	2.38	2.59	7.14	6.47	11.51	3.45	0.53	99.52	4.19
Per 1,000 sq. miles of Territory ..	20.19	54.00	10.20	9.93	5.22	30.00	5.26	0.94	9.41

7. Classification of Lines according to Gauge, 1933-34.—The next table gives a classification, according to gauge, of the total mileage, exclusive of sidings and crossovers, of (i) Federal railways, given in the State or Territory in which situated; (ii) State railways; and (iii) Private railways open to the public for general traffic. Particulars of Government railways are up to the 30th June, 1934, and of private railways open for general traffic to the 31st December, 1934, as nearly as possible.

## RAILWAYS.—GOVERNMENT AND PRIVATE.—GAUGES, 1933-34.

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.	3 ft. 0 in.	2 ft. 6 in.	2 ft. 0 in.		
<b>FEDERAL RAILWAYS.</b>								
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	
South Australia .. .. .	..	597.86	598.18	..	..	..	1,196.04	
Western Australia .. .. .	..	453.99	..	..	..	..	453.99	
Federal Capital Territory .. .. .	..	4.94	..	..	..	..	4.94	
Northern Territory .. .. .	..	..	489.73	..	..	..	489.73	
<b>Total .. .. .</b>	<b>..</b>	<b>1,056.79</b>	<b>1,087.91</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>2,144.70</b>	
<b>STATE RAILWAYS.</b>								
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	
New South Wales .. .. .	..	6,124.32	39.51	..	..	..	6,163.83	
Victoria .. .. .	..	4,599.00	..	..	121.77	..	4,720.77	
Queensland .. .. .	..	..	68.82	6,467.57	..	30.26	6,566.65	
South Australia .. .. .	..	1,451.24	..	1,078.02	..	..	2,529.26	
Western Australia .. .. .	..	..	..	4,359.88	..	..	4,359.88	
Tasmania .. .. .	..	..	..	633.56	..	11.33	644.89	
<b>Total .. .. .</b>	<b>..</b>	<b>6,050.24</b>	<b>6,193.14</b>	<b>12,578.54</b>	<b>..</b>	<b>121.77</b>	<b>41.59</b>	<b>24,985.28</b>
<b>PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.</b>								
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	
New South Wales .. .. .	..	..	45.97	36.73	..	..	82.70	
Victoria .. .. .	..	13.94	..	..	11.00	..	24.94	
Queensland .. .. .	..	..	..	99.51	..	7.50	269.90	
South Australia .. .. .	..	..	..	50.51	..	..	50.51	
Western Australia .. .. .	..	..	..	277.00	..	..	277.00	
Tasmania .. .. .	..	..	..	125.07	..	..	141.56	
<b>Total .. .. .</b>	<b>..</b>	<b>13.94</b>	<b>45.97</b>	<b>588.82</b>	<b>11.00</b>	<b>7.50</b>	<b>179.38</b>	<b>846.61</b>
<b>ALL RAILWAYS OPEN FOR GENERAL TRAFFIC.</b>								
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	
New South Wales .. .. .	..	..	6,170.29	76.24	..	..	6,246.53	
Victoria .. .. .	..	4,612.94	..	..	11.00	121.77	4,745.71	
Queensland .. .. .	..	..	68.82	6,567.08	..	7.50	6,836.55	
South Australia .. .. .	..	1,451.24	597.86	1,726.71	..	..	3,775.81	
Western Australia .. .. .	..	..	453.99	4,636.88	..	..	5,090.87	
Tasmania .. .. .	..	..	..	758.63	..	..	786.45	
Federal Capital Territory .. .. .	..	..	4.94	..	..	..	4.94	
Northern Territory .. .. .	..	..	..	489.73	..	..	489.73	
<b>GRAND TOTAL .. .. .</b>	<b>..</b>	<b>6,064.18</b>	<b>7,293.90</b>	<b>14,255.27</b>	<b>11.00</b>	<b>129.27</b>	<b>220.97</b>	<b>27,976.59</b>

8. Summary of Operations, 1933-34.—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, 1934 :—

## RAILWAYS.—FEDERAL, STATE, AND PRIVATE.—SUMMARY, 1933-34.

Particulars.		Federal Railways.	State Railways.	Private Railways.	Total for Australia.
Mileage open (route) 30th June, 1934 .. ..	Miles	2,144.70	24,985.28	846.61	27,976.59
Capital cost .. ..	£	15,607,126	311,486,688	(a) 5,068,942	332,162,756
Cost per mile .. ..	£	7,277	12,467	(a) 5,987	11,873
Gross revenue .. ..	£	329,955	36,965,642	(b) 561,507	37,857,104
Gross revenue per train mile .. ..	d.	143.82	140.65	136.16	140.60
Working Expenses .. ..	£	376,168	26,540,000	(b) 343,033	27,259,201
Working Expenses per train mile .. ..	d.	163.96	100.98	83.18	101.24
Net Revenue .. ..	£	-46,213	10,425,642	(b) 218,474	10,597,903
Net Revenue per train mile .. ..	d.	-20.14	39.67	52.98	39.36
Train miles run .. ..	Miles	550,618	63,078,220	989,750	64,618,588
Passengers carried .. ..	No.	88,224	326,982,981	1,175,372	328,246,577
Tons of goods, etc., carried .. ..	Tons	88,316	26,791,498	1,911,442	28,791,256
Average number of employees .. ..	No.	(d) 1,172	(d) 92,163	(b) (c) 907	94,242
Average wage .. ..	£	212	204	229	205

(a) Exclusive of the capital cost of 191.92 miles of private lines for which information is not available.

(b) Incomplete.

(c) Employees at 30th June, 1934.

(d) Exclusive of Construction Branch.

9. Track Mileage—Government Railways.—The following table gives the track mileages of all Government railways and sidings, exclusive of Tasmania, for the years ended 30th June, 1931 to 1934, classified according to gauge, together with the percentages on the total :—

## RAILWAYS, FEDERAL AND STATE.—TRACK MILEAGE.(a)

Gauge.	At 30th June—							
	1931.		1932.		1933.		1934.	
	Miles.	%	Miles.	%	Miles.	%	Miles.	%
5 ft. 3 in. ..	7,872.09	25.05	7,860.50	24.88	7,859.71	24.70	7,855.07	24.65
4 ft. 8½ in. ..	9,113.21	29.01	9,205.61	29.14	9,317.75	29.28	9,324.67	29.26
3 ft. 6 in. ..	14,268.41	45.41	14,358.58	45.45	14,478.76	45.50	14,528.97	45.58
2 ft. 6 in. ..	131.87	0.42	131.87	0.42	131.87	0.42	131.91	0.41
2 ft. 0 in. ..	33.00	0.11	33.00	0.11	33.00	0.10	33.00	0.10
Total ..	31,418.58	100.00	31,589.56	100.00	31,821.09	100.00	31,873.62	100.00

(a) Exclusive of Tasmania.

## § 2. Federal Railways.

1. General.—On the 1st January, 1911, the Commonwealth Government took over the Northern Territory from the South Australian Government, and at the same time the railways from Darwin to Pine Creek in the Northern Territory, and from Port Augusta to Oodnadatta in South Australia, came under its control. Subsequently the construction of a transcontinental line from Port Augusta in South Australia to Kalgoorlie in Western Australia was undertaken by the Commonwealth Government, while a line has been constructed in the Federal Capital Territory, connecting Canberra with the New South Wales railway system at Queanbeyan. The North Australia Railway has, since its acquisition by the Commonwealth, been extended twice, first to Emungalan and then to Birdum. The Central Australia Railway has also been extended from Oodnadatta to Alice Springs. In 1917 the "Commonwealth Railways Act" was passed by which all the Federal railways were vested in the Commonwealth Railways Commissioner.

2. **North Australia Railway (Darwin to Birdum).**—(i) *General.* On the 1st January, 1911, the line from Darwin to Pine Creek came under the control of the then Department of External Affairs, and was worked under the Administrator of the Northern Territory. The management of this railway is now vested in the Commonwealth Railways Commissioner.

In the "Northern Territory Acceptance Act, 1910" the construction of a transcontinental line to and from South Australia was provided for. The extension of the line from Pine Creek to Katherine River was completed, and the first train ran through to Emungalan (Katherine River) on 13th May, 1917.

(ii) *Proposed Extension.* The recommendations of the Parliamentary Standing Committee on Public Works in connexion with the North-South line were indicated in a previous issue of this work. (See Year Book No. 18, p. 278.)

(iii) *Line Authorized for Construction.* The Northern Territory Railway Extension Act 1923 provided for the construction of a 3 ft. 6 in. gauge line from the then existing terminus at Emungalan to Daly Waters, a distance of approximately 160 miles. The estimated cost of this line was £1,545,000, including the cost of a bridge over the Katherine River which was completed in May, 1926, although the first train crossed on 21st January, 1926. The terminus of the line was moved to the new station at Katherine River on 14th December, 1926. Tenders were then called for the construction of the line from Katherine River to Daly Waters, but, as no satisfactory tender was received, it was decided to do the work by day labour. Under this system, construction proceeded until December, 1927, when, owing to a reduction in the amount of money available for construction, a drastic curtailment of operations was made. The work then proceeded at a reduced rate, and, on 1st July, 1928, a further section to Mataranka (264 miles 67 chains from Darwin) was opened for public traffic. Owing to the need for the curtailment of loan expenditure, the Government then decided to suspend construction work beyond Birdum (316 miles 40 chains from Darwin), and on 4th September, 1929, this section was opened for traffic.

3. **Central Australia Railway (Port Augusta to Alice Springs).**—(i) *General.* Under the "Northern Territory Acceptance Act, 1910", the railway from Port Augusta to Oodnadatta was taken over by the Commonwealth Government on the 1st January, 1911. The South Australian Government, however, continued to operate and maintain it, bearing any loss and taking any profit from ordinary working, while the Commonwealth was responsible for extraordinary maintenance and interest. From the 1st January, 1914, the line was worked under a fresh agreement by the South Australian Government for and on behalf of the Commonwealth, the latter being responsible for any loss in working and maintenance, but from 1st January, 1926, the complete control devolved upon the Commonwealth Railways Commissioner.

(ii) *Extension Authorized.* The Railways (South Australia) Agreement Act 1926, assented to by the Commonwealth Parliament in February, 1926, ratified the agreement between the Commonwealth and South Australian Governments for the construction of a 3 ft. 6 in. gauge line from Oodnadatta to Alice Springs. The estimated cost, exclusive of rolling stock, of the proposed extension, which comprises 293 miles, was £1,700,000. The first section 21½ miles from Oodnadatta was completed on the 29th August, 1927. The contract for the construction of the balance of 271¾ miles to Alice Springs was signed on the 11th August, 1927. The section from Oodnadatta to Rumbalara (169 miles 67 chains) was opened for public traffic on the 23rd December, 1928, and the remaining portion from Rumbalara to Alice Springs was completed and opened for public traffic on the 2nd August, 1929.

4. **Federal Capital Territory Railway (Queanbeyan to Canberra).**—This line was built by the Railway Construction Branch of the Public Works Department, New South Wales, and, when completed, was taken over by the Chief Commissioner of Railways for that State, who worked the line for the Commonwealth Government until 1st July,

1928, on which date the management was taken over by the Commonwealth Railways Commissioner. The line was opened for traffic on 25th May, 1914. It connects with the New South Wales railway system at Queanbeyan, and is 4.94 miles in length.

5. **Trans-Australian Railway (Kalgoorlie to Port Augusta).**—In the issue of the Year Book for 1918 (No. 11, pp. 662 to 666 and p. 1213), a short history of the construction of the Trans-Australian line is given, also a description of the country through which the line passes between Kalgoorlie and Port Augusta.

Owing to deviations from the original route, the length of this line was reduced from 1,063.39 miles to 1,051.85 miles—a saving of 11.54 miles.

On the 22nd October, 1917, the first through train left Port Augusta with an official party on board for Kalgoorlie.

6. **Lines Open, Surveyed, etc.**—The following table shows the lines open for traffic under the control of the Commonwealth Government at 30th June, 1934, together with the lines which have been surveyed :—

## RAILWAYS, FEDERAL, 30th JUNE, 1934.

Terminals.	Miles.
<b>OPEN FOR TRAFFIC.</b>	
Trans-Australian Railway—Port Augusta (South Australia) to Kalgoorlie (Western Australia) .. .. .	1,051.85
Central Australia Railway—Port Augusta (South Australia) to Alice Springs (Central Australia) .. .. .	771.41
Federal Territory Railway—Queanbeyan (New South Wales) to Canberra (Federal Capital Territory) .. .. .	4.94
North Australia Railway—Darwin to Birdum (Northern Territory) .. .. .	316.50
Total opened for traffic .. .. .	2,144.70
<b>SURVEYED.</b>	
Birdum to Daly Waters (Northern Territory) .. .. .	43.50
Kingoonya to Boorhamna (South Australia) .. .. .	176.44
Canberra to Jervis Bay (Federal Capital Territory) .. .. .	140.22
Canberra (Federal Capital Territory) to Federal Capital Territory Border in the direction of Yass (New South Wales) .. .. .	11.67
Daly Waters (Northern Territory) to Alice Springs (South Australia) .. .. .	559.50
Port Augusta to Crystal Brook (South Australia) .. .. .	69.25
Port Augusta to Red Hill (South Australia) .. .. .	82.68
Total surveyed or being surveyed .. .. .	1,083.26

In addition, the following trial surveys were undertaken on behalf of the North Australia Commission, viz. :—

(1) From the proposed deep water port at Rocky Island (Gulf of Carpentaria) to Borroloola; (2) from Borroloola to near Anthony's Lagoon; (3) from Daly Waters to a point on the Queensland Border about 44 miles south of Camooweal; and (4) from a point on the Daly Waters—Queensland Border survey 45 miles south of Daly Waters and near Newcastle Waters to the border of Western Australia.

7. Mileage open, worked, and Train miles run.—The next table shows the length of the Federal railways open for traffic, average miles worked, and the train miles run in the years 1930 to 1934 :—

**RAILWAYS, FEDERAL.—MILEAGE OPEN, WORKED, AND TRAIN MILES.**

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
<b>MILES OPEN FOR TRAFFIC.</b>					
	Miles.	Miles.	Miles.	Miles.	Miles.
1930 .. ..	1,052	771	5	317	2,145
1931 .. ..	1,052	771	5	317	2,145
1932 .. ..	1,052	771	5	317	2,145
1933 .. ..	1,052	771	5	317	2,145
1934 .. ..	1,052	771	5	317	2,145

<b>AVERAGE MILES WORKED.</b>					
	Miles.	Miles.	Miles.	Miles.	Miles.
1930 .. ..	1,052	760	5	307	2,124
1931 .. ..	1,052	771	5	317	2,145
1932 .. ..	1,052	771	5	317	2,145
1933 .. ..	1,052	771	5	317	2,145
1934 .. ..	1,052	771	5	317	2,145

<b>TRAIN MILES RUN.(a)</b>					
1930 .. ..	453,151	239,303	9,865	43,594	745,913
1931 .. ..	403,615	200,051	6,900	40,686	651,252
1932 .. ..	319,747	154,529	6,865	35,819	516,960
1933 .. ..	324,173	182,414	6,850	33,809	547,246
1934 .. ..	328,477	178,916	6,885	36,340	550,618

(a) Traffic Train Mileage (exclusive of "Assistant" and "Light" mileages).

8. Cost of Construction and Equipment.—In the following table particulars are given of the cost of construction and equipment of the undermentioned railways for each of the years 1930 to 1934 :—

**RAILWAYS, FEDERAL.—CAPITAL COST.**

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.(a)	North Australia.	
<b>TOTAL COST OF CONSTRUCTION AND EQUIPMENT OF LINES OPEN.</b>					
	£	£	£	£	£
1930 .. ..	7,805,945	4,730,364	84,253	2,740,807	15,370,369
1931 .. ..	7,840,504	4,760,548	84,429	2,750,718	15,436,199
1932 .. ..	7,879,397	4,769,938	84,429	2,755,700	15,489,464
1933 .. ..	7,928,876	4,773,301	84,429	2,758,139	15,544,745
1934 .. ..	7,987,216	4,777,278	84,493	2,758,139	15,607,126

<b>COST PER MILE OPEN.</b>					
1930 .. ..	7,421	6,132	17,064	8,688	7,167
1931 .. ..	7,454	6,171	17,091	8,691	7,197
1932 .. ..	7,490	6,187	17,091	8,693	7,221
1933 .. ..	7,538	6,188	17,091	8,714	7,248
1934 .. ..	7,593	6,193	17,104	8,714	7,277

(a) Exclusive of Rolling Stock the property of New South Wales Government Railways.

The sum of £1,694,385, of which £113,614 was for surveys, etc., has been provided from revenue for capital purposes to 30th June, 1934, and has been included in the total shown above.

9. **Gross Revenue.**—(i) *Total, per average mile worked, and per train mile run.* The following table shows the total revenue from all sources, the revenue per average mile worked, and the revenue per train mile run for each of the undermentioned railways for the financial years 1930 to 1934 inclusive :—

**RAILWAYS, FEDERAL.—GROSS REVENUE, TOTAL, ETC.**

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
<b>TOTAL GROSS REVENUE.</b>					
	£	£	£	£	£
1930 .. ..	265,562	99,626	6,473	32,475	404,136
1931 .. ..	187,681	88,479	3,964	29,010	309,134
1932 .. ..	173,402	79,400	3,810	23,495	280,107
1933 .. ..	188,168	93,359	4,313	22,612	308,452
1934 .. ..	206,205	90,566	5,277	27,907	329,955
<b>GROSS REVENUE PER AVERAGE MILE WORKED.</b>					
1930 .. ..	252	131	1,311	106	190
1931 .. ..	179	115	802	92	144
1932 .. ..	165	103	771	74	131
1933 .. ..	179	121	873	71	144
1934 .. ..	196	117	1,068	88	154
<b>GROSS REVENUE PER TRAIN-MILE RUN.</b>					
	d.	d.	d.	d.	d.
1930 .. ..	140.65	99.92	157.48	178.79	130.03
1931 .. ..	111.60	106.15	137.88	171.13	113.92
1932 .. ..	130.15	123.32	133.20	157.42	130.04
1933 .. ..	139.31	122.83	151.11	160.51	135.27
1934 .. ..	150.66	121.49	183.95	184.31	143.82

(ii) *Classification and Percentages.* During the year 1933-34 receipts from coaching traffic and goods and live stock represented 46 per cent. and 27 per cent. respectively of the total gross revenue of the Trans-Australian line, similar percentages for the remaining lines being :—Central Australia line 14 per cent. and 81 per cent., Federal Capital Territory line 50 per cent. and 49 per cent., and North Australia line 13 per cent. and 34 per cent. coaching and goods and live stock revenue respectively.

The miscellaneous receipts for the year 1933-34 include an amount of £16,122, revenue from dining cars and refreshment services on the Trans-Australian and Central Australia Railways. A sum of £15,669 was received from this source during the previous year.

10. **Working Expenses.**—(i) *Total.* The following table shows the total working expenses, and the percentages on the corresponding gross revenues of each railway for each year from 1930 to 1934 :—

Details of the annual expenditure on (a) maintenance of ways, works and buildings ; (b) locomotives, carriages and wagons repairs and renewals ; (c) traffic expenses ; and (d) compensation, general and miscellaneous charges, are given in (iii) following.

## RAILWAYS, FEDERAL.—WORKING EXPENSES, TOTAL, ETC.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
<b>TOTAL WORKING EXPENSES.</b>					
	£	£	£	£	£
1930 .. ..	296,403	194,918	8,031	55,229	554,581
1931 .. ..	241,400	155,438	6,303	55,330	458,621
1932 .. ..	197,147	111,555	5,012	44,088	357,802
1933 .. ..	197,363	106,875	4,720	38,843	347,801
1934 .. ..	218,506	113,050	4,919	59,693	376,168
<b>PERCENTAGE OF WORKING EXPENSES ON REVENUE.</b>					
	%	%	%	%	%
1930 .. ..	111.61	195.65	124.07	170.07	137.23
1931 .. ..	128.67	175.68	160.52	190.73	148.36
1932 .. ..	113.69	140.49	131.55	187.65	127.74
1933 .. ..	104.90	114.48	109.43	171.79	112.76
1934 .. ..	105.97	124.83	93.22	142.23	114.01

Compared with results for the previous year, the percentage of working expenses on revenue shows decreases for the Federal Capital Territory and North Australia Railways. Earnings increased on all the railways, with the exception of the Central Australia line. The loss on the Trans-Australian Railway was greater than that of the previous year, owing to increased sleeper renewals, while the heavier loss on the Central Australia Railway was due to the same cause combined with the repair of flood damage.

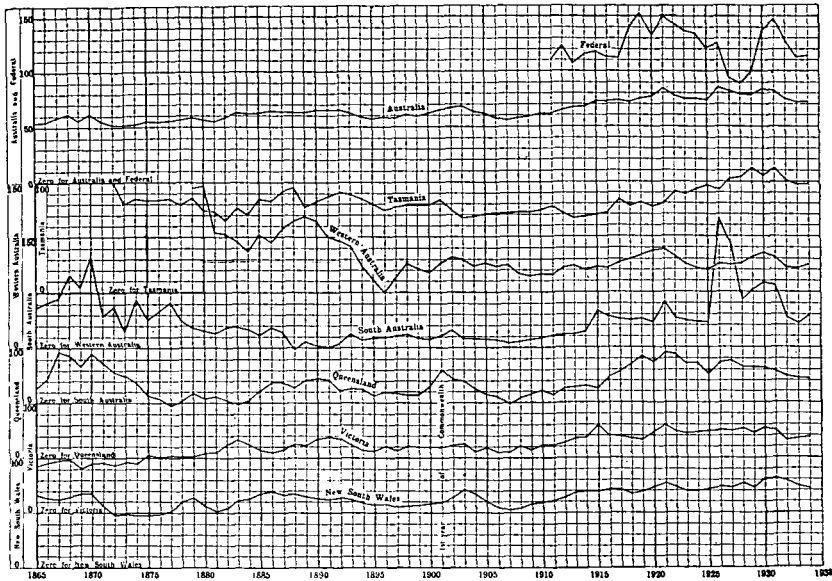
(ii) *Averages.* The next table gives the working expenses per average mile worked, and per train-mile run for each railway for the years 1930 to 1934 :—

## RAILWAYS, FEDERAL.—WORKING EXPENSES, AVERAGES.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
<b>WORKING EXPENSES PER AVERAGE MILE WORKED.</b>					
	£	£	£	£	£
1930 .. ..	282	256	1,627	180	261
1931 .. ..	230	202	1,288	175	214
1932 .. ..	187	145	1,015	139	167
1933 .. ..	188	139	956	123	162
1934 .. ..	208	147	996	125	175
<b>WORKING EXPENSES PER TRAIN-MILE RUN.</b>					
	d.	d.	d.	d.	d.
1930 .. ..	156.98	195.49	195.38	304.05	178.44
1931 .. ..	143.60	186.48	221.32	326.38	169.01
1932 .. ..	147.98	173.26	175.21	295.40	166.11
1933 .. ..	146.11	140.61	165.37	275.73	152.53
1934 .. ..	159.65	151.65	171.47	262.14	163.96

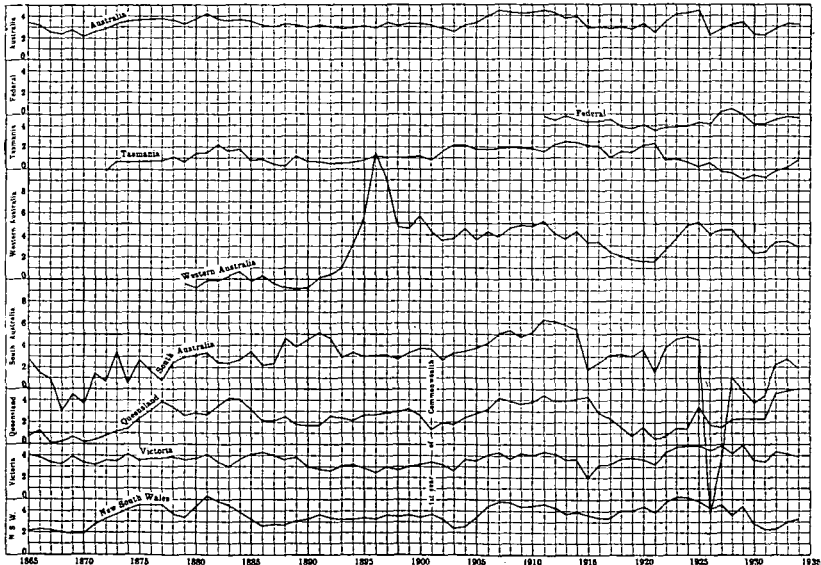


PERCENTAGES OF WORKING EXPENSES ON GROSS REVENUE OF GOVERNMENT RAILWAYS, 1865 TO 1934.



EXPLANATION.—The base of each small square represents throughout one year. The vertical side of a small square denotes throughout 10 per cent., the heavy zero lines being different for each State and Australia, with, however, the exceptions that the zero lines for Australia and Federal are identical.

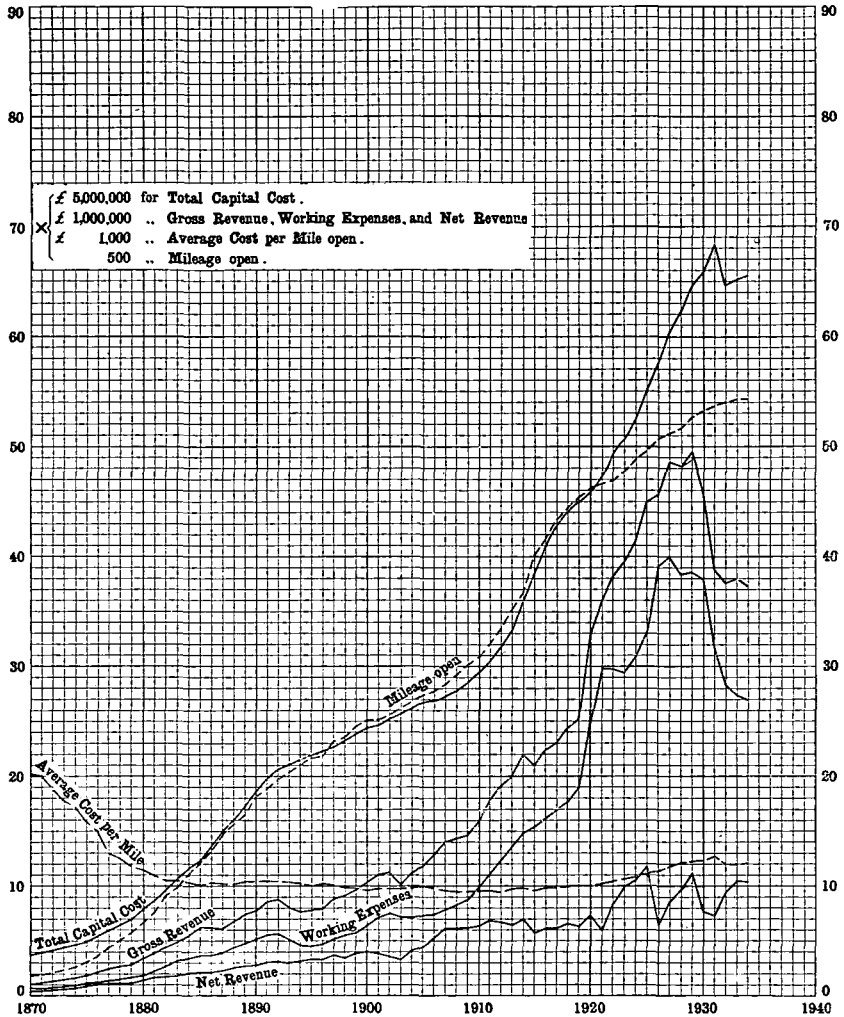
PERCENTAGES OF NET REVENUE ON CAPITAL COST OF GOVERNMENT RAILWAYS, 1865 TO 1934.



EXPLANATION.—The base of each small square represents throughout one year. The vertical side of a small square denotes 1 per cent., the thick zero lines, however, for each State and Australia being different.

Where the curve for any State falls below that State's zero line, loss is indicated, the working expenses having exceeded the gross revenue.

FINANCIAL POSITION OF THE GOVERNMENT RAILWAYS OF AUSTRALIA, 1870 TO 1934.



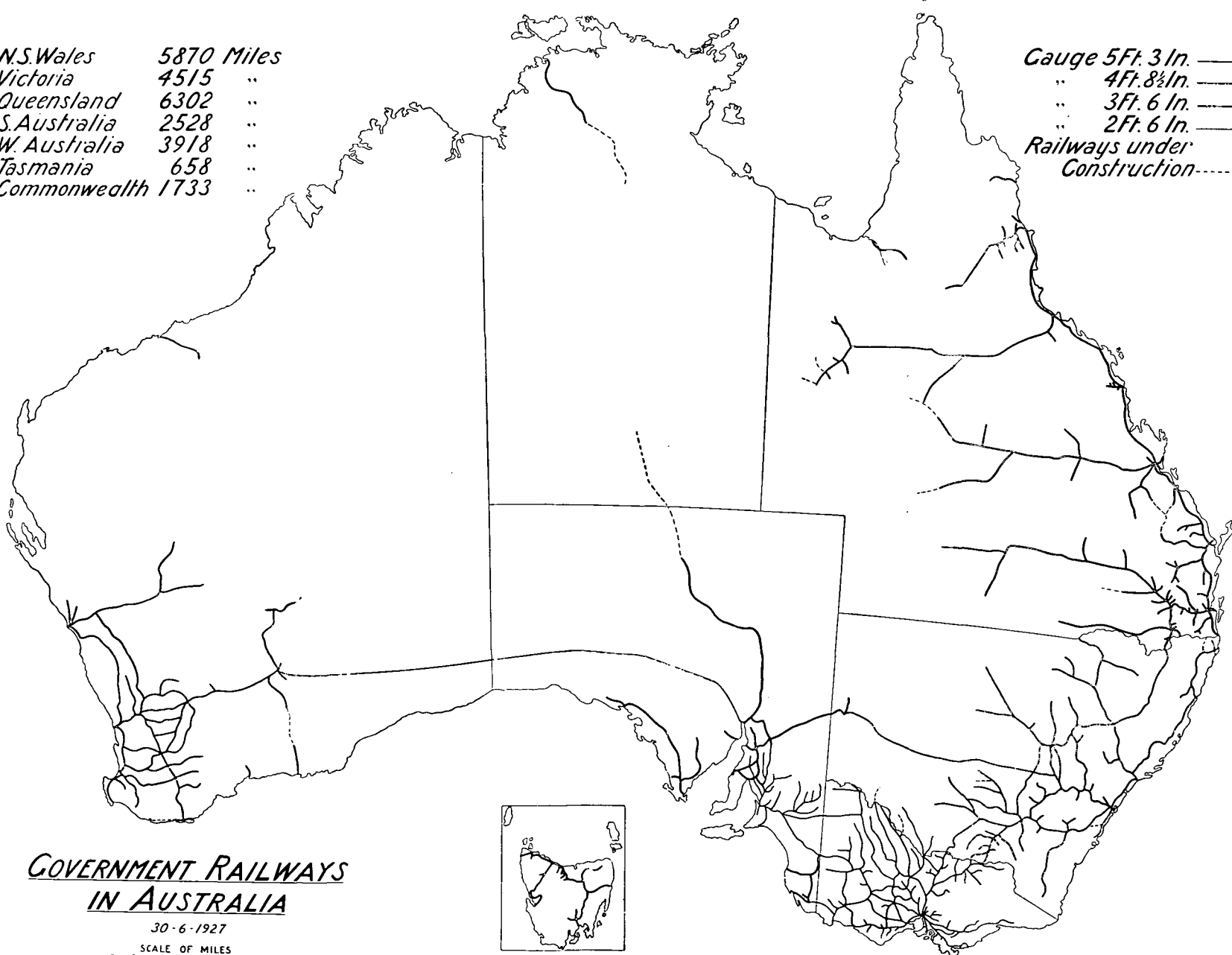
EXPLANATION.—The base of each small square represents throughout one year. The significance of the vertical height of each square varies according to the nature of the several curves.

In the curve for the total capital cost, the vertical side of each square represents £5,000,000.

In the curves for (i) gross revenue; (ii) working expenses; and (iii) net revenue, the vertical side of each small square represents £1,000,000. For the curve of average cost per mile open, the vertical side of each small square represents £1,000. The mileage open is shown by a dotted curve, the vertical side of each small square representing 500 miles.

<i>N.S.Wales</i>	<i>5870 Miles</i>
<i>Victoria</i>	<i>4515 ..</i>
<i>Queensland</i>	<i>6302 ..</i>
<i>S.Australia</i>	<i>2528 ..</i>
<i>W.Australia</i>	<i>3918 ..</i>
<i>Tasmania</i>	<i>658 ..</i>
<i>Commonwealth</i>	<i>1733 ..</i>

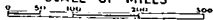
*Gauge 5Ft. 3In. ———*  
*.. 4Ft. 8½In. ———*  
*.. 3Ft. 6In. ———*  
*.. 2Ft. 6In. ———*  
*Railways under*  
*Construction - - - - -*



***GOVERNMENT RAILWAYS  
 IN AUSTRALIA***

30-6-1927

SCALE OF MILES



(iii) *Classification and Percentages.* Of the total working expenses of the Federal Railways during the year 1933-34, maintenance expenses represented 45 per cent., locomotive, carriage and wagon charges 34 per cent., and traffic expenses 13 per cent. Details for each line were as follow:—Trans-Australian line 42 per cent., 37 per cent. and 11 per cent.; Central Australia line 50 per cent., 33 per cent., and 11 per cent.; Federal Capital Territory line 20 per cent., 37 per cent. and 38 per cent.; and North Australia line 48 per cent., 21 per cent. and 25 per cent. respectively.

11. *Passenger Journeys, and Tonnage of Goods and Live Stock.*—(i) *General.* In the next table particulars are given of the passenger journeys and tonnage of goods and live stock carried on the Federal railways during the years 1930 to 1934:—

## RAILWAYS, FEDERAL.—TRAFFIC.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
<b>PASSENGER JOURNEYS.</b>					
	No.	No.	No.	No.	No.
1930 .. ..	29,163	45,235	45,457	3,238	123,093
1931 .. ..	19,209	31,107	31,248	3,384	84,948
1932 .. ..	15,875	25,683	29,417	3,101	74,076
1933 .. ..	19,042	28,380	30,533	2,784	81,339
1934 .. ..	19,218	28,493	37,335	3,178	88,224
<b>TONNAGE OF GOODS AND LIVE STOCK CARRIED.</b>					
	Tons.	Tons.	Tons.	Tons.	Tons.
1930 .. ..	20,906	44,047	20,966	7,024	92,943
1931 .. ..	12,360	38,831	10,077	3,296	64,564
1932 .. ..	21,316	65,538	7,807	3,039	97,700
1933 .. ..	19,754	71,710	10,502	3,435	105,401
1934 .. ..	21,598	47,100	15,930	3,688	88,316

(ii) *Passenger-Mileage Summary.* The appended table gives particulars of "Passenger-Mileage" on each of the Federal railways for the year 1933-34:—

## RAILWAYS, FEDERAL.—PASSENGER-MILES SUMMARY, 1933-34.

Railway.	Passenger Train Mileage.	Number of Passenger Journeys.	Total "Passenger-Miles."	Amount Received from Passengers.	Average Number of Passengers carried per Train Mile.	Average Mileage per Passenger Journey.	Average Earnings per "Passenger-Mile."	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked.
			000 omitted.	£		Miles.	d.	£ s. d.	
Trans-Australian ..	222,377	19,218	15,428	70,235	69	803	1.09	3 13 1	14,663
Central Australia ..	22,578	28,493	1,631	8,892	72	57	1.30	0 6 3	2,114
Federal Capital Territory ..	5,600	37,335	186	1,428	33	5	1.80	0 0 9	37,593
North Australia ..	11,020	3,178	362	2,973	33	114	1.97	0 18 9	1,145

(iii) *Ton-Mileage Summary.* Particulars of ton-mileage are shown hereunder in respect of each of the Federal railways for the year 1933-34 :—

**RAILWAYS, FEDERAL.—“TON-MILEAGE” SUMMARY, 1933-34.**

Railway.	Goods Train Mileage.	Total Tons Carried.	Total "Ton-Miles."	Goods Earnings.	Average Freight-paying Load per Train.	Average Haul per ton.	Earnings per "Ton-Mile."	Density of Traffic per Average Mile Worked.
Trans-Australian ..	106,100	21,598	10,401	56,830	(a) 98	482	1.31	9,888
Central Australia ..	156,338	47,100	9,131	73,146	(a) 58	194	1.92	11,836
Federal Capital Territory ..	1,285	15,930	80	2,609	62	5	7.86	16,132
North Australia ..	25,320	3,688	493	9,460	(a) 19	134	4.60	1,559

(a) Approximate.

12. *Rolling Stock.*—Particulars of locomotives and rolling stock in use on the Federal railways may be found on page 21 of Transport and Communication Bulletin No. 25.

13. *Employees.*—(i) *General.* The following table shows the number of employees on the Federal railways at 30th June in each year from 1930 to 1934 inclusive, classified according to salaried and wages staffs :—

**RAILWAYS, FEDERAL.—EMPLOYEES.**

Railway.	At 30th June—									
	1930.		1931.		1932.		1933.		1934.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Trans-Australian	117	733	106	(b) 554	102	(b) 556	99	(b) 718	99	(b) 696
Central Australia	59	383	57	331	55	275	53	(c) 297	53	(c) 311
Federal Capital Territory (a) ..	5	7	4	5	4	5	4	5	4	7
North Australia ..	15	93	13	100	14	82	15	88	15	95
<b>Total ..</b>	<b>196</b>	<b>1,216</b>	<b>180</b>	<b>990</b>	<b>175</b>	<b>918</b>	<b>171</b>	<b>1,108</b>	<b>171</b>	<b>1,109</b>

(a) Worked by New South Wales Government Railways until 1st July, 1928. engaged on construction work, 1931, 4; 1932, 15; 1933, 157; and 1934, 91.

(b) Includes those engaged on construction work in 1933 and 4 in 1934.

(ii) *Average Employed throughout Year.* The average number of employees throughout the year 1933-34 was 169 salaried staff and 1,100 wages staff (97 of whom were on construction work).

14. Accidents.—The following table shows the number of accidents in each of the years 1930 to 1934 :—

## RAILWAYS, FEDERAL.—ACCIDENTS.

Railway.	Number of Persons.									
	Killed.					Injured.				
	1930.	1931.	1932.	1933.	1934.	1930.	1931.	1932.	1933.	1934.
Trans-Australian ..	..	..	..	..	1	..	2	3	2	4
Central Australia ..	1	..	..	..	..	..	2	1	4	8
Federal Capital Territory ..	..	..	..	..	..	..	..	1	..	1
North Australia ..	..	..	..	..	..	..	..	1	..	..
Total ..	1	..	..	..	1	..	4	6	6	13

Further details are available on page 24 of Transport and Communication Bulletin No. 25.

## § 3. State Railways.

1. Administration and Control of State Railways.—The policy of Government control of the railways has been adopted in each State, and earlier issues of the Year Book (see No. 6, p. 693) contain a description of the methods adopted by the various State Governments in the control and management of their railways.

2. Mileage Open, 1930 to 1934.—The following table shows the length of State railways open for traffic on the 30th June in the years 1930 to 1934 :—

## RAILWAYS, STATE.—MILEAGE OPEN FOR TRAFFIC.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1930 .. .. .	5,974	4,713	6,447	2,536	4,111	679	24,460
1931 .. .. .	6,044	4,717	6,529	2,529	4,180	665	24,664
1932 .. .. .	6,126	4,721	6,558	2,529	4,235	645	24,814
1933 .. .. .	6,164	4,721	6,566	2,529	4,338	645	24,963
1934 .. .. .	6,164	4,721	6,566	2,529	4,360	645	24,985

A graph indicating the mileage open in Australia at the end of each of the years 1870 to 1934 accompanies this chapter.

The appended statement shows the actual mileage opened for traffic in the year 1934, also the annual average increase in mileage opened since 1924 in each State :—

## RAILWAYS, STATE.—MILEAGE OPENED ANNUALLY.

Mileage.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
Mileage opened during 1933-34 .. .. .	..	..	..	..	21.72	..	21.72
Average annual mileage increase for 10 years to 30th June, 1934 ..	64.10	28.61	52.67	7.76	73.10	2.80	223.44

The only new mileage opened for traffic during 1933-34 was in Western Australia from Pemberton to Northcliffe, a distance of 22.2 miles, whilst minor adjustments decreased the length of existing lines in the same State by 0.48 miles.

3. Length and Gauge of Railway Systems in each State.—In all the States the Government railways are grouped, for the convenience of administration and management, into several divisions or systems. A summary showing concisely the gauge and length of the main and branch lines included in each division or system in the different States for the year ended 30th June, 1934, is given in the Transport and Communication Bulletin No. 25 issued by this Bureau.

4. Average Mileage Worked and Train-Miles Run.—The total mileage open for traffic at the end of each financial year has been given previously, but, in considering the returns relating to revenue and expenditure and other matters, it is desirable to know the average number of miles actually worked during each year. The next table shows the average number of miles worked and the total number of train-miles run by the Government railways of each State during the years 1930 to 1934 inclusive :—

**RAILWAYS, STATE.—MILEAGE WORKED AND TRAIN-MILES RUN.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>AVERAGE MILEAGE WORKED.</b>							
1930 ..	5,959	4,708	6,447	2,538	4,110	660	24,422
1931 ..	6,013	4,710	6,509	2,535	4,123	665	24,555
1932 ..	6,050	4,720	6,550	2,529	4,214	645	24,708
1933 ..	6,159	4,721	6,565	2,529	4,278	645	24,897
1934 ..	6,164	4,721	6,567	2,529	4,351	645	24,977

**TRAIN-MILES RUN.(a)**

1930 ..	26,713,951	17,670,565	11,858,713	5,551,082	5,729,796	1,504,487	69,028,594
1931 ..	25,628,405	15,945,315	10,883,045	4,991,695	5,402,694	1,251,102	64,102,256
1932 ..	25,848,580	15,363,776	10,964,819	4,914,265	5,093,179	1,130,122	63,314,741
1933 ..	25,562,220	15,321,398	10,826,016	4,909,588	5,282,989	1,107,800	63,010,011
1934 ..	25,173,199	15,311,461	11,139,229	4,930,271	5,389,931	1,134,129	63,078,220

(a) Traffic Train-Miles (exclusive of "Assistant" and "Light" mileages).

5. Lines under Construction, and Lines Authorized, 1934.—(i) *General.* The following statement gives particulars at the 30th June, 1934, of the mileage of State railways (a) under construction; and (b) authorized for construction but not commenced :—

**RAILWAYS, STATE.—MILEAGE UNDER CONSTRUCTION AND AUTHORIZED, 30th JUNE, 1934.**

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	All States.
Mileage under construction .. ..	(a)	(b) 38.00	(c)	..	..	..	38.00
Mileage authorized but not commenced .. ..	366.24	39.50	1,130.00	26.25	398.23	..	1,960.22

(a) 127 miles on which work has been suspended. (b) Exclusive of 65.75 miles on which work has been suspended. (c) 186 miles on which work has been suspended.

(ii) *Lines under Construction.* In spite of the great extensions of State railways since the year 1875, there are still, in some of the States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent settlement has been accomplished. The general policy of the States is to extend the

existing lines inland in the form of light railways as settlement increases, and while it is true that lines which were not likely to be commercially successful in the immediate future have been constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting is kept in view.

(a) *New South Wales.* Apart from that shown under (b) below, no railway construction work was in progress in New South Wales at 30th June, 1934. Work has been suspended on the Guyra to Dorrigo (89 miles) and Casino to Bonalbo (38 miles) lines.

(b) *Victoria.* In this State 35.50 miles of 5 ft. 3 in. gauge lines have been partially constructed, from Nowingi to Millewa South, work thereon being temporarily suspended. Under the provisions of the *Border Railways Act 1922* (Vic. 3194) the following lines are under construction in New South Wales territory, viz. :—Euston to Lette (30.25 miles) ; and Yarrowonga to Oaklands (38 miles). Work has also been suspended on the former line. On completion, these lines, which are of 5 ft. 3 in. gauge, will be taken over and operated by the Victorian Railways Commissioners.

(c) *Queensland.* In previous issues of the Year Book details were given of the scheme of railway construction under the provisions of the North Coast Railway Act 1910 (see Year Book No. 15, p. 551). On the 30th June, 1934, no railway construction work was in progress. The following lines are partially constructed, but work thereon is temporarily suspended :—Goondoon to Kalliwa Creek (18 miles) ; Yaraka to Powell's Creek (27 miles) ; Dajarra to Moonah Creek (41 miles) ; Rannes to Monto (63 miles) ; and Winton to 37-Mile (37 miles) ; a total of 186 miles.

(d) *South Australia.* At 30th June, 1934, no railway construction work was in progress.

(e) *Western Australia.* No railway construction work was in progress at 30th June, 1934.

(f) *Tasmania.* At 30th June, 1934, no railway construction work was in progress.

(iii) *Lines Authorized for Construction.* (a) *New South Wales.* At the 30th June, 1934, the following lines had been authorized for construction but not commenced :—Gilgandra to Collie (21.54 miles) ; Jerilderie towards Deniliquin (25.00 miles) ; Rand to Bull Plain (27.55 miles) ; Canowindra to Gregra (33.87 miles) ; St. Leonards to Eastwood (9.07 miles) ; Sandy Hollow via Gulgong to Maryvale (146.48 miles) ; Inverell to Ashford (32 miles) ; Bungendore to Captain's Flat (21.18 miles) ; Gwabegar to Burren Junction (36.25 miles) ; Eastern Suburbs to Bondi (7.75 miles) ; and Western Suburbs to Western Road (5.55 miles) ; a total distance of 366.24 miles.

(b) *Victoria.* The following lines were authorized, but construction had not been commenced up to the end of June, 1934 :—5 ft. 3 in. gauge ; La La Siding to Big Pat's Creek (2.50 miles) ; Casterton to Nangeela (9 miles) ; and Orbost to Brodribb (6 miles). Under the *Border Railways Act 1922*, the following line has been authorized for construction in New South Wales Territory :—Mildura to Gol Gol (22 miles).

(c) *Queensland.* In addition to the new lines upon which work has been commenced, Parliament has authorized the construction of the following parts of the Great Western Railway—Section A, from Quilpie to Eromanga (120 miles) ; Section B, from Powell's Creek (224 miles) ; Section C, from 37-Mile to Springvale (324 miles) ; and Section D from Moonah Creek (216 miles). The following lines were also authorized for construction :—Texas to Silverspur (9 miles) ; Mount Edwards to Maryvale (28 miles) ; Lanefield to Rosevale (17 miles) ; Gatton to Mount Sylvia (11 miles) ; Wandoan to Taroom (42 miles) ; Dirranbandi extension (52 miles) ; Yarraman to Nanango (16 miles) ; Brooloo to Kenilworth (10 miles) ; Dobbyn to Myally Creek (50 miles) ; and Pearamon towards Boongee (11 miles).

(d) *South Australia.* Parliament has authorized the construction of a line on the 3 ft. 6 in. gauge from Keilpa to Mangalo Hall (26.25 miles).



(e) *Western Australia.* The following lines were authorized for construction up to the 30th June, 1934 :—Yarramony to Merredin (85 miles); Brookton to Dale River (28 miles); Boyup Brook to Cranbrook (95.23 miles); Manjimup to Mount Barker (107 miles); Leighton to Robb's Jetty (4.62 miles); Southern Cross—Southwards (27.38 miles); Yuna to Dartmoor (51 miles); a total distance of 398.23 miles.

(f) *Tasmania.* There were no new railways authorized on which work had not been commenced at 30th June, 1934.

6. **Cost of Construction and Equipment.**—(i) *General.* The total cost of construction and equipment of the State railways as distinct from those owned by the Commonwealth Government at the 30th June, 1934, amounted to £311,486,688, representing an average cost of £46.75 per head of population. If the cost of railways owned by the Commonwealth Government is included, the total capital cost (£327,093,814) is equivalent to an amount of £48.99 per head of the population of the Commonwealth, while the total mileage open (27,129.98 miles) per 1,000 of population is 4.06. Particulars of the capital expenditure incurred on lines open for traffic are given in the following table :—

**RAILWAYS, STATE.—MILEAGE AND COST TO 30th JUNE, 1934.**

State	Length of Line Open (Route).	Total Cost of Construction and Equipment.	Average Cost per Mile Open.	Cost per Head of Population.	Mileage per 1,000 of Population.
	Miles.	£	£	£	Miles.
New South Wales (a) ..	(b) 6,163.83	(d) 139,058,321	(d) 22,560	(d) 53.04	(b) 2.35
Victoria .. .. .	4,720.77	75,225,493	15,935	41.11	2.58
Queensland .. .. .	(b) 6,566.65	(d) 34,389,657	(d) 5,237	(d) 35.90	(b) 6.85
South Australia (a) ..	2,529.26	27,176,158	10,745	46.59	4.34
Western Australia (a) ..	4,359.88	24,704,212	5,666	55.88	9.86
Tasmania .. .. .	644.89	6,561,937	10,175	28.79	2.83
<b>All States .. .. .</b>	<b>24,985.28</b>	<b>(c) 311,486,688</b>	<b>(c) 12,467</b>	<b>(c) 46.75</b>	<b>3.75</b>

(a) Exclusive of Federal railways. (b) Includes portion of Grafton-South Brisbane uniform gauge line—New South Wales 26 miles, Queensland 68.82 miles (see par. 4, page 154). (c) Includes Grafton-South Brisbane line, £4,371,000. (d) Exclusive of Grafton-South Brisbane line.

Excluding Queensland, the lowest average cost (£5,666) per mile open is in Western Australia, and the highest (£22,560) in New South Wales, as compared with an average of £12,467 for all States. There were few costly engineering difficulties in Western Australia, and the fact that contractors were permitted to carry traffic during the term of their contracts considerably reduced expenditure, particularly in respect of all gold-field contracts.

In Queensland a reduction of £28,000,000 in the capital cost of the railways was effected by "The Railway (Capital Indebtedness) Reduction Act of 1931", it being considered inequitable to burden the Department with interest charges on capital expended on railways for the purpose of developing the State.

The large increases in the capital cost of the New South Wales railways during the last few years are mainly attributable to the electrification of suburban lines and the construction of the underground city railway.

In the table above, the figures relating to cost of construction and equipment do not include stores advance accounts and the discounts and flotation charges on loans allocated to the railways. This will explain the differences between the amounts shown therein for the various States and those shown in the several Railway Reports.

(ii) *Capital Cost, All Lines.* (a) *Total.* The increase in the total capital cost of construction and equipment of Government railways for each year from 1930 to 1934 is shown in the following table :—

## RAILWAYS, STATE.—CAPITAL COST OF LINES OPEN.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>TOTAL COST OF LINES OPEN.</b>							
	£	£	£	£	£	£	£
1930 ..	124,555,236	74,193,518	58,727,528	27,272,316	22,846,871	6,534,186	314,129,655
1931 ..	130,802,362a	74,302,935	59,497,495a	27,255,643	23,329,093	6,549,965	6326,108,493
1932 ..	137,792,319a	74,415,458	63,884,190a	27,202,936	23,648,654	6,561,429	6307,875,986
1933 ..	138,921,968a	74,706,736	63,098,724a	27,167,930	24,159,782	6,560,434	6309,986,574
1934 ..	139,058,321a	75,225,403	63,4389,657a	27,176,158	24,704,212	6,561,937	6311,486,688

## COST PER MILE OPEN.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
1930 ..	20,849	15,743	9,109	10,756	5,558	9,617	12,843
1931 ..	(a) 21,735	15,753	(a) 9,210	10,776	5,581	9,851	(b) 13,222
1932 ..	(a) 22,493	15,703	(a) 5,167	10,756	5,584	10,173	(b) 12,407
1933 ..	(a) 20,915	15,833	(a) 5,193	10,743	5,569	10,173	(b) 12,418
1934 ..	(a) 22,560	15,935	(a) 5,237	10,745	5,666	10,175	(b) 12,467

(a) Exclusive of Grafton-South Brisbane line. (b) Includes Grafton-South Brisbane line.  
 (c) The Capital Account was reduced by £28,000,000, in accordance with "The Railway (Capital Indebtedness) Reduction Act of 1931."

(b) *From Consolidated Revenue.* The following table shows the amounts provided from Consolidated Revenue for construction and equipment to 30th June, 1934 :—

## RAILWAYS, STATE.—EXPENDITURE FROM CONSOLIDATED REVENUE FOR CONSTRUCTION AND EQUIPMENT TO 30th JUNE, 1934.

To 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1934 ..	669,390	5,254,582	..	..	640,908	16,935	6,581,815

(iii) *Loan Expenditure.* The subjoined table shows the total net loan expenditure on Government railways in each State for the years 1930 to 1934 :—

## RAILWAYS, STATE.—NET LOAN EXPENDITURE.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
1930 ..	5,034,505	947,527	739,548	405,153	849,335	Cr. 69,940	7,906,128
1931 ..	2,312,557	455,293	434,350	Cr. 55,467	454,159	44,725	3,645,617
1932 ..	1,052,137	..	50,215	Cr. 127,576	137,025	Cr. 15,008	1,096,853
1933 ..	214,885	..	Cr. 28,829	Cr. 101,622	180,495	Cr. 6,682	258,247
1934 ..	122,203	1,044	341,917	Cr. 79,856	316,081	Cr. 644	700,745

The following statement shows the total loan expenditure on railways to the 30th June, 1934 :—

**RAILWAYS, STATE.—TOTAL LOAN EXPENDITURE TO 30th JUNE, 1934.**

State.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.(c)	All States.
Expenditure	£ 1,39,727,811	£ 1,74,280,758	£ 61,994,052	£ 31,860,614	£ 24,355,906	£ 6,938,769	£ 339,157,910

(a) Gross expenditure. (b) Includes expenditure on Grafton-South Brisbane Railway. (c) Includes losses funded.

**7. Gross Revenue.**—(i) *General.* The total revenue from all sources, the revenue per average mile worked, and the revenue per train-mile run during each financial year from 1930 to 1934 inclusive were as follow :—

**RAILWAYS, STATE.—GROSS REVENUE.**

Year ended 30th June—	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
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**TOTAL GROSS REVENUE.**

	£	£	£	£	£	£	£
1930 .. ..	18,626,692	12,001,806	7,302,281	3,270,945	3,659,203	507,374	45,374,301
1931 .. ..	16,005,741	10,008,358	6,476,979	2,586,132	3,198,913	400,176	38,676,299
1932 .. ..	15,801,022	9,454,304	5,994,523	2,746,341	2,922,385	381,283	37,299,858
1933 .. ..	16,205,320	9,446,121	5,992,394	2,734,083	2,932,140	381,483	37,691,541
1934 .. ..	15,690,186	9,175,111	6,230,188	2,559,939	2,919,315	390,903	36,965,642

**GROSS REVENUE PER AVERAGE MILE WORKED.**

	£	£	£	£	£	£	£
1930 .. ..	3,126	2,549	1,133	1,291	890	769	1,858
1931 .. ..	2,662	2,124	995	1,020	776	602	1,575
1932 .. ..	2,612	2,003	915	1,086	693	591	1,510
1933 .. ..	2,631	2,001	913	1,031	685	592	1,514
1934 .. ..	2,546	1,943	949	1,012	671	606	1,460

**GROSS REVENUE PER TRAIN-MILE RUN.**

	d.	d.	d.	d.	d.	d.	d.
1930 .. ..	167.34	163.01	147.79	141.68	153.27	80.94	157.74
1931 .. ..	149.89	150.64	142.83	124.34	142.10	76.77	144.81
1932 .. ..	146.71	147.69	131.21	134.12	137.71	80.97	141.39
1933 .. ..	152.15	147.97	132.84	133.65	133.20	82.65	143.56
1934 .. ..	149.59	143.82	134.23	124.62	129.99	82.72	140.65

(a) Includes £800,000, contributions from consolidated revenue towards losses on working of country developmental lines. (b) Includes contributions from consolidated revenue in respect of losses on non-paying lines, 1930-31, £158,508; 1931-32, £139,429; 1932-33, £124,288; and 1933-34, £134,424.

The amounts of revenue earned per average mile worked and per train-mile run during 1933-34 in respect of (a) passenger and (b) goods and live stock traffic, separately, are given later.

(ii) *Coaching, Goods, and Miscellaneous Receipts.* (a) *Totals.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The subjoined table shows the gross revenue from 1930 to 1934, classified according to the three chief sources of receipts. The total of the three items specified has already been given in the preceding paragraph.

## RAILWAYS, STATE.—COACHING, GOODS, ETC., RECEIPTS.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>COACHING TRAFFIC RECEIPTS.</b>							
	£	£	£	£	£	£	£
1930 ..	7,440,016	5,428,350	2,377,798	807,090	928,435	177,799	17,159,488
1931 ..	5,870,676	4,378,162	2,021,666	635,490	724,989	144,526	13,775,509
1932 ..	5,606,430	3,946,053	1,762,225	631,104	649,890	132,456	12,728,158
1933 ..	5,693,953	3,968,871	1,768,247	655,799	662,444	126,273	12,875,587
1934 ..	5,555,290	3,904,663	1,872,598	646,784	688,480	128,079	12,795,894

## GOODS AND LIVE STOCK TRAFFIC RECEIPTS.

1930 ..	9,353,867	5,599,182	4,780,114	2,249,895	2,523,302	311,669	24,818,029
1931 ..	7,841,406	4,817,808	4,191,161	1,787,747	2,289,638	241,458	21,169,218
1932 ..	7,853,315	4,805,738	4,008,966	1,948,293	2,106,129	234,986	20,957,427
1933 ..	8,169,056	4,773,699	4,006,279	1,924,982	2,110,065	240,978	21,225,059
1934 ..	7,802,130	4,572,038	4,146,808	1,762,899	2,059,813	248,261	20,591,949

## MISCELLANEOUS RECEIPTS.

	(a)	(b)					
1930 ..	1,832,809	974,274	144,369	219,960	207,466	17,906	3,396,784
1931 ..	2,293,659	812,388	264,152	162,895	184,286	14,192	3,731,572
1932 ..	2,341,277	702,513	223,332	166,944	166,366	13,841	3,614,273
1933 ..	2,342,311	703,551	217,868	153,302	159,631	14,232	3,590,895
1934 ..	2,332,766	698,410	210,782	150,256	171,022	14,563	3,577,799

(a) Includes £800,000, contributions from consolidated revenue towards losses on working of country developmental lines. (b) Includes contributions from consolidated revenue in respect of losses on non-paying lines, 1930-31, £158,508; 1931-32, £139,429; 1932-33, £124,288; 1933-34, £134,424.

(b) Percentages. The following table shows for the two years 1932-33 and 1933-34 the percentage which each class of receipts bears to the total gross revenue:—

## RAILWAYS, STATE.—PERCENTAGES OF RECEIPTS.

State.	1932-33.			1933-34.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
	%	%	%	%	%	%
New South Wales ..	35.14	50.41	14.45	35.41	49.72	14.87
Victoria ..	42.01	50.54	7.45	42.56	49.83	7.61
Queensland ..	29.51	66.85	3.64	30.06	66.56	3.38
South Australia ..	23.98	70.41	5.61	25.27	68.86	5.37
Western Australia ..	22.59	71.96	5.45	23.58	70.56	5.86
Tasmania ..	33.10	63.17	3.73	32.76	63.51	3.73
All States ..	34.16	56.31	9.53	34.62	55.70	9.68

(c) *Averages for Passenger Earnings.* The subjoined table shows the passenger earnings per average mile of line worked and per passenger-train-mile in each State for the year ended the 30th June, 1934. Further particulars of passenger-mileage will be found in sub-paragraph 14 (i) hereinafter.

**RAILWAYS, STATE.—PASSENGER EARNINGS, AVERAGES, 1933-34.**

State.	Number of Passenger-Train-Miles.	Passenger Earnings.		
		Gross.	Per Average Mile Worked.	Per Passenger-Train-Mile.
	No.	£	£	d.
New South Wales .. ..	16,326,264	4,869,235	790	71.58
Victoria .. ..	10,559,394	3,502,513	742	79.61
Queensland (b) .. ..	4,808,243	1,375,542	209	68.66
South Australia .. ..	3,201,893	516,253	204	38.70
Western Australia .. ..	(a) 2,290,493	526,756	121	55.19
Tasmania .. ..	(a) 500,270	107,097	166	51.38
All States .. ..	37,686,557	10,897,396	436	69.40

(a) Includes "Assistant" and "Light" mileage. (b) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line.

(d) *Averages for Goods and Live Stock Traffic.* The gross receipts from goods and live stock traffic per average mile worked, per goods-train-mile, and per ton carried, for the year ended the 30th June, 1934, are given below. Particulars of ton-mileage will be found in sub-paragraph 14 (ii) hereinafter.

**RAILWAYS, STATE.—GOODS AND LIVE-STOCK TRAFFIC RECEIPTS, AVERAGES, 1933-34.**

State.	Number of Goods-Train-Miles.	Goods and Live-stock Tonnage.	Goods and Live-Stock Traffic Receipts.			
			Gross.	Per Average Mile Worked.	Per Goods-Train-Mile.	Per Ton Carried.
	No.	Tons.	£	£	d.	d.
New South Wales .. ..	8,846,935	11,066,275	7,802,130	1,266	211.66	169.21
Victoria .. ..	4,752,067	5,858,377	4,572,038	968	230.91	187.30
Queensland (c) .. ..	6,235,714	4,152,384	4,080,906	621	157.07	235.87
South Australia .. ..	1,728,378	2,141,646	1,762,899	697	244.79	197.56
Western Australia .. ..	(a) 3,231,783	2,652,247	2,050,813	473	152.97	186.39
Tasmania .. ..	(a) 637,207	560,611	248,261	385	93.51	106.28
All States .. ..	25,432,084	26,431,540	20,526,047	822	193.70	186.38

(a) Includes "Assistant" and "Light" mileage. (b) Exclusive of 297,960 tons of coal on which way leave charges only were collected. (c) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line.

8. *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 railways of the different States, 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 and the percentage thereof on gross revenue in each State for the years 1930 to 1934 :—

## RAILWAYS, STATE.—WORKING EXPENSES.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>TOTAL WORKING EXPENSES.</b>							
	£	£	£	£	£	£	£
1930 .. ..	14,962,423	9,311,548	5,946,163	3,573,121	3,112,895	535,414	37,441,564
1931 .. ..	12,899,646	7,499,934	5,075,478	2,734,619	2,610,839	448,838	31,269,354
1932 .. ..	12,532,869	6,181,490	4,429,218	2,130,395	2,123,281	386,929	27,784,182
1933 .. ..	11,966,648	6,366,838	4,323,655	1,978,545	2,111,588	373,762	27,121,036
1934 .. ..	11,203,520	6,241,505	4,494,314	2,028,772	2,186,506	385,383	26,540,000

## PERCENTAGE OF WORKING EXPENSES ON GROSS REVENUE.

	%	%	%	%	%	%	%
1930 .. ..	80.33	77.58	81.43	109.04	85.07	105.53	82.52
1931 .. ..	80.59	74.94	78.36	105.74	81.62	112.16	80.85
1932 .. ..	79.32	65.38	73.89	77.57	72.65	101.48	74.49
1933 .. ..	73.84	67.40	72.15	72.37	72.02	97.97	71.96
1934 .. ..	71.40	68.03	72.14	79.25	74.90	98.59	71.80

The variation in the percentage of working expenses on the gross revenue in each State for the years 1865 to 1934 is illustrated in the graph which accompanies this chapter.

(ii) *Averages.* The next table shows the working expenses per average mile worked and per train-mile run in each State for the years 1930 to 1934 :—

## RAILWAYS, STATE.—WORKING EXPENSES, AVERAGES.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>WORKING EXPENSES PER AVERAGE MILE WORKED.</b>							
	£	£	£	£	£	£	£
1930 .. ..	2,511	1,978	922	1,408	758	811	1,533
1931 .. ..	2,145	1,592	780	1,079	633	675	1,273
1932 .. ..	2,071	1,310	676	842	504	600	1,124
1933 .. ..	1,943	1,349	659	782	494	580	1,089
1934 .. ..	1,818	1,322	634	802	503	598	1,063

## WORKING EXPENSES PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1930 .. ..	134.42	126.47	120.34	154.48	130.39	85.41	130.18
1931 .. ..	120.80	112.88	111.93	131.48	115.98	86.10	117.07
1932 .. ..	116.36	96.56	96.95	104.04	100.05	82.17	105.32
1933 .. ..	112.35	99.73	95.85	96.72	95.93	80.97	103.30
1934 .. ..	106.81	97.83	96.83	98.76	97.36	81.55	100.98

(iii) *Distribution.* The subjoined table shows the distribution of working expenses under four chief heads of expenditure for the years 1930 to 1934 :—

**RAILWAYS, STATE.—DISTRIBUTION OF WORKING EXPENSES.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>MAINTENANCE.</b>							
	£	£	£	£	£	£	£
1930 .. ..	2,583,896	1,749,068	1,529,521	678,976	800,784	133,459	7,475,704
1931 .. ..	2,199,347	1,394,185	1,401,338	438,462	576,723	177,319	6,127,374
1932 .. ..	2,346,791	1,170,987	1,221,829	335,280	470,544	102,116	5,587,547
1933 .. ..	2,460,825	1,464,041	1,156,044	327,887	493,968	94,756	5,997,521
1934 .. ..	2,654,375	1,564,771	1,161,699	367,776	552,907	96,441	6,397,960

**LOCOMOTIVE, CARRIAGE, AND WAGON CHARGES.**

1930 .. ..	6,926,296	3,587,086	2,630,642	1,796,616	1,368,160	236,855	16,545,655
1931 .. ..	5,642,719	2,840,181	2,068,942	1,382,409	1,218,580	192,911	13,345,742
1932 .. ..	5,280,630	2,260,152	1,780,463	1,102,292	978,698	168,194	11,570,429
1933 .. ..	4,991,900	2,231,648	1,764,765	955,698	960,993	167,605	11,072,609
1934 .. ..	4,193,295	2,156,706	1,851,705	951,529	956,702	176,451	10,286,388

**TRAFFIC EXPENSES.**

1930 .. ..	3,703,106	2,536,635	1,629,238	735,022	819,671	132,233	9,555,905
1931 .. ..	3,212,276	2,026,918	1,321,254	564,025	698,463	110,037	7,932,973
1932 .. ..	3,059,815	1,690,542	1,177,336	457,706	572,101	92,275	7,049,775
1933 .. ..	2,771,583	1,628,237	1,136,739	450,886	562,000	87,154	6,636,599
1934 .. ..	2,612,947	1,647,482	1,210,915	457,182	577,981	90,230	6,596,737

**OTHER CHARGES.**

1930 .. ..	1,749,125	1,438,759	156,762	362,507	124,280	32,867	3,864,300
1931 .. ..	1,845,304	1,238,650	283,944	349,723	117,073	28,571	3,863,265
1932 .. ..	1,845,633	1,119,809	249,590	235,117	101,938	24,344	3,576,431
1933 .. ..	1,742,340	1,042,912	266,107	244,074	94,627	24,247	3,414,307
1934 .. ..	1,742,993	872,546	269,995	252,285	98,916	22,261	3,258,906

9. *Salaries and Wages.*—The following table shows the total amount paid in salaries and wages in each State during the years 1930 to 1934 :—

**RAILWAYS, STATE.—SALARIES AND WAGES PAID.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>TOTAL SALARIES AND WAGES PAID.</b>							
	£	£	£	£	£	£	£
1930 .. ..	11,656,142	7,097,012	4,649,032	2,437,783	2,587,456	364,636	28,792,061
1931 .. ..	10,167,293	5,587,539	3,851,295	1,743,574	2,099,947	314,590	23,764,238
1932 .. ..	9,637,122	4,435,648	3,341,129	1,382,707	1,620,084	260,943	20,677,633
1933 .. ..	8,462,906	4,417,160	3,244,342	1,376,676	1,675,594	249,856	19,426,534
1934 .. ..	8,154,378	4,603,125	3,396,671	1,418,788	1,902,457	259,288	19,734,707

10. Net Revenue.—(i) *Net Revenue and Percentage on Capital Cost.* The following table shows the net sums available to meet interest charges, also the percentage of such sums upon the capital cost of construction and equipment of lines open for traffic in each State for the years 1930 to 1934 :—

**RAILWAYS, STATE.—NET REVENUE AND PERCENTAGE THEREOF ON CAPITAL COST OF LINES OPEN.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>NET REVENUE.</b>							
	£	£	£	£	£	£	£
1930 .. ..	3,664,269	2,690,258	1,356,118	—296,176	546,308	—28,040	7,932,737
1931 .. ..	3,106,095	2,568,424	1,401,501	—148,487	588,074	—48,662	7,406,945
1932 .. ..	3,268,133	3,272,814	1,565,305	615,946	799,104	—5,646	9,515,676
1933 .. ..	4,238,672	3,079,283	1,668,739	755,538	820,552	7,721	10,570,505
1934 .. ..	4,486,666	2,933,606	1,735,874	531,167	732,809	5,520	10,425,642

**PERCENTAGE OF NET REVENUE ON CAPITAL EXPENDITURE.**

	%	%	%	%	%	%	%
1930 .. ..	2.94	3.63	2.31	— 1.09	2.39	—0.43	2.53
1931 .. ..	(a) 2.40	3.38	(a) 2.38	— 0.54	2.52	—0.74	(b) 2.27
1932 .. ..	(a) 2.37	4.40	(a) 4.62	2.26	3.37	—0.09	(b) 3.09
1933 .. ..	(a) 3.05	4.12	(a) 4.81	2.78	3.40	0.12	(b) 3.41
1934 .. ..	(a) 3.23	3.90	(a) 4.99	1.95	2.97	0.84	(b) 3.35

(a) Exclusive of Grafton-South Brisbane line.

(b) Includes Grafton-South Brisbane line.

These figures are also represented in the graphs which accompany this Chapter.

(ii) *Net Revenue, Averages.* Tables showing the gross earnings and the working expenses per average mile worked and per train-mile run have been given previously. The net earnings, *i.e.*, the excess of gross earnings over working expenses, per average mile worked and per train-mile run are shown in the following table :—

**RAILWAYS, STATE.—NET REVENUE, AVERAGES.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>NET REVENUE PER AVERAGE MILE WORKED.</b>							
	£	£	£	£	£	£	£
1930 .. ..	615	571	211	—117	132	—42	325
1931 .. ..	517	532	215	— 59	143	—73	302
1932 .. ..	540	693	239	243	190	— 9	385
1933 .. ..	688	652	254	299	192	12	425
1934 .. ..	728	621	265	209	168	8	417

**NET REVENUE PER TRAIN-MILE RUN.**

	d.	d.	d.	d.	d.	d.	d.
1930 .. ..	32.92	36.54	27.45	—12.80	22.88	— 4.47	27.58
1931 .. ..	29.09	37.76	30.90	— 7.14	26.12	— 9.33	27.73
1932 .. ..	30.34	51.12	34.26	30.08	37.65	— 1.20	36.07
1933 .. ..	39.79	48.24	30.99	36.93	37.28	1.67	40.26
1934 .. ..	42.78	45.99	37.40	25.86	32.63	1.17	39.67



11. Interest.—The amount of interest payable on expenditure from loans on the construction and equipment of the railways in each State, during the five years ended 30th June, 1934, was as follows:—

**RAILWAYS, STATE.—INTEREST ON RAILWAY LOAN EXPENDITURE.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>AMOUNT OF INTEREST PAYABLE.</b>							
	£	£	£	£	£	£	£
1930 .. ..	6,420,643	3,508,657	2,953,211	1,399,053	950,797	284,379	15,516,740
1931 .. ..	6,790,082	3,596,758	3,018,355	1,426,741	968,066	285,881	16,205,274
1932 .. ..	6,519,217	3,641,109	3,589,643	1,217,338	989,173	263,900	14,328,560
1933 .. ..	6,352,581	3,221,710	3,595,522	1,137,193	996,233	263,861	13,673,133
1934 .. ..	5,971,412	3,181,736	3,563,455	1,088,627	1,008,453	246,762	13,165,596

(a) Including interest charges on the Grafton-South Brisbane line, which for the year 1933-34 amounted to £207,587 and was contributed by New South Wales, £71,967; Queensland, £32,469; and the Commonwealth, £103,151. See B § 1, 4 ante.

The interest payable on the cost of construction and equipment, exclusive of expenditure from consolidated revenue (£6,581,815) for that purpose, was at the rate of 4.32 per cent. in 1933-34. The reduction of £28,000,000 in the Queensland Capital Account referred to on page 172 is reflected in the decrease in the annual interest payable by that State.

Exchange on interest payments abroad is not included in the above table. This item is 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 apportioned since 1930-31 were as follows:—

**RAILWAYS, STATE.—EXCHANGE ON OVERSEA INTEREST PAYMENTS.**

Year ended 30th June—	New South Wales.	Victoria.	South Australia.
	£	£	£
1931 .. ..	737,633	183,863	..
1932 .. ..	1,313,541	440,938	176,913
1933 .. ..	1,143,476	402,705	180,326
1934 .. ..	1,012,165	354,335	157,001

12. Profit or Loss.—The following table shows the actual profit or loss after deducting working expenses and interest and all other charges from the gross revenue, and the percentage of such profit or loss on the total capital cost of construction and equipment for the last five years:—

**RAILWAYS, STATE.—PROFIT OR LOSS.**

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES, INTEREST, AND OTHER CHARGES.</b>							
	£	£	£	£	£	£	£
1930 .. ..	-2,756,374	-818,399	-1,597,093	-1,695,229	-404,489	-312,419	-7,584,003
1931 .. ..	a-3,683,987	-1,088,334	-1,616,854a	-1,575,228	-379,992	-334,543	a-8,798,329
1932 .. ..	a-3,251,064	-368,295	-24,338a	-601,392	-190,069	-269,546	a-4,812,884
1933 .. ..	a-2,113,909	-142,427	+73,217a	-381,655	-175,681	-256,140	a-3,102,628
1934 .. ..	a-1,484,746	-248,130	+170,419a	-557,490	-275,644	-241,242	a-2,739,954

**PERCENTAGE OF PROFIT OR LOSS ON CAPITAL COST OF CONSTRUCTION AND EQUIPMENT.(b)**

	%	%	%	%	%	%	%
1930 .. ..	-2.21	-1.10	-2.72	-6.22	-1.77	-4.78	-2.41
1931 .. ..	-2.73	-1.46	-2.64	-5.78	-1.63	-5.11	-2.70
1932 .. ..	-2.36	-0.49	-0.07	-2.21	-0.80	-4.11	-1.56
1933 .. ..	-1.52	-0.19	+0.21	-1.40	-0.73	-3.90	-1.00
1934 .. ..	-1.07	-0.33	+0.53	-2.05	-1.12	-3.68	-0.88

(a) See Note (a) paragraph 11 above. (b) The cost of the Grafton-South Brisbane line is excluded from New South Wales and Queensland but is included with "all States."

13. 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 States, but also on different lines in the same States, 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.

The following table gives particulars for the years 1930 to 1934 :—

## RAILWAYS, STATE.—TRAFFIC.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
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## NUMBER OF PASSENGER JOURNEYS.

1930 ..	147,892,548	157,119,071	24,440,946	17,829,098	14,175,175	2,243,265	363,700,103
1931 ..	126,811,993	134,655,220	22,009,473	15,437,440	11,702,741	1,852,145	312,469,012
1932 ..	128,359,419	125,990,585	20,761,976	15,608,245	10,394,311	1,680,897	302,795,433
1933 ..	132,867,221	130,190,013	22,216,409	16,074,221	11,732,291	1,678,483	314,758,638
1934 ..	142,520,429	131,367,215	22,877,900	16,325,004	12,103,104	1,789,329	326,982,981

## PER 100 OF MEAN POPULATION.

1930 ..	5.872	8.833	2.704	3.114	3.329	1.023	5.666
1931 ..	4.983	7.511	2.397	2.688	2.715	831	4.819
1932 ..	4.999	6.984	2.231	2.705	2.397	744	4.630
1933 ..	5.128	7.173	2.361	2.774	2.685	736	4.775
1934 ..	5.454	7.198	2.407	2.803	2.748	781	4.924

## PER AVERAGE MILE OF LINE WORKED.

1930 ..	24,821	33,370	3,791	7,024	3,449	3,399	14,892
1931 ..	21,089	28,588	3,382	6,091	2,838	2,786	12,725
1932 ..	21,216	26,693	3,170	6,172	2,467	2,606	12,255
1933 ..	21,574	27,577	3,384	6,355	2,742	2,603	12,643
1934 ..	23,122	27,826	3,484	6,454	2,782	2,775	13,092

## TONNAGE OF GOODS AND LIVE STOCK CARRIED.

1930 ..	12,150,964	7,513,606	4,528,201	2,652,753	3,530,188	632,052	31,007,764
1931 ..	10,743,109	6,099,310	3,857,766	2,162,709	3,153,525	466,153	26,482,572
1932 ..	10,211,322	6,186,081	3,860,668	2,419,094	2,847,568	449,039	25,973,772
1933 ..	11,147,866	6,244,346	3,685,608	2,387,817	2,840,077	510,585	26,816,299
1934 ..	11,364,235	5,858,377	4,214,382	2,141,646	2,652,247	560,611	26,791,498

## PER 100 OF MEAN POPULATION.

1930 ..	482	422	501	463	829	288	483
1931 ..	422	340	420	377	732	209	408
1932 ..	398	343	415	419	657	199	397
1933 ..	430	344	392	412	650	224	407
1934 ..	435	321	443	368	602	245	403

RAILWAYS, STATE.—TRAFFIC—*continued.*

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>PER AVERAGE MILE OF LINE WORKED.</b>							
1930 ..	2,039	1,596	702	1,045	859	958	1,270
1931 ..	1,787	1,295	593	853	765	701	1,079
1932 ..	1,688	1,311	589	956	676	696	1,051
1933 ..	1,810	1,323	561	914	664	792	1,077
1934 ..	1,844	1,241	642	847	610	869	1,073

(ii) *Metropolitan and Country Passenger Traffic and Revenue.* A further indication of the difference in passenger traffic conditions is obtained from a comparison of the volume of metropolitan and suburban and country traffic in each State. This is shown below for the year 1933-34:—

**RAILWAYS, STATE.—METROPOLITAN AND SUBURBAN, AND COUNTRY PASSENGER TRAFFIC AND RECEIPTS, 1933-34.**

State.	Passenger Journeys.			Revenue.		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
	No.	No.	No.	£	£	£
N.S.W. ..	a133,805,451	8,714,978	142,520,429	2,332,897	2,536,338	4,869,235
Victoria ..	b126,294,486	5,072,729	131,367,215	2,190,310	1,312,203	3,502,513
Queensland..	18,071,192	4,806,708	22,877,900	254,720	1,155,007	1,409,727
S. Australia	c 15,228,736	1,096,268	16,325,004	214,634	301,619	516,253
W. Australia	10,671,439	1,431,665	12,103,104	134,408	392,348	526,756
Tasmania ..	(d)	(d)	1,789,329	(d)	(d)	107,097
Total ..	(e)	(e)	326,982,981	(e)	(e)	10,931,581

(a) Within 34 miles of Sydney and Newcastle, including the Richmond line. of Melbourne.

(c) Within 25 miles of Adelaide.

(d) Not available.

(b) Within 20 miles. (e) Incomplete.

(iii) *Electrification of Suburban and Country Railways.* Reference to the electrification of the Melbourne and Sydney suburban railways will be found in Year Book No. 22, p. 285.

(iv) *Goods Traffic.* (a) *Classification.* The differing conditions of the traffic in each State might also, to some extent, be analysed by an examination of the tonnage of various classes of commodities carried, and of the revenue derived therefrom. Comparative particulars regarding the quantities of some of the leading classes of commodities

carried are available for all the States, and the following table shows the number of tons of various representative commodities carried, with the percentage of each class on the total, for the financial year 1933-34:—

**RAILWAYS, STATE.—CLASSIFICATION OF COMMODITIES CARRIED, 1933-34.**

State.	Coal, Coke, and Shale.	Other Minerals.	Grain and Flour.	Hay, Straw and Chaff.	Wool.	Live Stock.	All other Commodities.	Total.
<b>TONS CARRIED.</b>								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
New South Wales	5,286,596	1,041,780	1,730,792	192,674	174,795	721,096	2,216,502	11,364,235
Victoria ..	217,448	271,596	1,116,653	197,125	67,931	586,187	3,401,437	5,858,377
Queensland ..	543,220	388,855	1,859,099 <sup>a</sup>	(b)	80,352	317,670	1,025,276	4,214,382
South Australia	117,133	488,459	586,323	20,330	29,780	119,066	780,555	2,141,646
Western Australia	225,345	267,065	911,017	45,327	19,470	93,187	1,090,836	2,652,247
Tasmania ..	240,541	(c)	64,051	24,212	4,263	20,764	206,780	560,611
All States ..	6,630,283	2,457,755	6,267,845	479,668	376,591	1,857,970	8,721,386	26,791,498

**PERCENTAGE OF TOTAL TONNAGE CARRIED.**

	%	%	%	%	%	%	%	%
New South Wales	46.52	9.17	15.23	1.70	1.54	6.34	19.50	100.00
Victoria ..	3.71	4.04	19.06	3.36	1.16	10.01	58.06	100.00
Queensland ..	12.89	9.22	44.11	(b)	1.91	7.54	24.33	100.00
South Australia	5.47	22.81	27.38	0.95	1.39	5.56	36.44	100.00
Western Australia	8.50	10.07	34.35	1.71	0.73	3.51	41.13	100.00
Tasmania ..	42.91	(c)	11.43	4.32	0.76	3.70	36.88	100.00
All States ..	24.75	9.17	23.39	1.79	1.41	6.94	32.55	100.00

(a) Agricultural produce.  
coal, coke, and shale.

(b) Included with "All other commodities."

(c) Included with

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1933-34 according to a classification which has been adopted by all States:—

**RAILWAYS, STATE.—GOODS, ETC., TRAFFIC—REVENUE, 1933-34.**

Class.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
General merchandise	4,752,969	2,984,775	2,738,846	914,146	1,178,755	177,531	12,747,022
Wheat ..	(a)	569,515	(a)	278,212	507,283	(a)	1,455,010
Wool ..	641,140	195,134	432,383	67,355	60,541	5,320	1,401,873
Live stock	1,017,777	675,450	512,775	163,942	122,031	17,664	2,509,639
Minerals—							
Coal, coke, and shale	1,114,147	66,913	224,966	27,032	123,933	(b) 27,373	1,584,664
Others	275,797	80,251	237,838	312,212	67,270	(c) 20,373	993,741
Total ..	7,802,130	4,572,038	4,146,808	1,762,899	2,059,813	248,261	20,591,949

(a) Included with General Merchandise. (b) Native coal. (c) Minerals other than native coal.  
(d) Incomplete.

In New South Wales and Victoria, electric motor coaches are used for the transfer of parcels from the central stations to suburban stations, and in Victoria to convey luggage and parcels between the two main terminal stations.

14.<sup>n</sup> Passenger-Mileage and Ton-Mileage.—(i) *Passenger-Miles.* The subjoined table gives particulars of passenger-mileage in respect of all States for the years 1929-30 to 1933-34.

## RAILWAYS, STATE.—SUMMARY OF "PASSENGER-MILES."

Year ended 30th June-	Passenger Train-Mileage.	Number of Passenger Journeys.	Total Passenger-Miles.	Amount Received from Passengers.	Average Number of Passengers carried per Train-Mile.	Average Mileage per Passenger Journey.	Average Earnings per Passenger-Mile.	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked.
	Miles. (,000 omitted.)	No. (,000 omitted.)	No. (,000 omitted.)	£	No.	Miles.	d.	d.	No.
NEW SOUTH WALES.									
1930	16,952	147,893	1,731,073	6,610,951	102	11.70	0.92	10.73	290,519
1931	16,496	126,812	1,414,061	5,172,359	85	11.15	0.88	9.79	235,161
1932	17,148	128,359	1,366,764	4,943,790	80	10.64	0.86	9.24	220,768
1933	16,382	132,867	1,422,105	5,025,484	87	10.70	0.85	9.08	230,911
1934	16,326	142,520	1,543,531	4,869,235	95	10.83	0.76	8.20	250,418
VICTORIA.									
1930	12,188	157,119	1,352,954	4,829,898	111	8.61	0.86	7.38	287,349
1931	11,066	134,655	1,134,376	3,890,604	103	8.42	0.82	6.93	240,830
1932	10,534	125,991	1,053,215	3,514,104	100	8.35	0.80	6.69	223,138
1933	10,541	130,190	1,087,543	3,561,588	103	8.35	0.79	6.57	230,363
1934	10,559	131,367	1,079,981	3,502,513	102	8.22	0.78	6.40	228,761
QUEENSLAND.									
1930	4,313	24,441	(a)	1,838,812	(a)	(a)	(a)	18.06	(a)
1931 <sup>b</sup>	4,411	27,955	(a)	1,510,412	(a)	(a)	(a)	16.51	(a)
1932 <sup>b</sup>	4,625	20,695	(a)	1,290,225	(a)	(a)	(a)	14.96	(a)
1933 <sup>b</sup>	4,658	22,147	(a)	1,301,405	(a)	(a)	(a)	14.10	(a)
1934 <sup>b</sup>	4,808	22,806	(a)	1,375,542	(a)	(a)	(a)	14.48	(a)
SOUTH AUSTRALIA.									
1930	3,342	17,829	208,634	628,474	62	11.70	0.72	8.46	82,193
1931	3,193	15,437	167,738	499,745	53	10.87	0.72	7.77	66,179
1932	3,140	15,608	166,407	493,933	53	10.66	0.71	7.59	65,792
1933	3,152	16,074	172,106	519,277	55	10.71	0.72	7.75	68,046
1934	3,202	16,325	175,559	516,253	55	10.75	0.71	7.59	69,411
WESTERN AUSTRALIA.									
1930	2,206	14,175	(a)	720,137	(a)	(a)	(a)	12.19	(a)
1931 <sup>c</sup>	2,062	11,703	(a)	551,347	(a)	(a)	(a)	11.31	(a)
1932 <sup>c</sup>	1,938	10,394	(a)	489,436	(a)	(a)	(a)	11.30	(a)
1933 <sup>c</sup>	2,181	11,732	(a)	503,177	(a)	(a)	(a)	10.29	(a)
1934 <sup>c</sup>	2,290	12,103	(a)	526,756	(a)	(a)	(a)	10.45	(a)
TASMANIA.									
1930	670	2,243	35,257	147,487	53	15.71	1.00	15.77	53,428
1931	(c) 590	1,852	28,646	117,339	49	15.46	0.98	15.20	43,083
1932	(c) 506	1,681	27,158	107,587	54	16.16	0.95	15.36	42,111
1933	(c) 498	1,678	26,795	104,978	54	15.09	0.94	15.01	41,549
1934	(c) 500	1,780	27,960	107,097	56	15.62	0.92	14.36	43,536

(a) Not available.

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

(c) Includes "Assistant" and "Light" Mileage.

(ii) *Ton-Miles.* Particulars regarding total "ton-miles" are given in the following table for each of the years 1929-30 to 1933-34 :—

## RAILWAYS, STATE.—SUMMARY OF "TON-MILES."

Year ended 30th June—	Goods-Train-Mileage.	Total Tons Carried.	Total "Ton-miles."	Earnings.	Average Freight-paying Load Carried per "Train."	Average Haul per Ton.	Earnings per "Ton-mile."	Density of Traffic per Average Mile Worked.
	No. (,000 omitted.)	No. (,000 omitted.)	No. (,000 omitted.)	£	Tons.	Miles.	d.	Tons.
NEW SOUTH WALES.								
1930	9,762	11,861	1,498,723	9,353,867	177	126.35	1.48	251,778
1931	8,997	10,616	1,425,184	7,841,406	184	134.25	1.30	237,260
1932	8,700	10,054	1,407,451	7,853,315	186	139.99	1.33	233,030
1933	9,180	10,889	1,550,327	8,169,056	193	142.38	1.25	252,129
1934	8,847	11,066	1,410,854	7,802,130	187	127.49	1.31	228,892
VICTORIA.								
1930	5,483	7,514	737,623	5,599,182	166	98.17	1.82	156,674
1931	4,879	6,099	713,022	4,817,808	174	116.90	1.62	151,385
1932	4,830	6,186	769,228	4,805,738	181	124.34	1.49	162,972
1933	4,781	6,244	734,970	4,773,699	178	117.70	1.55	155,681
1934	4,752	5,858	693,741	4,572,038	146	118.42	1.58	146,948
QUEENSLAND.								
1930	7,546	4,528	554,171	4,780,114	c 73	125.20	2.06	88,628
1931 <sup>b</sup>	6,406	3,838	495,912	4,148,845	c 77	133.20	2.00	79,149
1932 <sup>b</sup>	6,257	3,835	516,699	3,968,227	c 83	139.02	1.83	82,084
1933 <sup>b</sup>	6,073	3,620	517,502	3,944,275	c 85	147.72	1.82	82,101
1934 <sup>b</sup>	6,236	4,152	541,238	4,080,906	c 87	130.34	1.81	82,422
SOUTH AUSTRALIA.								
1930	2,209	2,653	350,325	2,249,895	164	131.29	1.55	138,044
1931	1,799	2,163	285,639	1,787,747	165	132.07	1.50	112,711
1932	1,774	2,419	287,619	1,948,293	170	118.37	1.63	113,731
1933	1,758	2,388	283,565	1,924,982	161	118.76	1.63	112,114
1934	1,728	2,142	265,682	1,762,899	154	124.06	1.59	105,044
WESTERN AUSTRALIA.								
1930	a 3,654	3,530	361,935	2,523,302	115	102.53	1.67	88,083
1931	a 3,487	3,154	373,405	2,289,638	121	118.41	1.47	90,566
1932	a 3,266	2,848	347,492	2,106,129	119	122.03	1.45	82,461
1933	a 3,230	2,840	339,007	2,110,065	105	119.37	1.49	79,237
1934	a 3,232	2,652	317,870	2,059,813	98	119.85	1.56	73,055
TASMANIA.								
1930	a 857	607	33,715	288,373	c 39	55.58	2.05	51,091
1931	a 667	444	27,253	220,545	c 41	61.39	1.94	40,988
1932	a 627	427	26,690	215,180	c 43	62.45	1.93	41,386
1933	a 613	490	27,246	223,262	c 44	55.63	1.98	42,248
1934	a 637	540	27,623	230,597	c 43	51.17	1.98	42,833

(a) Includes "Assistant" and "Light" mileage.

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

(c) Approximate.

In New South Wales the tonnage carried is exclusive of some coal on which way leave charges only have been collected, the quantities being 289,667 tons (1930), 127,209 tons (1931), 157,110 tons (1932), 258,893 tons (1933) and 297,950 tons (1934). Particulars for Tasmania do not include live stock.

15. **Passenger Fares and Goods Rates.**—Fares and rates are changed from time to time to suit the varying necessities of the railways, and when drought conditions prevail special concessions are made in the rates for the carriage of fodder and water and for the transfer of stock to other areas.

An earlier issue of this work (No. 18, pp. 305-6) gives detailed information as at 30th June, 1924, in regard to the following rates :—(a) Ordinary Passenger Mileage rates ; (b) Highest and Lowest Class Freight rates ; (c) Rates for agricultural produce.

16. **Rolling Stock.**—Particulars of locomotives and rolling stock in use on State railways may be found in the Transport and Communication Bulletin No. 25.

17. **Employees.**—(i) *At 30th June.* The following table gives the number of railway employees in each year from 1930 to 1934 inclusive, classified according to (a) salaried staff, and (b) wages staff :—

**RAILWAYS, STATE.—EMPLOYEES.(a)**

State.	At 30th June—									
	1930.		1931.		1932.		1933.		1934.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
New South Wales	5,754	34,243	5,947	34,517	5,948	34,091	5,724	32,982	5,734	33,966
Victoria ..	4,249	20,361	4,051	17,985	3,720	17,456	3,621	18,159	3,533	17,450
Queensland ..	3,219	14,542	3,030	12,970	2,946	12,461	2,917	12,554	2,943	13,854
South Australia ..	1,293	6,794	1,156	5,586	1,137	5,736	1,148	5,784	1,173	5,563
Western Australia	1,424	7,587	1,287	5,900	1,204	5,671	1,178	6,135	1,205	7,154
Tasmania ..	217	1,352	191	1,234	174	1,137	166	1,133	179	1,156
All States ..	16,156	84,879	15,664	78,192	15,129	76,552	14,754	76,747	14,772	79,145

(a) Exclusive of construction staff.

In the period under review the totals of salaried and wages staffs decreased from 101,035 in 1930 to 93,917 in 1934, a decline of 7.0 per cent.

(ii) *Average staff employed, 1933-34.* The number of employees at one point of time does not afford the best index of employment in railway work. It is considered that the following statement of the average number employed throughout the year indicates more accurately the labour requirements of the railways :—

**AVERAGE STAFF EMPLOYED, 1933-34.**

State.	Operating Staff.		Construction Staff.		All Employees—Staff.	
	Salaried.	Wages.	Salaried.	Wages.	Salaried.	Wages.
New South Wales ..	5,706	32,468	8	43	5,714	32,511
Victoria ..	3,740	18,219	..	..	3,740	18,219
Queensland ..	2,936	12,809	10	283	2,946	13,092
South Australia ..	1,158	5,738	..	..	1,158	5,738
Western Australia ..	1,185	6,869	12	249	1,197	7,118
Tasmania ..	179	1,156	..	..	179	1,156
All States ..	14,904	77,259	30	575	14,934	77,834

In the States of Victoria and Tasmania, railway construction work is not under the control of the Railways Commissioners.

18. 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 in each State for each of the years 1930 to 1934 inclusive :—

## RAILWAYS, STATE.—ACCIDENTS.

State.	In year ended 30th June—									
	1930.		1931.		1932.		1933.		1934.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales	64	571	44	409	73	308	69	329	53	389
Victoria ..	57	197	57	150	56	227	52	177	49	164
Queensland ..	26	133	15	138	13	124	26	100	21	161
South Australia ..	9	106	13	98	7	104	13	127	11	127
Western Australia ..	18	330	13	195	23	266	15	236	21	327
Tasmania ..	6	84	2	42	4	16	1	10	1	20
All States ..	180	1,511	144	1,032	176	1,045	176	979	156	1,188

Further details relating to the number of passengers, employees and other persons affected by railway accidents are published on page 24 of Transport and Communication Bulletin No. 25.

19. Consumption of Oil and Fuel.—The appended table shows the quantity and value of oil and fuel consumed by the various Government Railway Departments during the year 1933-34 :—

## GOVERNMENT RAILWAYS.—CONSUMPTION AND VALUE OF OIL AND FUEL, 1933-34.

Government Railways.	Oil.						Coal.		
	Lubricating.			Fuel and Light.			Tons.	Value.	Average Cost per Ton.
	Gallons.	Value.	Average Cost per Gallon.	Gallons.	Value.	Average Cost per Gallon.			
		£	s. d.		£	s. d.	£	£ s. d.	
New South Wales	331,402	31,148	1 10. 56	1,095,647	34,793	0 7. 62	1,235,421	775,405 0 12 6. 63	
Victoria ..	166,346	14,650	1 9. 13	1,654,578	55,500	0 8. 05	499,676	392,327 0 15 8. 43	
Queensland ..	155,413	16,177	2 0. 99	177,892	9,205	1 0. 42	349,816	299,302 0 17 1. 34	
South Australia	87,673	9,797	2 2. 82	944,315	40,948	0 10. 41	142,861	174,724 1 4 5. 53	
Western Australia	61,580	6,663	2 1. 97	305,326	10,584	0 8. 32	284,278	195,481 0 13 9. 03	
Tasmania ..	29,736	3,018	2 0. 35	81,400	4,489	1 1. 23	42,939	44,542 1 0 8. 96	
Total States ..	832,150	81,453	1 11. 49	4,259,158	155,519	0 8. 76	2,554,991	1,881,781 0 14 8. 76	
Federal ..	15,859	1,719	2 2. 02	56,094	4,743	1 8. 29	19,042	27,935 1 9 4. 08	
Total, Australia ..	848,009	83,172	1 11. 54	4,315,252	160,262	0 8. 91	2,574,033	1,909,716 0 14 10. 06	



The range in the average cost per ton of coal from 12s. 6d. in New South Wales to £1 9s. 4d. per ton for coal used on the Federal Railways is attributable to the comparatively low haulage expenses incurred in the coal-producing States. The average cost of coal during 1933-34 showed a decrease of 1s. 4.22d. on that for 1932-33.

#### § 4. Private Railways.

1. **Total Mileage Open, 1933-34.**—The bulk of the private railways in Australia have been laid down for the purpose of hauling timber, firewood, sugar-cane, coal, or other minerals, and they are not generally used for the conveyance of passengers or for public traffic. In many cases the lines are practically unballasted and easily removable.

The railways referred to in this section include only lines open to the public for general passenger and goods traffic. Complete particulars of lines used for special purposes only for the year 1933-34 are not available.

2. **Lines Open for General Traffic.**—The following statement gives a summary of the operations of private railways open for general traffic for the year 1933-34 :—

#### RAILWAYS, PRIVATE.—SUMMARY, 1933-34.

State.	Companies from which returns were received.	Miles Open (Route).	Capital Cost.	Gross Revenue.	Working Expenses.	Train-Miles.	Passenger Journeys.	Tonnage of Goods, etc.	No. of Employees.	Rolling Stock.		
										No.	Miles.	£
New South Wales ..	7	82.70	1,282,309	286,556	173,332	469,302	1,085,160	613,903	390	45	2	723
Victoria ..	2	24.94	94,159	11,623	8,487	19,176	11,302	30,906	20	5	4	36
Queensland	13	269.90	556,421	40,586	31,641	102,781	13,486	182,535	82	22	14	469
South Australia ..	1	50.51	(a)	(a)	(a)	38,536	240	903,958	21	7	1	204
Western Australia	1	277.00	2,239,613	158,208	72,851	243,316	26,885	117,130	230	23	23	509
Tasmania	4	141.56	896,440	64,534	56,722	116,639	38,299	63,010	164	21	17	302
All States (b)	28	846.61	5,068,942	561,507	343,033	989,750	1,175,372	1,911,442	907	123	61	2,243

(a) Not available.

(b) Incomplete.

The particulars given in the table are incomplete in respect of the States of New South Wales, Queensland, South Australia, and Tasmania. In New South Wales and Queensland several of these lines, although owned by private companies, are operated by the Government Railway Departments, and Government rolling stock is used thereon.

#### C. TRAMWAYS.

1. **Systems in Operation.**—(i) *General.* Tramway systems are in operation in all the States, and in recent years considerable extension has been made in the use of electrical traction, the benefit of which is now enjoyed in a number of the larger towns.

In many parts of Australia private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, 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 the total mileage of tramway lines open for general passenger traffic for the year 1933-34, classified (a) according to the motive power used, and (b) according to gauge, also for Australia according to motive power for the years 1929-30 to 1933-34 :—

## TRAMWAYS.—ROUTE MILEAGE OPEN, 1933-34.

Nature of Motive Power and Gauge.	N.S. Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Total Australia.
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## ACCORDING TO MOTIVE POWER.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Electric .. ..	185.43	154.48	56.86	82.83	65.56	28.43	573.59
Steam .. ..	9.06	..	6.65	..	6.10	..	21.81
Cable .. ..	..	24.29	..	..	..	..	24.29
Horse .. ..	..	..	..	..	2.51	..	2.51
<b>Total .. ..</b>	<b>194.49</b>	<b>178.77</b>	<b>63.51</b>	<b>82.83</b>	<b>74.17</b>	<b>28.43</b>	<b>622.20</b>

## ACCORDING TO GAUGE.

Gauge—							
5 ft. 3 in. .. ..	..	5.18	..	..	..	..	5.18
4 ft. 8½ in. .. ..	194.49	173.59	56.86	82.83	..	..	507.77
3 ft. 6 in. .. ..	..	..	6.65	..	74.17	28.43	109.25
<b>Total .. ..</b>	<b>194.49</b>	<b>178.77</b>	<b>63.51</b>	<b>82.83</b>	<b>74.17</b>	<b>28.43</b>	<b>622.20</b>

Of the total mileage of tramway lines, 423.76 are Government owned, 183.38 are municipal and 15.06 are private. Further details on this subject may be obtained from page 27 of Transport and Communication Bulletin No. 25.

## TRAMWAYS.—ROUTE MILEAGE OPEN, AUSTRALIA.

Nature of Motive Power.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
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## ACCORDING TO MOTIVE POWER.

	Miles.	Miles.	Miles.	Miles.	Miles.
Electric .. ..	571.85	574.52	574.59	571.87	573.59
Steam .. ..	41.62	29.37	21.97	21.97	21.81
Cable .. ..	26.44	24.29	24.29	24.29	24.29
Horse .. ..	1.50	1.50	1.50	1.50	2.51
<b>Total .. ..</b>	<b>641.41</b>	<b>629.68</b>	<b>622.35</b>	<b>619.63</b>	<b>622.20</b>

(iii) *Cost of Construction and Equipment.* The table hereunder shows the total cost of construction and equipment of all tramways to the 30th June, 1934, classified according to the nature of the motive power. Further details relating to controlling authorities are available on page 27 of Transport and Communication Bulletin No. 25.

**TRAMWAYS.—COST OF CONSTRUCTION AND EQUIPMENT, 1933-34.**

Nature of Motive Power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
ACCORDING TO MOTIVE POWER.							
	£	£	£	£	£	£	£
Electric	8,233,955a	7,277,464	2,062,234	4,072,007	1,746,161	634,192	24,026,013
Steam ..	177,023	..	53,235	..	62,510	..	292,768
Cable ..	..	1,284,835	..	..	..	..	1,284,835
Horse ..	..	..	..	..	10,104	..	10,104
Total ..	8,410,978	8,562,299	2,115,469	4,072,007	1,818,775	634,192	25,613,720

(a) Exclusive of Stores Advance and Power Houses Accounts transferred to Railways Department.

2. New South Wales.—(i) *General.* With the exception of a steam tramway  $3\frac{1}{2}$  miles in length from Parramatta to Duck River, which is operated by Sydney Ferries Ltd., the tramways of New South Wales are the property of the Government, and are under the control of the Department of Road Transport and Tramways. In Sydney and suburbs the Government tramways are divided into six distinct systems, five of which are operated by electricity, and one, the Kogarah to Sans Souci line, by steam. The conversion of the Newcastle system from steam to electric traction was completed in 1930. The gauge of all lines is 4 ft.  $8\frac{1}{2}$  in.

(ii) *Particulars of Working.—Electric and Steam Tramways.* The following table gives a summary of the operations of all tramways for the years 1930 to 1934 :—

**ELECTRIC AND STEAM TRAMWAYS.—NEW SOUTH WALES.—SUMMARY.**

Year ended 30th June—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	In-terest.	Per-centage of Working Expenses on Gross Revenue.	Per-centage of Net Earnings on Capital Cost.	Passen-gers carried.	Persons em-ployed.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1930 ..	213.91	11,497,978	3,905,205	3,628,554	276,651	646,892	92.92	2.41	307,874	10,147
1931 ..	203.09	8,090,699	3,059,897	3,124,366	-64,469	475,571	102.11	-0.80	266,393	8,191
1932 ..	197.57	8,155,204	3,306,557	3,049,267	257,290	546,626	92.22	3.15	286,504	8,417
1933 ..	197.47	8,204,065	3,268,200	2,781,968	486,232	484,057	85.12	5.93	295,783	8,033
1934 ..	194.49	8,410,978	3,028,716	2,375,152	653,564	455,986	78.42	7.77	296,639	7,922

(a) Exclusive of the cost of power houses now charged to the Railways Department.

The cost of construction and equipment is exclusive of the amount of the Stores Advance Account.

3. *Victoria.*—(i) *General.* In Melbourne, electric and cable tramway systems with route mileages of 114.64 miles and 24.29 miles respectively are worked by the Melbourne and Metropolitan Tramways Board, while two electric tramways, (a) St. Kilda to Brighton 5.18 miles and (b) Sandringham to Black Rock 2.43 miles, belong to and are operated by the Railways Commissioners. The line from Black Rock to Beaumaris was closed for traffic in August, 1931. The State Electricity Commission operates 10.98 miles of electric tramways at Geelong, acquired from the Melbourne Electric Supply Company on the 1st September, 1930, and 21.25 miles of similar traction at Ballarat and Bendigo, taken over from the Electric Supply Company of Victoria on 1st July, 1934.

A short account of the formation of the Melbourne Tramway and Omnibus Company and of the Tramways Board will be found in earlier issues of this work (see Year Books No. 7 page 652, No. 9 page 679 and No. 15 page 593).

With the exception of the St. Kilda-Brighton line, which is of 5 ft. 3 in. gauge, all the tramways of the State are of 4 ft. 8½ in. gauge.

(ii) *Particulars of Working.—Electric and Cable Tramways.* The following table gives particulars for all tramways in Victoria during each of the years 1930 to 1934 inclusive:—

## ELECTRIC AND CABLE TRAMWAYS.—VICTORIA.—SUMMARY.

Year ended 30th June—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1930 ..	180.46	8,623,910	2,470,482	1,775,726	694,756	314,433	71.88	8.06	214,431	5,162
1931 ..	180.85	8,699,155	2,191,009	1,524,033	666,976	347,546	69.56	7.68	188,452	4,785
1932 ..	178.67	8,644,770	2,049,698	1,327,161	722,537	326,250	64.75	8.36	175,433	4,740
1933 ..	178.67	8,600,453	2,058,241	1,285,984	772,257	325,412	62.48	8.98	176,917	4,732
1934 ..	178.77	8,562,299	2,088,716	1,306,301	782,415	300,015	62.54	9.14	179,779	4,870

4. *Queensland.*—(i) *General.* The electric tramways in the city and suburbs of Brisbane were controlled by a private company, with head office in London, until the 31st December, 1922, on which date they were purchased by the Queensland Government which, under the provisions of the *Brisbane Tramway Trust Act 1922*, appointed a Trust to control and operate the system until 1st December, 1925, when the control passed to the Brisbane City Council. Under the provisions of the *Brisbane City Council Act 1925*, the Council took over the liabilities of the Tramway Trust to the extent of £2,000,000 which had been incurred in London, and assumed complete control of the system. The total length of the Brisbane tramways was 56.86 route miles at 30th June, 1934, the gauge of the line being 4 ft. 8½ in.

In addition to the electric tramways, a steam tramway operated by the City Council is in operation at Rockhampton. The length of line is 6.65 route miles and the gauge 3 ft. 6 in.

(ii) *Particulars of Working.—Electric and Steam Tramways.* The following table gives particulars of the working of all tramways in Queensland for each year from 1930 to 1934 :—

**ELECTRIC AND STEAM TRAMWAYS.—QUEENSLAND.—SUMMARY.**

Year ended 31st December—	Mileage Open for Traffic (Route)	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1930 ..	63.23	2,294,620	780,844	568,241	212,603	113,032	72.77	9.27	75,128	1,520
1931 ..	63.34	2,273,109	716,605	519,738	196,867	109,346	72.53	8.66	70,761	1,404
1932 ..	63.51	2,195,545	688,883	481,186	207,697	106,689	69.85	9.46	69,478	1,431
1933 (a)	63.51	2,162,631	694,611	479,426	215,185	106,651	69.02	9.95	69,646	1,359
1934 (a)	63.51	2,115,469	700,723	501,846	198,877	106,611	71.62	9.40	71,185	1,485

(a) Year ended 30th June.

5. *South Australia.—(i) General.* The tramways in Adelaide and suburbs are controlled by a Municipal Tramways Trust created in 1907. Prior to that year, the system was run with horse-traction by several private companies. Electric traction was inaugurated in 1909, and at the 31st July, 1934, the Tramways Trust operated a total route mileage of 82.83 miles of 4 ft. 8½ in. gauge.

(ii) *Particulars of Working.—Electric Tramways.* The following table gives particulars of the working of electric tramways in Adelaide for each year from 1930 to 1934 :—

**ELECTRIC TRAMWAYS.—ADELAIDE.—SUMMARY.**

Year ended 31st July—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1930..	82.83	3,834,302	756,560	521,839	234,721	258,697	68.98	6.12	59,853	1,736
1931..	82.84	a 4,036,396	a 722,104	a 445,260	a 276,844	a 287,534	a 61.66	a 6.86	a 52,756	a 1,840
1932..	82.84	a 4,043,913	a 659,575	a 383,400	a 276,175	a 264,597	a 58.13	a 6.83	a 48,467	a 1,777
1933..	82.83	a 4,068,156	a 643,274	a 392,526	a 250,748	a 253,930	a 61.02	a 6.16	a 48,154	a 1,719
1934..	82.83	a 4,072,007	a 627,897	a 388,136	a 239,761	a 248,760	a 61.82	a 5.89	a 47,021	a 1,708

(a) Includes motor omnibuses. Separate particulars are not available.

There are also various Government horse-tramways in country districts, worked in connexion with the railway system, which are used mainly for passenger service though some are for special purposes.

6. *Western Australia.—(i) General.* The Perth electric tramways were opened for traffic by a private company on the 24th September, 1899, and the system was subsequently extended to many of the suburbs. Control was taken over by the Government on the 1st July, 1913, and the tramways are now worked in conjunction with the Government railways. The length of line open at 30th June, 1934, was 45.39 route miles. Electric tramways with a route mileage at 31st August, 1934, of 8.61 miles and controlled by the municipal authorities, are in operation in Fremantle. In

Kalgoorlie and Boulder a private company controls the electric tramways, of which at the end of 1934, the length of line was 11.56 route miles. All the electric tramways of the State are of 3 ft. 6 in. gauge.

In addition to the electric tramways, there are several Government tramways, with a total length of 8.61 miles of 3 ft. 6 in. gauge. The line are under control of the Department of Works and Labour, and the total mileage of 8.61 miles is made up of several short lengths worked by steam or horses in connexion with the jetties at certain ports and providing communication between the jetties and the goods sheds or warehouses.

(ii) *Particulars of Working.*—All Tramways. The following table gives a summary for all tramways in the State for the years 1930 to 1934 :—

**ELECTRIC, STEAM AND HORSE TRAMWAYS.—WESTERN AUSTRALIA.—SUMMARY.**

Year.	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest. (a)	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1930 ..	69.02	1,783,798	429,067	365,087	63,980	55,857	85.09	3.59	43,358	882
1931 ..	69.03	1,793,341	379,240	326,790	52,450	57,432	86.17	2.92	38,292	794
1932 ..	69.03	1,793,651	359,080	288,098	70,982	55,480	80.23	3.96	36,133	761
1933 ..	68.84	1,802,831	354,321	290,448	63,873	55,426	81.97	3.54	36,329	741
1934 ..	74.17	1,818,775	354,552	297,367	57,185	56,347	83.87	3.14	36,595	773

(a) Exclusive of Kalgoorlie and Boulder electric tramways operated by a private company.

7. Tasmania.—(i) *General.* In Hobart there is a system of electric tramways consisting of 16.70 route miles of 3 ft. 6 in. gauge controlled by the Hobart Municipal Council. The Launceston City Council operates a length of 11.73 miles of 3 ft. 6 in. gauge in that City.

There are also several lines of privately-owned steam tramways, which have been included with private railways, as they do not come within the category of street tramways for the conveyance of passengers.

(ii) *Particulars of Working.*—Electric Tramways.—The following table gives a summary of the working of the two electric systems for the years 1930 to 1934 :—

**ELECTRIC TRAMWAYS.—TASMANIA.—SUMMARY.**

Year.	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1930 ..	30.53	581,395	172,187	141,801	30,386	35,614	82.35	5.23	17,356	392
1931 ..	30.53	612,632	159,136	127,854	31,282	37,308	80.34	5.11	16,360	388
1932 ..	30.73	628,794	154,812	115,096	39,716	41,485	74.34	6.32	15,493	353
1933 ..	28.31	630,657	161,902	116,112	45,790	42,726	71.72	7.26	14,850	291
1934 ..	28.43	634,192	164,826	123,998	40,828	36,376	75.23	6.44	14,942	308

8. Australia.—*All Tramways—Summary 1930 to 1934.* The following table gives a summary of the working of all tramway systems in Australia for the years 1930 to 1934 :—

ALL TRAMWAYS—AUSTRALIA—SUMMARY.

Particulars.	1930.	1931.	1932.	1933.	1934.
Mileage open for traffic .. Miles	639.98	629.68	622.35	619.63	622.20
Cost of Construction and Equipment .. £	28,616,003	25,330,705	25,461,877	25,468,793	25,613,720
Cost per mile .. £	44,714	40,228	40,912	41,103	41,166
Gross Revenue .. £	8,514,345	7,227,991	7,218,605	7,180,549	6,965,430
Working Expenses .. £	7,001,248	6,068,041	5,644,208	5,346,464	4,992,800
Net Earnings .. £	1,513,097	1,159,950	1,574,397	1,834,085	1,972,630
Interest .. £	1,424,525	1,314,737	1,341,127	1,268,202	1,204,095
Percentage of Working Expenses on Gross Revenue .. %	82.23	83.95	78.19	74.46	71.68
Percentage of Net Earnings on Capital Cost .. %	5.29	4.58	6.18	7.20	7.70
Tram-miles run .. 000 miles	79,010	77,308	79,963	80,910	80,757
Gross revenue per tram mile .. d.	25.86	22.44	21.66	21.30	20.70
Working expenses per tram mile .. d.	21.27	18.84	16.94	15.86	14.84
Net earnings per tram mile .. d.	4.59	3.60	4.72	5.44	5.86
Passengers carried .. 000	718,000	633,014	631,508	641,680	646,161
Passengers carried per tram mile .. No.	9.09	8.19	7.90	7.93	8.00
Average revenue per passenger journey .. d.	2.85	2.74	2.74	2.69	2.59
Persons employed at end of year .. No.	19,839	17,402	17,479	16,875	17,066

(a) Exclusive of cost of power houses for New South Wales electric tramways which are now charged to Railways.

#### D. AIRCRAFT.

1. *Historical.*—A short review of the progress of civil aviation in Australia up to the date of foundation of the Department of Civil Aviation was given in Official Year Book No. 16, pp. 334-5.

2. *Foundation of Civil Aviation Department.*—A brief account of the foundation and of the objects of this Department will be found in Official Year Book No. 19, p. 299.

3. *Aerodromes and Landing Grounds.*—Landing grounds have been established over the following approved routes:—Perth to Wyndham (2,067 miles); Perth to Adelaide (1,453 miles); Adelaide to Sydney (790 miles); Sydney to Brisbane (500 miles); Brisbane to Camooweal (1,226 miles); Camooweal to Darwin (802 miles); Katherine to Ord River (375 miles); Cloncurry to Normanton (216 miles); Melbourne to Hobart, via King Island (487 miles) and via Flinders Island (433 miles); Melbourne to Hay (233 miles); Mildura to Broken Hill (189 miles); Melbourne to Charleville, via Cootamundra (900 miles).

Up to the 30th June, 1935, 209 landing grounds had been acquired or leased and prepared by the Commonwealth Government for civil aviation purposes. In addition to landing grounds established and maintained by the Commonwealth Government, considerable activity is being displayed by local governing authorities in the establishment of public aerodromes. The Civil Aviation Branch assists local authorities desirous of establishing aerodromes by giving technical advice regarding the suitability of proposed sites and the preparation of approved areas to comply with Departmental requirements. At the 30th June, 1935, there were 140 licensed public aerodromes under the control of local authorities. The total number of recognized landing grounds in Australia and New Guinea at the 30th June, 1935, was 358.

4. *General Flying Activities, 1934.*—During 1934, 645,273 miles were flown by the subsidized contractors with three fatal accidents. Operators of other regular, but unsubsidized services flew 667,230 miles without a fatal accident. The total mileage flown by all Civil Aircraft in Australia and New Guinea during the year was 4,236,742 miles.

5. *Air Services.*—(i) *General.* Since the year 1920 the grant of financial assistance for the establishment and maintenance of regular air transport services has been part of the Government's policy for the development of civil aviation in Australia.

At the 30th June, 1935, nine subsidized contractors were operating under contracts which provided that such space as is required on each trip must be reserved for mails. On letters within the Commonwealth there is an air mail fee of 3d. per  $\frac{1}{2}$  ounce in addition to the ordinary postage rate, and for letters to the United Kingdom the inclusive postage is 1s. 6d. per  $\frac{1}{2}$  ounce. The total route mileage of these services is 10,778 miles.

The new system of services, as indicated on page 194 of Official Year Book No. 27, duly came into operation in 1934, the Brisbane-Singapore service being inaugurated on the 10th December, when the official opening ceremony was performed by H.R.H. the Duke of Gloucester. This service is proving most successful in all respects, and the Company's aircraft have been operating to full capacity. Mail loadings in particular have shown a continuous and steady increase.

Since their inception the various subsidized regular air services over prepared routes have completed 13,325,546 passenger miles, and have carried 66,546 paying passengers over various stages. Approximately 98 tons of letters have also been carried to the 31st March, 1935.

All pilots and mechanics employed on these services must join the Air Force Reserve when called upon.

(ii) *Regular Air Service at 30th June, 1935.* The following regular air services were in operation at 30th June, 1935:—

(a) "*Major*" *Subsidized Services.*—Qantas Empire Airways Ltd.—Brisbane-Darwin-Singapore, 4,361 miles; Cloncurry-Normanton, 216 miles. MacRobertson-Miller Aviation Co. Ltd.—Perth-Daly Waters, 2,252 miles. Butler Air Transport Co.—Cootamundra-Charleville, 629 miles. Holyman's Airways Pty. Ltd.—Melbourne-Launceston-Hobart, 460 miles. West Australian Airways Ltd.—Perth-Adelaide, 1,453 miles. All these services are operated once weekly in each direction over the routes mentioned, except the Melbourne-Hobart service, which is daily (Sundays excepted) in each direction.

A temporary service was maintained by MacRobertson-Miller Aviation Co. Ltd. between Ord River and Wyndham, Western Australia, from October to December, 1934. This service is likely to be recommenced on a permanent basis in July, 1935.

(b) "*Minor*" *Subsidized Services.* Aircrafts Pty. Ltd.—Brisbane-Cracow, 250 miles. Rockhampton Aerial Services Ltd.—Rockhampton-Mt. Coolon, 330 miles. Adastral Airways Ltd.—Sydney-Bega, 205 miles. Commercial Aviation Co.—Adelaide-Port Pirie-Eyre's Peninsula, 475 miles. Services are weekly in each direction excepting Sydney-Bega, which is bi-weekly.

(c) *Unsubsidized Services.* New England Airways Ltd.—Sydney-Brisbane, 500 miles; Sydney-Newcastle, 80 miles; Brisbane-Toowoomba, 75 miles; Brisbane-Townsville, 711 miles (weekly service). The first three services are operated daily (except Sundays) in each direction. Rockhampton Aerial Services Ltd.—Brisbane-Rockhampton, 325 miles (weekly service). Aircrafts Pty. Ltd.—Brisbane-Rockhampton, 325 miles (weekly service). T. H. McDonald—Cairns-Cooktown, 100 miles (thrice weekly). W.A.S.P. Airlines Ltd.—Sydney-Narromine, 210 miles (weekly service). Eastern Air Transport—Sydney-Canberra, 145 miles (daily service during Parliamentary Sessions and the summer months). Reliable Air Travel Ltd.—Brisbane-Cunnamulla, 467 miles (weekly service). Surcharged air mail is carried on the Sydney-Brisbane service under arrangement with the Postmaster-General's Department, but as yet air mails are not carried by the other services.

(d) *Air Ambulance Services.* Following an agreement between the Queensland and Northern Territory Aerial Services Ltd. and the Australian Inland Mission, an air ambulance service to provide medical attention where required in Western and Northern



Queensland, operating from a base at Cloncurry, was inaugurated on the 17th May, 1928. The aircraft company provides the aircraft and pilot, and the mission authorities provide the doctor. The scheme has proved most successful, and many instances are recorded of lives being saved by the services thus made available.

With the assistance of a small Governmental subsidy the Far West (New South Wales) Children's Health Scheme maintains an "Aerial Baby Health Clinic" at Bourke and surrounding district. An aeroplane is chartered from a local owner, and is used for the conveyance of the clinic's nurse who interviews mothers and gives lectures at the centres visited. To facilitate its work, the clinic (with the aid of financial assistance from the New South Wales Government) has had aerodromes prepared in the territory over which periodical flights are carried out.

The "flying doctor" scheme will be extended to north-west Australia with the inauguration of the Ord River-Wyndham regular air service in July, 1935. This service will be maintained with a D.H. 83 aircraft, which will be specially fitted for ambulance work, and which will be available for the use of the Australian Aerial Medical Service, as required. The Victorian Section of the Australian Aerial Medical Service, with the aid of a small Commonwealth monetary grant, will provide a doctor and bear the cost of flying operations in this district. A further air ambulance will also be available at Port Hedland, Western Australia, as from July, 1935, under the joint managements of the MacRobertson-Miller Aviation Company and the Western Australian section of the Australian Aerial Medical Service.

The outback districts of North Australia also have the benefit of a "flying doctor", as the Commonwealth Medical Officer at Katherine is a licensed pilot, and, by arrangement with the Government, he uses his aeroplane to visit patients at distant isolated centres.

6. *Gliding*.—During the past year only two bodies, the Western Australian Flying Club and the Queensland Gliding Association, complied with the prescribed conditions for participation in the Governmental grant which had been made available for gliding.

7. *Meteorological Aids to Aviation*.—Close co-operation exists between the meteorological authorities and aviation interests, with mutual advantage. Certain of the air transport companies operating regular services compile for the meteorological authorities logs of the weather conditions along their routes. In return, aviation interests obtain from the Weather Bureau regular weather reports and forecasts for the main air routes, while special information may be had at any time on request. Civil Aviation authorities have also made available special apparatus for upper air observations, and special observation flights have been conducted over a long period by the Royal Australian Air Force at Point Cook.

Weather information is wirelessed to Koepang before aircraft leave that port. Such messages are transmitted by Amalgamated Wireless (A/asia.) Ltd. which maintains a continuous W/T. watch at Darwin over the movements of aircraft. The meteorological office at Darwin is thus enabled to keep in touch with the aircraft crossing the Timor Sea, and furnish up to date advice of weather conditions.

A meteorological station has been erected at Darwin, and regular weather forecasts and reports are supplied to Qantas Empire Airways Ltd. and the MacRobertson-Miller Aviation Company to facilitate the operation of the air services in North Australia, and across the Timor Sea. The information supplied includes upper air observations at Darwin.

8. *Wireless*.—Increasing use has been made of wireless facilities as aids to navigation in the operation of the Melbourne-Hobart and Singapore-Darwin air services, and in the northern section of the Perth-Daly Waters service. D/F. wireless stations have been established at Essendon and Western Junction aerodromes. Continuous wireless touch is now maintained between aircraft and ground stations over the whole of the overseas air route, and also whilst aircraft are traversing the sparsely populated section of the route between Cloncurry and Darwin.

9. **Aircraft Construction.**—The development of the twin-engined Codock monoplane in 1933-34 revived interest in the design and construction of aircraft in Australia, and considerably increased activity in local manufacture is evident at the present time.

Tugan Aircraft Ltd., Sydney, have undertaken the production of a new commercial monoplane known as the Tugan "Gannet". This machine is a twin-engined cabin monoplane of high-wing cantilever type and is somewhat similar in appearance to the Codock monoplane, but is slightly larger and equipped with higher-powered engines. The first aircraft of this type is now being built, and it is announced that the construction of two more machines is already contemplated. This Company has also carried out the complete rebuilding of seven aircraft of the "Moth" type for the Defence Department.

The designs of two other types of aircraft are being prepared by Australian designers and the prospects for the coming year indicate that the industry may soon be established on a satisfactory basis. One feature worthy of comment is the greatly increased demand for aircraft material and replacement parts, due primarily to the large increase in flying activities on regular air services. This has resulted in the building up of increased reserves of stores and equipment both by aircraft companies and by regular importers, and in the expansion of service facilities by the regular aircraft operators. There is also increased demand for locally manufactured parts for aircraft and aircraft engines.

10. **Aircraft Imports.**—There has been a notable increase in the number of aircraft imported into the Commonwealth and Territory of New Guinea during the past year, as the following figures indicate :—

Year.	1932-33.	1933-34.	1934-35.
Number of aircraft imported .. ..	14	15	48

The importations during the past year include many types not previously seen in Australia, and among these are the following :—Airspeed Courier, Comper Swift, Cierva Autogiro C.19, Cierva Autogiro C.30, D.H.82, D.H.85, D.H.89, D.H. Moth Major, D.H. Tiger Moth, Ford 4.A.T., Ford 5.A.T., Klemm Eagle, Klemm Swallow, Miles Hawk, Monospar S.T.10, Monospar S.T.11, Monospar S.T.12, Short Scion.

The opening of the new overseas and internal mail services resulted in the replacement of obsolete types which had been used for some years on subsidized air routes by modern aircraft of the D.H.84 and D.H.86 types, and there is also a very welcome tendency on the part of unsubsidized operators to replace old equipment by modern aircraft.

11. **Training of Air Pilots.**—(i) *The Associated Aero Clubs.* These clubs provide facilities in all States for flying instruction and practice. During the six months ended 30th June, 1935, 131 pupils qualified for private ("A") pilots' licences. Many graduates have completed advanced courses of training, gained their commercial ("B") licences and now own aircraft. Other pupils have qualified as instructors.

The Commonwealth Government grants assistance to the clubs by providing hangar accommodation, the free use of aerodromes, suitable club houses which are leased to the clubs, and bonuses for each pupil trained to a standard that will enable him to obtain a private ("A") pilots' licence. Bonuses are also paid to the clubs in respect of the renewal of pilots' licences of club members, and each club receives an establishment grant conditional on a prescribed number of aircraft being maintained in an airworthy condition and a prescribed amount of flying being performed each month. Included in the aircraft fleets of the several clubs is a number of D.H.60 ("Moth") machines, which were loaned by the Commonwealth Government.

Originally instruction was confined to the capital cities, but operations have now been extended by the clubs to a certain number of provincial centres where aircraft and instructors are made available as required.

Aviation pageants are held from time to time by the various Aero Clubs, both at their base cities and at country centres, and have had a valuable educative effect in stimulating interest in aviation.

(ii) *Other Organizations.* Flying training is also carried out intermittently by companies, clubs, or private owners at various centres throughout the Commonwealth. These do not receive Government subsidy.

During the year 1934, 158 pupils graduated from all flying training organizations for "A" pilots' licences.

12. *Notable Flights.*—Since the end of the European War, many notable long distance flights have been carried out by Australian pilots. Short accounts of those prior to the year under review are contained in previous issues of the Year Book. (See No. 21 and subsequent issues.)

During the twelve months ended 30th June, 1935, the outstanding event of this nature was the MacRobertson Air Race from England to Melbourne, which was held in October, 1934, in conjunction with the Victorian Centenary Celebrations, and which was made possible by the generosity of Sir MacPherson Robertson, K.B.E. The contest was divided into two sections—(a) Speed, and (b) Handicap, the prizes being for (a) 1st £10,000; 2nd, £1,500; and 3rd, £500, and for (b) 1st, £2,000, and 2nd, £1,000. Twenty machines participated in the race which was won by Messrs. C. W. Scott and T. Campbell Black in a D.H. Comet aircraft, the time being approximately 71 hours. The handicap section was won by the Dutch entrants, Messrs. Parmentier and Moll, who flew a Douglas machine. Eleven aircraft actually completed the course, and of these, nine reached Melbourne in under twelve days.

Apart from the contestants in the MacRobertson Air Race, there was a number of other flights between Europe and Australia during the twelve months ended 30th June, 1935. Immediately after the Air Race two of the competitors, Messrs Cathart Jones and Waller, flew their D.H. Comet back from Melbourne to England in 6 days 15 hours 9 minutes, thus completing the return journey in 13 days 6 hours. In September, 1934, Mr. James Melrose flew from Australia to England in 8 days 9 hours; in March, 1935, Mr. H. L. Brook, in a Falcon Monoplane aircraft, completed the journey in 7 days 19 hours 50 minutes. Mr. Melrose also made a meritorious flight in August, 1934, when he circled Australia—a distance of 8,000 miles, in 5½ days, but this record was also eclipsed at a later date when Mr. H. F. Broadbent covered the journey in 3 days 9 hours 54 minutes. The late C. T. P. Ulm, with Mr. G. U. Allen and Mr. R. N. Boulton, carried out the first official return air mail flight to New Guinea via the east coast of Australia, in July–August, 1934, in the aircraft *Faith of Australia*. Twenty-eight thousand nine hundred articles of mail were despatched from Australia, and on the return trip 33,100 letters were carried.

Sir Charles Kingsford Smith, with Mr. P. G. Taylor, as co-pilot and navigator, made a number of very fast flights in a Lockheed Altair aircraft in 1934, including Melbourne–Perth (1,915 miles) in 10 hours 22 minutes; Perth–Adelaide–Sydney (2,220 miles) in 10 hours 20 minutes; Melbourne–Sydney in 2 hours 23 minutes and Brisbane–Sydney (475 miles) in 2 hours 17 minutes. Mr. D. F. Collins in a Percival Gull Monoplane left Perth at 6 p.m. on 4th October, 1934, and arrived at Brisbane at 7.40 p.m. the following day. Two successful Australia–New Zealand flights were effected during the past year, but a third attempt was unsuccessful.

Probably the most outstanding flight during this period was that of Sir Charles Kingsford Smith and Mr. P. G. Taylor from Australia to America in the former's Lockheed Altair aircraft in October–November, 1934. The journey was accomplished in three stages, Brisbane–Fiji (1,760 miles), Fiji–Honolulu (3,000 miles), and Honolulu–San Francisco (2,551 miles). The full distance of 7,311 miles occupied 52 hours' flying time.

A second attempt by the late C. T. P. Ulm accompanied by G. Littlejohn and J. L. Skilling, to fly from United States of America to Australia in December, 1934, was unfortunately unsuccessful, the aircraft failing to arrive at Honolulu. A most exhaustive search for the missing craft was carried out by the United States of America Navy and Air Force, but without result.

13. **Statistical Summary.**—The collection and compilation of aircraft statistics were undertaken by the Commonwealth Bureau of Census and Statistics on the 1st July, 1922. The subjoined table gives a summary of operations for the years ended 30th June, 1930 to 1934 :—

**CIVIL AIRCRAFT.—AUSTRALIA.—SUMMARY.**

Particulars.	Year ended 30th June—				
	1930.	1931.	1932.	1933.	1934.
Registered Aircraft Owners					
(a) .. .. . No.	122	129	115	115	114
Registered Aircraft (a) No.	220	225	189	197	188
Licensed Pilots—(a)					
Private .. . No.	344	407	363	370	420
Commercial .. No.	181	209	183	184	201
Flying Instructors (a) No.	..	..	..	..	59
Licensed Ground Engineers (a) No.	257	293	277	272	261
Aerodromes—(a)					
Government No.	58	57	58	59	64
Public .. . No.	39	66	96	114	126
Government Emergency Grounds .. . No.	114	121	121	119	135
Flights carried out No.	128,916	113,340	96,192	85,346	89,894
Hours flown .. . No.	42,963	44,507	31,959	31,883	35,487
Approx. Mileage .. Miles	3,234,307	3,596,930	2,527,700	2,587,389	3,061,449
Passengers carried—					
Paying .. . No.	91,415	80,651	56,883	58,155	54,119
Non-paying .. No.	12,801	13,699	13,771	12,949	10,117
<b>Total .. . No.</b>	<b>104,216</b>	<b>94,350</b>	<b>70,654</b>	<b>71,104</b>	<b>64,236</b>
Goods, weight carried (c) lb.	196,795	204,445	221,552	244,258	296,983
Mails, letters carried No.	383,942	(b) 48,503	(b) 29,494	(b) 36,212	(b) 43,627
Accidents—					
Persons killed No.	18	29	7	5	10
Persons injured No.	20	20	17	6	12

(a) At 30th June. (b) Weight in lb. all contractors.

(c) For South Australia and Western Australia stage freight figures are included.

In earlier issues of the Year Book, particulars of flying carried out in the various States have been shown, but, owing to the extension of interstate flying both by the subsidized companies and private pilots, it has been found impracticable to obtain complete details for the several States separately. The figures shown in the above table are therefore for Australia as a whole.

14. **New Guinea Activities.**—The discovery of gold in New Guinea resulted in considerable aviation activity in the vicinity of the gold-fields, which, by ground route, are situated about 70 miles inland from Salamaua, on the north-east coast of the mainland of New Guinea. The value of aircraft as a means of transporting food and stores to the field and of bringing the gold to the seaboard is shown by the fact that, whereas aircraft cover the distance in less than one hour, the nature of the intervening country is such that a journey by other means occupies more than a week. Guinea

Airways Ltd. employs specially constructed freight machines for the transportation of dredging machinery and other heavy material to the Bulolo fields. Horses, cattle, motor cars, building material and various kinds of heavy freight are continually being carried inland from the coast in aircraft, and such activity constitutes one of the most notable feats of transport in the history of aviation. Inward mails are carried by Guinea Airways Ltd., under arrangement with the Postmaster-General's Department, from Port Moresby to Wau, Lae and Bulolo. The air mail fee is 1½d. per ounce in addition to the ordinary postage, plus 3d. per half-ounce (air mail surcharge) if an Australian air service is also used. Mails are carried by W. R. Carpenter and Co. Ltd. under arrangement with the New Guinea Administration from Salamaua to Wau and other inland mining centres. None of the air services operating in the Territory are subsidized by the Commonwealth Government, but the latter Company and the Pacific Aerial Transport Ltd. hold contracts with the New Guinea Administration for the provision of air transport for Administration passengers and goods between the coast and the gold-fields. Several new aerodromes have been prepared in the Territory and there has been an increase in aviation activities generally. The Companies and persons operating in New Guinea are :—Guinea Airways Ltd.; Holden's Air Transport Service Ltd.; Pacific Aerial Transport Ltd.; W. R. Carpenter and Co. Ltd.; Salamaua Aerial Services; A. T. Collins and S. Marshall. The subjoined table gives a summary of operations for the years ended 30th June, 1930 to 1934.

#### CIVIL AIRCRAFT.—TERRITORY OF NEW GUINEA.—SUMMARY.

Particulars.	Year ended 30th June—				
	1930.	1931.	1932.	1933.	1934.
Registered Aircraft Owners					
(a) .. .. . No.	7	5	6	5	10
Registered Aircraft (a) No.	13	15	15	19	26
Licensed Pilots—(a)					
Private .. . No.	1	4	2	1	4
Commercial .. No.	11	13	16	21	24
Licensed Ground Engineers					
(a) .. .. . No.	11	18	30	30	37
Aerodromes—(a)					
Government .. No.	2	2	2	2	3
Public .. . No.	..	..	..	..	3
Government Emergency					
Landing Grounds No.	4	3	3	3	15
Flights carried out No.	2,882	2,672	4,664	7,228	9,877
Hours flown .. . No.	3,619	3,969	5,160	8,499	10,061
Approximate mileage Miles	272,976	325,807	424,232	680,871	811,440
Passengers carried—					
Paying .. . No.	2,490	2,992	3,450	6,948	10,799
Non-paying .. No.	649	87	31	93	209
<b>Total .. . No.</b>	<b>3,139</b>	<b>3,079</b>	<b>3,481</b>	<b>7,041</b>	<b>11,008</b>
Goods, weight carried lb.	3,062,430	3,107,616	9,778,072	10,982,936	14,985,723
Mails, weight carried lb.	23,257	24,604	23,394	47,097	90,046
Accidents—					
Persons killed No.	..	1	..	2	..
Persons injured No.	..	1	..	..	1

(a) At 30th June.

## E. MOTOR VEHICLES.

1. *The Motor Car and Motor Industry.*—(i) *Evolution of the Motor Car.* In the issue of the Year Book for 1927 (No. 20, p. 319) a short history of the evolution of the motor car is given.

(ii) *Motor Industry.* Although motor cars are not entirely manufactured in Australia, the capital invested in assembling and body building plants is considerable. The importance of the industry is shown by the figures relating to local manufacture of motor bodies and imports of motor cars and fuel which are given in the following table for the years 1929-30 to 1933-34 :—

MOTOR BODIES BUILT, AND BODIES, CHASSIS AND FUELS IMPORTED—  
AUSTRALIA.

Particulars.		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Motor bodies built in Australia ..	No.	46,409	10,417	6,323	13,532	26,302
	Value £	3,118,987	864,209	450,510	1,100,504	2,112,439
Motor bodies imported ..	No.	6,556	137	61	108	1,116
	Value £	697,862	14,007	7,360	12,233	86,899
Chassis imported ..	No.	61,981	9,367	4,146	15,776	32,924
	Value £	5,807,024	721,893	355,415	1,306,830	2,528,969
Fuels imported—						
Crude petroleum ..	Million gallons	122	93	49	58	58
	Value £	1,118,332	823,575	448,651	486,302	488,341
Petroleum spirit, etc. ..	Million gallons	240	171	156	181	208
	Value £	7,429,485	4,054,265	2,622,414	3,218,209	2,832,649

The value of the tyres both locally produced and imported, for which figures are not, however, available, must also be taken into consideration, particularly as the prevailing practice is for distributors to retail cars on a five-tyre basis. Spares, batteries, accessories, etc., are additional items for which there is a wide market in Australia.

2. *Registration.*—The arrangements for the registration of motor vehicles and the licensing of drivers and riders thereof are not uniform throughout Australia. Methods of registration, licence fees payable, etc., in each State were referred to in Official Year Book No. 16, pp. 337-340, and later issues up to No. 25.

3. *Public Vehicles.*—In all the capital cities of the States and in many of the most important provincial centres taxi-cabs and other vehicles ply for hire under licence granted either by the Commissioner of Police or the Local Government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. *Motor Omnibuses.*—Motor omnibus traffic, both in urban and provincial centres, has assumed considerable proportions during recent years, and prior to the constitution of Boards empowered to allocate routes over which omnibuses may operate, had a very marked effect on railway and tramway services. The regulation of traffic of motor vehicles has arisen from the belief that the economic waste arising from duplication of services parallel with or contiguous to existing railway and tramway systems is avoided. The general principle governing the allocation of routes is that omnibus services should act as feeders to existing transport utilities. Revenue from licence fees is devoted principally to the maintenance or construction of roadways to enable them to withstand the wear and tear caused by the heavy traffic. In some States the various railway and tramway systems have motor services complementary to their main services. Such services are conducted in New South Wales by the Department of Road Transport and Tramways, in Victoria by the Victorian Railways Commissioners, in South Australia by the South Australian Railways Commissioners and by the Municipal Tramways Trust, Adelaide, and in Tasmania by the Municipality of Hobart. In most instances the omnibus service has been provided to meet the competition of private enterprise and to endeavour to protect the existing transport utilities provided by public bodies.

5. *Motor Vehicles Registered, etc.*—(i) *Year 1933-34.* Particulars of the registration of motor vehicles, etc., for the year 1933-34 are contained in the subjoined table :—

## MOTOR VEHICLES.—SUMMARY, 1933-34.

States and Territories.	Motor Vehicles Registered.						Gross Revenue derived from—			
	Motor Cars.	Motor Cycles.	Commercial Vehicles	Total.	Per 1,000 of Population.	Drivers' and Riders' Licences Issued.	Vehicle Registrations and Motor Tax.	Drivers' and Riders' Licences, etc.	Other Sources. (e)	Total.
	No.	No.	No.	No.	No.	No.	£	£	£	£
New South Wales (a) ..	155,063	22,571	50,108	227,742	86.9	320,801	1,538,482	161,827	75,929	1,776,238
Victoria ..	139,495	24,248	33,513	188,256	102.9	245,847	1,199,674	61,466	19,738	1,280,878
Queensland ..	85,333	7,502	(c) 92,835	96.9	d 115,935	535,619	43,604	18,933	598,156	
South Australia	42,417	8,584	15,228	66,229	113.5	99,916	485,075	47,707	3,392	536,174
Western Australia ..	28,499	6,284	14,199	48,982	110.8	60,472	272,994	15,118	4,656	292,768
Tasmania ..	12,014	3,785	2,708	18,507	81.4	21,534	90,261	10,767	9,429	110,457
North Australia	234	40	338	612	137.8	568	149	23	..	372
Central Australia	44	2	20	66	137.8	165	65	67	..	132
Federal Capital Territory ..	1,100	88	227	1,415	152.3	1,804	6,986	906	29	7,921
Australia ..	455,199	73,104	116,341	644,644	96.6	863,982	4,129,305	341,685	132,106	4,603,096

(a) Approximate figures only on account of Annual and Quarterly Registration Certificates. (b) Includes Commercial Vehicles. (c) Included under Motor Cars. (d) Certificates of competency (State Transport Act of 1932). (e) Includes Dealers' Plates, Transfers, Duplicates, Fees, Penalties, etc.

(ii) *Quinquennium* 1930-1934. The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1929-30 to 1933-34 :—

## MOTOR VEHICLES.—REGISTRATIONS, ETC., AUSTRALIA.

Year.	Motor Vehicles Registered.						(b) Revenue derived from—			
	Motor Cars.	Motor Cycles.	Commercial Vehicles (a)	Total.	Per 1,000 of Population.	Drivers' and Riders' Licences Issued.	Vehicle Registrations and Motor Tax.	Drivers' and Riders' Licences, etc.	Other Sources.	Total.
							£	£	£	£
1929-30	466,930	84,897	104,487	656,314	101.5	823,452	4,194,900	329,988	..	4,524,898
1930-31	429,206	76,966	97,933	604,105	92.6	805,026	3,747,726	324,907	..	4,072,633
1931-32	419,970	71,696	96,254	587,920	89.4	754,839	3,717,707	305,175	..	4,022,882
1932-33	438,499	72,896	105,837	617,232	93.1	760,973	3,815,470	303,909	..	4,119,379
1933-34	455,199	73,104	116,341	644,644	96.6	863,982	4,129,305	341,685	132,106	4,603,096

(a) Incomplete, Queensland commercial vehicles included with motor cars. (b) Prior to the year 1933-34 the figures purporting to show the revenue collected were not uniform throughout the States.

(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 for each of the years 1921 and 1930 to 1934 :—

## MOTOR VEHICLES (EXCLUSIVE OF MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	North-east Territory.	Federal Capital Territory.	Australia.
31st Dec., 1921	15	16	8	24	12	13	(a)	(a)	15
30th June, 1930	87	87	88	100	101	68	106	154	89
.. 1931	79	80	86	82	92	65	110	155	81
.. 1932	73	81	83	85	96	61	119	134	79
.. 1933	77	86	86	88	92	62	131	135	82
.. 1934	78	90	89	99	97	65	129	143	86

(a) Not available.

(iv) *Revenue per Motor Vehicle.* The following table gives the approximate average revenue per vehicle (exclusive of motor cycles) received in respect of registration and motor tax in the several States for each year from 1929-30 to 1933-34. In some States the revenue from motor tax on cycles is not separately recorded. In these cases the flat rate provided for cycles in the registration acts has been applied, 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, etc.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales .. .. .	7 5 8	7 1 7	7 6 8	6 10 5	7 6 5
Victoria .. .. .	7 0 10	6 19 10	6 17 5	0 17 8	7 0 2
Queensland .. .. .	5 16 9	5 16 4	5 19 10	5 17 3	6 1 3
South Australia .. .. .	9 9 5	8 4 5	8 16 8	8 13 1	7 19 2
Western Australia .. .. .	6 16 1	6 15 7	6 3 8	6 3 4	6 4 10
Tasmania .. .. .	5 1 6	5 12 0	5 14 1	5 14 3	5 14 3
Northern Territory .. .. .	0 3 7	1 0 0	0 7 3	0 4 10	0 6 6
Federal Capital Territory .. .. .	6 2 2	4 19 9	5 8 9	5 4 2	5 3 9
<b>Australia .. .. .</b>	<b>7 2 7</b>	<b>6 17 9</b>	<b>6 19 10</b>	<b>6 15 7</b>	<b>6 19 5</b>

6. **Comparative Motor Vehicle Statistics, 1935.**—The result of the 1935 World Motor Census, conducted by the "American Automobile" magazine, from which the following particulars have been extracted, shows that there were 34,927,121 motor cars, trucks, and buses registered in various countries of the world at 1st January, 1935.

**COMPARATIVE MOTOR VEHICLE STATISTICS, 1st JANUARY, 1935.**

Country.	Approximate Population in Millions.	Motor Cars, Trucks, and Buses.	Motor Cycles.
Australia .. .. .	7	575,000	75,000
Argentine .. .. .	12	291,924	..
Belgium .. .. .	8	155,000	..
Brazil .. .. .	44	140,000	..
Canada .. .. .	11	1,116,888	10,224
Cuba .. .. .	4	30,714	350
Denmark .. .. .	4	125,553	25,272
France .. .. .	42	2,036,653	..
Germany .. .. .	65	776,194	933,763
Great Britain .. .. .	46	1,880,889	575,000
India .. .. .	353	158,040	12,090
Irish Free State .. .. .	3	48,375	4,334
Italy .. .. .	42	370,896	131,462
Japanese Empire .. .. .	95	120,472	..
Mexico .. .. .	17	90,000	1,200
Netherlands .. .. .	8	144,250	32,000
Netherlands East Indies .. .. .	63	49,923	10,028
New Zealand .. .. .	2	174,627	23,039
Spain .. .. .	24	167,700	13,000
Sweden .. .. .	6	141,000	45,000
Switzerland .. .. .	4	87,920	29,500
Union of South Africa .. .. .	8	190,053	33,665
United States of America .. .. .	125	24,751,644	96,643

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.

As regards numbers of motor cars in relation to the population, Australia ranks fourth among the countries of the world.



## F. POSTS, TELEGRAPHS AND TELEPHONES.

## § 1. General.

1. **The Commonwealth Postal Department.**—In previous issues of the Year Book some account was given of the procedure in connexion with the transfer to the Federal Government of the postal, telegraphic, and telephonic facilities of the separate States. (See Year Book No. 15, p. 601.)

Under the provisions of the Commonwealth Post and Telegraph Act, 1901, the Commonwealth Postal Department was placed under the control of a Postmaster-General, being a responsible Minister with Cabinet rank. The Director-General of Posts and Telegraphs controls the Department under the Postmaster-General, whilst the principal officer in each State is the Deputy Director, Posts and Telegraphs.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The subjoined statement shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices) in each State and in Australia at the 30th June, 1934. In order to judge clearly the relative postal facilities provided in each State, the area of country to each office, as well as the number of inhabitants per office, should be taken into account. The returns given for South Australia in this and all succeeding tables include those for the Northern Territory, while the returns for the Federal Capital Territory are included in those for New South Wales.

POSTAL FACILITIES.—RELATION TO AREA AND POPULATION,  
AT 30th JUNE, 1934.

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
Number of post offices (a) ..	2,449	2,546	1,202	772	573	508	8,050
Number of square miles of territory to each office in State ..	127	35	558	1,171	1,703	52	370
Number of inhabitants to each office	1,074	719	797	762	772	449	829
Number of inhabitants per 100 square miles ..	848	2,082	143	65	46	870	224

(a) Includes "Official," "Semi-Official," and "Non-Official" Offices.

The foregoing table does not include "telephone" offices at which there is no postal business.

(ii) *Number of Offices.* The following table shows the number of post offices in each State from 1901 to 1933-34:—

## POST OFFICES—NUMBER.

State.	At 31st December—				At 30th June—					
	1901.(b)		1914.		1924.		1933.		1934.	
	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)	Official and Semi-Official Post Offices.	Non-Official Post Offices. (a)
New South Wales	438	1,770	508	2,115	460	2,183	437	2,006	436	2,013
Victoria ..	224	2,076	295	2,391	273	2,399	276	2,257	275	2,271
Queensland ..	137	1,165	221	1,136	215	1,044	188	1,004	186	1,016
South Australia ..	180	523	154	657	143	662	145	625	144	628
Western Australia	181	34	158	418	137	709	124	443	124	449
Tasmania ..	57	315	51	412	47	495	43	466	42	466
Australia ..	1,217	5,883	1,387	7,129	1,275	7,492	1,213	6,801	1,207	6,843

(a) Includes offices previously designated as "Allowance" and "Receiving" Offices.

(b) Figures for 1904 are not available.

(iii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States at specified dates is given in the appended table :—

**POSTAL EMPLOYEES AND MAIL CONTRACTORS.**

State.	At 31st December—				At 30th June—					
	1904.		1914.		1924.		1933.		1934.	
	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.
Central Office ..	(a)	..	(a)	..	100	..	178	..	202	..
New South Wales ..	5,763	1,006	11,131	2,512	13,947	1,791	12,130	1,949	13,220	1,953
Victoria ..	4,041	934	8,614	1,132	10,279	1,133	9,485	1,085	9,979	1,070
Queensland ..	2,641	(b)	4,343	813	6,220	819	4,792	1,054	4,908	1,209
South Australia ..	2,046	(b)	2,432	307	4,014	354	3,221	297	3,280	301
Western Australia ..	1,316	150	2,327	351	2,450	382	2,623	327	2,629	342
Tasmania ..	(c) 865	(b)	1,176	281	1,582	206	1,361	233	1,391	242
Australia ..	16,672	2,090	30,023	5,396	38,592	4,685	34,090	4,945	35,609	5,117

(a) Included in Victorian Staff. (b) Included in "employees." Separate particulars are not available. (c) At 31st December, 1901.

3. **Gross Revenue, Postmaster-General's Department.—Branches.** The gross revenue collected in respect of each branch of the Department during each of the last five years is shown in the table hereunder :—

**GROSS REVENUE, POSTMASTER-GENERAL'S DEPARTMENT.—BRANCHES.**

Branch and Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>Postal Branch—</b>	£	£	£	£	£	£	£
1929-30 ..	2,392,882	1,842,658	849,828	454,131	419,644	172,399	6,131,542
1930-31 ..	2,355,336	1,642,917	875,705	440,665	394,620	176,915	5,886,158
1931-32 ..	2,305,557	1,583,136	841,602	435,256	381,113	162,095	5,709,620
1932-33 ..	2,340,889	1,620,972	862,051	462,520	397,253	162,112	5,845,797
1933-34 ..	2,431,342	1,673,812	872,913	462,634	402,083	164,630	6,007,414
<b>Telegraph Branch—</b>							
1929-30 ..	492,011	311,882	234,443	170,162	134,766	46,748	1,360,012
1930-31 ..	404,479	261,355	195,767	141,202	111,118	38,997	1,152,918
1931-32 ..	373,139	242,195	194,508	136,321	103,713	36,084	1,085,960
1932-33 ..	358,214	251,097	195,328	136,145	112,154	38,885	1,091,823
1933-34 ..	378,656	263,904	202,579	131,086	120,318	40,385	1,136,928
<b>Wireless Branch—</b>							
1929-30 ..	64,550	84,501	6,169	6,953	4,108	476	166,847
1930-31 ..	54,691	63,690	12,789	16,821	4,006	3,675	155,672
1931-32 ..	63,384	65,545	12,600	16,870	5,524	4,274	168,197
1932-33 ..	79,702	77,567	15,728	22,668	8,843	5,596	210,134
1933-34 ..	127,453	118,626	28,169	36,250	17,130	9,229	336,857
<b>Telephone Branch—</b>							
1929-30 ..	2,395,453	1,633,790	818,170	607,130	350,385	147,758	5,862,686
1930-31 ..	2,190,466	1,598,415	814,794	565,982	326,252	139,447	5,644,356
1931-32 ..	2,089,555	1,555,437	792,607	529,790	297,713	134,263	5,399,365
1932-33 ..	2,002,461	1,595,977	787,597	534,157	301,418	134,228	5,445,838
1933-34 ..	2,202,273	1,647,408	818,981	535,153	308,490	135,662	5,647,972
<b>All Branches—</b>							
1929-30 ..	5,254,896	3,872,831	1,908,610	1,238,376	908,993	367,381	13,551,087
1930-31 ..	5,013,972	3,566,377	1,809,055	1,164,670	835,996	359,034	12,839,104
1931-32 ..	4,831,675	3,446,313	1,841,317	1,118,507	788,063	337,316	12,363,151
1932-33 ..	4,871,266	3,545,613	1,860,704	1,155,520	819,668	340,821	12,593,502
1933-34 ..	5,139,724	3,793,750	1,922,642	1,165,128	848,021	349,906	13,129,171
<b>Total Revenue per head of mean population—</b>							
1929-30 ..	2.08	2.18	2.11	2.14	2.13	1.68	2.11
1930-31 ..	1.96	1.99	2.07	2.01	1.94	1.61	1.98
1931-32 ..	1.88	1.91	1.98	1.92	1.82	1.49	1.89
1932-33 ..	1.87	1.95	1.98	1.98	1.88	1.50	1.91
1933-34 ..	1.96	2.03	2.02	1.98	1.93	1.53	1.97

Compared with the corresponding figures for the previous year, an increase of 4.3 per cent. is shown in the gross revenue earned, the increases in the several branches being as follow :—Postal 2.8 per cent., Telegraph 4.1 per cent., Wireless 60.3 per cent., and Telephone 3.7 per cent.

4. **Expenditure, Postmaster-General's Department.**—(i) *Distribution.* The following table shows, as far as possible, the distribution of expenditure on various items in each State during the year ended 30th June, 1934. The table must not be regarded as a statement of the working expenses of the Department, since items relating to new works, interest, etc., are included therein.

**EXPENDITURE, POSTMASTER-GENERAL'S DEPT.—DISTRIBUTION, 1933-34.**

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	40,845	1,733,524	1,250,344	647,085	446,745	317,699	164,733	4,600,975
General expenses	2,045	99,599	50,269	24,787	19,270	17,613	6,946	211,529
Stores and material	1,198	64,362	44,450	22,032	14,735	11,983	6,680	165,440
Mail services	110,000	395,306	234,453	193,515	66,245	73,162	33,807	1,106,493
Engineering services (other than New Works)	35,777	714,528	500,202	258,996	189,474	133,943	89,691	1,922,616
Other services	41,707	..	..	..	..	..	..	41,707
<b>Total</b>	<b>231,572</b>	<b>2,998,319</b>	<b>2,079,723</b>	<b>1,146,415</b>	<b>736,469</b>	<b>554,405</b>	<b>301,857</b>	<b>8,048,760</b>
Pensions and retiring allowances	..	34,571	37,726	..	..	22,935	..	95,232
Rent, repairs, maintenance, fittings, &c.	..	28,862	18,561	13,828	7,274	7,878	1,290	77,693
Proportion of audit expenses	..	3,761	2,671	1,439	873	624	332	9,700
Interest on transferred properties	..	114,328	61,362	45,575	37,523	21,869	9,924	290,581
New Works—								
Telegraph, telephone and wireless	..	372,450	246,681	90,136	56,961	59,187	25,792	851,207
New buildings, &c.	..	8,230	637	1,835	1,512	1,348	725	14,287
Other expenditure not allocated to States	2,900,713	..	..	..	..	..	..	2,900,713
	(b)							
<b>Total</b>	<b>3,132,285</b>	<b>3,560,521</b>	<b>2,447,361</b>	<b>1,299,228</b>	<b>840,612</b>	<b>668,246</b>	<b>339,920</b>	<b>12,288,173</b>
	(c)							(c)

(a) Orient Steam Navigation Company's Overseas Mail contract. (b) Particulars of apportionment to States not available. (c) Including expenditure not apportioned to States.

(ii) *Total, 1930 to 1934.* The next table gives the actual payments made, as shown by records kept for Treasury purposes in respect of the Postal Department, for each of the years ended 30th June, 1930 to 1934 inclusive.

**EXPENDITURE, POSTMASTER-GENERAL'S DEPARTMENT.**

Expenditure.	Year ended 30th June—				
	1930.	1931.	1932.	1933.	1934.
	£	£	£	£	£
<b>Total</b>	<b>15,797,072</b>	<b>14,282,984</b>	<b>12,196,307</b>	<b>12,165,210</b>	<b>12,288,173</b>

The total expenditure for 1933-34 decreased by 22.2 per cent. compared with the amount for 1929-30.

5. Profit or Loss, Postmaster-General's Department.—(i) States, 1933-34. The foregoing statements of gross revenue and expenditure represent actual collections and payments made and cannot be taken to represent the actual results of the working of the Department for the year. The net results for each branch in the several States after providing for working expenses, depreciation, and interest charges during the year, were as follow :—

**PROFIT OR LOSS, POSTMASTER-GENERAL'S DEPARTMENT, 1933-34.**

Branch.	Profit or Loss.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
		£	£	£	£	£	£	£
Postal ..	{ Profit	664,686	532,190	268,325	125,464	89,538	4,405	1,684,608
	{ Loss	..	..	..	..	..	..	..
Telegraph ..	{ Profit	..	15,667	..	..	..	..	..
	{ Loss	29,296	..	11,128	2,041	10,269	3,945	41,012
Wireless ..	{ Profit	36,442	55,427	..	3,405	..	..	87,235
	{ Loss	..	..	5,182	..	683	2,174	..
Telephone ..	{ Profit	202,309	127,974	88,462	..	..	..	269,273
	{ Loss	..	..	..	73,062	22,968	53,442	..
All Branches	{ Profit	874,141	731,258	340,477	53,766	55,618	..	2,000,104
	{ Loss	..	..	..	..	..	55,156	..

After providing for depreciation, pensions and retiring allowances and interest on capital, the year 1933-34 closed with a surplus of £2,000,104. For the preceding year a surplus of £1,192,618 was shown.

(ii) Branches, 1930 to 1934. The following statement gives particulars of the operating results of each branch for the period 1930 to 1934 :—

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

Year Ended 30th June—	Branch.									
	Postal.		Telegraph.		Wireless.(a)		Telephone.		All Branches.	
	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.
	£	£	£	£	£	£	£	£	£	£
1930 ..	557,105	..	..	232,188	..	..	..	127,034	197,883	..
1931 ..	721,282	..	..	390,514	35,148	..	..	432,920	..	67,004
1932 ..	1,267,534	..	..	183,367	30,932	..	..	379,090	736,000	..
1933 ..	1,471,685	..	..	101,588	22,796	..	..	200,275	1,192,618	..
1934 ..	1,684,608	..	..	41,012	87,235	..	..	269,273	2,000,104	..

(a) Included in Telegraph Branch prior to 1930-31.

6. Capital Account.—The appended statement shows particulars of the fixed assets of the Postmaster-General's Department at 30th June, 1934.

## FIXED ASSETS, POSTMASTER-GENERAL'S DEPARTMENT, 30th JUNE, 1934.

Particulars.	Net Value, 1st July, 1933.	Capital Expenditure, 1933-34.	Gross Value, 30th June, 1934.	Less Deprecia- tion, &c. 1933-34. (a)	Net Value, 30th June, 1934.
	£	£	£	£	£
Telephone Lines and equipment	31,783,623	901,960	32,685,583	457,695	32,227,888
Telegraph Lines and Trunk Line equipment .. .. .	10,126,011	124,909	10,250,920	58,988	10,191,932
Telegraph equipment .. .. .	601,704	21,310	623,014	5,816	617,198
Postal equipment .. .. .	400,032	8,336	408,368	2,496	406,072
Sites, Buildings, Furniture, and Office equipment .. .. .	9,313,238	27,437	9,340,675	7,006	9,333,669
Miscellaneous .. .. .	571,062	54,272	625,334	31,046	594,288
Wireless equipment and Buildings	151,940	18,287	170,227	1,526	168,701
<b>Total .. .. .</b>	<b>52,947,610</b>	<b>1,156,711</b>	<b>54,104,321</b>	<b>564,573</b>	<b>53,539,748</b>

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

During the past quinquennium the value of the fixed assets has increased by 9 per cent., the net value at 30th June, 1929, being £49,265,641.

## § 2. Posts.

1. Postal Matter Dealt With.—(i) *Australia*. The following table gives a summary of the postal matter dealt with in Australia during the five years 1930 to 1934. Although mail matter posted in Australia for delivery therein is necessarily handled at least twice, only the numbers dispatched are included in the following table, which consequently gives the number of distinct articles handled :—

## POSTAL MATTER DEALT WITH—AUSTRALIA.

Year ended 30th June—	Letters, Postcards and Packets.		Newspapers.		Parcels.		Registered Articles.	
	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.

## POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.

1930 .. .. .	791,241	123,001	150,812	23,444	13,889	2,159	7,267	1,130
1931 .. .. .	701,694	107,985	127,959	19,692	9,769	1,503	6,447	992
1932 .. .. .	677,847	103,437	118,906	18,145	8,841	1,349	6,096	930
1933 .. .. .	699,932	105,974	118,357	17,920	8,661	1,311	6,093	923
1934 .. .. .	733,506	110,217	121,600	18,272	8,816	1,325	6,223	935

## TOTAL POSTAL MATTER DEALT WITH.

1930 .. .. .	865,412	134,531	178,018	27,674	14,586	2,267	8,268	1,285
1931 .. .. .	761,508	117,190	152,326	23,442	10,209	1,571	7,244	1,115
1932 .. .. .	731,134	111,569	139,502	21,288	9,203	1,404	6,731	1,027
1933 .. .. .	751,777	112,963	139,963	21,031	9,044	1,369	6,710	1,016
1934 .. .. .	790,166	118,731	142,040	21,343	9,208	1,384	6,870	1,032

(ii) *States.* The next table shows separately for each State the postal matter dealt with in 1933-34.

POSTAL MATTER DEALT WITH—STATES, 1933-34. (a)

State.	Letters, Postcards and Packets.		Newspapers.		Parcels.		Registered Articles.	
	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.
POSTED FOR DELIVERY WITHIN AUSTRALIA.								
New South Wales	279,277	106,488	57,869	22,065	3,792	1,446	2,306	879
Victoria ..	228,112	124,990	25,915	14,200	1,637	897	1,732	949
Queensland ..	95,299	100,251	20,677	21,751	1,706	1,795	939	988
South Australia ..	52,830	89,950	6,557	11,164	891	1,517	506	862
Western Australia	47,256	107,288	5,667	12,866	670	1,521	511	1,160
Tasmania ..	30,732	134,173	4,915	21,458	120	524	229	1,000
Australia ..	733,506	110,217	121,600	18,272	8,816	1,325	6,223	935
OVERSEA DISPATCHED.								
New South Wales	9,720	3,706	2,036	776	88	34	133	51
Victoria ..	9,181	5,031	3,392	1,859	42	23	75	41
Queensland ..	2,392	2,516	632	665	13	14	35	37
South Australia ..	2,540	4,325	372	633	8	14	15	26
Western Australia	2,569	5,833	399	906	10	23	24	54
Tasmania ..	2,308	10,077	174	760	2	9	3	13
Australia ..	28,710	4,314	7,005	1,652	163	25	285	43
OVERSEA RECEIVED.								
New South Wales	12,985	4,951	7,339	2,798	104	40	177	67
Victoria ..	7,150	3,918	2,015	1,104	68	37	107	59
Queensland ..	2,060	2,117	1,147	1,207	20	21	30	32
South Australia ..	1,683	2,866	847	1,442	13	22	16	27
Western Australia	3,057	6,940	1,717	3,898	20	45	27	61
Tasmania ..	1,015	4,431	370	1,615	4	17	5	22
Australia ..	27,950	4,200	13,435	2,019	229	34	362	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 post in each State for the years 1930 to 1934 :—

### VALUE-PAYABLE PARCEL POST.—SUMMARY.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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#### NUMBER OF PARCELS POSTED.

	No.	No.	No.	No.	No.	No.	No.
1930 .. ..	299,932	26,145	232,968	16,653	82,148	420	658,264
1931 .. ..	248,316	27,786	179,564	18,413	75,977	568	550,624
1932 .. ..	280,589	37,144	182,902	25,315	80,330	714	606,994
1933 .. ..	289,975	37,567	210,992	23,559	79,820	1,711	643,624
1934 .. ..	305,972	40,769	221,994	21,309	79,030	1,782	670,856

#### VALUE COLLECTED.

	£	£	£	£	£	£	£
1930 .. ..	436,025	42,457	334,491	24,755	101,716	716	940,160
1931 .. ..	342,786	38,596	242,756	21,108	86,103	764	732,113
1932 .. ..	331,328	47,481	230,761	26,931	83,973	920	721,394
1933 .. ..	343,155	49,392	261,183	24,704	81,029	1,980	761,443
1934 .. ..	377,752	55,305	274,305	22,502	83,524	1,970	815,358

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

	£	£	£	£	£	£	£
1930 .. ..	38,518	3,465	30,449	2,044	9,354	52	83,882
1931 .. ..	32,791	3,684	23,430	2,294	8,944	68	71,211
1932 .. ..	36,606	4,787	23,962	3,088	9,450	90	77,983
1933 .. ..	37,555	4,952	25,723	3,031	9,867	212	81,340
1934 .. ..	40,356	5,460	26,947	2,827	10,452	213	86,255

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 found favour for several years in Western Australia. These three States have the largest areas, and consequently more people at long distances from business centres who avail themselves of the value-payable system. Although South Australia also has a large area, the population of that State is, comparatively, not widely spread.

3. *Sea-borne Mail Services.*—(i) *General.* In earlier issues of this work particulars of sea-borne mail services were included, but owing to the restrictions of space the insertion of this information terminated with Year Book No. 22.

(ii) *Amount of Subsidies Paid.* The following table shows the amounts of subsidies paid by the Commonwealth Postal Department for ocean and coastal mail services during the year ended 30th June, 1934 :—

## MAIL SUBSIDIES.—OCEAN AND COASTAL SERVICES, 1933-34.

Service.	Orient S.N. Co.	Queens- land Ports.	South Australian Ports.	Western Australian Ports.	Tas- manian Ports.
Annual subsidy .. ..	£ 110,000	£ 1,200	£ 5,000	£ 5,520	£ 31,853

4. **Total Cost of Carriage of Mails.**—During the year 1933-34 the amount paid for conveyance of mails at poundage rates by non-contract vessels and on account of other countries' services was £30,505; by road services, £542,228; and by railway services, £375,587. The total expenditure during the financial year 1933-34 on the carriage of mails, as disclosed by the Profit and Loss Account, amounted to £1,117,389.

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 1933-34, and the methods adopted in the disposal thereof:—

## DEAD LETTER OFFICES.—SUMMARY, 1933-34.

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

Returned direct to writers or delivered .. ..	1,058,399	231,926	135,244	65,281	112,531	65,964	1,669,345
Destroyed in accordance with Act .. ..	67,021	36,652	20,359	7,904	3,515	2,214	137,665
Returned to other States or Countries as unclaimed .. ..	32,348	18,092	9,643	4,216	10,461	1,002	75,762
Total .. ..	1,157,768	286,670	165,246	77,401	126,507	69,180	1,882,772

## PACKETS AND CIRCULARS.

Returned direct to writers or delivered .. ..	658,540	119,637	127,384	11,724	67,066	32,832	1,017,183
Destroyed in accordance with Act .. ..	88,934	42,278	25,033	10,071	6,190	618	173,124
Returned to other States or Countries as unclaimed .. ..	1,497	6,601	3,480	1,980	567	396	14,521
Total .. ..	748,971	168,516	155,897	23,775	73,823	33,846	1,204,828
Grand Total (letters, packets, etc.) .. ..	1,906,739	455,186	321,143	101,176	200,330	103,026	3,087,600

During the year 1933-34 money and valuables to the amount of £77,150 were found in undelivered postal articles, while 40,704 postal articles were posted without address, including 714 which contained money and valuables to the extent of £3,698.

6. **Money Orders and Postal Notes.**—(i) *General.* The issue of money orders and postal notes is regulated by sections 74 to 79 of the Post and Telegraph Act, 1901. A money order may be issued for payment of sums up to £20 within Australia, and not



exceeding £40 (in some cases £20, and in Mauritius £10) in places abroad. A postal note, which is payable only within Australia and in Papua, cannot be issued for a larger sum than twenty shillings.

(ii) *States, 1933-34.* Particulars regarding the business transacted in each State for the year 1933-34 are given hereunder :—

**MONEY ORDERS AND POSTAL NOTES.—SUMMARY, 1933-34.**

State.	Value of Money Orders Issued.	Value of Money Orders Paid.	Net Money Order Commission Received.	Value of Postal Notes Sold.	Poundage Received on Postal Notes.
	£	£	£	£	£
New South Wales ..	7,106,448	7,124,376	37,361	2,888,345	67,605
Victoria ..	2,773,676	2,979,429	17,190	1,818,211	42,611
Queensland ..	2,334,354	2,177,756	15,794	736,345	16,288
South Australia ..	762,376	765,484	4,931	397,243	9,569
Western Australia ..	1,204,282	1,107,393	7,634	397,585	8,780
Tasmania ..	465,045	434,323	2,676	159,109	3,729
<b>Australia ..</b>	<b>14,646,181</b>	<b>14,588,761</b>	<b>85,586</b>	<b>6,396,838</b>	<b>148,582</b>

The figures in the foregoing table relating to money orders and postal notes show an increase compared with the previous year.

(iii) *Australia, 1930 to 1934.* The next table shows the total number and value of money orders and postal notes issued and paid in Australia from 1929-30 to 1933-34 :—

**MONEY ORDERS AND POSTAL NOTES.—SUMMARY, AUSTRALIA.**

Year ended 30th June—	Money Orders.				Postal Notes.			
	Issued.		Paid.		Issued.		Paid.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
	No. (,000).	£ (,000).	No. (,000).	£ (,000).	No. (,000).	£ (,000).	No. (,000).	£ (,000).
1930 ..	3,415	17,447	3,224	16,811	15,879	5,843	15,924	5,968
1931 ..	3,055	15,790	2,989	15,381	14,691	5,343	14,731	5,348
1932 ..	2,781	14,351	2,788	14,367	16,205	5,579	16,132	5,563
1933 ..	2,707	14,257	2,691	14,229	16,717	5,746	16,735	5,729
1934 ..	2,769	14,646	2,762	14,589	19,595	6,397	19,446	6,370

(iv) *Classification of Money Orders Issued and Paid.* (a) *Money Orders Issued.* The next table shows the number and value of money orders issued during the year 1933-34, classified according to the country where payable :—

## MONEY ORDERS ISSUED.—COUNTRY WHERE PAYABLE, 1933-34.

Where Issued.	Where Payable.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
NUMBER.					
Australia .. ..	2,628,669	18,235	86,466	36,113	2,769,483
VALUE.					
Australia .. ..	£ 14,217,882	£ 84,118	£ 201,324	£ 142,857	£ 14,646,181

(b) *Money Orders Paid.* The number and value of money orders paid during the year 1933-34, classified according to the country where issued, are given hereunder:—

## MONEY ORDERS PAID.—COUNTRY OF ISSUE, 1933-34.

Where Paid.	Where Issued.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
NUMBER.					
Australia .. ..	2,643,085	47,502	48,225	23,453	2,762,255
VALUE.					
Australia .. ..	£ 14,210,448	£ 100,465	£ 200,675	£ 77,173	£ 14,588,761

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 Great Britain and Ireland.

(v) *Classification of Postal Notes Paid.* The subjoined table shows the number and value of postal notes paid during the year 1933-34, classified according to the State in which they were issued.

Particulars regarding the total number and value of postal notes issued and paid in each of the last five years have been given previously.

## POSTAL NOTES PAID.—STATE OF ISSUE, 1933-34.

Particulars.	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
NUMBER.							
Issued in same State	7,792,704	3,543,767	1,638,381	814,466	912,740	361,352	15,063,410
Issued in other States	905,892	512,038	723,456	89,129	54,735	2,097,712	4,382,962
Total ..	8,698,596	4,055,805	2,361,837	903,595	967,475	2,459,064	19,446,372
VALUE.							
Issued in same State	£ 2,414,599	£ 1,212,473	£ 607,680	£ 262,416	£ 331,920	£ 118,787	£ 4,947,875
Issued in other States	253,526	181,195	330,320	35,184	15,884	606,282	1,422,391
Total ..	2,668,125	1,393,668	938,000	297,600	347,804	725,069	6,370,266

The number and value of postal notes paid in Australia during the year showed an increase of 16.2 per cent. and 11.2 per cent. respectively compared with the corresponding figures for the year 1932-33.

### § 3. Telegraphs.

**i. General.**—(i) *Development of System.* A review of the development of the Telegraph Services in Australia was given in a previous issue of this work (see Year Book No. 15, p. 625), but limitations of space preclude the repetition of this information in the present issue. 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 six repeating centres, seventeen centres having been abolished.

(iii) *Carrier Wave System.* This system which permits a number of messages to be transmitted simultaneously over the one line is now in operation between Perth and Adelaide, Adelaide and Melbourne, Melbourne and Sydney, and Sydney and Brisbane. There are now 38,260 miles of one-way telegraph carrier channels in operation.

(iv) *Direct Telegraph Communication over Great Distances.* The telegraph system in Australia provides direct communication between many places separated by great distances as indicated in the following examples:—Sydney-Perth, 2,695 miles; Perth-Wyndham, 1,933 miles; Melbourne-Brisbane, 1,246 miles; Brisbane-Cairns, 1,056 miles; Adelaide-Perth, 1,627 miles; Melbourne-Perth, 2,104 miles; Adelaide-Darwin, 1,940 miles; and Sydney-Adelaide, 1,058 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.

(v) *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 Tamworth, Sydney and Wagga Wagga, Melbourne and Brisbane, Melbourne and Adelaide, Melbourne and Perth, Melbourne and Canberra, Adelaide and Perth, Brisbane and Rockhampton, and Brisbane and Townsville, providing telegraph outlets which permit the carriage of very heavy loads with a minimum transit time. The operation of the apparatus has been steadily improved, and now is worked so that each channel has an output up to 50 words per minute. Between Melbourne and Mildura, Perth and Fremantle, and Perth and Kalgoorlie, start-stop telegraph printing systems are in operation.

(vi) *Phonogram Service.* Telephone subscribers may now telephone telegrams for onward transmission, or have messages telephoned to them. The fee for the service is small, and the innovation means, in effect, that the telegraph system is brought into the home of every telephone subscriber. The number of telegrams lodged by telephone during the twelve months ended 30th June, 1934, was 1,809,370 or 13.5 per cent. of the total lodgments, and the popularity of this facility is growing.

(vii) *Radiograms within Australia.* On 1st May, 1929, the rates for radiograms between Flinders Island, King Island, Wave Hill, Brunette Downs and other places within the Commonwealth were reduced to 1½d. per word with a minimum charge of two shillings. Communication at these rates was extended to Lord Howe Island in August, 1929.

(viii) *Picturegram Service.* During the year ended 30th June, 1934, 284 picturegrams were transmitted between Sydney and Melbourne, the revenue being £676. Any kind of picture or document may be accepted for transmission, the charges varying from 3os. to 67s. 6d. according to the size of the picture or document and the grade of transmission desired.

(ix) *Overseas Phototelegram Service.* An overseas phototelegram service, "via Beam," was inaugurated in October 1934, permitting the transmission in either direction of facsimiles between Sydney or Melbourne and England, of dimensions up to a maximum of ten inches by nine inches. The charges are calculated at the rate of three shillings and three pence per square centimetre with a minimum charge of £16 5s. as for 100 square centimetres.

(x) *Special Telegram Forms.* The use of appropriately designed telegram forms for conveying Christmas and New Year greetings continues to increase in volume and popularity. The increase since the inception of this facility in 1929 represents 63.2 per cent. :—

Year.	No. of Greeting Telegrams.
1929 .. .. .	144,102
1930 .. .. .	157,705
1931 .. .. .	184,142
1932 .. .. .	191,156
1933 .. .. .	192,363
1934 .. .. .	235,252

During the year 1933-34 telegram forms of special design and attractive colouring, in connexion with Mothers' Day messages, Birthday greetings and Congratulatory telegrams, were placed at the disposal of the public. The popularity of these facilities is indicated by the increase in the number of Mothers' Day telegrams from 16,091 in 1934 to 23,305 in 1935. No statistics are available in respect of Birthday greetings and Congratulatory messages, but it is estimated that the number of telegrams in these categories exceeds 250,000 annually.

(xi) *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, teleprints being similar in performance to typewriters, except that the keyboard and platen 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 despatched 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.

Fifteen private wire services employing thirty-two teleprinter units have already been installed.

2. **Telegraph Offices, Length of Lines and Wire.**—(i) *Summary for Australia.* The following table shows the number of telegraph offices and the length of telegraph lines and of telegraph wire available for use in Australia in each year from 1930 to 1934 :—

**TELEGRAPHS, AUSTRALIA.—SUMMARY.**

Particulars for Year ended 30th June.	1930.	1931.	1932.	1933.	1934.
Number of offices .. .. .	9,317	9,189	9,160	9,162	9,199
Length of wire (miles)—					
Telegraph purposes only .. ..	71,629	62,009	58,891	55,302	54,655
Telegraph and telephone purposes ..	88,785	98,140	98,369	101,797	102,953
Length of line (miles)—					
Conductors in Morse cable .. ..	3,735	3,789	4,157	4,401	4,538
Conductors in submarine cable					
(statute miles) .. .. .	4,524	4,859	4,863	4,833	4,764
Pole routes (miles) .. .. .	98,450	100,596	100,507	99,951	96,395

(ii) *States.* The following table gives corresponding particulars for each State for the year 1933-34 :—

**TELEGRAPHS.—STATES, SUMMARY, 30th JUNE, 1934.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
Number of offices .. .. .	2,997	2,421	1,486	806	955	534	9,199
Length of wire (miles)—							
Telegraph purposes only	17,319	8,257	12,637	7,084	8,629	729	54,655
Telegraph and telephone purposes ..	37,309	14,106	28,879	13,849	7,239	1,571	102,953
Length of line (miles)—							
Conductors in Morse cable	2,402	1,437	477	..	198	24	4,538
Conductors in submarine cable (statute miles) ..	3,543	282	309	214	..	416	4,764
Pole routes (miles) .. .. .	31,388	19,248	15,735	14,943	11,587	3,494	96,395

A total length of 157,608 miles of wire is available for telegraph purposes, of which 102,953 miles are also used for telephone purposes. Compared with those for the previous year, the figures show an increase of 509 miles (0.3 per cent.) in the total length and an

increase of 1,156 miles (1.14 per cent.) in the length of line used for both telegraph and telephone purposes. The decrease in the mileage of wire available for telegraph purposes only is due to the extension of the practice of superimposing telegraph facilities over telephone wires.

3. **Number of Telegrams Dispatched.**—(i) *Australia.* The number of telegrams dispatched to destinations within Australia in each of the last five years is given hereunder :—

## TELEGRAMS DISPATCHED.—AUSTRALIA.

Telegrams.	Year ended 30th June—				
	1930.	1931.	1932.	1933.	1934.
Number (a) ..	15,724,246	12,985,298	12,679,951	12,778,028	13,303,627

(a) Including interstate cablegrams.

(ii) *States.* The appended table shows the total number of telegrams dispatched in each State in 1933-34 according to the class of message transmitted :—

## TELEGRAMS DISPATCHED.—STATES, 1933-34.

Class of Message Transmitted within Australia.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>Paid and Collect—</b>							
Ordinary ..	3,831,555	2,575,608	2,165,858	841,148	1,307,653	247,754	10,960,576
Urgent ..	212,579	68,744	60,389	38,848	39,813	8,064	428,437
Press ..	200,287	127,019	77,911	42,157	38,369	22,230	507,973
Lettergram ..	81,636	62,961	72,377	37,221	85,454	32,734	372,383
Radiogram ..	27,956	4,021	4,731	4,982	2,517	6,234	50,441
<b>Total ..</b>	<b>4,354,013</b>	<b>2,838,353</b>	<b>2,381,266</b>	<b>964,356</b>	<b>1,473,806</b>	<b>317,016</b>	<b>12,328,810</b>
<b>Unpaid—</b>							
Service ..	134,628	46,665	51,669	35,727	47,268	15,328	331,285
Shipping ..	28,734	69,668	16,777	3,624	10,270	4,919	133,992
Meteorological ..	187,434	80,397	85,080	89,107	128,260	29,262	599,540
<b>Total ..</b>	<b>350,796</b>	<b>196,730</b>	<b>153,526</b>	<b>128,458</b>	<b>185,798</b>	<b>49,509</b>	<b>1,064,817</b>
<b>Grand Total ..</b>	<b>4,704,809</b>	<b>3,035,083</b>	<b>2,534,792</b>	<b>1,092,814</b>	<b>1,659,604</b>	<b>366,525</b>	<b>13,393,627</b>

The figures in the foregoing table show an increase in the total volume of telegraph business of 615,599 messages (4.8 per cent.) as compared with the previous year.

4. **Letter-telegrams.**—Letter-telegrams are accepted at any hour at telegraph offices which are open for business after 7 p.m., subject to the condition that delivery is effected by posting at the letter-telegram office of destination.

5. **Revenue and Expenditure.**—Particulars of the revenue and net operating results of the telegraph systems for the years 1929-30 to 1933-34 are given in earlier pages.

6. **Telegraph Density.**—Analysis of the latest world statistics available discloses a high telegraph density in Australia, the ratio of telegrams to population being the highest for any country in the world except New Zealand. The following table gives the figures for the more important countries :—

**TELEGRAPH DENSITY STATISTICS—CHIEF COUNTRIES.**

Country.	Percentage of Telegraph to Total Wire Communication.	Telegraph Communication per Head of Population.
Australia .. .. .	3.3	2.1
Austria .. .. .	0.3	0.3
Belgium .. .. .	2.7	0.8
Canada .. .. .	0.4	1.0
Czechoslovakia .. .. .	1.6	0.3
Denmark .. .. .	0.3	0.5
France .. .. .	3.5	0.7
Germany .. .. .	0.8	0.3
Great Britain .. .. .	2.8	1.0
Hungary .. .. .	1.5	0.1
Japan .. .. .	1.4	0.7
Netherlands .. .. .	0.9	0.4
New Zealand .. .. .	1.3	2.7
Norway .. .. .	1.2	1.1
Poland .. .. .	0.5	0.1
Spain .. .. .	3.0	0.9
Sweden .. .. .	0.4	0.6
Switzerland .. .. .	0.8	0.5
Union of South Africa .. .. .	2.2	0.5
United States of America .. .. .	0.6	1.2

**§ 4. Overseas Cable and Radio Communication.**

1. **First Cable Communication with the Old World.**—In earlier issues of the Year Book will be found a detailed account of the connexion of Australia with the old world by means of submarine cables. (See No. 6, p. 770.)

2. **General Cable Services.**—Descriptions of the various cable services between Australia and other countries are given in Year Book No. 22, pp. 335 and 336.

3. **Merging of Cable and Wireless Interests.**—Following upon the recommendations of the Imperial Wireless and Cable Conference in London in 1928 to examine the situation which had arisen as the result of the competition of the Beam Wireless with the Cable services, the Imperial and International Communications Limited 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.

4. **Overseas Cable and Radio Business.**—(i) *Australia.* The subjoined table shows the number of cablegrams and radiograms received and dispatched in Australia from 1931-32 to 1933-34 :—

**CABLEGRAMS AND RADIOGRAMS.—AUSTRALIA.**

Messages.	Number Received.			Number Dispatched.			Total Number Received and Dispatched.		
	1931-32.	1932-33.	1933-34.	1931-32.	1932-33.	1933-34.	1931-32.	1932-33.	1933-34.
Number ..	564,205	579,958	608,323	610,763	639,121	656,935	1,174,968	1,219,079	1,265,258

(ii) *States.* The number of cablegrams received and dispatched in each State during the year 1933-34 is given hereunder :—

## CABLEGRAMS AND RADIOGRAMS.—STATES, 1933-34.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number received ..	321,493	196,489	24,511	28,841	27,658	9,331	608,323
Number dispatched	322,382	221,852	31,145	34,102	37,336	10,118	656,935
Total ..	643,875	418,341	55,656	62,943	64,994	19,449	1,265,258

(a) Exclusive of interstate cablegrams, which are included with interstate telegrams.

5. *Cable and Radio (Beam) Rates.*—(i) *Ordinary Messages.* From 1st February, 1927, the cable rates (per word) between Australia and Great Britain were reduced as follow :—Ordinary, 2s. 6d. to 2s.; deferred ordinary, 1s. 3d. to 1s.; and Government, 1s. 4d. to 1s. 0½d., and substantial reductions were also made on the Canadian service (via Pacific) as from the same date. The rates between Australia and Great Britain “Via Beam” are—Ordinary, 1s. 8d.; deferred ordinary, 10d.; Government, 10d. The following are the rates at present operating in regard to traffic with the principal countries :—

## CABLEGRAM AND RADIOGRAM RATES, JUNE, 1934.

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 6s. 3d.	.. .. .
Africa .. .. .	1s. 8d. to 5s. 4d.	2s. 2½d. to 2s. 11d.
North America .. .. .	1s. 7d. to 4s. 4d.	1s. 5½d. to 3s. 7d.
Central America .. .. .	3s. 10d. to 6s. 1d.	3s. 5½d. to 4s. 10d.
West Indies .. .. .	3s. 0d. to 5s. 8d.	.. .. .
South America .. .. .	4s. 1d. to 7s. 5d.	3s. 9d. to 6s.

(ii) *Deferred Telegrams (via Cable or Radio).* Under this system a reduction of 50 per cent. in the ordinary cable or radio charges is made under certain conditions. Any such messages which have not reached their destination within 24 hours may be transmitted in turn with full-rate messages. This service, together with the “Daily Letter Telegram” service, has affected the ordinary business to a considerable extent. “Deferred Press” telegrams, subject to a delay of 18 hours, may be exchanged between Australia and (a) Great Britain at the rate of 4½d. per word by cable and 3d. per word via radio; (b) Canada, at 2½d. per word by cable and 2½d. per word via radio; and (c) United States of America, at 3d. to 4d. per word by cable and 3½d. to 4d. per word via radio.

(iii) *Daily Letter Telegrams.* The Daily Letter Telegram service was inaugurated in September, 1923, between Australia and Great Britain and Canada, later being extended to most countries in the British Empire and in Europe, to the United States and to certain other places. In accordance with the decision of the International Telegraph Conference which was held at Madrid in 1932, the charges on Daily Letter Telegrams have, since 1st April, 1933, been based on one-third of the tariff per word for full-rate messages, and are now subject to a minimum charge as for 25 words (in lieu of 20 as previously). These messages are delivered on the morning of the second day following that of lodgment.



(iv) *Week-end Letter Telegrams.* The Week-end Letter Telegram facility which had been in operation for a number of years between Australia and certain other countries was abolished on 1st April, 1933, in accordance with the decision of the Madrid International Telegraph Conference.

(v) *Press Telegrams.* The rate per word ordinary on press messages exchanged with Great Britain is 6d. by cable and 4d. via radio, while that on deferred press is 4½d. and 3d. respectively.

(vi) *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. As from 1st April, 1933, the minimum charge for messages has been fixed as for 25 words (in lieu of 20 as previously) in accordance with a decision of the Madrid Conference, the minimum charges 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 beyond 25. Night Letter Telegrams are accepted at any time and are delivered by first post on the morning following receipt.

### § 5. Telephones.

1. *Telephone Services.*—(i) *Mileage, etc., Australia.* The following table shows the mileage of lines, etc., for telephone purposes, giving trunk lines separately, on 30th June, 1931 to 1934.

#### TELEPHONE LINES.—AUSTRALIA.

Particulars.	Year ended 30th June—			
	1931.	1932.	1933.	1934.
Ordinary Lines—				
Conduits .. .. duct miles	6,047	6,217	6,454	6,733
“ .. .. route miles	3,416	3,571	3,776	4,079
Conductors in aerial cables loop mileage	5,213	4,436	4,276	(a)
Conductors in underground cables loop mileage	789,736	800,081	811,122	829,506
Conductors in cables for junction circuits loop mileage	105,047	103,237	102,168	100,850
Open conductors single wire mileage	422,737	418,264	418,053	419,015
Trunk Lines—				
Telephone trunk lines only .. miles	233,543	236,209	232,409	228,084
Telegraph and telephone purposes ..	98,140	98,369	101,797	102,953

(a) Included in figures for conductors in underground cables.

(ii) *Comparison with Other Countries.* The number of telephones connected with exchanges at the 30th June, 1934, shows a very substantial recovery. The maximum was attained in 1930 with 520,169 instruments connected. The number, however, fell to 484,626 in 1932, but increased again to 501,402 at 30th June, 1934. There are 75.1 telephones per 1,000 of population and Australia occupies seventh place among countries with the greatest density of telephones. The average length of wire per telephone in Australia is 5.2 miles, as compared with 5.0 miles in the United States of America, 4.0 miles in Canada and 3.9 miles in New Zealand.

(iii) *Trunk Line System.* Telephone trunk lines are provided in practically every settled area of the Commonwealth, and when the proposed submarine cable between the mainland and Tasmania is completed the ideal of a nation-wide telephone service will be realized.

With the object of still further improving the transmission between widely separated centres additional telephone carrier systems have been installed. There are 58 such systems in service in Australia, giving a total of 95 speech channels with an aggregate mileage of approximately 26,000 miles.

(iv) *Automatic Exchanges.* At the 30th June, 1934, there were 69 automatic or semi-automatic exchanges in operation, providing facilities for 209,032 telephones, 203,480 of which were in the telephone networks of the six State capital cities.

(v) *Rural Automatic Exchanges.* Successful experiments have been made with an automatic type of exchange suitable for installation in rural areas, the advantage of this particular equipment being that it affords an economical day and night service. There are eighteen such exchanges in operation, and the installation of further units is proceeding.

(vi) *Summary for States.* Particulars relating to the telephone service in each State for the years ended 30th June, 1932 to 1934, 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.	Australia.
No. of Exchanges ..	1932	1,942	1,641	938	552	648	348	6,069
	1933	1,935	1,639	947	554	644	352	6,071
	1934	1,935	1,648	962	556	642	344	6,087
No. of Telephone Offices (including Exchanges)	1932	2,981	2,350	1,429	790	937	513	9,000
	1933	2,937	2,339	1,415	791	930	512	8,924
	1934	2,950	2,427	1,427	801	947	510	9,062
No. of lines connected ..	1932	135,179	110,213	48,346	37,815	20,639	11,380	363,572
	1933	135,859	110,386	48,170	37,339	20,561	11,461	363,776
	1934	139,485	113,983	49,009	37,713	20,332	11,599	372,621
No. of instruments con- nected	1932	181,326	151,455	62,065	48,696	27,117	13,967	484,626
	1933	182,992	152,693	62,207	48,463	27,220	14,087	487,662
	1934	188,694	157,802	63,762	49,089	27,731	14,324	501,402
(a) No. of subscribers' instruments	1932	176,426	147,989	59,740	47,181	25,884	13,148	470,368
	1933	177,869	149,179	59,859	46,945	25,956	13,255	473,063
	1934	183,378	154,137	61,382	47,537	26,455	13,499	486,388
(b) No. of public tele- phones	1932	2,986	2,199	1,532	788	903	544	8,952
	1933	3,229	2,226	1,534	789	900	549	9,227
	1934	3,353	2,344	1,559	803	900	541	9,500
(c) No. of other local instruments	1932	1,914	1,267	793	727	330	275	5,306
	1933	1,894	1,288	814	729	364	283	5,372
	1934	1,963	1,322	821	749	376	284	5,514
Instruments per 100 of population	1932	7.15	8.39	6.38	8.25	6.42	6.32	7.40
	1933	7.01	8.39	6.56	8.27	6.20	6.19	7.36
	1934	7.17	8.62	6.66	8.34	6.27	6.28	7.51
Earnings ..		£	£	£	£	£	£	£
	1932	2,087,878	1,556,936	798,088	529,743	303,527	134,905	5,411,077
	1933	2,125,762	1,603,177	799,231	532,090	308,470	136,090	5,504,840
1934	2,245,139	1,666,633	835,162	538,001	316,772	139,614	5,741,321	
Working expenses ..	1932	1,351,053	1,033,698	485,962	405,252	241,369	143,919	3,661,253
	1933	1,330,070	1,037,901	479,664	391,371	226,122	138,224	3,603,352
	1934	1,409,843	1,077,961	493,682	408,115	231,433	143,922	3,764,950
Percentage of working ex- penses on earnings		%	%	%	%	%	%	%
	1932	64.71	66.39	60.89	76.50	79.52	106.68	67.66
	1933	62.57	64.74	60.01	73.55	73.30	101.57	65.46
1934	62.80	64.68	59.11	75.86	73.06	103.09	65.58	

The number of instruments per 100 of population increased from 7.36 in 1932-33 to 7.51 in 1933-34. The actual number of instruments increased from 487,662 to 501,402, a gain of 2.82 per cent. Of the total instruments connected at 30th June, 1934, 215,871, or 43.1 per cent., were served by exchanges situated beyond the limits of the telephone networks of the six State capital cities. The metropolitan networks are limited to a radius of 15 miles from the General Post Office in Sydney and Melbourne, and 10 miles in the other State capital cities.

(vii) *Systems in Use.* The following table shows the percentage of automatic, common battery, and magneto telephone lines at 30th June, 1932 to 1934 :—

**PERCENTAGE OF AUTOMATIC, COMMON BATTERY, AND MAGNETO LINES.**

System.	30th June.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Automatic .. ..	1932	42.6	37.1	35.7	37.3	40.8	29.0	39.0
	1933	45.1	37.7	36.0	37.0	41.9	29.4	40.1
	1934	46.1	38.6	36.5	37.5	49.1	30.2	41.4
Common Battery .. ..	1932	2.9	19.0	..	13.5	6.2	17.2	9.1
	1933	2.8	18.9	..	13.7	6.2	17.1	9.1
	1934	2.8	19.2	..	13.9	..	17.4	8.9
Magneto .. ..	1932	54.5	43.9	64.3	49.2	53.0	53.8	51.9
	1933	52.1	43.4	64.0	49.3	51.9	53.5	50.8
	1934	51.0	42.2	63.5	48.6	50.9	52.4	49.7

(viii) *Subscribers' Lines and Calling Rates.* The next table gives the number of subscribers' lines and the daily calling rate at central, suburban, and rural telephone exchanges in the several States for the year 1933-34 :—

**TELEPHONE.—SUBSCRIBERS' LINES AND DAILY CALLING RATE, 1933-34.**

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.
New South Wales	15,315	11.37	61,136	4.21	58,280	2.11	135,231	4.14
Victoria ..	7,617	10.49	57,554	3.88	45,410	1.65	110,581	3.42
Queensland ..	6,665	9.19	11,850	3.42	29,430	2.48	47,945	3.65
South Australia ..	5,161	8.26	14,329	3.39	17,425	1.57	36,915	3.21
Western Australia	6,882	6.12	3,857	3.95	9,482	1.55	20,221	3.56
Tasmania ..	2,788	4.02	1,002	2.29	7,434	1.99	11,224	2.52
Australia ..	44,928	9.28	149,728	3.92	167,461	1.96	362,117	3.68

A comparison of the daily calling rates for each class of exchange shows that New South Wales registered the greatest number per line at central and suburban exchanges, and Queensland at rural exchanges. For Australia as a whole, the average number of calls per line at central exchanges was approximately two and a third times the number registered at suburban exchanges, while the average for suburban exchanges was double the number shown for rural exchanges.

(ix) *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 1931-32 to 1933-34 :—

TELEPHONES.—TRUNK LINE CALLS AND REVENUE.

Particulars.	New South Wales.	Victoria.	Queens-land.	South Australia.	Western Australia.	Tasmania.	Australia.
Total Calls for Year—	No.	No.	No.	No.	No.	No.	No.
1931-32 ..	9,678,897	8,067,603	5,334,890	3,059,101	1,549,363	1,218,231	28,908,085
1932-33 ..	9,851,642	8,157,857	5,329,262	3,115,450	1,559,904	1,196,868	29,210,983
1933-34 ..	10,713,588	8,519,955	5,684,435	3,183,224	1,653,861	1,241,947	30,997,020
Total Revenue for Year—	£	£	£	£	£	£	£
1931-32 ..	480,847	357,688	300,801	140,023	83,831	41,500	1,404,690
1932-33 ..	473,295	357,063	288,681	142,013	81,858	41,454	1,384,364
1933-34 ..	527,651	380,004	317,223	149,272	87,939	41,667	1,503,756
Average Revenue per Call—	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1931-32 ..	11.91	10.64	13.53	10.99	12.99	8.18	11.66
1932-33 ..	11.53	10.51	13.00	10.94	12.59	8.31	11.37
1933-34 ..	11.82	10.70	13.40	11.25	12.76	8.05	11.64

The number of trunk line calls originated during 1933-34 increased by over one and three quarter millions, or by 6.1 per cent. compared with the figures for the previous year, and the average revenue per call increased by 0.27d.

2. Revenue from Telephones.—Particulars regarding the revenue from telephone services are included in tables in § 1.

§ 6. Radio Telegraphy and Telephony.

1. General.—A statement in regard to the initial steps taken to establish radio telegraphy in Australia was given in Official Year Book No. 18, p. 343.

2. Wireless Licences.—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 require that all ships registered in Australia of 1,600 tons or more registered tonnage or carrying more than twelve passengers, shall have an efficient radio telegraph installation, and further regulations will shortly be introduced compelling the installation of radiotelegraph apparatus in all ships engaged in the interstate trade, while similar regulations will also be introduced by some State Governments in respect of vessels in intra-state trade); (c) Land Stations to be operated where no telegraph or telephone facilities exist; (d) Broadcasting Stations, other than those of the National Broadcasting Service; (e) Broadcast Listeners' Receiving Sets; (f) Portable Stations on motor cars, etc.; (g) Aircraft Stations; (h) Experimental Stations; and (i) Special Stations, i.e., stations other than those named above.

The following table shows the number of each class of licence issued in each State, etc., during the years 1933-34 and 1934-35:—

WIRELESS LICENCES, 1933-34.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Aust.	Papua and New Guinea	Grand Total.
Coast .. ..	2	1	6	1	5	3	1	..	19	9	28
Ship .. ..	16	68	4	6	3	3	..	..	100	..	100
Land (b) ..	8	3	4	1	2	3	7	..	28	..	36
Broadcasting (a) ..	16	15	8	4	6	3	..	1	53	..	53
Broadcast listeners' ..	225,897	206,995	51,998	64,139	31,404	16,547	35	934	597,949	40	597,989
Experimental ..	454	329	146	128	72	35	2	4	1,169	5	1,174
Portable .. ..	9	5	7	..	3	..	7	..	31	1	32
Special .. ..	26	15	..	1	6	..	..	..	48	..	48
Total Licences Issued	226,428	207,431	52,173	64,280	31,501	16,594	51	939	599,397	63	599,460

## WIRELESS LICENCES, 1934-35.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Aust.	Papua and New Guinea	Grand Total.
Coast .. ..	2	1	6	1	5	3	1	..	19	9	28
Ship .. ..	22	66	6	7	3	1	..	..	105	..	105
Aircraft .. ..	6	4	..	..	..	..	1	..	11	1	12
Land (b) .. ..	9	3	19	4	4	3	18	..	60	10	70
Broadcasting (a) .. ..	17	15	10	5	6	3	..	1	57	..	57
Broadcast listeners' .. ..	277,576	236,886	67,351	76,306	41,176	20,088	59	1,072	720,514	18	720,532
Experimental .. ..	512	361	176	148	81	33	2	6	1,319	1	1,320
Portable .. ..	11	5	4	..	1	..	4	..	25	3	28
Special .. ..	29	15	..	..	3	..	..	..	47	..	47
<b>Total Licences Issued</b>	<b>278,184</b>	<b>237,356</b>	<b>67,527</b>	<b>76,471</b>	<b>41,279</b>	<b>20,131</b>	<b>85</b>	<b>1,079</b>	<b>722,157</b>	<b>42</b>	<b>722,199</b>

(a) There are also thirteen stations operated by the National Broadcasting Service, including a short-wave station (3LR, Lyndhurst, Victoria). (b) In addition to the licensed stations there are two operated by the Postmaster-General's Department, viz.—Wave Hill (N.T.) and Camooweal (Q.), and fourteen low powered stations established by the Government of the Territory of New Guinea.

3. **Broadcasting**—(i) *The National Broadcasting Service.* The technical services for the National Service are provided by the Postmaster-General's Department, and the programmes by the Australian Broadcasting Commission, a body consisting of five members, constituted under the provisions of the Australian Broadcasting Commission Act. The fee for a broadcast listener's licence was reduced from 24s. to 21s. as from the 6th August, 1934. Licences are issued free to blind persons. The Department receives 9s. and the Commission 12s. from each listener's licence fee.

There are at present twelve National Medium Wave Stations—2FC Sydney, 2BL Sydney, 2NC Newcastle—regional station—programmes relayed from Sydney, 2CO Corowa—regional station—programmes relayed from Melbourne, 3LO Melbourne, 3AR Melbourne, 4QG Brisbane, 4RK Rockhampton—regional station—programmes relayed from Brisbane, 5CL Adelaide, 5CK Crystal Brook—regional station—programmes relayed from Adelaide, 6WF Perth, 7ZI Hobart. There is also a short wave station at Lyndhurst (Victoria), call sign, 3LR. This station transmits programmes of the national service to remote regions at present not served by the medium wave stations.

Seven additional medium wave stations are in course of construction. Particulars of the call signs, locations and the ultimate powers of these stations, all of which it is hoped will be put into operation during the coming year, are:—7NT Kelso, near Launceston (Tasmania), 30 k.w.; 3GI Sale (Victoria), 30 k.w.; 2NR Lawrence, near Grafton (New South Wales), 30 k.w.; 4QN Clevedon, near Townsville (Queensland), 30 k.w.; 6WA Minding, near Wagin (Western Australia), 60 k.w.; 2CR Cumnock, near Dubbo (New South Wales), 60 k.w.; 3WV Horsham (Victoria), 60 k.w.

Some of the new stations will use a new form of transmitting aerial, which has been devised by the Postmaster-General's Department. With this form of aerial, the mast itself is the radiating element and the particular object of the design is to achieve, with masts of 500 to 600 feet in height, results similar to those otherwise only obtainable by masts of 800 to 1,000 feet.

The Department has considerably developed the use of very high frequency radio transmission; the frequencies used range from 40 million to 200 million cycles per second (wave-lengths approximately seven metres to one and a half metres). Apparatus using this high frequency has been employed in the broadcasting system for connecting pick-up points with the fixed programme lines where unusual mobility or freedom from physical connexion was required.

Progress has been made in the facilities for the reception of overseas broadcasting. Programmes from overseas have been regularly received and re-transmitted over the National network. Most of the important programmes from the Empire Broadcasting Station at Daventry have thus been made available to listeners in the Commonwealth.

(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, 1935, was 57, and there are several stations in prospect.

(iii) *Radio Inductive Interference.* The Postmaster-General's Department takes active measures to suppress, so far as possible, interference with broadcast reception resulting from the radiations of energy from electric machinery and appliances. During the year, the Department received 6,500 complaints of interfering noises, of which 5,361 were satisfactorily disposed of.

(iv) *Prosecutions Under the Wireless Telegraphy Act.* During the year 2,190 persons were convicted for using unlicensed broadcasting receiving equipment, the total fines amounted to £3,927.

4. *Oversea Communication by Wireless.*—(i) *Beam Wireless.* The Beam wireless stations provided for under the agreement between the Commonwealth Government and Amalgamated Wireless (Australasia) Ltd. were completed early in 1927, and a direct beam wireless service to England was established on 8th April, 1927. A similar service to North America was opened on 16th June, 1928. Satisfactory communication is maintained daily over a period of hours, and the services are being well patronized by the public. A comparison of the rates charged for "Beam" and Cable messages is given in § 4, Overseas Cable and Radio Communication. Particulars of international traffic via "Beam" are given in par. (iv) (a) following

(ii) *International Wireless Telephone Service.* A wireless telephone service between Australia and England was opened on the 30th April, 1930. Since then, direct services have been opened to New Zealand and Java, and the Anglo-Australian service has been extended to most of the countries in Europe, and to Egypt, Palestine, certain trans-Atlantic liners, French Indo China, India, South Africa, and North and South America. The fee for a conversation between Australia and England is £4 10s. for a minimum of three minutes' effective conversation and £1 10s. for each additional minute, and to Continental countries is slightly higher. The fee for calls to Egypt, and the trans-Atlantic liners is £2 8s. per minute, and to French Indo China, India, South Africa, and North and South America £3 per minute. The rates to the last-mentioned countries increase slightly on calls made to the western portions. Calls to New Zealand and Java cost £1 and £1 10s. per minute respectively.

With a view to stimulating the use of the radio channel for social calls, arrangements were made as from the 23rd December, 1933, for calls between Australia and Great Britain on Saturdays to be charged for at half the normal tariff, and this innovation has proved most successful.

The Australian telephone subscriber now has access to about 32,000,000 telephones, or approximately 93 per cent. of the world's total. Since the first overseas radio telephone service was established in 1930, 7,305 calls have been completed, of which 5,401 were between Australia and Great Britain, and 1,206 between Australia and New Zealand. During the year ended 30th June, 1935, 2,342 calls were completed, 1,212 originating in Australia and 1,130 in other countries. Of the total calls, 1,804 were between Australia and Great Britain, 372 between Australia and New Zealand, 60 between Australia and the United States of America, and 105 between Australia and other foreign countries.

(iii) *Radio Stations (Pacific Ocean).* Radiotelegraphic stations have been erected at Suva, Ocean Island, Tulagi, and Vila under the control of the High Commissioner of the Pacific, while the New Zealand Government has erected high-power stations at Awanui (Auckland), Awarua (Bluff), and Apia (Samoa), and low-power stations at Auckland, Chatham Islands, Raratonga (Cook Islands) and Wellington.

(iv) *Radiotelegraphic Traffic.* (a) *International.* The following statement shows particulars of international traffic "via Beam" to and from United Kingdom and other places during the year ended 30th June, 1934 :—

**RADIO TRAFFIC.—INTERNATIONAL, YEAR ENDED 30th JUNE, 1934.**

Class of Traffic.	Number of Words Transmitted.			Number of Words Received.		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary (b) ..	1,341,950	550,473	1,892,423	954,064	213,194	1,167,258
Deferred ..	893,645	325,665	1,219,310	797,859	104,221	902,080
Government (b) ..	97,257	11,609	108,866	113,592	5,205	118,797
Press (including deferred press) ..	149,693	1,001	150,694	1,595,568	55,793	1,651,361
Daily letter and greeting telegrams (a) ..	2,956,240	767,429	3,723,669	1,722,773	238,884	1,961,657
Total ..	5,438,785	1,656,177	7,094,962	5,183,856	617,297	5,801,153

(a) Includes Christmas and New Year Greeting telegrams.

(b) Includes Code telegrams.

(b) *Coast Stations.* Particulars of the traffic handled by the several coast stations during the year 1933-34 are as follow :—

**RADIO TRAFFIC.—COAST STATIONS, 1933-34.**

State or Territory.	Particulars.				
	Total Paying Words.	Messages.			
		Paying.	Service.	Weather.	Total.
	No.	No.	No.	No.	No.
New South Wales ..	1,124,816	69,227	3,146	4,713	77,086
Victoria ..	82,734	7,724	180	1,692	9,596
Queensland ..	181,705	14,453	4,671	4,371	23,495
South Australia ..	49,591	4,653	184	602	5,439
Western Australia ..	136,440	10,729	2,324	2,958	16,011
Tasmania ..	205,225	12,222	1,560	2,445	16,227
Northern Territory ..	55,361	2,563	1,109	1,315	4,987
Australia ..	1,835,872	121,571	13,174	18,096	152,841
Papua ..	202,234	12,528	637	994	14,159
Grand Total ..	2,038,106	134,099	13,811	19,090	167,000

(c) *Island Stations.* Particulars of the island radio traffic dealt with during the year 1933-34 are given in the following table :—

RADIO TRAFFIC.—ISLAND STATIONS, 1933-34.

Particulars.	To Australia.	From Australia.	Inter- Island.	Ship.	Total.
	No.	No.	No.	No.	No.
Messages .. ..	23,350	17,066	17,612	1,614	59,642
Words .. ..	318,481	284,816	239,512	18,834	861,643

(v) *Proficiency Certificates.* Every station, in respect of which a licence is issued, must be operated by a person holding a certificate of proficiency.

The number of each class of certificate issued during the year ended 30th June, 1934, was :—First Class 40, Second Class 20, limited certificates in radiotelegraphy 8, limited certificates in radiotelephony 52, and amateur certificates 168.



## CHAPTER VII.

### TRADE.

#### § 1. Introductory.

**Constitutional Powers of the Commonwealth in regard to Commerce.**—The powers vested in the Commonwealth Parliament by the Commonwealth Constitution Act with respect to oversea trade and commerce will be found in Sub-section 51 (i) and sections 86 to 95 of the Act.

#### § 2. Commonwealth Legislation affecting Oversea Trade.

1. **General.**—In previous issues of the Year Book brief particulars of the various Commonwealth Acts and amendments thereof affecting oversea trade have been given in chronological order. This information is not repeated in the present issue. Particulars of recent legislation relating to oversea trade are given hereunder.

2. **Customs Tariffs 1933.**—The Tariff Schedule in operation at 30th June, 1935, was a consolidation of the Schedules to the Customs Tariff 1933 (Act No. 27 of 1933), and the Customs Tariff (No. 2) 1933 (Act No. 31 of 1933), as amended by Customs Tariff proposal No. 1 introduced on 6th December, 1934, validated until 30th November, 1935, by Act No. 19 of 1935, and Customs Tariff proposal No. 2 introduced on 28th March, 1935. Customs Tariffs 1933 incorporate the Customs Act 1901–1930 and repeal the undermentioned Acts:—Customs Tariff 1921 (No. 25 of 1921), Customs Tariff 1922 (No. 16 of 1922), Customs Tariff (Sugar) 1922 (No. 32 of 1922), Customs Tariff 1923 (No. 22 of 1923), Customs Tariff 1924 (No. 1 of 1924), Customs Tariff 1926 (No. 26 of 1926), Customs Tariff (No. 2) 1926 (No. 45 of 1926), Customs Tariff 1928 (No. 2 of 1928), Customs Tariff (No. 2) 1928 (No. 35 of 1928), Customs Tariff (No. 3) 1928 (No. 36 of 1928) and Customs Tariff 1930 (No. 3 of 1930). The Customs Tariffs 1933 validate collections of all duties of Customs demanded or collected pursuant to the Tariff Proposals introduced into the House of Representatives on the undermentioned dates (but not including proposals for the imposition of primage duties or the special duty of Customs):—25th February, 1932; 17th March, 1932; 3rd May, 1932 (Customs Proposals Nos. 3 and 4); 24th May, 1932, and 1st September, 1932.

The Customs Tariff 1921–1930 provided a British Preferential Tariff, an Intermediate Tariff, and a General Tariff. The Customs Tariffs 1933 make no provision for an Intermediate Tariff, but provide duties of Customs under two headings—"British Preferential Tariff" and "General Tariff." The rates of duty imposed under the "British Preferential Tariff" 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.

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 (*vide* Act No. 13 of 1931, Act No. 5 of 1934 and proposals introduced on 6th December, 1934); New Zealand (*vide* Act No. 26 of 1933 as amended by Act No. 2 of 1934); Norfolk Island (*vide* Act No. 15 of 1913); Papua and Territories of New Guinea (*vide* Act No. 4 of 1934); and British non-self-governing Colonies, British Protectorates and certain Territories governed under British mandate.

Customs Tariffs 1933 provide for duties on certain goods to be deferred. Where a deferred duty on any goods is provided in the Schedule, the Minister shall refer to the Tariff Board for inquiry and report the question whether the deferred duty should or should not operate on and after the date to which it has been deferred. The Board shall report whether the goods in respect of which the deferred duty is provided are being made or produced in Australia or will be so made or produced on, or immediately after, the date to which the duty has been deferred—(a) in reasonable quantities; (b) of satisfactory quality; and (c) at a reasonable price having regard, among other things, to the probable economic effect of the imposition of the deferred duty upon other industries concerned, and upon the community in general. Upon receipt of a report from the Tariff Board, the Minister may defer the duty further by notice published in the *Gazette*.

During the period 3rd April, 1930, to the 23rd July, 1931, a special customs duty equal to 50 per cent. of the rate already in force was imposed on a number of items which were mostly of a luxury nature. The Act validating the collection of these rates (No. 56 of 1931) was assented to on the 26th November, 1931. The list of items affected was reduced on 24th May, 1932, and further reductions were made prior to 28th February, 1935, from which date the special duty was removed from the remaining items.

By proclamation of the 4th April, 1930, the importation of 78 classes of goods into the Commonwealth was prohibited; the principal items affected being confectionery, jams and jellies, agricultural implements, platedware, matches, spirits, cigarettes, manufactured tobacco, batteries, and wireless receiving sets. This prohibition of importation was repealed in respect of 43 items on the 24th February, 1932, and in respect of 11 items on the 18th May, 1932. The revocation of the remaining prohibitions was made on the 31st August, 1932.

3. **Primage Duty.**—From the 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 the 6th November, 1930.

A proclamation of the 14th May, 1931, exempted certain aids to primary production, and on the 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 made since July, 1931, include a proposal of 4th October, 1933, which 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 13th March, 1935, reduced the primage

duty on goods the produce or manufacture of the Territory of New Guinea or Papua to the rate chargeable on similar goods under the British Preferential Tariff. Under the Customs Tariff (New Zealand Preference) Act (No. 26 of 1933) 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.

4. **Preferential Tariff.**—(i) *British Preference.* The Commonwealth Tariff 1908 (Act No. 7, 1908) provided Preferential Tariff rates in favour of goods produced or manufactured in the United Kingdom. Subsequent amendments of the Tariff have extended the list of articles to which the preferential rates apply. The favourable treatment of the United Kingdom was again extended by Customs Tariff 1921 (No. 25 of 1921), and when this Act was incorporated in Customs Tariff 1921–1930 further concessions were granted.

On the introduction of the preferential treatment of British goods by the Commonwealth Tariff, it was required that British material or labour should represent not less than one-fourth the value of such goods. From the 1st September, 1911, it was required in regard to goods only partially manufactured in the United Kingdom, that the final process or processes of manufacture should have been performed in the United Kingdom and that the expenditure on material of British production and/or British labour should have been not less than one-fourth of the factory or works cost of the goods in their finished state.

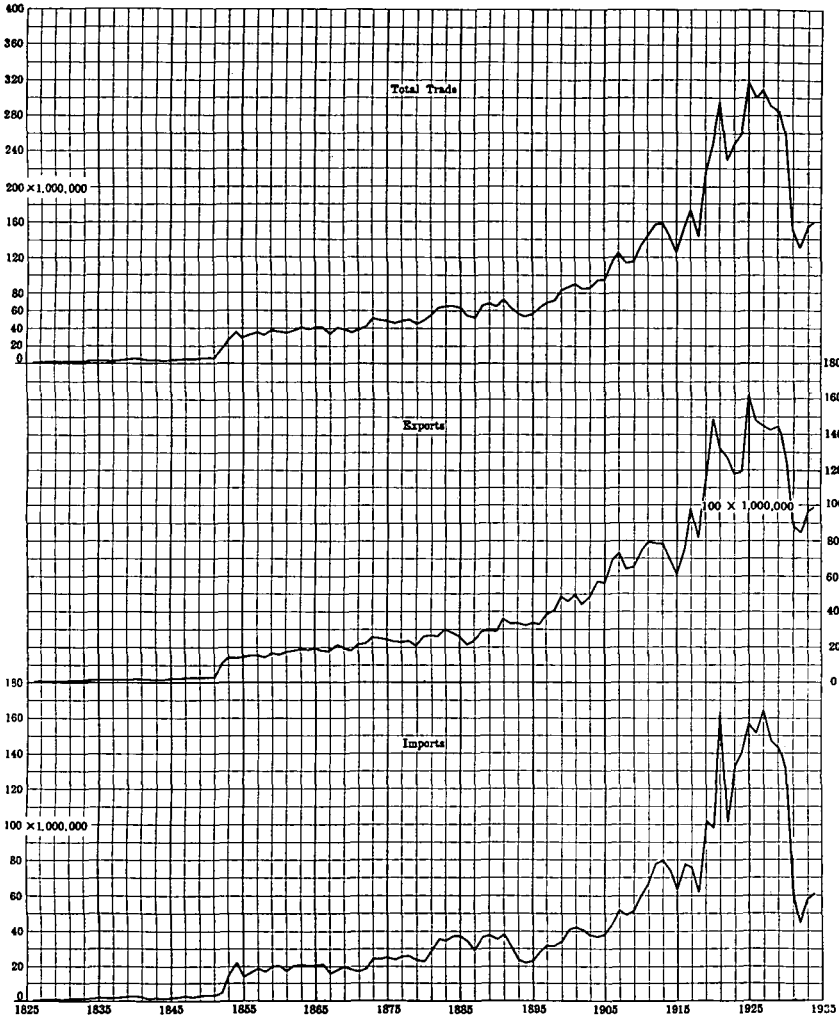
These conditions, as later amended, were superseded by Customs Act (No. 7 of 1934) which repealed section 151A of the Principal Act and inserted in its stead :—

151A (1.) For the purposes of any Customs Tariff whether passed before or after the commencement of this section, the following goods shall, subject to this section, be deemed to be the produce or manufacture of the United Kingdom :—

- (a) Goods which are wholly produced or wholly manufactured in the United Kingdom from materials in one or more of the following classes—
  - (i) Materials wholly produced or wholly manufactured in the United Kingdom or in Australia.
  - (ii) Imported unmanufactured raw materials.
  - (iii) Imported manufactured raw materials as determined by the Minister.
- (b) Goods of the factory or works cost of which not less than seventy-five per cent. is represented—
  - (i) by labour or material of the United Kingdom ; or
  - (ii) by labour or material of the United Kingdom and labour or material of Australia.
- (c) Goods of a class or kind not commercially produced or manufactured in Australia and of the factory or works cost of which not less than twenty-five per cent. is represented—
  - (i) by labour or material of the United Kingdom ; or
  - (ii) by labour or material of the United Kingdom and labour or material of Australia.

(2.) Where in relation to any class or kind of goods to which paragraph (c) of the last preceding sub-section applies the Minister is satisfied that it is desirable that 50 per cent. should be substituted for the percentage specified, the Minister may so determine and thereupon that paragraph shall apply to that class or kind of goods as if 50 per cent. were so substituted accordingly.

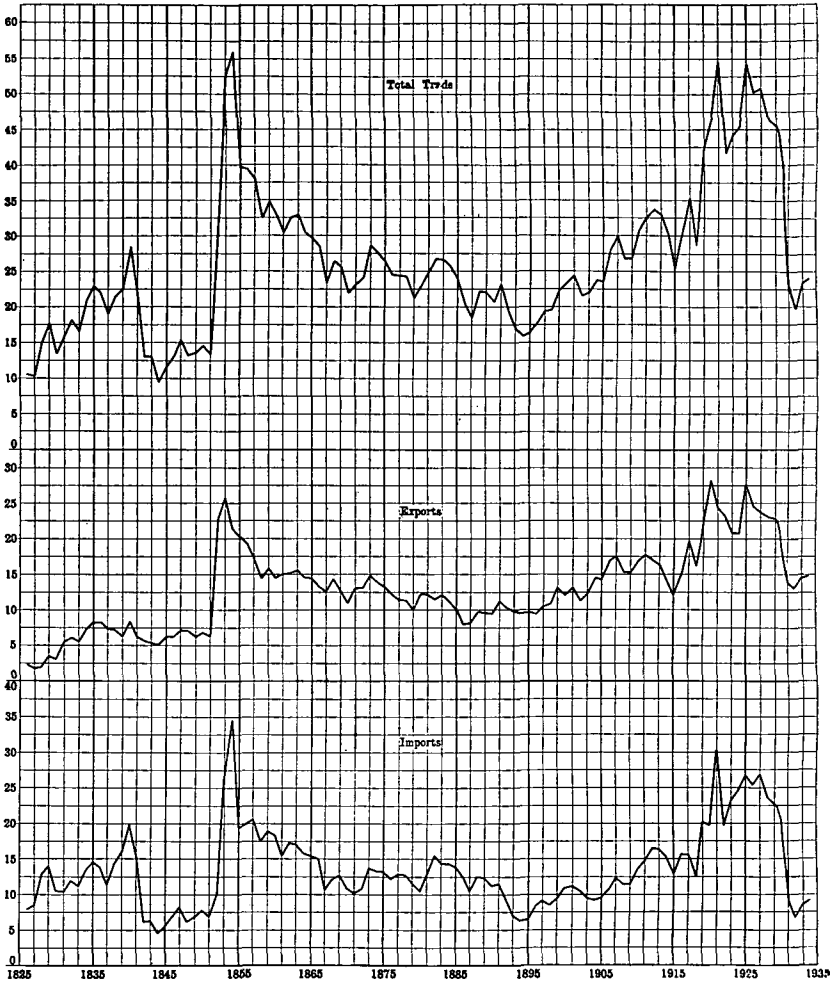
## VALUE OF TOTAL TRADE, EXPORTS AND IMPORTS, AUSTRALIA 1826 TO 1933-34.



(See page 250.)

EXPLANATION.—The base of each square represents an interval of two years, and the vertical height ten million pounds sterling for imports and exports, and twenty million pounds sterling for total trade.

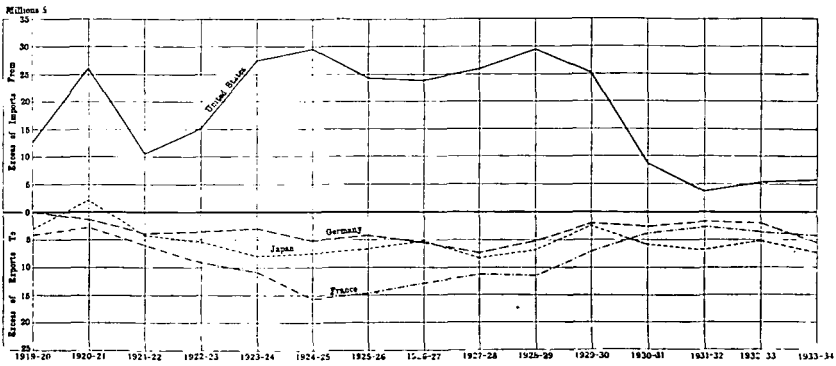
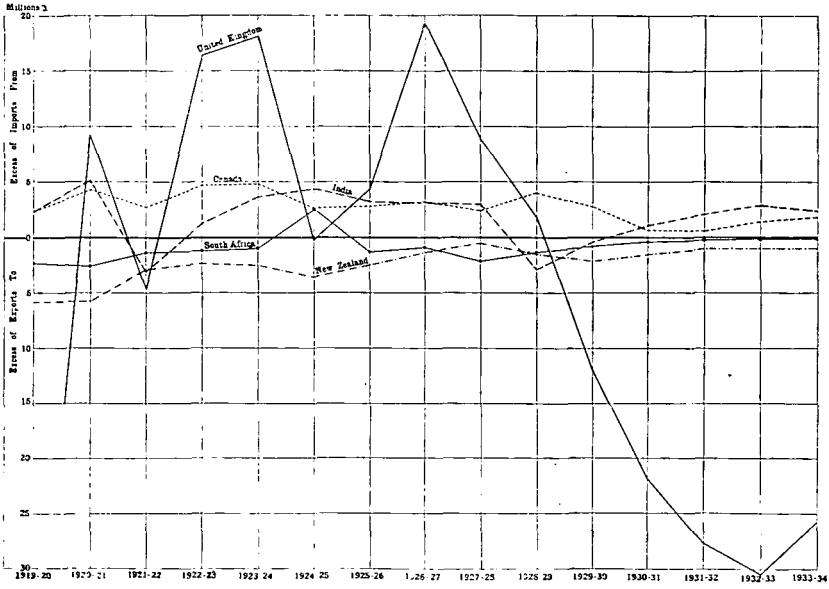
VALUES PER HEAD OF POPULATION OF TOTAL TRADE, EXPORTS AND IMPORTS  
—AUSTRALIA, 1826 TO 1933-34.



(See page 250.)

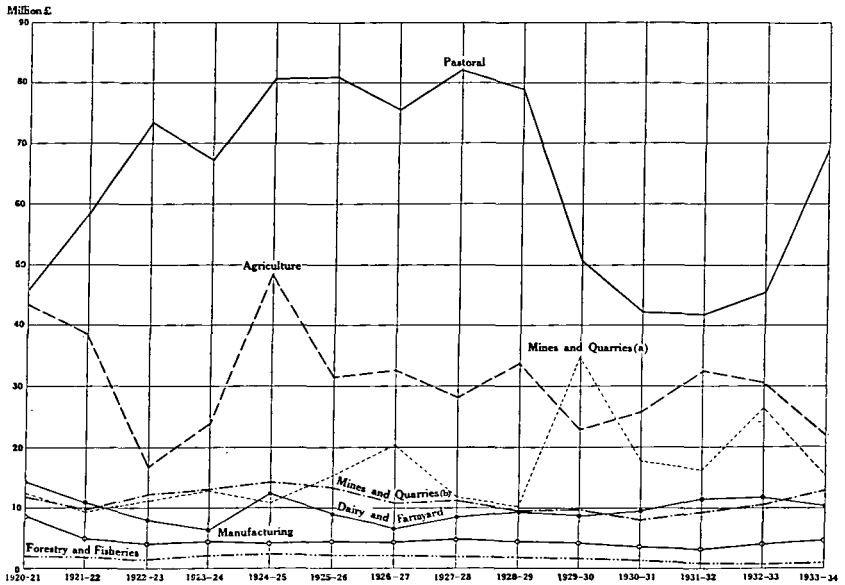
EXPLANATION.—The base of each square represents an interval of two years, and the vertical height £2 10s. od. per head of the population.

BALANCE OF AUSTRALIAN TRADE WITH OTHER COUNTRIES, 1919-20 TO 1933-34.



EXPLANATION.—The base of each square or rectangle represents one year, and the vertical height five million pounds sterling.

EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIES, 1920-21 TO 1933-34.



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.

(3.) No goods shall be deemed to be the produce or manufacture of the United Kingdom unless the final process of their production or manufacture was performed in the United Kingdom.

(4.) The provisions of this section shall apply *mutatis mutandis* in relation to goods imported from any country with which the Commonwealth has a Preferential Tariff Agreement in like manner as they apply in relation to goods imported from the United Kingdom.

Sub-sections 5, 6, and 8 of section 151A relate to certain powers of the Minister and sub-section 7 to the meaning of "unmanufactured raw materials."

The Customs Tariffs 1933 provide that the British Preferential Tariff rates of duty apply to goods or manufactures of the United Kingdom provided such goods comply with the laws and statutory regulations for the time being in force affecting the grant of British preference (see Section 151A of Customs Act (No. 7 of 1934) above). Customs Tariffs 1933 also provide that the benefits of the British Preferential Tariff may be extended wholly or in part to any British non-self-governing colony, British Protectorate, or to certain territories governed under British mandate. The benefits of the British Preferential Tariff have also been extended by separate Trade Agreements to certain goods the produce of the Dominions of Canada and New Zealand.

At the Imperial Economic Conference held at Ottawa, Canada, during July and August, 1932, a trade agreement providing increased preference was made between the Government of the United Kingdom and the Government of the Commonwealth of Australia. The Tariff proposals embodying the terms of the trade agreement came into operation on the 14th October, 1932. An Act entitled the *United Kingdom and Australia Trade Agreement Act*, No. 57 of 1932, assented to on the 2nd December, 1932, approved the provisions of the trade agreement arising out of the Conference at Ottawa. Briefly stated the Commonwealth Government agrees to (a) invite Parliament to pass legislation making the tariff changes necessary to give effect to the preference formula set forth in the agreement; (b) that protection by tariffs shall be afforded only to those industries which are reasonably assured of sound opportunities for success; (c) that during the currency of the agreement the tariff shall be based on the principle that protective duties shall not exceed such a level as will give United Kingdom producers full opportunity of reasonable competition on the basis of the relative cost of economical and efficient production, provided that in the application of such principle special consideration may be given to the case of industries not fully established; (d) that the Australian Tariff Board review existing protective duties in accordance with the above principles, and after the receipt of the report of the Board the Parliament shall be invited to vary, wherever necessary, the tariff on goods of United Kingdom origin in such manner as to give effect to such principles; (e) that no new protective duty shall be imposed and no existing duty shall be increased on United Kingdom goods to an amount in excess of the recommendation of the Tariff tribunal; (f) that United Kingdom producers shall be entitled to full rights of audience before the Tariff Board when it has under consideration above-mentioned matters; (g) that, in so far as concerns goods the produce or manufacture of the United Kingdom, the Commonwealth Government undertake to (i) repeal the proclamation prohibiting the importation of certain goods; (ii) remove as soon as practicable the surcharges imposed by resolution introduced into the Parliament of Australia on 24th May, 1932; and (iii) to reduce or remove primage duty as soon as the finances of Australia will allow.

The agreement shall remain in force for a period of five years and come into effect on 20th August, 1932 (subject to the necessary legislative or other action being taken).

The 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 Paragraph 6 of this Chapter. Further reference to this trade agreement will be found in the Appendix to Official Year Book, No. 26, 1933.



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 1933-34 the Customs Tariffs 1933 extended the application of the Preferential Tariff rates to 90 per cent. of the imports from the United Kingdom, and at the same time increased the margin of preference to 15.1 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 1933-34 under the Customs Tariffs 1933 on goods of United Kingdom origin was about 18.4 per cent., whereas the same goods under the General Tariff rates would have been called upon to pay an average rate of about 33.5 per cent.

An application of the Customs Tariffs 1933 to the total imports of £A32,445,151 (including outside packages) from the United Kingdom entered for home consumption during the year 1933-34 shows that the value of the goods of United Kingdom origin which participated in the preferential provisions of the Tariff was £A29,345,115, upon which duty to the amount of £2,952,024 was collected. Under the General Tariff, the same goods would have been required to pay £7,387,291 duty. Thus, had the conditions of the General Tariff operated on these goods £4,435,267 additional duty would have been paid, representing an average of 15.1 per cent. on the value of the goods subject to preference. The principal classes which benefited under the Preferential Tariff and the additional duty that would have been collected under the General Tariff during the year 1933-34 were textiles £1,428,990; metals and metal manufactures, £1,114,715; machines and machinery, £367,543; paper, £374,216; drugs, chemicals, etc., £197,192; optical, surgical and scientific instruments, £135,546; spirituous and alcoholic liquors, £78,602; earthenware, glass, etc., £106,498; manufactured fibres, £124,889; and apparel, £123,456.

From the preceding paragraph it appears that, if there had been no preference on goods imported from the United Kingdom and the General Tariff had been operating on the goods actually imported under the preferential provisions, there would have been £4,435,267 more collected in Customs duties in Australia. It is improper, however, to speak of this sum as the "value" of preference to the United Kingdom. Some of the preferential goods would have come from the United Kingdom in any case without preference. For the rest, it is not possible to assess in money the value to the United Kingdom of £1,000,000 of additional export trade.

The effect of the preferential rates prescribed by the Tariff Acts has been supplemented to some extent by the Exchange Adjustment Act (see page 238). This Act has reduced the amount of duty which otherwise would have been collected on some imports from British countries and consequently has increased the margin of preference in favour of the United Kingdom. If the Exchange Adjustment Act had not been in operation imports of United Kingdom origin would have paid duty to the amount of £3,232,175 instead of £2,952,024 and the margin of preference would have been greater by the same amount.

The value of goods from countries other than the United Kingdom which were adversely affected by the preferential provisions of the Tariff amounted to £A18,197,266 and the duty collected thereon was £5,419,404, or, £2,993,112 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, 1931-32, 1932-33, and 1933-34.

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)		
	1931-32.	1932-33.	1933-34.	1931-32.	1932-33.	1933-34.

GOODS OF A KIND WHICH WERE "FREE", IF FROM UNITED KINGDOM.

Value of goods cleared for consumption ..	£	8,506,549	11,729,146	13,309,515	4,660,270	5,961,194	6,731,535
Amount of Duty collected thereon ..	£	..	..	..	538,593	866,145	1,064,661
Average <i>ad valorem</i> rate of Duty collected ..	%	..	..	..	11.6	14.5	15.8
Duty which would have been collected under General Tariff rates ..	£	898,344	1,599,757	2,012,102	..	..	..
Average <i>ad valorem</i> rate of Duty which would have been collected under General Tariff rates ..	%	10.6	13.6	15.1	..	..	..

GOODS OF A KIND WHICH WERE "DUTIABLE", IF FROM UNITED KINGDOM.

Value of goods cleared for consumption ..	£	11,992,546	15,563,764	16,035,600	8,728,184	10,880,441	11,465,731
Amount of Duty collected thereon ..	£	2,354,104	2,923,866	2,952,024	2,842,803	3,826,125	4,354,743
Average <i>ad valorem</i> rate of Duty collected ..	%	19.6	18.8	18.4	32.6	35.2	38.0
Duty which would have been collected on United Kingdom goods under General Tariff rates ..	£	3,968,834	5,203,786	5,375,189	..	..	..
Average <i>ad valorem</i> rate of Duty which would have been collected under General Tariff rates ..	%	33.1	33.4	33.5	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff ..	£	..	..	..	1,810,769	2,344,109	2,426,292
Average <i>ad valorem</i> rate of Duty which would have been collected under British Preferential Tariff ..	%	..	..	..	20.8	21.6	21.2
Amount of Rebate on United Kingdom goods as against General Tariff rates ..	£	1,614,730	2,279,920	2,423,165	..	..	..
Average <i>ad valorem</i> rate of Rebate on United Kingdom goods ..	%	13.5	14.6	15.1	..	..	..
Amount of Surcharge on goods from Other Countries as against British Preferential Tariff rates ..	£	..	..	..	1,032,034	1,482,016	1,928,451
Average <i>ad valorem</i> rate of Surcharge on goods of Other Countries ..	%	..	..	..	11.8	13.6	16.8

(a) Goods cleared under "General Tariff".

(b) See note (b) at end of table.

**EFFECT OF THE PREFERENTIAL PROVISIONS OF THE CUSTOMS  
TARIFF—continued.**

Particulars.	United Kingdom.			Other Countries.(a)		
	1931-32.	1932-33.	1933-34.	1931-32.	1932-33.	1933-34.
<b>TOTAL GOODS—"FREE" AND "DUTIABLE", AFFECTED BY THE BRITISH PREFERENTIAL TARIFF.</b>						
Value of goods cleared for consumption .. ..	£ 20,499,095	27,292,910	29,345,115	13,388,454	16,841,635	18,197,266
Amount of Duty collected thereon .. ..	£ 2,354,104	2,923,866	2,952,024 <sup>b</sup>	3,381,396	4,692,270	5,419,404
Average <i>ad valorem</i> rate of Duty collected .. ..	% 11.5	10.7	10.1	25.2	27.8	29.8
Duty which would have been collected on United Kingdom goods under General Tariff rates ..	£ 4,867,178	6,803,543	7,387,291	..	..	..
Average <i>ad valorem</i> rate of Duty which would have been collected under General Tariff rates ..	% 23.7	24.9	25.2	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff ..	£ ..	..	..	1,810,769	2,344,109	2,426,292 <sup>b</sup>
Average <i>ad valorem</i> rate of Duty which would have been collected under British Preferential Tariff ..	% ..	..	..	13.5	13.9	13.3
Amount of Rebate on United Kingdom goods as against General Tariff rates .. ..	£ 2,513,074	3,879,677	4,435,267 <sup>b</sup>	..	..	..
Average <i>ad valorem</i> rate of Rebate on United Kingdom goods .. ..	% 12.2	14.2	15.1	..	..	..
Amount of Surcharge on goods from Other Countries as against British Preferential rates ..	£ ..	..	..	1,570,627	2,348,161	2,993,112 <sup>b</sup>
Average <i>ad valorem</i> rate of Surcharge on goods of Other Countries .. ..	% ..	..	..	11.7	13.9	16.5

(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) *Exchange Adjustment.* The *Customs Tariff (Exchange Adjustment) Act* (No. 29 of 1933) assented to on 4th December, 1933, provides for adjustments in Duties of Customs, consequent upon depreciation in the value of Australian currency in relation to the currencies of countries, to goods on which the British Preferential Tariff applies. This Act came into operation on the 5th October, 1933, but subsequent amendments have extended the list of items affected. The application of Section 5 of the Act is explained hereunder :—

The deduction to be made from duty in respect of protected goods (covered by items) specified in the schedule to the Act and admissible under the British Preferential Tariff on account of the depreciation of Australian currency in relation to the currency of the British country exporting the protected goods to Australia will depend on—

- (a) Whether the extent of depreciation is not less than 16 $\frac{2}{3}$  per cent; or
- (b) Whether the extent of depreciation is not less than 11 1-9 per cent., and less than 16 $\frac{2}{3}$  per cent.

If (a) applies, the deduction from the amount of duty will be—(i) one-fourth of the amount of duty; or (ii) 12 $\frac{1}{2}$  per cent. ( $\frac{1}{2}$ ) of the value for duty, whichever is the less :

If (b) applies, the deduction will be—(i) one-eighth of the amount of duty ; or (ii) 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 were 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 three headings, viz.:—

- (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 28th March, 1935, respectively 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). In respect to such items the deductions referred to in the preceding paragraph will cease to apply.

During that part of the year (approximately nine months) when the Exchange Adjustment Act was in operation it reduced the amount of duty which otherwise would have been collected by £286,824. This amount was distributed as follows:—United Kingdom, £280,272, including £121 that was allowed on goods which were not entitled to preference under the Customs Tariffs 1933; Canada, £6,396; and non-self-governing British Colonies, £156. As already mentioned the Exchange Adjustment Act has increased the margin of preference previously enjoyed by these countries. Imports of United Kingdom origin to the value of £A29,345,115 benefited by a reduction in duty of £280,151 equal to about 1 per cent. *ad valorem*, while similar goods from other countries which were cleared under the General Tariff amounted to £A18,197,266 on which a similar concession would have represented £219,261 or 1.2 per cent.

The effect of the Exchange Adjustment Act on the imports from British Dominions was small. The reduction of £6,396 in the duty on imports of Canadian origin represented 2 per thousand *ad valorem* on the total imports, and on the imports from British non-self-governing colonies the effect was less.

(iii) *Papua and New Guinea Preference.* The Customs Tariff (Papua and New Guinea Preference) 1934 which supersedes the Act of 1926 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 Tariffs 1933, be free of duty. The goods specified in the schedule to the Customs Tariff (Papua and New Guinea Preference) 1934 proposals are coffee, dried litchi fruit, various native fresh fruits, edible fungi, green and dry ginger, coconuts, Rangoon beans, kapok and sesame seeds, areca nuts, cocoa beans, massoi oil, nuts (edible), sago, tapioca, spices, vanilla beans and gums. Total imports from Papua during 1933-34 amounted to £132,235, imports of goods entitled to preference to £47,565, and duties remitted to £38,021. Total imports from the Territory of New Guinea during 1933-34 amounted to £1,026,764, imports of goods entitled to preference to £50,614, and the duties remitted to £39,757.

5. *Reciprocal Tariffs.*—(i) *General.* The Customs Tariff of 1921 introduced a new feature into Australian Tariffs in the form of an Intermediate Tariff. The purpose of the Intermediate Tariff, as announced by the Minister for Customs when submitting the schedule to Parliament, was stated in Year Book No 26, p. 224. The Intermediate Tariff is not now a feature of the Tariff Act of Australia.

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. The Tariff proposals introduced into the House of Representatives on the 13th October, 1932, embodied the main provisions of the Ottawa Agreement, and imposed duties of customs under two headings, viz. :—British Preferential Tariff; and General Tariff. No provision was made for an Intermediate Tariff. The terms of the agreement conceded by the Commonwealth Government are briefly stated in Paragraph 4 of this Chapter and the concessions granted, under the agreement, by the Government of the United Kingdom on goods of Australian origin are set out in Paragraph 6. A review of the trade agreement will be found in the Appendix to Official Year Book No. 26, 1933.

(ii) *Union of South Africa.* Until 1922, the Union of South Africa was the only British Dominion with which Australia had a reciprocal Tariff Agreement. The Commonwealth Customs Tariff (South African Preference) Act (No. 17 of 1906) and subsequent amending Acts provided preferential rates of duty to be applied to certain imported goods "when those goods are imported from and are the produce or manufacture of any of the British South African Colonies or Protectorates which are included within the South African Customs Union."

The Customs Tariff (South African Preference) 1906 was repealed by the Customs Tariff 1926. The repeal came into operation on the 1st July, 1926, since when South African goods imported have had no special tariff treatment.

(iii) *Dominion of New Zealand.* On the 11th April, 1922, an agreement was made between the Commonwealth of Australia and the Dominion of New Zealand whereby goods specified in the schedule attached to the agreement should be admitted at the rates of duty set out in the schedule. In addition to the goods specially mentioned in the schedule, it was provided that "all other goods being the produce or manufacture of Australia or New Zealand shall be dutiable at the rates applicable to goods being the produce or manufacture of the United Kingdom, upon entry into New Zealand or Australia respectively." This agreement was ratified by the Commonwealth Parliament in the Customs Tariff (New Zealand Preference) Act 1922, and by Proclamation dated 24th August, 1922, came into operation on the 1st September, 1922. A variation of the original agreement was ratified by the Customs Tariff (New Zealand Preference) Act No. 38 of 1926, whilst a further amendment of certain rates of duty came into operation from the 15th June, 1928, under the Customs Tariff (New Zealand Preference) Act No. 25 of 1928.

A new Agreement between the Commonwealth of Australia and the Dominion of New Zealand came into operation on 1st December, 1933, and was ratified by Customs Tariff (New Zealand Preference) Act No. 26 of 1933 which repealed the earlier Acts. Alterations of minor importance have since been made by proclamations. The Act of 1933 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 (No. 2 of 1934) provides that where the rate of duty upon any class of goods under the New Zealand British Preferential Tariff, is less than that operating in Australia under the British Preferential rate, upon request by the New Zealand Government, such goods may, after proclamation, be admitted at the lower rate. The rates of duty on goods re-exported from New Zealand (not being goods the produce or manufacture of New Zealand) and which are imported into Australia, and upon which if they had been imported into Australia direct from the country of origin would have been subject to the rates of duty under the British Preferential Tariff, shall be the rates of duty in force under that tariff.

The Act provides 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* (No. 7 of 1934)) 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 £1,392,469 from New Zealand during 1933-34 it is estimated that goods otherwise dutiable amounting in value to £394,276 were admitted free under the provisions of the Preferential Tariff and the duty thus remitted was £243,222. In addition, goods valued at £32,803 were admitted under the preferential rates of duty, the duty remitted on such goods being £6,363. The total of the duties remitted on the import of New Zealand goods was thus £249,585, representing a margin of preference of 58.4 per cent. on the value of the goods entitled to preference. The principal items which benefited under the preferential provisions were undressed timber, valued at £260,536, and fish, £86,660, the amounts of duty remitted being £203,251 and £29,700 respectively.

(iv) *Dominion of Canada.* A reciprocal trade treaty between Canada and Australia was effected in September, 1925, and a reciprocal Tariff agreement between the two countries came into operation on 1st October, 1925. The Customs Tariff (Canadian Preference) Acts (No. 13 of 1931 and No. 5 of 1934), reaffirmed the principle of granting preferences for their mutual advantage and extended preferential conditions. The commodities on which Canada grants preferential rates of duty to Australia are:—Beeswax, butter, brandy, champagne, cheese, currants, eggs, eucalyptus oil, fruits (dried, fresh, and pulped), fruits in cans, gelatine, glue, honey, hops, lard, meat (fresh and canned), onions, raisins, sugar, tallow, vegetables in tins, 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, paper (printing, typewriting and writing), timber, typewriters, vacuum cleaners and vehicles, viz., motor chassis (unassembled and assembled), and vehicle parts, including undergear, axles, springs, hoods, wheels, and bodies.

During 1933-34 the imports from Canada amounted in Australian currency to £A3,654,900 and imports of Canadian origin entitled to preference were valued at £A3,317,074, the principle items being printing paper, £A676,371; timber, £A604,669; motor chassis, £A836,803; and fish, £A343,918.

The duty on the total imports of Canadian origin entitled to preference would have been £A1,251,632 under the General Tariff, but by the preferential provisions this was reduced by £A759,605, or by 22.9 per cent. of the value of the imports concerned.

Australian exports to Canada subject to preference amounted to approximately £850,000, the principal items being dried fruits, £495,472; fruits, preserved, £64,978; gelatine and glue, £26,092; sugar, £181,637; wine, £22,856; and tallow, £6,655.

6. *Preferential Tariff of the United Kingdom.*—The post-war Tariff of the United Kingdom provides Preferential Customs rates on certain goods where it is shown to the satisfaction of the Commissioners of Customs and Excise that such goods have been

consigned from and grown, produced, or manufactured in the British Empire. Manufactured articles generally are not entitled to the preferential rates unless a specified percentage of their value is the result of labour within the British Empire. The principal items of interest to Australia which are accorded preferential treatment under this Tariff are :—Fruits, dried and preserved; jam; fruit pulp; preserved milk; wine; and brandy. 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.

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; butter, 15s. per cwt.; cheese, 15 per cent. *ad valorem*; apples, raw, 4s. 6d. per cwt.; pears, raw, 4s. 6d. per cwt.; apples, canned, 3s. 6d. per cwt., in addition to duty in respect of sugar content; other canned fruits, 15 per cent. *ad valorem*, in addition to duty in respect of sugar content; dried fruits, now dutiable at 7s., 10s. 6d. per cwt.; eggs in shell, (a) not exceeding 14 lb. per great 100, 1s. per great 100; (b) over 14 lb. but not exceeding 17 lb., 1s. 6d. per great 100; (c) over 17 lb., 1s. 9d. per great 100; condensed milk, whole, sweetened, 5s. per cwt., in addition to duty in respect of sugar content; condensed milk, whole, not sweetened, 6s. per cwt.; milk powder and other preserved milk, not sweetened, 6s. per cwt.; honey, 7s. per cwt.; copper, unwrought, whether refined or not, in ingots, bars, etc., 2d. per lb.; oranges, raw, 3s. 6d. per cwt. from 1st April to 30th November; grape fruit, raw, 5s. per cwt., from 1st April to 30th November; and grapes (other than hothouse) 1½d. per lb. from 1st February to 30th June. Schedule C provides that the margin of preference on wine not exceeding 27 degrees of proof spirit shall be 2s. per gallon.

The British Government undertake that the general *ad valorem* duty of 10 per cent. imposed by Section 1 of the *Import Duties Act 1932* on the following foreign goods shall not be reduced except with the consent of the Commonwealth Government :—Leather, tallow, canned meat, zinc, lead, barley, wheaten flour, macaroni, dried peas, dressed poultry, casein, eucalyptus oil, meat extracts and essences, copra, sugar of milk, sausage casings, wattle bark, asbestos and dried fruits other than currants.

The duties provided on foreign wheat in grain, copper, lead and zinc are conditional on Empire producers continuing to offer these commodities on first sale in the United Kingdom at prices not exceeding the world price.

During the Calendar year 1933 Merchandise of Australian origin imported into United Kingdom amounted to £48,551,240. Of this total approximately £29,200,000 represented goods which received preferential tariff treatment over similar goods from foreign countries. If these goods had been subject to the duties imposed on foreign goods it is estimated that they would have paid approximately £5,090,000 more in duty. This represents a rebate of approximately 17.4 per cent. on the value of imports receiving preferential treatment. The main items receiving preference and the amount of rebate were :—Butter, £6,525,000 (Rebate £1,269,000); Wheat, £8,376,000 (£683,000); Wine £600,000 (£684,000); Sugar, £1,246,000 (£568,000); Raisins, £1,869,000 (£457,000); and Apples, £2,223,000 (£443,000). The above figures for imports have been obtained from the *Annual Statement of the Trade of the United Kingdom, 1933*, 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 Livestock 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 livestock industry and explained that the choice lay between—

- (a) a drastic reduction of imports to the point necessary to sustain prices of United Kingdom livestock 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 livestock 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 livestock industry.

Import programmes of Australian meat were determined by the British Government as follow:—First quarter of 1935—Beef, 187,000 cwt., of which 30,000 cwt. might be chilled; mutton and lamb, 450,000 cwt.; pork, 16,700 cwt. (excluding bacon).

Second quarter of 1935—Beef, 331,000 cwt., of which 56,000 cwt. might be chilled; mutton and lamb, 450,000 cwt.; pork, 15,538 cwt.

For the third and fourth quarters combined the quantity of beef which might be imported from Australia was fixed as 1,150,000 cwt., of which 160,000 cwt. might be chilled. Nine hundred and fifty thousand cwt. of mutton and lamb were allowed to be imported for this period, but it is not anticipated that Australian exports will reach this figure. No decision has yet been reached regarding frozen or chilled beef for 1936, and negotiations are still proceeding.

The quantities of pork (excluding baconers) to arrive in the United Kingdom for the third and fourth quarters have not been fixed although an estimate is being furnished at the request of the British Government.

During 1936 the quantity of mutton and lamb which may be shipped from Australia to the United Kingdom is 1,750,000 cwt., with the stipulation, however, that if Australian exports of mutton and lamb to the United Kingdom in the last half of 1935 is short by 50,000 cwt. of the Australian quotas for this period that quantity may be added to the 1936 quota to bring it to 1,800,000 cwt.



7. **Trade Agreement between Belgium and Australia.**—An agreement between the Governments of Belgium and of the Commonwealth of Australia was executed on the 19th November, 1934, by which Belgium will be permitted to supply a specified proportion of the Australian requirements of plain clear sheet glass and in return the Government of Belgium will waive all restrictions upon the importation into Belgium of Australian meat preserved by cold process and will not enforce the embargo on the importation into Belgium of Australian barley or other cereals which was to have been proclaimed on the 20th October, 1934. This arrangement will remain in force until the 31st October, 1935, or later, until one of the parties has given two months' notice of its intention to terminate it. It is contemplated that an agreement will be arranged subsequently to regulate in a more complete manner the customs and tariff regulations between the two countries.

8. **Tariff Board Act.**—This Act (No. 21 of 1921), as amended by Tariff Board Act 1923 (No. 25 of 1923), 1924 (No. 29 of 1924) 1929 (No. 5 of 1929) and 1933 (No. 69 of 1933), 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 the classification of goods for duty; the determination of the value of goods for duty; any 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 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 1921–1933 shall be taken in public on oath.

The latest Annual Report of the Tariff Board, issued in accordance with Section 18 (1) of the Tariff Board Act 1921–1933 reviews the work of the Board during the year ended 30th June, 1934. During the year the Board furnished 120 reports to the Minister for Trade and Customs, and of these reports 69 related to matters on which public inquiries had been held. The subjects dealt with comprised:—Tariff revision, 61; gazettal of goods under Customs Tariff (Industries Preservation) Act, 4; deferred duties, 2; question of inclusion under or removal from by-law, 2. The reports on matters which did not call for public inquiry were:—Admission of goods under by-law, 1; question of financial commitments entered into by Australian manufacturers in connexion with items on which deferred duties are provided, 6; deferred duties, 43; question arising out of existing bounty, 1.

At 30th June, 1934, the Board had on hand 25 references from the Minister on which reports were in course of preparation, or which were being considered with a view to the preparation of reports, and 6 references on which public inquiries had been opened and adjourned. In addition 122 references on which public inquiries had not been held were with the Board.

The report of the Board for the year ended 30th June, 1933, dealt principally with the "Ottawa Agreement" in its effect on the work of the Board. This report is dealt with in Commonwealth Year Book No. 27.

In the report for the year ended 30th June, 1934, the Board reviews the method of determining rates of duty and indicates briefly the method of assessing some of the more important factors that must be ascertained to enable the determination of a "reasonable and adequate rate of duty". Included in the scope of the review are selling price, profits, industrial efficiency, ratios of costs and charges including costs of raw materials, labour costs, distributing and selling expenses and capital charges, and the incidence of exchange. The report also deals with the preferential margins on materials for manufacturing purposes admitted under by-laws.

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. After public inquiry the Tariff Board, on 13th April, 1933, issued a Report and Recommendation on Adjustment of protective duties to compensate for the effects of Exchange and Primage. The comments and recommendations of the Board are too lengthy and technical to be briefly reviewed in this Chapter. The recommendation of the Board regarding exchange adjustment was embodied in Customs Tariff (Exchange Adjustment) Act (No. 29 of 1933) assented to 4th December, 1933. During 1933-34 the Tariff Board decided to change the basis of its recommendations to provide for rates of duty considered reasonable and adequate under existing conditions of exchange. (See "Exchange Adjustment, p. 238.") In regard to primage duty, the Board reaffirms its recommendation to the Minister, dated 5th August, 1932, that primage duty should be removed from protective items in the Tariff Schedule, and suggests the adoption of such recommendation so soon as the Government considers that revenue considerations permit.

9. **Customs Tariff (Industries Preservation) Act.**—This Act (No. 28 of 1921) 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 rates prevailing at the time of shipment, there shall be collected a dumping freight duty equal to 5 per cent. of the fair market value of the goods at the time of shipment. 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 (No. 30 of 1933) assented to 4th December, 1933, repeals section 8 of Act 1921-1922 and provides new clauses relating to Exchange Special Duty.

10. **Commerce (Trade Descriptions) Act.**—This Act (No. 16 of 1905), as amended by Acts No. 37 of 1926, No. 15 of 1930, and No. 13 of 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.

11. **Acts passed in 1934.**—The following Acts relating to Australian production and trade were assented to during the year 1934:—

*Customs Tariff (New Zealand Preference) Act (No. 2 of 1934).* An Act to amend the *Customs Tariff (New Zealand Preference) Act 1933.*

*Customs Tariff (Exchange Adjustment) Act (No. 3 of 1934).* An Act to amend the *Customs Tariff (Exchange Adjustment) Act 1933.*

*Customs Tariff (Papua and New Guinea Preference) (No. 4 of 1934).* An Act relating to Customs Tariff preference on goods the produce of the Territory of Papua, and on goods the produce of the Territory of New Guinea.

*Customs Tariff (Canadian Preference) Act (No. 5 of 1934).* An Act relating to Preferential Duties of Customs on Goods, the Produce or Manufacture of the Dominion of Canada.

*Customs Tariff (Primage Duties) Act (No. 6 of 1934).* An Act relating to Primage Duties of Customs.

*Customs Act (No. 7 of 1934).* An Act to amend the *Customs Act 1901-1930.*

*Distillation Act (No. 8 of 1934).* An Act to amend the *Distillation Act 1901-1931.*

*Wheat Growers' Relief Act (No. 10 of 1934).* An Act to amend Section 12 of the *Wheat Growers' Relief Act 1933.*

*Flour Tax Assessment Act (No. 13 of 1934).* An Act to amend the *Flour Tax Assessment Act 1933.*

*Financial Relief Act (No. 16 of 1934).* An Act to provide Financial Relief for certain Primary Producers, and for other purposes.

*Raw Cotton Bounty Act (No. 22 of 1934).* An Act to provide for the Payment of Bounty on the Production of Raw Cotton, and for other purposes.

*Customs Tariff Validation Act (No. 23 of 1934).* An Act to provide for the Validation of Collections of Duties of Customs under Customs Tariff Proposals.

*Customs Tariff (Exchange Adjustment) Validation Act (No. 24 of 1934).* An Act to provide for the Validation of Adjustments in Duties of Customs under Customs Tariff (Exchange Adjustment) Proposals.

*Excise Tariff Validation Act (No. 25 of 1934).* An Act to provide for the Validation of Collections of Duties of Excise under Excise Tariff Proposals.

*Customs Tariff (Special Duties) Validation Act (No. 26 of 1934).* An Act to provide for the Validation of Collections of Special Duties of Customs under Customs Tariff Proposals.

*Mandarin Growers' Relief Act (No. 27 of 1934).* An Act to provide for Financial Assistance to States in the Provision of Benefit and Assistance to Growers of Mandarins.

*Wine Export Bounty Act (No. 33 of 1934).* An Act to provide for the Payment of Bounty on the Export of Fortified Wine, and for other purposes.

- Excise Act (No. 44 of 1934).* An Act to amend Part XI. of the *Excise Act 1901-1923*.
- Flour Tax Assessment Act (No. 2) (No. 55 of 1934).* An Act relating to the Imposition, Assessment and Collection of a Tax upon Flour and certain Imported Goods in the manufacture of which Flour has been used.
- Wheat Growers' Relief Act (No. 2) (No. 59 of 1934).* An Act to provide for financial assistance to the States in the provision of Relief to Wheat Growers, and for other purposes.
- Wheat Bounty Act (No. 60 of 1934).* An Act to provide for the payment of a Bounty on the Production of Wheat, and for other purposes.
- Sales Tax Assessment (Fiji Imports) Act (No. 62 of 1934).* An Act to amend various Sales Tax Assessment Acts 1930-1934.

### § 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 head-quarters at Australia House, London. Matters affecting the oversea trade of Australia come within the scope of the duties of the office.

The Commonwealth has a Trade Representative in France, with head-quarters at Paris. This official is attached to Australia House, London.

The first appointment of a representative for Australia in the United States of America was made in 1918. The office of the Commissioner-General for Australia in the United States is vacant at present date. The Official Secretary, with head-quarters at New York, attends to Australian affairs, including oversea trade matters.

In April, 1929, a Commercial Representative for Australia was appointed in the Dominion of Canada. The functions of this officer are to develop the sales of Australian products in Canada and generally to represent Australia in a commercial capacity. Mr. L. K. McGregor, the present occupant of the office, was appointed on 1st March, 1930, under the designation of Australian Trade Commissioner in Canada, with head-quarters at Toronto.

In 1922, an Australian Trade Representative in the East was appointed, with head-quarters at Singapore, but the appointment was terminated in March, 1925.

The *Trade Commissioners Act (No. 74 of 1933)* assented to 15th December, 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. In June, 1935, Trade Commissioners and Assistant Trade Commissioners were appointed to Japan, China, and Netherlands East Indies. The Trade Commissioners are :—Japan, Mr. E. Longfield Lloyd, with head-quarters at Tokio ; China, Mr. V. G. Bowden, with head-quarters at Shanghai ; Netherlands East Indies, Mr. C. E. Critchley, with head-quarters at Batavia.

2. **In Australia.**—Trade Commissioners representing the undermentioned countries are located in Australia, viz. :—The United Kingdom, Canada, New Zealand, United States of America, and France. His Majesty's Senior Trade Commissioner for the United Kingdom has his head-quarters in Sydney and a Trade Commissioner is located at Melbourne, where the Canadian Government Trade Commissioner has his head-quarters. The New Zealand Tourist and Trade Commissioner and the Trade Commissioners for United States of America and France are located in Sydney. Trade matters affecting other oversea countries are generally attended to by their Consular representatives.

### § 4. Method of Recording Imports and Exports.

1. **Value of Imports.**—The recorded value of goods imported from countries beyond Australia as shown in the following tables represents the amount on which duty is payable or would be payable if the duty were charged *ad valorem*. The value of goods is taken to be 10 per cent. in advance of their fair market value in the principal markets of the country whence the goods were exported. Acting upon a recommendation of the Tariff Board the section of the Customs Act relating to the valuation of imports was amended, and Section 154 (1) of the Customs Act 1901–1934 now provides that “when any duty is imposed according to value, the value for duty shall be the sum of the following:—

- (a) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or
- (ii) the current domestic value of the goods, whichever is the higher ;
- (b) all charges payable or ordinarily payable for placing the goods free on board at the port of export ; and
- (c) ten per centum of the amounts specified under paragraphs (a) and (b) of this sub-section.

“Current domestic value” is defined as “the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country.”

Imports are recorded in British currency values, and Section 157 of the Customs Act provides that when the invoice value of imported goods is shown in any currency other than British currency, the equivalent value in British currency shall be ascertained according to a fair rate of exchange to be declared in case of doubt by the Minister. Under this section it was the practice of the Department of Trade and Customs, until the 8th December, 1920, to convert on the basis of the mint par of exchange. Since the date mentioned, in consequence of a ruling of the High Court, all conversions have been based on the commercial rates of exchange.

The term “British currency values” is not exactly synonymous with “English sterling”, since imports already expressed in terms of £. s. d. are regarded for duty purposes as being expressed in British currency values. This exception to the general rule is chiefly important in the case of imports from New Zealand and the Union of South Africa, when their currencies are not at par with English currency. In all the tables in this volume no correction has been made on this account, even when for the sake of brevity the term “sterling” has been used as a contraction for “British currency values.”

2. **Value of Exports.**—Prior to the 1st July, 1929, the recorded value of all goods exported was taken as representing the value in the principal markets of the Commonwealth in the ordinary commercial acceptance of the term. Owing to the inflated values arbitrarily allotted in recent years to commodities which are subject to governmental control or subsidy, some change in the practice of valuation of exports of such commodities became desirable. Accordingly a new basis was adopted as from 1st July, 1929, for the statistical valuation of exports of sugar, butter and goods on which bounty or rebate is paid which will show for (a) *Sugar*—the value f.o.b. at which sold to overseas buyers, or an f.o.b. value equal to the London market price if shipped on consignment ; (b) *Goods on which bounty or rebate is paid on export*—the value in the principal markets of the Commonwealth in the ordinary commercial acceptance of the term, less the value of any bounty or rebate. Until the 31st March, 1934, the basis adopted for the value of exports of butter was the current market value, less the amount paid as export bonus. After that date the basis has been (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, the basis adopted for the value of *wool* exported has been (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, the basis adopted for the value of *wheat* exported has been (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, the basis adopted for the value of *flour* exported has been (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.

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 Federal Capital Territory), Victoria, Queensland, South Australia, Western Australia, Tasmania and Northern Territory. Non-contiguous territories and mandated areas are treated as outside countries, and trade transactions between the Commonwealth and these non-contiguous territories are part of the overseas trade of the Commonwealth. Such transactions are shown separately, i.e., the trade of the Commonwealth with each particular country is separately recorded and tabulated.

4. **Statistical Classification of Imports and Exports.**—The Oversea Trade Bulletin No. 31 for the year 1933–34, from which the summary figures in this Year Book are extracted, was compiled according to a classification which came into operation on 1st July, 1922. In order to meet the demand for more detailed information relating to imports and exports the number of items has been materially increased. The revised classification is divided into 21 classes, with 1,740 separate import items and 545 export items.

5. **The Trade Year.**—From the 1st July, 1914, the statistics relating to Oversea Trade are 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 § 14 showing the total value of imports and exports in the calendar years 1931 to 1934 inclusive.

6. **Records of Past Years.**—In the years preceding federation, each State independently recorded its trade, and in so doing did not distinguish other Australian States from foreign countries. As the aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, it is unfortunate that past records of values and the direction of imports and exports were not on uniform lines. The figures in the following table for years prior to federation have been carefully compiled and may be taken as representative of the 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 1906 is given later in this Chapter.

## § 5. Oversea Trade.

1. **Total Oversea Trade.**—(i) *Including Gold.* The following table shows the total trade (including gold) of the Commonwealth with overseas countries from the earliest date for which records are available. To economize space, the period 1826 to 1920–21 has been divided into quinquennia, and the figures shown represent the annual averages for the quinquennia specified. The figures for individual years were published in earlier issues of the Year Book. (See note to following table.)

**TOTAL OVERSEA TRADE.—AUSTRALIA.**  
(INCLUDING GOLD.)

Period. (a)	Recorded Value. (c)			Value per Inhabitant.			Percentage of Exports on Imports.
	Imports.	Exports.	Total.	Imports.	Exports.	Total.	
	£1,000.	£1,000.	£1,000.	£ s. d.	£ s. d.	£ s. d.	%
1826 to 30	638	153	791	10 12 5	2 10 11	13 3 4	23.9
1831 „ 35	1,144	613	1,757	11 19 10	6 8 6	18 8 4	53.6
1836 „ 40	2,283	1,112	3,395	14 15 9	7 4 1	21 19 10	48.7
1841 „ 45	1,906	1,378	3,284	9 0 5	6 10 5	15 10 10	72.3
1846 „ 50	2,379	2,264	4,643	6 18 10	6 12 2	13 11 0	95.2
1851 „ 55	11,931	11,414	23,345	19 12 5	18 15 4	38 7 9	95.7
1856 „ 60	18,816	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	33,703	41,094	74,857	9 5 4	11 5 0	20 10 10	121.7
1901 „ 05	39,258	51,237	90,495	10 1 10	13 2 9	23 4 7	130.5
1906 „ 10	51,508	69,336b	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 ..	103,066	127,847	230,913	18 14 0	23 3 11	41 17 11	124.0
1922-23 ..	131,758	117,870	249,628	23 7 8	20 18 5	44 6 1	89.5
1923-24 ..	140,618	119,487	260,105	24 9 0	20 15 6	45 4 6	85.0
1924-25 ..	157,143	161,311	318,454	26 14 7	27 8 10	54 3 5	102.7
1925-26 ..	151,638	146,209	297,847	25 5 6	24 7 5	49 12 11	96.4
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	141,633	285,281	22 12 3	22 5 11	44 18 2	98.6
1929-30 ..	131,081	125,127	256,208	20 7 7	19 9 0	39 16 7	95.5
1930-31 (d)	60,960	104,856	..	9 7 7	16 2 9	..	..
(e)	60,960	89,326	150,286	9 7 7	13 14 11	23 2 6	146.5
1931-32 (d)	44,713	108,404	..	6 16 6	16 10 10	..	..
(e)	44,713	85,348	130,061	6 16 6	13 0 5	19 16 11	190.9
1932-33 (d)	58,014	120,943	..	8 15 8	18 6 3	..	..
(e)	58,014	96,597	154,611	8 15 8	14 12 6	23 8 2	166.5
1933-34 (d)	60,713	123,441	..	9 2 6	18 11 0	..	..
(e)	60,713	98,573	159,286	9 2 6	14 16 2	23 18 8	162.4

(a) The figures given for the years 1826 to 1920-21 represent the annual averages for the quinquennial periods. The trade of the individual years will be found in Official Year Book No. 21 and earlier issues. From 1914-15 onwards the particulars relate to fiscal years. (b) Prior to 1906, ships' stores were included in the general exports. For value of these goods shipped each year since 1906 see later table, § 9. (c) For actual values for recent years, showing merchandise and bullion and specie separately, see § 8, paras. 5 and 6. (d) Recorded values. Imports, British currency; Exports, Australian currency. (e) British currency values.

The graphs which accompany this Chapter show the movement of Australian oversea trade from 1855 onwards. In previous issues of the Official Year Book the fluctuations in this trade have been treated in some detail up to the high imports during the year 1920-21. The enhanced price of commodities and the peculiar conditions affecting Australian trade were responsible for the high value of imports during that year, and in making comparisons with imports during pre-war years, these factors should be taken into consideration.

In 1921-22 the consequent reaction took place and both imports and exports declined. The following year 1922-23 showed an increase in imports, whilst exports decreased still further. In 1923-24 imports had advanced, but exports were practically the same value as in the previous year. The heavy importation of goods continued during 1924-25 and the value of the oversea trade amounted to £318,454,736, of which £157,143,296 represented imports and £161,311,440 exports. These figures, so far as total trade and exports are concerned, are the highest recorded, while the figure of imports has been exceeded in 1920-21 and 1926-27. Imports, however, included an exceptionally large quantity of bullion and specie valued at £10,542,807.

During 1925-26 both imports and exports declined, the total oversea trade showing a decrease of £20 millions compared with the previous year. Exports declined over fifteen millions, due to the reduced quantities of wheat and butter exported. In 1926-27 imports were greater than in any previous year, and exceeded those in 1925-26 by £13,078,416. Exports decreased in value, due mainly to smaller exports of sugar, wool, butter, beef and zinc.

A progressive downward trend in the value of oversea trade from 1927-28 to 1931-32 was followed by a marked upward movement in 1932-33, the total trade in that year amounting to £154,611,085, an increase of £24,549,610 as compared with the preceding year. Oversea trade further improved in 1933-34 when the total reached £159,285,558, an increase of £4,674,473 on the year 1932-33. Imports increased by £2,699,066 and exports by £1,975,407. The increases per head of population were imports 6s. 10d. and exports 3s. 8d. Marked increases were recorded in the value of imports of the following commodities in 1933-34:—fish, tea (quantity lower), spirits (beverages), apparel and attire, carpets and linoleums, electric machinery and appliances, motive power machinery (excluding electric), iron and steel, tools of trade, motor vehicles and parts, timber, crude rubber and rubber waste, books and periodicals, and arms, ammunition and explosives. In quantity and value exports of the following principal commodities were greater than in 1932-33:—eggs in shell, frozen and chilled beef, frozen lamb mutton and pork, dried fruits, sugar, cattle hides, rabbit and hare skins, sheepskins, wool scoured, concentrates of silver and silver lead and zinc, leather and undressed timber. The quantity of butter shipped was greater but the value was less. Rabbits and hares, milk dried and concentrated, fresh apples, wheat, flour, and tallow were exported in smaller quantities and values were lower. Shipments of greasy wool were lower but the value was much higher.

(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.*

Period.	Imports excluding Gold.	Exports excluding Gold.	Total Trade excluding Gold.	Value per Inhabitant.			Percentage of Exports on Imports.
				Imports.	Exports.	Total Trade.	
	£1,000 Stg.	£1,000 Stg.	£1,000 Stg.	£ s. d.	£ s. d.	£ s. d.	%
1928-29	143,300	138,648	281,948	22 12 3	21 17 7	44 9 10	96.8
1929-30	130,788	98,259	229,047	20 7 10	15 6 4	35 14 2	75.1
1930-31	60,586	77,055	137,641	9 6 5	11 17 2	21 3 7	127.2
1931-32	44,059	75,818	119,877	6 14 5	11 11 5	18 5 10	172.2
1932-33	56,872	78,562	135,434	8 12 3	11 17 11	20 10 2	138.1
1933-34	59,502	90,914	150,416	8 18 10	13 13 3	22 12 1	152.8



2. **Balance of Trade.**—The table on page 250 shows the percentage of exports on imports (including gold) for quinquennial periods from 1826 to 1920-21 and for each financial year since 1920-21, while the above table shows the percentage of exports on imports (excluding gold) for each financial year 1928-29 to 1933-34. 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 1919-20, the position was reversed. During the subsequent decennial period to 1929-30, there was an excess of imports, though exports were in excess in the years 1921-22 and 1924-25. From 1930-31 to 1933-34, exports were largely in excess of imports.

In recent years imports and exports of gold for monetary purposes have made the interpretation of the foregoing tables more difficult. In the following table, the balance of commodity trade, including the value of gold currently produced in Australia, has been separated from the monetary movement of gold.

With the exception of reductions in the export totals for the years 1924-25 and 1928-29, in accordance with the amended basis adopted for the valuation of exports of sugar and butter, the total balance of trade is the same as that previously published as being the recorded excess of exports in each year.

### COMMODITY BALANCE OF TRADE AND MONETARY MOVEMENT OF GOLD.

*British Currency Values.*

Year.	A.	B.	C.	D.	E.	F.	G.
	Total Imports other than Gold. (Specie, Bullion and in Matte).	Total Exports, other than Gold. (Specie, Bullion and in Matte.)	Gold produced in Australia.	Total of Merchandise exports and Gold Production. B+C	Commodity Balance of Trade. D-A	Net Exports of Gold (Specie, Bullion and in Matte) in excess of Production. F	Total Balance. E+F
	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000	£1,000,000
1910 ..	59.0	69.8	11.6	81.4	22.4	- 7.9	14.5
1911 ..	65.4	67.5	10.5	78.0	12.6	- 0.1	12.5
1912 ..	76.8	66.8	9.9	76.7	- 0.1	1.1	1.0
1913 ..	78.4	75.1	9.4	84.5	6.1	- 7.3	- 1.2
1914 (a) ..	39.0	36.5	4.4	40.9	1.9	- 3.7	- 1.8
1914-15 ..	64.0	58.0	8.5	66.5	2.5	- 6.3	- 3.8
1915-16 ..	77.2	64.2	7.7	71.9	- 5.3	- 2.3	- 3.0
1916-17 ..	76.0	86.3	6.6	92.9	16.9	4.8	21.7
1917-18 ..	60.8	75.0	5.8	80.8	20.0	- 0.9	19.1
1918-19 ..	95.0	106.8	5.4	112.2	17.2	- 5.6	11.6
1919-20 ..	98.9	144.3	5.4	149.7	50.8	0.1	50.9
1920-21 ..	163.8	126.8	4.7	131.5	-32.3	0.6	-31.7
1921-22 ..	103.0	124.3	3.8	128.1	25.1	- 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	- 5.8
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	98.2	1.0	100.1	-30.7	24.7	- 6.0
1930-31 ..	60.6	77.1	2.2	79.3	18.7	9.7	28.4
1931-32 ..	44.1	75.8	3.6	79.4	35.3	5.3	40.6
1932-33 ..	56.9	78.6	4.6	83.2	26.3	12.3	38.6
1933-34 ..	59.5	90.9	5.7	96.6	37.1	0.8	37.9

(a) First six months only.

3. **Balance of Payments.**—The balance of visible trade, including the net movement of precious metals, does not present a complete picture of Australia's international transactions during each year. Allowance must also be made for unrecorded imports and exports, for services rendered and received, and for international capital and interest transactions. The values of some of these items are known, and some of those remaining can be estimated with a sufficient measure of accuracy. For many items, however, 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.

In previous issues of the *Year Book* it has been customary to publish tentative estimates in an Appendix, those last published covering the years 1928-29 to 1933-34 inclusive. The present and future issues of the *Year Book* will include only a summary of these detailed tables which, in view of their increasing scope and complexity, will be published separately in future.

## SUMMARY TABLES.

A. Current Movements of Goods, Services, and Gold Production.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
Inward or Credit Movements (Exports)—						
I. Merchandise .. ..	139,979	98,098	79,855	80,719	84,387	97,999
II. Interest and Dividends .. ..	3,343	2,978	2,088	3,090	1,759	1,574
III. Other Services .. ..	12,012	12,098	9,530	6,993	7,126	7,188
Total Credits .. ..	155,334	113,174	91,473	90,802	93,272	106,761
Outward or Debit Movements (Imports)—						
I. Merchandise .. ..	149,653	138,780	64,000	47,338	60,967	64,092
II. Interest and Dividends .. ..	37,474	38,027	36,576	31,669	30,987	30,500
III. Other Services .. ..	10,527	9,090	5,850	4,403	5,822	7,062
Total Debits .. ..	197,654	185,897	106,426	83,410	97,776	101,654
Excess of Debits (-) or Credits (+)	-42,320	-72,717	-14,953	+ 7,392	- 4,504	+ 5,107
<b>B. Capital Movements.</b>						
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
Inward or Credit Movements (Increase of Liabilities) .. ..	12,418	31,548	8,811	- 4,150	- 3,999	-7,339
Outward or Debit Movements (Increase of Assets) .. ..	-11,396	- 3,357	6,006	9,520	11,458	17,741
Excess of Debits (-) or Credits (+)	+23,814	+34,905	+ 2,805	-13,670	-15,457	-25,080
<b>C. Monetary Gold Movements.</b>						
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
Inward or Credit Movements (Exports in excess of New Production) .. ..	1,115	24,998	10,119	5,927	13,443	2,015
Outward or Debit Movements (Imports) .. ..	348	294	374	654	1,141	1,211
Excess of Debits (-) or Credits (+)	+ 767	+24,704	+ 9,745	+ 5,273	+12,302	+ 804

## SUMMARY TABLES—continued.

Balance of Payments.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
Deficiency (-) or Surplus (+) on Current Account .. .. .	-42,320	-72,717	-14,953	+ 7,392	- 4,504	+ 5,107
Deficiency (-) or Surplus (+) on Monetary Gold Account .. .. .	+ 767	+24,704	+ 9,745	+ 5,273	+12,302	+ 804
Total .. .. .	-41,553	-48,013	- 5,208	+12,665	+ 7,798	+ 5,911
Deficiency (-) or Surplus (+) on Capital Account (so far as it has been traced) .. .. .	+23,814	+34,905	+ 2,805	-13,670	-15,457	-25,081
Balance, accounted for by lags, errors and omissions, especially in private capital items	+17,739	+13,103	+ 2,403	+ 1,005	+ 7,659	+19,169

The balances appearing at the foot of the above table call for more detailed investigation than is possible at this juncture. The most serious omission from the calculations is the increase, which has undoubtedly taken place, in oversea capital privately invested in Australia. Further discussion of these balances will be found in Year Book No. 27, pp. 877-878.

Owing to unforeseen circumstances it has been impossible to complete the above tables for 1934-35 before going to press. In the following table, however, are stated the figures for the four major items in the balance of payments on "current" or "income" account.

Current Movements of Goods, Services, and Gold Production.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
Exports of merchandise and silver .. .. .	138,645	98,255	77,050	75,313	78,548	91,107	82,188
Current gold production .. .. .	1,872	1,874	2,157	3,609	4,606	5,659	5,880
Total credits from above items	140,517	100,129	79,207	79,422	83,154	96,766	88,068
Imports of merchandise and silver .. .. .	143,300	130,788	60,586	44,059	56,872	59,681	72,447
Interest on central and local government debt .. .. .	28,332	29,556	31,345	27,033	25,995	24,977	23,250
Total debits from above items .. .. .	171,632	160,344	91,931	71,092	82,867	84,658	95,697
Deficiency (-) or Surplus (+) on above items .. .. .	-31,115	-60,215	-12,724	+ 5,330	+ 287	+12,108	- 7,629
Deficiency (-) or Surplus (+) on all other current items .. .. .	-11,205	-12,502	- 2,229	- 938	- 4,791	- 7,001	(a)
Deficiency (-) or Surplus (+) on all current items .. .. .	-42,320	-72,717	-14,953	+ 7,392	- 4,504	+ 5,107	(a)

(a) Not yet available.

(b) Subject to revision.

## § 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 of commodities stated to be the produce or manufacture of the undermentioned countries during the past five years. 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 § 13 of this Chapter.

### AUSTRALIAN IMPORTS.—COUNTRIES OF ORIGIN.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

*British Currency Values.*

Country of Origin.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£ stg.	£ stg.	£ stg.	£ stg.	£ stg.
United Kingdom .. ..	54,248,339	23,283,784	17,408,811	23,541,877	25,143,101
<b>British Possessions—</b>					
Canada .. ..	3,502,421	1,377,217	1,392,271	2,315,462	2,918,095
Ceylon .. ..	2,125,141	1,061,478	598,177	624,562	718,563
India .. ..	5,021,449	3,778,492	2,773,356	3,423,103	2,926,181
Malaya (British) .. ..	812,513	274,894	276,654	271,407	327,235
New Zealand .. ..	1,512,774	774,970	702,686	731,200	1,198,645
<b>Pacific Islands—</b>					
Nauru .. ..	442,516	229,316	217,512	334,747	288,249
Papua .. ..	105,098	134,145	138,972	96,848	93,296
Territory of New Guinea .. ..	223,412	53,714	68,483	90,950	68,703
Other Islands .. ..	719,391	288,756	228,768	328,971	245,825
Union of South Africa .. ..	302,879	89,823	56,598	99,648	133,441
Other British Possessions .. ..	867,623	424,887	352,196	456,435	546,692
<b>Total, British Possessions</b>	<b>15,635,217</b>	<b>8,489,692</b>	<b>6,807,673</b>	<b>8,773,333</b>	<b>9,464,925</b>
<b>Total, British Countries ..</b>	<b>69,883,556</b>	<b>31,773,476</b>	<b>24,216,484</b>	<b>32,315,210</b>	<b>34,608,026</b>
<b>Foreign Countries—</b>					
Belgium .. ..	985,005	312,023	282,131	391,294	368,219
China .. ..	568,664	347,641	314,778	266,938	285,514
France .. ..	3,070,645	1,498,306	1,145,829	1,195,470	956,335
Germany .. ..	4,341,678	1,997,056	1,427,079	1,831,636	1,920,676
Italy .. ..	1,350,849	658,308	453,891	676,139	588,260
Japan .. ..	4,181,643	2,379,558	2,399,734	3,536,581	3,676,737
Netherlands .. ..	1,134,921	631,634	361,405	461,674	389,609
Netherlands East Indies .. ..	6,282,653	4,011,194	2,648,948	2,930,951	3,906,233
Norway .. ..	655,523	214,440	188,300	305,455	340,325
Pacific Islands .. ..	268,409	148,271	73,942	70,552	39,054
Philippine Islands .. ..	174,518	39,957	35,947	34,899	59,733
Sweden .. ..	1,671,786	822,563	693,433	886,332	782,780
Switzerland .. ..	1,566,721	926,144	471,054	478,436	451,030
United States of America .. ..	30,313,535	11,399,005	7,037,417	8,084,047	7,838,982
Other Foreign Countries .. ..	2,802,069	1,631,293	1,098,311	1,881,833	1,729,716
<b>Total, Foreign Countries ..</b>	<b>59,368,619</b>	<b>27,017,393</b>	<b>18,629,099</b>	<b>23,032,237</b>	<b>23,387,263</b>
<b>Total .. ..</b>	<b>129,252,175</b>	<b>58,790,869</b>	<b>42,845,583</b>	<b>55,347,447</b>	<b>57,995,289</b>
	(a)	(a)	(a)	(a)	(a)

(a) Excluding Outside Packages, 1929-30, £1,535,385; 1930-31, £1,794,965; 1931-32, £1,213,561; 1932-33, £1,524,882; and 1933-34, £1,506,932.

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 proportion of imports supplied by each country during each year may be obtained from the following table of percentages :—

**AUSTRALIAN IMPORTS.—PERCENTAGES FROM COUNTRIES OF ORIGIN.**  
(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country of Origin.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	per cent.	per cent.	per cent.	per cent.	per cent.
United Kingdom .. ..	41.97	39.60	40.63	42.54	43.35
British Possessions—					
Canada .. ..	2.72	2.34	3.25	4.18	5.03
Ceylon .. ..	1.64	1.81	1.38	1.13	1.24
India .. ..	3.88	6.43	6.48	6.18	5.05
Malaya (British) .. ..	0.63	0.47	0.65	0.49	0.56
New Zealand .. ..	1.17	1.32	1.64	1.32	2.07
Pacific Islands—					
Nauru .. ..	0.34	0.39	0.52	0.61	0.50
Papua .. ..	0.08	0.23	0.32	0.17	0.16
Territory of New Guinea .. ..	0.18	0.09	0.16	0.16	0.12
Other Islands .. ..	0.56	0.49	0.53	0.60	0.42
Union of South Africa .. ..	0.23	0.15	0.13	0.18	0.23
Other British Possessions .. ..	0.67	0.72	0.83	0.83	0.94
Total, British Possessions	12.10	14.44	15.89	15.85	16.32
Total, British Countries..	54.07	54.04	56.52	58.39	59.67
Foreign Countries—					
Belgium .. ..	0.76	0.53	0.66	0.71	0.63
China .. ..	0.44	0.59	0.73	0.48	0.49
France .. ..	2.38	2.55	2.67	2.15	1.65
Germany .. ..	3.36	3.40	3.33	3.33	3.32
Italy .. ..	1.05	1.12	1.06	1.22	1.01
Japan .. ..	3.24	4.05	5.59	6.38	6.34
Netherlands .. ..	0.88	1.07	0.84	0.83	0.67
Netherlands East Indies .. ..	4.85	6.83	6.18	5.29	6.83
Norway .. ..	0.51	0.36	0.44	0.55	0.59
Pacific Islands .. ..	0.21	0.25	0.17	0.12	0.07
Philippine Islands .. ..	0.13	0.07	0.08	0.06	0.10
Sweden .. ..	1.29	1.40	1.62	1.06	1.35
Switzerland .. ..	1.21	1.58	1.10	0.86	0.78
United States of America .. ..	23.45	19.39	16.43	14.60	13.52
Other Foreign Countries .. ..	2.17	2.77	2.58	3.97	2.98
Total, Foreign Countries ..	45.93	45.96	43.48	41.61	40.33
Total .. ..	100	100	100	100	100

The percentage of imports from the United Kingdom during the period covered by the above table showed a decrease in 1930-31 with a gradual upward tendency in successive years to 1933-34. The United Kingdom supplied 43.35 per cent of the imports during 1933-34, compared with 41.97 per cent. in 1929-30, an increase of 1.38 per cent. The proportion of imports from British Possessions increased from 12.10 per cent. in 1929-30 to 16.32 per cent. in 1933-34, owing to the fact that the imports of bags and sacks from India, and motor chassis and undressed timber from Canada were sustained at a higher level than imports in the aggregate. The proportion of imports supplied by foreign countries declined from 45.93 per cent. in 1929-30 to 40.33 per cent. in 1933-34, a decrease of 5.60 per cent. during the five yearly period. During the five years some marked changes occurred in the proportion of imports from foreign countries, e.g., Japan supplied 6.34 per cent. during 1933-34 as compared with 3.24 per cent. during 1929-30.

An increased share of the tea trade was responsible for an increase in the imports from the Netherlands East Indies from 4.85 per cent. in 1929-30 to 6.83 per cent. in 1930-31. In the next two years the percentage declined but again increased to 6.83 per cent. in 1933-34.

The share of imports supplied by the United States of America declined progressively from 23.45 per cent. in 1929-30 to 13.52 per cent. in 1933-34.

Compared with the previous year imports from the United States were £245,065 lower in 1933-34, and the proportion of the total imports declined by 1.08 per cent. Japan supplied £140,156 more imports in 1933-34, but the proportion of trade decreased by 0.04 per cent. The principal items imported from Japan and from the United States of America may be found on pp. 262 and 263 respectively.

Imports from British countries fell from £31,773,476 in 1930-31 to £24,216,484 in 1931-32, a drop of 24 per cent., whereas the imports from foreign countries declined from £27,017,393 to £18,629,099, a decrease of 31 per cent. In 1932-33 imports from British countries increased to £32,315,210, a rise of 33 per cent. on the figures for the previous year, while imports from foreign countries were £23,032,237, an increase of 24 per cent. In 1933-34 imports from British countries increased to £34,608,026, a rise of 7 per cent. on the figures for 1932-33, while imports from foreign countries were £23,387,263, an increase of 2 per cent. Total imports from all countries increased from £55,347,447 in 1932-33 to £57,995,289 in 1933-34, representing a rise of 5 per cent.

3. Direction of Exports.—The following table shows the value in Australian currency of commodity exports to the principal countries during the five years 1929-30 to 1933-34 inclusive :—

## EXPORTS FROM AUSTRALIA TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

*Australian Currency Values.*

Country.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£ A.	£ A.	£ A.	£ A.	£ A.
United Kingdom .. ..	43,357,463	40,060,439	48,228,712	46,893,462	54,402,862
British Possessions—					
Canada .. ..	743,742	958,730	1,033,782	1,209,237	1,267,170
Ceylon .. ..	507,191	373,736	313,243	331,001	421,499
Fiji .. ..	456,733	363,988	268,704	347,168	320,707
Hong Kong .. ..	336,315	382,290	738,797	769,242	506,696
India .. ..	3,233,919	2,227,457	748,835	831,470	610,159
Malaya (British) .. ..	1,389,321	822,740	919,827	962,060	1,015,315
Mauritius .. ..	72,178	52,572	102,757	90,421	107,000
New Zealand .. ..	3,624,395	2,975,848	2,660,716	2,770,190	3,031,026
Papua .. ..	170,692	136,345	128,351	128,145	129,500
Union of South Africa .. ..	1,050,107	496,455	370,211	232,339	247,278
Other British Possessions .. ..	1,222,534	1,189,650	1,667,990	1,727,848	1,724,547
Total, British Possessions .. ..	12,807,127	9,979,811	8,896,213	9,399,121	9,380,897
Total, British Countries .. ..	56,164,590	50,040,250	57,124,925	56,292,583	63,783,759
Foreign Countries—					
Belgium .. ..	5,536,231	4,195,186	3,579,143	4,061,551	7,470,984
Chile and Peru .. ..	207,014	115,253	208,238	264,568	42,023
China .. ..	295,157	3,351,145	4,945,813	6,283,398	914,806
Egypt .. ..	1,792,223	1,474,717	1,052,557	481,256	370,234
France .. ..	10,134,578	6,747,944	4,636,602	6,054,054	6,517,380
Germany .. ..	6,246,960	5,310,575	3,922,479	5,089,724	9,439,054
Italy .. ..	2,761,293	3,494,885	3,631,915	3,275,500	4,600,423
Japan .. ..	6,555,003	9,500,499	11,659,012	11,468,459	13,906,256
Netherlands .. ..	451,603	387,611	509,712	306,193	455,328
Netherlands East Indies .. ..	2,080,722	1,436,524	1,352,898	1,195,518	1,149,167
Norway .. ..	21,891	48,076	54,240	35,685	2,937
Pacific Islands .. ..	358,955	243,213	244,262	284,483	285,637
Philippine Islands .. ..	390,750	333,140	317,615	430,154	348,177
Soviet Union (Russia) .. ..	343,023	4,141	190,143	267,279	88,678
Spain .. ..	82,899	115,276	360,119	160,424	157,521
Sweden .. ..	135,405	145,523	252,488	120,982	250,898
United States of America .. ..	4,233,772	2,930,407	1,990,262	1,341,241	2,401,601
Other Foreign Countries .. ..	466,540	590,069	479,223	986,013	1,593,274
Total, Foreign Countries .. ..	42,094,019	40,424,190	39,386,721	42,106,482	50,084,378
Total .. ..	98,258,609	90,464,440	96,511,646	98,399,065	113,868,137

The comparison of the value of exports as shown in the above table is affected by two factors operating in different directions. The values have been depressed by prices, but have been increased in the later years by the fact that they are stated in Australian currency. In 1930-31 the recorded value of exports was increased by 17.4 per cent. by the depreciation of the currency and in subsequent years the increase from this cause amounted to 25½ per cent. Stated in sterling the value of exports of merchandise for 1933-34 was £90,912,684 against £113,868,137 in Australian currency. Up to the end of the year 1929-30 the two currencies had practically the same value.

The smaller value of exports from Australia since 1928-29 is the result of lower prices.

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. The smaller exports of wheat to India was mainly responsible for the smaller proportion of exports to British Possessions.

#### EXPORTS FROM AUSTRALIA.—PERCENTAGES TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	per cent.	per cent.	per cent.	per cent.	per cent.
United Kingdom .. ..	44.13	44.28	49.97	47.66	47.78
<b>British Possessions—</b>					
Canada .. ..	0.76	1.06	1.07	1.23	1.13
Ceylon .. ..	0.52	0.41	0.32	0.34	0.37
Fiji .. ..	0.46	0.40	0.28	0.35	0.28
Hong Kong .. ..	0.34	0.42	0.77	0.78	0.44
India .. ..	3.29	2.46	0.78	0.84	0.53
Malaya (British) .. ..	1.42	0.91	0.95	0.98	0.89
Mauritius .. ..	0.07	0.06	0.11	0.09	0.09
New Zealand .. ..	3.69	3.29	2.70	2.82	2.66
Papua .. ..	0.17	0.15	0.13	0.13	0.11
Union of South Africa .. ..	1.07	0.55	0.38	0.23	0.22
Other British Possessions .. ..	1.24	1.32	1.73	1.76	1.52
Total, British Possessions .. ..	13.03	11.03	9.22	9.55	8.24
Total, British Countries .. ..	57.16	55.31	59.19	57.21	56.02
<b>Foreign Countries—</b>					
Belgium .. ..	5.63	4.64	3.71	4.13	6.56
Chile and Peru .. ..	0.21	0.13	0.22	0.27	0.04
China .. ..	0.30	3.70	5.12	6.39	0.80
Egypt .. ..	1.82	1.63	1.09	0.49	0.33
France .. ..	10.31	7.46	4.80	6.15	5.72
Germany .. ..	6.36	5.87	4.07	5.17	8.29
Italy .. ..	2.82	3.86	3.76	3.33	4.04
Japan .. ..	6.67	10.50	12.08	11.60	12.21
Netherlands .. ..	0.46	0.43	0.53	0.31	0.40
Netherlands East Indies .. ..	2.12	1.58	1.40	1.21	1.01
Norway .. ..	0.02	0.05	0.06	0.04	0.00
Pacific Islands .. ..	0.37	0.26	0.25	0.29	0.25
Philippine Islands .. ..	0.40	0.37	0.33	0.44	0.31
Soviet Union (Russia) .. ..	0.35	0.04	0.20	0.27	0.08
Spain .. ..	0.08	0.12	0.37	0.16	0.14
Sweden .. ..	0.14	0.16	0.26	0.12	0.22
United States of America .. ..	4.31	3.24	2.06	1.36	2.18
Other Foreign Countries .. ..	0.47	0.65	0.50	1.00	1.40
Total, Foreign Countries .. ..	42.84	44.69	40.81	42.79	43.98
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 1932-33 and 1933-34:—

**BALANCE OF AUSTRALIAN TRADE WITH PRINCIPAL COUNTRIES.**

(EXCLUDING BULLION, AND SPECIE.)

*British Currency Values.*

Country.	Imports from—		Exports to—		Excess of Exports.	
	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
United Kingdom .. .. .	23,524	25,140	36,721	42,611	13,197	17,471
Canada .. .. .	2,315	2,918	965	1,012	— 1,350	— 1,906
India .. .. .	3,423	2,926	656	482	— 2,767	— 2,444
New Zealand .. .. .	729	1,197	2,172	2,380	1,443	1,183
Other British Countries ..	2,295	2,360	3,627	3,485	1,332	1,125
<b>Total, British Countries ..</b>	<b>32,286</b>	<b>34,541</b>	<b>44,141</b>	<b>49,970</b>	<b>11,855</b>	<b>15,429</b>
Belgium .. .. .	391	368	3,243	5,965	2,852	5,597
China .. .. .	267	286	5,018	730	4,751	444
France .. .. .	1,195	956	4,834	5,203	3,639	4,247
Germany .. .. .	1,832	1,921	4,064	7,536	2,232	5,615
Italy .. .. .	676	588	2,615	3,673	1,939	3,085
Japan .. .. .	3,537	3,677	9,156	11,103	5,619	7,426
Netherlands East Indies ..	2,931	3,960	964	917	— 1,967	— 3,043
United States of America ..	8,084	7,839	1,069	1,899	— 7,015	— 5,850
Other Foreign Countries ..	4,119	3,792	2,667	2,871	— 1,452	— 922
<b>Total, Foreign Countries ..</b>	<b>23,032</b>	<b>23,387</b>	<b>33,630</b>	<b>39,987</b>	<b>10,598</b>	<b>16,599</b>

The balance of trade with single countries is of little significance, since in the first place, there is still a fair proportion of Australian produce distributed through the United Kingdom either immediately, by transshipment or re-sale, or ultimately, by incorporation in manufactures. Further, in very many cases international balances are equated directly by services or indirectly by exchange of goods between several countries.

6. **Principal Imports and Exports.—Countries.**—The total value of imports from and exports to each of the more important British and foreign countries during 1933-34, together with brief particulars of the principal commodities interchanged with such countries, is given hereunder. The values of imports are shown in British currency, while the exports are shown in Australian currency. Should further details be required, reference may be made to the annual publication "Oversea Trade Bulletin, No. 31," issued by this Bureau, which gives details of the trade with Australia of 32 of the principal countries of the world during the past five years. That publication furnishes information regarding the country of origin of each statistical item of import for the years 1932-33 and 1933-34, showing the value and (where available) the quantity imported from each country, and the value of each item imported into each of the States. The publication referred to also gives the country to which each item of exports was shipped during these years.

**United Kingdom.** *Total Imports of United Kingdom Origin, £25,144,441.* The two outstanding classes of goods imported were—Apparel, textiles, yarns, etc., £8,753,708; and machines, machinery, and manufactures of metal, £8,253,238. Imports of the following goods also contributed largely to the total:—Paper and stationery, £2,679,052; drugs and chemicals, £1,413,095; earthenware, crockery, glass, etc., £520,686; whisky, £428,621; optical, surgical and scientific instruments, £342,734; foodstuffs of animal origin, £223,575; paints, £201,988; and rubber and leather and manufactures, £176,566.



*Total Exports to United Kingdom*, £63,955,032. Of this total £62,132,564 represented Australian produce. The principal items of export were—Wool, £17,762,789; gold specie and bullion, £9,552,170; butter, £7,582,706; wheat, £6,596,553; frozen mutton and lamb, £3,503,727; lead, pig, £2,126,367; sugar, £2,093,878; frozen beef, £1,745,245; dried fruits, raisins, £1,395,849; fruits, fresh, apples, £1,188,279; eggs, £1,061,282; fruits preserved in liquid, £826,527; flour, £815,255; wine, £715,338; and sheepskins, £597,171.

**Canada.** *Total Imports of Canadian Origin*, £2,918,095. The principal imports were motor chassis and parts, £712,845; printing paper, £540,016; timber, £523,229; fish, preserved in tins, £275,041; apparel and textiles, £196,869; sensitized films, £87,694; and typewriters and parts, £49,857.

*Total Exports to Canada*, £1,336,023. Of this total £1,332,167 was Australian produce. The chief items were—Fruits dried, £495,472; wool, £409,798; sugar, £181,637; fruits preserved, £74,863; spirituous liquors, £28,344; gelatine and glue, £26,092; and flour, £24,521.

**Ceylon.** *Total Imports of Ceylon Origin*, £718,563. The principal items were—Tea, £643,783; rubber, £44,844; and cocoa beans and shells, £7,405.

*Total Exports to Ceylon*, £421,499. Of this total £419,494 was Australian produce. The chief items were—Flour, £110,960; silver, £96,276; sleepers, railway, £42,926; milk and cream, £39,601; fruits, £28,546; butter, £24,142; and timber, £12,311.

**Fiji.** *Total Imports of Fijian Origin*, £33,522, include gold, £12,687; molasses, £9,655; bananas, £4,269; and hides, £2,467.

*Total Exports to Fiji*, £320,707. Of this total £275,624 was Australian produce. The chief items were—Machinery and metal manufactures, £76,807; bran and pollard, £36,652; tobacco, £28,834; flour, £18,793; coal, £16,769; drugs and chemicals, £13,127; apparel and textiles, £12,128; wood and wicker manufactures, £11,609; and rubber and leather manufactures, £7,572.

**Hong Kong.** *Total Imports of Hong Kong Origin*, £18,436. Chief items were—Ginger, £5,361; clothing and textiles, £3,147; bamboo and cane, £3,027; lamps and lampware, £1,729; and fireworks, £1,663.

*Total Exports to Hong Kong*, £506,696. Of this total £503,303 was Australian produce. The principal exports were—Flour, £170,395; sandalwood, £64,735; leather, £49,747; meats, £37,837; timber, undressed, £33,808; butter, £28,843; bêche-de-mer, £23,373; fruits, fresh, £17,027; and infants' and invalids' food, £12,433.

**India.** *Total Imports of Indian Origin*, £2,926,181. The principal imports were—Bags and sacks, £2,042,224; hessians, £286,972; seeds, £141,559; tea, £113,424; hides and skins, £110,416; mats and matting of coir, £26,071; and gums and resins, £23,817.

*Total Exports to India*, £610,159. Of this total, £604,998 was Australian produce. The chief exports were—Zinc bars, blocks, etc., £133,148; wool, £106,937; tallow, unrefined, £82,022; horses, £64,324; milk and cream, £49,143; wheat, £44,812; jams and jellies, £16,678; and coal, £8,177.

**Malaya (British).** *Total Imports of Malayan (British) Origin*, £328,720. Principal items were—Rubber (crude), £239,088; sago and tapioca, £36,279; spices (unground), £18,684; and gums and resins, £2,828.

*Total Exports to Malaya (British)*, £1,015,315. Of this total £994,055 was Australian produce. The chief items were—Flour, £317,857; milk and cream, £304,510; meats, £71,830; butter, £48,824; fruits, fresh and preserved, £40,056; spirituous liquors, £35,173; leather, £20,673; manufactures of metal, £19,804; and live animals, £19,485.

**New Zealand.** *Total Imports of New Zealand Origin*, £1,392,469. The principal imports were—Wool, £337,941; timber, £260,604; hides and skins, £221,051; gold, bar, dust, etc., £193,824; fish, £86,512; seeds, £61,097; horses, £32,379; and tallow, unrefined, £14,304.

*Total Exports to New Zealand*, £2,962,335, of which £2,609,005 was Australian produce. The chief items were—Machinery and metal manufactures, £739,051; apparel and textiles, £318,736; drugs and chemicals, £267,774; optical, surgical and scientific instruments, £138,177; rubber and leather manufactures, £134,623; timber, £132,347; fruits dried, £129,591; paper and stationery, £117,349; coal, £104,763; fruits fresh, £61,466; tobacco and manufactures, £57,277; paints and varnishes, £50,417; grain and pulse prepared, £50,356; and spirituous liquors, £41,819.

*Papua. Total Imports of Papuan Origin*, £132,253. The chief items were—Coconuts (prepared), £44,728; gold, bar, dust, etc., £38,939; rubber, £33,073; copra, £8,634; and coffee, raw, £2,429.

*Total Exports to Papua*, £129,500, of which £79,793 was Australian produce. The principal exports were—Tobacco and manufactures, £19,510; apparel and textiles, £11,180; meats, £10,916; manufactures of metal, £10,865; machines and machinery, £10,442; films, £9,696; and grain and pulse, £8,321.

*Territory of New Guinea. Total Imports of Territory of New Guinea Origin*, £1,026,764. The principal items were—Gold, bar, dust, etc., £958,061; coconuts (prepared), £47,945; copra, £11,483; and cocoa beans and shells, raw, £2,152.

*Total Exports to Territory of New Guinea*, £507,743, of which £365,283 was Australian produce. The principal exports were—Manufactures of metal, £67,968; machines and machinery, £56,613; meats, £49,259; foodstuffs of vegetable origin, £45,247; films, £40,381; tobacco, and preparations, £35,018; spirituous liquors, £31,540; apparel and textiles, £26,674; drugs and chemicals, £16,648; and paper and stationery, £10,283.

*Union of South Africa. Total Imports of Union of South Africa Origin*, £137,456. The principal items were—Diamonds, £50,634; asbestos, crude, £27,242; fish, £15,416; fibres, £7,416; and feathers, £5,980.

*Total Exports to Union of South Africa*, £247,278, of which £243,350 was Australian produce. The chief exports were—Timber, £72,593; machinery and metal manufactures, £25,127; apparel and textiles, £20,550; gelatine and glue, £15,419; fruits, £13,785; butter, £11,280; leather, £10,198; tallow, unrefined, £8,996; wheat, £6,845; and soap, £6,044.

*Belgium. Total Imports of Belgian Origin*, £368,219. Principal items were—Piecegoods, velvet, £89,319; other piecegoods, £53,239; glass and glassware, £70,534; machinery and metal manufactures, £39,415; paper and stationery, £26,554; carpets and carpeting, £15,592; gloves, £11,507; precious stones, £10,808; and drugs and chemicals, £6,939.

*Total Exports to Belgium*, £7,470,984. Of this total £7,468,747 was Australian produce. Chief exports were—Wool, £6,864,243; silver and silver lead concentrates, £184,204; lead (pig), £120,172; barley, £82,602; hides and skins, £41,789; meats, £36,384; foddors, £21,000; copper ingots, £9,500; and zinc concentrates, £8,952.

*China. Total Imports of Chinese Origin*, £285,514. Chief items were—Apparel and textiles, £74,341; tea, £38,018; nuts (edible), £23,771; bristles, etc., £20,050; ginger, £16,447; Tung, etc, oil, £15,158; vegetable substances and fibres, £13,007; drugs and chemicals, £7,863; feathers, £7,103; and fireworks, £5,036.

*Total Exports to China*, £914,806, of which £913,881 was Australian produce. Principal items were—Flour, £441,931; wheat, £208,259; infants' and invalids' food, £59,570; butter, £52,289; milk and cream, £45,243; sandalwood, £36,358; timber, £7,908; and tallow (unrefined), £6,442.

*Egypt. Total Imports of Egyptian Origin*, £18,808. Chief items were—Bitumen and natural pitch, £11,346; cigarette tubes and papers, £4,699; and gums and resins, £1,338.

*Total Exports to Egypt*, £370,234, of which £370,234 was Australian produce. Principal exports were—Flour, £154,463; meats, £82,200; butter, £69,615; wheat, £26,876; and apples, fresh, £13,133.

**France.** *Total Imports of French Origin*, £956,335. Chief items were—Argol, £158,491; piecegoods, velvets, £98,041; piecegoods, silks, £94,567; trimmings and ornaments, £62,957; paper and stationery, £50,465; spirituous liquors, £49,707; olive oil, £40,596; machinery and metal manufactures, £34,449; perfumery and toilet preparations, £31,758; gums and resins, £18,976; fertilizers, £18,682; medicines, £14,922; and pipes, cigar holders, etc., £12,020.

*Total Exports to France*, £6,517,380. Of this total £6,458,543 was Australian produce. Principal exports were—Wool, £4,691,624; sheepskins, £1,702,019; apparel and textiles, £46,383; manufactures of metal, £22,017; and concentrates, £8,120.

**Germany.** *Total Imports of German Origin*, £1,920,676. Chief items were—Drugs and chemicals, £300,523; manufactures of metal, £288,597; machinery, £279,056; gloves, £117,684; paper and stationery, £117,399; piecegoods, £112,696; optical and scientific instruments, £102,449; apparel and attire, £71,752; earthenware, china, glassware, etc., £57,194; bags, baskets, etc., £51,020; timepieces, £49,108; paints and varnishes, £46,543; and oils, fats, and waxes, £37,206.

*Total Exports to Germany*, £9,439,054, of which £9,423,313 was Australian produce. Principal exports were—Wool, £8,697,719; fruits, fresh, apples, £306,681; lead (pig), £116,173; copper ingots, £94,515; sausage casings, £55,266; cadmium, bars, etc., £15,454; and wolfram, £13,696.

**Italy.** *Total Imports of Italian Origin*, £588,260. Chief imports were—Yarns, artificial silk, £106,524; apparel, £92,354; piecegoods, silk, £52,456; other textiles, £33,170; fibres, flax and hemp, £41,706; argol, £40,344; machinery and metal manufactures, £37,026; sulphur, £22,464; oils in bulk, olive, £20,085; and hides and skins, £14,241.

*Total Exports to Italy*, £4,600,423, of which £4,594,836 was Australian produce. Principal exports were—Wool, £4,237,212; silver and silver lead, concentrates, £128,952; hides and skins, £101,246; wheat, £93,187; and tallow, £26,155.

**Japan.** *Total Imports of Japanese Origin*, £3,676,737. Chief imports were—Silk or containing silk piecegoods, £1,520,978; cotton and linen piecegoods, £580,617; other piecegoods, £114,224; silk, raw, £267,929; jewellery, timepieces, and fancy goods, £167,708; crockery and household ware, £137,621; machinery and metal manufactures, £133,018; sulphur, £66,725; yarns, £55,420; towels and towelling, £45,395; paper and stationery, £39,776; glass and glassware, £33,938; and buttons, £37,931.

*Total Exports to Japan*, £13,906,256. Of this total £13,892,848 was Australian produce. Principal exports were—Wool, £12,127,621; wheat, £1,042,234; tallow, £157,593; zinc, bars, blocks, etc., £112,920; iron and steel (scrap), £76,945; hides and skins, £52,850; barley, £42,622; trochus shell, £41,326; milk and cream, £33,368; flour, £32,058; infants' and invalids' food, £31,300; lead (pig), £24,995; and beef, frozen, £23,368.

**Netherlands.** *Total Imports of Netherlands Origin*, £389,669. Chief items were—Artificial silk yarns, £166,293; electrical machinery and appliances, £55,860; jewellery, timepieces, etc., £23,988; manufactures of metal, £23,422; drugs and chemicals, £21,001; paper, £15,812; and gin, £10,715.

*Total Exports to Netherlands*, £455,328, of which £422,703 was Australian produce. Principal items were—Wool, £302,133; fruits, fresh, £36,910; machinery and metal manufactures, £25,378; meats, £15,727; hides and skins, £13,969; wheat, £10,157; tallow, £5,207; and flour, £4,159.

**Netherlands East Indies.** *Total Imports of Netherlands East Indies Origin*, £3,960,233. Chief imports were—Tea, £1,362,650; petroleum spirit, £1,354,320; residual oil, £325,192; petroleum (crude), £288,103; kerosene, £156,748; fibres, kapok, £111,360; fibres, other, £52,623; rubber, crude, £100,224; coffee and chicory, £42,352; and waxes, £25,804.

*Total Exports to Netherlands East Indies*, £1,149,167. Of this total £1,134,765 was Australian Produce. Principal exports were—Flour, £510,267; butter, £285,900; milk and cream, £59,077; leather, £48,753; meats, £44,430; fruits, fresh, £31,265; biscuits, £28,489; coal, £24,318; and drugs and chemicals, £22,424.

**Norway.** *Total Imports of Norwegian Origin*, £340,325. Chief items were—Fish, preserved in tins, £80,891 ; paper—writing and typewriting, £79,125, printing, £59,583, wrapping, £21,224, other paper, £22,787 ; timber, £35,647 ; and manufactures of metal, £19,947.

*Total Exports to Norway*, £2,937. Principal exports were—Lead (pig), £2,200 ; and hides and skins, £473.

**Pacific Islands (British and Foreign).** *Total Imports of Pacific Islands Origin*, £1,744,900. The chief imports were—Gold, £1,009,773 ; rock phosphates, £470,111 ; nuts, edible, £94,399 ; copra, £67,164 ; crude rubber, £33,075 ; fruits, fresh, bananas, £13,600 ; molasses, £9,655 ; silver, £6,461 ; and hides and skins, £6,355.

*Total Exports to Pacific Islands*, £1,701,046. Of this total £1,154,459 was Australian produce. Principal exports were—Machinery and metal manufactures, £295,334 ; vessels, transferred abroad, £192,706 ; tobacco and preparations, £120,393 ; flour, £84,773 ; apparel, textiles and yarns, £80,780 ; coal, £79,923 ; cinematographs and films, £60,230 ; meats, preserved in tins, £50,770 ; meats, other, £40,827 ; drugs and chemicals, £47,834 ; bran, pollard and sharps, £40,532 ; oils, fats and waxes, £29,854 ; biscuits, £27,937 ; milk and cream, £21,457 ; butter, £20,718 ; vegetables, £20,411 ; paints and varnishes, £17,248 ; and sugar, £16,638.

**Philippine Islands.** *Total Imports of Philippine Islands Origin*, £59,733. Chief items were—Hemp, £38,277 ; timber, £17,073 ; and tobacco, £1,274.

*Total Exports to Philippine Islands*, £348,177. Of this total £348,037 was Australian produce. Principal exports were—Milk and cream, £123,065 ; flour, £77,871 ; meats, £58,398 ; coal, £38,032 ; butter, £32,090 ; leather, £7,030 ; and infants' and invalids' food, £2,706.

**Soviet Union (Russia).** *Total Imports of Soviet Union Origin*, £50,139. Chief items were—Furs, dressed, £14,185 ; fish, £11,291 ; hair and bristles, £6,985 ; hides and skins, £6,299 ; and apparel, textiles, etc., £5,686.

*Total Exports to Soviet Union (Russia)*, £88,678. Principal items were—Wheat, £80,374 ; and flour, £8,290.

**Spain.** *Total Imports of Spanish Origin*, £129,366. Chief items were—Corks, etc., £50,955 ; nuts, edible, £37,312 ; potash salts, £5,793 ; dry colours, £5,266 ; and liquorice, £4,910.

*Total Exports to Spain*, £157,521. Principal items were—Wool, greasy, £132,128 ; and hides and skins, £25,235.

**Sweden.** *Total Imports of Swedish Origin*, £782,780. Chief imports were—Pulp for papermaking, £204,638 ; machines and machinery, £108,508 ; timber and manufactures of wood, £80,414 ; paper—wrapping, £80,066, boards, £44,830, printing, £44,032, other paper, £81,512 ; manufactures of metal, £59,964 ; and vacuum cleaners, £27,270.

*Total Exports to Sweden*, £250,898. Principal exports were—Wool, greasy, £130,923 ; apples, fresh, £44,428 ; wool, scoured, £37,829 ; and hides and skins, cattle, £26,369.

**Switzerland.** *Total Imports of Swiss Origin*, £451,030. Chief imports were—Clocks and watches, £91,979 ; piecegoods, cotton and linen, £76,019 ; silk, £34,246 ; apparel and attire, £49,962 ; grass straw for hats, £43,815 ; drugs and chemicals, £41,737 ; machinery and metal manufactures, £37,422 ; handkerchiefs, £27,343 ; and other textiles, £22,431.

*Total Exports to Switzerland*, £225,321. Principal exports were—Wool, greasy, £212,809 ; and tim-pieces, £4,271.

**United States of America.** *Total Imports of United States Origin*, £7,839,250. Chief imports were—Petroleum spirit, £1,302,899 ; motor cars and parts, £819,516 ; tobacco, unmanufactured, £614,469 ; lubricating (mineral) oil, £604,072 ; electrical machinery and appliances, £353,543 ; apparel and textiles, £247,267 ; timber and wood manufactures, £231,749 ; sulphur, £229,993 ; optical, etc., instruments, £222,487 ; kerosene, £219,183 ; paper and stationery, £198,605 ; motive power machinery, £181,597 ; films, £175,910 ; sausage casings, £125,416 ; and tools of trade, £110,218.

*Total Exports to the United States of America, £2,512,431.* Of this total £2,454,172 was Australian produce. Principal exports were—Rabbit skins, £689,247; wool, £485,840; sausage casings, £263,903; concentrates, £263,097; sheep skins, £208,212; pearl shell, £141,639; kangaroo skins, £134,532; tin, ingots, £34,011; machinery and metal manufactures, £24,675; and timber undressed, £18,875.

### § 7. Trade with Eastern Countries.

1. *Principal Articles Exported.*—The following table shows the value of exports of Australian and other produce from Australia to Eastern countries during the last five years. The countries concerned in this trade are China, India and Ceylon, Japan, Netherlands East Indies, Timor (Portuguese), Philippine Islands, Malaya (British), Hong Kong, Borneo (British), Korea, French Indo-China, Siam, and French and Portuguese Possessions in India. During the years 1930-31 to 1932-33 the export trade with Eastern countries showed an improvement in value over the year 1929-30 owing to increased shipments of wheat and flour to China and of wheat and wool to Japan. Exports of flour increased by large exports to China. Wheat exports to Eastern countries were consistently large during these three years, but in 1933-34 they fell to relatively very small dimensions, with the result that the value of total exports of merchandise during 1933-34 was nearly £3½ millions less than during the previous year, and would have been smaller still but for an increase of over 54 per cent. in the exports of wool to Japan. This marked decline was due to the falling off in shipments of butter to Netherlands East Indies, wheat and tallow to India and Japan, and wheat and flour to China.

#### TOTAL EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.

Article.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£ A.	£ A.	£ A.	£ A.	£ A.
Biscuits .. .. .	60,411	41,253	32,587	33,638	37,815
Butter .. .. .	836,253	646,500	709,001	530,878	486,878
Cheese .. .. .	12,163	9,963	13,295	17,785	18,526
Coal .. .. .	27,089	82,540	148,086	94,963	83,674
Fruits—					
Fresh .. .. .	77,881	85,831	90,727	96,321	110,555
Dried and Preserved .. .. .	37,692	35,139	53,929	47,333	51,381
Grain and pulse—					
Wheat .. .. .	2,645,318	6,540,867	7,929,220	7,930,706	1,307,770
Flour .. .. .	1,969,516	1,193,999	1,534,452	2,498,016	1,744,820
Other (prepared and unprepared) .. .. .	77,226	33,913	18,839	30,683	75,014
Hay, chaff, and compressed fodder .. .. .	20,362	11,648	13,618	13,028	12,285
Horses .. .. .	124,522	95,857	93,089	84,265	63,357
Infants' and Invalids' Food .. .. .	56,254	48,116	74,986	89,663	106,033
Iron Ore .. .. .	92,831	27,492	8,347	7,908	4,072
Iron and Steel (scrap) .. .. .	26,597	1,879	35,579	43,227	76,945
Jams and Jellies .. .. .	33,296	29,306	33,648	34,406	39,265
Lard and Refined Animal Fats .. .. .	21,802	21,810	21,670	22,495	21,764
Lead, Pig .. .. .	92,323	70,180	51,745	34,031	33,585
Leather .. .. .	166,551	124,168	182,788	142,686	140,733
Meats—					
Bacon and Hams .. .. .	99,545	74,606	76,192	82,301	79,293
Other meats .. .. .	461,153	344,113	260,721	242,769	202,714
Milk and Cream .. .. .	920,558	567,170	569,011	730,650	667,229
Pearlshell and trochus shell .. .. .	66,612	45,925	32,544	49,295	41,599
Sandalwood .. .. .	89,427	72,969	62,914	132,657	114,301
Skins, hoofs, horns, bones, and sinews .. .. .	43,088	37,594	43,330	35,305	72,293
Tallow (unrefined) .. .. .	497,301	393,341	391,890	322,616	233,232
Timber (undressed) .. .. .	139,116	165,488	95,210	47,046	96,973
Wool .. .. .	4,512,341	6,528,817	7,590,943	8,034,927	12,249,581
Zinc—					
Bars, blocks, ingots, etc. .. .. .	334,921	195,175	180,193	253,037	246,068
Concentrates .. .. .	.. .. .	.. .. .	24,994	125,211	18,097
Other merchandise .. .. .	518,350	382,987	382,727	497,917	420,720
Total merchandise .. .. .	14,060,499	17,908,676	20,756,275	22,305,763	18,876,572
Specie, and gold and silver bullion .. .. .	3,516,873	1,477,543	600,501	50,262	102,672
Total Exports .. .. .	17,577,372	19,386,219	21,356,776	22,356,025	19,979,244

(a) Australian currency value. The estimated British currency values are, 1930-31, £ stg. 16,514,985; 1931-32, £ stg. 16,814,563; 1932-33, £ stg. 17,849,122; 1933-34, £ stg. 15,153,089.

2. Destination of Exports of Merchandise.—The next table shows the destination of the merchandise exported to Eastern countries during the last five years.

EXPORTS OF MERCHANDISE FROM AUSTRALIA TO EASTERN COUNTRIES.

Country of Destination.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£ A.	£ A.	£ A.	£ A.	£ A.
China .. .. .	273,507	3,312,675	4,902,974	6,279,584	914,806
Hong Kong .. .. .	336,315	382,290	738,797	767,710	506,596
India and Ceylon .. .. .	2,894,139	2,031,033	778,603	1,114,200	928,986
Japan .. .. .	6,555,003	9,500,499	11,659,012	11,468,459	13,906,256
Malaya (British) .. .. .	1,389,321	822,740	919,827	958,880	1,015,315
Netherlands East Indies .. .. .	2,080,622	1,436,405	1,352,893	1,178,078	1,149,167
Philippine Islands .. .. .	390,750	333,146	317,615	428,461	348,177
Siam .. .. .	87,276	60,324	58,460	78,132	71,356
Other Eastern Countries .. .. .	53,566	29,564	28,089	32,250	35,913
<b>Total .. .. .</b>	<b>14,060,499</b>	<b>117,908,676</b>	<b>120,756,275</b>	<b>122,305,763</b>	<b>118,876,572</b>

(a) Australian currency value. Estimated British currency value, 1930-31, £ stg. 15,253,381; 1931-32, £ stg. 16,305,935; 1932-33, £ stg. 17,808,755; 1933-34, £ stg. 15,071,115.

3. Imports of Merchandise from Eastern Countries.—The value of imports into Australia from Eastern countries during the last five years is shown in the following table. The principal commodities imported in 1933-34, according to the countries of origin, were:—Tea—India and Ceylon, £757,133, and Netherlands East Indies, £1,362,636; Petroleum—Netherlands East Indies, £1,642,423; Bags and Sacks, and Hessians—India, £2,329,119; Silk Piece Goods—Japan, £1,520,978; Cotton and Linen Piece Goods—Japan, £580,617.

IMPORTS OF MERCHANDISE INTO AUSTRALIA FROM EASTERN COUNTRIES.

*British Currency Values.*

Country of Origin.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£ stg.	£ stg.	£ stg.	£ stg.	£ stg.
China .. .. .	568,013	347,432	314,778	266,938	285,514
Hong Kong .. .. .	17,420	14,436	6,156	10,363	18,436
India and Ceylon .. .. .	7,146,590	4,839,970	3,373,533	4,047,665	3,643,250
Japan .. .. .	4,181,643	2,379,558	2,396,734	3,561,581	3,670,737
Malaya (British) .. .. .	812,513	274,894	276,654	271,407	328,720
Netherlands East Indies .. .. .	6,282,653	4,011,194	2,648,919	2,930,951	3,960,233
Philippine Islands .. .. .	174,518	39,957	35,947	34,899	59,733
Siam .. .. .	8,743	2,112	2,218	1,512	1,822
Other Eastern Countries .. .. .	113,578	37,632	25,504	41,311	37,781
<b>Total .. .. .</b>	<b>19,305,671</b>	<b>11,947,185</b>	<b>9,080,443</b>	<b>11,141,627</b>	<b>12,012,226</b>

By comparison with the previous table, the balance of trade with Eastern countries can be ascertained and shows an excess of imports into Australia in the year 1929-30, and an excess of exports from Australia in the years 1930-31 to 1933-34.

### § 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 classified order in accordance with the statistical classification which came into operation on 1st July, 1922 :—

#### IMPORTS TO AUSTRALIA.—CLASSES.

*British Currency Values.*

Classes.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£ stg.	£ stg.	£ stg.	£ stg.	£ stg.
I. Animal foodstuffs, etc.	2,182,397	911,076	747,110	799,859	942,656
II. Vegetable foodstuffs; non-alcoholic beverages, etc.	6,037,708	3,372,099	2,387,434	2,330,791	3,141,432
III. Alcoholic liquors, etc.	1,583,368	530,166	231,938	460,437	558,474
IV. Tobacco, etc.	2,422,648	1,365,636	614,193	711,848	718,582
V. Live animals	213,229	67,628	314,432	48,240	94,670
VI. Animal substances, etc.	1,953,561	914,821	733,160	833,154	1,193,026
VII. Vegetable substances, etc.	2,879,321	1,408,258	1,306,047	1,550,425	1,492,848
VIII. Apparel, textiles, etc.	32,546,428	15,898,259	13,831,502	17,323,363	15,994,563
IX. Oils, fats, and waxes	11,565,261	6,927,042	4,833,654	5,953,471	5,274,615
X. Paints and varnishes	686,195	263,079	249,964	301,366	353,557
XI. Stones and minerals, etc.	1,668,078	401,293	234,595	379,336	398,942
XII. Metals, metal manufactures, and machinery	36,323,308	12,338,793	6,550,798	10,128,134	13,049,596
XIII. Rubber and leather, etc.	2,070,294	769,959	668,101	644,782	743,936
XIV. Wood and wicker, etc.	4,629,167	1,113,854	906,943	1,265,780	1,403,049
XV. Earthenware, etc.	2,251,940	818,987	518,637	891,827	1,018,224
XVI. Paper and stationery	7,912,167	4,565,813	3,861,802	4,251,636	4,304,303
XVII. Jewellery, etc.	2,144,442	895,532	486,432	692,769	749,022
XVIII. Optical, surgical, and scientific instruments	1,414,638	1,067,162	941,454	940,694	987,369
XIX. Drugs, chemicals, etc.	5,082,161	3,069,287	2,670,688	3,687,498	3,384,857
XX. Miscellaneous	5,189,196	3,664,865	2,174,493	3,641,291	3,935,678
XXI. Gold and silver; and bronze specie	325,723	399,024	670,491	1,171,159	1,278,117
Total	131,081,320	60,959,633	44,712,868	58,013,860	60,712,926

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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
<b>A. AUSTRALIAN PRODUCE.</b>					
	£ A.	£ A.	£ A.	£ A.	£ A.
I. Animal foodstuffs, etc.	14,649,566	15,561,080	18,044,611	17,221,140	17,339,929
II. Vegetable foodstuffs; non-alcoholic beverages, etc.	22,515,068	25,569,888	31,727,701	30,062,717	21,285,172
III. Alcoholic liquors, etc.	601,653	555,713	953,667	855,299	916,100
IV. Tobacco, etc.	303,457	282,908	214,774	171,771	125,563
V. Live animals	240,763	136,659	124,033	124,279	130,864
VI. Animal substances, etc.	43,827,255	36,174,451	34,766,515	39,198,506	61,884,960
VII. Vegetable substances, etc.	337,089	212,657	183,431	249,732	296,684
VIII. Apparel, textiles, etc.	200,859	175,401	265,127	323,029	328,794
IX. Oils, fats, and waxes	1,070,626	689,739	909,397	886,843	554,529
X. Paints and varnishes	51,567	39,428	42,213	57,289	68,954
XI. Stones and minerals, etc.	1,944,020	1,291,729	548,299	629,958	1,166,453
XII. Metals, metal manufactures, and machinery	5,774,982	4,312,849	4,111,474	4,208,791	4,706,797
XIII. Rubber and leather, etc.	523,887	426,172	447,102	469,473	701,490
XIV. Wood and wicker, etc.	1,042,042	783,732	566,552	377,913	608,579
XV. Earthenware, etc.	89,260	59,549	68,045	77,999	103,576
XVI. Paper and stationery	178,437	158,848	127,299	134,403	149,311
XVII. Jewellery, etc.	170,115	55,356	59,641	68,017	93,564
XVIII. Optical, surgical, and scientific instruments	249,529	174,045	112,984	121,911	103,495
XIX. Drugs, chemicals, etc.	535,148	423,801	427,577	437,565	459,332
XX. Miscellaneous	502,722	520,459	453,897	441,299	453,174
XXI. Gold and silver; and bronze specie	27,748,839	15,018,664	12,118,880	22,291,422	9,174,601
Total	122,616,884	102,623,128	106,273,222	118,400,356	120,651,925
		(a)	(a)	(a)	(a)

(a) Recorded value. Estimated British currency value, 1930-31, £ stg. 87,409,968; 1931-32, £ stg. 83,670,793; 1932-33, £ stg. 94,572,386; 1933-34, £ stg. 96,343,293.

EXPORTS FROM AUSTRALIA.—CLASSES—*continued.*

Classes.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
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B. OTHER PRODUCE.—RE-EXPORTS.

*Australian Currency Values.*

	£A.	£A.	£A.	£A.	£A.
I. Animal foodstuffs, etc. . . . .	15,858	15,877	17,023	9,977	8,701
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . . . .	215,301	100,862	51,098	77,704	72,881
III. Alcoholic liquors, etc. . . . .	83,304	40,276	22,141	17,848	40,121
IV. Tobacco, etc. . . . .	97,191	80,459	76,353	86,904	55,204
V. Live animals . . . . .	63,403	36,638	25,343	18,922	13,918
VI. Animal substances, etc. . . . .	34,665	10,759	2,058	2,640	20,898
VII. Vegetable substances, etc. . . . .	313,216	16,181	5,903	7,118	4,806
VIII. Apparel, textiles, etc. . . . .	334,686	298,373	171,747	173,994	217,388
IX. Oils, fats, and waxes . . . . .	78,826	42,519	51,863	80,371	42,505
X. Paints and varnishes . . . . .	7,981	6,129	9,953	3,642	5,448
XI. Stones and minerals, etc. . . . .	1,587	2,153	274	1,132	1,299
XII. Metals, metal manufactures, and machinery . . . . .	636,016	677,535	634,339	414,879	325,914
XIII. Rubber and leather, etc. . . . .	78,645	65,120	13,902	8,571	7,974
XIV. Wood and wicker, etc. . . . .	57,316	39,233	26,783	21,381	21,698
XV. Earthenware, etc. . . . .	15,345	12,580	7,020	6,350	8,099
XVI. Paper and stationery . . . . .	83,463	65,981	57,470	52,518	36,141
XVII. Jewellery, etc. . . . .	69,590	63,331	39,853	30,281	34,879
XVIII. Optical, surgical, and scientific instruments . . . . .	108,785	166,334	160,155	139,261	146,135
XIX. Drugs, chemicals, etc. . . . .	47,468	40,351	44,419	31,971	43,649
XX. Miscellaneous . . . . .	167,608	172,439	137,493	105,820	85,896
XXI. Gold and silver; and bronze specie . . . . .	10	279,594	575,906	1,242,657	1,595,820
Total . . . . .	2,510,264	2,232,724 (a)	2,131,096 (a)	2,533,961 (a)	2,789,374 (a)

(a) Recorded value. Estimated British currency value, 1930-31, £stg. 1,916,000; 1931-32, £stg. 1,677,814; 1932-33, £stg. 2,024,839; 1933-34, £stg. 2,229,339.

C. TOTAL EXPORTS.—AUSTRALIAN PRODUCE AND RE-EXPORTS.

*Australian Currency Values.*

	£A.	£A.	£A.	£A.	£A.
I. Animal foodstuffs, etc. . . . .	14,665,424	15,576,957	18,061,634	17,231,117	17,348,630
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . . . .	22,730,369	25,670,750	31,778,799	30,140,421	21,358,053
III. Alcoholic liquors, etc. . . . .	684,957	595,989	975,808	873,147	956,221
IV. Tobacco, etc. . . . .	460,648	303,367	291,127	258,675	180,767
V. Live animals . . . . .	304,166	173,297	149,376	143,201	144,782
VI. Animal substances, etc. . . . .	43,861,920	36,135,210	34,768,573	39,201,146	61,905,858
VII. Vegetable substances, etc. . . . .	650,305	228,838	189,334	256,850	301,490
VIII. Apparel, textiles, etc. . . . .	535,545	473,774	436,874	497,023	546,182
IX. Oils, fats, and waxes . . . . .	1,149,452	732,258	961,269	967,214	597,034
X. Paints and varnishes . . . . .	59,548	45,557	52,166	60,931	74,402
XI. Stones and minerals, etc. . . . .	1,945,607	1,293,882	548,573	631,090	1,167,752
XII. Metals, metal manufactures, and machinery . . . . .	6,410,998	4,990,384	4,745,813	4,623,670	5,032,711
XIII. Rubber and leather, etc. . . . .	602,532	491,292	461,004	478,064	709,464
XIV. Wood and wicker, etc. . . . .	1,099,358	822,065	593,335	399,294	630,277
XV. Earthenware, etc. . . . .	104,605	72,129	75,065	84,349	111,675
XVI. Paper and stationery . . . . .	261,900	224,829	184,769	186,921	185,452
XVII. Jewellery, etc. . . . .	179,705	118,687	99,497	98,289	128,447
XVIII. Optical, surgical, and scientific instruments . . . . .	358,314	340,379	273,139	261,172	249,630
XIX. Drugs, chemicals, etc. . . . .	582,616	464,152	471,096	469,536	502,981
XX. Miscellaneous . . . . .	730,330	692,898	591,390	547,119	539,070
XXI. Gold and silver; and bronze specie . . . . .	27,748,849	15,298,258	12,694,786	23,534,079	10,770,421
Total . . . . .	125,127,148	104,855,852 (a)	108,404,318 (a)	120,943,317 (a)	123,441,299 (a)

(a) Recorded value. Estimated British currency value, 1930-31, £stg. 89,325,968; 1931-32, £stg. 85,348,607; 1932-33, £stg. 96,597,225; 1933-34, £stg. 98,572,632.



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 given in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES IMPORTED.—AUSTRALIA.

British Currency Values.

Article.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Fish, preserved in tins	lb. £ 28,039,277	13,126,217	14,478,827	15,828,494	19,597,955
Tea	lb. £ 5,342,016	501,080	442,510	468,276	529,531
Whisky	gal. £ 3,298,705	46,433,350	44,140,136	48,441,433	46,680,172
Tobacco and preparations thereof	gal. £ 946,523	2,245,507	1,365,626	1,270,948	2,174,035
Copra	cwt. £ 1,113,512	385,896	150,191	355,259	406,242
Fibres	£ 2,422,648	446,418	106,369	300,285	427,638
Hides and skins	£ 407,320	1,505,636	614,193	711,848	718,282
Pulp for paper making	ton £ 520,266	190,312	240,950	267,475	239,788
Seeds	£ 492,320	97,999	136,657	137,073	67,164
Socks and stockings	£ 838,330	414,489	368,335	458,842	425,844
Gloves	£ 916,311	397,566	292,640	430,442	476,844
Hats and caps	£ 23,709	22,327	25,783	34,142	35,300
Trimnings and ornaments	£ 269,270	218,749	190,834	246,995	250,165
Other apparel and attire	£ 668,973	370,680	289,633	318,755	338,196
Carpets and carpeting	£ 792,456	67,297	3,516	7,092	12,851
Floorcloths and linoleums	£ 487,869	220,492	225,321	309,145	288,558
Piece Goods—	£ 683,501	121,386	94,514	124,561	146,786
Canvas and duck	£ 721,257	454,962	327,805	310,217	255,477
Cotton and linen	£ 1,956,739	461,793	354,482	528,987	612,843
Silk and artificial silk	£ 1,343,932	468,461	307,850	599,174	703,087
Woolen or containing wool	£ 796,865	218,219	134,811	202,005	291,890
All other piece goods	£ 645,828	285,527	252,495	383,493	390,052
Sewing silks, cottons, etc.	£ 7,488,675	4,123,483	4,068,299	4,943,007	4,390,262
Bags and sacks	£ 5,500,268	3,017,936	2,477,972	2,771,277	2,543,386
Yarns—	£ 1,201,018	185,235	51,451	111,171	179,800
Artificial silk	£ 2,969,201	1,216,456	1,476,524	1,896,814	1,615,128
Cotton	£ 873,935	468,591	466,150	544,879	479,119
Woolen	£ 2,906,817	2,753,911	1,931,355	2,596,201	2,059,805
Other	£ 854,034	445,590	547,926	594,979	548,356
Kerosene	gal. £ 1,089,938	454,050	470,801	586,998	479,400
Lubricating (mineral) oil	gal. £ 301,820	44,736	35,603	52,332	35,162
Petroleum	gal. £ 1,139,580	48,558	31,798	30,260	36,994
Residual and solar oil	gal. £ 41,162,038	35,158,991	25,940,524	36,647,723	31,155,716
Electrical machinery and appliances	£ 1,089,938	707,806	434,589	622,838	394,251
Electrical cable and wire, covered	£ 13,532,413	10,957,159	7,783,073	11,750,101	12,445,801
Agricultural machinery	£ 1,139,580	738,310	534,997	783,072	646,381
Metal-working machinery	£ 361,975,866	264,085,522	205,506,145	239,217,947	266,226,956
Motive power machinery	£ 8,547,817	4,877,840	3,071,065	3,704,511	3,340,990
Iron and Steel—	£ 1,197,389	17,647,552	61,035,861	65,821,403	72,714,508
Pipes and tubes	£ 11,273	82,980	335,249	363,819	411,205
Plate and sheet	£ 4,583,660	2,334,260	927,242	1,046,064	1,167,701
Cutlery and platedware	£ 306,163	127,568	43,441	66,445	94,913
Tools of trade	£ 1,517,817	507,669	274,982	376,324	454,214
Motor cars, chassis, bodies, and parts	£ 443,707	174,942	47,690	83,491	95,306
Rubber and rubber manufactures	£ 407,190	110,344	32,421	96,074	157,589
Timber, undressed, including logs (a)	£ 2,482,268	1,011,306	299,031	353,969	522,387
Crockery	£ 6,704,769	860,037	436,096	1,435,771	2,795,239
Glass and glassware	£ 1,684,621	682,755	611,262	580,680	663,530
Paper, printing	£ 38,462,347	116,452,047	121,600,530	188,663,281	243,432,388
Stationery and paper manufactures	£ 2,915,619	629,673	629,092	884,411	1,000,602
Cinematograph films	£ 694,740	391,531	260,305	390,584	382,395
Drugs, chemicals, and fertilizers	£ 1,046,109	280,532	176,034	359,345	419,615
Arms and explosives	£ 3,129,705	1,651,410	1,661,603	1,817,973	1,726,627
Musical instruments, pianos, etc.	£ 2,738,781	1,805,769	1,198,587	1,211,626	1,360,976
Outside Packages	£ 41,480,720	50,516,896	56,946,029	56,949,478	60,323,114
All other articles	£ 290,524	528,732	563,460	534,191	512,351
Total Imports	£ 35,082,161	3,069,287	2,670,688	3,667,498	3,384,857
	£ 871,408	408,445	349,805	538,650	610,833
	£ 343,242	66,873	26,296	36,824	55,461
	£ 1,535,385	1,794,905	1,213,561	1,524,882	1,506,932
	£ 35,064,051	14,390,534	10,933,077	13,996,790	15,835,355
	£ 131,081,320	60,959,633	44,712,868	58,013,860	60,712,926

(a) Exclusive of undressed timber not measured in super. feet.

4. Exports of Principal Articles of Australian Produce.—(a) Quantities. The following table shows the quantities of the principal articles of Australian produce exported during the last five years. The articles are given in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES EXPORTED.—QUANTITIES, AUSTRALIA.

Article.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Butter .. .. .	centl. 1,073,661	1,631,807	2,016,394	2,263,293	2,442,997
Cheese .. .. .	centl. 30,894	85,917	72,677	117,852	93,137
Eggs in shell .. .. .	doz. 3,570,219	5,970,696	9,921,829	16,844,288	19,617,032
Milk and cream .. .. .	centl. 164,935	123,510	159,963	244,526	197,720
Fruits, dried .. .. .	centl. 1,44,481	1,33,706	969,076	1,063,245	1,454,867
Fruits, fresh .. .. .	centl. 1,959,418	1,680,254	2,254,665	2,750,353	2,402,877
Barley .. .. .	centl. 323,771	1,664,326	1,657,555	1,525,509	1,350,954
Wheat .. .. .	centl. 24,234,424	71,533,974	76,440,603	71,733,563	36,959,117
Flour .. .. .	centl. 9,314,666	10,484,864	344,015	12,629,179	10,849,839
Sugar (cane) .. .. .	centl. 3,634,216	3,983,096	5,758,158	3,740,774	6,158,662
Wine .. .. .	gal. 1,727	2,205,542	3,471,604	3,095,555	3,066,743
Tobacco, manufactured .. .. .	centl. 137	10,309	7,671	6,138	4,242
Wool (in terms of greasy wool) .. .. .	centl. 7,892,288	8,662,152	8,936,206	10,054,173	8,929,341
Pearlshell .. .. .	centl. 58,503	48,353	26,779	32,975	33,721
Sandalwood .. .. .	centl. 72,435	59,273	46,890	97,076	79,061
Tallow (unrefined) .. .. .	centl. 598,533	527,007	772,769	747,102	487,748
Coal .. .. .	ton. 294,593	377,851	444,015	282,977	292,416
Concentrates .. .. .	centl. 4,154,510	3,664,310	1,248,296	1,598,314	2,818,036
Copper .. .. .	centl. 219,582	241,121	240,471	168,195	105,389
Lead .. .. .	centl. 2,322,401	3,093,195	2,997,015	3,632,208	3,687,298
Zinc—bar, block, dust .. .. .	centl. 658,846	909,535	910,601	699,380	616,945
Tin—ingots .. .. .	centl. 17,128	11,990	15,577	19,571	24,794
Timber, undressed, including Logs (a) .. .. .	sup. ft. 81,348,857	62,396,283	47,038,823	26,508,661	45,507,512
Soap .. .. .	centl. 159,822	137,699	108,955	89,946	71,521

(a) Exclusive of undressed timber not measured in super. feet.

(b) Values. The values of the principal articles of Australian produce exported during the same period as in the preceding table are given in the table hereunder.

PRINCIPAL COMMODITIES EXPORTED.—VALUES, AUSTRALIA.

Australian Currency Values.

Article.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£A.	£A.	£A.	£A.	£A.
Butter .. .. .	7,001,540	8,621,379	10,250,002	8,940,008	8,194,220
Cheese .. .. .	124,716	244,066	212,870	318,895	229,313
Eggs in shell .. .. .	255,571	321,627	494,032	958,065	1,058,164
Meats .. .. .	6,259,924	5,747,995	6,368,245	5,998,187	7,094,371
Milk and cream .. .. .	997,512	610,653	642,016	927,546	739,000
Fruits, dried .. .. .	2,169,832	2,248,791	1,965,310	2,230,110	2,659,773
Fruits, fresh .. .. .	1,861,428	1,588,027	2,085,595	2,417,437	2,011,695
Fruits, preserved in liquid .. .. .	568,205	588,142	644,180	726,650	949,206
Barley .. .. .	99,046	403,919	450,477	352,152	305,359
Wheat .. .. .	10,036,535	14,744,468	19,220,203	17,804,849	8,873,987
Flour .. .. .	4,948,927	3,513,573	3,833,237	4,148,973	3,266,718
Sugar (cane) .. .. .	2,216,468	1,805,777	2,514,502	1,489,639	2,294,333
Wine .. .. .	553,658	508,110	904,518	789,351	801,820
Tobacco, manufactured .. .. .	347,717	272,418	200,701	159,097	111,664
Hides and skins .. .. .	6,584,614	3,635,577	2,314,279	2,366,941	4,384,584
Wool .. .. .	36,596,600	32,001,760	32,192,246	36,406,990	57,111,449
Pearlshell .. .. .	450,615	354,992	194,351	233,786	198,347
Sandalwood .. .. .	89,427	72,969	62,914	132,657	114,301
Tallow (unrefined) .. .. .	991,592	643,405	831,415	790,405	494,940
Coal .. .. .	346,916	411,612	341,800	281,512	269,296
Concentrates .. .. .	1,036,377	744,098	141,633	297,190	816,439
Copper .. .. .	625,649	485,548	469,184	248,897	230,935
Lead .. .. .	3,413,939	2,418,974	2,267,924	2,384,062	2,418,072
Zinc—bar, block, dust .. .. .	810,457	723,894	627,236	578,453	617,736
Tin—ingots .. .. .	167,863	81,660	124,963	189,723	329,410
Leather .. .. .	444,439	366,558	386,027	390,355	611,359
Timber, undressed, including Logs (a) .. .. .	965,647	712,501	499,008	302,809	489,758
Soap .. .. .	292,469	258,591	194,673	166,228	119,498
Gold .. .. .	26,868,534	14,279,829	11,526,304	21,598,527	8,159,695
Silver .. .. .	880,249	733,471	592,576	692,875	1,014,756
All other articles .. .. .	4,592,418	3,478,744	3,740,801	4,086,987	4,690,727
Total Exports (Australian Produce) .. .. .	122,616,884	102,623,128	106,273,222	118,409,356	120,651,925
		(b)	(b)	(b)	(b)

(a) Exclusive of undressed timber not measured in super. feet. (b) Recorded value. The estimated British currency values are : 1930-31, £stg. 87,409,968 ; 1931-32, £stg. 83,670,793 ; 1932-33, £stg. 94,572,386 ; 1933-34, £stg. 95,343,293.

5. Imports of Merchandise, Specie and Bullion.—The table hereunder gives the value in British currency of imports into Australia during each of the last five years, grouped under the headings—Merchandise, and Specie and Bullion. The imports of merchandise are shown under the sub-headings of “free” and “dutiable” goods.

**IMPORTS OF MERCHANDISE, SPECIE AND BULLION—AUSTRALIA.**

*British Currency Values.*

Year.	Merchandise.			Specie and Bullion.	Total Imports.
	Free Goods.	Dutiable Goods.	Total Merchandise.		
	£	£	£	£	£
1929-30 ..	53,971,857	76,786,677	130,758,534	322,786	131,081,320
1930-31 ..	25,625,776	34,935,011	60,560,787	398,846	60,959,633
1931-32 ..	18,255,502	25,787,160	44,042,662	670,206	44,712,868
1932-33 ..	24,033,438	32,809,263	56,842,701	1,171,159	58,013,860
1933-34 ..	24,359,167	35,075,642	59,434,809	1,278,117	60,712,926

(a) The estimated Australian currency value was—1930-31, £A68,808,280; 1931-32, £A56,967,274; 1932-33, £A72,662,360; 1933-34, £A76,042,940.

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.**

*Australian Currency Values.*

Year.	Merchandise.			Specie and Bullion.			Total Exports. (a)
	Australian Produce.	Other Produce.	Total Merchandise.	Australian Produce.	Other Produce.	Total Specie and Bullion.	
	£A.	£A.	£A.	£A.	£A.	£A.	
1929-30 ..	94,868,045	2,510,254	97,378,299	27,748,839	10	27,748,849	125,127,148
1930-31 {	(b) 87,604,464	1,953,130	89,557,594	15,018,664	279,594	15,298,258	104,855,852
	(c) 74,592,889	1,686,123	76,279,012	12,817,079	229,877	13,046,956	89,325,968
1931-32 {	(b) 94,154,342	1,555,190	95,709,532	12,118,880	575,906	12,694,786	108,404,318
	(c) 73,960,444	1,223,917	75,184,361	9,710,349	453,897	10,164,246	85,348,607
1932-33 {	(b) 96,117,934	1,291,304	97,409,238	22,291,422	1,242,657	23,534,079	120,943,317
	(c) 76,739,828	1,030,981	77,770,809	17,832,558	993,858	18,826,416	96,597,225
1933-34 {	(b) 111,477,324	1,193,554	112,670,878	9,174,601	1,595,820	10,770,421	123,441,299
	(c) 89,003,851	952,937	89,956,788	7,339,442	1,276,402	8,615,844	98,572,632

(a) Does not include the value of Ships' Stores. See later table. (b) Recorded values. (c) British currency values.

7. Imports in Tariff Divisions.—In the following table the imports into Australia during the last five years have been classified in accordance with the sixteen divisions of the Customs Tariff.

## IMPORTS IN TARIFF DIVISIONS—AUSTRALIA.

*British Currency Values.*

Tariff Division.	Imports.				
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
I. Ale, Spirits, and Beverages ..	1,823,775	619,909	272,661	522,240	619,171
II. Tobacco and preparations thereof ..	2,422,648	1,565,636	614,193	711,848	718,282
III. Sugar ..	49,282	16,752	9,461	12,167	13,784
IV. Agricultural Products and Groceries ..	10,156,619	6,824,198	3,752,673	3,709,621	4,669,232
V. Textiles, Felts and Furs, and Manufactures thereof, and Attire ..	28,935,639	14,332,883	12,502,068	15,473,427	14,249,414
VI. Metals and Machinery	27,311,871	10,946,912	5,943,193	8,071,275	9,440,968
VII. Oils, Paints, and Varnishes ..	12,330,568	7,233,924	5,208,357	6,195,643	5,546,801
VIII. Earthenware, Cement, China, Glass, and Stone ..	2,851,314	1,106,687	791,154	1,169,548	1,325,086
IX. Drugs and Chemicals	3,326,255	2,179,831	1,999,799	2,923,319	2,761,080
X. Wood, Wicker, and Cane ..	4,629,167	1,113,854	906,943	1,265,780	1,403,049
XI. Jewellery and Fancy Goods ..	2,773,249	1,515,943	1,122,774	1,278,446	2,516,918
XII. Hides, Leather, and Rubber ..	3,418,138	1,252,068	1,085,344	1,093,902	890,793
XIII. Paper and Stationery	8,224,459	4,777,302	4,034,606	4,517,669	4,523,489
XIV. Vehicles ..	9,121,772	1,485,644	743,448	2,075,555	3,642,192
XV. Musical Instruments	344,925	66,873	26,296	36,824	55,461
XVI. Miscellaneous ..	8,455,167	4,285,951	4,236,598	6,367,260	6,388,171
-- Free Goods not specially mentioned in Tariff ..	4,583,686	1,236,420	793,094	1,418,177	670,918
Total Merchandise ..	130,758,534	60,560,787	44,042,662	56,842,701	59,434,809
Specie and Bullion ..	322,786	398,846	670,206	1,171,159	1,278,117
Grand Total ..	131,081,320	60,959,633	44,712,868	58,013,860	60,712,926

Consequent on the imposition of increased customs duties, prohibition of imports of certain goods, and the economic depression, imports declined rapidly in 1930-31, the total value of merchandise imported being £61 millions as against £131 millions during 1929-30. A further decline to £44 millions was recorded in 1931-32, all divisions of the tariff showing decreases. Imports of merchandise increased during 1932-33 to £57 millions due to the partial removal of tariff restrictions, the replenishment of stocks and the improved economic conditions. Compared with the previous year imports increased in all tariff divisions with the exception of the division agricultural products and groceries. In 1933-34 imports of merchandise increased to £59 millions. The principal increases

were in the tariff divisions agricultural products and groceries, metals and machinery, jewellery and fancy goods, and vehicles (mainly motors). Lower imports were recorded under the tariff divisions textiles, attire, etc., oils, paints and varnishes, drugs and chemicals, and hides, rubber and leather.

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:—1929-30, 23.0 per cent.; 1930-31, 23.0 per cent.; 1931-32, 26.5 per cent.; 1932-33, 23.5 per cent.; and 1933-34, 24.4 per cent. Primage duty was imposed during the last four years, and taking this extra duty into account, the percentages were as follow:—1930-31, 25.6 per cent.; 1931-32, 33.0 per cent.; 1932-33, 29.8 per cent.; and 1933-34, 29.8 per cent. The percentages of net Customs revenue, omitting primage, on the total value of dutiable goods only were—1929-30, 39.2 per cent.; 1930-31, 39.9 per cent.; 1931-32, 45.2 per cent.; 1932-33, 40.6 per cent.; and 1933-34, 41.3 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. Ships' Stores.

Prior to 1906 goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and have been omitted from the export figures. The value of these stores shipped each year during the period 1906 to 1933-34, showing bunker coal separately, is given in the following table:—

VALUE OF STORES SHIPPED ON OVERSEA VESSELS—AUSTRALIA.

Period.	Bunker Coal.	All Stores (including Coal).	Period.	Bunker Coal.	All Stores (including Coal).
	£	£		£	£
1906 .. ..	575,471	875,966	1919-20 .. ..	1,487,872	2,688,371
1907 .. ..	663,724	998,897	1920-21 .. ..	2,027,133	3,560,648
1908 .. ..	867,707	1,196,106	1921-22 .. ..	2,178,101	3,152,604
1909 .. ..	781,113	1,071,677	1922-23 .. ..	1,988,890	2,887,399
1910 .. ..	740,567	1,080,133	1923-24 .. ..	1,672,160	2,614,948
1911 .. ..	858,783	1,238,446	1924-25 .. ..	1,485,957	2,714,562
1912 .. ..	1,008,259	1,431,985	1925-26 .. ..	1,331,789	2,773,422
1913 .. ..	1,018,595	1,458,702	1926-27 .. ..	1,421,927	2,781,312
1914 (1st six mths.)	533,288	771,581	1927-28 .. ..	1,306,225	2,601,034
1914-15 .. ..	829,875	1,587,757	1928-29 .. ..	1,009,163	2,316,116
1915-16 .. ..	719,510	1,544,872	1929-30 .. ..	742,383	2,046,561
1916-17 .. ..	748,852	1,676,116	1930-31 .. ..	607,537	1,653,141a
1917-18 .. ..	632,910	1,389,291	1931-32 .. ..	534,897	1,559,574a
1918-19 .. ..	857,507	1,765,367	1932-33 .. ..	550,277	1,621,640a
			1933-34 .. ..	495,951	1,620,907a

(a) Recorded Value. The estimated British currency values are, 1930-31, £stg.1,408,032; 1931-32, £stg.1,225,119; 1932-33, £stg.1,294,723; 1933-34, £stg.1,294,137.

In addition to bunker coal, the principal items of ships' stores supplied to oversea vessels in 1933-34 were—Oils, £527,683 (mainly fuel oils which have displaced coal); meats, £171,354; butter, £33,312; fish, £40,494; and vegetables, £23,863.

The net Customs duty collected on ships' stores carried to Australia on oversea vessels and consumed in Australian waters amounted in 1933-34 to £48,689.

### § 10. Movement of Specie and Bullion.

1. Imports and Exports.—The following tables show the value of gold and silver, specie and bullion, and of bronze specie imported into and exported from Australia during the years 1929-30 to 1933-34 :—

#### IMPORTS AND EXPORTS, SPECIE AND BULLION—AUSTRALIA.

Items.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
IMPORTS.					
	£	£	£	£	£
Gold—Specie ..	17,372	5,357	459	683	466
Bullion ..	273,451	368,378	653,253	1,140,848	1,210,239
Total ..	290,823	373,735	653,712	1,141,531	1,210,705
Silver—Specie ..	25,419	23,074	14,094	20,220	57,642
Bullion ..	6,480	1,947	2,305	9,314	9,528
Total ..	31,899	25,021	16,399	29,534	67,170
Bronze—Specie ..	64	90	95	94	242
GRAND TOTAL ..	322,786	(a) 398,846	(a) 670,206	(a) 1,171,159	(a) 1,278,117

(a) British currency values. The estimated Australian currency values are: 1930-31, £A468,000; 1931-32, £A852,241; 1932-33, £A1,466,877; 1933-34, £A1,600,842.

#### EXPORTS.

	£	£	£	£	£
Gold—Specie ..	26,866,824	12,909,567	4,817,890	14,435,404	340,656
Bullion ..	1,715	1,481,845	7,074,782	8,108,848	9,232,506
Total ..	26,868,539	14,391,412	11,892,672 (a)	22,544,252 (b)	9,573,162
Silver—Specie ..	32,605	235,110	168,939	336,132	231,518
Bullion ..	847,635	649,767	583,498	639,206	958,619
Total ..	880,240	884,877	752,437	975,338	1,190,137
Bronze—Specie ..	70	21,969	49,677	14,489	7,122
Total—					
Australian Produce ..	27,748,839	15,018,664	12,118,880	22,291,422	9,174,601
Other Produce ..	10	279,594	575,906	1,242,657	1,595,820
GRAND TOTAL ..	27,748,849	15,298,258 (c)	12,694,786 (c)	23,534,079 (c)	10,770,421 (c)

(a) Includes £(G)2,001,116 gold pounds shipped overseas from the Gold Reserve of the Australian Notes Fund, estimated value in Australian currency, £A3,296,438, and in British currency, £stg.2,670,489. (b) Includes £(G)7,999,412 gold pounds shipped overseas from the Gold Reserve of the Australian Notes Fund, estimated value in Australian currency, £A14,082,352, and in British currency, £stg.11,265,636. (c) Australian currency values. The estimated British Currency values are: 1930-31, £stg.13,046,956; 1931-32, £stg.10,164,246; 1932-33, £stg.18,826,416; 1933-34, £stg.8,615,844.

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 1933-34.

IMPORTS AND EXPORTS OF SPECIE AND BULLION BY COUNTRIES.—AUSTRALIA, 1933-34.

Country.	Imports.			Exports.		
	Specie.	Bullion.	Total.	Specie.	Bullion.	Total.
	£	£	£	£	£	£
Australia (a) ..	56,292	..	56,292	..	..	..
United Kingdom ..	2,049	2,157	4,206	517,882	10,066,996	10,584,878
Canada ..	..	..	..	129	..	129
India and Ceylon ..	9	..	9	11	102,661	102,672
Malaya (British) ..	..	1,485	1,485	..	..	..
New Zealand ..	..	195,608	195,608	50,000	328	50,328
Pacific Islands—						
Fiji ..	..	12,700	12,700	..	282	282
Gilbert and Ellice Islands Colony ..	..	..	..	7	..	7
Papua ..	..	40,000	40,000	50	..	50
Solomon Islands ..	..	77	77	2,650	..	2,650
Samoa (British) ..	..	9	9	..	..	..
Territory of New Guinea ..	..	963,448	963,448	7,635	..	7,635
Union of South Africa ..	..	4,015	4,015	116	..	116
<b>Total, British Countries ..</b>	<b>58,350</b>	<b>1,219,499</b>	<b>1,277,849</b>	<b>578,480</b>	<b>10,170,267</b>	<b>10,748,747</b>
Pacific Islands—						
New Hebrides ..	..	..	..	816	..	816
Samoa (American) ..	..	..	..	..	6	6
United States of America ..	..	268	268	..	20,852	20,852
<b>Total, Foreign Countries ..</b>	<b>..</b>	<b>268</b>	<b>268</b>	<b>816</b>	<b>20,858</b>	<b>21,674</b>
<b>GRAND TOTAL ..</b>	<b>58,350</b>	<b>1,219,767</b>	<b>1,278,117</b>	<b>579,296</b>	<b>10,191,125</b>	<b>10,770,421</b>
			(b)			(c)

(a) Australian produce re-imported. The estimated Australian currency value is £A1,600,842.

(b) British currency value. The estimated Australian currency value is £stg.8,615,844.

### § 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 1932-33 and 1933-34 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.

## EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIAL ORIGIN.

## VALUE OF EXPORTS.

Industrial Group.	1913. (a)		1932-33.		1933-34.	
	£	Index No.	£	Index No.	£	Index No.
Agriculture .. ..	10,677,734	100	30,662,382	287	21,895,976	205
Pastoral .. ..	42,057,346	100	45,331,667	108	68,793,057	164
Dairy and Farmyard .. ..	3,854,734	100	11,700,621	304	10,375,003	269
Mines and Quarries (c) .. ..	21,926,310	100	10,442,752	48	12,834,559	59
Fisheries .. ..	424,849	100	292,608	69	249,781	59
Forestry .. ..	1,106,549	100	487,072	44	644,861	58
<b>Total, Primary Produce</b>	<b>80,047,522</b>	<b>100</b>	<b>98,917,102</b>	<b>124</b>	<b>114,793,237</b>	<b>143</b>
Manufacturing .. ..	2,304,693	100	3,959,554	171	4,773,355	207
<b>Total</b> .. ..	<b>82,352,215</b>	<b>100</b>	<b>102,876,656</b> (b)	<b>125</b>	<b>119,566,592</b> (b)	<b>145</b>

(a) Base year. (b) Recorded value; estimated British currency value, 1932-33, £stg.82,168,208. index number, 100; 1933-34, £stg.95,478,499, index number, 116. (c) Australian production of gold substituted for exports of gold each year.

2. **Relative Importance of Industrial Groups.**—In the previous table the value of commodities in each industrial group of exports of Australian produce is that recorded at date of shipment from Australia, with the exception that the value of the production of gold in Australia in each year has been substituted in the Mines and Quarries group for actual shipments of gold in each year. This has been done in order to eliminate the exports of gold for monetary purposes. In order of importance the pastoral group occupies 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 44.1 per cent. in 1932-33, and 57.6 per cent. in 1933-34. Exports of pastoral produce generally realized low prices during 1932-33 but during 1933-34 prices showed considerable improvement. Wool constitutes the greater part of the exports in the pastoral group and the increase in this group in 1933-34 was entirely due to the higher prices realized for this commodity.

Exports of agricultural produce rank next in importance. Compared with the previous year the value of agricultural exports was nearly nine millions lower in 1933-1934. This decrease was due to a reduction of about 48 per cent. in the quantity of wheat shipped and a small reduction in the average price in 1933-34. From 13.0 per cent. of the total exports in 1913, agricultural produce increased to 29.8 per cent. in 1932-33, but declined to 18.3 per cent. in 1933-34.

According to value, exports of dairy and farmyard produce increased from 4.7 per cent. in 1913 to 11.4 per cent. in 1932-33, but declined to 8.7 per cent. in 1933-34 following decreased prices for butter. Though the products of mines and quarries declined seriously subsequent to the year 1913, a partial recovery has been made in more recent years and the figures for 1933-34 disclose a further improvement of over two millions compared with 1932-33. The manufacturing group of exports, which represented 2.8 per cent. in 1913, increased to 3.8 per cent. in 1932-33, and 4.0 per cent. in 1933-34.



Compared with the year 1913, exports of agricultural produce in 1933-34 showed an increase of 105 per cent., pastoral produce 64 per cent., dairy and farmyard produce 169 per cent., the manufacturing group 107 per cent., and total exports 45 per cent. On the other hand, the exports of the products of mines and quarries and of fisheries and forests declined. Exports of the products of fisheries and forests during the period under review have never been relatively large and they show a dwindling contribution to the total exports.

3. Australian Production and Exports according to Industry.—The following table shows the total value of Australian Production and Australian Exports during the period of ten years, 1924-25 to 1933-34, classified according to industries; the proportion of each industrial group to total production and to total exports; and in the last column the percentage exported of the production of each industrial group:—

VALUE OF AUSTRALIAN PRODUCTION AND EXPORTS, ACCORDING TO INDUSTRY.

AUSTRALIAN CURRENCY VALUES.

Industrial Group.	Value of Production during Ten Years.	Percentage on Total Production.	Value of Exports during Ten Years.	Percentage on Total Exports.	Percentage Exported of the Production in each Industrial Group.
	£A1,000.	%	£A1,000.	%	%
Agriculture .. ..	336,885	21.33	307,645	25.30	36.76
Pastoral .. ..	969,237	24.72	646,364	53.16	66.68
Dairy and Farmyard .. ..	455,297	11.60	97,228	8.00	21.35
Mining .. ..	195,425	4.98	107,684	8.86	55.10
Forestry and Fisheries .. ..	107,191	2.74	15,750	1.29	14.69
Total, Primary Produce .. ..	2,564,035	65.37	1,174,671	96.61	45.81
Manufacturing .. ..	1,357,687	34.63	41,208	3.39	3.034
Total .. ..	3,921,722	100.00	1,215,879	100.00	31.002

(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 65.4 per cent. was classified as primary produce and 34.6 per cent. as manufactured articles. The main contributing groups in the primary produce section were pastoral with 24.7 per cent., agriculture with 21.3 per cent., and dairy and farmyard produce with 11.6 per cent. of the total production.

Exports of primary produce represented 96.6 per cent. of the total exports. The pastoral group, with 53.2 per cent. of the total, shows the highest percentage, followed by the agricultural group 25.3 per cent., the mining group 8.9 per cent. and the dairy and farmyard group 8.0 per cent. Exports of goods classified in the manufacturing group represented only 3.4 per cent. of the total.

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, 45·8 per cent. was exported. Over one-third of the agricultural production, over one-half of the mining production, and two-thirds of the pastoral production were sent abroad. Twenty-one per cent. of the produce of the dairy and farmyard group industry was exported.

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. External Trade of Australia and other Countries.

1. *Essentials of Comparisons.*—Direct comparisons of the external trade of any two countries are possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance, and charges may be added thereto. Again, the values of imports and exports in the one may be declared by merchants, whereas in the other they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of imports would arise from the different methods of converting the moneys of foreign countries, *i.e.*, from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium than that of other countries. France and the United Kingdom also re-export largely, whereas in Canada, Australia and New Zealand the same class of trade represents a comparatively small proportion of the total trade.

2. *"Special Trade" of Various Countries.*—Special trade may be defined according to the interpretation of the British Board of Trade, as (a) imports entered for consumption in the country (as distinguished from imports for transshipment or re-export), and (b) exports of domestic products.

In the following table the figures relate as nearly as possible to imports entered for consumption in the various countries specified, and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption, and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The figures relating to foreign countries have been extracted from the League of Nations Review of World Trade.

**IMPORTS FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS  
(MERCHANDISE ONLY), VARIOUS COUNTRIES, 1933.**

Country.	Trade.			Trade per Inhabitant.		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
	£1,000,000 Stg.	£1,000,000 Stg.	£1,000,000 Stg.	£ s. d. Stg.	£ s. d. Stg.	£ s. d. Stg.
Australia (a) ..	59.4	90.0	149.4	8 19 2	13 11 1	22 10 3
United Kingdom ..	626.8	366.6	993.4	13 9 11	7 17 11	21 7 10
Canada ..	87.1	127.6	214.7	8 7 11	12 5 11	20 13 10
India ..	86.5	108.8	195.3	0 4 11	0 6 2	0 11 1
New Zealand ..	20.3	32.6	52.9	13 4 8	21 5 1	34 9 0
Union of South Africa ..	50.5	91.6	142.1	6 1 6	11 0 6	17 2 0
Argentine Re- public ..	69.2	86.4	155.6	5 16 10	7 5 10	13 2 8
Austria ..	38.7	26.0	64.7	5 14 10	3 17 2	9 12 0
Belgium ..	124.3	118.2	242.5	15 2 8	14 7 10	29 10 0
China ..	83.4	37.8	121.2	0 3 6	0 1 7	0 5 1
Czechoslovakia ..	52.6	52.6	105.2	3 11 5	3 11 5	7 2 10
Denmark ..	54.7	51.7	106.4	15 3 1	14 6 5	29 9 0
France ..	337.7	218.8	556.5	8 1 4	5 4 7	13 5 11
Germany ..	301.1	349.1	650.2	4 12 7	5 7 4	9 19 11
Italy ..	117.9	95.2	213.1	2 16 5	2 5 6	5 1 11
Japan ..	114.9	110.6	225.5	1 4 2	1 3 4	2 7 6
Netherlands ..	147.2	88.3	235.5	17 19 9	10 15 10	28 15 7
Netherlands East Indies ..	40.5	57.7	98.2	0 13 4	0 19 0	1 12 4
Norway ..	33.3	27.8	61.1	11 14 1	9 15 5	21 9 6
Poland ..	27.8	32.6	60.4	0 17 0	1 0 0	1 17 0
Soviet Union (Russia) ..	55.0	78.9	133.9	0 6 8	0 9 6	0 16 2
Sweden ..	56.8	55.9	112.7	9 3 6	9 0 8	18 4 2
Switzerland ..	90.4	47.8	138.2	21 19 4	11 12 4	33 11 8
United States of America ..	336.2	386.9	723.1	2 13 9	3 1 9	5 15 0

(a) Year ended 30th June, 1934.

**§ 13. Trade of the United Kingdom with Australia compared with that of Competing Countries.**

**Proportion of Trade from United Kingdom and Competing Countries.**—The failure of the United Kingdom to maintain the position formerly held in the import trade of Australia has been a matter of more than ordinary interest for some years. Since 1908 permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From the 8th August, 1907, the Commonwealth Customs Tariffs have provided preferential rates of Customs Duties on certain goods the produce or manufacture of the United Kingdom, with the object of assisting the British manufacturer to retain or improve his position in this market, in relation to other countries. The main provisions in these Acts relating to preference are dealt with on previous pages in this Chapter.

In an investigation into the relative position occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. The imports to Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber, etc., which the United Kingdom could not supply. These items, in addition to others not available from that country, have, therefore, been omitted from the computation hereunder.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, Germany, Japan, and the United States. These countries have been selected as the principal competitors with the United Kingdom for the trade of Australia under the specified headings. Totals for the five years 1913 and 1930-31 to 1933-34 are shown in the table hereunder.

AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES.

BRITISH CURRENCY VALUES.

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	U.S. of America.	All Countries.
		£stg.	£stg.	£stg.	£stg.	£stg.	£stg.
Foodstuffs of animal origin	1913 ..	301,025	3,003	12,071	6,988	289,229	947,697
	1930-31	259,365	870	325	69,058	131,767	911,076
	1931-32	196,695	581	770	12,534	86,945	747,110
	1932-33	186,479	1,327	..	29,136	147,155	799,859
	1933-34	223,575	1,058	..	28,729	149,923	942,686
Spirituous and alcoholic liquors	1913 ..	1,227,561	343,394	143,426	1,689	2,805	1,947,248
	1930-31	488,775	20,456	784	6	159	530,166
	1931-32	198,357	11,730	108	3	1	231,938
	1932-33	402,322	27,883	1,310	..	64	460,437
	1933-34	473,620	49,707	2,020	..	233	554,474
Apparel, textiles, and manufactured fibres	1913 ..	12,254,561	961,025	1,712,395	475,973	623,542	19,935,750
	1930-31	7,913,673	673,087	448,170	1,641,178	744,615	15,868,259
	1931-32	7,359,720	565,332	331,373	1,689,969	430,851	13,831,502
	1932-33	9,319,633	585,188	408,584	2,466,327	262,847	17,323,363
	1933-34	8,753,708	378,838	336,385	2,501,039	247,267	15,994,563
Metals, metal manufactures, and machinery	1913 ..	13,995,483	217,148	2,380,152	7,657	3,817,705	21,670,212
	1930-31	7,167,809	57,010	629,340	21,602	2,967,405	12,338,793
	1931-32	4,206,065	51,043	362,035	36,482	1,294,220	6,559,798
	1932-33	6,485,948	54,136	474,428	95,452	1,784,015	10,128,134
	1933-34	8,253,238	34,449	567,653	133,018	2,485,077	13,049,590
Paper and stationery	1913 ..	1,789,577	21,930	266,483	10,656	403,679	3,134,750
	1930-31	2,838,433	181,026	138,365	14,343	384,099	4,565,813
	1931-32	2,306,655	100,685	108,434	22,084	293,961	3,861,802
	1932-33	2,522,615	67,238	116,995	41,022	234,166	4,251,636
	1933-34	2,679,052	50,465	117,399	39,776	198,605	4,304,303
Jewellery, time-pieces, and fancy goods	1913 ..	521,290	88,070	263,688	19,307	138,217	1,442,292
	1930-31	310,268	42,549	168,182	65,438	74,640	895,532
	1931-32	134,737	17,723	66,216	62,898	29,762	486,432
	1932-33	150,625	21,208	94,909	128,140	15,858	692,769
	1933-34	165,311	20,259	95,826	167,708	17,606	749,002
Earthenware, cements, glass, etc.	1913 ..	650,138	40,245	453,188	21,493	62,887	1,565,727
	1930-31	464,241	9,096	56,447	74,940	61,844	818,987
	1931-32	261,531	5,821	25,350	100,551	45,032	518,637
	1932-33	448,465	11,033	41,476	179,371	53,936	891,827
	1933-34	520,686	10,481	57,194	181,487	77,819	1,018,224
Drugs, chemicals, and fertilizers	1913 ..	1,020,647	245,426	304,179	139,178	210,758	2,721,902
	1930-31	1,094,371	320,574	247,625	24,323	452,695	3,069,287
	1931-32	1,100,644	253,006	254,998	45,171	433,623	2,670,688
	1932-33	1,359,671	261,253	319,804	143,889	605,615	3,687,498
	1933-34	1,413,095	258,929	300,523	101,558	490,347	3,384,857
Rubber and leather and manufactures thereof, and, substitutes therefor	1913 ..	485,216	68,686	347,045	688	433,837	1,717,035
	1930-31	225,955	5,696	37,229	897	121,190	769,959
	1931-32	177,711	5,240	42,798	4,167	81,941	668,101
	1932-33	197,365	8,306	27,678	17,791	71,489	644,782
	1933-34	176,566	7,861	24,992	20,829	60,975	743,636
Total, above-mentioned imports	1913 ..	32,155,498	1,989,017	5,882,627	683,629	5,982,659	55,082,613
	1930-31	20,762,980	1,310,364	1,726,467	1,912,285	4,938,414	39,797,372
	1931-32	15,942,115	1,011,161	1,192,082	1,973,850	2,695,336	29,576,008
	1932-33	21,073,123	1,037,572	1,485,184	3,101,128	3,175,145	38,880,305
	1933-34	22,658,851	812,047	1,501,992	3,174,144	3,727,852	40,741,341
Total Imports (less bullion and specie)	1913 ..	40,948,803	2,222,631	7,029,325	950,300	10,907,512	73,196,777
	1930-31	23,275,830	1,498,100	1,997,056	2,379,558	11,398,537	60,560,787
	1931-32	17,404,818	1,145,829	1,427,079	2,396,734	7,037,417	44,042,662
	1932-33	23,523,988	1,195,470	1,831,636	3,536,581	8,084,047	56,842,701
	1933-34	25,144,441	956,335	1,920,676	3,676,737	7,838,982	59,434,609

Stated as percentages the figures in the preceding table are shown below :—  
**AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES.—PERCENTAGES.**

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	U.S. of America.	All Countries.
		%	%	%	%	%	%
Foodstuffs of animal origin	1913 ..	31.77	0.33	1.27	0.74	30.52	100
	1930-31	28.47	0.10	0.04	7.58	14.46	100
	1931-32	26.33	0.07	0.10	1.68	11.64	100
	1932-33	23.31	0.17	0.00	3.64	18.40	100
	1933-34	23.72	0.11	0.00	3.05	15.90	100
Spirituous and alcoholic liquors	1913 ..	63.04	17.64	7.37	0.09	0.14	100
	1930-31	92.19	3.86	0.15	0.00	0.03	100
	1931-32	85.52	5.06	0.05	0.00	0.00	100
	1932-33	87.38	6.05	0.28	0.00	0.01	100
	1933-34	85.41	8.96	0.36	0.00	0.04	100
Apparel, textiles, and manufactured fibres	1913 ..	61.48	4.82	8.59	2.39	3.13	100
	1930-31	49.78	4.23	2.82	10.32	4.68	100
	1931-32	53.21	4.09	2.40	12.22	3.11	100
	1932-33	53.80	3.38	2.36	14.24	1.52	100
	1933-34	54.73	2.37	2.10	15.64	1.55	100
Metals, metal manufactures, and machinery	1913 ..	64.17	1.00	10.98	0.04	17.62	100
	1930-31	58.09	0.46	5.10	0.18	24.04	100
	1931-32	64.12	0.78	5.51	0.56	19.73	100
	1932-33	64.04	0.54	4.68	0.94	17.61	100
	1933-34	63.24	0.02	4.35	1.02	19.04	100
Paper and stationery	1913 ..	57.41	0.70	8.50	0.34	12.88	100
	1930-31	62.17	3.96	3.03	0.31	8.41	100
	1931-32	59.73	2.61	2.81	0.57	7.61	100
	1932-33	59.33	1.58	2.75	0.96	5.51	100
	1933-34	62.24	1.17	2.73	0.92	4.61	100
Jewellery, time-pieces, and fancy goods	1913 ..	36.14	6.11	18.28	1.34	9.58	100
	1930-31	34.64	4.75	18.78	7.31	8.33	100
	1931-32	27.70	3.64	13.61	12.91	6.12	100
	1932-33	21.74	3.06	13.70	18.50	2.29	100
	1933-34	22.07	2.70	12.79	22.39	2.35	100
Earthenware, cements, glass, etc.	1913 ..	41.52	2.57	28.94	1.37	4.02	100
	1930-31	56.68	1.11	6.89	9.15	7.55	100
	1931-32	50.43	1.12	4.89	19.39	8.68	100
	1932-33	50.29	1.24	4.65	20.11	6.05	100
	1933-34	51.14	1.03	5.62	17.82	7.64	100
Drugs, chemicals, and fertilizers	1913 ..	37.49	9.02	11.18	5.11	7.74	100
	1930-31	35.65	10.44	8.07	0.81	14.75	100
	1931-32	41.21	9.47	9.55	1.60	16.24	100
	1932-33	36.87	7.08	8.67	3.90	16.42	100
	1933-34	41.75	7.65	8.88	3.00	14.49	100
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	28.26	4.00	20.21	0.04	25.27	100
	1930-31	29.34	0.74	4.83	0.12	15.73	100
	1931-32	26.60	0.78	6.41	0.62	12.26	100
	1932-33	30.60	1.29	4.29	2.76	11.09	100
	1933-34	23.74	1.06	3.36	2.80	8.20	100
Total above-mentioned articles	1913 ..	58.38	3.61	10.68	1.24	10.86	100
	1930-31	52.17	3.29	4.34	4.80	12.41	100
	1931-32	53.90	3.41	4.03	6.67	9.12	100
	1932-33	54.20	2.67	3.82	7.98	8.17	100
	1933-34	55.62	1.99	3.69	7.79	9.15	100
Total imports (less bullion and specie)	1913 ..	52.37	2.84	8.99	1.22	13.95	100
	1930-31	38.43	2.47	3.30	3.93	18.82	100
	1931-32	39.52	2.60	3.25	5.44	15.98	100
	1932-33	41.38	2.10	3.22	6.22	14.22	100
	1933-34	42.31	1.61	3.23	6.19	13.19	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, declined each year to £29,576,008 in 1931-32 and increased to £38,880,305 in 1932-33 and to £40,741,341 in 1933-34. The principal classes of competitive imports are (a) apparel, attire and manufactured fibres (value £15,994,563 in 1933-34), and (b) metals, metal manufactures and machinery (value £13,049,596 in 1933-34). The value of goods included in these two groups represented 69 per cent. of the total value of competitive commodities during 1932-33, as compared with 71 per cent. during 1933-34.

Of the total value of competitive goods, the United Kingdom supplied 55.62 per cent. during 1933-34, as against 58.38 per cent. during 1913, and 54.20 per cent. in 1932-33. In six of the nine competitive groups of imports, the proportion supplied by the United Kingdom increased during 1933-34 as compared with the previous year. The groups which showed increased proportions were foodstuffs of animal origin; apparel; and textiles; paper and stationery; jewellery, timepieces and fancy goods; earthenware, cements, glass; and drugs, chemicals and fertilizers. In the three groups spirituous and alcoholic liquors, metals and machinery, and rubber and leather manufactures, the proportion of imports from the United Kingdom declined in 1933-34. The United Kingdom supplied Australia during 1933-34 with 85.41 per cent. of the total overseas purchases of spirituous and alcoholic liquors; 54.73 per cent. of apparel and attire; 62.24 per cent. of paper and stationery; 51.14 per cent. of earthenware, glassware, etc.; and 63.24 per cent. of metal manufactures and machinery. The proportion of the imports of metals, metal manufactures and machinery supplied by the United Kingdom decreased slightly compared with the previous year 1932-33.

The share of Japan in the competitive trade increased progressively from 1.24 per cent. in 1913 to 7.98 per cent. in 1932-33, but showed a slight decline to 7.79 per cent. in proportion to other countries in 1933-34. Imports from Japan increased proportionately in the following five groups:—Apparel, textiles, etc., metals and machinery, jewellery and fancy goods, earthenware, cements, glass, etc., and rubber and leather. The most important classes of competitive goods imported from Japan are as follow:—Silk piece goods, cotton and linen piece goods, crockery, fancy goods and sulphur. The total value of imports from Japan in the competitive groups during 1933-34 was £3,174,144, and of this total silk piece goods valued at £1,520,978 represented 48 per cent., and cotton and linen piece goods valued at £580,617 represented 18 per cent., or together 66 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 in 1928-29, but declined sharply to 19.14 per cent. in 1929-30. A further decline in each of the three years following reduced the percentage to 8.17 in 1932-33. In the next year, 1933-34, a slight improvement to 9.15 per cent. was recorded. In the latest pre-war year (1913) the value of goods from the United States in the competitive groups was £5,982,659, and in 1933-34, £3,727,852. The groups of commodities in which United States sales to Australia increased during 1933-34 were foodstuffs of animal origin, metals and metal manufactures, jewellery and fancy goods, and earthenware, cement, glass, etc. Imports of machinery and metal manufactures (including motor vehicles) from the United States declined heavily from £16,472,338 in 1928-29 to £1,784,015 in 1932-33, but increased to £2,485,077 in 1933-34.

The position of France declined from 3.61 per cent. in 1913 to 1.99 per cent. in 1933-34. Apparel, textiles, and drugs, chemicals and fertilizers are the most important imports from France.

The proportion of the imports supplied by Germany in 1913 was 10.68 per cent. as compared with 58.38 per cent. from the United Kingdom; 3.61 per cent. from France; 1.24 per cent. from Japan; and 10.86 per cent. from the United States. From 1918-19 to 1921-22 imports from Germany were on a very small scale, but have increased since the latter year. The percentage of the imports for 1933-34 was 3.69 per cent., as compared with 0.86 per cent. in 1923-24. The principal classes of imports from Germany are manufactured metals and machinery, apparel and textiles, and drugs and chemicals.

The percentages for the total value of competitive goods decreased in the year 1933-34 for France, Germany and Japan, and increased for the United Kingdom and the United States of America. The greatest decrease is shown in the percentage imported from France, which fell from 2.67 per cent. in 1932-33 to 1.99 per cent. in 1933-34, while the United States of America had the greatest increase, from 8.17 per cent. in 1932-33 to 9.15 per cent. in 1933-34.

## § 14. Oversea Trade in Calendar Years.

For the purpose of comparison with countries which record oversea trade in calendar years the following table has been compiled to show Australian imports and exports for each quarter of the calendar years 1931 to 1934.

## OVERSEA TRADE, AUSTRALIA.—CALENDAR YEARS.

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£1,000 (S).	£1,000.	£1,000 (S).	£1,000.	£1,000 (S).	£1,000.
QUARTER ENDED 31ST MARCH.						
1931 ..	12,782	{ (R) 24,299 (S) 19,116 }	139	{ (R) 1,224 (S) 1,224 }	12,921	{ (R) 25,523 (S) 20,340 }
1932 ..	10,518	{ (R) 27,946 (S) 22,270 }	158	{ (R) 2,505 (S) 2,027 }	10,676	{ (R) 30,451 (S) 24,297 }
1933 ..	13,505	{ (R) 30,429 (S) 24,295 }	348	{ (R) 16,608 (S) 13,285 }	13,853	{ (R) 47,037 (S) 37,580 }
1934 ..	14,732	{ (R) 32,953 (S) 26,310 }	318	{ (R) 2,663 (S) 2,130 }	15,050	{ (R) 35,616 (S) 28,440 }
QUARTER ENDED 30TH JUNE.						
1931 ..	9,422	{ (R) 21,745 (S) 16,054 }	99	{ (R) 4,762 (S) 4,762 }	9,521	{ (R) 26,507 (S) 21,416 }
1932 ..	12,283	{ (R) 21,805 (S) 17,374 }	230	{ (R) 5,818 (S) 4,712 }	12,513	{ (R) 27,623 (S) 22,086 }
1933 ..	12,930	{ (R) 20,895 (S) 16,683 }	273	{ (R) 2,527 (S) 2,020 }	13,203	{ (R) 23,422 (S) 18,703 }
1934 ..	15,942	{ (R) 18,460 (S) 14,288 }	343	{ (R) 2,900 (S) 2,770 }	16,285	{ (R) 21,360 (S) 17,058 }
QUARTER ENDED 30TH SEPTEMBER.						
1931 ..	10,222	{ (R) 16,029 (S) 12,284 }	144	{ (R) 2,044 (S) 1,591 }	10,366	{ (R) 18,073 (S) 13,875 }
1932 ..	15,090	{ (R) 16,582 (S) 13,239 }	299	{ (R) 2,377 (S) 1,903 }	15,389	{ (R) 18,959 (S) 15,142 }
1933 ..	14,091	{ (R) 21,943 (S) 17,520 }	333	{ (R) 2,490 (S) 1,992 }	14,424	{ (R) 24,433 (S) 19,512 }
1934 ..	18,686	{ (R) 17,428 (S) 13,915 }	434	{ (R) 2,631 (S) 2,105 }	19,120	{ (R) 20,059 (S) 16,020 }
QUARTER ENDED 31ST DECEMBER.						
1931 ..	11,019	{ (R) 29,929 (S) 23,257 }	139	{ (R) 2,328 (S) 1,834 }	11,158	{ (R) 32,257 (S) 25,091 }
1932 ..	15,318	{ (R) 29,503 (S) 23,555 }	250	{ (R) 2,022 (S) 1,617 }	15,568	{ (R) 31,525 (S) 25,172 }
1933 ..	14,849	{ (R) 39,576 (S) 31,598 }	284	{ (R) 2,718 (S) 2,174 }	15,133	{ (R) 42,294 (S) 33,772 }
1934 ..	18,553	{ (R) 30,669 (S) 24,487 }	438	{ (R) 2,983 (S) 2,385 }	18,991	{ (R) 33,652 (S) 26,872 }
TOTAL FOR YEAR.						
1931 ..	43,445	{ (R) 92,002 (S) 71,311 }	521	{ (R) 10,358 (S) 9,411 }	43,966	{ (R) 102,360 (S) 80,722 }
1932 ..	53,209	{ (R) 95,836 (S) 76,438 }	937	{ (R) 12,722 (S) 10,259 }	54,146	{ (R) 108,558 (S) 86,697 }
1933 ..	55,375	{ (R) 112,843 (S) 90,096 }	1,238	{ (R) 24,343 (S) 19,471 }	56,613	{ (R) 137,186 (S) 109,567 }
1934 ..	67,913	{ (R) 99,510 (S) 79,000 }	1,533	{ (R) 11,177 (S) 9,390 }	69,446	{ (R) 110,687 (S) 88,390 }

(R) Recorded values.

(S) British currency values.

§ 15. Excise.

Although excise goods have no immediate bearing on oversea trade the rates of excise duty are in some cases related to the import duty on similar goods. Moreover as the Excise Acts are administered by the Department of Trade and Customs it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of Customs and Excise Revenue are shown in Chapter XVI.—Public Finance. B. § 2.

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID.—AUSTRALIA.

Article.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Spirits—	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.
Brandy (Pure Australian Standard Brandy) ..	210,309	139,378	143,297	146,152	} 166,229
Brandy (Blended Wine Brandy, etc.) ..	1,337	339	1,103	334	
Gin (Distilled from Barley, Malt, Grain, or Grape Wine, etc.) ..	118,476	148,891	137,353	148,930	169,776
Whisky (Australian Standard Malt Whisky) ..	265,905	150,225	142,107	139,259	} 143,217
Whisky (Australian Blended Whisky)	278	5	67	..	
Rum (Australian Standard Rum) ..	487,024	287,733	283,129	280,985	318,058
Liqueurs .. ..	852	838	1,148	1,956	2,833
Spirits, n.e.i. ..	172	44	148	50	25
Spirits for Industrial or Scientific Purposes ..	124,636	93,205	98,738	97,409	104,198
Spirits for Fortifying Wine (Distilled from Doradillo Grapes) ..	258,827	238,607	280,365	216,093	} 662,103
Spirits for Fortifying Wine	502,061	296,044	450,624	188,484	
Spirits for making Vinegar Amylic Alcohol and Fusel Oil .. ..	39,426	37,283	29,906	19,014	15,820
Concentrated Grape Must ..	115	200	69	14	25
Total, Spirits ..	2,009,418	1,415,016	1,582,203	1,247,064	1,592,179
Spirit for manufacture of Scents, etc. .. ..	liq. gal. 44,113	liq. gal. 39,641	liq. gal. 40,967	liq. gal. 39,515	liq. gal. 44,805
Beer .. ..	gal. 65,095,178	gal. 52,459,070	gal. 47,667,903	gal. 48,981,805	gal. 53,301,143
Tobacco — Manufactured, n.e.i. .. ..	lb. 13,859,202	lb. 13,180,577	lb. 13,370,263	lb. 13,597,478	lb. 13,735,473
Tobacco—Hand-made ..	206,161	147,537	122,566	75,198	152,451
Tobacco—Fine-cut, suitable for Cigarettes ..	2,991	532	..	..	..
Total, Tobacco ..	14,068,354	13,328,646	13,492,829	13,672,676	13,887,924
Cigars—Machine-made ..	48,627	53,349	39,582	41,097	46,131
Cigars—Hand-made ..	287,618	257,019	199,120	191,808	214,067
Total, Cigars ..	336,245	310,368	238,702	232,905	260,198



QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY  
WAS PAID—AUSTRALIA—*continued.*

Article.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	lb.	lb.	lb.	lb.	lb.
Cigarettes—Machine-made	5,243,588	4,324,679	4,054,064	4,455,456	4,517,558
Cigarettes—Hand-made ..	463	403	826	612	440
<b>Total, Cigarettes ..</b>	<b>5,244,051</b>	<b>4,325,082</b>	<b>4,054,890</b>	<b>4,456,068</b>	<b>4,517,998</b>
Cigarette Tubes and Papers ..	..	..	60 papers or tubes. 1,579,456	60 papers or tubes. 43,819,859	60 papers or tubes. 69,637,478
Matches .. .. .	..	..	gross of boxes. 333,190	gross of boxes. 2,909,390	gross of boxes. 3,086,433
Petrol .. .. .	gal. 16,815,600	gal. 19,402,032	gal. 19,044,324	gal. 20,130,190	gal. 23,351,682
Playing Cards .. .. .	doz. packs. 1,200	doz. packs. 104,331	doz. packs. 111,719	doz. packs. 116,341	doz. packs. 109,079

### § 16. Interstate Trade.

Prior to the federation of the Australian Colonies (now States), each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Commonwealth Government under the provisions of the Constitution Act (Section 93). On the expiry of the "book-keeping" period, these records were discontinued as from 13th September, 1910, and the latest published statements were for the year 1909. Later the Governments of Western Australia and Tasmania revived the records, and statistics of the subject are available again for those States.

At the Conference of Statisticians held in January, 1928, it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities.

The Government Statist for South Australia publishes some figures for that State made up from the records of Western Australia and Tasmania, and from various other sources. The statistics of interstate trade for New South Wales, Victoria and Queensland are very meagre. The Melbourne Harbour Trust publishes, in its annual report, the quantities of various commodities of interstate trade loaded and discharged in the Port of Melbourne. The trade with individual States is not disclosed.

## CHAPTER VIII. EDUCATION.

### § 1. Evolution of Educational Systems in Australia.

1. *Educational Systems of the States.*—(i) *Place of New South Wales in Australian Education.* The first settlement in Australia being in New South Wales, it is but natural that Australian Education should have had its beginning in that State. In the evolution of educational method and system in Australia, New South Wales also has played a leading part, and has had practically a dominating influence. The subject is dealt with in some detail in No. I. and No. II. issues of the Official Year Book, but it is not repeated in the present volume. (See also par. 2 hereunder.)

(ii) *Educational Systems of other States.* A more or less detailed account of the origin and development of the educational systems of the other States also appears in No. I. and No. II. issues of the Year Book.

(iii) *Medical Inspection of State School Children.* See Chapter XI.—Public Hygiene.

2. *Later Development in State Educational Systems.*—Preceding issues of the Official Year Book contained an outline of later developments of the educational systems of the various States (see No. 22, pp. 426–29), but owing to the necessity for economy it was not found possible to repeat this information in subsequent volumes.

Allusion, however, may be made here to an interesting experiment tried in New South Wales in 1932. For many years, special consideration has been given to the backward child, but it has recently been recognized that, at the other extreme, the pupil of outstanding ability was also entitled to some special consideration. Children of superior ability were, therefore, selected by means of psychological and scholastic tests and grouped in classes where every opportunity is given them to progress at a rate in accordance with their natural ability. Special sixth classes for boys and girls were established at two of the metropolitan schools in 1932, and the scheme was extended in 1933 to include special fifth classes. Thus, on completion of the primary course, the pupils will have the benefit of two years in special classes.

As pointed out in previous issues, the educational system of New South Wales may now be considered as a more or less homogeneous entity, the various stages succeeding one another by logical gradation from kindergarten to university. In the other States development is proceeding on somewhat similar lines, activity in this respect being greatly helped by interstate conferences of directors of education and of inspectors and teachers as well as by the Council alluded to in par. 4 hereunder. At the Tenth Biennial Conference of Directors of Education held in Hobart in April, 1934, a comprehensive agenda was discussed, including matters affecting teachers generally, schools and courses, curriculum revision, extra-curricular activities, post-primary problems, vocational guidance and unemployment, educational research, school fees and uniformity in statistics.

3. *School Age.*—The statutory school age for children in each State, set out briefly, is as follows :—New South Wales, 7 to 14 years ; Victoria, 6 to 14 years ; Queensland, 7 to 14 years ; South Australia, 6 to 14 years ; Western Australia, 6 to 14 years ; and Tasmania, 7 to 14 years.

It is provided in some States that in cases where any child is living outside stated distances from a State school, the age at which the child must commence school is increased. Provision is also made that a scholar having attained a certain standard may leave school before reaching the statutory leaving age.

4. *Australian Council for Educational Research.*—This Council, which was constituted on 10th February, 1930, is financed by the Carnegie Corporation of New York which has undertaken to provide payments at the rate of £7,500 a year for a ten year period. The Council consists of nine members, of whom six are elected by State

Institutes for Educational Research which have been established in each of the Australian States. One full meeting of the Federal body is held each year. The publications of the Council appear in the form of a Research Series published by the Melbourne University Press. Up to the end of 1934, 31 numbers had appeared. Since its inception the Council has granted 117 applications for assistance to persons who wished to carry out investigations, or have their works published. During the same period, the Council itself initiated a number of investigations. Expenditure on grants to the end of June, 1934, amounted to £10,250. In addition to organizing and supporting research, the Council acts as a centre for the collection and dissemination of information concerning Australian education. The Council was instrumental in arranging for the survey of Australian libraries conducted for the Carnegie Corporation during 1934 by Mr. Ralph Munn and Mr. E. R. Pitt. The Council published the report based on this survey. The Council is recognized, by the Institute of Intellectual Co-operation, Paris, as the National Centre for Educational Information in Australia. It also acts as the Australian representative of the Institute of International Education, New York. The head-quarters of the Council are situated at 145 Collins-street, Melbourne.

5. **Imperial Educational Conference.**—A meeting of the Advisory Committee was held in London in June, 1931. No formal resolutions were passed, but it was decided that the next meeting of the Conference should be held in July, 1933, and that the main subjects for consideration should be the more practical aspects of education, including the relation of education to industry and the development of technical, commercial and agricultural education. Provision for greater facilities for post-graduate research in educational theory and practice, for interchanges of teachers, etc., were also included amongst the subjects for discussion, but the meeting was postponed indefinitely.

## § 2. State Schools.

1. **General.**—The State Schools, or, as they are sometimes termed, the "public" schools, of Australia comprise all schools directly under State control, in contradistinction to the so-called "private" schools, the bulk of which, though privately managed, nevertheless cater for all classes of the community. Separate information regarding Technical Education is given in § 6, but the junior technical schools are included hereunder. The returns include figures relating to correspondence schools as well as subsidized schools, but evening schools and continuation classes where such are in existence, are not included, but are dealt with separately in par. 4 (iv) hereinafter.

2. **Returns for Year 1933.**—(i) *General.* The following table shows the number of State Schools, together with the teachers employed and the enrolment and average attendance in each State during the year 1933 :—

### STATE SCHOOLS.—RETURNS, 1933.

State or Territory.	Schools.	Teachers.	Enrolment.	Average Attendance.	Percentage of Attendance on Enrolment
New South Wales (a) ..	3,395	12,479	361,322	316,404	87.6
Victoria ..	2,756	9,112	241,274	215,527	89.3
Queensland ..	1,714	4,251	143,398	110,962	77.4
South Australia ..	1,076	3,202	89,639	77,350	86.3
Western Australia ..	882	2,261	59,747	54,584	91.4
Tasmania ..	514	1,263	33,463	30,191	90.2
Northern Territory ..	6	13	357	316	88.5
<b>Australia ..</b>	<b>10,343</b>	<b>32,581</b>	<b>929,200</b>	<b>805,334</b>	<b>86.7</b>

(a) Including Federal Capital Territory.

It would appear from the steadiness of the returns during the last four years that the percentage of attendance on enrolment is approaching its maximum under present conditions in Australia. Recurring epidemics of contagious diseases, minor illnesses, bad weather and long distances are all serious factors limiting the full attendance of pupils at school.

The methods of calculating enrolment are not quite identical throughout the States, but the figures may be taken as representing the net number on the rolls after allowing for repeated enrolments. The matter of securing uniformity in this respect has been under consideration for some time, and the Educational Research Council, alluded to in § 1, 4 *ante*, is devoting attention to the question of securing greater uniformity in methods of collection and presentation of educational data generally.

(ii) *Schools in the Federal Capital Area.*—(a) *General.* During the year 1933 fourteen State Schools were in operation in the Federal Capital Territory. The individual pupils enrolled numbered 1,502 and the average attendance 1,158. Cost of upkeep amounted to £12,073. By arrangement with the Federal Government these schools are conducted by the New South Wales Education Department in the same way as the ordinary State Schools, the Department being recouped for expenditure. Ample provision has been made for both primary and secondary education, and this will be increased to meet requirements. The figures quoted, other than expenditure, do not include enrolment, etc., at the Trade School and the Evening Continuation School.

(b) *The Canberra University College* (see § 5 hereinafter).

3. *Average Attendance.*—The average attendance at the State Schools in Australia is shown below for the years 1891, 1901, 1911, 1921, and for each year of the period 1929 to 1933:—

STATE SCHOOLS.—AVERAGE ATTENDANCE.—AUSTRALIA.

Year.	Total Population. (a)	Average Attendance.	Year.	Total Population. (a)	Average Attendance.
1891 .. ..	3,421	350,773	1930 .. ..	6,501	801,729
1901 .. ..	3,825	450,246	1931 .. ..	6,553	817,262
1911 .. ..	4,574	463,799	1932 .. ..	6,605	818,566
1921 .. ..	5,511	666,498	1933 .. ..	6,657	805,334
1929 .. ..	6,437	777,626			

(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 were:—1891, 455; 1901, 464; 1911, 477; 1921, 544; and 1933, 585. Although other factors might have affected the results in a minor degree it would appear that considerable improvement has taken place in school attendance during the last twenty years.

4. *Distribution of Educational Facilities.*—(i) *In Sparsely-settled Districts.*—(a) *General.* The methods adopted in the various States to carry the benefits of education into the remotest and most sparsely-settled areas are set out in some detail in previous issues of the Official Year Book (see No. 22, pp. 430-31), but limitations of space preclude their repetition in the present volume. (b) *Correspondence Teaching.* Teaching by correspondence has been adopted to meet the needs of children out of reach of the ordinary means of education, including those incapacitated from attending school by reason of physical ailment. Over 16,100 children received instruction in this way during 1933, the respective numbers in each State being New South Wales, 5,300; Victoria, 1,000; Queensland, 5,775; South Australia, 1,681; Western Australia, 2,135; Tasmania, 259. In the Northern Territory, 23 children received tuition by correspondence during the year.

(ii) *Centralization of Schools.* The question of centralization of schools adopted so successfully in America and Canada has received some attention in Australia, and particularly in New South Wales. It is recognized that a single adequately staffed and well equipped central institution can give more efficient teaching than a congeries of small scattered schools in the hands of less highly trained teachers, and the small schools in some districts were therefore closed and the children conveyed to the central institution. The principle was first adopted in New South Wales in 1904, and in 1933 a sum of £18,481 was expended in boarding allowance and conveyance to central schools. Cost of conveyance to State Schools in Victoria during 1933 was returned as £11,073. In South Australia the sum of £14,805 was disbursed in connexion with travelling expenses of school children in 1933, while £14,162 was spent in Western Australia, and £4,844 in Tasmania. (It may be pointed out, however, that the parents are often reluctant to part with the small schools which form, as it were, "heart centres" in their little community, while the kindly help of the teachers is a great asset in the social and intellectual life of the districts served by the schools.)

(iii) *Education of Backward and Defective Children.* This subject was alluded to at some length in preceding issues of the Official Year Book (see No. 22, pp. 431-2), but owing to limitations of space, the information could not be repeated in later issues.

(iv) *Evening Schools.* Evening Public Schools have been in existence for many years in some of the States, but their progress has been uncertain. In New South Wales the 38 Evening Continuation Schools had an average weekly enrolment in 1933 of 4,856 and an average attendance of 3,788. The schools are divided into three groups, junior technical, domestic science, and commercial. Attendances at the schools for boys numbered 2,493, and at those for girls 1,290. 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), but considerations of space preclude the repetition of this information herein.

(vi) *Agricultural Training in State Schools.* Extended reference to the methods adopted in the teaching of agriculture in State Schools was incorporated in preceding Official Year Books (see No. 22, pp. 434-7).

5. *Teachers.*—The distribution of the teaching staff in the State Schools during the year 1933, including teachers of needlework, was as follows:—

## STATE SCHOOLS.—TEACHING STAFF, 1933.

State.	Principal Teachers.		Assistants.		Pupil or Junior Teachers.		Sewing Mis-tresses.	Total.		
	Males.	Fem.	Males.	Fem.	Males.	Fem.		Males.	Fem.	Total.
New South Wales	3,332	1,722	2,296	4,946	..	..	183	5,628	6,851	12,479
Victoria ..	1,953	748	1,294	2,791	740	1,241	345	3,987	5,125	9,112
Queensland ..	1,219	603	899	1,518	9	3	..	2,127	2,124	4,251
South Australia	779	349	560	1,124	45	51	294	1,384	1,818	3,202
Western Australia	502	389	237	752	56	165	160	795	1,466	2,261
Tasmania ..	259	285	115	443	21	137	3	395	868	1,263
Northern Territory	1	1	3	4	..	4	..	4	9	13
Total ..	8,045	4,097	5,404	11,578	871	1,601	985	14,320	18,261	32,581

The figures for principal teachers include mistresses of departments, while students in training colleges, visiting teachers, and teachers of special subjects have been grouped with assistants. This group also includes in the case of Queensland about 50 junior technical school teachers. Hitherto some of the teachers in charge of small schools had very little training, but appointments are now confined as far as possible to those who have gone through a regular course of instruction.

It will be observed that there is a fairly large number of junior teachers, or pupil teachers, as they are called in some of the States. Although expert pedagogical opinion throughout the world is against the pupil-teacher system, motives of practical expediency compel its retention, or some modification thereof, in most countries.

In New South Wales the educational authorities were faced with the serious problem in 1932 of providing for some hundreds of students who had completed their courses of training at the Teachers' Colleges but for whom no vacancies were available. The position was, to some extent, met by terminating, under the provisions of the Married Women (Lecturers and Teachers) Act, the services of a number of married women whose husbands were in a position to support them, and by employing on part time as many students as possible until full time employment became available during 1933.

6. **Training Colleges.**—The development of the training systems of the various States has been alluded to at some length in earlier issues of the Year Book (see No. 22, pp. 437-9), but considerations of space will not permit its repetition.

7. **Expenditure.**—(i) *Maintenance—All Schools.* The net expenditure on maintenance in all grades of schools, excepting senior technical schools, and the cost per head of average attendance for the five years ended 1933 are shown in the following table. The figures do not include expenditure on buildings, which is given separately in a subsequent table. In the case of Queensland allowance has been made in calculating cost per head of average attendance for the number of State scholarship holders attending non-State schools.

#### STATE SCHOOLS.—EXPENDITURE ON MAINTENANCE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
<b>TOTAL (INCLUDING SECONDARY SCHOOLS).</b>								
	£	£	£	£	£	£	£	£
1929	4,282,083	2,536,674	1,547,076	813,485	633,306	269,202	5,744	10,087,570
1930	3,996,517	2,445,861	1,514,456	792,981	648,508	269,764	5,626	9,673,713
1931	3,781,614	2,145,573	1,168,195	762,934	472,318	227,466	5,686	8,563,786
1932	3,529,989	2,099,758	1,251,037	702,306	523,010	206,957	4,471	8,317,528
1933	3,267,223	2,098,686	1,296,206	703,722	543,517	203,860	4,303	8,117,517
<b>PER HEAD OF AVERAGE ATTENDANCE.</b>								
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1929	14 6 8	12 4 10	13 6 3	10 13 3	12 10 11	9 12 0	24 17 4	13 0 10
1930	12 12 10	11 9 7	12 17 11	10 2 0	12 11 4	9 3 6	31 19 4	12 1 4
1931	11 14 3	9 18 11	9 17 2	9 14 1	8 16 2	7 10 0	15 18 3	10 9 2
1932	10 18 8	9 14 4	10 10 6	8 19 4	9 15 4	6 19 11	15 19 4	10 3 3
1933	10 6 6	9 14 9	11 10 10	9 1 9	9 19 2	6 15 1	13 12 4	10 1 7

The expenditure on State Schools which had been on a rising scale for some years in all States reached its maximum in 1929. The subsequent reduction of expenditure merely reflects the financial stringency which compelled the reduction of teachers' salaries, in common with those of other public servants, and of public expenditure generally.

(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 above enumerated. Expenditure for Victoria and Western Australia in the three following tables relates to the year ended 30th June, 1934.

**STATE SECONDARY SCHOOLS.—EXPENDITURE ON MAINTENANCE, 1933.**

State.	Cost.		Cost Per Head of Population.
	£	s. d.	
New South Wales .. .. .	506,123	3 10	
Victoria .. .. .	291,361	3 2	
Queensland .. .. .	113,137	2 5	
South Australia .. .. .	102,592	3 6	
Western Australia .. .. .	123,900	5 8	
Tasmania .. .. .	17,519	1 6	

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 £89,173. For Queensland, the figure quoted does not include the cost of the Agricultural High School and College, which amounted in 1933 to £17,868. For Western Australia the total includes £76,390 on account of "post primary" education.

(iii) *Buildings.* Expenditure on school buildings exclusive of Technical Colleges in each of the years quoted was as follows:—

**STATE SCHOOLS.—EXPENDITURE ON BUILDINGS.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
1929	772,296	360,262	127,504	111,137	76,025	32,801	..	1,480,025
1930	488,776	114,826	110,196	68,006	63,578	23,065	920	869,367
1931	416,217	43,817	44,462	22,471	56,267	10,719	122	594,075
1932	178,532	51,947	152,792	33,822	40,424	4,718	122	462,357
1933	360,194	94,850	213,181	52,697	52,955	9,926	156	783,959

The total for New South Wales for 1933 includes an amount of £219,000 expended from loan funds, compared with £52,000 in 1932. Loan expenditure for the year in other States was as follows:—Victoria, £58,000; Queensland, £144,000; South Australia, £34,000; Western Australia, £46,000; and Tasmania, £2,600.

(iv) *Total.* The net total cost during the year 1933 was as follows :—

**STATE SCHOOLS.—NET TOTAL COST, 1933-34.**

Item.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
Net cost of education, including buildings	£ 3,627,417	£ 2,193,536	£ 1,509,387	£ 756,419	£ 596,472	£ 213,786	£ 4,459	£ 8,901,476

The figures in this and the preceding tables refer to all grades of State Schools (with the exception of senior technical schools). Including buildings, the net cost per scholar in average attendance for the whole of the State schools in Australia amounted in 1933 to £10 18s. 4d., as compared with £4 9s. 3d. in 1901.

8. **School Savings Banks.**—In New South Wales at the 30th June, 1934, there were 132,286 depositors at 2,154 schools, having at credit £146,312. In Victoria banks were in operation at 2,669 schools at the 30th June, 1934. On the same date the number of depositors amounted to 181,503 and balances at credit to £279,119. School Savings Banks began operations in Queensland in July, 1928, and at the 30th June, 1934, there were 81,505 depositors, who had balances amounting to £121,469. In South Australia, there were 71,888 depositors at the end of 1934 in 1,207 banks with £112,370 to their credit; and in Western Australia, there were 798 school banks, with 64,309 depositors and £73,420 to their credit.

### § 3. Private Schools.\*

1. **Returns for 1933.**—The following table shows the number of private schools, together with the teachers engaged therein, and the enrolment and average attendance in 1933 :—

**PRIVATE SCHOOLS, 1933.**

State.	Schools.	Teachers.	Enrolment.	Average Attendance.
New South Wales .. .. .	751	4,682	94,446	80,282
Victoria .. .. .	508	2,400	67,861	57,900
Queensland .. .. .	195	1,199	28,631	24,161
South Australia .. .. .	180	856	13,461	11,875
Western Australia .. .. .	140	552	11,631	10,676
Tasmania .. .. .	67	308	6,498	5,008
Northern Territory .. .. .	1	5	97	82
Total .. .. .	1,842	10,002	222,625	189,984

The figures for Queensland include the returns from Grammar Schools, of which there are ten—six for boys and four for girls, with an enrolment of 1,123 boys and 523 girls. These schools are governed by boards of trustees, partly nominated by 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 1933 amounted to £13,800. In addition, a sum of £11,778 was received by way of fees for the tuition of State scholarship holders. The Grammar schools are inspected annually by officers of the Department of Public Instruction.

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



2. **Growth of Private Schools.**—The enrolment and average attendance at private schools during 1891, 1901, 1911, 1921, and in each year of the period 1929 to 1933 were as follow :—

**PRIVATE SCHOOLS.—ENROLMENT AND ATTENDANCE.**

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891 .. ..	124,485	99,588	1930 .. ..	242,024	193,691
1901 .. ..	148,659	120,742	1931 .. ..	221,387	189,665
1911 .. ..	160,794	132,588	1932 .. ..	220,723	188,912
1921 .. ..	198,688	164,073	1933 .. ..	222,625	189,984
1929 .. ..	242,077	189,018			

3. **Registration of Private Schools.**—Conditions in regard to the registration of private schools were alluded to in previous Year Books (*vide* No. 18, p. 451), but considerations of space preclude the repetition of this information in the present issue.

**§ 4. Free Kindergartens.**

The following information regarding Free Kindergartens has been compiled from particulars supplied by the principals of the chief institutions or the organizing secretary in each State, except in the case of Western Australia where the details were furnished by the Education Department.

**FREE KINDERGARTENS, 1934.**

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistants.
New South Wales .. ..	16	921	42	96	80
Victoria .. ..	29	1,702	67	46	209
Queensland .. ..	6	(a) 460	9	20	3
South Australia .. ..	10	412	13	27	19
Western Australia .. ..	7	316	14	11	12
Tasmania .. ..	3	118	3	4	1
Total .. ..	71	3,929	148	204	324

(a) Estimate.

The kindergartens in the above table are all in the metropolitan areas of the various States, with the exception of three country centres, two at Geelong and one at Ballarat, which are included in the Victorian returns. The attendance at these country schools in 1934 was approximately 175 children. In each capital city there is a training college and the number of students in training during 1934 was 96 in Sydney, 46 in Melbourne, 20 in Brisbane, 40 in Adelaide, 11 in Perth, and 4 in Hobart.

The information given above refers to institutions under private kindergarten unions or associations, and is exclusive of the kindergarten branches in the Government schools of the various States.

### § 5. Universities.

1. **Origin and Development.**—A brief account of the origin and development of the Universities in the various States is given in preceding issues of the Official Year Book (see No. 22, pp. 442-3), but this information is not repeated herein.

2. **Teachers and Students.**—The following table shows the number of professors and lecturers, and the students in attendance at each of the State Universities during the year 1933:—

#### UNIVERSITIES.—TEACHERS AND STUDENTS, 1933.

University.	Professors.	Lecturers and Demonstrators.	Students attending Lectures.		
			Matriculated.	Non-matriculated.	Total.
Sydney .. .. .	47	175	2,615	343	2,958
Melbourne .. .. .	34	143	..	..	(a) 2,890
Queensland (Brisbane) .. .. .	14	47	757	118	875
Adelaide .. .. .	17	107	1,164	959	(b) 2,123
Western Australia (Perth) .. .. .	14	(c) 39	778	2	780
Tasmania (Hobart) .. .. .	9	18	174	44	218

(a) Exclusive of 205 students at Conservatorium of Music. (b) Exclusive of 313 students at Conservatorium of Music. (c) Including 21 part-time Lecturers.

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

3. **University Revenue.**—The income of the Universities from all sources during the year 1933 was as shown in the table below. The figures in the column "private foundations" refer to income received from foundations, the cash value of benefactions received during the year being shown separately in the appended note.

#### UNIVERSITIES.—REVENUE, 1933.

University.	Government Grants.		Fees.	Private Foundations. (a)	Other.	Total.
	Endowment.	Other.				
	£	£	£	£	£	£
Sydney .. .. .	25,600	29,833	68,362	130,965	20,080	274,840
Melbourne .. .. .	51,967	..	93,612	28,941	17,746	192,266
Queensland (Brisbane) .. .. .	16,000	3,560	18,864	16,952	1,753	57,129
Adelaide .. .. .	4,000	(b) 49,100	29,005	14,586	14,139	110,830
Western Australia (Perth)(c) .. .. .	24,800	..	1,949	1,616	3,474	31,839
Tasmania (Hobart) .. .. .	4,000	6,148	4,096	1,015	491	15,750
Total .. .. .	126,367	88,641	215,888	194,075	57,683	682,654

(a) Not including value of new foundations received during the year as follow:—New South Wales, £60,680; Victoria, £21,023; Queensland, £12,811; South Australia, £11,992. (b) Including £14,000 yearly parliamentary appropriation and £35,100 special vote. (c) Excludes revenue on account of bequests, endowments, etc., not taken into General Account.

In preceding issues of the Official Year Book information was given in some detail in regard to the extent to which the Universities have benefited from private munificence. Space will permit of reference to the most important benefactions only herein. Thus the Challis bequest to the Sydney University amounted to £277,000

(now valued at £409,000); Mr. G. H. Bosch contributed £246,000; Sir P. N. Russell, £100,000; Mr. W. O. Watt, £83,000; Mr. Thos. Fisher, £30,000. A sum of £80,000 was received from the Rockefeller Foundation in aid of the building and equipment of a clinical laboratory. The total grant from the Foundation amounted to £100,000. Mr. Sidney Myer's gifts to the Melbourne University amounted to £50,000, while Sir Samuel Gillott, Mr. Edward Wilson (Argus Trust), and Sir Samuel Wilson contributed £41,000, £34,000, and £30,000 respectively. Mr. R. B. Ritchie's gifts for the endowment of a Chair of Economics amount to £30,000, and a similar sum was received from the Supreme Court Library Fund for the endowment of a Chair of Public Law. The Hon. Francis Ormond contributed £20,000 to the University as well as benefactions to Ormond College amounting to considerably over £100,000. Queensland University received about £149,000 from the McCaughey estate, and up to the end of March, 1935, had benefited to the extent of £30,000 from the Walter and Eliza Hall Trust. The chief benefactors to the Adelaide University were Sir Thomas Elder, £100,000; Sir Langdon Bonython, £68,000; Mr. T. E. Barr Smith, £35,000; Mrs. Jane Marks, £30,000; Family of John Darling, £25,000; and R. B. Smith and family, £21,000. Several very valuable properties, in addition to shares which produced a sum of £58,450, were also bequeathed to this University by Mr. Peter Waite. Under the will of Sir Winthrop Hackett the University of Western Australia received £425,000, while the late Robert Gladden bequeathed an estate valued at £60,000.

4. **University Expenditure.**—For the year 1933 the expenditure by the Universities under various headings was as follows:—

**UNIVERSITIES.—EXPENDITURE, 1933.**

University.	Salaries and Administration.	Scholarships, Bursaries, etc.	Equipment, Publications, &c.	Buildings and Grounds.	Other.	Total.
	£	£	£	£	£	£
Sydney .. .. .	147,281	6,971	30,082	(a)77,436	1,459	263,229
Melbourne .. .. .	120,057	7,973	14,216	5,774	36,980	185,000
Queensland (Brisbane) .. .. .	32,713	2,009	3,858	774	13,456	52,810
Adelaide .. .. .	46,399	1,272	(b)38,098	(c) 19,604	26,341	131,684
Western Australia (Perth) (d) .. .. .	24,600	..	3,566	798	3,594	32,558
Tasmania (Hobart) .. .. .	11,172	1,266	321	278	3,377	16,414
Total .. .. .	382,192	19,491	90,141	104,664	85,207	681,695

(a) Including £71,052 new buildings. (b) Research, £32,848. (c) New buildings, £17,307.  
 (d) Excludes expenditure on account of bequests, endowments, etc., not taken into General Account.

5. **University Extension.**—Some account of the initiation and progress of university extension is given in preceding Official Year Books (see No. 22, p. 446), but considerations of space preclude the insertion of this matter in the present issue.

6. **The Canberra University College.**—The question of the establishment of a University at the Federal Capital is still under consideration, and in the meantime a University College has been established under the *Canberra University College Ordinance, 1929-1932*. By virtue of a temporary regulation of the University of Melbourne, which expires on the 31st December, 1935, the College is empowered to provide approved lectures in the subjects of the Arts, Science, Commerce, and Law courses in preparation for certain degrees and diplomas of that University. Lectures commenced in 1930 with the aid of several part-time lecturers, and 30 students were enrolled during the year. The curriculum has since been extended and three full-time and three part-time lecturers have been appointed. In 1934 and 1935 the students numbered 53 and 63 respectively. The examinations are conducted by the University of Melbourne.

7. **Workers' Educational Association.**—In 1913 Workers' Educational Associations were formed in all the States of Australia, and later in New Zealand. The movement has for its object the bringing of the University into closer relationship with the masses of the people, and thereby providing for the higher education of the workers in civic and cultural subjects. There are now direct grants from all State Governments except Western Australia, and an additional University grant in New Zealand. The particulars of grants for classes in 1934 were as follow :—New South Wales, £3,866, 55 classes and 3 study circles; Victoria, £3,450, 45 tutorial classes and extension work; Tasmania, £543, 6 classes; South Australia, £2,025, 40 tutorial classes; Queensland, £1,000, 12 classes and 107 correspondence students. In addition, the New South Wales Association receives a Government grant for general organizing purposes of £500, paid on the basis of £1 for £1 on subscriptions and donations up to this amount. The Queensland and South Australian Associations received grants of £600 and £240 respectively. The Carnegie Corporation has in recent years shown its interest in the work by allotting substantial grants to the Associations and to the Universities. The principal subjects chosen in all States are Industrial History, Economics, Political Science and Sociology, but there is an increasing number of classes in other subjects such as History, Psychology, Philosophy, Literature, Music, Physiology and Biology. Each University co-operates with the W.E.A. in the formation of a joint committee for tutorial classes, which supervises the work with the assistance of a University officer with the title of Director of Tutorial Classes. In addition to the longer University tutorial classes, many preparatory classes, study circles, and summer schools are organized by the Association, numerous courses of public lectures are delivered, educational conferences promoted, and an extensive book service is spreading educational literature throughout Australia.

### § 6. Technical Education.

1. **General.**—Although provision has been made in all of the States for many forms of technical education, the total provision made would imply that this branch of education has not been regarded as of outstanding importance. As will be seen later the expenditure on technical education for the whole of Australia is comparatively small. In preceding issues of the Official Year Book an outline was given of the origin and development of technical education in each State (see No. 22, pp. 447-51), but considerations of space preclude the inclusion of more up-to-date information in later volumes.

2. **Returns for Year 1933.**—Returns for the year 1933 in regard to enrolments and attendances, etc., in each State are given in the table hereunder.

#### TECHNICAL EDUCATION.—ENROLMENTS, ETC., 1933.

State.	Number of Classes.	Teachers.	Net Enrolments.	Average Attendance.	Fees Received.
					£
New South Wales	775	536	(a) 17,102	(b)	22,736
Victoria (e)	321	875	21,952	15,047	45,272
Queensland	(b)	354	(a) 11,568	(b)	11,327
South Australia	552	207	(a) 10,183	7,991	8,620
Western Australia	409	117	(d) 4,296	(b)	794
Tasmania(c)	(b)	63	(a) 848	728	1,455
Total	(f) 2,057	2,152	65,949	(f)	90,204

(a) Total Number of Individual Students. (b) Not available. (c) Includes the School of Mines. (d) Average enrolment of individual students for the year. (e) Includes junior enrolments, viz., 6,562, as teaching staff and expenditure cover both senior and junior sections. (f) Incomplete.

Figures for earlier years will be found in preceding volumes. Owing to the considerable differences in scope and methods in the States, and in the presentation of the returns in connexion therewith, effective comparison of the results is somewhat difficult. Special classes for young people out of work were continued in 1933 in New South Wales, payment of fees being deferred. The condition was temporarily relaxed also under which the prospective student is required to furnish evidence of employment in the trade relating to the technical course he wishes to follow. In Victoria, school councils are empowered to grant, up to 10 per cent. of the number of fee-paying students, free admission to classes to qualified unemployed applicants whose parents are unable to afford the necessary fees. Towards the end of the year 1931 the Education Department in Queensland, in conjunction with the Department of Labour and Industry, established a series of free classes in various centres for unemployed young men and women, and these classes were continued in 1932 and 1933.

3. **Expenditure on Technical Education**—The expenditure on technical education in each State for the year 1933 is shown below :—

**TECHNICAL EDUCATION.—EXPENDITURE, 1933.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1933 { (a)	161,136	235,998	59,949	32,761	17,633	13,782	521,259
{ (b)	29,189	3,602	4,407	8,588	1,654	916	48,356

(a) Maintenance.

(b) Buildings.

The expenditure on maintenance for technical education in 1933 amounted to 1s. 7d. per head of the population of Australia, as compared with 2s. 6d. per head expended on maintenance for primary and secondary education.

**§ 7. Business Colleges and Shorthand Schools.**

There has been a considerable development in recent years both in the number and scope of privately conducted institutions which aim at giving instruction in business methods, shorthand, typewriting, the use of calculating machines, etc. Particulars for all States, so far as they are available, are given in the following table :—

**BUSINESS COLLEGES, SHORTHAND SCHOOLS, ETC., 1933.**

State.	Schools.	Teachers.	Students Enrolled.		Average Attendance.	
			Males.	Females.	Males.	Females.
New South Wales ..	23	171	1,998	4,902	987	2,452
Victoria ..	13	123	2,378	2,533	2,255	1,990
Queensland ..	8	25	207	895	97	374
South Australia ..	8	40	741	1,101	458	710
Western Australia ..	11	47	2,487	1,069	(a)	(a)
Tasmania ..	3	13	51	101	88	149
Total ..	66	419	7,861	10,605	(b)3,885	(b)5,675

(a) Not available.

(b) Exclusive of Western Australia.

The figures for New South Wales are exclusive of students instructed at home through the medium of correspondence classes. Particulars regarding fees received in 1933 are available for Western Australia only, where the total was returned at £24,274.

### § 8. Miscellaneous.

1. **Scientific Societies.**—(i) *Royal Societies.* In previous issues of the Official Year Book an outline was given of the origin and progress of the Royal Society in each State (see No. 22, pp. 454-5), but considerations of space preclude the retention of this matter in the present volume. The accompanying table, however, contains the latest available statistical information regarding these institutions, which in every case have their head-quarters in the capital cities.

ROYAL SOCIETIES.—PARTICULARS, 1934.(a)

Heading.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
Year of origin .. ..	1821	1854	1884	1853	1897	1843
Number of members ..	273	202	206	176	164	265
Vols. of transactions issued	67	75	50	58	20	85
Number of books in library	35,000	18,000	6,250	6,500	4,400	20,000
Societies on exchange list ..	328	314	181	242	150	310
Income .. .. .£	3,280	460	176	361	285	323
Expenditure .. ..£	2,197	455	133	423	257	320

(a) The Royal Society of Australia, with headquarters at Canberra, was founded on the 25th July, 1930, and received permission to use its title on the 14th January, 1931. The members, including associates, numbered 81 in 1934. Income and expenditure for the year amounted to £18 and £22 respectively.

In connexion with the year of origin it may be pointed out that the title "Royal Society" was in most cases assumed at a later date than that shown in the table, as the Societies originated under different names.

(ii) *The Australian and New Zealand Association for the Advancement of Science.* This Association was founded in 1887. Its head-quarters are at Science House, Gloucester-street, Sydney, and meetings are usually held biennially within the various States and in the Dominion of New Zealand. The next meeting will be held in Auckland in January, 1937. The library of the Association contains 4,000 volumes, and is now housed by the Council for Scientific and Industrial Research.

(iii) *Other Scientific Societies.* The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1874. The soundness of its present position is due to the benefactions of Sir William Macleay, who during his lifetime and by his will endowed the Society to the amount of £67,000, which has been increased by judicious investment to over £80,000. The Society maintains a research bacteriologist and offers annually 4 research fellowships in various branches of natural history. Three fellowships were awarded in 1935. The library comprises some 14,000 volumes, valued at about £7,000. Fifty-nine volumes of proceedings have been issued, and the Society exchanges with some 232 kindred institutions. The ordinary membership at the end of 1934 was 174.

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. **Public Libraries.**—(i) *Commonwealth—(a) Parliamentary and National Library.* When the Commonwealth Parliamentary Library was created in 1902, it was recognized that at such time as the Federal Capital was established it would be necessary to have available there, for the use of Members, Government Departments and the public, a library sufficient for their requirements, and therefore wider in scope than would be the case with a purely Parliamentary Library. The ideal of a great general library has, therefore, been kept in view, and standard works are being systematically acquired.

At the same time, the first Library Committee conceived the idea of a National Library for the use and benefit of the people of Australia. The policy was therefore pursued of securing, as far as possible, all works and documents connected with the discovery, settlement and early history of Australia, New Zealand and the Pacific Islands.

In 1909 a valuable collection of *Australiana*, comprising about 10,000 volumes and 6,500 pamphlets, maps, documents and pictures—the library of Mr. E. A. Petherick—was acquired. In 1912 a provision was included in the Commonwealth "Copyright Act" requiring the publisher of every book, pamphlet, etc., printed in Australia to supply a copy free to the Library. In the same year the publication of the *Historical Records* of Australia was begun, and 34 volumes were issued before publication was temporarily suspended in 1926.

The rapid development of the Australian and National sections of the Library persuaded the Library Committee in 1923 that the title "Commonwealth National Library" should be given to those sections, and that at Canberra a division of the Parliamentary and National collections should be effected, the former to be housed in Parliament House, the latter in a separate building to which the public would be given free access. The erection of the first wing of the permanent National Library building has been completed, and it is designed to meet the requirements of University students and the general public, to whom the privileges of the Library have been extended in respect to borrowing as well as reference. The design for the complete building makes ample provision for the housing of special collections and for the proper display of the valuable records of Australian history which the Library possesses.

The number of volumes in the National and Parliamentary collections—both of which are under the same administration—was, at the end of June, 1934, 113,149 books and 7,750 pamphlets, the outstanding feature of the National collection being a unique collection of Captain Cook manuscripts, while the Parliamentary section contains an extensive series of official publications of Great Britain, the Dominions and Foreign countries.

(b) *Patents Office Library.* The free library attached to the Commonwealth Patents Office, Canberra, contains over 46,000 volumes, and includes literature dealing with patents in the principal countries of the world.

(ii) *States.* In each of the capital cities there is a well-equipped Public Library, the institutions in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere. The following statement gives the number of volumes in the Public Library of each capital city at the 30th June, 1934 :—

#### METROPOLITAN PUBLIC LIBRARIES, 1933-34.

City.	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Canberra (h) .. .. .	103,149	10,000	(i)	113,149
Sydney .. .. .	(a) 391,163	(b)	78,157	469,320
Melbourne (c) .. .. .	404,373	67,223	13,756	485,352
Brisbane .. .. .	37,544	..	..	37,544
Adelaide .. .. .	166,444	(f)	(g) 3,386	169,830
Perth .. .. .	143,627	..	(d) 24,399	168,026
Hobart (c) .. .. .	29,951	(e) 8,486	..	38,437

(a) Including 132,542 volumes in the Mitchell Library. (b) 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, 1933, the books numbered 53,075. (c) Year ended 31st December, 1933. (d) Includes 5,209 volumes in School Children's Travelling Branch. (e) Includes 1,556 volumes in the Children's Branch. (f) The Adelaide Circulating Library, at 30th June, 1934, contained 87,000 books. (g) Children's Branch. (h) Includes Parliamentary section. (i) Books are loaned to libraries or students throughout Australia whenever necessary for research work.

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 Art and to individual students. During the year 1933-34, about 75,000 books were lent to small State schools, 18,000 to Schools of Arts, 6,500 to branches of the Teachers' Federation, 4,500 to Agricultural Bureaux, and 50,000 to individual borrowers.

A special research staff attached to the Public Library gives valuable assistance in making readily available to inquirers the store of information contained in books, etc., which, owing to limitations of space, are not in open access. About 9,600 books and periodicals were added to the library in 1933-34.

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 133,000 volumes in the library in addition to valuable manuscripts, collections of Australian postage and fiscal stamps, and various pictures, coins, etc.

Amongst other important libraries in New South Wales may be mentioned the "Fisher" Library at Sydney University, with 211,000 volumes; the library at the Australian Museum, 28,000; the Teachers' College library, 45,600; Sydney Technical College library, 17,100; Public School libraries, 503,000; and the library at the Botanic Gardens, 10,000. At the end of 1933 the Parliamentary Library contained 80,000 volumes.

The reading room at the Melbourne Public Library ranks among the finest in the world. It was opened in 1913, and has a diameter of 114 feet, with a similar height, and is capable of seating 320 readers at a time, all of whom are under observation from the centre of the room. The Library forwards volumes on loan to Mechanics' Institutes and Free Libraries, and to individual borrowers in the country. Railway transport is used as far as possible in transporting the volumes. During the year 1933 the volumes added to the Reference branch by purchase, donation, etc., numbered 8,027, while additions to the lending branch numbered 1,792.

The library at Brisbane (North) contained 58,978 volumes at the 30th June, 1934, and the one at South Brisbane about 15,590.

For some years past efforts have been made in South Australia to collect original documents likely to be of service in compiling a history of the State. So far back as 1914, Professor Henderson, of Adelaide University, under commission from the South Australian Government, visited and reported on the system of keeping archives in England, France, Belgium, Holland and Ceylon, and obtained valuable information also from the United States and Canada. A department of historical documents has been created under the care of an archivist, and valuable work has been done in connexion with examination, classification, and permanent preservation of the available papers. A suitable building for housing the documents and the staff was provided in 1921. At the 30th June, 1934, the collection numbered 302,633 documents, 13,563 views, and 1,323 maps.

For the year ended 30th June, 1934, accessions to the Public Library at Perth numbered 2,844 books including 312 bound volumes of periodicals.

During 1922 the Tasmanian Public Library adopted the plan of lending books to individual country borrowers and to families or committees of residents in country districts. The Public Library at Launceston contains 40,000 volumes. Books added to the Public Libraries at Hobart and Launceston during the year 1933 numbered 745 and 1,201 respectively.



Statistics in regard to other libraries are not available for all States, while the information supplied is not in all cases complete. Returns for Victoria in 1933 showed a total of 420 libraries in receipt of State or municipal aid, but statistics are now only collected from 27 institutions in Greater Melbourne and 49 in the chief extra metropolitan towns. The 76 libraries from which returns were received contained a total of about 991,000 volumes. Queensland returned a total of 232 libraries, with 604,000 books, although during 1933-34 libraries other than the State Public Library did not receive government aid; South Australia, 243 suburban and country institutes with 672,000 books; Tasmania, 22 libraries and 149,000 books; while there were 3 libraries, with 6,000 books, in the Northern Territory.

3. **Public Museums and Art Galleries.**—Previous issues of the Official Year Book contained a brief description of the public museums and art galleries in each State (see No. 22, pp. 457-9), but considerations of space preclude the incorporation of this matter in the present volume.

4. **State Expenditure on Education, Science and Art.**—The gross and net expenditure in each State on education, science and art during the year 1933-34 were as follow :—

**STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART, 1933-34.**

State.	Expenditure from—				Receipts.	Net Expenditure.
	Revenue.	Loan.	Other Funds.	Total.		
	£	£	£	£	£	£
New South Wales	3,731,820	241,446	..	3,973,266	81,450	3,891,816
Victoria ..	2,428,447	54,319	7,058	2,489,824	85,733	2,404,091
Queensland ..	1,400,810	194,211	122,604	1,717,625	13,539	1,704,086
South Australia ..	874,739	29,582	(b) 1,075	905,396	32,251	873,145
Western Australia	635,765	47,988	..	683,753	24,441	659,312
Tasmania ..	252,682	12,573	..	265,255	4,034	261,221
Total ..	9,324,263	580,119	130,737	10,035,119	241,448	9,793,671

(a) Includes £165,871 from General Loan Account for relief of unemployment. (b) From Commonwealth Grant for relief of unemployment. (c) From Unemployment Relief Fund.

## CHAPTER IX.

### PUBLIC JUSTICE.

#### § 1. Police.

1. *General.*—In early issues of the Year Book a résumé was given of the evolution of the police force in Australia up to the passing of the Police Act of 1862 (25 Vic. No. 16) in New South Wales, but considerations of space preclude its inclusion in the present volume.

2. *Strength of Police Force.*—(i) *General.* The strength of the police force in each State during the five years ended 1933 is given in the table hereunder. It may be mentioned that the police forces (with the exception of the small body of Commonwealth police maintained in the Northern Territory and at the Federal Capital) are entirely under State control, but, by arrangement, the Commonwealth Government utilizes their services in various directions, such as the collection of particulars for Commonwealth electoral rolls, etc.

#### POLICE FORCES.—STRENGTH.

State.	Area of State in Sq. Miles.	1929.	1930.	1931.	1932.	1933.
New South Wales ..	309,432	3,631	3,709	3,653	3,590	3,600
Victoria ..	87,884	2,141	2,115	2,107	2,121	2,148
Queensland (a) ..	670,500	1,229	1,236	1,233	1,231	1,253
South Australia (a) ..	380,070	784	762	742	740	762
Western Australia (a)	975,920	581	562	573	550	559
Tasmania (a) ..	26,215	237	252	261	264	260
Northern Territory	523,620	42	41	40	40	40
Fed. Cap. Territory	940	13	13	13	13	13
<b>Total ..</b>	<b>2,974,581</b>	<b>8,658</b>	<b>8,690</b>	<b>8,622</b>	<b>8,549</b>	<b>8,635</b>

(a) 30th June of year following.

The figures for New South Wales for 1933 are exclusive of 14 "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 2 black trackers. For Queensland the figures exclude 64 native trackers and 1 female searcher; for South Australia 2 black trackers and 1 female searcher, and for the Northern Territory 23 black trackers. There are also 38 black trackers and 4 female searchers in Western Australia not included in the table. According to the returns, women police are employed in all the States, the respective numbers being—New South Wales 8, Victoria 8, Queensland 2, South Australia 14, Western Australia 5, and Tasmania 1. Their work is mainly preventive, and the importance and usefulness of their duties have been referred to in very high terms by the Chief Officers of Police. In his Report for the year 1932 the Inspector-General of Police in New South Wales states that "there can be no doubt that many girls have been saved from moral and physical danger through the activities of the women special constables." The Inspector-General also refers to the valuable assistance rendered by the women police to detectives and the ordinary police in connexion with crimes against women and children.

(ii) *Proportion to Population.*—The average number of inhabitants in the various States to each police officer during the same period is as follows. 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.—COMPARISON WITH POPULATION.**

State.	Number of Persons per Sq. Mile, 1933 Census.	Inhabitants to each Police Officer.				
		1929.	1930.	1931.	1932.	1933.
New South Wales .. .. .	8.41	689	683	700	719	726
Victoria .. .. .	20.71	827	845	854	853	849
Queensland .. .. .	1.41	730	737	750	760	756
South Australia .. .. .	1.53	730	752	776	781	762
Western Australia .. .. .	0.45	724	764	755	791	785
Tasmania .. .. .	8.68	919	877	861	860	875
Northern Territory .. .. .	0.01	107	122	124	123	121
Fed. Cap. Territory .. .. .	9.52	657	689	677	687	712
<b>Total .. .. .</b>	<b>2.23</b>	<b>739</b>	<b>744</b>	<b>757</b>	<b>770</b>	<b>771</b>

3. *Duties of the Police.*—In addition to the ordinary employment attaching to their office, the police are called upon to perform many duties which in other countries are carried out by various functionaries. Thus, in New South Wales, according to the Report of the Inspector-General, the time of one-fifth of the force was taken up during 1921 in extraneous duties unconnected with the protection of life and property, while the cash value of the services rendered to other Government departments was stated as over £200,000 per annum. The Queensland Commissioner refers to the circumstance that in 1934 no less than 55 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, 1934, nearly 249,000 inquiries were made on behalf of other departments. While these special tasks doubtless involve some degree of sacrifice of ordinary routine duties, the fact that the general intelligence of the police is adequate for their performance, besides being most creditable, results in a large saving of the public money.

4. *Cost of Police Forces.*—The expenditure from Consolidated Revenue on the police forces in each State, and the cost per head of population during the five years 1929-30 to 1933-34, are given in the following table:—

**POLICE FORCES.—COST.**

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
<b>TOTAL.</b>					
	£	£	£	£	£
New South Wales .. .. .	1,863,021	1,811,469	1,430,033	1,409,162	1,421,749
Victoria .. .. .	921,383	850,372	783,390	790,691	807,435
Queensland .. .. .	596,057	550,473	499,330	499,740	522,132
South Australia .. .. .	327,572	323,541	294,244	278,209	279,481
Western Australia .. .. .	250,200	237,996	207,653	203,298	218,523
Tasmania .. .. .	96,214	93,732	80,505	83,798	85,161
<b>Total .. .. .</b>	<b>4,054,447</b>	<b>3,867,583</b>	<b>3,295,155</b>	<b>3,264,898</b>	<b>3,334,481</b>

POLICE FORCES.—COST—*continued.*

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
PER HEAD OF POPULATION.					
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
New South Wales ..	14 10	14 3	11 2	10 11	10 11
Victoria ..	10 4	9 6	8 8	8 9	8 10
Queensland ..	13 2	12 0	10 9	10 7	10 11
South Australia ..	11 5	11 3	10 2	9 7	9 7
Western Australia ..	11 9	11 1	9 7	9 4	9 11
Tasmania ..	8 9	8 5	7 2	7 4	7 5
Total ..	12 7	11 11	10 1	9 11	10 1

The totals quoted above refer exclusively to the State police forces, and are based on returns supplied by the States for the respective financial years. As shown in the first table in this chapter, the Commonwealth Government maintains small police forces in the Northern Territory and in the Federal Capital Territory, the expenditure on which in 1933-34 amounted to £23,743 and £4,529 respectively.

5. *Interstate Police Conferences.*—In February, 1921, a Conference of the chief officers of the police forces of the various States was held in Melbourne. In addition to the discussion of matters of common interest, arrangements were made for the interchange of detectives. The results were so satisfactory that it was decided to hold similar Conferences annually. Amongst other matters discussed at the Hobart Conference in 1927, particular attention was given to the subject of traffic regulation in view of the large and increasing number of motor vehicles. Conferences were held at Melbourne in 1928, and at Perth in 1929, but owing to the need for economy no further meetings have been held.

## § 2. Lower (Magistrates') Courts.

1. *General.*—In considering the criminal returns of the various States, due allowance must be made for certain factors, such as the relative powers of the courts, both lower and higher, etc. In the case of lower courts, the actual number of laws in each State the breach of which renders a person liable to fine or imprisonment must be taken into account. Again, the attitude of the magistracy and police towards certain classes of offences is a factor, for in the case of liquor laws, or laws connected with vagrancy or gaming, the views of the magistrates, and instructions issued to the police, may be responsible for considerable variations in the returns. The strength and distribution of the police forces, and the age-constitution and distribution of the States' population, also influence the results. Due weight should also be given to the prevalence of undetected crime, but information on this point is not available for all States. It may be mentioned that each State has its own separate judicial system, the Commonwealth jurisdiction being confined to the High Court of Australia, which is largely a Court of Appeal intermediate to the Privy Council although it has also original jurisdiction, the Commonwealth Court of Conciliation and Arbitration and the Federal Court of Bankruptcy. Full particulars regarding the judicial power of the Commonwealth will be found in Chapter III. of the Commonwealth Constitution.

2. *Powers of the Magistrates.*—Preceding issues of the Official Year Book contained a brief statement of the powers of the magistrates in the various States (see No. 22, page 462), but this information is not repeated in the present volume.

3. Persons Charged at Magistrates' Courts.—The total number of persons who were charged before magistrates in each State is given below for the five years 1929 to 1933 :—

**MAGISTRATES' COURTS.—PERSONS CHARGED.**

State.	1929.	1930.	1931.	1932.	1933.
New South Wales ..	132,439	124,538	121,743	116,341	126,134
Victoria ..	58,097	56,749	54,775	56,797	58,406
Queensland (a) ..	27,719	29,369	25,899	24,983	28,259
South Australia ..	20,106	18,475	17,033	17,546	15,285
Western Australia ..	16,972	15,734	14,986	14,707	13,544
Tasmania ..	7,468	7,504	6,785	7,051	7,271
Northern Territory (a) ..	500	441	442	308	353
Federal Capital Territory ..	..	..	92	194	166
<b>Total .. ..</b>	<b>263,301</b>	<b>252,810</b>	<b>241,755</b>	<b>237,927</b>	<b>249,418</b>

(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 New South Wales for the year 1933 as compared with the previous year, although caused partly by an increase of about 3,000 in the number of offences against property, was chiefly due to a rise in the offences against good order and in the miscellaneous class, amounting in the case of the former to nearly 3,000, and in the latter to 4,700, the bulk of the increase in the latter consisting of charges under the Traffic Act.

4. Convictions and Committals.—The figures given in the tabulation above include, of course, a number of people who were wrongly charged, and statistically are not of general importance. The actual number of convictions in connexion with the persons who appeared before the lower courts in each year of the period 1929 to 1933 is, therefore, given in the next table. A separate line is added showing the committals to higher courts.

**MAGISTRATES' COURTS.—CONVICTIONS AND COMMITTALS.**

State.	1929.	1930.	1931.	1932.	1933.	
New South Wales ..	Convictions	113,398	102,670	101,675	93,860	100,075
	Committals	2,403	2,725	2,751	2,244	2,202
Victoria ..	Convictions	45,318	45,537	42,997	45,664	47,079
	Committals	950	948	1,095	1,024	1,404
Queensland (a) ..	Convictions	25,324	26,814	22,081	21,679	25,430
	Committals	309	358	367	352	367
South Australia ..	Convictions	17,320	15,609	14,654	14,705	13,060
	Committals	403	491	424	400	343
Western Australia ..	Convictions	15,565	14,358	13,441	13,214	12,244
	Committals	93	114	99	111	70
Tasmania ..	Convictions	6,898	6,743	6,180	6,450	6,849
	Committals	105	76	175	142	89
Northern Territory a	Convictions	460	354	314	297	296
	Committals	14	11	11	..	17
Federal Capital Territory	Convictions	..	..	84	186	151
	Committals	..	..	1	5	2
<b>Total .. ..</b>	<b>Convictions</b>	<b>224,283</b>	<b>212,085</b>	<b>201,426</b>	<b>196,055</b>	<b>205,184</b>
	<b>Committals</b>	<b>4,277</b>	<b>4,723</b>	<b>4,923</b>	<b>4,278</b>	<b>4,494</b>

(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 :—

**MAGISTRATES' COURTS.—CONVICTIONS FOR SERIOUS CRIME.**

State.	1929.	1930.	1931.	1932.	1933.
NUMBER.					
New South Wales ..	11,674	11,822	13,627	12,224	11,104
Victoria ..	3,860	4,060	4,123	4,024	4,715
Queensland (a) ..	3,420	4,148	2,396	2,526	2,254
South Australia ..	1,235	1,254	1,370	1,448	1,343
Western Australia ..	1,508	1,730	1,713	1,479	1,316
Tasmania ..	743	725	875	726	713
Northern Territory (a) ..	99	90	97	21	20
Federal Capital Territory ..	..	..	28	29	38
<b>Total ..</b>	<b>22,539</b>	<b>23,835</b>	<b>24,229</b>	<b>22,477</b>	<b>21,503</b>

**PER 10,000 OF THE POPULATION.**

New South Wales ..	46.64	46.68	53.31	47.38	42.67
Victoria ..	21.81	22.73	22.91	22.25	25.90
Queensland (a) ..	38.10	45.56	25.90	26.99	23.71
South Australia ..	21.57	21.87	23.80	25.05	23.11
Western Australia ..	35.84	40.45	39.61	33.99	29.99
Tasmania ..	34.12	32.81	38.92	31.97	31.21
Northern Territory (a) ..	221.18	180.40	195.21	42.61	40.87
Federal Capital Territory ..	..	..	31.81	32.49	41.96
<b>Total ...</b>	<b>35.24</b>	<b>36.86</b>	<b>37.12</b>	<b>34.17</b>	<b>32.43</b>

(a) Year ended 30th June following.

6. **Decrease in Serious Crime, 1881 to 1933.**—(i) *Rate of Convictions.* 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 next two years witnessed a very marked decline to 32.4. Viewed over a longer period the position is far more satisfactory, for the average number of convictions is now less than half of those reported in 1881. Only the more serious offences particularized in the preceding sub-section have been taken into consideration.

## MAGISTRATES' COURTS.—SERIOUS CRIME.—RATE OF CONVICTIONS, 1881 TO 1933.

Year.							Convictions per 10,000 Persons.
1881 .. .. .	..	..	..	..	..	..	69.3
1891 .. .. .	..	..	..	..	..	..	44.8
1901 .. .. .	..	..	..	..	..	..	29.1
1911 .. .. .	..	..	..	..	..	..	24.6
1921 .. .. .	..	..	..	..	..	..	29.2
1931 .. .. .	..	..	..	..	..	..	37.1
1933 .. .. .	..	..	..	..	..	..	32.4

(ii) *Causes of Decrease.* The decrease in crime already referred to is restricted entirely to the lower or magistrates' courts. There has also been a gratifying decrease in regard to offences tried at the higher courts, as will be seen later. A review of the various factors responsible for this decline is given in preceding issues of the Official Year Book. (See No. 22, p. 465.)

7. *Drunkenness.*—(i) *Cases and Convictions.* The number of cases of drunkenness and the convictions recorded in connexion therewith during the period 1929 to 1933 will be found in the following table:—

## DRUNKENNESS.—CASES AND CONVICTIONS.

State.	1929.		1930.		1931.		1932.		1933.	
	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.
New South Wales	33,819	33,136	26,126	25,655	21,195	20,559	21,815	21,510	25,727	25,421
Victoria .. .. .	9,385	5,866	8,132	6,243	7,018	5,602	8,255	7,028	9,240	7,975
Queensland (a) ..	9,882	9,747	9,476	9,385	6,120	6,079	6,355	6,315	6,697	6,662
South Australia	4,312	4,291	2,582	2,577	2,334	2,320	2,653	2,643	2,373	2,357
Western Australia	3,567	3,539	2,906	2,879	2,329	2,309	2,111	2,093	1,992	1,966
Tasmania .. .. .	329	321	240	240	245	243	250	245	228	222
Northern Territory (a) ..	157	153	103	100	146	145	139	139	133	133
Fed. Cap. Terr. ..	..	..	..	..	26	26	64	64	69	69
Total .. .. .	61,451	57,053	49,565	47,079	39,413	37,283	41,642	40,037	46,459	44,799

(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 for the last five years 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. Victoria, however, is an exception, but in this State it is explained that 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. The logic of excluding these cases from the list of convictions is open to doubt.

(ii) *Convictions per 10,000 of Population.* The convictions for drunkenness per 10,000 of the population during each of the years from 1929 to 1933 are given hereunder :—

**DRUNKENNESS.—CONVICTIONS PER 10,000 INHABITANTS.**

State.	1929.	1930.	1931.	1932.	1933.
New South Wales .. ..	132.4	101.3	80.4	83.4	97.7
Victoria .. ..	33.1	35.0	31.1	38.9	43.8
Queensland (a) .. ..	108.6	103.1	65.7	67.5	70.1
South Australia .. ..	75.0	45.0	40.3	45.7	40.6
Western Australia .. ..	84.1	67.1	53.4	48.1	44.7
Tasmania .. ..	14.7	10.9	10.8	10.8	9.7
Federal Capital Territory .. ..	..	..	29.5	71.7	76.2
<b>Total .. ..</b>	<b>89.2</b>	<b>72.8</b>	<b>57.1</b>	<b>60.9</b>	<b>67.6</b>

(a) Year ended 30th June following.

It would appear that the improvement in the social condition of the people during the past two years has arrested the very persistent decline in the rate of convictions and the equally marked falling off in the consumption of intoxicating liquors, which had been in evidence since 1927.

The convictions for drunkenness taken by themselves are not an altogether satisfactory test of the relative sobriety of the inhabitants of each State, inasmuch as several important factors must be taken into consideration. The age and sex constitution of the people, for example, are by no means identical in all the States. (Owing to the smallness of the population the figures for the Northern Territory are, of course, abnormal and have not, therefore, been included in the above table.) The avocations of the people affect the result, since persons engaged in strenuous callings are, on the whole, more likely to indulge in alcoholic stimulants than those employed in less arduous ones. The distribution of the population is also a factor, the likelihood of arrest or summons for drunkenness obviously being greater in the more densely populated regions, while allowance must be made for the attitude of the magistracy, the police, and the public generally in regard to the offence. Due account also must be taken of the effect of legislation dealing with the limitation of hours during which liquor may be sold in hotels.

(iii) *Consumption of Intoxicants.* The following table shows the consumption of spirits, wine, and beer per head of the population in Australia during each year of the quinquennium 1929-34 :—

**INTOXICANTS, CONSUMPTION.—AUSTRALIA.**

Year.	Consumption per Head of Population.		
	Spirits.	Wine.	Beer.
	Imp. Galls.	Imp. Galls.	Imp. Galls.
1929-30 .. ..	0.36	} 0.82	10.22
1930-31 .. ..	0.18		8.12
1931-32 .. ..	0.17		7.32
1932-33 .. ..	0.17		7.43
1933-34 .. ..	0.19		8.02



The increase in the consumption per head of intoxicants during the past two years was accompanied by a corresponding rise in the figures for drunkenness over the same period.

(iv) *Treatment of Drunkenness.* (a) *General.* Though the problem of the correct method of dealing with dipsomania is by no means an easy one, it seems fairly clear that the present plan of bringing offenders before magistrates, and subjecting them to the penalty of imprisonment or fine, has little deterrent effect, as the same offenders are constantly reappearing before the courts. Further, the casting of an inebriate into prison and placing him in his weakened state in the company of professional malefactors certainly lowers his self-respect, and doubtless tends to swell the ranks of criminals. Examination of the prison records in New South Wales some years ago disclosed the fact that over 40 per cent. of the gaol population had commenced their criminal career with a charge of drunkenness. During the last few years the dangers of moral contamination in this way have been more accurately appreciated, and a system of classification of prisoners has been adopted whereby the petty offender is as far as possible kept from association with the more evilly-disposed.

(b) *Remedial.* Legislation has been passed in each State providing for the commitment of inebriates to special Government institutions. The laws in the various States are as follow:—New South Wales, Inebriates Act 1912; Victoria, Inebriates Act 1928; Queensland, Inebriate Institutions Act 1896; South Australia, Inebriates Act 1908 amended in 1920, Convicted Inebriates Act 1913; Western Australia, Inebriates Act 1912 amended in 1919; Tasmania, Inebriates Act 1885, Inebriate Hospitals Act 1892. Curative work was first undertaken by the Government of New South Wales in 1907. In most cases the institutes are connected with the gaols, and, naturally, custodial measures are still a strong feature in their management; nevertheless, the results of remedial measures have been encouraging.

8. *First Offenders.*—In all the States statutes dealing with first offenders have been in force for many years. Existing legislation is as follows:—New South Wales, Crimes Act 1900 amended in 1924 and 1929, First Offenders (Women) Act 1918; Victoria, Criminal Code Act 1928; Queensland, Criminal Code Act 1899; South Australia, Offenders Probation Act 1913; Western Australia, Criminal Code Act 1913; Tasmania, Probation of Offenders Act 1934. The method of procedure is practically the same in all cases, i.e., with regard to most first offenders the magistrate or judge is empowered to allow the offender to go free on recognizances being entered into for his good behaviour for a certain period. In practice, this humane law has been found to work excellently, very few of those to whom its provisions have been extended having been found to relapse into crime.

9. *Children's Courts.*—Special courts for the trial of juvenile offenders have been established in New South Wales, Victoria, Queensland, Western Australia, Tasmania, and New Zealand, while Children's Courts, although not under that title, are provided for by the Maintenance Act of 1926 in South Australia. The object of these courts is to avoid, as far as possible, the unpleasant surroundings of the ordinary police court.

10. *Committals to Superior Courts.*—(i) *General.* In a previous sub-section it has been pointed out that comparisons of criminality based on a consideration of the total returns from magistrates' courts are somewhat inadequate, seeing that the figures include numbers of cases which are merely technical breaches of laws having in some instances a purely local significance. The committals to higher courts give a better basis of

comparison, although even in this connexion allowance must be made for the want of uniformity in jurisdiction. The table below gives the number of committals in each year from 1929 to 1933, with the rate of such committals per 10,000 of the population :—

COMMITTALS TO SUPERIOR COURTS.

State.	1929.	1930.	1931.	1932.	1933.
NUMBER.					
New South Wales .. .. .	2,403	2,725	2,751	2,244	2,202
Victoria .. .. .	950	948	1,095	1,024	1,404
Queensland (a) .. .. .	309	358	367	352	367
South Australia .. .. .	403	491	424	400	343
Western Australia .. .. .	93	114	99	111	70
Tasmania .. .. .	105	76	175	142	89
Northern Territory (a) .. .. .	14	11	11	..	17
Federal Capital Territory .. .. .	..	..	1	5	2
Total .. .. .	4,277	4,723	4,923	4,278	4,494

PER 10,000 OF THE POPULATION.

New South Wales .. .. .	9.6	10.8	10.8	8.8	8.5
Victoria .. .. .	5.4	5.3	6.1	5.7	7.7
Queensland (a) .. .. .	3.4	3.9	4.0	3.8	3.9
South Australia .. .. .	7.0	8.6	7.4	6.9	5.9
Western Australia .. .. .	2.2	2.7	2.3	2.6	1.6
Tasmania .. .. .	4.8	3.4	7.8	6.3	3.9
Northern Territory (a) .. .. .	31.3	22.0	22.1	..	34.7
Federal Capital Territory .. .. .	..	..	1.1	5.6	2.2
Total .. .. .	6.7	7.3	7.5	6.5	6.8

(a) Year ended 30th June following.

(ii) *Decrease in Rate since 1861.* The figures in the preceding table show that the rate of committals for serious crime has remained fairly stable during the last five years, but if the comparison be carried back to 1861, it will be found that there has been a very considerable improvement, the decline in proportion to population since that date amounting to approximately 68 per cent.

RATE OF COMMITTALS, AUSTRALIA, 1861 TO 1933.

Year .. .. .	1861.	1871.	1881.	1891.	1901.	1911.	1921.	1931.	1933.
Committals per 10,000 inhabitants .. .. .	22	14	12	11	8	6	7	8	7

### § 3. Superior Courts.

1. **Convictions at Superior Courts.**—The number of convictions at superior courts and the rate per 10,000 of the population are given below for each of the years 1929 to 1933:—

#### SUPERIOR COURTS.—CONVICTIONS.

State.	1929.	1930.	1931.	1932.	1933.
NUMBER.					
New South Wales (a) ..	1,034	1,208	1,139	1,024	855
Victoria ..	630	720	723	674	594
Queensland (a) ..	193	198	209	198	206
South Australia ..	258	304	274	236	224
Western Australia ..	74	92	72	75	38
Tasmania ..	73	65	84	81	59
Northern Territory (a) ..	21	2	6	..	4
Federal Capital Territory ..	..	..	1	5	1
<b>Total .. ..</b>	<b>2,283</b>	<b>2,589</b>	<b>2,508</b>	<b>2,293</b>	<b>1,981</b>

#### PER 10,000 OF THE POPULATION.

New South Wales (a) ..	4.1	4.8	4.5	4.0	3.3
Victoria ..	3.5	4.0	4.0	3.7	3.3
Queensland (a) ..	2.1	2.2	2.3	2.1	2.2
South Australia ..	4.5	5.3	4.8	4.1	3.9
Western Australia ..	1.8	2.1	1.7	1.7	0.9
Tasmania ..	3.4	2.9	3.7	3.6	2.6
Northern Territory (a) ..	46.9	4.0	12.1	..	8.2
Federal Capital Territory ..	..	..	1.1	5.6	1.1
<b>Total .. ..</b>	<b>3.6</b>	<b>4.0</b>	<b>3.8</b>	<b>3.5</b>	<b>3.0</b>

(a) Year ended 30th June following.

The rate of convictions has definitely improved during the past two years, and the figure for 1933 approximately equals the average obtaining for some years prior to the rather heavy increase recorded for the period 1929 to 1931. Owing to the smallness of the population and the particular conditions prevailing there the rates for the Territories naturally show considerable variation.

2. **Offences for which Convictions were recorded at Superior Courts.**—In the following table will be found a classification of the principal offences for which persons were convicted at the higher courts during each year of the period 1929 to 1933. Owing to lack of uniformity in the presentation of the returns the information is confined to the chief offences against the person only.

SUPERIOR COURTS.—CONVICTIONS, OFFENCES AGAINST THE PERSON,  
AUSTRALIA.

Offences.	1929.	1930.	1931.	1932.	1933.
Murder, and attempts at ..	33	21	38	15	21
Manslaughter .. ..	15	8	13	17	15
Rape, and attempts at ..	15	14	9	14	16
Other offences against females ..	124	136	118	102	130
„ „ „ the person	244	224	211	217	216
<b>Total .. ..</b>	<b>431</b>	<b>403</b>	<b>389</b>	<b>365</b>	<b>398</b>

The total convictions for similar offences in 1901 amounted to 432. Stated according to the proportion per 10,000 of mean population, the rate in 1933 amounted to 0.60, as compared with a rate of 1.14 in 1901, the decrease for the period amounting, therefore, to about 47 per cent.

3. **Habitual Offenders.**—Some account of the methods adopted in each State in connexion with habitual offenders is given in preceding Year Books (see No. 22, pp. 469–70), but this information is not repeated in this issue.

4. **Capital Punishment.**—The table below gives the number of executions in each State during the period 1929 to 1933 :—

## EXECUTIONS.

State.	1929.	1930.	1931.	1932.	1933.
New South Wales .. ..	..	..	..	1	..
Victoria .. ..	..	..	..	1	..
South Australia .. ..	1	..	..	..	..
Western Australia (a) ..	..	1	1	..	..
Tasmania .. ..	..	..	..	..	..
<b>Total .. ..</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>..</b>

(a) Year ended 30th June following.

Under the Criminal Code Amendment Act of 1922 capital punishment was abolished in Queensland.

In the early days of the history of Australia the penalty of death was attached to a large number of offences, many of which at the present time would be dealt with in the lower or magistrates' courts. With the growth of settlement, and the general amelioration in social and moral conditions, the list was, however, considerably curtailed, and the existing tendency is practically to restrict death sentences to cases of murder. It may be remarked 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 was also about 2.

## § 4. Prisons.

1. **Prison Accommodation and Prisoners, 1933.**—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 1933 :—

## PRISON ACCOMMODATION AND PRISONERS, 1933.

State.	Number of Prisons.	Accommodation in—		Prisoners at End of Year.
		Separate Cells.	Wards.	
New South Wales (a) .. .. .	26	(b) 2,356	..	1,515
Victoria .. .. .	12	1,292	485	1,347
Queensland .. .. .	6	530	98	331
South Australia .. .. .	15	762	174	296
Western Australia .. .. .	19	609	486	229
Tasmania .. .. .	1	142	4	104
Northern Territory (c) .. .. .	3	..	66	25
<b>Total .. .. .</b>	<b>82</b>	<b>5,691</b>	<b>1,313</b>	<b>3,847</b>

(a) Year ended 30th June following.  
December, 1934.

(b) Total accommodation.

(c) Year ended 31st

The figures refer to prisoners under sentence and are exclusive of aborigines. There are no gaols in the Federal Capital Territory, but there is a lock-up attached to the police station, where offenders are held while awaiting trial, and sentences not exceeding one week imposed by a magistrate may be served.

2. **Prisoners in Gaol, 1929 to 1933.**—The number of prisoners in gaol at the 31st December in each of the years 1929 to 1933 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.	1929.	1930.	1931.	1932.	1933.
NUMBER.					
New South Wales (a) .. .. .	1,842	1,691	1,648	1,775	1,515
Victoria .. .. .	1,145	1,299	1,407	1,339	1,347
Queensland .. .. .	368	323	318	353	331
South Australia .. .. .	368	361	369	313	296
Western Australia .. .. .	315	382	319	337	229
Tasmania .. .. .	89	116	125	125	104
Northern Territory .. .. .	(a) 30	(a) 26	(a) 25	(a) 21	(b) 25
<b>Total .. .. .</b>	<b>4,157</b>	<b>4,198</b>	<b>4,211</b>	<b>4,263</b>	<b>3,847</b>

(a) Year ended 30th June following.

(b) Year ended 31st December, 1934.

PRISONERS IN GAOL—*continued.*

State.	1929.	1930.	1931.	1932.	1933.
PER 10,000 OF THE POPULATION.					
New South Wales (a) ..	7.4	6.7	6.4	6.9	5.8
Victoria ..	6.5	7.3	7.8	7.4	7.4
Queensland ..	4.1	3.5	3.4	3.8	3.5
South Australia ..	6.4	6.3	6.4	5.4	5.1
Western Australia ..	7.5	8.9	7.4	7.7	5.2
Tasmania ..	4.1	5.3	5.6	5.5	4.6
<b>Total ..</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>5.8</b>

(a) Year ended 30th June following.

The proportion to population of prisoners in gaol under sentence dropped sharply in 1933 following a figure that had remained stationary during the previous four years. The result for 1933 contrasts most favourably with that obtaining in 1891 when the proportion was as high as 16 per 10,000. Rates for the Northern Territory have not been included on account of the abnormal conditions prevailing there.

3. **Improvement in Prison Methods.**—In previous issues of the Official Year Book a more or less detailed account was given of the improvements effected in each State during recent years in regard to methods of prison management (see Official Year Book 22, pp. 471-4), but this information is not repeated in the present volume.

§ 5. Civil Courts.

1. **Lower Courts.**—The transactions of the lower courts on the civil side during the year 1933 are given in the table hereunder. Particulars for earlier years will be found in preceding issues of the Official Year Book.

LOWER COURTS.—CIVIL CASES, 1933.

State.	1933.	State.	1933.
New South Wales	{ Cases No. 63,999 Amount £ 372,065	Western Australia	{ Cases No. 21,480 Amount £ 106,551
Victoria ..	{ Cases No. 79,424 Amount £ 582,241	Tasmania ..	{ Cases No. 8,385 Amount £ 56,020
Queensland (a) ..	{ Cases No. 19,874 Amount £ 207,385	<b>Total ..</b>	{ Cases No. 215,323 Amount £ 1,707,147
South Australia ..	{ Cases No. 22,161 Amount £ 382,885		

(a) Year ended 30th June, 1934.

Particulars in regard to the amount of judgments involved in the 136 civil cases in the Northern Territory during the year ended 31st December, 1934, are not available.

Causes dealt with in the Civil Courts of the Federal Capital Territory during the year 1933 were as follow:—Lower Courts Causes 390, judgments £3,419; Higher Courts: Causes 7, judgments £1,523.

The figures just given represent the returns from Petty Sessions Courts in New South Wales and Victoria, the Petty Debts Courts in Queensland, the Local Courts of South Australia and Western Australia, and the Courts of Requests in Tasmania.

2. Superior Courts.—In the next table will be found the transactions on the civil side in the Superior Courts during the year 1933. Particulars for previous years will be found in preceding issues.

The New South Wales returns refer to the total amounts of judgments in the District Courts, and are exclusive of judgments signed in the Supreme Court, for which the amount is not available.

#### SUPERIOR COURTS.—CIVIL CASES, 1933.

State.	1933.	State.	1933.
New South Wales	{ Causes No. 1,870 Amount £ 320,163	Western Australia	{ Causes No. 390 Amount £ 29,715
Victoria	{ Causes No. 671 Amount £ 75,671	Tasmania	{ Causes No. 243 Amount £ 15,690
Queensland	{ Causes No. 230 Amount £ 29,288	Total	{ Causes No. 3,664 Amount £ 527,919
South Australia	{ Causes No. 260 Amount £ 57,392		

Causes numbering 1,964, involving an amount of £208,709, in which judgment was entered by default or consent, have been excluded from the returns for Victoria.

3. Divorces and Judicial Separations.—The number of divorces and judicial separations in each State during the period 1929 to 1933 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.	1929.		1930.		1931.		1932.		1933.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
New South Wales ..	1,078	17	933	7	1,084	3	853	17	1,014	22
Victoria ..	546	2	387	1	423	3	459	..	499	..
Queensland (a) ..	89	..	119	2	107	1	90	..	109	5
South Australia ..	107	..	148	1	139	..	134	..	163	2
Western Australia ..	167	1	153	2	138	1	110	..	121	..
Tasmania ..	48	1	42	..	47	..	33	..	42	..
Northern Territory (a)	1	..	1	..	..	..	1	..	..	..
Total ..	2,036	21	1,783	13	1,938	7	1,680	17	1,948	29

(a) Year ended 30th June following.

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

#### DIVORCES AND JUDICIAL SEPARATIONS.—AUSTRALIA.

	1871-80.	1881-90.	1891-1900.	1901-10.	1911-20.	1921-30.
Averages ..	29	70	358	401	707	1,699
Per 10,000 existing marriages ..	0.98	1.74	6.86	6.15	8.13	15.45

The rapid increase of divorce during the period 1891-1900 occurred largely in New South Wales and Victoria where legislation passed respectively in 1899 and 1889 made the separation of the marriage tie comparatively easy.

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

5. Bankruptcies.—Particulars relating to bankruptcy in each State up to the end of the year 1927 were incorporated under this heading in preceding issues of the Official Year Book. Under the terms of the Bankruptcy Act 1924-1933 jurisdiction in bankruptcy and insolvency was taken over by the Commonwealth from 1st August, 1928. The Act makes provision for the declaration of districts, and each State (except Queensland) has been declared a bankruptcy district. The bankruptcy district of New South Wales includes the Federal Capital Territory, while Queensland has been divided into three districts corresponding to the three Supreme Court districts in that State. The Northern Territory was also declared a separate bankruptcy district. Operations under the Act for the year ended 31st July, 1934, are given in the following table. For the purposes of comparison, figures for each of the preceding two years have been appended to the table.

COMMONWEALTH BANKRUPTCY ACT RETURNS, 1933-34.

Heading.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
Sequestration Orders and Orders for administration of Deceased Debtors' Estates	Number ..	366	218	130	175	43	51	983
	Liabilities £	443,636	509,745	154,575	259,425	63,618	74,488	1,505,487
	Assets £	208,926	116,156	103,417	116,231	47,460	32,886	625,076
Compositions, etc., after Bankruptcy	Number ..	..	3	1	..	..	1	5
	Liabilities £	..	11,293	1,643	..	..	1,406	14,342
	Assets £	..	2,180	1,000	..	..	650	3,830
Compositions, etc., without Bankruptcy	Number ..	14	11	..	434	89	6	554
	Liabilities £	24,263	37,996	..	1,230,159	138,495	9,803	1,440,716
	Assets £	7,611	39,414	..	888,459	113,226	9,224	1,057,934
Deeds of arrangement	Number ..	266	212	81	..	15	13	592
	Liabilities £	493,342	402,150	225,534	18,408	53,575	9,665	1,202,674
	Assets £	510,932	322,803	207,600	15,225	44,169	8,406	1,109,135
Total, 1933-34	Number ..	646	444	212	614	147	71	2,134
	Liabilities £	961,241	961,134	381,752	1,507,992	255,688	95,362	4,163,219
	Assets £	727,409	480,553	312,017	1,019,915	204,855	51,166	2,795,975
Total, 1932-33	Number ..	637	527	270	561	157	68	2,222
	Liabilities £	1,064,159	1,248,159	1,024,732	1,277,991	597,634	68,745	5,282,720
	Assets £	817,369	749,426	760,925	1,049,038	536,300	44,626	3,958,082
Total, 1931-32	Number ..	863	689	314	764	226	109	2,965
	Liabilities £	2,340,735	1,280,401	537,110	1,490,938	842,201	125,436	6,616,821
	Assets £	1,684,508	754,978	434,981	1,087,352	1,182,476	105,313	5,249,608

The Commonwealth Attorney-General's Report for the year ended 31st July, 1929, states that comparative tables have not been prepared in relation to State bankruptcy or insolvency for previous years, as the methods of collection and presentation do not afford a reliable common basis. It is also pointed out that the procedure



in certain States has been largely influenced by the procedure in force prior to the passing of the Commonwealth Act, and that, therefore, no particular significance attaches to the large number of compositions, etc., in South Australia and Western Australia. The Bankruptcy Act 1930 created a Federal Court of Bankruptcy and gave power to appoint two Judges thereto. In 1930 a Federal Judge in Bankruptcy was appointed to deal with bankruptcy work, in addition to the State Judges, in New South Wales and Victoria, the Courts in these States having been unable to cope with the business. All the bankruptcy cases in these States are now heard by the Federal Judge who sits in Sydney and Melbourne alternately.

5. **High Court of Australia.**—Under the provisions of section 71 of the Commonwealth Constitution Act, the judicial power of the Commonwealth is vested in a Federal Supreme Court, called the High Court of Australia, and in such other courts as the Parliament creates or invests with federal jurisdiction. The Federal High Court possesses both original and appellate jurisdiction. The powers of the Court are defined in Chapter III. of the Constitution Act and in the Judiciary Acts of 1903–1933. At present the Court consists of a Chief Justice and five other judges. Sittings of the Court are held in the capitals of the various States as occasion may require. The High Court functions as a Court of Appeal for Australia. The following statement shows the transactions of the High Court for the years 1933 and 1934. Figures for previous years are given in preceding issues.

**COMMONWEALTH HIGH COURT.—TRANSACTIONS, 1933 AND 1934.**

Original Jurisdiction.			Appellate Jurisdiction.		
	1933.	1934.		1933.	1934.
Number of writs issued	43	42	Number of appeals set down for hearing ..	116	132
Number of causes entered for trial ..	10	14	Number allowed ..	39	49
Verdicts for plaintiffs ..	4	3	Number dismissed ..	54	61
Verdicts for defendants	1	2	Otherwise disposed of	2	4
Otherwise disposed of ..	4	6			
Amount of judgments	£105,772	£4,931			

During the years 1933 and 1934 respectively the Court dealt also with the following—Appeals from Assessments under the Taxation Assessment Acts, 39, 73; special cases stated for the opinion of the Full Court, 6, 17; Applications for Prohibitions, etc., 8, 9. The fees collected in 1933 amounted to £676, and in 1934 to £900.

7. **Commonwealth Court of Conciliation and Arbitration.**—A more or less detailed statement regarding the operation of this Court, which was established under the provisions of the Commonwealth Conciliation and Arbitration Act of 1904–1930, will be found in the Chapter dealing with Labour, Wages, etc.

**§ 6. Cost of Administration of Justice.**

1. **Expenditure by the States.**—The table below shows the expenditure from Consolidated Revenue during the year 1933–34 in connexion with the administration of justice in each of the States.

STATE EXPENDITURE ON JUSTICE, 1933-34.

State.	Expenditure.	Per Head of Population.	State.	Expenditure.	Per Head of Population.
	£	s. d.		£	s. d.
N.S.W. ..	Police 1,421,749	10 11	W.A. ..	Police 218,523	9 11
	Gaols 299,798	2 4		Gaols 26,008	1 1
	Other 461,430	3 10		Other 71,274	3 2
Vic. ..	Police 807,435	8 10	Tas. ..	Police 85,161	7 5
	Gaols 106,332	1 1		Gaols 11,590	1 0
	Other 203,655	2 4		Other 30,597	2 7
Q'land ..	Police 522,132	10 11			
	Gaols 28,356	0 7			
	Other 168,807	3 6			
S.A. ..	Police 279,481	9 7	Total ..	Police 3,334,481	10 1
	Gaols 39,209	1 5		Gaols 511,293	1 6
	Other 60,911	1 11		Other 996,674	3 0

The total expenditure in connexion with the administration of justice in the various States declined from 17s. 7d. per inhabitant in 1929-30 to 14s. 7d. in 1933-34. As might naturally be expected, in view of the necessity for economy, the total expenditure on this service for the year 1933-34 amounting to £4,842,000 shows a considerable decline as compared for example with that for 1930-31 when the total was returned at £5,658,000.

2. Federal Expenditure.—The expenditure shown in the foregoing table is that incurred by the State Governments only, and does not include expenditure in connexion with the Commonwealth Attorney-General's Department, which is given hereunder for the period 1929-30 to 1933-34 :—

COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT—EXPENDITURE.

Year.	Amount.	Year.	Amount.
	£		£
1929-30 .. ..	245,491	1932-33 .. ..	197,070
1930-31 .. ..	233,199	1933-34 .. ..	207,279
1931-32 .. ..	196,528		

The totals for each year include expenditure in connexion with Patents and Copyright which decreased from £56,301 in 1929-30 to £43,773 in 1933-34. As pointed out previously, the Commonwealth took over jurisdiction in bankruptcy in August, 1928, and the expenditure thereon in 1933-34 amounted to £31,050, including the salary of the Federal Judge, £2,500. Expenditure in connexion with the Federal Capital Territory police amounted in 1933-34 to £4,529, while £1,381 was expended on miscellaneous items including the Law Court, Titles Office, and Industrial Arbitration Board. During the same year the Department of the Interior expended the following amounts in the Northern Territory :—Police, £23,743 ; Prisons, £5,255 ; other expenditure in connexion with administration of Justice, £4,569.

## CHAPTER X.

### PUBLIC BENEVOLENCE.

#### § 1. Introductory.

Charity and charitable effort in Australia may be classified under three headings, viz. :—(a) State ; (b) public ; and (c) private. To the first belong all institutions wholly provided for by the State, such as the principal hospitals for the insane in the various States, the Government and leased hospitals in Western Australia, and the Government asylums for the infirm in New South Wales. The other classes comprise public institutions of two kinds, viz. :—(i) those partially subsidized by the State or State endowed, but receiving also private aid, and (ii) those wholly dependent upon private aid. To the former division belong such institutions as the principal metropolitan hospitals. In the latter are included institutions established and endowed by individuals for the benefit of the needy generally. All charitable movements of a private character are included in the third group. A more or less accurate statistical account is possible in classes (a) and (b), but in regard to (c) complete tabulation is, for obvious reasons, impossible. Owing to differences in the method and date of collection and tabulation it is impossible to bring statistics of charitable institutions to a common year. In general, there is considerable want of harmony in the statistical information available for the different States.

No poor-rate is levied in Australia. Reference to old-age pensions, invalid pensions, and maternity allowances, which are provided by the Commonwealth Government, will be found in the Chapter "Public Finance" herein.

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, the total for Australia was estimated to exceed £12,500,000.

#### § 2. The Larger Charities of Australia.

1. **Public Hospitals (other than Hospitals for the Insane).**—(i) *General.* All the State capitals have several large and well-equipped hospitals, and there is at least one in every important town. In large centres there are hospitals for infectious diseases, consumptives, women, children, incurables, etc.

The particulars given herein refer to public hospitals at the latest available date, and include all institutions affording hospital relief, whether general or special, with the exception of the hospitals for the insane, and private hospitals conducted commercially. It is considered that the extension of the scope of these statistics to embrace both general and special institutions will afford a better comparison as between the various States than the statistics previously issued relating to general hospitals only. The particulars for New South Wales in the following tables relate to hospitals operating under The Public Hospitals Act.

(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, 1933.* Details regarding the number of hospitals, staffs, and accommodation for the year 1933, or nearest available year, are given in the appended table :—

**PUBLIC HOSPITALS.—NUMBER, STAFFS, AND ACCOMMODATION, 1933.(a)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Hospitals ..	173	77	116	55	90	19	530
Medical Staff— Honorary .. .. .	1,461	833	216	234	130	73	2,947
Salaried .. .. .	253	178	138	47	21	25	662
Total .. .. .	1,714	1,011	354	(b) 281	(c) 151	98	3,609
Nursing Staff .. .. .	3,299	2,146	2,027	(b) 755	(c) 703	351	9,281
Accommodation— Number of beds and cots	10,953	7,129	5,978	(b) 2,245	2,788	1,387	30,480

(a) The figures relate to the years ended as follow :—New South Wales, Queensland and Western Australia—30th June, 1934 ; South Australia and Tasmania—31st December, 1933 ; Victoria—30th June, 1933. (b) Exclusive of particulars of Lying-in Homes, Sanatoria, and Convalescent Homes. (c) Exclusive of " Leased " Hospitals.

The figures for accommodation shown in the above table include, where available, a considerable number of beds and cots for certain classes of cases in out-door or verandah sleeping places.

(iv) *Patients Treated.* The table hereunder furnishes particulars respecting patients treated.

**PUBLIC HOSPITALS.—PATIENTS TREATED, 1933.(a)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Indoor Relief—Inmates at beginning of year—							
Males .. .. .	(b)	2,628	1,935	683	839	346	(b)
Females .. .. .	(b)	2,625	1,665	746	657	437	(b)
Total .. .. .	7,126	5,253	3,600	1,429	1,496	783	19,687
Admissions and Re-admis- sions during year—							
Males .. .. .	(b)	34,428	42,984	13,399	19,722	7,370	(b)
Females .. .. .	(b)	43,749	39,167	16,305	16,761	9,188	(b)
Total .. .. .	162,117	78,177	82,151	29,704	36,483	16,558	405,190
Discharges—							
Males .. .. .	72,674	31,815	40,933	12,561	18,621	6,978	183,582
Females .. .. .	82,140	41,894	37,978	15,705	16,170	8,937	202,824
Total .. .. .	154,814	73,709	78,911	28,266	34,791	15,915	386,406
Deaths—							
Males .. .. .	3,981	2,541	2,120	842	1,019	414	10,917
Females .. .. .	2,679	1,719	1,191	574	535	300	6,998
Total .. .. .	6,660	4,260	3,311	1,416	1,554	714	17,915
Inmates at end of year—							
Males .. .. .	(b)	2,700	1,866	679	921	324	(b)
Females .. .. .	(b)	2,761	1,663	772	713	388	(b)
Total .. .. .	7,769	5,461	3,529	1,451	1,634	712	20,556
Average Daily Number Resident—							
Males .. .. .	(b)	(b)	(b)	744	(b)	348	(b)
Females .. .. .	(b)	(b)	(b)	722	(b)	419	(b)
Total .. .. .	7,538	5,381	3,561	(c) 1,466	1,641	767	20,354

(a) See footnote (a) to previous table. (b) Not available. (c) See footnote (b) to previous table.

(v) *Revenue and Expenditure.* The revenue and expenditure for the year 1933 were as follow :—

**PUBLIC HOSPITALS.—REVENUE AND EXPENDITURE, 1933.(a)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust. (b)	Tas.	Total.
Revenue—	£	£	£	£	£	£	£
Government Aid ..	840,284	302,872	320,166	208,461	158,750	54,190	1,884,723
Municipal Aid ..	..	77,007	124,838	42,722	748	5,564	250,879
Public Subscriptions, Legacies, etc. ..	(d)348,593	253,188	80,690	19,047	9,027	7,427	717,972
Fees ..	365,575	158,655	161,538	71,087	87,881	44,560	889,296
Other ..	77,157	133,550	64,174	12,866	25,150	4,041	316,938
<b>Total ..</b>	<b>1,631,609</b>	<b>925,272</b>	<b>751,406</b>	<b>354,183</b>	<b>281,556</b>	<b>115,782</b>	<b>4,059,808</b>
Expenditure—							
Salaries and Wages	621,377	360,036	324,840	137,985	128,855	55,227	1,628,320
Upkeep and Repair of Buildings and Grounds ..	51,549	13,489	13,800	13,455	5,708	6,675	104,676
All Other ..	564,516	375,530	356,723	152,023	120,523	51,927	1,621,242
Capital (c) ..	172,957	172,082	41,688	43,746	24,859	..	455,332
<b>Total ..</b>	<b>1,410,399</b>	<b>921,137</b>	<b>737,051</b>	<b>347,209</b>	<b>279,945</b>	<b>113,829</b>	<b>3,809,570</b>

(a) See note (a) to table on page 319. (b) Excluding "Leased" Hospitals, except for amounts of Government and Municipal Aid. (c) Includes such items as Purchases of Land, Cost of New Buildings and Additions to Buildings. (d) Includes systematic contributions, £133,315.

(vi) *Summary for Five Years, 1929 to 1933.* 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 for the year 1929 relate mainly to general hospitals, while those for 1930 to 1933 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.—SUMMARY, AUSTRALIA.**

Particulars.	1929.	1930.	1931.	1932.	1933.
Number of institutions ..	480	508	513	531	530
Number of beds ..	24,867	28,041	(b) 27,574	29,066	30,480
Admissions during year ..	319,754	353,190	353,266	378,777	405,190
Total indoor cases treated ..	335,530	370,743	371,315	397,795	424,877
Deaths ..	18,004	18,361	(a) 10,482	17,455	17,915
Expenditure ..	£ 4,064,654	4,318,212	3,524,414	3,518,087	3,809,570

(a) Exclusive of New South Wales.

(b) Excluding out-door beds in New South Wales.

In addition to those admitted to the institutions, there are large numbers of out-patients. So far as the returns show there were 576,548 out-patients treated in New South Wales, 244,653 in Victoria, 209,803 in Queensland, 50,369 in South Australia, and 42,446 in Tasmania.

2. *Benevolent and Destitute Asylums.*—(i) *General.* The public provision for the care of indigent old people has been a feature of the social development of recent years in most countries. Numerous establishments exist in Australia for the housing and protection of persons no longer able to provide for themselves. These institutions are supported by Government and municipal aid, public subscriptions, bequests, etc.; while in many cases relatives of poor and afflicted persons contribute to their maintenance.

An entirely satisfactory statistical tabulation in regard to all forms of charitable aid is especially difficult in the case of benevolent institutions, because the services provided by these institutions are not always identical. For example, in Western Australia, the Home for Destitute Women includes a maternity ward, for which statistics are not kept separately. Since the chief function of the institution is to help the destitute, it has been included amongst benevolent asylums. In Victoria, although several of the hospitals were formerly also benevolent asylums, a separation was effected and asylum patients were transferred to appropriate institutions.

(ii) *Principal Institutions.* Particulars respecting the accommodation and the numbers of inmates of the principal institutions were published in earlier issues of the Official Year Book (See No. 22, p. 485).

(iii) *Revenue and Expenditure.* Details regarding revenue and expenditure for the year 1933 are given in the following table:—

**BENEVOLENT ASYLUMS.—REVENUE AND EXPENDITURE, 1933.(a)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
<b>Revenue—</b>							
Government Aid ..	103,078	41,629	36,249	9,200	8,139	11,059	209,354
Municipal Aid ..	..	924	..	..	..	..	924
Public Subs., Legacies, etc. ..	2,942	13,130	451	..	..	..	16,523
Fees ..	1,836	38,004	22,178	5,520	12,478	3,763	83,779
Other ..	30,192	12,961	255	859	301	306	44,874
<b>Total ..</b>	<b>138,048</b>	<b>106,648</b>	<b>59,133</b>	<b>15,579</b>	<b>20,918</b>	<b>15,128</b>	<b>355,454</b>
<b>Expenditure—</b>							
Salaries and Wages ..	66,123	27,785	51,774	5,282	9,539	6,673	167,176
Upkeep and Repair of Buildings ..	3,401	3,114	201	483	506	138	7,843
All Other (b) ..	69,021	74,879	7,483	9,814	10,893	8,317	180,407
<b>Total ..</b>	<b>138,545</b>	<b>105,778</b>	<b>59,458</b>	<b>15,579</b>	<b>20,938</b>	<b>15,128</b>	<b>355,426</b>

(a) The figures relate to the years ended as follow:—New South Wales, South Australia and Tasmania—31st December, 1933; Victoria—30th June, 1933; and Queensland and Western Australia—30th June, 1934. (b) Including £24,152 in Victoria and £20 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 expenditure on orphanages, etc., in 1933 was approximately £360,000.

(ii) *Principal Institutions.* Particulars concerning the principal institutions in each State were published in earlier Year Books (See No. 22, p. 486).

(iii) *Transactions of State Departments.* The following table summarizes the transactions in 1933 of State Departments for the relief of neglected children :—

STATE RELIEF OF NEGLECTED CHILDREN.—SUMMARY, 1933.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of children in institutions or boarded-out at State expense—							
Males .. ..	2,339	2,819	732	510	662	174	7,236
Females .. ..	1,930	2,016	578	378	539	108	5,549
Total .. ..	4,269	4,835	1,310	888	1,201	282	12,785
Number of children boarded-out with their mothers or female relatives or on probation— not included in above figures—							
Males .. ..	10,328	9,737	2,836	826	223	165	27,944
Females .. ..			2,764	690	237	138	
Total .. ..	10,328	9,737	5,600	1,516	460	303	27,944
Total children under State control or supervision..	14,597	14,572	6,910	2,404	1,661	585	40,729
Gross cost of children's relief .. ..	£ 449,794	£ 294,288	£ 197,499	£ 44,408	£ 26,305	£ 14,345	£ 1,026,639
Receipts from parents' contributions, etc. ..	17,014	7,938	8,105	3,527	4,225	810	41,619
Net cost to State..	432,780	286,350	189,394	40,881	22,080	13,535	985,020

(a) The figures relate to the years ended as follow :—New South Wales—31st December, 1934; Victoria—31st December, 1933; Queensland—finances, 31st December, 1933, other particulars, 30th June, 1934; Other States—30th June, 1934.

4. *Leper Hospitals.*—Isolation hospitals for the treatment of lepers have been established in New South Wales (Little Bay); Queensland (Peel Island, near Brisbane); and the Northern Territory (Channel Island, near Darwin). At the end of 1934 there were 17 cases in residence at Little Bay, 63 at Peel Island, and 117 in the Northern Territory. During the year 1934, 11 cases of leprosy were reported in Australia, of which 8 were recorded in Queensland and 3 in the Northern Territory. There were 10 deaths from leprosy registered during 1934 in the Commonwealth and 5 in 1933.

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., 1933.* Particulars regarding the number of institutions, the medical and nursing staffs, and accommodation are given in the appended table for the year 1933 :—

**HOSPITALS FOR THE INSANE.—NUMBER, STAFFS, ACCOMMODATION, 1933.(a)**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Institutions ..	13	(b) 13	3	2	5	1	37
Medical Staff—							
Males .. ..	32	29	6	6	5	3	81
Females .. ..	4	..	1	..	..	..	5
Total .. ..	36	29	7	6	5	3	86
Nursing Staff and Attendants—							
Males .. ..	964	718	286	106	128	63	2,265
Females .. ..	944	650	222	95	105	79	2,095
Total .. ..	1,908	1,368	508	201	233	142	4,360
Accommodation—							
Number of beds and cots	10,901	6,248	3,320	1,538	1,759	661	24,427

(a) The figures relate to years ended as follow :—New South Wales, Queensland and Tasmania—30th June, 1934 ; other States—31st December, 1933. (b) Includes five licensed private houses, in which cases at the end of the year numbered 87 ; other particulars not available.

(iii) *Patients, 1933.* Information regarding patients treated, deaths, etc., for the year 1933 is given in the table hereunder :—

**HOSPITALS FOR THE INSANE.—PATIENTS, DEATHS, ETC., 1933.(a)**

Particulars.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of distinct persons treated during year (c)—							
Males .. ..	6,271	3,680	2,232	908	993	384	14,468
Females .. ..	5,300	3,911	1,521	773	514	360	12,379
Total .. ..	11,571	7,591	3,753	1,681	1,507	744	26,847
Number of patients on books at beginning of year—							
Males .. ..	5,509	3,274	1,923	768	871	340	12,685
Females .. ..	4,613	3,468	1,271	642	449	321	10,764
Total .. ..	10,122	6,742	3,194	1,410	1,320	661	23,449
Admissions and re-admissions exclusive of absconders retaken (c)—							
Males .. ..	774	406	309	140	122	44	1,795
Females .. ..	748	443	250	131	65	39	1,670
Total .. ..	1,522	849	559	271	187	83	3,471
Discharges (including absconders not retaken)—							
Males .. ..	352	153	169	65	65	16	820
Females .. ..	341	190	119	53	24	19	746
Total .. ..	693	343	288	118	89	35	1,566

(a) See footnote (a) to previous table. (b) Exclusive of five licensed private houses.  
(c) Exclusive of transfers to other Institutions.



## HOSPITALS FOR THE INSANE.—PATIENTS, DEATHS, ETC., 1933 (a)—continued.

Particulars.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Deaths—							
Males .. .. .	345	230	155	62	56	19	867
Females .. .. .	239	206	96	36	31	23	631
Total .. .. .	584	436	251	98	87	42	1,498
Number of patients on books at end of year—							
Males .. .. .	5,586	3,297	1,908	781	872	349	12,793
Females .. .. .	4,781	3,515	1,306	684	459	318	11,063
Total .. .. .	10,367	6,812	3,214	1,465	1,331	667	23,856
Average daily number resident—							
Males .. .. .	5,238	2,819	1,914	776	850	340	11,937
Females .. .. .	4,236	3,069	1,254	658	437	318	9,972
Total .. .. .	9,474	5,888	3,168	1,434	1,287	658	21,909
Number of patients on books at end of year per 1,000 of population—							
Males .. .. .	4.21	3.64	3.80	2.68	3.72	3.03	3.78
Females .. .. .	3.70	3.82	2.87	2.35	2.23	2.82	3.37
Persons .. .. .	3.95	3.73	3.35	2.51	3.02	2.93	3.58
Average number of patients resident in hospitals for insane per 1,000 of mean population—							
Males .. .. .	3.95	3.12	3.84	2.67	3.63	2.94	3.54
Females .. .. .	3.29	3.35	2.77	2.27	2.13	2.81	3.05
Persons .. .. .	3.63	3.23	3.35	2.47	2.93	2.87	3.30

(a) See footnote (a) to previous table.

(b) Exclusive of five 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, 1933.* The revenue of Government asylums is small in comparison with their cost, and consists chiefly of patients' fees. The proportion of expenditure borne by the State amounts to about 84 per cent.

## HOSPITALS (GOVERNMENT) FOR THE INSANE.—FINANCES, 1933.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Revenue (Exclusive of Government Grants)—	£	£	£	£	£	£	£
Fees of Patients .. .. .	98,105	32,191	27,723	18,825	16,964	7,894	201,702
Other .. .. .	2,484	4,619	782	2,858	1,782	105	12,630
Total .. .. .	100,589	36,810	28,505	21,683	18,746	7,999	214,332
Expenditure—							
Salaries and Wages .. .. .	365,164	234,057	121,764	46,179	53,413	26,832	847,409
Upkeep and Repair of Buildings and Grounds .. .. .	12,289	11,846	401	2,310	30,553	693	526,702
All Other .. .. .	175,270	138,973	(b) 74,328	(b) 60,956			
Total .. .. .	552,723	384,876	196,493	109,445	83,966	46,608	1,374,111
Expenditure per Average Daily Resident .. .. .	£58/6/10	£65/7/4	£62/0/6	£76/6/5	£65/4/10	£70/16/8	62/14/5

(a) The figures relate to years ended as follow:—South Australia—31st December, 1933; other States—30th June, 1934.

(b) Includes £9,699 in Queensland and £20,991 in South Australia covering such items as Purchases of Land, Cost of New Buildings, and Additions to Buildings.

(v) *Summary for Australia, 1929 to 1933.* The table hereunder gives a summary of hospitals for the insane in Australia during each of the five years 1929 to 1933. 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 the number of institutions for Victoria, and in all particulars save expenditure for New South Wales. 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.	1929.	1930.	1931.	1932.	1933.
Number of institutions .. ..	38	37	36	36	37
„ „ beds .. ..	20,951	21,779	22,540	23,440	24,427
Admissions .. ..	3,471	3,443	3,314	3,318	3,471
Discharged as recovered, relieved, etc.	1,625	1,558	1,497	1,523	1,566
Deaths .. ..	1,451	1,297	1,503	1,422	1,498
Expenditure—Total .. ..	£1,721,602	1,539,003	1,356,387	1,355,515	1,374,111
„ —Per Average Daily Resident .. ..	£83/11/10	£72/17/8	£63/2/6	£62/8/7	£62/14/5

(vi) *Number of Insane, 1929 to 1933.* 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 and may possibly be a reflection of the financial stress of the period.

## INSANE PERSONS IN INSTITUTIONS.

State.	1929.	1930.	1931.	1932.	1933.
NUMBER.					
New South Wales .. ..	9,377	9,670	9,894	10,122	10,367
Victoria .. ..	6,531	6,669	6,704	6,742	6,812
Queensland .. ..	3,042	3,108	3,162	3,194	3,214
South Australia .. ..	1,374	1,404	1,395	1,410	1,465
Western Australia .. ..	1,252	1,274	1,275	1,320	1,331
Tasmania .. ..	622	635	646	661	667
Australia .. ..	22,198	22,760	23,076	23,449	23,856

## PER 1,000 OF POPULATION.

New South Wales .. ..	3.71	3.79	3.84	3.89	3.95
Victoria .. ..	3.67	3.72	3.72	3.72	3.73
Queensland .. ..	3.34	3.35	3.37	3.37	3.35
South Australia .. ..	2.40	2.44	2.42	2.43	2.51
Western Australia .. ..	2.93	2.95	2.94	3.02	3.02
Tasmania .. ..	2.79	2.82	2.85	2.90	2.93
Australia .. ..	3.44	3.50	3.52	3.55	3.58

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.

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.

(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.* (a) *New South Wales and Victoria.* Particulars are not available regarding the average length of residence in hospitals of persons who died or were discharged during the year.

(b) *Queensland.* The average residence of those who died during the year was 9 years 36 days for males and 6 years 266 days for females; of those discharged 1 year 231 days for males and 1 year 225 days for females.

(c) *South Australia.* The average residence of those who died during the year was 5 years 3 months 23 days for males, and 9 years 2 months 16 days for females; of those discharged, 1 year 5 months 14 days for males, and 11 months 16 days for females.

(d) *Western Australia.* The average residence of those who died was 9 years 21 days for males, and 4 years 8 months for females; of those discharged, 2 years 1 month for males and 3 years 18 days for females.

(e) *Tasmania.* The average residence of those who died during the year was 11 years 7 months 7 days for males, and 12 years 10 days for females; of those discharged, 1 year 3 months 28 days for males, and 2 years 3 months 15 days for females.

6. *Care of the Feeble-minded.*—An account of the treatment of the feeble-minded, supplied by the Public Health Department of Tasmania, appeared in Official Year Book No. 19, pp. 477 and 478.

7. *Protection of Aborigines.*—For the protection of the aboriginal Australian race there are institutions, under the supervision of Aborigines Boards, where these people are housed and encouraged to work, the children receiving elementary education. The work is usually carried on at mission stations, but many of the natives are nomadic, and receive food and clothing when they call, whilst others but rarely come near the stations. The native race is extinct in Tasmania. The expenditure from Consolidated Revenue in 1933-34 was, New South Wales, £54,082; Victoria, £7,364; Queensland, £41,107; South Australia, £21,652; Western Australia, £23,151; Northern Territory, £6,820 (including £1,120 Government subsidy to aboriginal mission stations); total for Australia, £154,176. According to the latest census taken by the Commonwealth Bureau of Census and Statistics, the numbers of full-blood and half-caste aborigines living in supervised camps in each State at 30th June, 1934, were as follow:—

ABORIGINES.(a)—AUSTRALIA—30th JUNE, 1934.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Northern Territory.	Total.
	No.	No.	No.	No.	No.	No.	No.
Full-bloods ..	547	31	5,561	77	1,761	2,768	10,745
Half-castes ..	3,501	204	1,738	631	719	352	7,145

(a) Living in supervised camps. See letterpress above table.

Particulars regarding total numbers of aborigines in each State will be found in the Chapter dealing with Population.

8. **Royal Life Saving Society.**—In each of the State capitals, “centres” of the Royal Life Saving Society have been established, and in some States sub-centres have also been established in the larger provincial districts. Recently an Australian Federal Council of this Society has been formed with head-quarters at Melbourne, and each State centre or branch as it is now called is controlled by the new Organization. Saving of life from drowning and other forms of asphyxiation is the object of the Society, and its immediate aims are (a) educative and (b) remedial. The encouragement of swimming and life-saving in schools, colleges, clubs, etc., will bring about a more widespread knowledge of these necessary matters, and there is increasing provision of life-belts, reels, lines, and other first-aid appliances on ocean beaches, wharves, and other suitable places. Numerous certificates of proficiency in various grades are issued annually after examination throughout Australia, the numbers for the individual States for 1934 being:— New South Wales, 2,783; Victoria, 1,035; Queensland, 672; South Australia, 616; Western Australia, 1,150; and Tasmania, 192.

9. **Royal Humane Society.**—The Royal Humane Society of Australasia has for its objects (a) to grant awards for skill, promptness, and perseverance in life-saving, where the rescuer has risked his or her life; (b) to provide assistance in cases of danger and apparent death; (c) to restore the apparently drowned; (d) to collect and circulate the latest information regarding approved methods and apparatus for life-saving. Awards of medals and certificates are made numbering about 100 annually. Upwards of 300 lifebuoys have been provided at various places on the coasts, rivers, lakes, and reservoirs in the various States. Swimming is encouraged amongst school children, and awards are made for proficiency.

10. **Other Charitable Institutions.**—Owing to variety of name and function of other charitable institutions it has been found impracticable to give detailed results. The aid given in kind—food, clothing, tools of trade, etc.—is considerable, whilst the shelter and treatment afforded range from a bed for a night for casual callers in establishments ministering minor charity, to indoor treatment over long periods in those that exist for the relief of the aged and the infirm. The institutions not so particularized include asylums for the deaf, dumb, and blind, infant homes, homes for the destitute and aged poor, industrial colonies, night shelters, crèches, homes of hope, rescue homes, free kindergarten and ragged schools, auxiliary medical charities, free dispensaries, benevolent societies and nursing systems, ambulance and health societies, boys’ brigades, humane and animals’ protection societies, prisoners’ aid associations, shipwreck relief societies, bush fires and mining accident relief funds, etc.

11. **Total Expenditure on Charities.**—Issues of the Official Year Book, prior to No. 24, embodied statistics of expenditure on charities. The returns available, however, included a portion only of direct expenditure by Governments, and, in general, there is lack of harmony in the information available for the different States. Pending the result of further inquiry it has been decided to omit this table from the present chapter.

## CHAPTER XI.

## PUBLIC HYGIENE.

## § 1. Public Health Legislation and Administration.

Reference to the various public health authorities, Commonwealth and State, their functions, and the legislation administered, may be found in earlier issues of the Official Year Book (see No. 22, pp. 493 to 495).

## § 2. Inspection and Sale of Food and Drugs.

Legislation in force in all States provides for the inspection of food and drugs with the object of assuring that all those goods which are sold shall be wholesome, clean and free from contamination or adulteration; and that all receptacles, places and vehicles used for their manufacture, storage or carriage shall be clean. For further particulars in this connexion, and with respect also to the sale and custody of poisons, reference should be made to Official Year Book, No. 22, pp. 495-497.

## § 3. Supervision of Dairies, Milk Supply, Etc.

1. *General.*—In earlier issues (see No. 22, pp. 497 to 499), 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 cattle thereon. With regard to the latter the figures are not comparable as milch cows only are collected in some States, while others return all cattle depastured on registered premises.

DAIRY PREMISES REGISTERED, AND CATTLE THEREON, 1934.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.
Premises registered ..	23,506	30,472	26,152	11,329	(b)	5,512
Cattle thereon ..	1,155,800	479,716	927,399	(a)88,027	(b)	(b)

(a) Estimated.

(b) Not available.

## § 4. Control of Infectious and Contagious Diseases.

1. *General.*—The provisions of the various Acts in regard to the compulsory notification of infectious diseases and the precautions to be taken against the spread thereof may be conveniently dealt with under the headings—Quarantine; Notifiable Diseases, including Venereal Diseases; and Vaccination.

2. *Quarantine.*—The Quarantine Act is administered by the Commonwealth Department of Health, and uniformity of procedure has been established in respect of all vessels, persons, and goods arriving from overseas ports or proceeding from one State to another, and in respect of all animals and plants brought from any place outside Australia. In regard to interstate movements of animals and plants, the Act becomes operative only if the Governor-General be of opinion that Federal action is necessary for the protection of any State or States; in the meantime the administration of interstate quarantine of animals and plants is left in the hands of the States. The Commonwealth possesses stations in each State for the purposes of human and of animal quarantine.

Further information concerning the chief provisions of the Act and its administration is given in some detail in earlier issues (see No. 22, p. 500).

3. Notifiable Diseases.—A. General.—(i) *Methods of Prevention and Control.* Provision exists in the Health Acts of all the States for the observance of precautions against the spread and for the compulsory notification of infectious disease. When any such disease occurs, the local authority must at once be notified, and in some States notification must be made to the Health Department, also. The duty of giving this notification is generally imposed, first, on the head of the house to which the patient belongs, failing whom on the nearest relative present, and, on his default, on the person in charge of or in attendance on the patient, and on his default, on the occupier of the building. Any medical practitioner visiting the patient is also bound to give notice.

As a rule the local authorities are required to report from time to time to the Central Board of Health in each State as to the health, cleanliness and general sanitary state of their several districts, and must report the appearance of certain diseases. Regulations are prescribed for the disinfection and cleansing of premises, and for the disinfection or destruction of bedding, clothing, or other articles which have been exposed to infection. Bacteriological examinations for the detection of plague, diphtheria, tuberculosis, typhoid and other infectious diseases within the meaning of the Health Acts are continually being carried out. Regulations are provided in most of the States for the treatment and custody of persons suffering from certain dangerous infectious diseases, such as small-pox and leprosy.

(ii) *Details by States.* In earlier Year Books (see No. 22, p. 501) information was given concerning the notification, etc., of diseases under State headings.

(iii) *Diseases Notifiable and Cases Notified in each State and Territory.* The following table which has been compiled by the Commonwealth Department of Health, shows for the year 1934 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. No case occurred in Australia of plague, cholera, small-pox or yellow fever.

**DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY AND NOTIFICATIONS FOR THE YEAR ENDED 31st DECEMBER, 1934.**

Disease.	N.S.W. (i)	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Fed. Cap. Ter.
Anchyllostomiasis .. .. .	*	..	2	..	..	..	..	..
Anthrax .. .. .	*	..	1	..	..	..	..	..
Beri-beri .. .. .	*	*	*	..	..	*	..	*
Bilharziasis .. .. .	..	..	..	..	..	..	3	..
Cerebro-spinal Fever .. .. .	28	24	2	2	4	..	..	I
Chickenpox .. .. .	*	*	*	1,099	*	*	*	*
Coastal Fever .. .. .	*	*	28	*	*	*	*	*
Dengue Fever .. .. .	*	*	*	*	*	*	5	*
Diphtheria .. .. .	6,290	5,376	1,534	582	974	491	..	111
Dysentery .. .. .	..	20	..	2	11	18	..	..
Encephalitis Lethargica .. .. .	6	19	2	1	2	2	..	..
Erysipelas .. .. .	*	*	*	183	*	..	..	*
Filariasis .. .. .	*	*	..	..	..	..	..	..
Hydatid .. .. .	*	16	..	..	..	..	..	..
Influenza .. .. .	..	*	..	1,280	*	*	73	..
Leprosy .. .. .	..	..	9	..	..	..	3	..
Malaria .. .. .	..	3	(h) 998	3	22	..	36	..
Measles .. .. .	*	*	*	1,249	*	..	I	5
Mumps .. .. .	..	..	..	26	*	..	*	*
Poliomyelitis (a) .. .. .	91	182	16	4	5	32	..	..
Puerperal Fever (b) .. .. .	239	52	16	43	16	15	..	..
Scarlet Fever (c) .. .. .	2,176	1,834	607	643	152	362	I	21
Tetanus .. .. .	..	21	..	..	*	..	..	*
Tuberculosis (d) .. .. .	1,506	1,027	170	370	287	157	4	2
Typhoid Fever (e) .. .. .	138	59	89	20	87	19	..	..
Typhus (Endemic) (f) .. .. .	7	..	7	8	63	..	..	..
Well's Disease (g) .. .. .	..	..	5	*	..	..	..	*
Whooping Cough .. .. .	*	*	*	1,313	*	*	*	99

(a) Includes Poliomyelitis Acute Anterior, Infantile Paralysis and Polioencephalitis. (b) Includes Puerperal Pyrexia. (c) Includes Scarlatina. (d) Includes all forms except in New South Wales, Western Australia and Northern Territory where only pulmonary tuberculosis is notifiable. (e) Includes Enteric Fever and Paratyphoid. (f) Includes Brill's disease, Endemic Typhus and Tropical Typhus. Cases found and recorded are all of the mild form known as Brill's disease or Endemic Typhus. (g) Notifiable in Queensland since 25th August, 1934. (h) Includes 987 cases among natives of Torres Straits and Cape York Peninsula. (i) Provisional figures.

**B. Venereal Diseases.**—(i) *General.* The prevention and control of venereal diseases are undertaken by the States. Each State has a Venereal Diseases Act, or provisions in the Health Act govern the working of the measures taken to combat these diseases. Under these Acts notification has been made compulsory in every State except South Australia, where the Venereal Diseases Act has not yet been proclaimed. Steps have been taken to ensure free treatment by medical practitioners or in subsidized hospitals and clinics. Registered pharmaceutical chemists are allowed to dispense prescriptions only when signed by medical practitioners. Clinics have been established and, in some cases, beds in public hospitals have been set aside for patients suffering from these diseases.

Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person or the employment of an infected person in the manufacture or distribution of foodstuffs.

For several years the Commonwealth Government granted a subsidy to each of the States to assist in providing hospital treatment and administrative control of venereal diseases, but this subsidy has been discontinued.

In 1927 a Division of Tuberculosis and Venereal Disease was established in the Commonwealth Department of Health, with a medical officer as Director. This Division ceased to exist in April, 1932.

(ii) *Details by States.* A statement of the preventive provisions in each State, together with certain statistical data, appeared in earlier Year Books (see No. 22, pp. 503 and 504).

4. **Vaccination.**—(i) *Demand for Vaccine.* In New South Wales there is no statutory provision for compulsory vaccination, though in all the other States such provision exists. Jennerian vaccine for vaccination against small-pox is prepared at the Commonwealth serum laboratories in Melbourne. A moderate demand exists for the vaccine in Victoria, but in the other States the normal requirements are small, as is also the proportion of persons vaccinated.

(ii) *Details by States.* In earlier issues of the Year Book (see No. 22, pp. 504 and 505) information was given concerning the provisions regarding vaccination in each State.

5. **Commonwealth Serum Laboratories.**—The establishment for the preparation of Jennerian vaccine situated at Royal Park, near Melbourne, formerly known as the "Calf Lymph Depot," was in 1918 greatly enlarged by the Commonwealth. The remodelled institution is designated the "Commonwealth Serum Laboratories," and is administered by the Commonwealth Department of Health. The list of biological preparations produced by the laboratories has been extended to cover a wide range, thus forming a valuable national provision for the protection of public health.

6. **Health Laboratories.**—The Commonwealth Department of Health has established health laboratories at Rabaul in New Guinea, at Lismore in New South Wales, at Bendigo in Victoria, at Townsville, Toowoomba, Rockhampton and Cairns in Queensland, at Port Pirie in South Australia, at Kalgoorlie in Western Australia, and at Launceston in Tasmania. A laboratory is in course of erection at Darwin, Northern Territory.

The laboratory at Rabaul, which until 1930 was carried on in conjunction with the hookworm campaign, and was working in close co-operation with the health organization of the New Guinea Administration, was formally transferred to the Administration at the beginning of 1930.

The Bendigo Laboratory, which was the first of these laboratories to be established, was opened in 1922. Besides carrying on the ordinary diagnostic and educational work of a health laboratory, it possesses an X-ray equipment, and undertakes the examination, diagnosis, and treatment of persons suffering from miner's disease and tuberculosis.

By arrangements between the Commonwealth and Western Australian Governments a special medical survey of persons engaged in the mining industry in Western Australia was carried out in 1925-26 by the Commonwealth Health Laboratory at Kalgoorlie.

A further arrangement provided for the re-examination annually of mine employees in the Kalgoorlie district, and by means of a mobile X-ray unit in outlying districts. This work is still being carried out.

**7. Industrial Hygiene.**—The Industrial Hygiene Division of the Commonwealth Department of Health was established in December, 1921. Its objects were the collection of reliable data, the investigation of industrial conditions affecting health, and the issue of advice to employers and employees for the improvement of conditions of work and for the safeguarding of health. Publications were issued dealing with the scope of industrial hygiene, and with health hazards in industry. With a view to the adoption of a concerted scheme of action and a uniform basis for standards and records throughout Australia, conferences of delegates from the State Health and Labour Departments and the Commonwealth Department of Health were held in 1922, 1924, and in 1927. This Division ceased to exist with the reorganization of the Department in April, 1932.

A special article entitled "Industrial Hygiene in Australia" will be found in Official Year Book No. 18, pp. 522 to 555.

**8. Veterinary Hygiene and Plant Quarantine.**—In 1927 Directors were appointed to control divisions of the Commonwealth Department of Health, which have been created to deal with veterinary hygiene and plant quarantine.

## § 5. Tropical Diseases.

**1. General.**—The remarkable development of parasitology in recent years, and the increase in knowledge of the part played by parasites in human and animal diseases, have shown that the difficulties in the way of tropical colonization, in so far as these arise from the prevalence of diseases characteristic of tropical countries, are largely removable by preventive and remedial measures. Malaria and other tropical diseases are coming more and more under control, and the improvements in hygiene and the production of new synthetic drugs for treatment which science has accomplished, have resulted in a new outlook on the question of white settlement in countries formerly regarded as unsuitable for colonization by European races. In Australia the most important aspect of this matter is at present in relation to such diseases as hookworm, filariasis, dengue fever and malaria, which, although practically unknown in southern Australia, occur in many of the tropical and sub-tropical parts.

A Division of Tropical Hygiene of the Commonwealth Department of Health was established to deal with these diseases and other aspects of tropical hygiene. This Division ceased to exist as such with the reorganization of the Department in April, 1932.

**2. Transmission of Disease by Mosquitoes.**—Information under this heading has appeared in earlier issues (see No. 22, pp. 506 and 507).

**3. Control of Introduced Malaria and Bilharziasis.**—Reference to this subject may be found in earlier Year Books (see No. 22, p. 507).

**4. Hookworm.**—Reference to this subject may be found in earlier Year Books (see No. 25, pp. 416 and 417).

**5. Australian Institute of Tropical Medicine.**—The Australian Institute of Tropical Medicine was founded at Townsville in January, 1910. From 7th March, 1921, to 3rd March, 1930, when it was merged in the School of Public Health and Tropical Medicine, Sydney University, the Institute was administered by the Commonwealth Department of Health, and a full account of its activities from its foundation up to 1922 will be found in Official Year Book No. 15, pp. 1010-1012.



6. **School of Public Health and Tropical Medicine, Sydney University.**—The Commonwealth Government, under an agreement with the Sydney University, established a School of Public Health and Tropical Medicine at the Sydney University as from 4th March, 1930, for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new School, and the staff, equipment, and material have been transferred to Sydney.

Since 1922 a number of investigations has been carried out, including the physiology of white persons in the tropics, the causes of obscure tropical fevers, a sociological survey of certain tropical areas of Queensland, the destruction of mosquito larvae and the control of mosquitoes in the larger centres of population, tropical diseases among the aborigines on Palm Island and throughout the whole coastal area northwards to Thursday Island, leprosy among aborigines in the Northern Territory and Queensland littoral, the prevalence of filariasis in Cairns, Yarrabah Mission Station, Port Douglas, Mossman and Innisfail, and several foci of malaria in tropical Queensland. Courses of instruction in tropical medicine and hygiene commence in May of each year, and continue for four months. Ten publications dealing with various aspects of tropical medicine, etc., have been issued.

7. **Royal Commission on National Health. etc.**—Information concerning the following subjects may be found in previous Year Books (see No. 22, pp. 509 and 510):—(a) Royal Commission on National Health appointed by the Commonwealth Government in 1924; (b) Travelling Study Tours under the League of Nations; (c) International Sanitary Convention; (d) Far Eastern Epidemiological Bureau, Singapore; and (e) International Pacific Health Conference.

### § 6. 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. Treatment centres, fully equipped to carry out investigation and treatment by all modern methods have been formed at the principal hospitals. A large amount of radium, purchased in 1928 by the Commonwealth Government for use in treatment and research, has been distributed on loan to the treatment centres. Treatment is available to all requiring it irrespective of ability to pay. The work is co-ordinated by the Commonwealth Department of Health. Records of treatment and the results obtained are kept by all treatment centres on uniform lines and are collected and analysed. Close co-operation is maintained between research workers, physicists and bio-chemists and the medical men engaged in the clinical investigation and treatment of the disease so that problems are mutually investigated. An annual conference is held at which those actively engaged in the campaign against the disease meet for the discussion of problems and the determination of lines of action. The report of this conference is published by the Commonwealth Department of Health and is widely distributed.

At the Melbourne University the Commonwealth Government maintains a radium laboratory for the purposes of the production of radon for use in treatment, the construction and repair of radium apparatus and for research into problems of treatment and protection. During the year 1934 a total of 23,210 millicuries of radon were issued by this laboratory and used in the treatment of cancer.

Realizing the essential importance of accuracy in determining the quality of X-rays used in the treatment of cancer and in measuring the dosage of the radiations delivered to a patient under treatment, the Commonwealth Government provided the apparatus necessary for the calibration of dosage meters and voltage meters throughout Australia. This apparatus was constructed at the Commonwealth Radium Laboratory at the University of Melbourne, and is now available for use. Meantime the cancer treatment centres are equipping themselves with the necessary measuring instruments. Treatment by means of X-rays has thus been placed on a more scientific footing.

## § 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 “entrants” and children 13 years of age, “entrants” being taken to mean 1st class in Infants’ Departments, and the review of all children found defective between those ages. Parents are notified of the defects found, and urged to have them treated. In the metropolitan area, these notices are reinforced by “follow up” work of school nurses, who also arrange hospital and clinic treatment in many cases.

In 1934 the staff comprised 11 medical officers (including one oculist), 9 dental officers, 8 dental assistants, 9 school nurses, and 7 clerical officers. Two medical officers were engaged for the greater part of the year in country districts, and 9 in the metropolitan area, and of the 9 travelling dental clinics (8 of which were each staffed by a dental officer and dental assistant), 4 were engaged in metropolitan schools and 5 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 these schools in the metropolitan area are visited annually by medical officers for this purpose. Girls’ High Schools in Newcastle and Maitland, and the High School at Armidale are also visited.

Health supervision is maintained by a whole time woman medical officer at the Sydney Teachers’ College, and part-time by a woman officer at the Armidale Teachers’ College. Every student, on entering the Colleges, is medically examined, and any defects found must be remedied before final acceptance. A course of lectures on hygiene, which every student attends, is given by the medical officers.

The medical and psychological examination of delinquent boys brought before the Children’s Court is carried out by a male medical officer, and 1,037 boys were examined in 1933, and 853 in 1934. The examination of certain girl delinquents is undertaken by a woman medical officer, who also carries out the examination and health supervision of children in residence at the Glenfield Special School for backward children.

From time to time mass investigations are made into the prevalence and distribution of certain abnormal conditions affecting the health of school children, such as goitre, acute rheumatism, trachoma, feeble-mindedness, crippling, left-handedness, stammering, etc.

Of the 41,407 children fully examined during 1934, 16,626 or 40.2 per cent. were notified for treatment of physical defects, including 7,274 (17.5 per cent.) for defects other than dental. In addition, 27,931 children were “reviewed”, of whom 8,036 or 28.8 per cent. were notified for medical and dental defects, and 2,700 fully or partly examined apart from the usual routine inspection. Of the latter 1,292 or 47.9 per cent. were notified.

In 1934 also 223 children were medically examined at Stewart House Preventorium and the Christmas Camp organized under the Far West Children’s Health Scheme.

3. **Victoria.**—The system adopted provides for the medical examination of each child once every three years during its school life. With the doubling of the medical staff in 1925 the Department concentrated on country work, and medical inspection has been undertaken since that date in country and rural districts, reaching the most remote corners of the State. Medical inspection is now undertaken in all high schools, in practically all country State schools, and in about half of the metropolitan State schools, but in only a few of the registered and institutional schools.

Each school is visited once in every three years, and each child examined. 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. At this inspection every child is first weighed and measured, vision and hearing tested, then undressed to the waist and medically examined as for life assurance, but with a fuller investigation of many hygienic factors, which at that age greatly influence the health and growth of the child. Opportunity is also taken to teach the child healthy habits, how to correct faults, also to get its co-operation for the remedying of defects found. A school nurse employed by the Department is 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 her work is confined to the metropolitan area.

In addition to the medical examination, each child in those schools visited by the school dentist receives dental treatment on entrance to school (if under 8 years of age), and each year thereafter, until it is 12 years of age, when it is left dentally fit. The present staff is arranged so that 3 dentists and 4 dental attendants are always on duty at the Melbourne Dental Centre, where children from the infant classes in the inner metropolitan schools are brought by the teacher for dental treatment. A dentist with a dental attendant and equipment travels along the railway line far enough to give one year's work, using practically every town large enough to provide a day's work as a base. The school committees of the outlying schools are notified of the visit, and the parents are invited to bring to the base all children eligible for treatment, *i.e.*, all children under 8 years of age, and all other children treated by the school dentists on previous visits. The time of another dentist is fully occupied treating the children in the three largest country centres, Bendigo, Ballarat, and Geelong. In each of these cities a centre with a dentist, dental attendant, and equipment is established for about four months of the year, where children from the infant classes of the neighbouring schools are brought by the teacher or parents. Three dentists with dental attendants are in charge of three fully-equipped dental vans, each of which has an itinerary which it completes each year.

The staff of the medical branch consists of 7 full-time medical officers, 8 dentists, 10 dental attendants, and 1 school nurse.

During the year ended 30th June, 1934, 41,674 children and 1,240 teachers were medically examined, and 34,302 children received dental treatment. In addition, 6,720 homes were visited by the school nurse.

4. **Queensland.**—Medical inspection of schools and school children is carried out by two part-time medical officers. 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; 3,486 were thus medically examined in 1934, and of these 1,672 were notified as suffering from some condition requiring correction.

The nurses now number eleven. Each nurse is assigned a group of schools, and she is instructed to make a list at each school of those children who she considers should be seen by the medical inspector at his next visit. She supervises the sanitation, cleanliness and ventilation of the school and notifies the head teacher of all infectious or verminous children or those suffering from impetigo, scabies, etc., who are then excluded. During the year 1934, school nurses examined 19,336 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 fourteen dentists. These officers are each assigned a district, and such district is not changed for three years unless for reasons which the Chief Medical Officer, on the recommendation of the Chief Dental inspector, considers advisable. During the year 1934, 25,855 children were examined; 34,587 extractions were performed; and there were 44,930 fillings and 17,576 other treatments.

The Medical Branch, under the direction of the Chief Medical Officer, consists of three sections known as the Medical, Dental and Nursing Sections. These constitute the School Medical Service of the State.

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 Chief Medical 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.

A Committee of Hookworm Control to deal with anchylostomiasis duodenale and Necator Americanus infestation throughout the State has now been established, the personnel being as follows : Chairman—The Public Health Commissioner for Queensland ; Members—The Chief Medical Officer, Department of Public Instruction, and the Chief Protector of Aborigines for Queensland. The work of the committee has resulted in a large reduction of this dangerous menace in the Northern Coastal Belt. The personnel at work in the Hookworm Area now consists of a Microscopist, two Health Inspectors and five trained nurses.

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 wagon at the rear for use at each stopping place to visit the surrounding villages served by the rail centre. Two road motor clinics are also being provided. One will function in the south-western portion of the State with Charleville as a base, while the other will operate in the central-west and the north-western territory using Longreach as the centre. The staff of each clinic consists of one qualified dental surgeon and one motor mechanic.

5. **South Australia.**—The system of medical inspection in force requires the examination of all children attending primary, central, high and technical high schools. Children in the primary schools are examined in grades I., IV. and VII. ; in the central schools in grade X., while high school children are examined in their second and fourth years. Reports are furnished to the parents of any remediable defects found during these examinations. The medical inspectors meet the parents after the examination of the children and give an address on the prevention and treatment of the conditions which were found during the inspection. After these lectures the parents are given an opportunity to ask questions regarding their children. When there is an epidemic or a threatened epidemic in a district, similar lectures are given and special visits paid to all the schools in that locality. All students are examined before they enter the Teachers' College. Courses of lectures in Hygiene and in First Aid are given to these students.

The medical staff consists of a principal medical officer, two medical inspectors and a trained nurse. A psychologist, two dentists and two dental assistants are attached to the Medical Branch. The psychologist, in addition to examining retarded children and supervising their work in the opportunity classes, lectures to the students at the Teachers' College, and examines children referred to her by the Children's Court, by the Women Police, or by the Children's Welfare Department.

During the year 1934, 17,467 children were examined by medical inspectors ; of these 474 required notices for defective vision, 85 for defective hearing, and 892 for tonsils and adenoids. Eight hundred and seventeen children were examined by the psychologist. Research work is being undertaken in left-handedness, stammering and colour-blindness.

6. **Western Australia.**—Under the Public Health Act 1911-1922 the medical officers of health appointed by the local authorities became medical officers of schools and school children. In the Health Department there are two full-time medical officers for schools, whose duty is to conduct medical examinations, and two school nurses are employed. During 1934, 13,950 (6,930 country and 7,020 metropolitan) children were examined. These figures do not include re-examinations.

7. **Tasmania.**—Tasmania was the first State in Australia to provide for the medical inspection of State school children, its system of inspection having been initiated in 1906. During the year 1931, however, for financial reasons, medical inspection ceased, and the services of all doctors were terminated.

At the present time (1935), two part-time medical officers conduct examinations of school children in Hobart and Launceston, and in addition four nurses visit the homes to advise the parents as to the treatment of defects disclosed by the medical examination. Prior to 1931 the various municipal health officers were employed as medical inspectors visiting country schools, and, in the case of epidemics, these officers paid special visits when required. Country schools were visited by medical officers about once a year. There are four full-time dental officers—working at dental clinics in Hobart and Launceston, and visiting the smaller country schools.

8. Federal 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. No statistical information is available for that year, but a complete examination of school children was made in 1931. The number of children examined was 1,234, and some evidence of a pathological condition was found in 69.7 per cent. In 47.6 per cent. some pathological condition of the nose or naso-pharynx was found; 38.2 per cent. had defective teeth; in 4.4 per cent. the eye required attention, and in 1.4 per cent. the ear; and in 2 per cent. the heart showed evidence of a departure from normal.

### § 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 1930 to 1934 no less than 24,755 children died in Australia (excluding Territories) before reaching their first birthday. With few exceptions the rate of mortality in the metropolitan area is consistently greater than that for the remainder of the State. Further information regarding infantile mortality will be found in Chapter—Vital Statistics :—

#### INFANTILE DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1930.	1931.	1932.	1933.	1934.	1930.	1931.	1932.	1933.	1934.
NUMBER OF INFANTILE DEATHS.										
New South Wales	1,099	850	686	630	732	1,499	1,225	1,154	1,109	1,277
Victoria ..	853	713	630	549	637	601	636	551	599	605
Queensland ..	227	210	215	180	181	530	444	483	553	524
South Australia ..	256	167	149	129	151	227	163	163	157	150
Western Australia	218	176	164	118	136	212	179	191	172	183
Tasmania ..	66	59	48	52	45	176	160	137	135	144
Australia (b) ..	2,719	2,175	1,892	1,658	1,882	3,335	2,807	2,679	2,725	2,883

#### RATE OF INFANTILE MORTALITY.(a)

New South Wales	50.03	44.53	39.01	36.80	44.26	49.70	42.78	42.26	40.96	47.65
Victoria ..	50.80	47.88	47.67	40.68	48.42	42.30	41.19	38.67	40.21	41.24
Queensland ..	39.23	40.84	50.00	41.57	42.36	40.30	34.99	36.96	40.01	40.04
South Australia ..	54.72	40.46	38.70	31.77	39.89	42.78	32.92	34.90	32.44	32.00
Western Australia	51.40	46.10	47.54	34.65	41.25	42.75	37.81	42.30	38.49	40.63
Tasmania ..	60.61	58.76	48.83	48.87	40.54	47.61	42.58	39.05	38.69	42.86
Australia (b) ..	49.84	45.25	43.61	38.14	44.64	45.31	39.98	39.80	39.73	42.97

(a) Number of deaths under one year per 1,000 births registered.

(b) Exclusive of Territories.

During recent years greater attention has been paid to the fact that the health of the community depends largely on pre-natal as well as after care in the case of mothers and infants. Government and private organizations, therefore, provide instruction and treatment for mothers before and after confinement, while the health and well-being of mother and child are looked after by the institution of baby health centres, baby clinics, crèches, visits by qualified midwifery nurses, and special attention to the milk supply, etc.

2. **Government Activities.**—In all the States acts have been passed with the object of supervising and ameliorating the conditions of infant life and reducing the rate of mortality. Government Departments control the boarding-out to suitable persons of the wards of the State, and wherever possible the child is boarded-out to its mother or near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children. (See also in this connexion Chapter X.—Public Benevolence.) Under the provisions of the Maternity Allowance Act 1912-1934, a sum of four pounds 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 £208. Since 1st August, 1934, subject to certain provisions, the maximum sum payable was raised to £5, and the income limit to £299. Further particulars regarding Maternity Allowance are given in Chapter XVI.—Public Finance.

3. **Nursing Activities.**—(i) *General.* In several of the States the Government maintains institutions which provide treatment for mothers and children, while, in addition, subsidies are granted to various associations engaged in welfare work.

(ii) *Details by States.* In earlier issues of the Year Book (See No. 22 pp. 515 and 516) information, with certain statistical data, concerning the activities of institutions in each State may be found.

(iii) *Summary.* The following table gives particulars of the activities of the Baby Health Centres and the Bush Nursing Associations :—

**BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1934.**

Heading.	New South Wales.	Victoria. (b)	Queensland. (b)	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory. (b)	Total.
Baby Health Centres—								
Metropolitan No.	46	69	5	39	14	2	3	178
Urban-Provincial and Rural No.	85	82	11	10	10	9	..	207
Total No.	131	151	16	49	24	11	3	385
Attendances at Centres . . . . . No.	439,133	414,007	125,149	93,200	73,716	29,674	4,078	1,178,957
Visits paid by Nurses . . . . . No.	78,704	68,117	11,206	31,918	15,570	10,694	337	216,546
Bush Nursing Association, Number of Centres . . . . .	55	66	12	(a) 29	4	17	..	183

(a) District Trained Nursing Society.

(b) Year ended 30th June.

The number of attendances at the Baby Health Centres has increased very considerably in recent years. The following are the figures for the years 1929 to 1933 :—1929, 822,312; 1930, 919,893; 1931, 1,150,619; 1932, 1,200,380; and 1933, 1,232,887.

## CHAPTER XII.

## DEFENCE.

## § 1. Military Defence.

1. **State Systems.**—A detailed historical account of the Australian defence forces prior to Federation will be found in Official Year Book No. 2, pp. 1075–1080. See also Official Year Book No. 12, p. 999.

The strength of the military forces of the States on the 31st December, 1900 (the eve of Federation) was :—New South Wales, 9,338 ; Victoria, 6,335 ; Queensland, 4,028 ; South Australia, 2,932 ; Western Australia, 2,696 ; Tasmania, 2,024 ; total for Australia, 27,353. This total was exclusive of cadets, reservists, and rifle club members.

2. **Commonwealth System.**—(i) *General.* Under the terms of the Constitution Act 1900, the Commonwealth took over control of defence matters in March, 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in five phases, viz. :—

- (a) The first phase, i.e., the welding together of the military forces of the States into one homogeneous army, was entrusted by the Government in 1902 to Major-General Sir Edward Hutton, K.C.B., K.C.M.G., and a sound foundation was laid, upon which the subsequent organization and training, were based.
- (b) The second phase was the introduction of Universal Training in 1911. During the year 1909 a measure providing for universal training was enacted, and the scheme came into force in 1911 after the advice and recommendations of the late Lord Kitchener had been obtained. By the Defence Acts of 1903 and 1904 all male inhabitants between the ages of 18 and 60 years were made liable to serve in Australia with the defence forces in *time of war*. Subsequent legislation made training and service compulsory up to the age of 26 years *in time of peace*. By the Act of 1909 the principle of universal liability to training was made law for the first time in any English-speaking community. More detailed reference to these matters will be found in Official Year Book No. 12, p. 999 *et seq.*
- (c) The third phase, Divisional Organization, came into operation from the 1st May, 1921. Under this system a war organization, evolved from the Australian Imperial Force, was applied to peace conditions, with a minimum of permanent personnel. Numbers of units and formations were altered to correspond with those of the A.I.F. and every effort was made to maintain the traditions established by those units in the Great War.
- (d) The fourth phase, which was initiated by the Government in 1922, entailed the reduction of the Divisional Organization to a nucleus force.
- (e) The fifth phase, the suspension of all compulsory obligations *in time of peace* (under Part XII. of the Defence Act) and the reconstitution of the forces on a basis of voluntary enlistment, was brought into operation as from 1st November, 1929. The Divisional Organization was retained, but the peace nucleus was reduced from 48,000 Citizen Forces and 16,000 Senior Cadets to 35,000 Militia Forces and 7,000 Senior Cadets, by reductions in the training establishments of units and by ceasing to maintain certain light horse regiments and infantry battalions. The peace nucleus of the Militia Forces was further reduced to 30,000 in 1931.

(ii) *Military Population.* The following particulars showing the numbers of males of military age in the population of Australia, as at the Census of the 30th June, 1933, are of interest. The total number at cadet age, between 12 and 18 years, was 371,000 ; at citizen soldier age, between 18 and 26 years, 482,000 ; and between 26 and 35 years, 472,000 ; making a total of 954,000 between the ages of 18 and 35, which is considered the best period for military service. It is estimated that 620,000 of the males between the ages of 18 and 35 were unmarried or widowers without children, and 334,000 were married or widowers with children. In addition to the abovementioned, there were 972,000 males between the ages of 35 and 60 in Australia at the 1933 Census.

(iii) *Allotment of Units.* The organization is territorial, and the divisions are based upon infantry units. There are 46 battalions, forming 14 brigades. The areas have approximately equal numbers of males of citizen soldier age, and each furnishes a battalion of infantry, and a proportion of other troops.

ALLOTMENTS OF UNITS TO AREAS, 31st MARCH, 1935.

State.	Military	Number of Infantry Brigade Areas.	Battalion Areas.												
			Number of Battalion Areas. (a)	Providing the undermentioned Units—											
				Infantry Battalions.	Light Horse Regiments.	Armoured Car Regiment.	Field Artillery Batteries.			Medium Artillery.		Heavy Artillery.		Artillery Survey.	Anti-aircraft Battery.
							Brigade Head-quarters.	Batteries.	Brigade Head-quarters.	Batteries.					
New South Wales	2nd	5	18	16	6	..	18	1	3	1	4	1	1		
Victoria ..	3rd	5	18	16	5	1	17	1	3	1	3	1	..		
Queensland ..	1st	2	8	6	3	..	6	..	..	..	3	..	..		
South Australia ..	4th	1	4	3	3	..	4	..	..	..	1	..	..		
Western Australia ..	5th	1	3	3	3	..	3	..	..	..	1	..	..		
Tasmania ..	6th	..	2	2	1	..	2	..	..	..	1	..	..		
<b>Total ..</b>	<b>..</b>	<b>14</b>	<b>53</b>	<b>46</b>	<b>19</b>	<b>1</b>	<b>50</b>	<b>2</b>	<b>6</b>	<b>2</b>	<b>12</b>	<b>2</b>	<b>1</b>		

State.	Military District.	Battalion Areas.													
		Providing the undermentioned Units—													
		Engineers.		Signals.		Tank Corps.	A.A.S.C.				A.A.M.C.		A.A.V.C. Sections.		
		Field.	For-tress.			Tank Section.	Supply Companies.	Mechanical Transport Companies.	Supply Sections.	Mechanical Transport Sections.	Field Ambulance.	Field Hygiene Sections.		A.A.O.C. Companies.	
Companies.	Troops.	Companies.	Sections.	Troops.											
New South Wales	2nd	5	3	2	26	5	1	3	3	..	..	7	3	4	4
Victoria ..	3rd	5	3	1	23	5	..	3	3	..	..	7	3	4	4
Queensland ..	1st	2	1	..	7	1	..	1	1	..	..	3	1	1	1
South Australia ..	4th	1	1	..	3	1	..	1	1	..	..	2	1	1	1
Western Australia ..	5th	1	..	1	5	..	..	..	1	1	1	1	1	..	..
Tasmania ..	6th	1	..	1	2	..	..	..	1	1	1	1	..	..	..
<b>Total ..</b>	<b>..</b>	<b>15</b>	<b>8</b>	<b>6</b>	<b>66</b>	<b>12</b>	<b>1</b>	<b>8</b>	<b>8</b>	<b>2</b>	<b>2</b>	<b>21</b>	<b>10</b>	<b>10</b>	<b>10</b>

(a) Two University battalions are not allotted to any specific battalion area.

(iv) *Strength of Military Forces. (a) Districts.* There was little alteration in the numbers serving in the Australian military forces from the institution of the Commonwealth to the year of the introduction of the compulsory training system. From 1913 to 1918, however, the annual increase was considerable. As a result of the International Conference which met at Washington on the 11th November, 1921, it was decided to continue the universal training law, but its operation was restricted to the more populous centres and to certain quotas only. From 1st July, 1922, to 30th June, 1925, training in the Senior Cadets was limited to two quotas instead of four, and in the Citizen Forces to two quotas instead of seven. On 1st July, 1925, Senior Cadet training



was reduced to one quota only, while Citizen Force training was increased to three quotas. These conditions remained in force until 1st November, 1929, when the constitution of the forces on a voluntary basis was adopted. During the period last mentioned, Senior Cadet training commenced on 1st July of the year in which Senior Cadets reached the age of 17 years, and on 1st July of the following year they were allotted to the Citizen Forces, in which training continued until the 30th June of the year in which they attained the age of 21 years. Notwithstanding the reduction in training, all males residing within 5 miles of a training centre were required to register during the months of January or February of the year in which they reached the age of 14 years. Junior Cadet training of boys of the ages of 12 and 13 years, which was in abeyance during the years 1922-23 and 1923-24, was also supervised by the Defence Department during the period 1st July, 1925, to 31st October, 1929.

Under the voluntary enlistment system now in force men from 18 to 40 years of age must be enlisted. The first period of enlistment is for three years, and on its completion, the member concerned may be re-engaged for successive periods of one year until he reaches the age for retirement (48 years). The normal period of training is 12 days per annum (including 6 days in camp of continuous training).

The Senior Cadet Corps, in which enrolment is voluntary, is organized on the following basis:—(a) Detachments affiliated with Militia Units:—Light Horse, Nil; Infantry, Signals and A.S.C., 25 per cent. of the establishment of the Militia Unit; Other Arms, 20 per cent. of the establishment of the Militia Unit; and (b) Detachments consisting of pupils attending approved educational establishments. The ages for enrolment in the regimental detachments are 16 and 17 years, and in the school detachments over 14 years.

#### TRAINING STRENGTH OF MILITARY FORCES.

(a) District.	1901. (b) 1/3/01.	1913. 30/6/13.	1922. 31/12/22.	1931. 31/3/31.	1933. 31/3/33.	1934. 31/3/34.	1935. 31/3/35.
Army Head-Qtrs. (Melbourne) ..	..	(c) 277	(c) 499	78	(d) 69	(d) 71	(d) 81
1st (Q'ld.) ..	4,310	4,625	4,319	3,892	3,289	3,506	3,385
2nd (N.S.W.) ..	9,772	12,105	14,561	11,524	10,122	10,881	10,486
3rd (Vict.) ..	7,011	10,840	11,117	10,339	9,262	9,911	10,157
4th (S. Aus.) ..	2,956	3,228	3,452	2,450	2,290	2,261	2,300
5th (W. Aus.) ..	2,283	1,685	2,018	1,820	1,656	1,739	1,533
6th (Tas.) ..	2,554	1,777	1,190	1,179	1,275	1,305	1,320
Total ..	28,886	34,537	37,156	31,282	27,963	29,674	29,262

(a) Approximately coterminous with boundaries of States. (b) Date of taking over the military forces from States by Commonwealth. (c) Including cadets at Royal Military College of Australia and Staff Corps Officers abroad, unallotted, or training with other Commonwealth Departments. (d) Including cadets at Royal Military College of Australia.

(b) *Various Arms.* The numbers of the different arms of the service on the 31st March, 1935, were as follow:—

#### ARMS OF THE AUSTRALIAN MILITARY FORCES, ACTIVE LIST, 31st MARCH, 1935.(a)

Head-quarters Staffs ..	..	90	Fortress Engineers ..	..	281
Staff Corps ..	..	235	Signals ..	..	1,176
Corps of Staff Cadets ..	..	40	Infantry ..	..	11,799
Instructional Corps ..	..	481	Tank Corps ..	..	46
Light Horse ..	..	4,107	Army Service Corps ..	..	1,513
Armoured Car Regiment ..	..	172	Army Medical Corps ..	..	1,215
Royal Australian Artillery ..	..	590	Army Ordnance Corps (b) ..	..	316
Field Artillery ..	..	4,099	Army Veterinary Corps ..	..	152
Garrison Artillery ..	..	1,551	Provost Staff ..	..	12
Royal Australian Engineers ..	..	156			
Survey Corps ..	..	16			
Field Engineers ..	..	1,215	Total ..	..	29,262

(a) Excluding civilian staff.

(b) Includes Ordnance Officers and Artificers.

(c) *Classification of Land Forces.* The following table shows the strength of the land forces in each State, classified according to nature of service, on the 31st March, 1935.

**DISTRIBUTION OF LAND FORCES,(a) ACTIVE AND RESERVE LISTS,  
31st MARCH, 1935.**

Branch of Service.	Army Head-quarters.	1st Military District. (Qld.)	2nd Military District. (N.S.W.)	3rd Military District. (Vic.)	4th Military District. (S. Aus.)	5th Military District. (W. Aus.)	6th Military District. (Tas.)	Total.
Permanent Forces ..	(b) 75	197	712	506	88	152	70	1,800
Militia Forces ..	6	3,188	9,774	9,051	2,212	1,381	1,250	27,462
Engineer and Railway Staff Corps ..	2	9	7	12	11	9	5	55
Unattached List of Officers ..	6	50	91	100	12	10	10	279
Reserve of Officers ..	..	755	1,988	1,853	506	433	199	5,734
Chaplains ..	4	44	67	77	26	23	14	255
<b>Total .. ..</b>	<b>93</b>	<b>4,243</b>	<b>12,639</b>	<b>12,199</b>	<b>2,855</b>	<b>2,008</b>	<b>1,548</b>	<b>35,585</b>

(a) Excluding civilian staff.

(b) Including cadets at Royal Military College of Australia.

(d) *Militia Forces and Senior Cadets, by Formations.* The following table shows the strength of Militia Forces and Senior Cadets, by formations, at the 31st March, 1935 :—

**STRENGTH OF MILITIA FORCES AND SENIOR CADETS, BY FORMATIONS,  
31st MARCH, 1935.**

State.	Military Formation.	Militia Forces.	Senior Cadets.	
			Regimental Detachments.	Educational Establishments.
Victoria ..	Army Head-quarters ..	6	..	..
Queensland ..	Field Troops, 1st Military District ..	3,049	327	479
Queensland ..	1st District Base ..	139	13	..
New South Wales ..	1st Cavalry Division ..	1,886	56	68
New South Wales ..	1st Division ..	2,904	257	350
New South Wales ..	2nd Division ..	3,989	384	504
New South Wales ..	2nd District Base ..	995	102	..
Victoria ..	2nd Cavalry Division ..	1,873	101	..
Victoria ..	3rd Division ..	3,730	551	673
Victoria ..	4th Division ..	3,306	424	388
Victoria ..	3rd District Base ..	742	77	..
South Australia ..	Field Troops, 4th Military District ..	2,133	239	227
South Australia ..	4th District Base ..	79	13	..
Western Australia ..	Field Troops, 5th Military District ..	1,212	103	160
Western Australia ..	5th District Base ..	169	13	..
Tasmania ..	Field Troops, 6th Military District ..	1,138	140	69
Tasmania ..	6th District Base ..	112	5	..
<b>Total .. ..</b>	<b>.. ..</b>	<b>27,462</b>	<b>2,805</b>	<b>2,918</b>

(e) *Numbers who served under Compulsory Provisions.* In earlier issues of the Year Book (see No. 22, pp. 578-579) tables were published showing the numbers registered and training under the compulsory system, distinguishing Citizen Forces and Senior Cadets.

(v) *Administration and Instruction.* The staff provided for the administration and training of the various arms consists of 235 officers (Staff Corps), 49 quartermasters, and 432 warrant and non-commissioned officers (Australian Instructional Corps).

(vi) *Royal Military College.* This College was established in 1911 at Duntroon in the Federal Capital Territory for the purpose of providing trained officers for the permanent forces. In January, 1931, the College was transferred to Victoria Barracks, Sydney. Admission is by open competitive examination. On the 31st March, 1935, the Australian cadets in training numbered 40, 14 of whom were admitted in 1935. In addition, 11 cadets are being trained for the New Zealand Permanent Forces under an arrangement made in 1933 with the Government of that Dominion. Further particulars respecting the College are given on page 915 of Official Year Book No. 15.

(vii) *Railways and Defence.* A War Railway Council, consisting of military and railways officers, was instituted in 1911. Its chief duties are to furnish advice and information regarding railway transport for military purposes, and to secure co-operation between the Defence Department and the Railway Departments in regard to concentration and mobilization of troops. To prevent delay in the transport of troops, particularly that caused by the transshipment of baggage and implements of war, the Council has recommended the adoption of a uniform railway gauge on lines linking up the States' capitals. An Engineer and Railway Staff Corps has been instituted, and numbered 55 officers on 31st March, 1935. Further details will be found in Official Year Book No. 6, pp. 1070-1.

(viii) *Rifle Clubs.* On the 30th June, 1934, there were in the Commonwealth 1,160 rifle clubs with a membership of 46,792, and 92 miniature rifle clubs having a membership of 2,789. Members of rifle clubs must fire an annual course of musketry, but do not undergo any systematic drill.

For the purposes of administration rifle club activities were placed under the control of the Military Board on the 1st March, 1931. Government Grants are made for the construction and maintenance of rifle ranges, etc., and 200 rounds of ammunition are issued free to each efficient member annually.

## § 2. Naval Defence.

1. *State Systems.*—Information regarding naval defence systems prior to 1901 will be found in Official Year Book No. 2, pp. 1084-1085, but considerations of space preclude its insertion in the present volume.

2. *The Present System.*—(i) *General.* An outline of the development of Australian naval policy was given in Official Year Book No. 3, pp. 1060-61, and No. 12, p. 1012. Some account of the building of the Australian Fleet, the proposed and modified cost thereof, the compact with the Imperial Government, etc., appears in Official Year Book No. 15, pp. 921 *et seq.* At the end of 1933, arrangements were made between His Majesty's Governments in Great Britain and Australia for a Flotilla Leader (*Stuart*), and 4 Destroyers (*Vampire*, *Vendetta*, *Voyager* and *Waterhen*) to be lent from the Royal Navy to the Royal Australian Navy. These vessels arrived at Sydney in December, 1933.

The H.M.A.S. *Brisbane*, which became over-age in 1932, is being replaced by a ship of the *Leander* type. The new vessel—H.M.A.S. *Sydney*—(7,250 tons and eight 6-in. guns) will be commissioned in England about September, 1935, and then proceed to Australia.

The sloop, H.M.A.S. *Yarra*, at present under construction at Cockatoo Island will be completed in December, 1935, and a contract has been let to the Cockatoo Dock and Engineering Co. of Sydney, for the construction of a second sloop.

To ensure closer co-operation with the Royal Navy, arrangements have been made with the Admiralty for the periodical exchange of a cruiser, thus giving an opportunity for officers and men of the Royal Australian Navy to gain experience in fleet exercises on a large scale.

(ii) *Naval College.* A naval college was established at Geelong in 1913, and was transferred in 1915 to Captain's Point, Jervis Bay, Federal Capital Territory, and thence in 1930 to the Flinders Naval Depot, Victoria. The course is similar to that carried out in naval colleges in England. In February, 1935, there were 47 cadet midshipmen under training. A boy who reaches the age of thirteen years during the calendar year in which the entrance examination is held is eligible to compete, provided he is the son of natural-born or naturalized British subjects. From amongst those qualified the selection committee chooses the number required. The Commonwealth Government bears the whole expense of uniforms, victualling, travelling, as well as that of the educational course. Altogether 166 officers who have passed through the college are now serving with the Fleet.

(iii) *Training Establishments.* Recruits from 16½ to 21 years of age receive their preliminary training at Flinders Naval Depot, Victoria, where, in addition to the entry school, instruction is given in Gunnery and Torpedo, Signals and Wireless Telegraphy, Engineering, etc.

(iv) *The Naval Station.* A description of the limits of the Australian Naval Station is contained in earlier issues of the Official Year Book (see No. 18, pp. 608-9).

(v) *Vessels.* A list of the vessels of the Royal Australian Navy is given hereunder :—

SHIPS OF THE ROYAL AUSTRALIAN NAVY, MAY, 1935.

Vessel.	Description.	Displacement.	Power.
<b>IN COMMISSION—</b>		<b>Tons.</b>	<b>H.P.</b>
<i>Australia</i> .. ..	Cruiser .. ..	10,000	80,000
<i>Canberra</i> .. ..	" .. ..	10,000	80,000
<i>Brisbane</i> .. ..	" .. ..	5,120	25,000
<i>Stuart</i> .. ..	Flotilla Leader .. ..	1,530	40,000
<i>Voyager</i> .. ..	Destroyer .. ..	1,100	27,000
<i>Vendetta</i> .. ..	" .. ..	1,090	27,000
<i>Cerberus</i> .. ..	Motor Boat (Flinders Naval Depot)	61	220
<i>Moresby</i> .. ..	Sloop .. ..	1,650	2,500
<i>Penguin</i> (late <i>Platypus</i> )	Depot Ship, Sydney .. ..	3,455	3,500
<i>Tattoo</i> .. ..	Destroyer .. ..	905	27,000
<b>IN RESERVE—</b>			
<i>Adelaide</i> .. ..	Cruiser .. ..	5,100	25,000
<i>Albatross</i> .. ..	Seaplane Carrier .. ..	5,000	12,000
<i>Vampire</i> .. ..	Destroyer .. ..	1,090	27,000
<i>Waterhen</i> .. ..	" .. ..	1,100	27,000
<i>Stalwart</i> .. ..	" .. ..	905	27,000
<i>Success</i> .. ..	" .. ..	905	27,000
<i>Swordsman</i> .. ..	" .. ..	905	27,000
<i>Tasmania</i> .. ..	" .. ..	905	27,000
<b>UNDER CONSTRUCTION—</b>			
<i>Sydney</i> .. ..	Cruiser .. ..	7,250	72,000
<i>Yarra</i> .. ..	Sloop .. ..	1,000	2,000
<b>FLEET AUXILIARY—</b>			
<i>Kurumita</i> .. ..	Fleet Oiler .. ..	7,930	2,000

(vi) *Floating Dock.* In 1926 the Commonwealth Government entered into an agreement with the New South Wales Government whereby the latter, in consideration of the payment of a subsidy of £135,000, constructed at Walsh Island, Newcastle, a floating dock capable of lifting 15,000 tons.

(vii) *Naval Forces.* Besides the sea-going forces, there is a R.A.N. Reserve, which is composed of Citizen Naval Forces. The personnel of the sea-going forces, which was originally largely composed of Imperial officers and men, is now 99.6 per cent. Australian. The strength of the naval forces is given hereunder :—

**STRENGTH OF NAVAL FORCES (PERMANENT AND RESERVES),  
15th FEBRUARY, 1935.**

Description of Force.	Numbers Borne.		
	In Training.	Officers.	Men.
Royal Australian Navy (Sea-going) .. .. .	..	350	3,600
Royal Australian Naval Auxiliary Services .. .. .	..	33	147
Cadet Midshipmen undergoing training at R.A.N. College .. .. .	47	..	..
Royal Australian Naval Reserve (Sea-going) .. .. .	..	51	..
Royal Australian Fleet Reserve .. .. .	..	..	267
Royal Australian Naval Reserve .. .. .	..	247	4,419
Royal Australian Naval Volunteer Reserve .. .. .	..	67	70

### § 3. Air Defence.

1. **General.**—A statement in regard to the preliminary steps taken in connexion with the development of air defence will be found in Official Year Book No. 18, p. 610.

The Royal Australian Air Force is administered by a Board consisting of three Air Force members and a Finance member. To this Force is entrusted the air defence of Australia, and the training of personnel for co-operation with the naval and military forces. The present establishment of the Force includes the following units :—(a) Headquarters Royal Australian Air Force, with representation in London; (b) a Flying Training School; (c) an Aircraft Depot; (d) two service landplane squadrons and (e) one service amphibian flight.

2. **Establishment.**—The present approved establishment of the Permanent Air Force is 126 officers and 946 airmen, and of the Citizen Air Force, 48 officers and 330 airmen. Three aerodromes are under the control of the Air Board; all other aerodromes and air routes have been taken over by the Controller of Civil Aviation.

3. **Air Routes.**—Aerodromes and emergency landing grounds have been prepared between the capital cities and on certain parts of the coast for service and civil purposes. At the 31st March, 1935, 209 Government aerodromes and emergency landing grounds had been prepared and 145 licensed public aerodromes were also available for use.

4. **Civil Aviation.**—Details regarding the formation and activities of the Civil Aviation Department will be found in Chapter VI., Section D. Aircraft.

### § 4. Expenditure on Defence.

The following table shows the expenditure on defence in 1901-2 and during each of the last five years. The figures are exclusive of war services and of interest and exchange on loans. Details of the expenditure of the Defence Department and the cost of the war, repatriation, and war services are given in Chapter XVI.—Public Finance.

## DEFENCE EXPENDITURE (EXCLUDING WAR SERVICES).—AUSTRALIA.

Item.	1901-2.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35. (a)
	£	£	£	£	£	£
Central Administration ..	5,594	24,189	20,599	21,925	20,307	21,846
Naval .. .. .	178,819	1,747,835	1,444,002	1,495,948	1,646,439	2,139,617
Military .. .. .	732,626	1,194,989	994,685	978,144	1,236,716	1,368,588
Air Services—						
R.A. Air Force .. .. .	..	392,408	326,330	319,974	409,413	579,463
Civil Aviation .. .. .	..	149,812	131,726	137,271	133,517	160,107
Munitions Supply Branch .. .. .	..	248,708	234,070	180,341	321,162	410,786
Rifle Clubs and Associations .. .. .	41,653	33,257	27,897	26,515	31,662	34,789
Special Appropriations—						
Naval Construction .. .. .	..	30,193	2,701	2,865	Cr. 9,341	594,460
Reconditioning Equipment and Purchase of Aircraft Equipment .. .. .	..	16,663	1,747	Cr. 4,971	365,695	95
Arms, Aircraft, Munitions and Reserves .. .. .	..	..	..	..	..	434,750
Defence Works, Buildings and Sites .. .. .	..	..	..	..	..	206,100
Development of Civil Aviation .. .. .	..	21,015	1,079	1,948	1,933	13,732
	958,692	3,859,069	3,184,836	3,159,960	4,157,494	5,964,333

(a) Estimated.

In addition to the above, £6,023 was expended from Revenue on war services directly under the control of the Defence Department in 1933-34, and the estimated expenditure in 1934-35 was £7,923.

The total cost of war services including interest, sinking fund, war pensions, repatriation, etc., will be found in Chapter XVI., Part B § 5—Cost of War and Repatriation.

### § 5. Munitions Supply.

1. **General.**—A statement dealing with the powers and functions of the Munitions Supply Board is given on p. 612 of Official Year Book No. 18.

2. **Factories.**—(i) *General.* The Explosives Factories at Maribyrnong, Victoria, which manufacture explosives for cartridges and artillery ammunition, aeroplane dopes, nitro-benzine, and special paints, were established in 1911. The staff at 30th June, 1934, numbered 236.

The Acetate of Lime Factory, established at Bulimba, Brisbane, in September, 1918, provides acetate of lime (a raw material used in the manufacture of acetone). Power alcohol for use in motor-car engines was also produced. The establishment is now held in reserve, a maintenance staff of two being employed at the 30th June, 1934.

The Clothing Factory at Melbourne, Victoria, which had a staff of 400 employees on 30th June, 1934, commenced output in July, 1912, and since that date has been able to supply the whole of the uniform clothing and head gear required for the Defence forces and the Postmaster-General's Department. It also supplies clothing required by State Departments and local public bodies.

The Small Arms Factory at Lithgow, New South Wales, which was opened on 1st June, 1912, and delivered the first instalment of Australian arms in May, 1913, had on its pay roll on 30th June, 1934, 268 employees. Rifles and machine guns for land and air services are being produced, and provision has been made for the manufacture of pistols.

On the 1st January, 1927, the Defence Department entered into possession by purchase of the works of the Colonial Ammunition Company Limited at Footscray, Victoria. As from the 1st July, 1928, this establishment, known as the Small Arms Ammunition Factory, was amalgamated with the Gun Ammunition Factory, and this group is now known as the Ammunition Factories, where in addition to rifle and pistol ammunition, big gun fuses and detonators, and cartridge cases are also produced. Brass and other non-ferrous metals required for munitions manufacture are rolled at this factory. The staff at 30th June, 1934, numbered 446.

At the Ordnance Factory, Maribyrnong, Victoria, established in 1924, provision is made for the production of guns, shells, gun carriages and military vehicles. This group includes a well equipped forge and woodworking and electrical shops. The number of employees at 30th June, 1934, was 383.

(ii) *Investment in Factories.* Up to 30th June, 1934, the amount invested in lands, buildings, machinery and plant, factory fittings and furniture in connexion with the factories now in operation was approximately as follows:—Small Arms Factory, £548,520; Explosives Factories, £572,655; Clothing Factory, £11,525; Acetate of Lime Factory, £92,027; Ammunition Factories, £501,731; and Ordnance Factories, £627,630.

3. **Research Laboratory.**—At Maribyrnong, Victoria, a Research Laboratory has been established consisting of five main sections, i.e., general chemistry, explosives and ammunition, timber, metallurgy and physics (including optics, metrology, and electrical). Plant, buildings, fittings and furniture were valued at £108,632 on 30th June, 1934, and the staff at the same date numbered 40.

### § 6. Remount Depot.

Information in regard to the establishment of this branch of activity is contained in earlier issues of the Official Year Book (see No. 18, p. 613). When war was declared in 1914 little difficulty was experienced by the Remount Service in coping with the enormous task of obtaining and training horses for the mounted units of the A.I.F. and in providing for the shipment of horses to Egypt and India as required.

### § 7. Australian Contingents.

1. **General.**—In earlier issues of the Year Book an account was given of the composition, etc., of the Australian contingents dispatched for service in the New Zealand and Sudan Campaigns, in South Africa, China, and the Great War of 1914–18 (see Official Year Book No. 12, pp. 1019 *et seq.*).

2. **Australian Troops (Great War).**—Particulars of the enlistments, casualties, honours and decorations won, and engagements of the Australian Imperial Force during the Great War were given in Official Year Book No. 16, pp. 628 *et seq.*

### § 8. War Gratuity.

Reference was made in earlier Year Books (see No. 15, p. 930) to the bonus payable in accordance with the War Gratuity Acts of 1920 as a war service gratuity to soldiers and sailors who served in the Great War. Owing to limitations of space this information cannot be repeated, but it may be noted that the gratuity was paid in Treasury Bonds, maturing not later than 31st May, 1924, and bearing interest at 5½ per cent. In necessitous cases payment was made in cash when desired by the person entitled. The first gratuities were made available about the beginning of June, 1920. The total amount paid to 30th June, 1934, was £27,504,193, and bonds amounting to £15,290 had not been redeemed.

### § 9. Special Defence Legislation.

Information regarding special defence legislation enacted by the Commonwealth Government during the War was given in Official Year Book No. 15, p. 930. It may be pointed out here that the War Precautions Act Repeal Act of 1920 repealed the Act 1914–1918, but a limited number of matters dealt with under the original Act was provided for under the War Precautions Act Repeal Act of 1920–1928 or by regulations made thereunder.

## CHAPTER XIII.

### REPATRIATION.

#### § 1. General.

An outline of the activities leading up to the formation of the Commonwealth Department of Repatriation was given in Official Year Book No. 15, p. 931, but limits of space preclude its repetition in the present volume. Some account was given also in the Year Book referred to, and in subsequent issues, of the policy and activities of the Department generally, while detailed information was incorporated in regard to such matters as sustenance rates and pensions to soldiers and dependants. (See Official Year Book No. 17, pp. 598 to 601). During the year ended 30th June, 1928, sustenance rates were amended to bring them into line with war pensions rates, and the scale of rates in respect to war pensions was amplified by providing for an allowance to the third or subsequent child at such a rate as will provide, together with pension in respect of that child, a sum of 15s. per fortnight. In 1931 it was prescribed that the payment of sustenance would be made only where the necessities of medical treatment prevented the soldier from following his usual occupation, while Financial Emergency legislation passed in the same year enacted that sustenance would be payable only where actually needed. Income from all sources was to be taken into account in computing sustenance, but this provision was disregarded in August, 1934. Under the Financial Emergency Act, the maximum rate of pension payable to children of incapacitated soldiers is now 12s. per fortnight.

The main activities of the Repatriation Commission at 30th June, 1934, were confined to the grant, review and assessment of war pensions, medical treatment, the renewal and repair of artificial replacements and surgical appliances, the grant and review of sustenance living allowances, and the administration of the Soldiers' Children Education Scheme.

#### § 2. War Pensions.

1. **General.**—An Act for the provision of war pensions was passed in 1914 and amended in 1915 and 1916. Its scope can be determined by the following extract from Section 3: "Upon the death or incapacity of any member of the forces whose death or incapacity results, or has resulted, from his employment in connexion with warlike operations in which His Majesty is, or has since the commencement of the present state of war been engaged, the Commonwealth shall, subject to this Act, be liable to pay to the member or his dependants or both, as the case may be, pensions in accordance with this Act." The general reduction of expenditure provided by the *Financial Emergency Act 1931* applied also to War Pensions. No reductions, however, were made in the rate of pension payment to incapacitated soldiers, the necessary economies being effected in payments to other war pensioners.

Considerable modifications of the reductions were included in the *Financial Relief Acts of 1933 and 1934*, and some classes of pensions were fully restored.



Prior to 1st July, 1932, the Commonwealth Government bore the cost of exchange in connexion with the payment of pensions to Australian soldiers domiciled overseas.

2. **Expenditure, etc.**—The number of pensioners and the amount paid in pensions were increasing annually until the passage of the *Financial Emergency Act of 1931* reduced the expenditure during the two years ended 1932–33 by approximately £1,000,000. At the close of 1933–34 the annual liability had increased slightly to £7,071,168 with 266,954 pensioners. The outstanding figures for the year ended 30th June, 1934, are as follow :—

New claims granted during year	..	..	..	..	2,792
Claims rejected during year	..	..	..	..	609
Pensions reviewed during year	..	..	..	..	49,168
Pensions cancelled or discontinued during year	..	..	..	..	4,490
Pensioners died during year	..	..	..	..	2,328
Number of pensions in force at 30th June, 1934	..	..	..	..	266,954
Annual pension liability on the 30th June, 1934	..	..	..	..	£7,071,168

At the same date special rate pension of £8 per fortnight was being paid to—

Blinded soldiers	..	..	..	..	..	132
Tubercular soldiers	..	..	..	..	..	876
Totally and permanently incapacitated soldiers	..	..	..	..	..	1,618

An analysis of the total number of new grants (2,792) during the year reveals the following :—

Members (i.e., ex-soldier pensioners)	..	..	..	..	..	409
Wives of members	..	..	..	..	..	578
Children	..	..	..	..	..	1,509
Other dependants	..	..	..	..	..	296
						2,792

3. **Pensions in Force.**—The following table shows for each class of pensioner the number receiving pensions at the 30th June, 1934 :—

**PENSIONS IN FORCE, AUSTRALIA, AT 30th JUNE, 1934.**

Class.	Number of Pensioners.
Orphan children	4,855
War widows	8,060
Soldiers	75,937
Children	102,154
Wives	57,359
Parents	19,143
Brothers and sisters	204
Others	142
Total	266,954

4. Number of Pensioners and Expenditure.—The following table shows the number of pensioners at 30th June, 1934, and the places where payments were made during 1933-34 :—

WAR PENSIONS.—NUMBER OF PENSIONERS, 1934.

Where Paid.	Incapacitated Members of the Forces.	Dependants of—		Total.	Expenditure.
		Deceased Members.	Incapacitated Members.		
					£
New South Wales ..	25,109	9,227	51,749	86,085	2,427,115
Victoria ..	25,517	8,927	56,201	90,645	2,134,218
Queensland ..	8,204	2,732	17,450	28,386	780,673
South Australia ..	4,058	2,369	8,925	15,352	427,365
Western Australia ..	7,094	2,283	15,563	24,940	627,403
Tasmania ..	3,097	1,216	8,142	12,455	335,304
Total, Australia ..	73,079	26,754	158,030	257,863	6,732,078
London ..	1,667	2,776	3,739	8,182	} 316,514
South Africa ..	46	26	75	147	
New Zealand ..	226	160	325	711	
Other Overseas ..	19	3	29	51	
Total ..	75,037	29,719	162,198	266,954	7,048,592
Payments made in Australia in respect of other countries less amounts received from other countries ..	..	..	..	..	Dr. 21,619
Total, War Pensions Trust Fund Account ..	..	..	..	..	7,026,973

5. Summary.—The subjoined table shows the numbers of pensions granted, claims rejected, and pensions in force, together with the amount paid in pensions for the year ended 30th June, 1921, and for each of the five years ended 30th June, 1934 :—

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 <sup>(a)</sup>
1930 ..	13,650	1,257	74,578	170,437	34,270	279,285	7,919,470
1931 ..	11,555	920	75,316	172,389	35,617	283,322	7,996,180
1932 ..	5,592	776	75,646	166,846	31,619	274,111	7,440,188
1933 ..	2,693	664	75,244	164,268	30,298	269,810	6,925,830
1934 ..	2,792	609	75,037	162,198	29,719	266,954	7,048,592

(a) Includes payments made from Trust Fund, War Pensions Account, on behalf of other countries less recoveries.

6. Cost of Administration.—The cost of administration in 1933-34, after allowing for the amount recoverable from the Government of the United Kingdom on account of administrative cost of British pensions was £149,404, or 2.12 per cent. on the total amount paid in pensions.

### § 3. Miscellaneous.

1. **Summary of Other Departmental Activities.**—The following is a summary of the work of the Department from 8th April, 1918, to 30th June, 1934 :—

(i) *Employment.* Number of applications, 255,368 ; number of positions filled, 133,212.

(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, 1934, 17,075 applications for assistance had been received. Of these 15,706 had been approved, of which 9,399 recipients of the benefits had completed their training, 3,809 were undergoing training, 47 applications were pending, and the remainder had been refused or withdrawn.

Up to 30th June, 1934, the expenditure was £1,510,034.

(iv) *Assistance Granted.* The total expenditure incurred during the period from 8th April, 1918, to 30th June, 1934, was £19,733,586, of which £1,676,002 represented loan and £18,057,584 general expenditure. Of the total the largest amounts were absorbed by medical treatment, with £6½ millions, vocational training with £5 millions, and expenses of providing employment, £2½ millions.

(v) *Medical Treatment.* At 30th June, 1934, there were 1,400 in-patients and 15,744 out-patients receiving medical treatment. The expenditure to this date was £6,663,274.

2. **Expenditure of Department of Repatriation.**—The expenditure of the Department during the twelve months ended 30th June, 1934, was £7,947,106, distributed as follows :—

Repatriation benefits—	£
Loans to soldiers .. .. .	7
Grants to soldiers and general expenditure (including maintenance of training schools, medical institutions, etc.) ..	510,747
Assistance to soldiers in necessitous circumstances ..	63
Allowances to dependants of soldiers not provided for under the Act .. .. .	808
Medical treatment to Home Service personnel .. ..	78
	511,703
Capital expenditure—New works .. .. .	13,839
Soldiers' Children Education Scheme .. .. .	80,734
	7,048,592
War Pensions .. .. .	7,048,592
Administrative costs—	
Salaries .. .. .	163,854
Contingencies .. .. .	54,811
	218,665
Exchange on Remittances to London and New York .. ..	73,573
	7,947,106
Total .. .. .	

The total expenditure for the previous year was £7,832,042.

3. **Losses of Soldier Settlement.**—Reference to losses incurred in connexion with settlement of returned soldiers and sailors will be found in Chapter V.—Land Tenure and Settlement.

CHAPTER XIV.—LABOUR, WAGES, AND PRICES.

A.—PRICES.

§ 1. Wholesale Prices.

1. **General.**—The results of an investigation into wholesale prices in Melbourne from 1871 to the end of September, 1912, were given in some detail in Labour Report No. 1. Since 1912, a monthly index-number has been published. Details of monthly figures are to be found in the Labour Reports and in the Quarterly Summaries of Australian Statistics issued by this Bureau.

2. **Index-Numbers.**—The index-numbers for eight groups of commodities and for all groups together are shown in the following table, with the prices in the year 1911 as base. The index-numbers are not comparable horizontally:—

INDEX-NUMBERS.—WHOLESALE PRICES, MELBOURNE.

(Base 1911 = 1,000.)

Year.	I. Metals and Coal.	II. Jute, Leather, Wool, 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	1,121
1891 ..	895	847	1,024	995	1,032	888	780	1,194	945
1901 ..	1,061	774	928	1,029	1,048	1,345	841	917	974
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	1,172
1913 ..	1,046	1,070	1,097	1,054	1,024	1,252	1,128	995	1,086
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	2,680	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	2,148	2,733	2,303	1,903
1922 ..	1,942	1,681	1,628	1,648	1,866	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	1,590
1931 ..	1,826	1,039	1,421	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	1,714	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

NOTE.—The figures given in this table are comparable in the vertical columns but are not directly comparable horizontally. The index-numbers are reversible.

The index-numbers up to the year 1911 are based on the prices of eighty commodities, but since that year the number has been increased to ninety-two.\* The commodities taken into account are given in detail in each Labour Report, with the average prices for the year. The commodities included are chiefly basic foods and raw materials, so that the index is more akin to the "Economist" or "Statist" index-numbers in England than to the official index-numbers of the United States or of Canada. The prices are weighted according to the estimates of Australian consumption per head in the years 1901 to 1911. For this purpose data were incomplete, and consumption in the State of Victoria was used as the basis for a number of commodities. The prices for farm and station products have been taken from market reports, and those of other commodities from trade journals or from information supplied by representative firms.

3. **Revision of the Index.**—Changes that have taken place since 1912 have altered considerably the relative consumption of different commodities. New commodities which should be taken into account have come into use, and in a number of other respects, the index-number requires revision. It is, moreover, desirable to give index-numbers for different classes of commodities, for farm products and for manufactured goods, and again for imported commodities and for those produced in Australia. Revision on these lines is now proceeding, and results will be ready for publication in the near future.

## § 2. Retail Prices and House Rents.

1. **Introduction.**—Reference must be made generally to the Labour Reports for explanations and full tables of retail price index-numbers. In Report No. 1 (1912) will be found a general description of method, which is summarized in succeeding issues. Report No. 9, Appendix I. (1919) contains an extensive memorandum on price indexes by the late Sir George H. Knibbs.

2. **Index-Numbers.**—There are several "series" of retail price index-numbers covering different ranges of commodities. They may be grouped as follows:—

(a) *Food and Groceries*, subdivided into groceries, dairy produce and meat.

Index-numbers are computed monthly for five representative towns in each State (the "30 towns"), for Canberra, and for a few other special towns. Index-numbers are computed annually in November for 200 towns, including those referred to above (see § 4, following). The same regimen of Food and Groceries is used throughout all the retail price indexes that follow.

(b) *Food and Housing*. Figures for rents are collected as at the middle of each quarter and combined with food prices to give a quarterly index of food and rent. For the 30 towns, there are two index-numbers, one taking into account the rents of houses of four and five rooms only ("B" Series) and the other rents of all houses ("A" Series)—the latter formerly used by the Commonwealth Arbitration Court. The first is usually given with the period 1923–1927 as base, and the second with 1911 as base. For the 200 towns, four-roomed and five-roomed houses are used separately, and the base is 1911.

(c) *All Household Expenditure*. Since 1919, prices have been collected quarterly in the "30 towns" for other household expenditure in two groups, "Clothing" and "Miscellaneous", the latter including household utensils, fuel, light, tobacco and a number of other items. These prices are combined with food prices and rents (four and five-roomed houses) to give the "All-Items" ("C" Series) index of retail prices. The base is the period 1923 to 1927 (see § 3 following). This index has almost wholly replaced the "A" Series as regards wages regulated by the Commonwealth Arbitration Court.

For all these index-numbers full information is given in the Labour Reports. The latest available information is to be found in the Quarterly Summaries of Australian Statistics.

\* In the computation of the index-numbers for years prior to 1911, the aggregate expenditure on 80 commodities in 1911 is taken as base (= 1,000), while for later years the aggregate expenditure on 92 commodities is taken.

3. Food and Housing: Six Capital Cities.—(i) *Food and Groceries.* The index-numbers for the three groups comprising food and groceries are shown in the following table:—

RETAIL PRICE INDEX-NUMBERS, FOOD AND GROCERIES.—CAPITAL CITIES.

(Base: 1923-27 (= 1,000).)

City.	1907.	1911.	1914.	1921.	1930.	1931.	1932.	1933.	1934.
Sydney .. ..	523	553	646	1,062	984	876	852	800	825
Melbourne .. ..	517	523	610	1,063	913	791	758	713	748
Brisbane .. ..	530	569	603	1,014	844	778	738	699	727
Adelaide .. ..	532	570	679	1,066	937	789	761	731	767
Perth .. ..	670	753	728	1,116	961	836	804	757	807
Hobart .. ..	565	592	678	1,133	952	816	797	757	786
Weighted Average (a) ..	533	559	640	1,064	941	826	796	751	783

(a) For all capital cities.

(ii) *Housing.* In issues of the Official Year Book prior to No. 19, the computations of index-numbers of housing accommodation were based upon the rentals of all houses from under four rooms to seven rooms and over. Since 1925, houses of four and five rooms only have been taken into account in accordance with a resolution of the Conference of Statisticians at Adelaide in 1924. The following table is on this basis, but the old index is still computed for the use of the Commonwealth Arbitration Court (*see Appendix*).

INDEX-NUMBERS.—HOUSING,(a) CAPITAL CITIES.

(Base: 1923-27 (= 1,000).)

City.	1907.	1911.	1914.	1921.	1930.	1931.	1932.	1933.	1934.
Sydney .. ..	593	701	760	989	1,197	1,026	894	864	869
Melbourne .. ..	455	569	628	820	1,011	867	816	801	803
Brisbane .. ..	283	373	466	630	775	680	641	681	691
Adelaide .. ..	510	706	655	809	916	755	691	694	700
Perth .. ..	458	524	589	739	979	881	810	795	794
Hobart .. ..	405	452	518	881	914	901	868	860	865
Weighted Average (b) ..	497	612	662	862	1,047	901	817	804	810

(a) 4 and 5 roomed houses.

(b) For all capital cities.

(iii) *Food, Groceries, and Housing (4 and 5-roomed Houses) combined.* The following table shows the index-numbers for food, groceries, and house rent (4 and 5-roomed houses) for each capital city, the weighted average cost for the six capitals in the five-yearly period 1923-1927 being taken as base (= 1,000):—

RETAIL PRICE INDEX-NUMBERS—FOOD, GROCERIES, AND HOUSING.(a)—CAPITAL CITIES.

City.	1907.	1911.	1914.	1921.	1930.	1931.	1932.	1933.	1934.
Sydney .. ..	548	606	687	1,036	1,059	929	867	822	840
Melbourne .. ..	495	539	616	977	948	818	778	742	769
Brisbane .. ..	442	506	554	877	819	743	704	690	713
Adelaide .. ..	524	618	671	975	929	777	736	716	742
Perth .. ..	594	672	679	932	968	852	805	768	802
Hobart .. ..	508	542	621	1,044	939	846	822	792	814
Weighted Average (b) ..	520	578	648	992	978	852	803	768	792

(a) 4 and 5 roomed houses.

(b) For all capital cities.

4. Retail Price Index-Numbers in Terms of Currency.—The tables previously given are now converted into money units by substituting 20s. od. for the base of 1,000. The figures for the last six quarters are added to the yearly figures. The figures show the

sums which would have to be paid in each city and in each year in order to purchase such quantities of the several commodities and such housing as would in the aggregate cost £1, according to the weighted average prices and rents in the six capitals in the five-yearly base period 1923-1927:—

**RETAIL PRICES.—AMOUNTS NECESSARY ON THE AVERAGE IN EACH YEAR FROM 1907 TO 1935 TO PURCHASE IN EACH CAPITAL CITY WHAT WOULD HAVE COST ON THE AVERAGE £1 IN THE FIVE-YEARLY BASE PERIOD 1923-1927, IN THE AUSTRALIAN CAPITALS REGARDED AS A WHOLE.**

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Cities.
<b>FOOD AND GROCERIES (46 COMMODITIES).*</b>							
	<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>
1907 .. ..	10 6	10 4	10 7	10 8	13 5	11 4	10 8
1911 .. ..	11 1	10 6	11 5	11 5	15 1	11 10	11 2
1914 .. ..	12 11	12 2	12 1	13 7	14 7	13 7	12 10
1921 .. ..	21 3	21 3	20 3	21 4	22 4	22 8	21 3
1930 .. ..	19 8	18 3	16 11	18 9	19 3	19 1	18 10
1931 .. ..	17 6	15 10	15 7	15 9	16 9	16 4	16 6
1932 .. ..	17 1	15 2	14 9	15 3	16 1	15 11	15 11
1933 .. ..	16 0	14 3	14 0	14 7	15 2	15 2	15 0
1934 .. ..	16 6	15 0	14 7	15 4	16 2	15 9	15 8
1934 { 1st Quarter	16 3	14 6	14 5	15 2	15 8	14 11	15 4
2nd    "	16 5	15 0	14 7	15 9	16 6	15 8	15 8
3rd    "	16 7	15 0	14 7	15 1	16 2	16 0	15 8
4th    "	16 9	15 4	14 7	15 4	16 2	16 3	15 11
1935 { 1st Quarter	16 6	15 6	14 11	15 5	16 3	15 11	15 11
2nd    "	16 6	15 7	14 11	15 7	16 7	15 10	15 11
<b>HOUSING ACCOMMODATION (WEIGHTED AVERAGE—4 AND 5 ROOMED HOUSES).</b>							
1907 .. ..	11 10	9 1	5 8	10 2	9 2	8 1	9 11
1911 .. ..	14 0	11 5	7 6	14 1	10 6	9 0	12 3
1914 .. ..	15 2	12 7	9 4	13 1	11 9	10 4	13 3
1921 .. ..	19 9	16 5	12 7	16 2	14 9	17 7	17 3
1930 .. ..	23 11	20 3	15 6	18 4	19 7	18 3	20 11
1931 .. ..	20 6	17 4	13 7	15 1	17 7	18 0	18 0
1932 .. ..	17 11	16 4	12 10	13 10	16 2	17 4	16 4
1933 .. ..	17 3	16 0	13 7	13 11	15 11	17 2	16 1
1934 .. ..	17 5	16 2	13 10	14 0	15 11	17 4	16 2
1934 { 1st Quarter	17 3	16 0	13 11	14 0	15 10	17 3	16 1
2nd    "	17 4	16 0	13 9	14 0	15 11	17 4	16 2
3rd    "	17 5	16 4	13 9	14 0	15 11	17 2	16 3
4th    "	17 6	16 4	13 11	14 1	15 10	17 5	16 4
1935 { 1st Quarter	17 7	16 10	14 2	14 7	15 9	17 8	16 7
2nd    "	17 7	16 11	14 5	14 8	15 9	17 9	16 8
<b>FOOD, GROCERIES, AND HOUSING (4 AND 5 ROOMS ONLY) COMBINED.</b>							
1907 .. ..	11 0	9 11	8 10	10 6	11 11	10 2	10 5
1911 .. ..	12 1	10 9	10 0	12 4	13 5	10 10	11 7
1914 .. ..	13 9	12 4	11 1	13 5	13 7	12 5	13 0
1921 .. ..	20 9	19 6	17 6	19 6	19 8	20 11	19 10
1930 .. ..	21 2	18 11	16 5	18 7	19 4	18 9	19 7
1931 .. ..	18 7	16 4	14 10	15 7	17 1	16 11	17 1
1932 .. ..	17 4	15 7	14 1	14 9	16 1	16 5	16 1
1933 .. ..	16 5	14 10	13 10	14 4	15 4	15 10	15 4
1934 .. ..	16 10	15 5	14 3	14 10	16 1	16 3	15 10
1934 { 1st Quarter	16 7	15 0	14 2	14 9	15 9	15 9	15 7
2nd    "	16 9	15 4	14 3	15 1	16 3	16 3	15 10
3rd    "	16 10	15 6	14 3	14 8	16 1	16 5	15 11
4th    "	17 0	15 8	14 4	14 11	16 1	16 8	16 1
1935 { 1st Quarter	16 11	16 0	14 8	15 1	16 1	16 6	16 2
2nd    "	16 11	16 1	14 9	15 3	16 3	16 6	16 2

\* Reduced to 44 Commodities from 3rd Quarter, 1932.

### § 3. Variations in the Cost of Food, Groceries, Rent, Clothing, and Miscellaneous Expenditure. ("C" Series.)

1. **General.**—The index-numbers in § 2 show the variations in the cost of food, groceries and house rent. The expenditure on these items covers approximately 60 per cent. of the total expenditure of the ordinary household. The balance is expended on clothing, boots, fuel, light, and such miscellaneous items as renewals of furniture, furnishings, drapery, crockery, lodge dues, trade union dues, recreation, newspapers, etc. The Royal Commission on the Basic Wage in 1920 recommended in its report that a method should be adopted of ascertaining from time to time the rise and fall in the purchasing-power of money in its relation to the total household expenditure. The Government adopted the recommendation, and the duty of carrying out the necessary investigations was entrusted to the Bureau of Census and Statistics, which adopted the methods hereunder described.

2. **Methods Adopted.**—After careful investigation it was decided to adopt for food, groceries, and house rent, the commodities, method, and weighting used by this Bureau. The commodities and quantities adopted for food and groceries conform very closely to those given in the Indicator Lists of the Commission. With regard to rent, the Commission adopted a certain type of five-roomed house as its standard for determining the amount allowed for housing. The investigations made by this Bureau are not confined to a particular type of house, but the average rentals paid for houses of four and five rooms are taken. The results can be used with safety to show the variations in the type of house described by the Commission.

The investigations of this Bureau advisedly had been confined to food, groceries, and house rent, and it was necessary, therefore, to make investigations into the cost of clothing and miscellaneous expenditure. With regard to clothing, the Basic Wage Commission collected a large amount of information as to prices and life of articles, and this has been utilized in computing the index-numbers given in the following tables.

With regard to Miscellaneous Expenditure, which covers a very wide field, inquiries were made as to variations in cost of fuel and light, household utensils, drapery, crockery, etc., also in respect of other items included in the Indicator Lists for Miscellaneous Expenditure, and the aggregate expenditure on these items has been computed in the same manner as that for clothing.

3. **Period Selected as Base.**—For the new series of index-numbers, November, 1914, was adopted as base, owing to the difficulty of securing information with regard to prices of clothing and miscellaneous items for earlier years. Prior to and including the 4th Quarter, 1929, the index-numbers were computed to this base, but in accordance with the decision of the Conference of Statisticians to adopt a post-war period as base, the index-numbers since 1st Quarter, 1930, have been computed to the five-yearly period—1923–1927—as base (= 1,000), and the figures for past years have been re-computed to the same base.\*

This series has now assumed importance owing to its adoption by the Commonwealth Arbitration Court, from the 1st May, 1934, for the fixation and adjustment of wages regulated by the Court.

Similar index-numbers indicating the separate movement of the Clothing and Miscellaneous items will be found in the annual Labour Reports.

4. **New Regimens.**—From the 1st Quarter of 1935 a revised regimen was introduced for the Clothing and Miscellaneous sections of this Index, and was "grafted" to the old so as to make no appreciable break in the continuity of the new index-numbers with those derived from the old regimen. A new regimen for the Food and Groceries section of this Index was adopted from the 3rd Quarter of 1932. Both these regimens are published in full in Labour Report, No. 25, 1934.

5. **Variations in Cost in the Principal Towns.**—The following table gives the combined index (generally known as the "All-Items" index) for all household expenditure, for the thirty-two towns in respect of which the tabulation is made:—

\* These Indexes may be converted to the 1914 base by multiplying them by 1·4556.



## THE "ALL ITEMS" INDEX.

("C" Series.)

RETAIL PRICE INDEX-NUMBERS.—TOTAL HOUSEHOLD EXPENDITURE—(FOOD, GROCERIES, HOUSING—4 AND 5 ROOMS ONLY, CLOTHING AND MISCELLANEOUS EXPENDITURE) WITH WEIGHTED AVERAGE FOR THE SIX CAPITAL CITIES DURING THE FIVE-YEARLY PERIOD 1923-1927 AS BASE (= 1,000).

State and Town.	Nov- ember, 1921. *	Year 1927.	Year 1928.	Year 1929.	Year 1930.	Year 1931.	Year 1932.	Year 1933.	Year 1934.	1935.	
										1st Qtr.	2nd Qtr.
<b>NEW SOUTH WALES—</b>											
Sydney ..	1,046	1,029	1,042	1,073	1,026	922	867	832	842	840	844
Newcastle ..	1,041	1,015	1,014	1,028	991	888	840	819	834	845	852
Broken Hill ..	975	1,000	997	1,018	973	882	834	806	819	822	818
Goulburn ..	1,033	1,062	1,074	1,108	1,039	922	877	843	852	861	854
Bathurst ..	947	952	964	979	959	867	820	801	807	801	813
Weighted Average ..	1,042	1,027	1,038	1,067	1,022	918	863	830	841	840	844
<b>VICTORIA—</b>											
Melbourne ..	1,003	990	992	1,017	956	846	813	789	801	820	820
Ballarat ..	992	922	929	957	909	808	776	760	781	795	797
Bendigo ..	1,002	940	936	969	926	833	808	789	811	813	824
Geelong ..	1,019	985	973	980	917	822	794	772	782	819	822
Warrnambool ..	1,034	945	941	960	939	860	838	812	826	849	850
Weighted Average ..	1,003	985	987	1,011	951	843	811	787	801	819	820
<b>QUEENSLAND—</b>											
Brisbane ..	923	922	917	923	859	798	764	751	762	773	776
Toowoomba ..	949	914	906	916	835	816	788	778	785	789	790
Rockhampton ..	972	929	903	904	868	806	779	752	759	764	770
Charters Towers ..	1,025	918	925	939	883	827	791	762	759	771	778
Warwick ..	994	946	914	931	882	815	777	757	761	768	760
Weighted Average ..	941	923	915	922	863	801	768	753	764	774	776
<b>SOUTH AUSTRALIA—</b>											
Adelaide ..	989	1,018	1,027	1,037	952	837	802	789	806	814	819
Kadina, etc. ..	998	932	927	943	885	801	772	747	758	758	759
Port Pirie ..	1,025	970	960	980	927	834	791	762	778	784	789
Mount Gambier ..	1,029	945	948	953	918	831	816	800	800	802	804
Peterborough ..	948	1,023	1,017	1,043	980	884	848	832	832	839	833
Weighted Average ..	992	1,012	1,019	1,030	948	836	801	787	804	811	816
<b>WESTERN AUSTRALIA—</b>											
Perth, etc. ..	1,008	984	1,012	1,026	977	885	840	811	830	833	837
Kalgoorlie, etc. ..	1,048	984	995	1,032	986	937	940	937	975	1,003	1,011
Northam ..	1,030	988	1,003	1,022	969	878	844	814	825	821	831
Bunbury ..	1,045	963	963	978	966	877	842	824	843	859	870
Geraldton ..	1,056	1,010	1,029	1,051	1,029	951	904	851	866	879	887
Weighted Average ..	1,020	985	1,009	1,026	979	891	852	825	842	846	851
<b>TASMANIA—</b>											
Hobart ..	1,070	998	980	1,000	956	875	844	825	837	846	850
Launceston ..	1,067	953	957	967	949	865	832	817	828	834	834
Burnie ..	1,003	936	941	966	918	837	811	775	780	786	790
Devonport ..	904	925	909	948	920	841	800	773	787	803	795
Queenstown ..	1,031	932	934	972	949	881	855	867	876	877	878
Weighted Average ..	1,057	977	966	986	951	869	838	820	831	840	842
Weighted Average for 30 Towns ..	1,013	997	1,003	1,026	971	870	829	803	816	824	827
Weighted Average for 6 Capital Cities ..	1,013	1,002	1,009	1,033	975	873	830	804	817	824	827
Townsville (Q.) (a) ..	..	1,050	1,023	1,026	966	914	878	850	851	849	850
Port Augusta (S.A.) (a) ..	1,035	1,037	1,050	1,061	1,026	914	853	814	822	821	813

(a) Not included in above weighted averages.

\* Figures for the country towns are only available from 1921, and the following are the corresponding index-numbers for the Six Capital Cities for November, 1914, and November, 1920:—

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals.
November, 1914 ..	712	671	611	699	707	687	687
November, 1920 ..	1,193	1,172	1,054	1,164	1,111	1,213	1,156

6. **Relative Household Expenditure.**—The following table shows for the thirty-two towns covered by this Series of index-numbers the relative amount spent on each of the groups of total household expenditure :—

**TOTAL HOUSEHOLD EXPENDITURE.—THE "ALL ITEMS" INDEX ("C" SERIES). INDEX-NUMBERS, 32 TOWNS, SHOWING RELATIVE EXPENDITURE ON FOOD, GROCERIES, HOUSING (4 and 5 Rooms), CLOTHING AND MISCELLANEOUS EXPENDITURE, WITH WEIGHTED AVERAGE EXPENDITURE FOR THE SIX CAPITAL CITIES DURING THE FIVE-YEARLY PERIOD 1923-1927 AS BASE (= 1,000).**

Town.	1933.					1934.				
	Food and Groceries.	Housing (4 & 5 Rooms).	Clothing.	Miscellaneous.	Total Household Expenditure.	Food and Groceries.	Housing (4 & 5 Rooms).	Clothing.	Miscellaneous.	Total Household Expenditure.
<b>NEW SOUTH WALES—</b>										
Sydney .. .. .	399	184	171	168	832	319	185	172	166	842
Newcastle .. .. .	390	165	189	156	819	322	168	187	157	834
Broken Hill .. .. .	340	134	164	168	806	354	137	160	168	819
Goulburn .. .. .	303	173	218	149	843	315	174	215	148	852
Bathurst .. .. .	301	160	184	150	801	310	166	184	147	807
Weighted Average .. .. .	310	180	173	167	830	320	182	174	165	841
<b>VICTORIA—</b>										
Melbourne .. .. .	276	170	187	156	789	289	172	185	155	801
Ballarat .. .. .	283	133	193	149	760	299	139	194	149	781
Bendigo .. .. .	283	136	216	154	789	303	140	214	154	811
Geelong .. .. .	285	153	183	151	772	294	157	181	150	782
Warrnambool .. .. .	288	169	214	141	812	303	170	212	141	826
Weighted Average .. .. .	276	167	188	156	787	290	169	187	155	801
<b>QUEENSLAND—</b>										
Brisbane .. .. .	270	145	182	154	751	281	147	181	153	762
Toowoomba .. .. .	262	151	210	155	778	268	156	207	154	785
Rockhampton .. .. .	290	121	191	150	752	296	126	188	149	759
Charters Towers .. .. .	310	110	176	166	762	312	109	173	165	759
Warwick .. .. .	280	130	194	153	757	283	133	193	152	761
Weighted Average .. .. .	273	141	185	154	753	282	145	184	153	764
<b>SOUTH AUSTRALIA—</b>										
Adelaide .. .. .	283	148	191	167	789	296	149	195	166	806
Kadina, etc. .. .. .	310	80	196	161	747	325	82	191	160	758
Port Pirie .. .. .	290	128	183	161	762	307	127	183	161	778
Mount Gambier .. .. .	286	130	221	163	800	288	132	218	162	800
Peterborough .. .. .	299	151	219	163	832	308	139	222	163	832
Weighted Average .. .. .	284	144	192	167	787	298	145	195	166	804
<b>WESTERN AUSTRALIA—</b>										
Perth, etc. .. .. .	292	169	189	161	811	312	169	188	161	830
Kalgoorlie, etc. .. .. .	362	174	238	163	937	381	192	238	164	975
Northam .. .. .	312	167	182	153	814	328	166	177	154	825
Bunbury .. .. .	307	164	201	152	824	327	165	199	152	843
Geraldton .. .. .	294	200	192	165	851	316	197	189	164	866
Weighted Average .. .. .	300	170	194	161	825	318	171	192	161	842
<b>TASMANIA—</b>										
Hobart .. .. .	293	183	203	146	825	304	184	203	146	837
Launceston .. .. .	285	164	221	147	817	296	164	221	147	828
Burnie .. .. .	295	144	195	141	775	307	139	193	141	780
Devonport .. .. .	296	144	192	141	773	307	145	195	140	787
Queenstown .. .. .	337	149	244	137	867	348	150	241	137	876
Weighted Average .. .. .	292	173	209	146	820	303	173	209	146	831
Weighted Average for 30 Towns .. .. .	291	167	184	161	803	304	169	183	160	816
Weighted Average for 6 Capital Cities .. .. .	290	171	181	162	804	303	172	181	161	817
TOWNSVILLE (Q.) (a) .. .. .	312	170	207	161	850	318	171	202	160	851
PORT AUGUSTA (S.A.) (a) .. .. .	317	129	206	162	814	331	128	202	161	822

(a) Not included in above weighted averages.

### § 4. Retail Price Index-Numbers, 200 Towns.

1. **General.**—To supplement the information collected each month for the 30 towns a special investigation was initiated in November, 1913, into retail price index-numbers in 70 additional towns. 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 of additional towns was further increased to 170, and it is intended to institute inquiries in November in each year, thus making information available annually for 200 towns. The results of the first investigation were published in Labour Bulletin No. 5 (Section IV., pages 26 to 33), where a description was given of the methods adopted in making the investigation and in computing the index-numbers. The results of the succeeding yearly investigations have appeared in the Labour Bulletins and Reports of this Bureau.

2. **Detailed Results, 1932 to 1934.**—The base of the table is the cost of food and housing (all houses) in the six capitals in 1911, and is to some extent arbitrary, inasmuch as the element of rent in the base itself differs from that contained in this table, but the index-numbers are comparable throughout.

Column A shows the relative cost of food in the various towns; Column B the relative cost of food and rent of four-roomed houses; and Column C the relative cost of food and rent of five-roomed houses. The difference between Columns B and A, and C and A, represents in each case the relative costs of four-roomed and five-roomed houses for each town. In comparing rents for various towns, therefore, these differences must first be ascertained in order to make the necessary allowance for the differences due to food as between towns. The last-mentioned factor may be ascertained from Column A.

#### INDEX-NUMBERS.—COST OF FOOD AND GROCERIES, AND OF FOOD, GROCERIES AND HOUSING IN 200 TOWNS, COMPARED WITH THE WEIGHTED AVERAGE COST OF FOOD, GROCERIES, AND RENT FOR ALL HOUSES IN THE SIX CAPITAL CITIES IN 1911 AS BASE (= 1,000).

State and Town.	1932. November.			1933. November.			1934. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
	A	B	C	A	B	C	A	B	C
<b>NEW SOUTH WALES —</b>									
Albury .. .. .	811	1,290	1,340	788	1,263	1,340	836	1,280	1,364
Armidale .. .. .	854	1,212	1,295	768	1,122	1,209	817	1,169	1,247
Ballina .. .. .	870	1,227	1,339	850	1,177	1,282	846	1,175	1,280
Bathurst .. .. .	826	1,174	1,234	816	1,180	1,233	852	1,217	1,270
Bega .. .. .	890	1,241	1,311	832	1,183	1,247	866	1,217	1,281
Berry .. .. .	893	1,209	1,282	857	1,173	1,252	906	1,222	1,301
Blackheath .. .. .	869	1,238	1,340	843	1,209	1,258	896	1,265	1,295
Bourke .. .. .	878	1,230	1,338	879	1,208	1,339	892	1,221	1,352
Bowral .. .. .	872	1,247	1,333	846	1,202	1,298	876	1,229	1,337
Broken Hill .. .. .	938	1,257	1,385	920	1,253	1,362	973	1,313	1,418

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1932. November.			1933. November.			1934. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
	A	B	C	A	B	C	A	B	C
NEW SOUTH WALES— <i>continued.</i>									
Casino .. .. .	832	1,240	1,358	817	1,225	1,344	832	1,240	1,359
Cessnock .. .. .	817	1,120	1,202	799	1,063	1,102	834	1,103	1,146
Cobar .. .. .	944	1,160	1,229	1,060	1,228	1,297	1,028	1,217	1,278
Cooma .. .. .	957	1,230	1,401	900	1,203	1,335	881	1,204	1,342
Coonamble .. .. .	895	1,175	1,269	888	1,173	1,248	927	1,254	1,328
Cootamundra .. .. .	846	1,289	1,369	770	1,175	1,291	831	1,246	1,366
Corrimal .. .. .	863	1,324	1,324	808	1,200	1,269	861	1,253	1,321
Cowra .. .. .	851	1,191	1,306	784	1,210	1,278	851	1,313	1,408
Cromulla .. .. .	806	1,327	1,422	831	1,247	1,340	877	1,286	1,418
Deniliquin .. .. .	846	1,181	1,278	867	1,198	1,324	910	1,256	1,401
Dubbo .. .. .	752	1,258	1,380	722	1,218	1,256	812	1,311	1,372
Forbes .. .. .	851	1,309	1,393	829	1,272	1,413	866	1,289	1,494
Gilgandra .. .. .	838	1,134	1,200	824	1,120	1,186	891	1,220	1,253
Glen Innes .. .. .	814	1,176	1,274	798	1,160	1,245	807	1,162	1,288
Goulburn .. .. .	856	1,297	1,344	811	1,241	1,294	868	1,306	1,345
Grafton .. .. .	806	1,234	1,378	790	1,218	1,363	823	1,281	1,440
Grenfell .. .. .	848	1,234	1,336	813	1,208	1,340	849	1,293	1,411
Griffith .. .. .	896	1,092	1,883	901	1,663	1,826	956	1,697	1,884
Gulgong .. .. .	836	1,134	1,225	705	1,040	1,116	823	1,100	1,152
Gunnedah .. .. .	799	1,159	1,283	771	1,140	1,267	816	1,177	1,343
Hay .. .. .	938	1,270	1,416	912	1,260	1,436	945	1,293	1,460
Inverell .. .. .	871	1,309	1,410	811	1,236	1,301	851	1,306	1,382
Junee .. .. .	832	1,316	1,441	814	1,265	1,393	861	1,371	1,499
Katoomba .. .. .	873	1,429	1,512	854	1,350	1,448	877	1,421	1,525
Kempsey .. .. .	829	1,182	1,306	821	1,236	1,333	853	1,238	1,357
Kiama .. .. .	892	1,182	1,353	862	1,152	1,329	935	1,225	1,421
Kurri Kurri .. .. .	811	1,102	1,177	792	1,046	1,143	861	1,107	1,192
Leeton .. .. .	909	1,496	1,593	854	1,413	1,512	893	1,489	1,620
Lismore .. .. .	831	1,247	1,393	814	1,249	1,421	823	1,300	1,455
Lithgow .. .. .	858	1,186	1,225	812	1,156	1,162	899	1,216	1,224
Maitland .. .. .	808	1,141	1,240	770	1,058	1,247	830	1,128	1,193
Moree .. .. .	941	1,467	1,521	880	1,406	1,505	925	1,476	1,579
Moss Vale .. .. .	844	1,187	1,323	824	1,173	1,260	856	1,246	1,330
Mudgee .. .. .	803	1,197	1,329	720	1,122	1,240	814	1,273	1,339
Narrabri .. .. .	866	1,238	1,324	811	1,206	1,245	885	1,321	1,364
Narrandera .. .. .	916	1,376	1,486	844	1,304	1,409	893	1,406	1,499
Newcastle .. .. .	852	1,230	1,348	845	1,223	1,335	894	1,284	1,397
Nowra .. .. .	917	1,246	1,391	875	1,267	1,358	885	1,319	1,420
Orange .. .. .	792	1,192	1,297	790	1,200	1,354	814	1,219	1,361
Parkes .. .. .	855	1,239	1,323	824	1,182	1,275	847	1,220	1,350
Penrith .. .. .	820	1,119	1,251	782	1,065	1,186	829	1,132	1,209
Port Kembla .. .. .	850	1,267	1,340	839	1,256	1,313	901	1,276	1,374
Portland .. .. .	850	1,114	1,179	846	1,110	1,175	885	1,148	1,214
Queanbeyan .. .. .	883	1,155	1,242	838	1,117	1,196	895	1,205	1,275
Quirindi .. .. .	883	1,157	1,283	878	1,208	1,314	900	1,242	1,351
Richmond .. .. .	844	1,239	1,305	802	1,196	1,262	884	1,298	1,344
Scone .. .. .	846	1,274	1,350	808	1,235	1,312	852	1,293	1,380
Singleton .. .. .	871	1,196	1,302	795	1,131	1,221	821	1,174	1,224
Sydney .. .. .	865	1,307	1,385	826	1,260	1,346	880	1,316	1,413
Tamworth .. .. .	809	1,169	1,258	780	1,142	1,227	826	1,188	1,303
Taree .. .. .	841	1,283	1,393	787	1,230	1,331	827	1,296	1,432
Temora .. .. .	850	1,343	1,444	803	1,297	1,397	845	1,328	1,416
Tenterfield .. .. .	825	1,160	1,251	775	1,120	1,211	813	1,177	1,237
Tumut .. .. .	846	1,307	1,439	834	1,311	1,402	853	1,324	1,422
Ulmarra .. .. .	894	1,355	1,421	815	1,210	1,342	872	1,267	1,398

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1932. November.			1933. November.			1934. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
<b>NEW SOUTH WALES—<i>continued.</i></b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>A</b>	<b>B</b>	<b>C</b>
Wagga Wagga .. .. .	825	1,315	1,403	793	1,247	1,423	839	1,342	1,500
Walcha .. .. .	867	1,198	1,293	841	1,170	1,279	880	1,238	1,294
Wellington .. .. .	815	1,114	1,223	794	1,104	1,202	875	1,237	1,283
Weston .. .. .	811	1,103	1,155	804	1,095	1,148	834	1,126	1,170
Windsor .. .. .	855	1,282	1,381	822	1,250	1,348	830	1,274	1,356
Wollongong .. .. .	799	1,241	1,326	795	1,254	1,311	850	1,307	1,419
Wyalong .. .. .	849	1,156	1,217	843	1,166	1,205	858	1,187	1,253
Yass .. .. .	826	1,187	1,262	798	1,143	1,242	856	1,250	1,292
Young .. .. .	852	1,313	1,376	816	1,224	1,319	898	1,310	1,367
Weighted Average for State (74 Towns) .. .. .	861	1,286	1,370	827	1,244	1,334	878	1,303	1,401
<b>VICTORIA—</b>									
Ararat .. .. .	813	1,142	1,302	819	1,138	1,266	872	1,202	1,333
Bacchus Marsh .. .. .	773	1,108	1,260	775	1,119	1,254	830	1,175	1,247
Bairnsdale .. .. .	860	1,135	1,289	882	1,124	1,247	891	1,161	1,339
Ballarat .. .. .	769	1,064	1,213	771	1,074	1,227	818	1,129	1,204
Beechworth .. .. .	867	1,163	1,229	826	1,122	1,175	856	1,152	1,191
Benalla .. .. .	836	1,189	1,290	799	1,125	1,298	874	1,200	1,384
Bendigo .. .. .	786	1,097	1,206	765	1,072	1,200	830	1,154	1,274
Camperdown .. .. .	806	1,217	1,319	806	1,197	1,333	857	1,236	1,382
Casterton .. .. .	847	1,209	1,288	834	1,196	1,261	879	1,261	1,340
Castlemaine .. .. .	801	1,073	1,157	787	1,082	1,178	816	1,104	1,198
Colac .. .. .	803	1,237	1,367	801	1,216	1,317	856	1,274	1,371
Creswick .. .. .	827	958	985	782	914	966	831	989	1,041
Daylesford .. .. .	811	1,021	1,119	806	1,016	1,094	831	1,041	1,118
Dunolly .. .. .	812	973	1,013	780	960	1,006	836	1,047	1,083
Echuca .. .. .	779	1,079	1,199	785	1,035	1,210	826	1,135	1,283
Euroa .. .. .	828	1,161	1,237	810	1,113	1,170	846	1,142	1,251
Geelong .. .. .	783	1,140	1,307	771	1,124	1,298	798	1,172	1,332
Hamilton .. .. .	840	1,255	1,376	803	1,189	1,318	847	1,218	1,304
Healesville .. .. .	799	1,089	1,141	804	1,070	1,146	861	1,124	1,210
Horsham .. .. .	849	1,176	1,308	807	1,155	1,267	843	1,231	1,301
Kerang .. .. .	807	1,201	1,267	793	1,187	1,253	862	1,250	1,298
Koroit .. .. .	851	1,114	1,180	808	1,071	1,130	838	1,114	1,167
Korumburra .. .. .	778	1,099	1,242	776	1,089	1,252	823	1,142	1,274
Kyneton .. .. .	780	1,069	1,104	743	1,035	1,146	797	1,088	1,227
Lilydale .. .. .	833	1,183	1,280	826	1,158	1,240	858	1,180	1,252
Maffra .. .. .	812	1,185	1,259	801	1,172	1,252	826	1,150	1,247
Maldon .. .. .	833	945	998	832	944	1,017	871	1,003	1,068
Maryborough .. .. .	775	1,006	1,101	770	1,025	1,095	826	1,087	1,206
Melbourne .. .. .	754	1,160	1,282	759	1,163	1,287	798	1,207	1,340
Mildura .. .. .	879	1,398	1,526	887	1,419	1,555	917	1,483	1,650
Morwell .. .. .	802	1,237	1,296	839	1,260	1,352	865	1,287	1,379
Nhill .. .. .	866	1,166	1,307	840	1,143	1,256	898	1,214	1,326
Orbost .. .. .	874	1,229	1,331	877	1,219	1,333	857	1,149	1,305
Portland .. .. .	833	1,169	1,241	831	1,160	1,226	847	1,136	1,209
Port Fairy .. .. .	849	1,108	1,224	801	1,091	1,196	824	1,127	1,252
St. Arnaud .. .. .	869	1,212	1,290	847	1,164	1,278	897	1,223	1,348
Sale .. .. .	802	1,121	1,256	826	1,169	1,253	826	1,217	1,302
Seymour .. .. .	873	1,202	1,301	824	1,153	1,258	893	1,216	1,324
Shepparton .. .. .	792	1,186	1,313	777	1,156	1,300	847	1,238	1,390
Stawell .. .. .	865	1,142	1,244	844	1,103	1,228	907	1,157	1,270

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1932. November.			1933. November.			1934. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
	A	B	C	A	B	C	A	B	C
<b>Victoria—continued.</b>									
Swan Hill .. ..	812	1,338	1,536	782	1,292	1,473	877	1,387	1,568
Terang .. ..	876	1,200	1,338	840	1,163	1,284	863	1,218	1,368
Traralgon .. ..	780	1,153	1,277	773	1,111	1,256	828	1,187	1,348
Wangaratta .. ..	814	1,268	1,380	824	1,267	1,378	828	1,293	1,401
Warracknabeal ..	827	1,130	1,251	790	1,069	1,199	830	1,157	1,258
Warragul .. ..	760	1,286	1,454	751	1,285	1,451	831	1,232	1,397
Warrnambool .. ..	812	1,207	1,369	779	1,173	1,341	799	1,334	1,501
Wonthaggi .. ..	773	1,155	1,227	776	1,105	1,212	836	1,165	1,262
Weighted Average for State (48 Towns) ..	765	1,156	1,279	767	1,155	1,280	805	1,203	1,334
<b>QUEENSLAND—</b>									
Ayr .. ..	873	1,317	1,439	846	1,293	1,416	862	1,314	1,446
Barcaldine .. ..	911	1,283	1,346	874	1,249	1,368	928	1,305	1,327
Bowen .. ..	932	1,283	1,384	860	1,215	1,287	935	1,284	1,363
Brisbane .. ..	748	1,050	1,151	733	1,071	1,161	765	1,112	1,196
Bundaberg .. ..	817	1,105	1,160	761	1,039	1,085	793	1,052	1,118
Cairns .. ..	888	1,360	1,575	857	1,370	1,548	881	1,424	1,598
Charleville .. ..	904	1,326	1,474	894	1,324	1,438	928	1,339	1,511
Charters Towers ..	900	1,137	1,232	820	1,070	1,136	845	1,086	1,170
Chillagoe .. ..	1,126	1,330	1,383	960	1,157	1,210	961	1,159	1,211
Cloncurry .. ..	1,045	1,462	1,624	955	1,340	1,429	979	1,348	1,461
Cooktown .. ..	972	1,170	1,236	934	1,079	1,131	968	1,113	1,166
Cunnamulla .. ..	911	1,306	1,393	906	1,301	1,433	941	1,336	1,468
Dalby .. ..	799	1,161	1,263	783	1,141	1,253	800	1,169	1,261
Gayndah .. ..	859	1,135	1,241	803	1,073	1,132	834	1,110	1,215
Gladstone .. ..	837	1,151	1,247	783	1,112	1,204	812	1,155	1,260
Goondiwindi .. ..	863	1,258	1,324	836	1,230	1,318	864	1,290	1,399
Gympie .. ..	790	1,117	1,212	776	1,107	1,220	814	1,139	1,268
Hughenden .. ..	979	1,374	1,486	953	1,361	1,446	938	1,346	1,431
Innisfail .. ..	969	1,525	1,680	898	1,450	1,582	955	1,491	1,624
Ipswich .. ..	769	980	1,110	767	990	1,109	785	1,002	1,120
Longreach .. ..	962	1,282	1,405	914	1,226	1,356	970	1,314	1,452
Mackay .. ..	850	1,222	1,331	813	1,208	1,339	850	1,267	1,416
Maryborough .. ..	815	1,144	1,254	754	1,083	1,192	761	1,090	1,200
Mount Morgan ..	877	1,044	1,092	833	1,017	1,026	875	1,059	1,072
Nambour .. ..	794	1,092	1,200	761	1,065	1,158	808	1,098	1,177
Rockhampton .. ..	816	1,120	1,162	772	1,074	1,119	805	1,113	1,165
Roma .. ..	850	1,179	1,298	848	1,085	1,212	866	1,116	1,208
Stanthorpe .. ..	879	1,281	1,359	807	1,162	1,228	816	1,172	1,237
Toowoomba .. ..	734	1,103	1,133	709	1,103	1,128	732	1,111	1,169
Townsville .. ..	868	1,283	1,358	827	1,228	1,315	860	1,257	1,364
Warwick .. ..	788	1,095	1,153	759	1,052	1,131	759	1,057	1,171
Winton .. ..	1,010	1,306	1,438	953	1,216	1,368	968	1,244	1,395
Weighted Average for State (32 Towns) ..	790	1,102	1,196	763	1,096	1,182	787	1,127	1,214
<b>SOUTH AUSTRALIA—</b>									
Adelaide .. ..	754	1,079	1,227	772	1,107	1,249	815	1,159	1,290
Freeling .. ..	773	1,036	1,102	770	1,033	1,099	809	1,072	1,138
Gawler .. ..	782	1,053	1,134	771	1,017	1,096	818	1,073	1,182
Kadina, etc. .. ..	840	1,024	1,091	840	1,022	1,094	894	1,076	1,159
Kapunda .. ..	803	1,031	1,092	756	958	1,052	803	981	1,079

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1932. November.			1933. November.			1934. November.		
	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.	Food and Groceries only.	Food, Groceries, and Rent of 4-Roomed Houses.	Food, Groceries, and Rent of 5-Roomed Houses.
	A	B	C	A	B	C	A	B	C
<b>SOUTH AUSTRALIA—<i>continued.</i></b>									
Kooringa .. .. .	851	1,084	1,180	812	1,141	1,207	832	1,128	1,244
Millicent .. .. .	801	1,087	1,200	797	1,071	1,174	849	1,162	1,244
Mount Gambier .. .. .	783	1,045	1,174	765	1,022	1,158	791	1,065	1,204
Murray Bridge .. .. .	723	976	1,055	747	988	1,122	771	1,004	1,123
Peterborough .. .. .	808	1,155	1,256	811	1,180	1,250	848	1,212	1,289
Port Augusta .. .. .	883	1,185	1,311	868	1,159	1,283	910	1,202	1,326
Port Pirie .. .. .	802	1,122	1,231	777	1,084	1,106	856	1,162	1,275
Quorn .. .. .	828	1,111	1,173	819	1,115	1,194	844	1,160	1,229
Renmark .. .. .	946	1,341	1,472	885	1,280	1,345	956	1,334	1,396
Victor Harbour .. .. .	825	1,273	1,418	801	1,169	1,222	833	1,162	1,281
Weighted Average for State (15 Towns) .. .. .	765	1,081	1,219	777	1,100	1,234	820	1,154	1,280
<b>WESTERN AUSTRALIA—</b>									
Albany .. .. .	858	1,179	1,213	834	1,132	1,224	917	1,238	1,354
Beverley .. .. .	910	1,239	1,348	893	1,268	1,382	920	1,336	1,413
Bridgetown .. .. .	905	1,234	1,332	925	1,226	1,319	967	1,278	1,395
Broome .. .. .	1,243	1,704	1,901	1,217	1,678	1,875	1,217	1,677	1,875
Bunbury .. .. .	852	1,267	1,330	822	1,239	1,307	889	1,294	1,399
Carnarvon .. .. .	1,062	1,511	1,605	1,023	1,477	1,587	1,062	1,491	1,621
Collie .. .. .	825	1,189	1,285	762	1,108	1,236	908	1,247	1,329
Geraldton .. .. .	838	1,347	1,480	804	1,288	1,421	880	1,361	1,497
Greenbushes .. .. .	958	1,123	1,156	908	1,073	1,112	973	1,121	1,190
Kalgoorlie and Boulder .. .. .	997	1,453	1,554	975	1,466	1,544	1,047	1,570	1,659
Katanning .. .. .	846	1,200	1,324	810	1,132	1,256	889	1,193	1,305
Leonora and Gwalia .. .. .	1,079	1,343	1,395	1,083	1,346	1,442	1,142	1,405	1,464
Meekatharra .. .. .	1,102	1,562	1,760	1,080	1,541	1,738	1,103	1,585	1,739
Narrogin .. .. .	862	1,326	1,401	845	1,249	1,379	919	1,367	1,521
Northam .. .. .	852	1,251	1,379	833	1,237	1,346	890	1,295	1,399
Perth and Fremantle .. .. .	800	1,202	1,296	779	1,174	1,273	856	1,254	1,344
Wagin .. .. .	914	1,169	1,243	857	1,112	1,186	860	1,145	1,222
York .. .. .	817	1,146	1,225	807	1,123	1,176	844	1,180	1,233
Weighted Average for State (18 Towns) .. .. .	832	1,235	1,330	810	1,209	1,308	878	1,281	1,374
<b>TASMANIA—</b>									
Beaconsfield .. .. .	795	914	953	784	902	942	843	988	1,054
Burnie .. .. .	843	1,212	1,299	787	1,155	1,239	864	1,222	1,318
Campbelltown .. .. .	855	1,091	1,151	820	1,029	1,087	858	1,100	1,154
Deloraine .. .. .	820	1,143	1,222	796	1,119	1,188	830	1,159	1,185
Devonport .. .. .	833	1,251	1,307	803	1,212	1,274	879	1,296	1,354
Franklin .. .. .	900	1,137	1,229	860	1,097	1,156	936	1,173	1,232
Hobart .. .. .	809	1,251	1,379	797	1,237	1,370	856	1,300	1,435
Launceston .. .. .	789	1,181	1,290	760	1,163	1,271	827	1,219	1,343
New Norfolk .. .. .	856	1,171	1,224	825	1,141	1,167	866	1,182	1,234
Queenstown .. .. .	942	1,304	1,393	916	1,311	1,357	961	1,356	1,415
Scottsdale .. .. .	808	1,071	1,163	767	1,030	1,123	811	1,047	1,159
Ulverstone .. .. .	866	1,142	1,228	811	1,052	1,126	858	1,126	1,220
Zeehan .. .. .	994	1,192	1,225	987	1,185	1,217	1,017	1,214	1,247
Weighted Average for State (13 Towns) .. .. .	817	1,220	1,330	796	1,200	1,310	855	1,261	1,379
<b>Federal Capital Territory(a)</b>									
Canberra .. .. .	899	1,459	1,573	902	1,465	1,574	964	1,530	1,638
<b>Weighted Averages—</b>									
Australia (200 Towns) .. .. .	811	1,200	1,304	794	1,182	1,288	840	1,236	1,345
Thirty Towns .. .. .	805	1,199	1,304	790	1,185	1,292	837	1,239	1,349
Six Capitals .. .. .	800	1,202	1,307	786	1,188	1,295	834	1,241	1,352

(a) Not in Weighted Averages.

By deducting the index-number in column A from those in column B or C, the relative aggregate expenditure on housing accommodation can be ascertained. Thus for November, 1933, the index-number for food and groceries in Albany (column A) is 834. Subtracting this from 1,132 (column B) gives a difference of 298, which is the relative cost of house rent for houses of 4 rooms, and from 1,224 (column C) gives a difference of 390, which is the relative cost of house rent for houses of 5 rooms. Similarly the relative cost of housing accommodation can be ascertained for each of the towns.

## B.—WAGES.

### § 1. Operations under Wages Board and Industrial Arbitration Acts.

1. **General.**—Particulars of the operations of Wages Boards and Industrial and Arbitration Courts 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 Labour Reports and Quarterly Summaries.

2. **Awards, Determinations, Industrial Agreements.**—The following table gives a summary for each of the years 1929 to 1934 :—

#### AWARDS AND DETERMINATIONS MADE AND INDUSTRIAL AGREEMENTS FILED.

State.	1930.		1931.		1932.		1933.		1934.	
	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.	Awards or Determinations made.	Agreements Filed.
New South Wales .. .. .	31	16	46	40	38	25	30	24	55	22
Victoria .. .. .	83	..	204	..	103	..	138	..	90	..
Queensland .. .. .	14	44	48	28	21	4	55	21	32	25
South Australia .. .. .	17	1	64	15	18	8	16	1	19	3
Western Australia .. .. .	8	38	7	10	5	4	10	9	12	11
Tasmania .. .. .	10	1	31	3	11	3	9	3	7	1
Commonwealth Court .. .. .	17	10	11	16	21	9	8	6	24	4
Commonwealth Public Service Arbitrator .. .. .	5	..	1	..	1	..	1	..	..	..
Total .. .. .	185	110	412	112	218	53	267	64	239	66

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	387(b)	575(c)	401
31st December, 1920 .. .. .	475	440	1,041	972
31st December, 1925 .. .. .	575	524	1,181	607
31st December, 1930 .. .. .	644	582	1,285	601
31st December, 1931 .. .. .	651	583	1,317	614
31st December, 1932 .. .. .	657	591	1,337	625
31st December, 1933 .. .. .	657	583	1,363	653
31st December, 1934 .. .. .	657	583	1,403	689

(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 1934, the number of awards or determinations and industrial agreements\* in force had increased by 828 and 288 respectively over the number in force at the 31st December, 1913.

(ii) *Summary for States.* The following table gives particulars for each State and the Commonwealth of the number of Boards authorized, etc., for the years specified :—

**BOARDS AUTHORIZED, AWARDS, ETC.—SUMMARY, 1913 AND 1934.**

Particulars.	At 31st Dec.	Commonwealth.		N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
		Court.	Pub. Ser. Arb.							
<i>Industrial and Wages—</i>										
Boards authorized ..	{ 1913 .. ..	..	..	216	135	75	56	..	23	505
	{ 1934 .. ..	..	..	(a) 319	189	2	75	19	53	657
Boards which have made Determinations ..	{ 1913 .. ..	..	..	123	123	74	47	..	19	386
	{ 1934 .. ..	..	..	279	167	2	65	17	53	583
<i>Awards and Determinations—</i>										
In force .. ..	{ 1913 .. ..	17	..	265	127	73	54	18	21	575
	{ 1934 .. ..	164	44	519	173	280	76	93	54	1,403
<i>Industrial Agreements—</i>										
In force .. ..	{ 1913 .. ..	228	..	75	..	5	11	82	..	401
	{ 1934 .. ..	156	..	151	..	169	33	170	10	689
<i>Commonwealth Court Awards—</i>										
Number in force in each State .. ..	{ 1913 .. ..	..	..	13	17	15	16	9	13	..
	{ 1934 .. ..	..	..	108	117	35	90	36	70	..
<i>Commonwealth Agreements—</i>										
Number in force in each State .. ..	{ 1913 .. ..	..	..	132	129	68	62	57	61	..
	{ 1934 .. ..	..	..	37	68	21	26	15	38	..
<i>Commonwealth Public Service Arbitrator—</i>										
Number of Determinations in force in each State ..	1934 .. ..	..	..	39	36	30	32	29	29	..

(a) Under Industrial Arbitration Act (1926), Conciliation Committees have been appointed, and at the end of 1934, 289 Committees were in force.

## § 2. Rates of Wage and Hours of Labour.

1. *General.*—The collection of information respecting the current rates of wage payable in different callings and in occupations in various industries was first undertaken by the Bureau in the early part of the year 1913. The particulars are obtained primarily from awards, determinations and agreements under Commonwealth and State Industrial Acts, and therefore are the minimum rates prescribed. They refer generally to the capital city in each State, but in industries which obviously are not carried on in the capital cities, e.g., mining, agriculture, etc., the rates in the more important centres are taken. In cases where no award, determination, or agreement is in force, particulars are taken of the ruling union or predominant rate. During recent years the number of predominant rates of wage included in the tabulations has been reduced considerably, since most of the industries and occupations are now covered by awards, determinations, or industrial agreements.

The index-numbers for male adult workers are computed with the weighted average wage in 1911 as base (= 1,000), in order that comparisons might more readily be made between these index-numbers and the retail price index-numbers (food, groceries and rent—all houses) which are also computed to the year 1911 as base. In the case of females, however, it has not been possible to secure information for 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).

\* The registration of industrial agreements is not provided for under the Victorian Act, but such agreements may be registered and filed under the provisions of the Commonwealth Conciliation and Arbitration Act, and are operative within the State.

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, 1930 to 1934.**—(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 :—

**WAGES.—ADULT MALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATE PAYABLE FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS.**

NOTE.—Index-numbers based on the average wage for Australia in 1911 (51s. 3d.) as base (= 1,000). The index-numbers in this table are comparable throughout.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia. (a)
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, 1930 ..	99 1	96 11	92 5	92 8	99 7	92 1	96 9
31st December, 1931 ..	93 5	82 2	89 0	75 0	84 1	79 9	86 10
31st December, 1932 ..	84 11	77 10	88 5	72 7	81 9	78 1	81 10
31st December, 1933 ..	81 11	77 0	88 1	73 5	81 4	78 0	80 6
31st March, 1934 ..	81 11	77 0	88 1	73 6	81 3	78 1	80 7
30th June, 1934 ..	83 1	78 3	88 7	74 10	82 6	79 0	81 7
30th September, 1934 ..	83 2	78 4	88 9	75 0	84 0	79 1	81 10
31st December, 1934 ..	83 2	78 8	88 9	75 6	84 1	79 7	82 0

**INDEX-NUMBERS.**

31st December, 1930 ..	1,933	1,891	1,803	1,807	1,943	1,797	1,887
31st December, 1931 ..	1,823	1,603	1,737	1,463	1,641	1,556	1,694
31st December, 1932 ..	1,657	1,518	1,726	1,416	1,595	1,523	1,597
31st December, 1933 ..	1,598	1,502	1,718	1,433	1,587	1,522	1,570
31st March, 1934 ..	1,598	1,503	1,718	1,435	1,586	1,524	1,572
30th June, 1934 ..	1,622	1,527	1,729	1,460	1,610	1,541	1,592
30th September, 1934 ..	1,623	1,528	1,731	1,464	1,639	1,543	1,596
31st December, 1934 ..	1,623	1,534	1,732	1,473	1,640	1,552	1,599

(a) Weighted average.

Wages declined sharply in all States during the four years 1930 to 1933, the average rates at the 31st December of the latter year being approximately 20 per cent. less than those ruling at the end of 1929. Varying increases were granted in each of the States during 1934, and as the result the weighted average nominal rate for Australia increased by 1s. 6d. per week. At the 31st December, 1934, rates were highest in Queensland, followed in the order named by Western Australia, New South Wales, Tasmania, Victoria and South Australia. The highest weighted average rate for Australia was recorded during the third quarter of 1929, viz., 101s. 5d. per week.

(iii) *Adult Males—Industrial Groups.* The following table shows the average weekly rates of wage and index-numbers in each industrial group, and for all groups at the periods specified.

**WAGES.—ADULT MALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATES FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN EACH INDUSTRIAL GROUP.**

NOTE.—Index-numbers for each industrial group and for all industrial groups, based on the average wage for all groups in 1911 (51s. 3d.) as base (= 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., 1930.	31st Dec., 1931.	31st Dec., 1932.	31st Dec., 1933.	31st March, 1934.	30th June, 1934.	30th Sept., 1934.	31st Dec., 1934.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
I. Wood, Furniture, etc.	Wage . . . 100/3 Index-No. . . 1,956	85/7 1,669	83/4 1,627	82/8 1,613	82/8 1,612	85/0 1,659	85/1 1,661	85/4 1,664
II. Engineering, etc.	Wage . . . 99/1 Index-No. . . 1,933	86/3 1,683	81/6 1,589	81/4 1,587	81/7 1,591	82/11 1,618	83/0 1,620	83/2 1,623
III. Food, Drink, etc.	Wage . . . 97/1 Index-No. . . 1,894	88/6 1,727	84/2 1,642	83/3 1,625	83/1 1,621	83/5 1,627	83/9 1,629	83/8 1,633
IV. Clothing, Boots, etc.	Wage . . . 99/5 Index-No. . . 1,940	83/11 1,638	77/3 1,507	76/7 1,494	76/0 1,482	78/0 1,522	78/1 1,523	79/11 1,559
V. Books, Printing, etc.	Wage . . . 116/5 Index-No. . . 2,271	102/0 1,991	98/3 1,918	97/6 1,902	97/6 1,902	99/5 1,940	99/6 1,941	99/6 1,942
VI. Other Manufacturing	Wage . . . 97/10 Index-No. . . 1,909	85/4 1,664	80/7 1,572	79/5 1,549	79/5 1,549	81/1 1,582	81/2 1,583	81/4 1,587
VII. Building	Wage . . . 109/8 Index-No. . . 2,139	98/9 1,926	93/11 1,833	92/3 1,800	92/3 1,800	93/2 1,818	93/3 1,819	93/8 1,828
VIII. Mining, etc.	Wage . . . 107/10 Index-No. . . 2,104	102/5 1,999	98/2 1,916	97/0 1,893	97/1 1,894	97/3 1,897	97/7 1,904	97/7 1,904
IX. Railways, etc.	Wage . . . 100/2 Index-No. . . 1,955	86/7 1,690	80/11 1,579	80/4 1,567	80/5 1,570	80/8 1,575	82/8 1,613	82/8 1,613
X. Other Land Transport	Wage . . . 92/10 Index-No. . . 1,812	83/11 1,638	78/3 1,527	76/9 1,497	76/11 1,500	77/9 1,517	77/10 1,519	78/9 1,537
XI. Shipping, etc. (a)	Wage . . . 99/6 Index-No. . . 1,941	81/10 1,596	79/6 1,552	80/9 1,575	80/10 1,577	84/8 1,652	84/8 1,652	84/8 1,652
XII. Agricultural, etc. (b)	Wage . . . 87/5 Index-No. . . 1,706	80/3 1,566	74/9 1,458	71/11 1,404	71/11 1,404	73/4 1,431	73/4 1,431	73/4 1,431
XIII. Domestic, etc. (b)	Wage . . . 91/3 Index-No. . . 1,780	85/3 1,663	76/5 1,492	74/10 1,460	74/10 1,461	75/7 1,475	75/9 1,478	75/9 1,478
XIV. Miscellaneous	Wage . . . 93/7 Index-No. . . 1,826	83/11 1,637	78/11 1,540	77/5 1,511	77/6 1,511	78/4 1,528	78/5 1,530	78/7 1,532
All Industrial Groups (c)	Wage . . . 96/9 Index-No. . . 1,887	86/10 1,694	81/10 1,597	80/6 1,570	80/7 1,572	81/7 1,592	81/10 1,596	82/0 1,599

(a) Including the value of victualling and accommodation where supplied.

(b) Including the value of board and lodging where supplied.

(c) Weighted average.

The foregoing table shows that the highest average weekly wage at 31st December, 1934, was recorded in Group V. (Books, Printing, etc.), 99s. 6d. per week, followed by Groups VIII. (Mining), 97s. 7d. per week; VII. (Building), 93s. 8d. per week; I. (Wood Furniture, etc.), 85s. 4d. per week; XI. (Shipping, etc.), 84s. 8d. per week; and III. (Food, Drink, etc.), 83s. 8d. per week. The lowest average rate was recorded in Group XII. (Agricultural, etc.), 73s. 4d. per week. During the year rates of wage increased in all groups, the greatest increases occurring in the following :—Shipping, etc., 3s. 11d. per week; Clothing, Boots, etc., 3s. 4d. per week; Wood, Furniture, etc., 2s. 8d. per week; Railways, etc., 2s. 4d. per week; Books, Printing, etc., 2s. 0d. per week; and Other Land Transport, 2s. 0d. per week. The increase during the year in the weighted average rate for all groups was 1s. 6d. per week. Compared with the average rates at 31st December, 1929, the highest point recorded for that date in any year, wages at the end of the year 1934 showed a decrease of 19s. 2d. per week.

(iv) *Adult Females—States.* The following table shows the weighted average weekly rate of wage payable to adult female workers for a full week's work in each State and Australia at the dates specified.

**WAGES.—ADULT FEMALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATE PAYABLE FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS.**

NOTE.—Index-numbers based on the average wage for Australia at the 30th April, 1914 (27s. 2d.) as base (= 1,000). The index-numbers in this table are comparable throughout :—

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.(a)
No. of Occupations Included ..	85	87	37	47	24	28	308

**RATES OF WAGE.**

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1930 ..	53 8	53 6	52 11	51 2	60 1	53 8	53 7
31st December, 1931 ..	49 8	45 10	47 11	43 11	51 7	45 8	47 5
31st December, 1932 ..	44 8	43 0	46 9	40 11	49 7	43 4	44 2
31st December, 1933 ..	43 2	42 9	46 9	41 0	48 4	43 1	43 5
31st March, 1934 ..	43 0	42 6	46 6	40 10	48 4	43 1	43 4
30th June, 1934 ..	44 3	43 9	47 8	43 3	48 4	44 1	44 6
30th September, 1934 ..	44 3	43 9	47 8	43 3	49 1	44 1	44 7
31st December, 1934 ..	44 3	43 9	47 8	43 3	49 1	44 1	44 7

**INDEX-NUMBERS.**

31st December, 1930 ..	1,974	1,968	1,947	1,884	2,211	1,976	1,971
31st December, 1931 ..	1,828	1,688	1,765	1,584	1,900	1,681	1,746
31st December, 1932 ..	1,644	1,583	1,720	1,505	1,826	1,595	1,624
31st December, 1933 ..	1,589	1,573	1,720	1,510	1,778	1,587	1,599
31st March, 1934 ..	1,583	1,566	1,712	1,501	1,778	1,587	1,593
30th June, 1934 ..	1,628	1,609	1,736	1,592	1,778	1,623	1,639
30th September, 1934 ..	1,628	1,609	1,736	1,592	1,809	1,623	1,640
31st December, 1934 ..	1,628	1,609	1,736	1,592	1,809	1,623	1,640

(a) Weighted average.

Female rates followed the same downward course as male rates from 1930 to 1933. The weekly average nominal wage for Australia fell from 54s. 1d. in 1929 to 43s. 5d. in 1933, a decline of 10s. 8d., or 19 per cent. As with the rates for males increases were recorded in all States during 1934, and the weighted average rate for Australia advanced by 1s. 2d. per week.

(v) *Adult Females—Industrial Groups.* The following table gives particulars of the weighted average weekly rate of wage payable to adult female workers in the industrial groups in which they are mainly employed, and in all groups combined.

**WAGES.—ADULT FEMALES—WEIGHTED AVERAGE NOMINAL WEEKLY RATE PAYABLE FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN EACH INDUSTRIAL GROUP.**

NOTE.—Index-numbers for each Industrial Group and all Industrial Groups, based on the average wage for all groups at 30th April, 1914 (27s. 2d.) as base (= 1,000). The index-numbers in this table are comparable throughout :—

Date.	Industrial Group.					
	III. Food, Drink, etc.	IV. Clothing, Boots, etc.	I., II., V., and VI., All Other Manufacturing.	XIII. Domestic, etc.(a)	XIV. Miscel- laneous.	All Groups. (b)
<b>RATES OF WAGE.</b>						
	<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, 1930	48 4	54 2	52 7	54 2	52 10	53 7
31st December, 1931	44 4	45 5	46 11	50 9	49 10	47 5
31st December, 1932	41 0	42 4	44 2	46 2	47 0	44 2
31st December, 1933	40 6	41 11	43 5	43 4	45 11	43 5
31st March, 1934	40 6	41 6	43 6	45 5	45 11	43 4
30th June, 1934	40 8	43 8	44 2	45 10	47 2	44 6
30th September, 1934	40 8	43 9	44 2	45 11	47 2	44 7
31st December, 1934	40 8	43 9	44 2	45 11	47 2	44 7
<b>INDEX-NUMBERS.</b>						
31st December, 1930	1,777	1,994	1,934	1,994	1,945	1,971
31st December, 1931	1,630	1,672	1,728	1,869	1,834	1,746
31st December, 1932	1,508	1,559	1,625	1,700	1,730	1,624
31st December, 1933	1,491	1,542	1,599	1,594	1,691	1,599
31st March, 1934	1,491	1,529	1,600	1,671	1,691	1,593
30th June, 1934	1,497	1,608	1,626	1,687	1,737	1,639
30th September, 1934	1,497	1,609	1,626	1,689	1,737	1,640
31st December, 1934	1,497	1,609	1,626	1,689	1,737	1,640

(a) Including the value of board and lodging, where supplied. (b) Weighted average.

During the year 1934 rates of wage for female employees in all industrial groups showed an increase as compared with those of the previous year, the greatest increases occurring in Group XIII. (Domestic, etc.), 2s. 7d. per week and Group IV. (Clothing, Boots, etc.), 1s. 10d. per week. The weighted average for all groups increased by 1s. 2d. per week.

3. **Relative Hours of Labour and Hourly Rates of Wage, 1930 to 1934.**—(i) *General.* The rates of wage referred to in preceding paragraphs relate to the minimum 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. In order to secure what may be for some other purposes a more adequate standard of comparison, it is desirable to reduce the comparison to a common basis, viz., the rate of wage per hour. Particulars are given in the following table classified according to States, for male and female occupations separately, at the end of the years 1930 to 1934. 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 in marine occupations, whereas the number of working hours and the hourly wage relate to all industrial groups other than Groups XI. (Shipping) and XII. (Agricultural, Pastoral, etc.). Many of the occupations included in these two groups are of a casual or seasonal nature, and the hours of labour in the agricultural and dairying industry are not generally regulated either by awards or determinations of industrial tribunals or otherwise, hence the necessary data for the computation of the average number of working hours are not available.

The general effect of reducing the rates of wage to a common basis (i.e., per hour) is to eliminate on comparison any apparent difference between the several States which may be due to unequal working time.

(ii) *Adult Males and Females.* Particulars of the weekly and hourly wages and hours of labour for adult males and females for the last five years are given in the table hereunder :—

WEEKLY AND HOURLY WAGES AND HOURS OF LABOUR.—ADULT WORKERS.

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus.
<b>MALE WORKERS.</b>								
31st Dec., 1930	Weekly Wage (a) ..	99/1	96/11	92/5	92/8	99/7	92/1	96/9
	Working Hours (b) ..	45.64	46.85	44.43	46.83	45.55	47.09	45.98
	Hourly Wage (b) ..	2/2½	2/1½	2/1½	2/0	2/2½	1/11½	2/1½
31st Dec., 1931	Weekly Wage (a) ..	93/5	82/2	89/0	75/0	84/1	79/9	86/10
	Working Hours (b) ..	44.22	46.88	44.98	46.83	45.55	46.76	45.51
	Hourly Wage (b) ..	2/2½	1/9½	2/0½	1/7½	1/10½	1/8½	1/11½
31st Dec., 1932	Weekly Wage (a) ..	84/11	77/10	88/5	72/7	81/9	78/1	81/10
	Working Hours (b) ..	44.19	46.86	44.99	46.83	45.51	46.75	45.49
	Hourly Wage (b) ..	1/11½	1/8½	2/0½	1/7	1/10	1/8½	1/10
31st Dec., 1933	Weekly Wage (a) ..	81/11	77/0	88/1	73/5	81/4	78/0	80/6
	Working Hours (b) ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
	Hourly Wage (b) ..	1/11	1/8	2/0½	1/7½	1/10	1/8½	1/9½
31st Dec., 1934	Weekly Wage (a) ..	83/2	78/8	88/9	75/6	84/1	79/7	82/0
	Working Hours (b) ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
	Hourly Wage (b) ..	1/11½	1/8½	2/0½	1/7½	1/10½	1/8½	1/10½
<b>FEMALE WORKERS.</b>								
31st Dec., 1930	Weekly Wage ..	53/8	53/6	52/11	51/2	60/1	53/8	53/7
	Working Hours ..	45.85	45.44	44.01	46.03	45.57	46.07	45.48
	Hourly Wage ..	1/2	1/2	1/2½	1/1½	1/3½	1/2	1/2½
31st Dec., 1931	Weekly Wage ..	49/8	45/10	47/11	43/11	51/7	45/8	47/5
	Working Hours ..	43.93	45.44	44.56	46.03	45.57	46.07	44.88
	Hourly Wage ..	1/1½	1/0	1/1	0/11½	1/1½	1/0	1/0½
31st Dec., 1932	Weekly Wage ..	44/8	43/0	46/9	40/11	49/7	43/4	44/2
	Working Hours ..	43.93	45.44	44.56	46.03	45.57	46.07	44.88
	Hourly Wage ..	1/0½	0/11½	1/0½	0/10½	1/1	0/11½	0/11½
31st Dec., 1933	Weekly Wage ..	43/2	42/9	46/9	41/0	48/4	43/2	43/5
	Working Hours ..	43.93	45.44	44.03	46.03	45.57	46.07	44.81
	Hourly Wage ..	0/11½	0/11½	1/0½	0/10½	1/0½	0/11½	0/11½
31st Dec., 1934	Weekly Wage ..	44/3	43/9	47/8	43/3	49/1	44/1	44/7
	Working Hours ..	43.93	45.44	44.03	46.03	45.57	46.07	44.81
	Hourly Wage ..	1/0	0/11½	1/1	0/11½	1/1	0/11½	1/0

(a) Weighted average weekly rate in all industrial groups combined. (b) Weighted average working hours per week, and computed hourly rates of wage for all industrial groups excepting Groups XI. (Shipping, etc.), and XII. (Agricultural, Pastoral, etc.). Working hours have not been generally regulated by industrial tribunals for occupations classified in industrial groups XI. and XII.

(iii) *Index-Numbers.* The tendency in a majority of the States during the years 1924 to 1928 was towards a slight reduction in hours of labour, particularly in Queensland and New South Wales, where a 44-hour week became operative on 1st July, 1925, and on 4th January, 1926, respectively. Further decreases were recorded in the hours of work per week for male employees during 1927 in all States excepting Queensland, where hours remained stationary. The decline in the other States was due mainly to the reduction of the standard hours of labour in Group II. (Engineering, etc.) from 48 to 44 hours per week, as awarded by the Commonwealth Court of Conciliation and Arbitration. The decline in the weekly hours in New South Wales, Victoria, South Australia and Tasmania in 1928 was due mainly to the reduction of the standard hours of labour in Group V. (Books, Printing, etc.). During 1929 the hours of work per week for timber workers in certain States were increased by the Commonwealth Court, with the result that the weighted average hours for Australia were slightly increased. The repeal of the Acts in New South Wales and Queensland providing for a 44-hour week tended to increase the average number of hours of labour per week in those States during the year 1930, while the restoration of this measure in New South Wales during 1931 and in Queensland during 1933 was mainly responsible for the reduction in hours since 1930. The effect of these changes on the hourly rate of wage as compared with the general increase in the weekly wage is readily seen from the comparative index-numbers given in the following table :—

### WEEKLY AND HOURLY WAGE INDEX-NUMBERS.—ADULT WORKERS.

NOTE.—Weighted average for Australia at 30th April, 1914 as base (= 1,000).

(Weekly Rates\*—M = 55/1 ; F = 27/2. Hourly Rates—M = 1/2 ; F = 0/6½.)

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
<b>MALE WORKERS.</b>								
31st Dec., 1930	{ Weekly Wage ..	1,797	1,758	1,677	1,681	1,807	1,671	1,755
	{ Hourly Wage (a) ..	1,912	1,813	1,846	1,724	1,922	1,708	1,851
31st Dec., 1931	{ Weekly Wage ..	1,695	1,490	1,615	1,360	1,526	1,447	1,575
	{ Hourly Wage (a) ..	1,873	1,527	1,749	1,383	1,617	1,480	1,676
31st Dec., 1932	{ Weekly Wage ..	1,541	1,411	1,605	1,317	1,483	1,416	1,485
	{ Hourly Wage (a) ..	1,701	1,451	1,748	1,355	1,584	1,464	1,584
31st Dec., 1933	{ Weekly Wage ..	1,486	1,396	1,598	1,332	1,476	1,415	1,460
	{ Hourly Wage (a) ..	1,655	1,438	1,775	1,372	1,571	1,463	1,567
31st Dec., 1934	{ Weekly Wage ..	1,509	1,427	1,610	1,369	1,525	1,443	1,487
	{ Hourly Wage (a) ..	1,676	1,484	1,782	1,410	1,624	1,494	1,594
<b>FEMALE WORKERS.</b>								
31st Dec., 1930	{ Weekly Wage ..	1,974	1,968	1,947	1,884	2,211	1,976	1,971
	{ Hourly Wage ..	2,113	2,127	2,172	2,011	2,383	2,105	2,128
31st Dec., 1931	{ Weekly Wage ..	1,828	1,688	1,765	1,584	1,900	1,681	1,746
	{ Hourly Wage ..	2,044	1,822	1,943	1,688	2,045	1,791	1,910
31st Dec., 1932	{ Weekly Wage ..	1,644	1,583	1,720	1,505	1,826	1,595	1,624
	{ Hourly Wage ..	1,837	1,711	1,863	1,605	1,967	1,700	1,777
31st Dec., 1933	{ Weekly Wage ..	1,589	1,573	1,720	1,510	1,778	1,587	1,599
	{ Hourly Wage ..	1,776	1,700	1,919	1,611	1,916	1,691	1,752
31st Dec., 1934	{ Weekly Wage ..	1,628	1,609	1,736	1,592	1,809	1,623	1,640
	{ Hourly Wage ..	1,819	1,788	1,956	1,699	1,947	1,730	1,797

(a) See footnote to following table.

\* Approximate only—the Indexes being calculated from the exact rates.

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 male workers in each State and Australia at the 31st December, 1930 to 1934.

**HOURS OF LABOUR.—WEEKLY INDEX-NUMBERS, ADULT MALES.**

NOTE.—Index-numbers based on the average hours of labour for Australia at the 30th April, 1914 (48.93) as base (= 1,000). The index-numbers in this table are comparable throughout. Overtime is excluded.

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
31st Dec., 1930	Weighted average weekly hours of labour (a) ..	45.64	46.85	44.43	46.83	45.55	47.09	45.98
	Index-numbers ..	933	958	908	957	931	962	940
31st Dec., 1931	Weighted average weekly hours of labour (a) ..	44.22	46.88	44.98	46.83	45.55	46.76	45.51
	Index-numbers ..	904	958	919	957	931	956	930
31st Dec., 1932	Weighted average weekly hours of labour (a) ..	44.19	46.86	44.99	46.83	45.51	46.75	45.49
	Index-numbers ..	903	958	919	957	930	955	930
31st Dec., 1933	Weighted average weekly hours of labour (a) ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
	Index-numbers ..	904	957	899	957	930	956	927
31st Dec., 1934	Weighted average weekly hours of labour (a) ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
	Index-numbers ..	904	957	899	957	930	956	927

(a) Weighted average working hours per week for all industrial groups excepting Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.), in which working hours have not been generally regulated by industrial tribunals.

5. **Nominal and Real Wages, 1901 to 1934.**—(i) *Nominal Weekly Wage Index-numbers—States.* The following table shows the progress in nominal weekly rates of wage for all industries 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 necessarily are taken for places other than the capital cities. For the year 1914 and subsequent years the index-numbers in the following table are based on the average wage for the four quarters of each year :—

**NOMINAL WAGE INDEX-NUMBERS, ADULT MALES.**

(WEIGHTED AVERAGE WAGE FOR AUSTRALIA IN 1911 = 1,000.)

States.	Number of Occupations included.		1901.	1911.	1914.	1921.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.
	1901 to 1912.	1913 to 1934.												
New South Wales	158	874	858	1,003	1,093	1,862	1,974	2,003	2,012	1,983	1,851	1,734	1,638	1,617
Victoria ..	150	909	796	985	1,062	1,803	1,951	1,956	1,964	1,937	1,683	1,552	1,502	1,523
Queensland ..	87	627	901	997	1,035	1,879	1,953	1,971	1,976	1,898	1,769	1,731	1,720	1,727
South Australia	134	567	819	1,013	1,061	1,697	1,869	1,884	1,891	1,857	1,580	1,434	1,423	1,458
Western Australia	69	489	1,052	1,152	1,223	1,832	1,925	1,938	1,960	1,955	1,745	1,611	1,584	1,619
Tasmania ..	54	482	719	799	1,027	1,745	1,835	1,825	1,840	1,829	1,625	1,533	1,519	1,540
Australia (a)	652	3,948	848	1,000	1,081	1,827	1,946	1,963	1,972	1,939	1,752	1,639	1,584	1,590

(a) Weighted average.



During the period from 1911 to the end of the year 1929 the average weekly rate of wage increased in New South Wales and Victoria, 100 per cent. ; in Queensland, 98 per cent. ; in South Australia, 87 per cent. ; in Western Australia, 70 per cent. ; and in Tasmania, 130 per cent., while the weighted average weekly rate for Australia increased 97 per cent. Comparing the yearly average rates for 1929 and 1934 nominal wages declined in all States during the period, South Australia showing the greatest fall with 23.0 per cent., followed by Victoria, 22.5 per cent., and New South Wales, 19.7 per cent. The smallest decline was recorded in Queensland, i.e. 12.6 per cent. The weighted average weekly rate for Australia declined 19.4 per cent. Compared with 1911 the average weekly nominal wage for Australia was 59 per cent. higher in 1934.

(ii) *Real Weekly Wage Index-numbers—States.* In comparing wages, two elements are of obvious importance, viz., (i) hours worked per day or week, and (ii) the cost of commodities and housing. Thus, 60s. per week of 60 hours represents the same hourly rate as 48s. per week for 48 hours. Similarly, if the cost of commodities and housing increases 25 per cent., e.g., if the prices index-number rises from 1,000 to 1,250, then 60s. per week (the index-number being 1,250) is effectively equal to 48s. (when the index-number was 1,000). Or, again, if the prices index-number falls from 1,000 to 750, then 60s. per week, when the index-number is 750, would have the same purchasing power as 80s. when the index-number was 1,000. Ignoring for the present the number of hours worked, and assuming that the real value of the average wages is to be measured by their purchasing power, the actual average wages paid may be reduced to their effective value by applying the prices index-numbers to the nominal wages index-numbers. The following table shows the "real" wage index-numbers so ascertained in each State for each of the years indicated from 1901 to 1934.

In computing these "real" wage index-numbers for the respective years, the nominal wage index-numbers for each State given in the preceding table have been divided by the retail price index-numbers, food, groceries and rent (all houses), for their respective capital cities. The resulting index-numbers show for each State and for Australia for the years specified the variations in "real" wages. The nominal wage index-numbers for the early years are based on rates of wage current at the end of December, the only data available. For the years 1914 onward, however, the nominal wage index-numbers used are based on the average wage for the four quarters in each year, while those in the preceding sub-sections relate to the December quarter. However, so far as the years 1901 and 1911 are concerned, the December figures may stand for the yearly average without appreciable error, as the movement in wages during any one year prior to 1914 was very slight.

"REAL" WEEKLY WAGE INDEX-NUMBERS.—ADULT MALES.

States.	1901.	1911.	1914.	1921.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.
New South Wales ..	961	973	906	1,079	1,079	1,089	1,050	1,107	1,160	1,150	1,138	1,101
Victoria ..	915	1,037	961	1,038	1,095	1,120	1,084	1,158	1,162	1,126	1,139	1,114
Queensland ..	1,172	1,090	1,038	1,244	1,222	1,236	1,220	1,317	1,345	1,376	1,417	1,377
South Australia ..	948	957	929	1,027	1,073	1,089	1,067	1,166	1,178	1,133	1,152	1,144
Western Australia ..	1,024	1,023	1,070	1,139	1,199	1,156	1,143	1,229	1,232	1,212	1,245	1,221
Tasmania ..	827	838	942	977	1,072	1,099	1,064	1,111	1,104	1,067	1,094	1,086
Australia (a) ..	964	1,000	948	1,076	1,102	1,115	1,082	1,115	1,185	1,168	1,178	1,148

(a) Weighted average.

In the table above, the "real" wage index-numbers are computed to the one base, that of Australia for 1911. Subject to the qualification already referred to, which, as has been pointed out, does not materially affect the figures, the index-numbers are comparable in all respects, and comparisons may be made as to the increase or decrease in the "real" wage index-number for any State over a period of years. Thus, comparing 1934 with 1901, and also with 1911, there has been an increase in the "real" wage in all States.

(iii) *Real Wages, allowing for Unemployment.* In the preceding table particulars are given as to variations in "real" wages in each State, due allowance having been made for variations in retail prices of commodities, though not for unemployment.

For years prior to 1913 the data available as to unemployment (*vide* C. Employment—§ 2, par. 2, following) are so meagre that comparative results allowing for variations both in prices of commodities and in unemployment cannot be accurately computed for the several States. In the next table, for these earlier years the percentage of unemployment in Australia and the nominal wage index-numbers relate to the end of the year. For 1914 and subsequent years the wages index-numbers, percentages of unemployment, and retail prices index-numbers are the average for the year. Column I. shows the nominal wage index-numbers, and Column II. the relative percentages unemployed. These percentages of unemployment (converted into terms of employment\*) are applied to the index-numbers in Column I. to obtain rate of wage index-numbers allowing for unemployment, which are shown in Column III., computed with the year 1911 as base = 1,000. In Column IV. the retail prices index-numbers are shown, and in Columns V. and VI. the "real" wage index-numbers are given for full work, and allowing for lost time respectively. These are obtained by dividing the figures in Columns I. and III. respectively by the corresponding figure in Column IV.

A comparison between the figures in Columns I. and V. gives the relation between the nominal rates of wage and the purchasing efficiency of these rates. The figures in Column VI. show variations in "real" wages after allowing not only for variations in purchasing power of money, but for the relative extent of unemployment also :—

NOMINAL AND "REAL" WAGE INDEX-NUMBERS.

Year.	I. Nominal Wage Index- numbers.	II. Percentage Unem- ployed.	Rate of Wage Index-numbers, Allowing for Unemployment.	IV. Retail Price Index- numbers. (Food, Groceries, Rent—all houses.)	"Real" Wage Index- numbers.	
			III. Re-computed. (1911 = 1,000).		V. Full Work.	VI. Allowing for Unemploy- ment.
1901 ..	848	6.6	832	880	964	945
1908 ..	900	6.0	888	951	949	934
1909 ..	923	5.8	913	948	974	963
1910 ..	955	5.6	945	970	985	974
1911 ..	1,000	4.7	1,000	1,000	1,000	1,000
1912 ..	1,051	5.5	1,042	1,101	955	946
1913 ..	1,076	5.3	1,071	1,104	975	970
1914 ..	1,081	8.3	1,040	1,140	948	912
1915 ..	1,092	9.3	1,039	1,278	854	813
1916 ..	1,144	5.8	1,131	1,324	864	854
1917 ..	1,226	7.1	1,195	1,318	930	907
1918 ..	1,270	5.8	1,255	1,362	932	921
1919 ..	1,370	6.6	1,343	1,510	907	889
1920 ..	1,627	6.5	1,596	1,785	911	894
1921 ..	1,826	11.2	1,701	1,697	1,076	1,002
1922 ..	1,801	9.3	1,715	1,600	1,126	1,072
1923 ..	1,805	7.1	1,760	1,700	1,062	1,035
1924 ..	1,840	8.9	1,759	1,681	1,095	1,046
1925 ..	1,861	8.8	1,781	1,722	1,081	1,034
1926 ..	1,914	7.1	1,866	1,786	1,072	1,045
1927 ..	1,946	7.0	1,899	1,766	1,102	1,075
1928 ..	1,963	10.8	1,837	1,760	1,115	1,044
1929 ..	1,972	11.1	1,839	1,822	1,082	1,009
1930 ..	1,939	19.3	1,642	1,683	1,152	976
1931 ..	1,752	27.4	1,335	1,479	1,185	903
1932 ..	1,639	29.0	1,221	1,403	1,168	870
1933 ..	1,584	25.1	1,245	1,345	1,178	926
1934 ..	1,590	20.5	1,326	1,385	1,148	957

NOTE.—For years prior to 1914, the nominal wage index-numbers and the percentage unemployed relate to the end of the year only, but from 1914 onward these figures, in addition to those for retail prices are averages for the whole year.

\* e.g. (1912)—95.3 : 94.5 :: 1,051 : 1,042.

In 1934 prices rose to a greater extent than wages with the result that the effective wage for full work fell from 1,178 in the previous year to 1,148. Allowing for the factor of unemployment the "real" wage improved from 870 in 1932 to 957 in 1934 owing to a marked decline in unemployment during the past two years following the maximum figure of 29 per cent. recorded for Australia in 1932. Compared with 1911 the "real" wage increased by 14.8 per cent. for full time work, but declined by 4.3 per cent. when allowance is made for unemployment.

### § 3. The Basic Wage and Child Endowment in Australia.

1. *The Basic Wage.*—(i) *General.* The "basic wage" in Australia is understood to mean the lowest wage which can be paid to an unskilled labourer on the basis of "the normal needs of an average employee regarded as a human being living in a civilized community."\* This wage is fixed by various industrial tribunals in Australia operating under Federal and State Arbitration Acts, and is varied from time to time according to changes in cost of living, constitution of the family unit, etc. In addition to the "basic" wage, these tribunals also determine what is known as the "secondary" wage—"the extra payment to be made for trained skill or other exceptional qualities necessary for an employee exercising the functions required."† The term "minimum" wage, on the other hand, is used to express the lowest rate payable in a particular industry, and is either equal to, or greater than the "basic" wage.

The Commonwealth Conciliation and Arbitration Act provides that the "basic" wage is to 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 the Court. The amended Act of 1930 provides that any alteration of the "basic" wage or the principles on which it is computed, or any variation or interpretation of any award where the variation or interpretation would result in any such alteration, shall have no force or effect unless it is considered by the Court constituted as above-mentioned.

By a judgment of the High Court on the 21st April, 1933, however, the "basic" wage is taken to include, for the foregoing purpose, any "loading" forming part of the primary wage of an unskilled labourer, the wage payable for skilled labour being assessed on the basis of that primary wage. 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."

(ii) *History in Australia.* The doctrine of a basic wage was propounded as far back as 1890 by Sir Samuel Griffith, Premier of Queensland, and the same principle was enunciated in the New South Wales Arbitration Court in somewhat similar terms by Mr. Justice Heydon in 1905. In spite, however, of these pronouncements and the fact that wage-fixing tribunals had been in operation as early as 1896 (in the State of Victoria), it was not until the year 1907 that the first basic wage, as such, was declared by a Court in Australia. This declaration was made by Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, and is popularly known as the "Harvester Judgment" on account of its having been determined in connexion with H. V. McKay's Sunshine Harvester Works. The rate of wage declared in this case was 7s. per diem or £2 2s. per week for Melbourne, the amount considered reasonable for "a family of about five," and was generally referred to as the "Harvester" wage. The constituent parts of this amount were £1 5s. 5d. for food, 7s. for rent, and 9s. 7d. for all other expenditure.

The "Harvester" basic rates for all other towns throughout Australia were fixed at practically the same rates until the year 1913, when the Court took cognizance of the Retail Price index-numbers, covering food and groceries and rent of all houses, 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

\* Mr. Justice Higgins—*A New Province of Law and Order.*

† *Ibid.*

only considerable percentage increases since 1907, but also large disparities in the relative purchasing power of money in the various towns. The basic rates for towns were thereafter fixed on their respective index-numbers, taking the index-number 875 for Melbourne for the year 1907 as being equivalent to 42s. per week—or the base of the table 1000 as being equivalent to 48s. per week. Exceptions were made as regards 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 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, and in the same year the system was instituted of regular quarterly adjustments of the basic wage to variations in purchasing power as disclosed by the retail price index-numbers.

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 rendered such a review out of the question, particularly in view of the fact that wages throughout Australia were being automatically adjusted to changes in the cost of living. A Royal Commission (referred to later) was appointed in 1920 to assess a Basic Wage, but its recommendations were disregarded.

This method of fixation and adjustment of the basic wage continued in force until 30th April, 1934, when it was superseded by a judgment of the Full Arbitration Court, delivered on 17th April, particulars of which appear below.

In the meantime, however, the Economic depression, which made itself felt severely in Australia in 1930, forced the employers to seek relief from the Court of part of the heavy burden of wages on industrial recovery; and in this section of Official Year Books Nos. 25 and 26 an account will be found of the proceedings which resulted in an order of the Court reducing all wages under its jurisdiction by 10 per cent. from 1st February, 1931, together with references to the Court's refusal in June, 1932, and May, 1933, to rescind the Order on applications made by the Unions.

2. **Basic Wage Inquiry, 1934.**—(i) *Introductory.* As explained hereinafter, the 10 per cent. reduction of wages referred to above ceased to operate in the majority of awards as from the 1st May, 1934, following on a judgment of the Full Court delivered on the 17th April, 1934. The Court at the same time declared a new basic wage, to be periodically adjusted on the "All Items" ("C" Series) index-numbers computed by this Bureau. This new wage supersedes the former "Harvester" standard wage supplemented by the "Powers' 3s." with which the family unit of "about five persons" had been generally associated. For convenience of reference, the new basic wage will be known as the "Commonwealth 'Restoration' Basic Wage, 1934."

(ii) *Applications for Restoration.* In connexion with its former refusals to rescind the 10 per cent. reduction imposed from 1st February, 1931, the Court had indicated that although refusing restoration generally, it was possible that certain industries were in a condition to justify the restoration, and that the Court would be quite prepared to hear applications made on that ground. A number of full and partial restorations were actually made in this way by the Court, and also voluntarily by employers.

Applications by organizations generally renewing the request for rescission of the 10 per cent. reduction having been made, the case opened before the Full Court on the 19th February, 1934, and the hearing continued until the 14th March, 1934.

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\* As these indexes covered only 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.

(iii) *Judgment of the Court. (a) Capital Cities.* The reserved judgment was delivered by the Court on the 17th April, 1934, and came into operation on the 1st May, 1934. The decision was not unanimous, the majority judgment being signed by Dethridge, C.J., and Drake-Brockman, J.; Beeby, J., dissenting as to the amount at which the basic wage was declared. The basic rates awarded for the various capital cities are shown in Column 2 of the following table, while the basic rates being paid under the former systems, together with the increases and decreases on former standards, are added for comparative purposes:—

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.	Over "A" Series less 10 per Cent. "Cut."
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
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 9	68 0	1 3	- 3 0	+ 3 10

(a) Calculated to nearest 6d., and including "Powers' 3s." or its equivalent.

NOTE.—For explanation of the "A," "C," and "D" Series see p. 16, Labour Report No. 24, 1933.

Column (3) represents the rates actually being paid to members of the applicant organizations, and the immediate gains are shown in Column (5), representing the differences of Columns (2) and (3). A comparison with past "standards" is made in Columns (6) and (7). Column (6) represents the increase or decrease compared with wages of workers not subject to the 10 per cent. reduction, who are still enjoying the standard represented by the "A" Series of index-numbers, which has existed since the "Harvester" wage was declared in 1907, plus the addition of the "Powers' 3s." in 1922. The most noteworthy feature of Column (4) is the coincidence that the new rate for the Six Capital Cities combined is that previously paid under the "A" Series, without the "Powers' 3s.," but reference to Section (v.)—"Basis of New Wage"—of this article will disclose the fact that this rate was not used as the basis of the judgment. The rate for Hobart is likewise that formerly paid under the "A" Series, without the "Powers' 3s.," while for Melbourne the rate is 6d. under that amount; but in the case of Sydney, the decrease was 2s. in addition to that item. The increases disclosed by Column (6) for Adelaide and Perth are due to the higher relative rates under the "C" Series index-numbers for the towns mentioned, compared with those under the "A" Series. Column (7) represents the theoretical immediate gain to wages, had there been no adjustment of wages by means of the "D" Series index-numbers. It must be remembered in this connexion that the introduction of this system of adjustment in May, 1933, was merely a temporary measure adopted by the Court to arrest somewhat the steep drop in wages which was taking place as the result of adjustments made in accordance with the "A" Series index-numbers; and if, therefore, the 10 per cent.

reduction had continued to operate upon the rates derived from the "A" Series, the increases over the rates ruling would, on such an hypothesis, have been those shown in Column (7).

(b) *Country Towns.*—The rates for country towns were, with certain exceptions, fixed at a figure 3s. below that of the Capital City, the exceptions being as follow :— Newcastle 67s.; Broken Hill 65s.; Geelong 63s.; Warrnambool 63s. (on Geelong); Mildura 64s. (on Melbourne); Yallourn 64s. (on Melbourne); Whyalla 64s. (on Adelaide); Kalgoorlie 76s.; Geraldton 69s.; Launceston 66s.; Queenstown 62s. 6d. The rates for Adelaide, Hobart and Launceston were graduated so as to come into full operation by the 1st June, 1935. Special provisions were made in connexion with the Railway services. In the case of Tasmania a flat rate of 65s. or 2s. below that of Hobart was declared, whilst in the case of South Australia a flat rate of 64s. on the Five Towns index-number was fixed. In the cases of New South Wales, Victoria, and South Australia, the Court decided to extend the flat rate to all industries within the Railway services (such as craftsmen in the metal and other trades), and to vary or modify the relevant awards or undertakings accordingly. In view of the financial position of Government transport services, the Court decided to remove the present restriction on State legislatures making reductions in the remuneration of employees covered by Federal Awards, etc., to meet financial stringency, and made the following provision :—

"Notwithstanding anything in this award, the Commissioner may in or from the rates of pay prescribed herein, make reductions or deductions not greater than a statute now or at any time requires to be made generally in or from substantially similar rates of pay of employees of the State or of State instrumentalities."

(c) *Exemptions.* The following industries were exempted from the operation of the judgment until further consideration could be given to them, i.e., Fruitgrowing; Printing at Broken Hill; and the following cases in which cost of living adjustments have not applied—Municipal Employees; Bond Stores; Felt Hatters; Maltsters; Marine Stores; and Launceston Tramways.

(iv) *Periodical Adjustments.* The fixation and future adjustment of the new wage was transferred from the "D" Series of index-numbers to the "C" Series (Food, Groceries, Rent of four and five-roomed Houses, Clothing and Miscellaneous Household Expenditure). The greater suitability of the latter series for the purpose had been urged on the Court by the various parties at different times, and was partly adopted by the Court in May, 1933, in connexion with the "D" Series. The "A" Series will, of course, continue to apply to those industries which were not suffering the full 10 per cent. reduction at the date of the judgment. Provision was also made that no adjustment of wages on account of cost of living would be made unless the amount of the change reached at least 2s. per week. The dates of adjustment were altered to the first pay period in the months of June, September, December and March.

(v) *Basis of New Wage.* The new wage adopted by the Court is to a large extent founded upon the amount of 84s. per week, declared by the New South Wales Board of Trade in August, 1925.\* As this amount took into consideration the upward tendency of prices, which continued, the Commonwealth Court regarded that rate as applicable to the year 1926, and taking the fall in prices in Sydney since that date up to the fourth quarter of 1933, as disclosed by the "All Items" index-numbers ("C" Series), the appropriate rate for Sydney was found to be 67s. per week. This rate was then equated to the "C" Series index-number for Sydney for the fourth quarter, 1933, viz., 829, and the proportionate rate for 1,000 (the base of the series) calculated as equal to 81s. per week. From the latter amount as base, a table of wages based on this series was calculated in divisions of 1s. per week (e.g., 994—1,006 = 81s. per week), and the value of all other index-numbers ascertained from the table.

\* See *New South Wales Industrial Gazette*, No. 2, Vol. XXVIII., 1925, page 154.

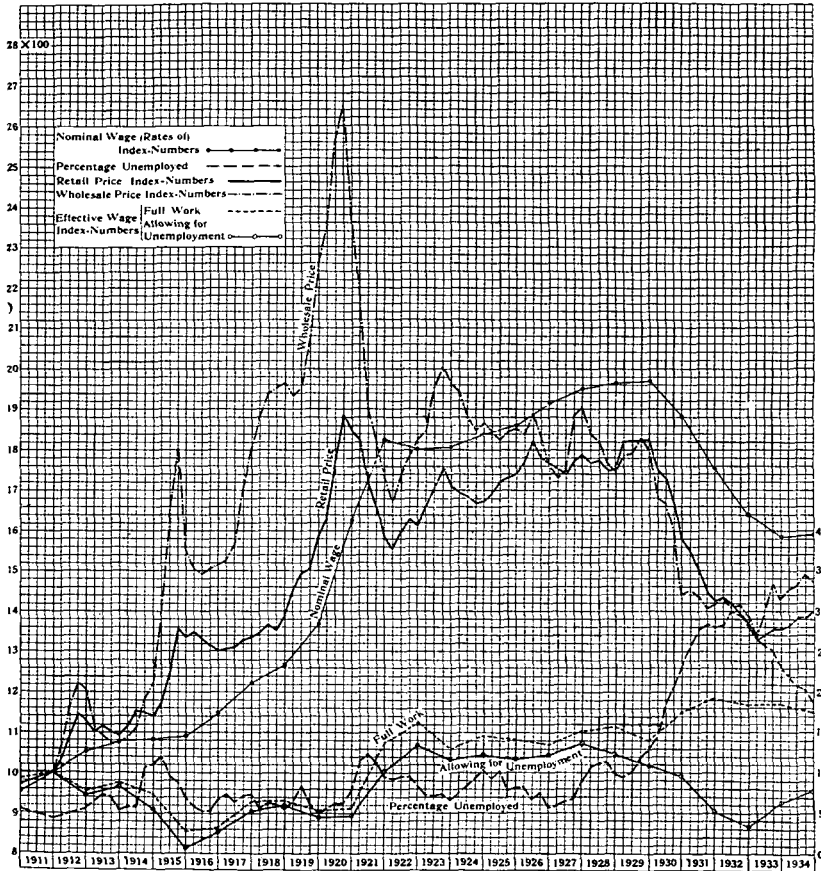
(vi) *Reasons for Judgment.* The Court issued a lengthy statement specifying the reasons which actuated it in arriving at its judgment, but considerations of space preclude the insertion of this matter in the present chapter. Full particulars will, however, be found in Labour Report No. 24.

(vii) *The Family Unit.* The judgment discusses at some length the question of the propriety of identifying a typical family unit with the wage adopted. Hitherto the Court had regarded its basic wage as appropriated to the requirements of a unit of "about five persons," consisting of a man, wife and three dependent children, but in point of actual fact the average number of children per adult male is about one, while for married adult workers it is 1.8. The Court emphasizes the point of view, however, that the deciding factor is what industry in all its primary, secondary, or ancillary forms can pay to the average employee, and that irrespective of what family units have been laid down for, or adopted by Industrial Tribunals, the amounts actually paid have been governed by this consideration. The Court stated, however, that in view of the absence of clear means of measuring the general wage-paying capacity of total industry, the actual wage upon which well-situated labourers are at the time maintaining the average family unit could justifiably be taken as a criterion of what industry can probably pay to all labourers. The Court considered that Mr. Justice Higgins had very wisely used this criterion in the 1907 "Harvester" case, and that there was sound economic warranty for the ascertainment of the real family unit, and the cost of providing something like the standard which families of well-employed labourers had already reached; and that if the real family unit were departed from, or a standard sought for the likely maintenance of which experience gave no reason to hope, then an unrealizable wage level may be ordained. It would appear, therefore, that although not identifying its wage with a specific family unit, the remarks of the Court lead to the conclusion that the wage declared was arrived at partly because in its opinion the material before it suggested that the amount would be sufficient to meet the requirements of a man, wife, and two children, representing the average family responsibility to the married adult worker.

(viii) *Rate for Females.* The Court stated that it did not think it desirable, at any rate at the present time, to declare any wage as a basic wage for females, and continued the proportions in each existing award of the minimum wage for females to that for males—generally in the vicinity of 52 per cent. of the adult male rate.

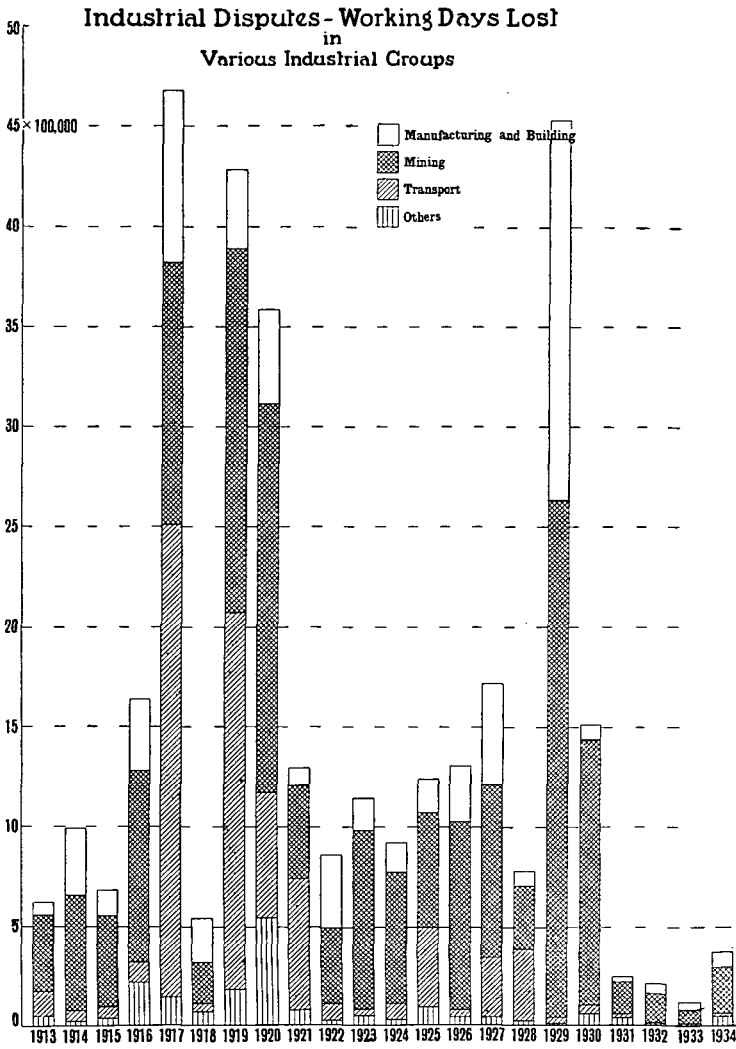
(ix) *Minority Judgment.* In his minority judgment, Judge Beeby expressed the opinion that although the economic position was much better than twelve months ago, recovery was not sufficient or permanent enough to justify the belief that the Commonwealth can get back to pre-depression standards; that 20 per cent. of the population was still unemployed; that the prices offering for our primary products were lower than those of 1931, and the difficulties of finding markets for our surpluses had increased; that prices offering for our base metals are barely sufficient to meet costs of production; that we are not entitled to assume that the remarkable recovery of wool prices is permanent; that budgetary deficits are still piling up, and the floating debt and consequent interest charges steadily increasing. He stated that the foregoing did not preclude consideration of whether and to what extent the Court's drastic cut in real wages should be modified in the light of substantial economic recovery, nor an examination made of the results of the Court's original order. He analysed the distribution of the products of industry as disclosed by manufacturing statistics which showed that since 1927-28 the proportions going to employers and workers had changed from 45.42 and 54.58 to 49.81 and 50.19 in favour of the employer, and considered that this decline of 4.39 per cent. in the share accruing to the worker called for complete re-examination of the whole theory and methods of wage fixation. He considered that wages should be related to production. He expressed doubt as to whether the reduction of the real wages of a section of the workers materially contributed to the partial recovery of last year, and considered that such transfer of spending power is not conducive to recovery unless it be part of a planned scheme of reorganization which guarantees that the transferred amount is either spent immediately on commodities or re-invested in labour-employing concerns. He reviewed the steps taken in other

RETAIL AND WHOLESALE PRICES, NOMINAL AND EFFECTIVE OR REAL WAGE INDEX NUMBERS, AND PERCENTAGE OF UNEMPLOYED.—AUSTRALIA, 1911 TO 1934.



NOTE.—The figures on the right represent the scale for the percentage unemployed according to trade-union returns. The figures on the left represent the scale for the several index-numbers, the year 1911 being taken in each case as base (=1,000). Since the end of the year 1911, the Retail Price Index-numbers (weighted average cost of food, groceries, and house rent (all houses) for the six capital cities), and the Wholesale Price Index-number (Melbourne) are shown in each quarter, while unemployment percentages are shown quarterly since the end of the year 1912 only. The other index-numbers, average nominal wage for adult males and *real* wage (full work and allowing for unemployment) for adult males, since 1913 refer to the average for the whole year, but for purposes of convenience are plotted on the graph as at the end, not the middle, of the year. Retail Price and Wholesale Price Index-numbers show the average level during the whole of each quarter, and they also for convenience are plotted at the end, and not the middle, of each quarter.





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.

countries towards economic reconstruction to show that the universal trend of economic thought from low wage to high wage theories and to shortening working hours should be considered by a Court exercising quasi-legislative functions. He considered that the rates awarded by the majority judgment were not commensurate with the degree of economic recovery, and that the following should be the amounts for the towns shown, viz. :—

	£	s.	d.		£	s.	d.
Sydney .. ..	3	9	0	Perth .. ..	3	5	0
Melbourne .. ..	3	5	6	Hobart .. ..	3	6	0
Brisbane .. ..	3	5	0	Launceston .. ..	3	3	6
Adelaide .. ..	3	3	0	Six Capitals .. ..	3	6	0

He considered that the "All Items" index-numbers should be used for the future adjustments of wages, but the rates recommended were not proportionate to the "All Items" index-numbers, taking the rate for Sydney as base, but were arrived at after consideration of all prevailing circumstances, and that with these rates there should be corresponding adjustments for provincial towns. In other respects he agreed with the majority judgment.

**3. State Basic Wage Rates in Operation.**—The basic wage rates fixed by State arbitration tribunals differ from those obtaining in the Federal sphere not only as regards amount, but also in respect of constitution of family unit whose needs it purports to supply.

The awards of various State tribunals in operation at the present moment are shown in the following statement. The Industrial Commission in New South Wales and the Industrial Court in Western Australia revised the living or basic rates of wage to be paid in the respective States during 1929. Particulars of these judgments are given in Labour Report, No. 20. The pronouncements of the Industrial Commission in New South Wales are published in the *New South Wales Industrial Gazette*, Vol. XXXVI., No. 6, and deal exhaustively with matters relating to basic wages. The living wage of £4 2s. 6d. per week for adult males determined in 1929 by the Industrial Commission in New South Wales was not altered during the years 1930 and 1931. On 26th August, 1932, the Commission declared the following rates—£3 10s. per week for adult males, and £1 18s. per week for adult females. The wage was altered as from 1st May, 1933, to £3 8s. 6d. for adult males, and £1 17s. for adult females, and from 1st November, 1933, to £3 6s. 6d. for adult males, and £1 16s. for adult females. From 1st May, 1934, the rates were increased to £3 7s. 6d. for adult males, and £1 16s. 6d. for adult females. The present rates are £3 8s. 6d. for males, and £1 17s. for females. These were originally declared to operate from 1st May, 1935, and were repeated by the commission in its six-monthly declaration on 25th October, 1935. An extensive inquiry into a new "standard" basic wage was commenced by the Industrial Commission on 1st April, 1935, but the finding had not been announced at the date of going to press.

The declarations and reasons for the judgments of the Industrial Court in Western Australia are published in the *Western Australian Industrial Gazette*. A revision of the basic wage in this State was made in June, 1930, when the rate for adult male employees in the Metropolitan area was determined at £4 6s., and for adult female employees at £2 6s. 5d. per week. These rates were reduced in March, 1931, to £3 18s. and £2 2s. 2d. respectively. On 5th November, 1931, the rates for the Metropolitan area were declared at £3 13s. 6d. for adult male employees, and at £1 19s. 8d. for adult female employees. These rates remained in force until 1st March, 1932, when the basic rates for the Metropolitan area were declared at £3 12s. per week for adult male employees, and at £1 18s. 11d. per week for adult female employees. On the 2nd November, 1932, the rates were reduced to £3 10s. 6d. and £1 18s. 1d., and on the 28th February, 1933, to £3 9s. and £1 17s. 3d. per week. They were further reduced to £3 8s. and £1 16s. 9d. on the 30th June, 1933, and increased to £3 9s. 3d. and £1 17s. 5d. on the 3rd August, 1933, the latter being the first increase in the basic wage since the 1st July, 1929. These rates were again declared by the Court from 1st July, 1934, and from 1st July, 1935, the rates declared were

£3 10s. 6d. for males and £1 18s. 1d. for females. The Court of Arbitration declares also basic rates of wage for areas outside the Metropolitan area. The rates declared for these areas from 1st July, 1935, were—Agricultural areas, etc., adult male employees, £3 11s. 2d. per week; adult female employees, £1 18s. 5d. per week; Gold-fields area, etc., adult male employees, £4 4s. 4d. per week; adult female employees, £2 5s. 6d. per week.

The Industrial Court in Queensland reviewed the basic rates of wage for that State during 1930, and reduced the rate for adult male employees from £4 5s. to £4 per week as from 1st August, 1930. A further revision during the year reduced the rate for adult males to £3 17s. per week as from 1st December, 1930. The Industrial Court fixed the basic rates as from 1st July, 1931, at £3 14s. per week for adult male employees, and at £1 19s. per week for adult female employees. These rates were in operation at the end of June, 1935. The declarations of the Court are published in the *Queensland Industrial Gazette*.

In 1925 the Board of Industry in South Australia determined the living wage for adult male employees in the Metropolitan area at £4 5s. 6d. per week, and at £1 19s. 6d. per week for adult female employees. These rates were in operation for more than five years. On 11th October, 1930, after a public inquiry, the Board of Industry determined the living wage to be paid to adult male employees in the metropolitan area at 12s. 6d. per day or £3 15s. per week, and on 22nd December, 1930, the living wage for adult female employees in the Metropolitan area was declared at £1 15s. per week. Further reductions were made by the Board of Industry on 17th August, 1931, after a public inquiry, to 10s. 6d. per day or £3 3s. per week for adult male employees, and on 4th December, 1931, to £1 11s. 6d. per week for adult female employees. Notwithstanding intervening exhaustive reviews by the Board of Industry, the latter rates were operative up to the 21st October, 1935, when the Board declared 11s. per day or £3 6s. per week for male adults, with no alteration of the rate for females. All the Board's declarations are published in the Bulletins of the Board of Industry, South Australia.

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 the variations in the "Cost of Living" index-numbers has been followed in the past by these bodies. In the case of Victoria, however, by an amendment of the *Factories and Shops Act* (No. 4275—assented to 9th October, 1934), provision is made for the incorporation in all determinations of Wages Boards of the provisions of Awards of the Commonwealth Arbitration Court covering similar employees, and for the automatic adjustment of wages by the Secretary for Labour in accordance with the retail price index-numbers of this Bureau.

#### 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) 3 8 6	1 17 0	1.5.35	Man, wife and child
Victoria ..	(b)	(b)	(b)	(b)
Queensland ..	3 14 0	1 19 0	1.7.31	Man, wife and three children
South Australia ..	(c) 3 6 0	(d) 1 11 6	..	..
Western Australia ..	(e) 3 10 6	1 18 1	1.7.35	Man, " wife and " two children
Tasmania ..	(b)	(b)	(b)	(b)

(a) Plus child allowances. (b) None declared, but follow Federal rates to a large extent.  
 (c) Judgment dated 21st October, 1935. (d) Judgment dated 4th December, 1931.  
 (e) Metropolitan Area. Basic wage for Goldfields Areas and portions of State exclusive of the S.W. Land Division—males £4 4s. 4d.; females £2 5s. 6d.; Agricultural Areas and S.W. Land Division—males £3 11s. 2d.; females £1 18s. 5d.

4. **Royal Commission on the Basic Wage, 1920.**—The Federal basic wage referred to in par. 1 (ii) *ante* was made operative in other parts of Australia on the basis of the relative retail price index-numbers applicable to the locality, but only one comprehensive attempt has been made by the Federal authorities to ascertain specifically what the actual requirements were in the various States according to reasonable standards of comfort, including all matters comprised in the ordinary expenditure of a household in respect of a family consisting of a man, wife and three children under fourteen years of age.

The attempt referred to was made by a Royal Commission, and its report, issued in 1920, recommended the following amounts for the various capital cities, viz. :—

						£	s.	d.
Sydney	..	..	..	..	..	5	17	1
Melbourne	..	..	..	..	..	5	16	6
Brisbane	..	..	..	..	..	5	6	2
Adelaide	..	..	..	..	..	5	16	11
Perth	..	..	..	..	..	5	13	11
Hobart	..	..	..	..	..	5	16	11
Six Capitals (Weighted Average)	..	..	..	..	..	5	15	8

The recommendations of this Commission were not given effect to owing 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.

5. **Child Endowment.**—(i) *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.†

(ii) *The New South Wales Scheme.* The first attempt made in Australia to institute the system was 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, and the matter dropped until the session of 1926-27, when measures providing for the payment of child allowances became law.‡ These measures provided for (a) the declaration of a basic wage for a man and wife,|| and (b) the payment of an allowance of 5s. per week in respect of each dependent child, subject to the provision that child allowances would be paid only to the extent by which the total earnings of the worker and his family fall short of the sum represented by the *basic wage* plus child allowance at the rate of 5s. per week for each child under the age of fourteen years. Thus, a worker with three dependent children receiving £5 by way of wages would not be entitled to the allowance, but would receive it in respect of a fourth child. These payments in New South Wales commenced to operate from 1st September, 1927. An amending Act, assented to on the 23rd December, 1929, provides that child endowment shall be 5s. per week for each child under the age of fourteen years except one in the family. The basic or living wage for adult male workers was determined by the Industrial Commission on the 20th December, 1929, at £4 2s. 6d. per week for a family unit consisting of a man, wife and one child. The fund from which child endowment payments are made is created by a levy on the wages bill of employers. The rate of tax to be collected by the Government from employers during the year 1930, was fixed at 1 per cent. This rate was in operation to 30th June, 1931. 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

\* The "Harvester" equivalent for Melbourne at the time (September quarter, 1920) was £4 13s. per week, but only £3 18s. to £4 2s. was being paid on the basis of an annual index-number.

† A complete survey of the systems in force in various countries is contained in Elinor Rathbone's *Disinherited Family: A plea for the Endowment of the Family.*

‡ *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.

wages above £3 per week. The amount of levy collected during 1932-33 was £2,409,034, and £2,105,659 was paid away in allowances to 63,072 families. The levy was discontinued as from 1st January, 1934, the cost of endowment being met from Consolidated Revenue.

(iii) *Commonwealth Public Service.* The first payment of child endowment allowances in Australia was in connexion with the Commonwealth Public Service. From 1st November, 1920, following on the recommendations of the Royal Commission on the Basic Wage\*, child endowment at the rate of 5s. per week for each dependent child under fourteen years of age was paid to officers, with a limitation of salary plus allowance of £400 per annum. As the result of proceedings before the Public Service Arbitrator in 1923, this allowance was confirmed as a permanent payment to officers, and the necessary fund to meet it was created by deducting the average value of the payment from the basic wage of all adult officers, so that the officers are themselves providing the fund from which the allowance is paid. The deduction was originally £11 per annum, but is now £12. The payment is now limited to officers receiving up to £500 per annum inclusive of the allowance. Details regarding the introduction and method of calculating the payments under this scheme have been published in previous issues of the Official Year Book and will be found also in the Labour Reports issued by this Bureau.

(iv) *National Scheme.* The Federal Government, in June, 1927, called a conference at Melbourne of the Premiers of the several States to consider the question from a national standpoint. The Prime Minister submitted various estimates of cost of endowing dependent children under fourteen years of age in Australia at 5s. per week. After discussion, it was decided to refer the matter to a Royal Commission, to be appointed by the Commonwealth Government.

The Commission was not unanimous in its findings, and the opinions and recommendations of the members were embodied in two separate reports, which dealt exhaustively with the constitutional aspects, existing systems, industrial legislation, the basic wage, standard of living, regulation of wages, working conditions and cognate matters.

At the conference of Commonwealth and State Ministers held at Canberra during May, 1929, the Prime Minister stated that the Commission had submitted its report. The minority report recommended a scheme of child endowment financed entirely from the proceeds of taxation. For reasons stated to the Conference, the Government was not prepared to adopt this scheme. 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 to the Commonwealth. 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 the present time. The result of the discussion was that it was agreed that the matter of child endowment was one 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.

#### § 4. Changes in Rates of Wage.

The collection of detailed information relating to changes in rates of wage was discontinued at the end of the year 1929, owing to the difficulty of securing reliable data. Officials of employers' organizations and trade unions reported that they were unable to supply definite particulars as to the number of workpeople affected by Commonwealth and State awards and determinations. In order to secure comprehensive and reliable data it would have been necessary to extend considerably the field of collection, and after serious consideration, and in view of the fact that the demand for the figures had been limited, it was decided that the additional expense and work involved were too heavy to justify the continuance of the tabulation.

\* 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.

## C.—EMPLOYMENT.

## § 1. Industrial Disputes.

1. *General*.—Information with regard to the collection of particulars and the methods of tabulation of industrial disputes involving stoppage of work has appeared in previous issues of the Official Year Book, and is also given in the annual Labour Reports of this Bureau.

In *annual* tabulations particulars are included of all disputes which either *commenced* or were *current* during the year under review. As regards "number of disputes", "establishments involved", and "workpeople involved", therefore, duplication will take place in respect of those disputes which started in and were unsettled at the end of a preceding year: the number involved will, however, be indicated in a footnote, to permit of due allowance being made in any calculations made from the tables.

2. *Industrial Disputes Involving Stoppage of Work, Classified in Industrial Groups, 1934*.—The following tables give particulars of industrial disputes which either commenced or were current during the year 1934, classified according to industrial groups. Similar information for the previous years was published in preceding issues of the Official Year Book and Labour Report:—

## INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1934.

Class.	Industrial Group.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly.	Indirectly.	Total.		
NEW SOUTH WALES.								£
II.	Engineering, metal works, etc.	4	4	3,837	155	3,992	36,270	29,825
IV.	Clothing, textiles, etc.	1	8	1,442	1,301	2,743	35,111	17,500
VI.	Other manufacturing	3	3	119	..	119	832	804
VII.	Building	1	1	34	20	54	108	80
VIII.	(a) Coal-mining	85	86	19,750	1,334	21,090	114,574	128,044
	(b) Other mining, quarries, etc.	5	9	4,475	125	4,600	10,768	11,652
XI.	Shipping, wharf labour, etc.	1	1	42	..	42	1,050	450
XIV.	Miscellaneous	17	17	3,360	8	3,368	15,040	7,910
Total		117	129	33,065	2,943	36,008	213,753	196,265
VICTORIA.								
II.	Engineering, metal works, etc.	2	3	298	..	298	1,414	1,103
IV.	Clothing, textiles, etc.	1	1	13	..	13	13	4
VIII.	(a) Coal-mining	2	2	2,000	..	2,000	70,000	53,250
	(b) Other mining, quarries, etc.	1	65	700	100	800	19,200	16,000
IX.	Railway and tramway services	1	1	3,000	..	3,000	12,000	9,000
XI.	Shipping, wharf labour, etc.	2	2	59	4	63	701	457
XII.	Pastoral, agricultural, etc.	1	1	80	..	80	80	36
XIII.	Domestic, hotels, etc.	1	1	8	..	8	136	60
XIV.	Miscellaneous	8	8	1,916	250	2,166	5,328	2,528
Total		19	84	8,074	354	8,428	108,872	82,438
QUEENSLAND.								
VIII.	(a) Coal-mining	1	1	227	..	227	4,994	4,000
	(b) Other mining, quarries, etc.	1	1	82	..	82	82	86
XII.	Pastoral, agricultural, etc.	5	828	2,144	420	2,564	24,642	20,114
Total		7	830	2,453	420	2,873	29,718	24,200

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1934—*continued.*

Class.	Industrial Group.	Num- ber.	Estab- lish- ments In- volved.	Workpeople Involved.			Working Days Lost.	Esti- mated Loss in Wages.
				Directly.	In- directly.	Total.		
	SOUTH AUSTRALIA.							
XI.	Shipping, wharf labour, etc. . .	1	1	44	..	44	11	17
	WESTERN AUSTRALIA.							
II.	Engineering, metal works, etc.	1	1	93	..	93	186	100
VI.	Other manufacturing ..	1	1	25	..	25	52	28
VIII.	(a) Coal-mining ..	3	4	299	6	305	795	733
	(b) Other mining, quarries, etc. ..	2	7	2,260	120	2,380	11,750	10,158
XII.	Pastoral, agricultural, etc. ..	1	1	350	50	400	4,000	3,000
XIV.	Miscellaneous ..	2	2	281	..	281	1,009	680
	Total ..	10	16	3,309	176	3,485	17,792	14,699
	TASMANIA.							
..	.. ..	..	..	..	..	..	..	..
	NORTHERN TERRITORY.							
XI.	Shipping, wharf labour, etc. . .	1	1	18	2	20	240	240
	AUSTRALIA.							
II.	Engineering, metal works, etc.	7	8	4,228	155	4,383	37,870	31,028
IV.	Clothing, textiles, etc. ..	2	9	1,455	1,301	2,756	35,124	17,504
VI.	Other manufacturing ..	4	4	145	..	145	884	832
VII.	Building ..	1	1	34	20	54	108	80
VIII.	(a) Coal-mining ..	91	93	22,282	1,340	23,622	190,363	186,027
	(b) Other mining, quarries, etc. ..	9	82	7,517	345	7,862	41,800	37,896
IX.	Railway and tramway services	1	1	3,000	..	3,000	12,000	9,000
XI.	Shipping, wharf labour, etc. ..	5	5	163	6	169	2,002	1,164
XII.	Pastoral, agricultural, etc. ..	7	830	2,574	470	3,044	28,722	23,150
XIII.	Domestic, hotels, etc. ..	1	1	8	..	8	136	60
XIV.	Miscellaneous ..	27	27	5,557	258	5,815	21,377	11,118
	Total—Australia ..	(a)155	1,061	46,963	3,895	50,858	370,386	317,859

(a) A dispute in New South Wales (involving one establishment and 64 workers), which commenced in 1933 and was uncompleted at the end of that year, is duplicated in the figures for 1934.

3. Industrial Disputes, Australia, 1930 to 1934.—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 1930 to 1934, 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.) For the year 1913 the proportion of disputes in the mining industry represented practically 50 per cent. of the total number recorded. In subsequent years the proportion remained high, ranging from 45 per cent. in 1917 and 1918 to as much as 81 per cent. in 1921 and 1924. During the year 1934 disputes in the coal-mining industry represented 59 per cent. of the total, as compared with 58 per cent. during 1933. In the past five years working days lost through dislocations involving work people engaged in coal-mining amounted to 1,822,276, representing 74 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.							
1930 ..	27	..	126	4	5	21	183
1931 ..	15	4	79	8	10	18	134
1932 ..	20	4	77	8	5	13	127
1933 ..	16	..	52	6	1	15	90
1934 ..	13	1	91	9	6	35	(a) 155
1930-34 ..	91	9	425	35	27	102	689

## WORKPEOPLE INVOLVED.

1930 ..	6,034	..	40,336	851	2,610	4,391	54,222
1931 ..	5,005	159	23,351	2,015	2,515	4,622	37,667
1932 ..	8,236	120	19,540	2,602	181	2,238	32,917
1933 ..	5,361	..	17,461	5,415	50	1,826	30,113
1934 ..	7,284	54	23,622	7,862	3,169	8,867	50,858
1930-34 ..	31,920	333	124,310	18,745	8,525	21,944	205,777

## WORKING DAYS LOST.

1930 ..	77,232	..	1,328,142	3,798	46,427	55,642	1,511,241
1931 ..	29,032	1,006	124,089	36,012	19,861	35,991	245,991
1932 ..	50,692	1,561	131,154	21,402	1,038	6,471	212,318
1933 ..	31,625	..	48,528	26,985	100	4,718	111,956
1934 ..	73,878	108	190,363	41,800	14,002	50,235	370,386
1930-34 ..	262,459	2,675	1,822,276	129,997	81,428	153,057	2,451,892

## ESTIMATED LOSS IN WAGES.

1930 ..	£ 73,126	£ ..	£ 1,398,706	£ 5,111	£ 48,304	£ 67,095	£ 1,592,342
1931 ..	28,694	901	126,535	29,249	13,553	28,799	227,731
1932 ..	24,051	1,434	115,407	19,691	720	4,279	165,582
1933 ..	23,407	..	44,927	23,683	90	2,941	95,048
1934 ..	49,364	80	186,027	37,896	10,164	34,328	317,859
1930-34 ..	198,642	2,415	1,871,602	115,630	72,831	137,442	2,398,562

(a) See footnote to Table on page 386.



4. Summary of Disputes (involving Stoppage of Work), 1930 to 1934.—The following table gives particulars of the number of industrial disputes in each State in the years 1930 to 1934, together with the workpeople involved, the working days lost, and the estimated loss in wages :—

## INDUSTRIAL DISPUTES.—SUMMARY.

State or Territory.	Year.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly.	In-directly.	Total.		
New South Wales	1930	156	384	46,418	2,151	48,569	1,443,366	1,516,296
	1931	87	131	21,002	1,801	22,803	136,037	133,068
	1932	92	99	17,813	2,156	19,969	63,425	64,420
	1933	54	143	13,406	1,663	15,069	53,104	48,760
	1934	(a) 117	129	33,065	2,943	36,008	213,753	196,265
Victoria	1930	5	5	385	23	408	7,744	7,228
	1931	10	92	4,022	621	4,643	27,862	24,884
	1932	12	37	6,475	110	6,585	99,638	65,599
	1933	12	28	7,156	294	7,450	26,693	20,416
	1934	19	84	8,074	354	8,428	108,872	82,438
Queensland	1930	10	31	1,561	70	1,631	9,581	11,059
	1931	15	358	5,079	642	5,721	51,096	47,415
	1932	10	210	1,061	1,156	2,217	21,166	18,541
	1933	11	11	2,636	884	3,520	13,876	10,077
	1934	7	830	2,453	420	2,873	29,718	24,200
South Australia	1930	7	246	2,870	6	2,876	22,778	22,987
	1931	5	5	160	6	166	655	582
	1932	2	3	109	4	113	970	664
	1933	1	1	50	..	50	100	90
	1934	1	1	44	..	44	11	17
Western Australia	1930	2	26	468	..	468	27,072	34,378
	1931	13	26	3,878	50	3,928	24,022	15,820
	1932	8	16	2,531	162	2,693	11,203	9,538
	1933	10	10	3,644	276	3,920	16,896	14,530
	1934	10	16	3,309	176	3,485	17,792	14,699
Tasmania	1930	3	3	270	..	270	400	394
	1931	2	2	155	6	161	5,409	5,278
	1932	2	4	1,103	..	1,103	15,562	6,516
	1933	1	1	75	..	75	1,200	1,050
	1934	..	..	..	..	..	..	..
Northern Territory	1930	..	..	245	..	245	910	675
	1931	2	2	177	..	177	354	304
	1932	1	1	21	8	29	87	125
	1933	1	1	18	2	20	240	240
	1934	..	..	..	..	..	..	..
Fed. Cap. Territory	1930	..	..	..	..	..	..	..
	1931	..	..	..	..	..	..	..
	1932	..	..	..	..	..	..	..
	1933	..	..	..	..	..	..	..
	1934	..	..	..	..	..	..	..
Australia	1930	183	695	51,972	2,250	54,222	1,511,241	1,592,342
	1931	134	616	34,541	3,126	37,667	245,991	227,731
	1932	127	372	29,329	3,588	32,917	212,318	165,582
	1933	90	195	26,988	3,125	30,113	111,956	95,048
	1934	(a) 155	1,061	46,963	3,895	50,858	370,386	317,859

(a) See footnote to Table on page 386.

Detailed information in regard to the disputes during the years 1930 to 1934 and previous years is given in the Labour Reports issued by this Bureau.

5. Particulars of Principal Disputes in 1934.—(i) *General.* The preceding tables show the number and effect of all disputes for the year 1934 classified according to Industrial Groups. Increases occurred in all the principal groups during 1934 in respect of workpeople involved, and the number of working days and amount of wages lost. Of the total number of disputes no less than 59 per cent. were in connexion with the coal-mining industry, mostly in New South Wales. Wages lost in this industry in New South Wales was £128,044, or 40 per cent. of the total loss of wages in Australia, viz., £317,859. Compared with earlier years there was no dispute of outstanding magnitude but particulars in the following paragraphs are given of the largest which occurred in the States mentioned.

(ii) *Details regarding Principal Disputes.*—(a) *New South Wales.* Objection to a reduction of wages under a new award of the Commonwealth Court of Conciliation and Arbitration was reported to be the reason for a stoppage of work in several textile factories in January, 1934. Direct negotiations having failed to effect a settlement, the dispute was referred to a compulsory conference convened under the provisions of the Commonwealth Arbitration Act, with the result that work was resumed after a stoppage of about three weeks.

Refusal to concede a demand by a section of the employees, that brace and platmen's rates be paid to assistants in such occupations, was the reason given for a cessation of work by metalliferous miners at Broken Hill in July, 1934. Negotiations between the parties concerned resulted in a resumption of operations after a stoppage of about ten days.

A dispute involving persons engaged in the manufacture of galvanized iron occurred at Newcastle in August, 1934. The dismissal of an employee and dissatisfaction with award rates and conditions were given as reasons for the cessation of work. After a stoppage of about four weeks work was resumed pending application to the State Arbitration Court for an award.

(b) *Victoria.* An allegation by wheelers of underpayment was responsible for a stoppage of work at the State Coal Mine, Wonthaggi, in March, 1934. After several unsuccessful attempts at settlement of the dispute by direct negotiations, the Minister for Railways convened a conference which resulted in a resumption of work after a stoppage of more than four months.

A claim for an increase in wages and variation of working conditions was reported to be the cause of a stoppage of work by tramway employees at Melbourne in October, 1934. Negotiations between representatives of the parties concerned resulted in a satisfactory termination of the dispute and work was resumed after a stoppage of about four days.

(c) *Queensland.* Introduction by the employees of a new "darg" (regulated output) was responsible for a cessation of work at the State Coal Mine, Collinsville, in January, 1934. Negotiations between the management and representatives of the employees resulted in an amicable settlement of the dispute and work was resumed after a stoppage of about three weeks.

A demand for an 83 per cent. preference to British-born cane-cutters, was the cause of a dispute at Home Hill in June, 1934. An investigation into methods of engaging cutters was promised and a clause to prevent agreements intended to defeat the purposes of the award was added to the Sugar Award. The cutters then agreed to sign on after a hold-up of about four weeks.

A demand that all cane be burnt owing to the prevalence of "Weil's disease" caused a cessation of cane-cutting operations in the Ingham district in August, 1934. The dispute was referred to the Industrial Court which made an order that all cane should be burnt, and work was resumed after a stoppage of about six days.

(d) *Western Australia.* A dispute involving persons engaged in metalliferous mining occurred at Kalgoorlie in January, 1934. The alleged cause of the dispute was the refusal by British-born miners to work with foreigners. After a stoppage of about

one week, work was resumed on the understanding that preference would be given firstly to British-born miners, and secondly to naturalized foreigners. Direct negotiations were instrumental in settling the dispute.

6. Duration of Industrial Disputes, 1934.—The following table gives particulars respecting the number of disputes, workpeople directly and indirectly involved, working days lost, and estimated loss in wages, consequent on the cessations of work recorded for Australia during the year 1934, classified under the adopted limits of duration :—

INDUSTRIAL DISPUTES.—DURATION, AUSTRALIA, 1934.

Limits of Duration.	Num-ber.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
		Directly.	Indirectly.	Total.		
1 day and less .. ..	53	14,773	807	15,580	15,547	£ 16,295
2 days and more than 1 day	19	3,087	175	3,262	6,524	6,166
3 days and more than 2 days	13	4,249	72	4,321	12,815	11,544
Over 3 days and less than 1 week (6 days) .. ..	22	11,383	256	11,639	50,481	43,435
1 week and less than 2 weeks	22	5,505	707	6,212	52,031	46,608
2 weeks and less than 4 weeks	16	4,230	1,743	5,973	88,351	78,063
4 weeks and less than 8 weeks	8	2,603	110	2,713	70,053	57,498
8 weeks and over .. ..	2	1,133	25	1,158	74,584	58,250
Total .. ..	(a) 155	46,963	3,895	50,858	370,386	317,859

(a) See footnote to Table on page 386.

The details for previous years will be found in previous issues of the Official Year Book and in the Labour Reports issued by this Bureau.

7. Causes of Industrial Disputes, 1913 to 1934.—The following table shows the number of disputes, workpeople involved, and the working days lost in disputes during the years 1913 and 1929 to 1934, classified according to principal cause :—

INDUSTRIAL DISPUTES.—CAUSES, AUSTRALIA.

Causes of Dispute.	1913.	1929.	1930.	1931.	1932.	1933.	1934.
NUMBER.							
1. Wages—							
(a) For increase .. ..	42	8	..	4	5	1	10
(b) Against decrease .. ..	4	6	9	17	11	4	3
(c) Other wage questions	31	45	44	16	26	14	31
2. Hours of Labour—							
(a) For reduction .. ..	3	6	4	2	2	..	6
(b) Other disputes re hours	7	2	..	..	..	7	..
3. Trades Unionism—							
(a) Against employment of non-unionists .. ..	8	3	..	1	2	1	4
(b) Other union questions	5	12	20	4	3	3	8
4. Employment of particular Classes or Persons .. ..	44	87	48	50	50	35	52
5. Working Conditions .. ..	51	31	27	22	11	9	25
6. Sympathetic .. ..	5	6	11	5	2	..	3
7. Other Causes .. ..	8	53	20	13	15	16	13
Total .. ..	208	259	183	134	127	90	(a) 155

INDUSTRIAL DISPUTES.—CAUSES, AUSTRALIA—*continued.*

Causes of Dispute.	1913.	1929.	1930.	1931.	1932.	1933.	1934.
<b>WORKPEOPLE INVOLVED.</b>							
1. Wages—							
(a) For increase ..	8,633	1,414	..	2,053	1,295	29	7,210
(b) Against decrease ..	563	10,532	12,824	7,108	7,327	2,178	2,817
(c) Other wage questions	7,160	8,742	12,686	3,999	5,417	4,336	8,335
2. Hours of Labour—							
(a) For reduction ..	460	21,646	4,334	192	198	..	..
(b) Other disputes re hours	1,819	2,067	..	..	..	2,620	309
3. Trades Unionism—							
(a) Against employment of non-unionists ..	5,370	103	..	9	17	89	383
(b) Other union questions	1,418	4,367	4,160	2,240	501	705	2,184
4. Employment of particular Classes or Persons ..	11,370	22,933	7,751	12,023	12,556	11,803	15,638
5. Working Conditions ..	10,785	4,672	4,276	6,659	2,804	4,503	6,062
6. Sympathetic ..	947	11,604	4,010	1,053	316	..	1,045
7. Other Causes ..	1,758	16,524	4,181	2,331	2,486	3,850	6,875
<b>Total .. ..</b>	<b>50,283</b>	<b>104,604</b>	<b>54,222</b>	<b>37,667</b>	<b>32,917</b>	<b>30,113</b>	<b>50,858</b>

## WORKING DAYS LOST.

1. Wages—							
(a) For increase ..	100,069	7,433	..	15,425	5,990	87	108,277
(b) Against decrease ..	9,438	2,332,157	1,227,808	111,258	123,571	17,431	35,459
(c) Other wage questions	78,183	47,261	113,102	43,746	17,631	18,736	40,219
2. Hours of Labour—							
(a) For reduction ..	2,774	1,887,196	63,583	152	2,894	..	..
(b) Other disputes re hours	15,111	3,183	..	..	..	8,895	1,748
3. Trades Unionism—							
(a) Against employment of non-unionists ..	91,002	424	..	99	59	89	3,263
(b) Other union questions	32,388	49,924	50,225	11,752	6,261	1,421	10,774
4. Employment of particular Classes or Persons ..	191,723	78,492	24,683	38,567	36,054	31,799	110,166
5. Working Conditions ..	73,562	8,545	8,551	17,106	14,902	22,865	26,223
6. Sympathetic ..	24,066	23,482	17,648	4,070	1,096	..	11,174
7. Other Causes ..	5,212	23,381	5,641	3,816	3,860	10,633	23,083
<b>Total .. ..</b>	<b>623,528</b>	<b>4,461,478</b>	<b>1,511,241</b>	<b>245,991</b>	<b>212,318</b>	<b>111,956</b>	<b>370,386</b>

(a) See footnote to Table on page 386.

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 1928 the number of disputes concerning "Wages" has averaged approximately 28 per cent. of the total number for each year. The majority of the dislocations of work classified under the heading, "Employment of Particular Classes or Persons," are stoppages for the purpose of protesting against the dismissal of certain employees, who, in the opinion of their fellow-workers, have been unfairly treated or victimized. This class of dispute occurs very frequently in the coal-mining industry, and has been the principal cause of industrial disturbance of recent years. The number of disputes over "Trade Union" questions has represented a fairly uniform proportion of the total number of disputes during the years under review, while stoppages of work concerning "Hours of Labour" increased during 1926 and 1927, but have been relatively unimportant during the past six years.

8. Results of Industrial Disputes.—The following table shows the number of disputes, workpeople involved, and the working days lost in disputes throughout Australia during the six years 1929 to 1934, classified according to results:—

**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.
1929..	70	135	44	5	11,200	69,859	7,150	15,304	38,943	4,315,760	43,174	26,302
1930..	36	117	24	1	4,133	45,204	3,343	520	13,497	1,358,044	25,177	13,000
1931..	27	80	25	..	5,917	26,182	5,406	..	47,191	142,006	49,222	..
1932..	29	77	21	..	5,437	17,518	9,962	..	23,572	48,893	139,853	..
1933..	17	58	13	1	4,778	20,697	4,361	213	12,301	84,697	14,468	42 <sup>0</sup>
1934 <sup>ab</sup>	29	102	14	9	7,025	31,220	9,620	2,729	40,048	179,126	126,081	19,059

(a) See footnote to table on page 386.

(b) The following particulars of a dispute in New South Wales which was incomplete at 31st December, 1934, should be added to the above figures to effect a balance with those published in the preceding tables:—1 dispute; 264 workpeople involved; and 6,072 working days lost.

The figures for the year 1929 and 1930 in the above, and also in the following table, include the number of workpeople involved and the working days lost in the dispute on the Northern Coalfield of New South Wales which commenced in March, 1929, and terminated in June, 1930.

9. Methods of Settlement.—The following tables show for Australia the number of disputes, workpeople involved, and working days lost in industrial disputes during the years 1913 and 1929 to 1934, classified according to the adopted schedule of methods of settlement:—

**INDUSTRIAL DISPUTES.—METHODS OF SETTLEMENT, AUSTRALIA.**

Methods of Settlement.	1913.	1929.	1930.	1931.	1932.	1933.	1934. (a) (b).
NUMBER.							
Negotiations—							
Direct between employers and employees or their representatives	119	130	134	88	87	64	84
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act .. .. .	17	8	3	3	4	1	2
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference .. .. .	19	3	6	11	5	3	10
By reference to Board or Court .. .. .	22	1	2	1	2	3	9
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference .. .. .	4	6	..	4	3	2	5
By filling places of workpeople on strike or locked out .. .. .	13	7	9	2	7	2	2
By closing-down establishment permanently .. .. .	1	3	1	2	1	3	2
By other methods .. .. .	13	96	23	21	18	11	40
<b>Total .. .. .</b>	<b>208</b>	<b>254</b>	<b>178</b>	<b>132</b>	<b>127</b>	<b>89</b>	<b>(a) 154</b>

(a) See footnote to table on page 386.

(b) See footnote (b) to previous table.

INDUSTRIAL DISPUTES.—METHODS OF SETTLEMENT, AUSTRALIA—*continued.*

Methods of Settlement.	1913.	1929.	1930.	1931.	1932.	1933.	1934. (a) (b)
<b>WORKPEOPLE INVOLVED.</b>							
Negotiations—							
Direct between employers and employees or their representatives	23,357	32,393	40,804	22,295	22,595	19,703	25,469
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act .. ..	3,172	19,161	196	1,885	1,800	1,100	891
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference .. ..	6,505	487	3,476	3,871	1,640	1,290	4,559
By reference to Board or Court .. ..	12,774	56	184	42	416	1,390	1,666
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference .. ..	659	511	..	1,083	1,839	1,096	4,335
By filling places of workpeople on strike or locked out .. ..	658	5,411	2,940	222	460	986	138
By closing-down establishment permanently .. ..	170	144	40	52	11	1,271	444
By other methods .. ..	2,988	45,350	5,560	8,058	4,156	3,213	13,092
<b>Total .. ..</b>	<b>50,283</b>	<b>103,513</b>	<b>53,200</b>	<b>37,505</b>	<b>32,917</b>	<b>30,049</b>	<b>50,594</b>

## WORKING DAYS LOST.

Negotiations—							
Direct between employers and employees or their representatives	94,400	2,417,171	1,289,487	109,601	87,650	54,774	182,260
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act .. ..	26,335	1,279,258	2,893	2,625	79,872	6,600	20,019
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference .. ..	187,871	5,261	56,648	25,257	7,423	3,510	58,801
By reference to Board or Court .. ..	221,769	56	1,272	252	3,408	6,330	10,474
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference .. ..	2,105	1,882	..	30,317	18,596	15,437	46,814
By filling places of workpeople on strike or locked out .. ..	14,139	610,686	34,612	27,042	6,874	10,543	138
By closing-down establishment permanently .. ..	20,400	9,861	80	5,355	44	8,627	4,486
By other methods .. ..	56,509	100,004	24,726	37,970	8,451	6,071	41,322
<b>Total .. ..</b>	<b>623,528</b>	<b>4,424,179</b>	<b>1,409,718</b>	<b>238,419</b>	<b>212,318</b>	<b>111,892</b>	<b>364,314</b>

(a) See footnote to Table on page 386.

(b) See footnote (b) 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 154 disputes settled during 1934, 84 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 1934 was 15 per cent. In connexion with the comparatively large number of disputes which are classified as

having been settled "By other methods," many stoppages of work occur each year, principally at collieries, but the cause of such stoppages is not officially known to the employers or their representatives. Such stoppages usually last for one day, and work is resumed without negotiations for a settlement of the trouble.

## § 2. Fluctuations in Employment.

1. **General.**—The particulars given in the following tables are based upon information furnished by the secretaries of trade unions. The membership of the unions regularly reporting exceeds 420,000. Unemployment returns are not collected from unions the members of which are in permanent employment, such as railway and tramway employees, and public servants, or from unions whose members are casually employed (wharf labourers, etc.). Very few of the unions pay unemployment benefit, but the majority of the larger organizations have permanent secretaries and organizers who are closely in touch with the members and with the state of trade within their particular industries. In many cases unemployment registers are kept, and provision is made in the rules for payment of reduced subscriptions by members out of work. In view of these facts, and of the large membership of the unions from which quarterly returns are received, the percentages of unemployment derived from Trade Union returns may be regarded as of value by virtue of the indication they give of the relative intensity of unemployment from time to time, and it is believed that they can be taken as a rough index of the percentage of workers unemployed at any time. Seasonal fluctuations in unemployment have been provided for by collecting returns quarterly since the 1st January, 1913, the yearly figures quoted representing the average of the four quarters.

2. **Unemployment.**—(i) *States.* In addition to the qualifications referred to above, allowance must be made for the circumstance that the industries included in the returns from trade unions are not quite identical in the various States. The results may, however, be taken as representing fairly well labour conditions generally:—

### UNEMPLOYMENT.—1934.

State.	Unions Reporting.		Unemployed.	
	Number.	Members.	Number.	Percentage.
New South Wales .. .. .	114	188,591	46,581	24.7
Victoria .. .. .	81	114,699	19,875	17.4
Queensland .. .. .	46	55,648	6,513	11.7
South Australia .. .. .	58	29,675	7,584	25.6
Western Australia .. .. .	61	26,449	4,707	17.8
Tasmania .. .. .	34	8,973	1,605	17.9
<b>Australia .. .. .</b>	<b>394</b>	<b>424,035</b>	<b>86,865</b>	<b>20.5</b>

(ii) *Summary for Australia.* The appended table gives a summary for Australia for the last five years and quarterly for years, 1931 to 1934 :—

UNEMPLOYMENT.—AUSTRALIA.

Period.	Unions.	Membership.	Unemployed.	
			Number.	Percentage.
1930 .. .. .	395	438,874	84,767	19.3
1931 .. .. .	397	430,004	117,866	27.4
1932 .. .. .	395	415,434	120,454	29.0
1933 .. .. .	394	415,305	104,035	25.1
1934 .. .. .	394	424,035	86,865	20.5
1931 1st Quarter .. .. .	397	440,234	113,614	25.8
2nd " .. .. .	397	429,687	118,424	27.6
3rd " .. .. .	396	426,603	120,694	28.3
4th " .. .. .	396	423,493	118,732	28.0
1932 1st Quarter .. .. .	395	425,094	120,366	28.3
2nd " .. .. .	396	413,742	124,068	30.0
3rd " .. .. .	395	412,997	122,340	29.6
4th " .. .. .	392	409,902	115,042	28.1
1933 1st Quarter .. .. .	394	412,674	109,182	26.5
2nd " .. .. .	394	415,559	106,652	25.7
3rd " .. .. .	394	416,426	104,560	25.1
4th " .. .. .	394	416,560	95,745	23.0
1934 1st Quarter .. .. .	394	422,056	92,297	21.9
2nd " .. .. .	394	422,113	88,413	20.9
3rd " .. .. .	394	425,104	86,652	20.4
4th " .. .. .	396	426,866	80,097	18.8

NOTE.—Similar figures for each of the four quarters of the years since 1912 will be found in the Labour Reports. The quarterly figures show the number of persons who were out of work for three days or more during a specified week in each quarter, and the annual figures, the average of the four quarters; the returns do not include persons out of work through strikes or lock-outs.

The highest percentage of unemployed yet recorded (30.0) was reached in the second quarter of 1932.

(iii) The following table gives the percentages in each State from 1930 to 1934 :—

UNEMPLOYMENT.—PERCENTAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	%	%	%	%	%	%	%
1930 Year .. .. .	21.7	18.3	10.7	23.3	19.2	19.1	19.3
1931 " .. .. .	30.8	25.8	16.2	32.5	27.3	27.4	27.4
1932 " .. .. .	32.5	26.5	18.8	34.0	29.5	26.4	29.0
1933 " .. .. .	28.9	22.3	15.3	29.9	24.8	19.1	25.1
1934 " .. .. .	24.7	17.4	11.7	25.6	17.8	17.9	20.5
1932 1st Quarter .. .. .	31.8	26.0	18.2	33.1	28.6	27.3	28.3
2nd " .. .. .	33.2	27.7	19.9	35.2	30.3	27.4	30.0
3rd " .. .. .	33.0	27.0	19.3	35.4	30.1	26.9	29.6
4th " .. .. .	31.9	25.2	17.9	32.2	28.9	23.8	28.1
1933 1st Quarter .. .. .	30.2	23.9	16.7	30.5	27.1	19.8	26.5
2nd " .. .. .	29.6	23.0	15.6	30.0	26.0	19.0	25.7
3rd " .. .. .	28.8	22.5	15.1	30.3	25.6	19.2	25.1
4th " .. .. .	27.0	19.9	13.8	28.9	20.5	18.2	23.0
1934 1st Quarter .. .. .	25.8	18.6	13.7	28.5	19.5	17.7	21.9
2nd " .. .. .	25.0	18.0	12.7	25.4	18.3	17.9	20.9
3rd " .. .. .	24.5	17.5	11.4	25.4	17.2	18.9	20.4
4th " .. .. .	23.5	15.3	9.1	23.0	16.3	17.0	18.8



(iv) *Industrial Groups. Australia.* The next table shows the percentages unemployed in industrial groups. Industries or occupations in which employment is stable, such as railways, and those which are subject to exceptional fluctuations, such as wharf labour, agricultural, pastoral, etc., are not included. Other occupations—domestic, hotel employees, etc., are included in the "Other and Miscellaneous" group, as their returns are not sufficiently representative:—

UNEMPLOYMENT IN INDUSTRIAL GROUPS.—AUSTRALIA, 1934.

Industrial Group.	Number Reporting.		Unemployed.	
	Unions.	Members.	Number.	Percentage.
Manufacturing :—				
I. Wood, Furniture, etc. ..	16	18,755	5,667	30.2
II. Engineering, Metal Works, etc. ..	63	72,198	16,741	23.2
III. Food, Drink, Tobacco, etc. ..	51	35,956	5,947	16.5
IV. Clothing, Hats, Boots, etc. ..	22	36,312	4,881	13.4
V. Books, Printing, etc. ..	13	18,707	2,051	11.0
VI. Other Manufacturing ..	65	39,094	9,507	24.3
VII. Building .. ..	47	49,207	13,320	27.1
VIII. Mining, Quarrying, etc. ..	21	26,396	7,646	29.0
X. Land Transport other than Rail- way and Tramway Services ..	12	17,802	3,668	20.6
IX., XI., XII., XIII., and XIV. Other and Miscellaneous ..	84	109,608	17,437	15.9
All Groups .. ..	394	424,035	86,865	20.5

3. *Seasonal Employment in Australia.*—An investigation concerning the extent of seasonal employment in Australia was made during 1929. The State Statisticians were requested to furnish brief reports regarding the industries and callings in their respective States subject to seasonal fluctuations. From the reports received from these officials, supplemented by information from other sources, particulars were compiled and published in Official Year Book, No. 22, and in Labour Report, No. 19.

4. *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. In South Australia income tax rates were increased and a Financial Emergency tax was levied in Western Australia. The funds necessary for the relief of unemployment in Tasmania were provided by a tax on wages.

Further references to the special legislation relating to unemployment, rates of tax and sustenance payments will be found in Labour Reports, Nos. 22 to 25.

### § 3. Apprenticeship.

In Year Book No. 16, pp. 602-3, information was given with regard to legislation relating to the question of apprenticeship. Tables were included showing the periods of apprenticeship fixed in the awards of the various industrial tribunals of the States and Commonwealth, also the proportion of apprentices to journeymen and journeywomen. This information has been omitted from the present issue. Reference to legislation covering apprenticeship will be found in the Appendix to Official Year Book, No. 23.

## D.—ASSOCIATIONS.

### § 1. Labour Organizations.

1. **Registration.**—(i) *Under Trade Union Acts.* The benefits obtained by registering trade unions under the Trade Union Acts in force in the various States are not considered of much value; consequently the statistics of registered trade unions of employees do not accurately represent the position of unionism. Further, the returns for past years are so defective as to be practically valueless, inasmuch as no reliable indication is afforded of the numerical and financial position of the unions. Some of the registered unions fail to supply returns; this non-supply may lead to cancellation of the registration. Others have obtained the cancellation of their certificates of registration, the apparent reason being that they proposed to register under the Commonwealth Conciliation and Arbitration Act or a State Arbitration Act. In Queensland, some of the largest labour unions withdrew from registration during 1911, mainly on account of the necessity for closer restriction of their objects as set forth in their rules, consequent on legal decisions affecting trade unions. In Victoria and in South Australia very few of the existing unions are registered under the Trade Union Acts. It will be seen, therefore, that the available information under this heading is too meagre for statistical purposes.

(ii) *Under Industrial Arbitration Acts.* Information with regard to registrations of employers' associations and trade unions under the various State Industrial Arbitration Acts will be found in previous issues of the Year Book. The latest information available as to registrations is as follows:—New South Wales, 169 industrial unions of employers and 155 industrial unions of employees, the membership not being available in either case; Queensland, 13 industrial unions of employers with 11,350 members, and 79 industrial unions of employees with approximately 138,705 members; South Australia, 25 organizations of employees with 18,433 members; Western Australia, 43 organizations of employers with 871 members, and 111 organizations of employees with 35,849 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 following years, 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, 1934, there were 28 registered organizations of employers with a membership of 20,000, and 137 registered organizations of employees, with a total estimated membership of 630,000.

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, viz. :—(i) the local independent ; (ii) the State ; (iii) the interstate ; and (iv) the Australasian or International, but a number of variations occur from each of these classes. The leading characteristics of each of these types were briefly outlined in Labour Report No. 2 (pp. 7 to 9) issued by this Bureau.

(ii) *Number and Membership.* As already stated, the figures for trade unions registered under the Acts do not represent the position of unionism in Australia. In 1912 the Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics was established and with the cordial co-operation of the officials of the labour organizations comprehensive figures relating to the development of organized labour are now available. The following table shows the position at the end of 1934 :—

#### TRADE UNIONS, BRANCHES, AND MEMBERS, 1934.

State or Territory.	Number of Separate Unions.	Number of Branches.	Number of Members.
New South Wales .. .. .	185	579	312,639
Victoria .. .. .	149	406	195,877
Queensland .. .. .	106	323	129,358
South Australia .. .. .	109	183	55,120
Western Australia .. .. .	128	188	54,195
Tasmania .. .. .	79	77	13,510
Northern Territory .. .. .	4	..	825
Federal Capital Territory .. .. .	15	1	1,043
<b>Total .. .. .</b>	<b>775</b>	<b>1,757</b>	<b>762,567</b>
<b>Australia (a) .. .. .</b>	<b>355 (a)</b>	<b>2,177 (b)</b>	<b>762,567</b>

(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, 355 distinct organizations and interstate groups of organizations in Australia, having 2,177 State branches and sub-branches, and a total of 762,567 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.	1930.	1931.	1932.	1933.	1934.
<b>NUMBER OF UNIONS.</b>					
<b>Manufacturing :—</b>					
I. Wood, Furniture, etc. ..	18 (a)	18 (a)	18 (a)	18 (a)	17 (a)
II. Engineering, Metal Works, etc. ..	63 (22)	63 (22)	63 (22)	63 (22)	63 (22)
III. Food, Drink, Tobacco, etc. ..	65 (32)	63 (34)	63 (34)	62 (34)	62 (32)
IV. Clothing, Hats, Boots, etc. ..	24 (12)	24 (12)	24 (12)	24 (11)	24 (11)
V. Books, Printing, etc. ..	15 (9)	15 (10)	15 (10)	15 (10)	15 (9)
VI. Other Manufacturing ..	79 (41)	76 (38)	77 (37)	77 (37)	76 (36)
VII. Building ..	51 (28)	51 (28)	51 (28)	51 (28)	51 (28)
VIII. Mining, Quarrying, etc. ..	18 (14)	16 (13)	16 (13)	16 (13)	17 (14)
IX. Railway and Tramway Services ..	52 (30)	51 (29)	51 (29)	51 (29)	51 (29)
X. Other Land Transport ..	12 (5)	11 (4)	11 (4)	11 (4)	10 (4)
XI. Shipping, etc. ..	59 (26)	57 (24)	57 (24)	55 (22)	55 (22)
XII. Pastoral, Agricultural, etc. ..	8 (3)	9 (4)	9 (4)	9 (4)	10 (6)
XIII. Domestic, Hotels, etc. ..	20 (15)	20 (15)	20 (16)	20 (16)	20 (15)
XIV. Miscellaneous—					
(i) Banking, Insurance and Clerical ..	30 (20)	31 (19)	31 (19)	30 (19)	30 (19)
(ii) Public Service ..	143 (45)	145 (46)	145 (45)	145 (45)	145 (45)
(iii) Retail and Wholesale ..	9 (7)	8 (7)	8 (7)	8 (7)	8 (7)
(iv) Municipal, Sewerage and Labouring ..	14 (13)	14 (13)	14 (13)	13 (12)	13 (11)
(v) Other Miscellaneous ..	100 (36)	108 (40)	108 (40)	107 (39)	108 (41)
<b>Total .. ..</b>	<b>780 (362)<sup>a</sup></b>	<b>780 (362)<sup>a</sup></b>	<b>781 (361)<sup>a</sup></b>	<b>775 (356)<sup>a</sup></b>	<b>775 (355)<sup>a</sup></b>

NUMBER OF MEMBERS.

<b>Manufacturing :—</b>					
I. Wood, Furniture, etc. ..	30,944	26,700	27,054	27,164	25,886
II. Engineering, Metal Works, etc. ..	79,081	74,316	72,883	69,244	73,393
III. Food, Drink, Tobacco, etc. ..	71,437	63,582	61,183	62,103	65,663
IV. Clothing, Hats, Boots, etc. ..	50,625	47,707	51,154	50,173	56,484
V. Books, Printing, etc. ..	19,822	18,703	18,128	18,113	18,285
VI. Other Manufacturing ..	44,742	42,553	40,578	42,577	43,720
VII. Building ..	59,629	52,041	52,582	52,936	53,140
VIII. Mining, Quarrying, etc. ..	42,405	36,037	32,846	30,166	36,560
IX. Railway and Tramway Services ..	106,968	92,292	91,889	90,521	91,035
X. Other Land Transport ..	18,211	17,595	17,158	16,408	13,566
XI. Shipping, etc. ..	38,050	36,039	32,994	32,691	29,363
XII. Pastoral, Agricultural, etc. ..	43,639	28,668	21,237	20,997	22,599
XIII. Domestic, Hotels, etc. ..	25,504	23,611	20,993	20,849	19,585
XIV. Miscellaneous :—					
(i) Banking, Insurance and Clerical ..	31,140	30,222	28,420	27,884	33,947
(ii) Public Service ..	81,275	81,395	80,889	79,809	77,305
(iii) Retail and Wholesale ..	28,859	26,030	24,983	26,426	29,009
(iv) Municipal, Sewerage and Labouring ..	41,027	32,541	30,639	30,261	32,482
(v) Other Miscellaneous ..	42,399	38,374	35,221	41,076	40,515
<b>Total .. ..</b>	<b>855,757</b>	<b>769,006</b>	<b>740,831</b>	<b>739,398</b>	<b>762,567</b>

(a) Allowing for interstate duplication.

(iv) *Trade Unions—Numbers and Percentages of Male and Female Members—Australia.* The Census discloses the percentage of male and female employees (i.e., persons in "receipt of wages or salary," and persons "unemployed"), 20 years of age

and over, on the total male and female population, and by applying these percentages to the estimated total male and female population at the end of each year, an estimate of the number of adult employees of each sex in the year is obtained.

The following table shows separately for males and females (a) the number of members of trade unions; (b) the estimated number of employees 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, 1930 to 1934. The estimated number of employees includes all persons (over the age specified) 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:—

**TRADE UNIONS—NUMBER AND PERCENTAGES OF MALE AND FEMALE MEMBERS.—AUSTRALIA.**

Particulars.	1930.	1931.	1932.	1933.	1934.
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**MALES.**

Estimated No. of Adult Employees (20 years of age and over) .. .. .	1,313,000	1,321,000	1,330,000	1,344,290	1,393,155
No. of Members of Unions .. .. .	735,767	656,105	630,688	626,266	641,370
Percentage of Members on Estimated Number of Adult Employees .. .. .	56.0	49.7	47.4	46.6	46.0
Junior Workers (under 20) .. .. .	243,400	244,850	246,500	249,010	253,682

**FEMALES.**

Estimated No. of Adult Employees (20 years of age and over) .. .. .	311,600	314,600	317,250	321,500	363,255
No. of Members of Unions .. .. .	119,990	112,901	110,143	113,132	121,197
Percentage of Members on Estimated Number of Adult Employees .. .. .	38.5	35.9	34.7	35.2	33.4
Junior Workers (under 20) .. .. .	137,500	138,870	139,980	141,960	158,863

**TOTAL.**

Estimated Number of Adult Employees (20 years of age and over) .. .. .	1,624,600	1,635,600	1,647,250	1,665,790	1,756,410
Number of Members of Unions .. .. .	855,757	769,006	740,831	739,398	762,567
Percentage of Members on Estimated Number of Adult Employees .. .. .	52.7	47.0	45.0	44.4	43.4
Junior Workers (under 20) .. .. .	380,900	383,720	386,480	390,970	412,545

(v) *Interstate or Federated Unions.* The following table gives particulars as to the number and membership of interstate or federated unions in 1933 :—

INTERSTATE OR FEDERATED UNIONS.—AUSTRALIA, 1934.

Particulars.	Unions Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States. (a)	
Number of Unions ..	20	13	17	22	42	114
Number of Members ..	32,521	40,978	99,762	191,157	280,283	644,701

(a) Certain unions in this group have, in addition to branches in each of the six States, branches in the Northern Territory and the Federal Capital Territory.

It appears, therefore, that 114 out of the 355 separate associations and groups of associations in Australia are organized on an interstate basis. The membership of these 114 unions reaches 644,701 or 85 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 or 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, viz., 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, distribution, 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 ; (d) educational propaganda among unions. The Australasian Council

of Trade Unions is the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the Trade Union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the Annual International Labour Conference at Geneva.

The table below shows the number of metropolitan and district or local labour councils, together with the number of unions and branches of unions affiliated thereto in each State at the end of the year 1934 :—

**CENTRAL LABOUR ORGANIZATIONS.—NUMBER, AND UNIONS AFFILIATED, 1934.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	F.C.Ter.	Total.
Number of Councils	3	5	6	2	9	3	1	29
Number of Unions and Branch Unions affiliated ..	94	168	77	54	214	59	11	677

The figures given in the preceding table as to number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated to the local trades councils in the several towns in which they are represented.

Between the trade union and the central organization of unions may be classed certain State or district councils organized on trade lines, and composed of delegates from separate unions the interests of the members of which are closely connected by reason of the occupation of their members. Delegate councils of bakers, bread carters, and mill employees, or of unions connected directly or indirectly with the iron, steel, or brass trades, or with the building trades, may be so classed.

4. **Laws relating to Conditions of Labour.**—In Official Year Book No. 16, pp. 538 to 566, a conspectus was given of Labour Laws in force in Australia at the end of the year 1922, and of Acts and Regulations relating to Factories and Shops.

Information was contained in the same issue with regard to employment under Mining Acts, followed by a brief reference to Employers' Liability and Workmen's Compensation Acts and miscellaneous legislation relating to conditions of labour enacted by the States. A conspectus of the Tribunals for the Regulation of Wages and Conditions of Labour was also included.

## § 2. Employers' Associations.

1. **General.**—Recent investigations show that the spirit of association is no less manifest in the case of employers than in the case of workers. Associations for trade purposes merely are not included in the present chapter, which deals with those associations only whose members are united for their own protection, and for representation in cases before Arbitration Courts, Wages Boards and other wage-fixing tribunals. Associations of employers and employees are recognized under the Commonwealth Conciliation and Arbitration Act as well as under several State Acts, and organizations of these bodies may be registered.

The year 1922 was the first for which information was collected, and detailed particulars for that and subsequent years will be found in previous issues of the Official Year Book and in the Labour Reports.

2. **Employers' Associations in each State.**—The following table gives particulars of the number of employers' associations in each State at the end of the years 1930 to 1934 :—

## EMPLOYERS' ASSOCIATIONS.

Year.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	Total.
NUMBER OF ASSOCIATIONS.							
1930 .. ..	146	152	83	58	66	29	534
1931 .. ..	148	157	85	60	67	30	547
1932 .. ..	148	158	85	60	68	30	549
1933 .. ..	140	153	80	58	62	28	521
1934 .. ..	(a) 134	157	74	60	54	26	505
NUMBER OF BRANCHES.							
1930 .. ..	930	495	197	12	297	7	1,938
1931 .. ..	906	465	197	18	306	7	1,899
1932 .. ..	907	461	185	18	297	10	1,878
1933 .. ..	897	508	189	15	288	8	1,905
1934 .. ..	810	520	135	15	301	8	1,789
MEMBERSHIP.							
1930 .. ..	56,430	37,790	18,791	7,218	11,723	2,717	134,669
1931 .. ..	55,417	37,389	18,807	7,311	10,969	2,535	132,428
1932 .. ..	54,005	37,342	18,929	6,656	10,189	2,504	129,625
1933 .. ..	56,384	37,929	18,721	6,452	10,311	2,391	132,188
1934 .. ..	a 58,387	38,276	18,943	6,765	10,464	2,095	134,930

(a) Includes 1 association in Federal Capital Territory.

There has been a large increase in the number of branches since the year 1926, due to the inclusion of associations representing agricultural interests, while the increase in total membership is partly attributable to a more complete collection of statistics relating to these organizations.

3. **Employers' Associations in Industrial Groups.**—The figures in the following table refer to Australia at the end of the years 1933 and 1934 :—

## EMPLOYERS' ASSOCIATIONS.—INDUSTRIAL GROUPS, AUSTRALIA.

Class.	Number of Associations.		Number of Branches.		Membership.	
	1933.	1934.	1933.	1934.	1933.	1934.
Manufacturing :—						
I. Wood, Furniture, etc. ..	20	20	4	4	1,272	1,048
II. Engineering, etc. ..	14	12	12	12	3,439	2,308
III. Food, Drink, etc. ..	108	106	87	86	18,982	21,634
IV. Clothing, Hats, etc. ..	20	17	2	2	1,739	1,210
V. Books, Printing, etc. ..	40	39	3	3	2,805	3,015
VI. Other Manufacturing ..	51	48	2	2	3,720	3,601
VII. Building .. ..	30	29	12	12	2,637	2,176
VIII. Mining, Quarrying, etc. ..	11	10	..	..	276	240
X. Other Land Transport ..	16	15	21	21	2,178	2,042
XI. Shipping, etc. ..	16	15	3	3	254	237
XII. Pastoral, Agricultural, etc.	48	48	1,727	1,612	77,675	81,352
XIII. Domestic, Hotels, etc. ..	15	15	..	..	1,722	1,799
XIV. Miscellaneous .. ..	132	131	32	32	15,489	14,268
Total .. ..	521	505	1,905	1,789	132,188	134,930



The female membership of these associations was 4,927 for 1933, and 6,006 for 1934.

The organization of employers is relatively strongest in the pastoral and agricultural industries and in the manufacture and distribution of articles of food and drink. In the former case there has been considerable growth in organization among small farmers, and in the latter, the number of small shops purveying foodstuffs of which the proprietors are members of grocers', butchers', and other similar associations accounts for the large membership.

4. **Federations of Employers' Associations.**—In addition to the associations in various industries, there are central associations in each State, to which many of these separate organizations are affiliated. Examples of this kind of association are provided in the Chamber of Manufactures, Chamber of Commerce, and Employers' Federation in each State. Further, these State associations are, in some cases, organized on a federal basis, e.g., there is an Associated Chamber of Manufactures, an Associated Chamber of Commerce, or a Central Council of Employers, to which State branches are affiliated.

The affiliation of these associations is, however, of a very loose nature when compared with that of the Federated Trade Unions. Whereas in the latter case the central body has complete control of its State branches, in the case of the Employers' Associations each State body enjoys complete independence, the central body acting in a more or less advisory capacity only.

The following table gives particulars, so far as can be ascertained, of interstate or federated associations having branches in two or more States from 1930 to 1934 :—

#### INTERSTATE OR FEDERATED EMPLOYERS' ASSOCIATIONS.

Year.	Associations Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States.	
<b>NUMBER OF ASSOCIATIONS.</b>						
1930	4	3	4	12	16	39
1931	5	4	4	13	19	45
1932	5	4	4	13	19	45
1933	6	4	5	14	16	45
1934	4	2	12	8	17	43
<b>NUMBER OF MEMBERS.</b>						
1930	1,169	339	975	61,327	43,303	107,113
1931	1,190	359	741	61,813	42,871	106,974
1932	1,132	323	842	59,993	40,872	103,162
1933	1,354	290	1,118	60,144	35,299	104,205
1934	2,438	56	44,745	22,947	34,026	104,212

The above table shows that associations having 77 per cent. of the total membership of employers' organizations are grouped together on an interstate basis.

#### E.—COMPARATIVE INDEX-NUMBERS.

In order to show the relative movements of certain price and related data the following table of annual and quarterly index-numbers for the six capital cities combined has been compiled with a common base 1911 = 1,000.

COMPARATIVE INDEX-NUMBERS FOR THE SIX CAPITAL CITIES COMBINED.

Base(a) of each Section—Weighted Average of Six Capitals 1911 = 1,000.

Period.	Food and Groceries.	Rent.		Food and Rent.		All Items of Household Expenditure.	Wholesale Prices Melbourne.	Nominal Wages, Adult Males.	Real Wages. (b)	Percentage of Unemployment among Trade Unionists.
		All Houses.	4 and 5 Rooms.	All Houses.	4 and 5 Rooms.					
Year—						(c) 1,000	1,000	1,000	1,000	%
1911 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	4.7
1914 ..	1,144	1,135	1,082	1,140	1,121	1,140	1,149	1,081	948	3.3
1918 ..	1,514	1,143	1,181	1,362	1,405	1,501	1,934	1,270	932	5.8
1919 ..	1,716	1,215	1,256	1,510	1,617	1,695	2,055	1,370	907	6.6
1920 ..	2,101	1,333	1,392	1,785	1,873	1,935	2,480	1,627	911	6.5
1921 ..	1,902	1,404	1,410	1,697	1,717	1,680	1,903	1,826	1,076	11.2
1928 ..	1,761	1,758	1,743	1,760	1,755	1,675	1,792	1,963	1,115	10.8
1929 ..	1,866	1,760	1,754	1,822	1,824	1,713	1,803	1,972	1,082	11.1
1930 ..	1,682	1,685	1,711	1,683	1,693	1,618	1,596	1,939	1,152	19.3
1931 ..	1,477	1,483	1,473	1,479	1,475	1,448	1,428	1,752	1,185	27.4
1932 ..	1,425	1,374	1,336	1,403	1,390	1,377	1,411	1,639	1,168	29.0
1933 ..	1,342	1,356	1,314	1,345	1,329	1,335	1,409	1,584	1,178	25.1
1934 ..	1,397	1,365	1,324	1,385	1,371	1,355	1,468	1,590	1,148	20.5
Quarter—										
1925.										
1st Qtr.	1,737	1,633	1,644	1,694	1,702	1,642	1,848	1,840	1,086	9.3
2nd "	1,784	1,633	1,647	1,722	1,733	1,654	1,826	1,846	1,072	10.2
3rd "	1,810	1,622	1,644	1,732	1,747	1,662	1,847	1,869	1,079	7.9
4th "	1,810	1,640	1,653	1,740	1,751	1,661	1,856	1,887	1,084	8.1
1926.										
1st Qtr.	1,808	1,719	1,670	1,771	1,756	1,667	1,841	1,892	1,068	8.2
2nd "	1,888	1,727	1,679	1,822	1,810	1,699	1,892	1,904	1,045	6.7
3rd "	1,820	1,726	1,678	1,781	1,766	1,675	1,832	1,922	1,079	7.6
4th "	1,803	1,726	1,680	1,771	1,757	1,669	1,764	1,938	1,094	5.7
1927.										
1st Qtr.	1,782	1,723	1,673	1,758	1,741	1,656	1,737	1,944	1,106	6.9
2nd "	1,758	1,721	1,678	1,743	1,728	1,648	1,743	1,942	1,114	5.4
3rd "	1,794	1,746	1,690	1,774	1,755	1,666	1,882	1,944	1,096	6.7
4th "	1,820	1,746	1,694	1,789	1,773	1,678	1,904	1,955	1,093	8.9
1928.										
1st Qtr.	1,771	1,765	1,744	1,768	1,761	1,675	1,840	1,966	1,112	10.7
2nd "	1,784	1,760	1,745	1,774	1,769	1,684	1,820	1,963	1,107	11.2
3rd "	1,745	1,752	1,741	1,748	1,744	1,670	1,764	1,963	1,123	11.4
4th "	1,746	1,752	1,742	1,749	1,744	1,670	1,744	1,959	1,120	9.9
1929.										
1st Qtr.	1,859	1,763	1,758	1,820	1,821	1,713	1,788	1,958	1,076	9.3
2nd "	1,865	1,759	1,753	1,821	1,823	1,713	1,794	1,977	1,086	10.0
3rd "	1,867	1,761	1,754	1,823	1,824	1,713	1,834	1,979	1,086	12.1
4th "	1,873	1,755	1,751	1,825	1,827	1,712	1,799	1,974	1,082	13.1
1930.										
1st Qtr.	1,751	1,752	1,782	1,752	1,763	1,670	1,680	1,973	1,126	14.6
2nd "	1,734	1,724	1,744	1,730	1,738	1,653	1,667	1,956	1,131	18.5
3rd "	1,673	1,662	1,692	1,668	1,680	1,607	1,599	1,939	1,162	20.5
4th "	1,568	1,600	1,625	1,582	1,590	1,542	1,438	1,887	1,193	23.4
1931.										
1st Qtr.	1,533	1,557	1,560	1,546	1,546	1,500	1,453	1,814	1,173	25.8
2nd "	1,496	1,507	1,501	1,501	1,498	1,464	1,437	1,764	1,175	27.6
3rd "	1,435	1,464	1,447	1,447	1,439	1,423	1,406	1,735	1,199	28.3
4th "	1,439	1,406	1,382	1,425	1,418	1,406	1,418	1,694	1,189	28.0
1932.										
1st Qtr.	1,465	1,391	1,358	1,435	1,425	1,403	1,434	1,680	1,171	28.3
2nd "	1,448	1,378	1,345	1,419	1,409	1,389	1,410	1,672	1,178	30.0
3rd "	1,416	1,367	1,327	1,395	1,381	1,370	1,418	1,608	1,153	29.6
4th "	1,369	1,359	1,314	1,363	1,346	1,346	1,384	1,597	1,172	28.1
1933.										
1st Qtr.	1,317	1,357	1,318	1,330	1,314	1,327	1,336	1,585	1,192	26.5
2nd "	1,337	1,354	1,314	1,342	1,326	1,334	1,401	1,595	1,189	25.7
3rd "	1,359	1,355	1,311	1,355	1,339	1,340	1,467	1,587	1,171	25.1
4th "	1,355	1,357	1,311	1,354	1,336	1,337	1,432	1,570	1,160	23.0
1934.										
1st Qtr.	1,371	1,360	1,315	1,365	1,348	1,344	1,456	1,572	1,152	21.9
2nd "	1,404	1,365	1,319	1,387	1,371	1,353	1,463	1,592	1,148	20.9
3rd "	1,401	1,367	1,331	1,387	1,375	1,357	1,492	1,596	1,151	20.4
4th "	1,422	1,368	1,332	1,400	1,388	1,361	1,474	1,599	1,142	18.8

(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) Calculated by "All Houses" ("A" Series) Index (Food and Rent of All Houses).

(c) Taken back from true base (November, 1914) by means of the Food and Rent ("All Houses") Index.

## CHAPTER XV. 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. Commencing with that issue, however, a separate chapter is devoted to the subject of Private Finance which is subdivided into the following sections :—

Banking, including Savings Banks ;  
Companies ;  
Insurance ;  
Friendly Societies ; and  
Probates.

### B. BANKING.

#### § 1. Cheque-Paying Banks.

1. **Banking Legislation.**—(i) *Commonwealth Legislation.* Under Section 51 of the *Commonwealth Constitution Act*, the Commonwealth Parliament has power to legislate with respect to "Banking, other than State banking, also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money." Legislation under this authority comprises the following Acts: No. 27 of 1909, dealing with Bills of Exchange, Cheques, and Promissory Notes; No. 11 of 1910, dealing with Australian Notes; and No. 14 of 1910, a Bank Notes Tax Act. The Notes Act and the Bank Notes Tax Act were supplemented in the following year by the passing of Act No. 18 of 1911, "*An Act to provide for a Commonwealth Bank*," which passed both Houses and was assented to on 22nd December, 1911. The *Commonwealth Bank Act 1924*, assented to on 20th August, 1924, and brought into operation on the 10th October, 1924, provided for a broadening of the scope of the Commonwealth Bank. Several amendments to the original Act were included in this measure and a further amendment in 1927 provided for the separation of the Savings Bank from the General Bank.

Legislation passed in 1931 authorized the Commonwealth Bank to ship sufficient gold to London to meet Treasury Bills, and power was conferred upon the Bank by an Act of 1932 to hold gold or sterling, or both, as a reserve against the note issue.

(ii) *State Legislation.* The Acts under which the various banks are incorporated differ somewhat. While most of the older banks were incorporated by special Act or Charter, e.g., the Bank of New South Wales, by Act of Council 1817; the Bank of Australasia, by Royal Charter; the Bank of Adelaide, by Act of the South Australian Parliament; and the Bank of New Zealand, by Act of the General Assembly of New Zealand, the newer banks are generally registered under a "Companies Act," or some equivalent Act. This is also the case with those banks which, after the crisis of 1893, were reconstructed. Banks transacting business in any State are obliged under the existing State laws to furnish a quarterly statement of their assets and liabilities, and they have since the year 1908 furnished to the Commonwealth Statistician under the *Census and Statistics Act 1905-1930* quarterly statements which contain the average of the thirteen weekly statements prepared by each bank. These returns form the basis on which the statistics included herein have been compiled.

2. **Presentation of Banking Statistics.**—In presenting statistical tabulations relating to average liabilities and assets, it is considered desirable to show the figures for the Commonwealth Bank separately from those of other Cheque-paying Banks. The aggregate business of all trading banks is, however, given in additional paragraphs. Previously it was customary to show separate figures for each State, but this practice has now been discontinued. The figures quoted in all cases refer to the average liabilities and assets within the Commonwealth of Australia.

CHEQUE-PAYING BANKS.

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3. Banks in Operation, Capital Resources, etc.—(i) Year 1934. The paid-up capital of Cheque-paying Banks, together with their reserve funds, the dividend rate per cent., and the amount of their last dividends are shown in the following table. The information relates to the balance-sheet last preceding the 30th June, 1934. In regard to the reserve funds it must be noted that in the case of some of the banks these are invested in Government securities, while in other cases they are used in the ordinary business of the banks, and in a few instances they are partly invested and partly used in business :—

CHEQUE-PAYING BANKS.—CAPITAL RESOURCES, 30TH JUNE, 1934.

Bank.	Paid-up Capital.	Reserves.	Balance on Profit and Loss Account.	Total Shareholders' Funds.	Reserve Liability of Shareholders.	Dividends.	
						Amount for year.	Average Rate per cent.
	£	£	£	£	£	£	%
<b>Australian Joint-Stock Banks—</b>							
Bank of New South Wales ..	8,780,000	6,150,000	226,085	15,156,085	8,780,000	439,000	5
Commercial Banking Co. of Sydney Ltd.	4,739,012	4,300,000	237,828	9,276,840	4,739,013	236,950	5
National Bank of Australasia Ltd. ..	5,000,000	3,300,000	276,919	8,576,919	1,800,000	250,000	5
Commercial Bank of Australia Ltd. ..	4,117,350	2,250,000	176,059	6,543,409	..	184,694	4 Pref. 5 Ord.
Ballarat Banking Co. Ltd. ..	153,000	93,500	14,394	260,894	87,000	7,650	5
Queensland National Bank Ltd. ..	1,750,000	860,000	54,095	2,664,095	..	70,000	4
Brisbane Permanent Building and Banking Co. Ltd. ..	682,600	177,803	17,973	878,376	..	27,304	4
Bank of Adelaide ..	1,250,000	1,000,000	73,796	2,323,796	1,250,000	50,000	4
Bank of Australasia ..	4,500,000	4,475,000	310,166	9,285,166	4,500,000	253,125 (f)	5½
Union Bank of Australia Ltd. ..	4,000,000	4,850,000	224,032	9,074,032	8,000,000	200,000	5
English, Scottish and Australian Bank Ltd.	3,000,000	3,235,000	405,747	6,640,747	2,000,000	150,000	5
<b>Total Australian Joint-Stock Banks</b>	<b>37,971,962</b>	<b>30,691,303</b>	<b>2,017,094</b>	<b>70,680,359</b>	<b>31,156,013</b>	<b>1,868,723</b>	<b>..</b>
<b>Other Cheque-paying Banks—</b>							
<b>Commonwealth Bank of Australia—</b>							
General Bank ..	4,000,000	1,812,191	..	5,812,191	..	..	..
Rural Credits ..	2,000,000	277,815	..	2,277,815	..	..	..
Rural Bank of New South Wales (e) ..	a 13,692,640	606,783	..	14,299,423	..	..	..
State Bank of South Australia ..	b 1,809,000	..	..	1,809,000	..	..	..
<b>Total Australian Banks</b>	<b>59,473,602</b>	<b>33,388,092</b>	<b>2,017,094</b>	<b>94,878,788</b>	<b>31,156,013</b>	<b>1,868,723</b>	<b>..</b>
<b>Bank of New Zealand ..</b>	<b>6,858,113</b>	<b>3,575,000</b>	<b>624,468</b>	<b>11,057,581</b>	<b>..</b>	<b>574,219</b>	<b>(c)</b>
Comptoir National d'Escompte de Paris d ..	3,225,806	3,531,000	431,178	7,187,984	..	322,580	10
Yokohama Specie Bank Ltd.d	10,000,000	12,275,000	1,475,694	23,750,694	..	1,000,000	10
<b>Grand Total ..</b>	<b>79,557,521</b>	<b>52,769,092</b>	<b>4,548,434</b>	<b>136,875,047</b>	<b>31,156,013</b>	<b>3,765,522</b>	<b>..</b>

(a) Stock and debentures issued. (b) Capital advanced by Government of South Australia and Sale of Bonds. (c) Preference "A," 10 per cent.; Preference "B," 7 3/11 per cent.; "C," Long Term Mortgage, 6 per cent.; "D" Long Term Mortgage, 7 1/2 per cent., Ordinary, 10 per cent.; and Guaranteed Stock, 4 per cent. (d) Approximate. (e) See letterpress (ii) (a) following. (f) 7 1/2 per cent. less British Income Tax of 5s. in £.

(ii) *Suspension of Payments.* (a) *Rural Bank Department, Government Savings Bank of New South Wales.*—Particulars regarding the suspension of payments by the Government Savings Bank of New South Wales in 1931 and its subsequent absorption were given in Official Year Book No. 26, page 437. Steps for the rehabilitation of the Rural Bank Department reached fruition in December, 1932, when assent was given to an Act (No. 63, 1932) which provided for the reconstitution of the Government Savings Bank under the new title of "Rural Bank of New South Wales". It also provided for the creation of a Government Agency Department and conferred on the bank certain powers of management and of borrowing, etc.

(b) *Primary Producers' Bank of Australia Ltd.* On the 24th August, 1931, the Primary Producers' Bank of Australia Ltd. was forced to close and at the end of September, 1931, steps were taken for the winding up of the bank's business.

(iii) *Amalgamations.* The amalgamation of the Australian Bank of Commerce Ltd. with the Bank of New South Wales became effective from the 17th November, 1931.

On the 12th November, 1931, the Brisbane Permanent Building and Banking Co. Ltd., and the Queensland Deposit Bank amalgamated, and in March, 1932, the Brisbane Permanent Building and Banking Co. Ltd. absorbed the Federal Deposit Bank which had suspended payments in September, 1931.

4. *Commonwealth Bank.*—(i) *General.* A brief account of the foundation of the Commonwealth Bank was given in Nos. 6 to 10 of the Official Year Book. Although Savings Bank business was transacted in some States from July, 1912, the Bank was formally opened for general and Savings Bank business on the 20th January, 1913, and as no capital was advanced and the initial expenses were heavy, the operations in the early years resulted in a small loss. The increasing prosperity of the institution due to Savings Bank business, the holding of Government accounts and the stimulus of War finance soon enabled the early deficits to be reduced until on 30th June, 1915, they were entirely extinguished.

An important stage in the history of the Bank was the passing of the *Commonwealth Bank Act 1924*, which was assented to on the 20th August, 1924, and brought into operation on the 10th October, 1924. This Act was passed to broaden the scope of the Commonwealth Bank and to enable it to perform the functions for which it had been established. Five main amendments to the Bank Act 1911-1920 were included, in accordance with which the following changes were made:—(1.) A Board of Directors was appointed to control not only the general business, but also that of the note issue. The Board consists of the Governor of the Bank, the Secretary to the Treasury, and six others who are or have been actively engaged in agriculture, commerce, finance or industry. In addition to the above Board there is a Board of Advice in London. (2.) The Bank was strengthened by the capitalization of £4,000,000 of the accumulated profits, and the Treasurer was authorized to raise by loans sums aggregating £6,000,000 and to lend the proceeds to the Commonwealth Bank as additional capital. The authority already included in the Commonwealth Bank Act to issue debentures up to £10,000,000 remains unaltered. (3.) The Board is to fix and publish its discount rate. (4.) The associated banks settle their exchanges through the Commonwealth Bank. (5.) The associated banks supply to the Treasurer each quarter a statement of average weekly liabilities and assets in accordance with the schedule prescribed. 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 has played a most important part in the financing of Government deficits during the years 1930-31 to 1934-35. References to this aspect of its business are given in the Appendix (see under "Financial Crisis"). It may be mentioned here that in December, 1931, the Bank Board undertook the responsibility of regulating sterling exchange and announcing rates each week.

A further amending act—The *Commonwealth Bank Act 1927*—provided for the separation of the Savings Bank Department from the General Bank and its establishment as a separate institution, and the transfer to the “Commonwealth Savings Bank of Australia” of all assets and liabilities of the Savings Bank Department. The date on which this amending act became operative was fixed by proclamation as the 9th June, 1928.

The amount of capital and reserves at the date of separation was allocated as follows, Commonwealth Bank of Australia, Capital £4,000,000; Reserve Fund, £303,857; Commonwealth Savings Bank of Australia, Reserve Fund, £1,075,298.

Since the 1st July, 1927, the Bank has published a weekly statement of the accounts of the note issue and general banking departments of the Bank.

Particulars of the aggregate net profits from the initiation of the Bank to the end of each of the last five financial years are as follow :—

**COMMONWEALTH BANK.—AGGREGATE PROFITS.**

Date.	Aggregate Net Profit to Date.			
	General Bank.	Savings Bank.	Rural Credits Department.	Total.
	£	£	£	£
30th June, 1930 ..	5,868,398	2,288,389	179,337	8,336,124
“ 1931 ..	6,502,217	2,522,576	265,890	9,290,683
“ 1932 ..	6,943,943	2,781,996	328,078	10,054,017
“ 1933 ..	7,318,425	3,052,511	370,962	10,741,898
“ 1934 ..	7,755,163	3,329,950	430,530	11,515,643

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, 1934, the latter fund had benefited to the extent of £3,340,563.

(ii) *Liabilities in Australia, 1934-35.* The following table gives particulars of the average liabilities for each quarter from September, 1934, to June, 1935 :—

**COMMONWEALTH BANK OF AUSTRALIA.—LIABILITIES,  
QUARTERLY AVERAGES.**

Quarter Ended—	Bills in Circulation.	Balances Due to Other Banks. (b)	Deposits.			Total Liabilities.
			Not Bearing Interest.(a)	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£
30.9.34 ..	252,687	36,558,607	10,389,996	30,963,689	41,353,685	78,164,979
31.12.34..	236,767	31,358,303	10,529,614	33,061,254	43,590,868	75,185,938
31.3.35 ..	265,183	26,139,940	9,882,064	33,726,624	43,608,688	70,013,811
30.6.35 ..	227,964	23,681,964	11,757,699	33,542,161	45,299,860	69,209,788

(a) Government “Set-off” Accounts (Interstate) deducted.

(b) Includes deposits of “Other Cheque-paying Banks”.

(iii) *Liabilities in Australia, June Quarter, 1931 to 1935.* The average liabilities for the June quarter of the years 1931 to 1935 are given in the table below. In any comparisons with previous years, it should be noted that the Savings Bank Department operated independently from the 9th June, 1928.

**COMMONWEALTH BANK OF AUSTRALIA.—AVERAGE LIABILITIES, JUNE QUARTERS.(c)**

Quarter Ended 30th June—	Bills in Circulation.	Balances Due to Other Banks. (b)	Deposits.			Total Liabilities.
			Not Bearing Interest.(a)	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£
1931 ..	265,871	32,234,744	8,425,860	14,785,744	23,211,604	55,712,219
1932 ..	449,679	29,119,080	8,006,629	26,609,760	35,216,389	64,785,148
1933 ..	1,416,206	23,553,055	6,336,555	33,088,720	39,425,275	64,394,536
1934 ..	317,141	38,367,104	12,374,013	28,589,797	40,963,810	79,648,055
1935 ..	227,964	23,681,964	11,757,699	33,542,161	45,299,860	69,209,788

(a) Government "Set-off" Accounts (Interstate) deducted. (b) Includes deposits of "Other Cheque-paying Banks". (c) Excluding Commonwealth Savings Bank.

(iv) *Assets in Australia, 1934-35.* The average assets for each quarter of the year 1934-35 were as follow :—

**COMMONWEALTH BANK OF AUSTRALIA.—ASSETS, QUARTERLY AVERAGES.**

Quarter Ended—	Coin.	Bullion.	Australian Notes.	Government and Municipal Securities. (a)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Discounts, Overdrafts, and all other Assets (not including Contingent Assets).	Total Assets.
	£	£	£	£	£	£	£	£	£
30. 9. 34	681,859	144,711	5,899,884	46,948,404	889,932	63,710	6,915	6,842,131	61,477,546
31. 12. 34	590,847	128,298	5,069,865	48,579,801	824,327	88,102	20,116	6,792,267	62,093,623
31. 3. 35	709,546	134,592	5,384,502	48,850,229	875,336	75,033	26,367	7,533,199	63,588,804
30. 6. 35	660,426	152,345	5,010,741	43,837,601	873,892	94,949	9,753	7,448,841	58,088,548

(a) Includes short-term loans in Australia. Government "Set-off" Accounts (Interstate) deducted.

(v) *Assets in Australia, June Quarter, 1931 to 1935.*—Particulars of the assets for the June quarter of the last five years are given in the following table :—

**COMMONWEALTH BANK OF AUSTRALIA.—AVERAGE ASSETS, JUNE QUARTERS.(a)**

Quarter Ended 30th 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.	Discounts, Overdrafts, and all other Assets (not including Contingent Assets).	Total Assets.
	£	£	£	£	£	£	£	£	£
1931 ..	537,291	29,649	4,136,174	39,977,658	683,075	127,289	10,614	13,113,024	58,614,774
1932 ..	850,787	67,508	6,028,267	36,548,954	928,096	648,350	6,375	11,792,021	56,870,358
1933 ..	843,572	87,834	5,602,312	47,001,964	939,279	92,514	6,458	7,108,522	61,682,455
1934 ..	726,573	111,262	6,386,613	45,579,777	910,979	83,506	8,426	6,919,074	60,726,210
1935 ..	660,426	152,345	5,010,741	43,837,601	873,892	94,949	9,753	7,448,841	58,088,548

(a) Excludes Commonwealth Savings Bank. (b) Includes short-term loans in Australia. Government "Set-off" Accounts (Interstate) deducted.

5. Other Cheque-Paying Banks.—(i) *General.* The term "Other Cheque-paying Banks" has been adopted in preference to "Joint-stock Banks." The latter term, although used for some time, was not strictly correct, as the statistics relating thereto for recent years included returns for the Rural Bank Department of the Government Savings Bank of New South Wales (now Rural Bank of New South Wales) and the State Bank of South Australia, both of which are governmental banking institutions. The figures showing average liabilities and assets given in paragraphs (ii) to (v) immediately following are, however, comparable with those given under "Joint-stock Banks" in previous issues of the Official Year Book.

(ii) *Liabilities in Australia, 1934-35.* Particulars of the average liabilities of "Other Cheque-paying Banks" for each quarter from September, 1934, to June, 1935, 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.	Total.	
	£	£	£	£	£	£	£
30.9.34	170,207	2,440,334	1,165,253	97,952,928	198,200,802	296,153,730	299,929,524
31.12.34	169,865	2,613,447	1,367,728	103,384,202	194,864,980	298,249,182	302,400,222
31.3.35	169,085	2,555,823	1,334,581	106,596,023	192,557,358	299,153,381	303,212,875
30.6.35	169,063	2,560,738	1,253,127	107,329,157	190,719,845	298,049,002	302,031,930

(iii) *Liabilities in Australia, June Quarters, 1931 to 1935.* The next table shows the average liabilities of "Other Cheque-paying Banks" for the quarters ended 30th June, 1931 to 1935.

**OTHER CHEQUE-PAYING BANKS.—AVERAGE LIABILITIES, JUNE QUARTERS.**

Quarter Ended 30th 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.	Total.	
	£	£	£	£	£	£	£
1931 ..	198,478	2,330,632	1,727,353	82,620,931	195,855,323	278,476,254	282,732,717
1932 ..	197,121	2,131,777	1,398,712	87,830,372	196,194,572	284,024,944	287,752,554
1933 ..	180,937	2,161,091	1,706,020	89,463,673	190,887,142	280,350,815	284,398,863
1934 ..	173,590	2,376,476	1,525,842	101,853,623	201,217,703	303,071,326	307,147,234
1935 ..	169,063	2,560,738	1,253,127	107,329,157	190,719,845	298,049,002	302,031,930

(iv) *Assets in Australia, 1934-35.* The average assets of the banks are shown in the following table:—

**OTHER CHEQUE-PAYING BANKS.—ASSETS, QUARTERLY AVERAGES.**

Quarter Ended—	Coin.	Bullion.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities.	Landed and House Property.	Balances Due from and Other Banks.	Notes and Bills of Other Banks.	Discounts, Over-drafts, and all other Assets.	Total Assets.
	£	£	£	£	£	£	£	£	£
30.9.34..	1,620,152	254,292	50,199,301	51,902,863	8,346,283	3,965,614	1,587,572	261,096,035	378,972,112
31.12.34	1,656,405	246,196	45,547,230	51,715,481	8,364,053	4,122,995	1,777,302	267,389,678	380,819,340
31.3.35..	1,745,284	168,570	40,350,748	54,817,758	8,606,060	3,193,208	1,778,540	268,506,492	379,167,260
30.6.35..	1,613,969	292,474	37,243,782	53,648,677	8,753,818	2,927,431	1,830,622	273,182,595	379,493,368



(v) *Assets in Australia, June Quarter, 1931 to 1935.* The average assets of the banks for the June quarters of each of the years 1931 to 1935 are given below :—

**OTHER CHEQUE-PAYING BANKS.—AVERAGE ASSETS, JUNE QUARTER.**

June Quarter.	Gold and Silver and Other Metals, Coin, Bullion or Bars.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities.	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Discounts, Overdrafts, and all Other Assets.	Total Assets.
	£	£	£	£	£	£	£	£
1931	1,978,535	51,314,263	22,674,055	8,347,211	5,110,114	1,362,381	263,471,760	354,258,319
1932	1,963,731	47,933,637	44,349,844	8,242,407	5,528,715	1,295,806	249,125,494	358,439,724
1933	1,875,381	39,536,446	53,454,043	8,124,229	4,771,710	1,421,115	252,804,616	361,987,540
1934	1,886,070	51,972,774	53,041,964	8,285,489	4,089,342	1,592,633	255,796,072	376,664,344
1935	1,906,443	37,243,782	53,648,677	8,753,818	2,927,431	1,830,622	273,182,595	379,493,368

6. All Cheque-paying Banks.—(i) *General.* Particulars of the aggregate average liabilities and assets of all Cheque-paying Banks in the Commonwealth, including the Commonwealth Bank of Australia, are given in the subjoined paragraphs.

(ii) *Liabilities in Australia, 1934-35.* The average liabilities of all Cheque-paying Banks for each quarter of the year 1934-35 were as follow :—

**ALL CHEQUE-PAYING BANKS.—LIABILITIES—QUARTERLY AVERAGES.**

Quarter ended—	Notes in Circulation.	Bills in Circulation.	Balances Due to Other Banks.(b)	Deposits.			Total Liabilities.
				Not Bearing Interest.(a)	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£	£
30.9.34 ..	170,207	2,693,021	37,723,860	108,342,924	229,164,491	337,507,415	378,094,503
31.12.34 ..	169,865	2,850,214	32,726,031	113,913,816	227,926,234	341,840,050	377,586,160
31.3.35 ..	169,085	2,821,011	27,474,521	116,478,087	226,283,982	342,762,069	373,262,686
30.6.35 ..	169,063	2,788,702	24,935,091	119,086,856	224,262,006	343,348,862	371,241,718

(a) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted. (b) Deposits of Other Cheque-paying Banks with Commonwealth Bank are treated in returns as "Balances due to Other Banks".

(iii) *Liabilities in Australia, June Quarters, 1931 to 1935.* The next table shows the average liabilities in Australia for the June quarter of the years 1931 to 1935.

**ALL CHEQUE-PAYING BANKS.—AVERAGE LIABILITIES, JUNE QUARTERS.**

Quarter Ended 30th June—	Notes in Circulation.	Bills in Circulation.	Balances due to Other Banks. (b)	Deposits.(a)			Total Liabilities.
				Not Bearing Interest.(c)	Bearing Interest.	Total.	
	£	£	£	£	£	£	£
1931 ..	198,478	2,596,503	33,962,097	91,046,791	210,641,067	301,687,858	338,444,936
1932 ..	197,121	2,581,456	30,517,792	96,437,001	222,804,332	319,241,333	352,537,702
1933 ..	180,937	3,577,297	25,259,075	95,800,228	223,975,862	319,776,090	348,793,399
1934 ..	173,590	2,693,617	39,892,946	114,227,636	229,807,500	344,035,136	386,795,289
1935 ..	169,063	2,788,702	24,935,091	119,086,856	224,262,006	343,348,862	371,241,718

(a) Excludes deposits with the Commonwealth Savings Bank, which was created a separate department of the Commonwealth Bank on 9th June, 1928. (b) Deposits of Other Cheque-paying Banks with Commonwealth Bank are treated in returns as "Balances due to Other Banks." (c) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted.

(iv) *Assets in Australia, 1934-35.* Particulars of the average assets in Australia for each quarter from September, 1934, to June, 1935, are given in the following table:—

ALL CHEQUE-PAYING BANKS.—ASSETS, QUARTERLY AVERAGES.

Quarter Ended—	Coin.	Bullion.	Australian Notes and Cash with Commonwealth Bank.	Government and Municipal Securities. (a)	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Discounts, Overdrafts, and all other Assets (not including Contingent Assets).	Total Assets.
	£	£	£	£	£	£	£	£	£
30.9.34..	2,302,011	399,003	56,099,185	98,851,267	9,236,215	4,029,324	1,594,487	267,938,166	440,449,658
31.12.34	2,247,252	374,494	50,617,095	100,295,282	9,188,380	4,211,097	1,797,418	274,181,945	442,912,963
31.3.35..	2,454,830	303,162	45,735,250	103,667,987	9,481,996	3,268,241	1,804,907	276,039,691	442,756,064
30.6.35..	2,274,395	444,819	42,254,523	97,486,278	9,627,710	3,022,380	1,840,375	280,631,436	437,581,916

(a) Includes short-term loans in Australia. Government "Set-off" Accounts Interstate (Commonwealth Bank) deducted.

(v) *Assets in Australia, June Quarters, 1931 to 1935.* The average assets in Australia for the June quarters of the years 1931 to 1935 were as follow:—

ALL CHEQUE-PAYING BANKS.—AVERAGE ASSETS, JUNE QUARTERS.

Quarter ended 30th 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 and all other Assets.	Total Assets.
	£	£	£	£	£	£	£	£
1931..	2,545,475	55,450,437	62,651,713	9,030,286	5,237,403	1,372,995	276,584,784	412,873,093
1932..	2,882,026	53,961,904	80,898,798	9,170,593	6,177,065	1,302,181	260,917,515	415,310,082
1933..	2,806,787	45,138,758	100,456,007	9,063,508	4,864,224	1,427,573	259,913,138	423,669,995
1934..	2,723,905	58,359,387	98,621,741	9,196,468	4,172,848	1,601,059	262,715,146	437,390,554
1935..	2,719,214	42,254,523	97,486,278	9,627,710	3,022,380	1,840,375	280,631,436	437,581,916

(a) Includes Cash with Commonwealth Bank. (b) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted. Short term loans in Australia included.

(vi) *Cash Reserves Ratios.*—The following table shows for the June quarters of the years 1926 to 1935 the percentages of cash on liabilities "at call" and "total liabilities" respectively for the Commonwealth Bank and the Other Cheque-paying Banks. These percentages relate throughout to business within Australia.

(a) *Commonwealth Bank.*—Cash reserves comprise coin, bullion and Australian notes. "Call" liabilities comprise deposits not bearing interest and balances due to other banks. The latter item is assumed to be approximately equivalent to the cash with Commonwealth Bank of the Other Cheque-paying Banks which is included in their quarterly statements with Australian Notes.

In interpreting the percentages it should be noted that the Commonwealth Savings Bank was not created a separate department of the Commonwealth Bank until the 9th June, 1928. Savings Bank deposits are included in the total liabilities of the Commonwealth Bank up to this date, but, obviously, did not come into "call" liabilities.

(b) *Other Cheque-paying Banks.*—Cash reserves comprise coin, bullion and 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 30th June—			On Liabilities “At Call.”		On Total Liabilities.	
			Commonwealth Bank.	Other Cheque-paying Banks. (a)	Commonwealth Bank.	Other Cheque-paying Banks. (a)
			%	%	%	%
1926	..	..	62.0	44.2	22.8	18.2
1927	..	..	29.7	44.3	10.3	17.7
1928	..	..	19.7	47.4	6.5	18.1
1929	..	..	19.7	43.8	14.1	15.8
1930	..	..	24.4	41.9	16.7	13.5
1931	..	..	11.6	65.3	8.4	19.6
1932	..	..	18.4	56.7	10.7	17.3
1933	..	..	21.9	46.2	10.1	14.6
1934	..	..	14.2	52.5	9.1	17.4
1935	..	..	16.4	36.1	8.4	12.9

(a) Rural Bank of New South Wales excluded.

(vii) *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 “Discounts, overdrafts, and all other assets (not including contingent assets),” which are combined with “Government and Municipal Securities” (including short-term loans in Australia) under the heading “Advances and Securities.” “Deposits” include deposits of all kinds except those of Other Cheque-paying Banks with the Commonwealth Bank, i.e., “Cash with Commonwealth Bank.” “Savings Bank Deposits” with the Commonwealth Bank, and “Advances and Securities” from these deposits are included prior to the separation of the Savings Bank business from the general business of the present Banking Department on 9th June, 1928.

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 30th June—	Advances on Total Deposits.			Advances and Securities on Total Deposits.		
	Commonwealth Bank.	Other Cheque-paying Banks. (a)	Total. (a)	Commonwealth Bank.	Other Cheque-paying Banks. (a)	Total. (a)
	%	%	%	%	%	%
1926 .. ..	17.8	80.5	66.9	75.3	87.0	84.5
1927 .. ..	23.4	87.4	73.8	96.0	93.0	93.6
1928 .. ..	23.9	81.1	71.6	105.3	89.5	94.1
1929 .. ..	52.8	86.9	83.9	101.9	95.1	95.7
1930 .. ..	59.6	98.2	95.0	151.3	105.5	109.4
1931 .. ..	56.5	92.8	89.9	228.7	101.1	111.3
1932 .. ..	33.5	82.7	77.3	137.3	98.1	102.4
1933 .. ..	18.0	85.3	77.0	137.2	104.1	108.2
1934 .. ..	16.9	79.9	72.4	128.2	97.2	100.9
1935 .. ..	16.4	87.1	77.8	113.2	104.7	105.8

(a) Rural Bank of New South Wales excluded.

(viii) *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 June quarter of each of the last five years in the following table. The figures given, which are based on the aggregate for all Cheque-paying Banks in each State, are not adjusted on account of the Government "set-off" accounts of the Commonwealth Bank.

**ALL CHEQUE-PAYING BANKS.—DEPOSITS PER HEAD OF POPULATION.**

Quarter Ended 30th June—	New South Wales. (a)	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Total.
	£	£	£	£	£	£	£	£
1931 .. ..	47.6	53.8	47.4	39.1	29.6	32.0	33.0	46.8
1932 .. ..	43.2	67.0	46.6	42.2	34.4	35.4	31.4	49.3
1933 .. ..	48.8	63.2	47.1	42.7	35.5	35.4	28.8	48.8
1934 .. ..	46.9	69.1	46.2	44.3	39.8	36.4	31.5	51.8
1935 .. ..	47.5	65.7	46.2	43.8	42.3	36.3	32.9	51.1

(a) Includes Federal 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."

(ix) *Proportion of Non-Interest Bearing Deposits to Total Deposits.* The subjoined table shows for each State the proportion of non-interest bearing deposits to the total deposits with all Cheque-paying Banks during the June quarter of each of the years 1931 to 1935. Government "set-off" accounts of the Commonwealth Bank have been deducted in arriving at the percentage for all States combined.

**ALL CHEQUE-PAYING BANKS.—PROPORTION OF NON-INTEREST BEARING DEPOSITS TO TOTAL DEPOSITS.**

Quarter ended 30th June—	New South Wales. (a)	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Total.
	%	%	%	%	%	%	%	%
1931 ..	34.0	26.3	33.0	25.8	40.2	29.1	49.2	30.2
1932 ..	37.1	25.0	33.1	26.5	39.9	31.6	49.3	30.2
1933 ..	34.7	26.9	32.3	23.9	37.3	29.9	46.1	30.0
1934 ..	38.6	28.4	37.7	24.8	37.6	33.1	54.3	33.2
1935 ..	40.1	29.1	38.7	26.1	39.3	35.5	61.7	34.7

(a) Includes Federal Capital Territory.

7. **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 during which rates were in force.	Deposits for—			
	Three Months.	Six Months.	Twelve Months.	Two Years.
	Per cent. per annum.	Per cent. per annum.	Per cent. per annum.	Per cent. per annum.
Prior to 24th July, 1920 .. .. .	3½	4	4½	5
19th August, 1927 to 27th January, 1930 ..	4	4	4½	5
28th January, 1930 to 25th June, 1931 ..	4½	4½	5	5½
26th June to 26th November, 1931 .. ..	3½	3½	4	4½
27th November, 1931 to 7th March, 1932 ..	3	3½	3½	4
8th March to May-June, 1932 (a) .. .. .	2½	3	3½	4
May-June (a) to 31st October, 1932 (b) ..	2½	3	3½	3½
1st November, 1932 to 6th February, 1933 .. .. .	2½	2½	3	3½
7th February, 1933 to 11th April, 1934 ..	2	2½	2½	3
12th April, 1934 to 8th August, 1934 .. ..	2	2½	2½	2½
9th August, 1934 to 10th October, 1934 ..	1½	2½	2½	2½
11th October, 1934 to 16th December, 1934 .. .. .	1½	2	2½	2½
17th December, 1934 (c) .. .. .	1	1½	2½	2½

(a) All Banks did not take simultaneous action. (b) Bank of New South Wales reduced the rates for 6, 12 and 24 months terms by one quarter of 1 per cent. from 23rd August, 1932. (c) Commonwealth Bank only. No further reductions were made by the other cheque-paying banks.

The "Premiers' Plan" for financial rehabilitation included, *inter alia*, provisions for the reduction of bank interest rates for deposits and advances and the steps taken in this direction are referred to in the Appendix to this volume.

8. **Clearing House Returns.**—Particulars of the aggregate bank clearings for each capital city, as furnished by the Associated Banks, Melbourne, are given in the following table. Since October, 1929, transactions connected with the issue and redemption of Treasury Bills have resulted in largely inflated clearings. These transactions are of an abnormal character, and for the years 1930 to 1934 are shown separately. A weekly average of bank clearings is compiled from information supplied by the Commonwealth Bank, Sydney, and published in the Quarterly Summary of Australian Statistics.

CLEARING HOUSE RETURNS.—VALUE OF BILLS, CHEQUES, ETC., 1870 TO 1934.

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
1926 .. ..	954,253	790,111	195,710	178,898	103,523	25,691	2,248,186
1927 .. ..	1,034,894	825,676	192,274	186,752	111,454	26,805	2,377,855
1928 .. ..	1,033,511	762,851	196,566	164,166	112,503	28,226	2,297,823
1929 .. ..	1,043,320	<sup>b</sup> 812,105	196,253	156,686	114,587	27,365	<sup>b</sup> 2,350,316
1930— Ordinary Trans- actions .. ..	872,390	697,641	167,999	125,684	89,034	23,092	1,975,840
Treasury Bills Transactions	20,771	28,274	..	..	..	..	49,045
Total .. ..	893,161	725,915	167,999	125,684	89,034	23,092	2,024,885
1931— Ordinary Trans- actions .. ..	683,176	566,865	144,814	96,867	71,356	18,057	1,581,135
Treasury Bills Transactions	151,512	85,999	..	..	..	..	237,511
Total .. ..	834,688	652,864	144,814	96,867	71,356	18,057	1,818,646
1932— Ordinary Trans- actions .. ..	588,733	592,356	141,511	106,865	75,678	19,259	1,524,402
Treasury Bills Transactions	143,908	63,791	..	..	..	..	207,699
Total .. ..	732,641	656,147	141,511	106,865	75,678	19,259	1,732,101
1933— Ordinary Trans- actions .. ..	641,400	619,230	148,335	112,250	79,689	19,864	1,620,768
Treasury Bills Transactions	251,477	60,733	..	..	..	..	312,210
Total .. ..	892,877	679,963	148,335	112,250	79,689	19,864	1,932,978
1934— Ordinary Trans- actions .. ..	716,084	676,407	165,555	118,656	84,628	22,463	1,783,793
Treasury Bills Transactions	256,013	55,520	..	..	..	..	311,533
Total .. ..	972,097	731,927	165,555	118,656	84,628	22,463	2,095,326

(a) Figures now published for these years exclude payments in coin. (b) Excludes Treasury Bills transactions. See previous issue, page 458.

9. Rates of Exchange.—(i) *Australia on London.* The following statement, which has been prepared from data very kindly supplied by the General Manager of the Bank of New South Wales, Sydney, gives particulars of the various rates of exchange, Australia

on London, in operation since 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. Prior to 30th October, 1920, when "T.T." buying rates were not quoted, the rate was determined approximately by applying the difference between the buying and selling rates for "On Demand" drafts to the quoted "T.T." selling rate.

**EXCHANGE RATES.—AUSTRALIA ON LONDON, TELEGRAPHIC TRANSFER,  
FROM OCTOBER, 1913.**

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.
16th October, 1913 .. ..	100	100	plus	0 6 3	8	9
19th August, 1914 .. ..	..	..	..	0 10 0	15	0
29th September, 1914 .. ..	..	..	..	0 15 0	15	0
24th October, 1914 .. ..	..	..	..	1 0 0	15	0
12th May, 1915 .. ..	..	..	..	0 17 6	15	0
30th September, 1915 .. ..	..	..	..	1 0 0	12	6
23rd February, 1916 .. ..	..	..	..	1 5 0	12	0
15th November, 1916 .. ..	..	..	..	0 18 9	13	9
29th May, 1917 .. ..	..	..	..	0 12 6	15	0
3rd October, 1917 .. ..	..	..	..	0 7 6	15	0
12th January, 1920 .. ..	..	..	..	0 2 6	15	0
8th October, 1920 .. ..	..	..	..	0 15 0	15	0
14th October, 1920 .. ..	..	..	..	0 13 9	16	3
30th October, 1920 .. ..	..	..	..	1 5 0	15	0
10th December, 1920 .. ..	..	..	..	1 15 0	15	0
23rd December, 1921 .. ..	..	..	..	1 10 0	15	0
17th February, 1922 .. ..	..	..	..	1 2 6	12	6
6th April, 1922 .. ..	..	..	..	0 15 0	15	0
15th May, 1922 .. ..	..	..	..	0 10 0	15	0
14th July, 1922 .. ..	..	..	..	0 2 6	15	0
8th September, 1922 .. ..	..	..	100 less	0 3 9	13	9
10th October, 1922 .. ..	..	..	..	0 7 6	12	6
7th November, 1922 .. ..	..	..	..	0 10 0	15	0
14th January, 1924 .. ..	..	..	..	1 0 0	10	0
22nd February, 1924 .. ..	..	..	..	1 5 0	10	0
10th March, 1924 .. ..	..	..	..	1 10 0	10	0
8th May, 1924 .. ..	..	..	..	2 0 0	10	0
5th September, 1924 .. ..	..	..	..	2 5 0	10	0
29th September, 1924 .. ..	..	..	..	2 10 0	10	0
15th October, 1924 .. ..	..	..	..	3 0 0	10	0
6th May, 1925 .. ..	..	..	..	0 12 6	2	6
10th June, 1925 .. ..	..	..	..	0 2 6	2	6
9th June, 1926 .. ..	..	..	..	0 1 3	3	9
20th April, 1927 .. ..	..	..	100 plus	0 6 3	3	9
27th June, 1927 .. ..	..	..	..	0 8 9	3	9
8th July, 1927 .. ..	..	..	..	0 11 3	3	9
10th 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 .. ..	..	..	..	30 5 0	5	0
3rd December, 1931 .. ..	..	..	..	25 5 0	5	0

The "Commission" which represents the Banks' "turn" on each £100 sterling exchanged has been computed by taking half the difference between the buying and selling rates.

(ii) *Sterling Dollar rates.* The average of the daily quotations of the London-New York exchange rates are given for each month of the years 1931 to June, 1935, in the subjoined table.

## STERLING-DOLLAR RATES.—AVERAGE RATE FOR EACH MONTH.

Month.	1931.	1932.	1933.	1934.	1935.
	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.
January .. ..	4.855	3.430	3.372	5.056	4.895
February .. ..	4.857	3.459	3.422	5.019	4.875
March .. ..	4.859	3.634	3.436	5.089	4.776
April .. ..	4.860	3.752	3.587	5.154	4.835
May .. ..	4.864	3.676	3.933	5.105	4.890
June .. ..	4.865	3.649	4.141	5.059	4.936
July .. ..	4.857	3.552	4.643	5.042	..
August .. ..	4.857	3.476	4.503	5.067	..
September .. ..	4.542	3.471	4.660	4.996	..
October .. ..	3.886	3.399	4.668	4.942	..
November .. ..	3.719	3.277	5.136	4.990	..
December .. ..	3.372	3.276	5.118	4.946	..

(iii) *Interstate.* Exchange rates between the several capital cities of the States at 30th June, 1934, were as follow :—

## INTERSTATE EXCHANGE RATES, 30TH JUNE, 1934.

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 .. ..	.. 6	.. 6	2 6	5 0	10 0	5 0
Melbourne .. ..	.. 6	.. 6	7 6	2 6	7 6	5 0
Brisbane .. ..	2 6	7 6	.. ..	10 0	12 6	10 0
Adelaide .. ..	5 0	2 6	10 0	.. ..	5 0	7 6
Perth .. ..	10 0	7 6	12 6	5 0	.. ..	12 6
Hobart and Launceston .. ..	5 0	5 0	10 0	7 6	12 6	.. ..

## § 2. Savings Banks.

1. *General.*—The inauguration of Savings Banks in Australia dates from the year 1819, when a private Savings Bank was opened in Sydney, New South Wales. In 1832 the legislature created “the Savings Bank of New South Wales” under the control of trustees, and shortly after its establishment, the funds of the private Savings Bank were transferred to the new institution. In the other States provision for placing deposits with Savings Banks dates from 1841 in Victoria; 1854 in Queensland; 1840 in South Australia; 1863 in Western Australia (a Savings Bank was opened in 1856 but was closed a year later); 1835 in Launceston; and 1845 in Hobart. These early banks functioned as trustee Savings Banks, but were later absorbed by or amalgamated with Government Savings Banks, except the Hobart and Launceston institutions.

Post Office Savings Banks were established in all States except South Australia dating from 1863 onwards. After the Federation of the Australian States in 1900 Post Offices were controlled by the Commonwealth Government, but they continued to act as Savings Bank agencies for State institutions until the establishment of the Commonwealth Bank in 1912, when they acted as agents for that institution.



Savings Banks at present operating are the Commonwealth Savings Bank (all States); State Savings Bank, of Victoria; State Savings Bank of South Australia; and the two trustee Banks—Hobart and Launceston.

2. **The Commonwealth Savings Bank.**—The Commonwealth Savings Bank opened for business in Victoria on the 15th July, 1912; in Queensland on the 16th September, 1912; in the Northern Territory on the 21st October, 1912; and in New South Wales, South Australia and Western Australia on the 13th January, 1913. The Tasmanian State Savings Bank was absorbed by the Commonwealth Bank in January, 1913, and the Queensland State Savings Bank was taken over in 1920. 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.**—(i) *Government Savings Bank of New South Wales.* Owing to the depletion of the liquid assets of the bank consequent upon the continuous demands of depositors, the Commissioners, after abortive negotiations for the absorption of the institution by the Commonwealth Savings Bank, decided to suspend payments to depositors from the 22nd April, 1931, until further notice.

On the 7th September, 1931, the Government appointed new Commissioners and the Savings Bank re-opened, accepting deposits repayable on demand in what were termed "new business" accounts. No arrangements had then been completed to enable depositors in the "old business" division to withdraw deposits, although transfers from one account to another in that division were permitted.

Negotiations for the absorption of the Government Savings Bank by the Commonwealth Savings Bank were re-opened by the new Commissioners, and early in December, 1931, the transfer was arranged. The full terms of the agreement are contained in the New South Wales Act No. 62 of 1931. The Commonwealth Savings Bank on and from the 15th December, 1931, provided relief to depositors in the "old business" division to the extent of up to £10 or 10 per cent. of their deposits, whichever was the greater, and one month later depositors were allowed full access to their deposits.

(ii) *State Savings Bank of Western Australia.* During August, 1931, increasing withdrawals caused the Government of Western Australia to negotiate for the amalgamation of the State Savings Bank with the Commonwealth Savings Bank, and the transfer was effected in October, 1931.

4. **Extension of Facilities.**—The prime object of the foundation of Savings Banks in Australia was the encouragement of thrift—deposits of one shilling and upwards being accepted—nevertheless the facilities offered, while preserving the original object, have led to developments in another direction. Although depositors may not operate on their accounts by means of cheques, they have practically all the other advantages of a current account, in addition to receiving interest on their minimum monthly balances, while no charge is made by the banks for keeping the accounts.

For many years considerable use has been made of the Savings Bank account as an alternative to maintaining a fixed deposit with a Cheque-paying Bank. Deposits in Savings Banks may be withdrawn at any time with a minimum loss of interest, the rate of which is now greater than that offered by trading banks for six months' deposits.

5. **Classification of Depositors' Balances.**—The classification of deposits published by Savings Banks does not permit of a fully detailed analysis with respect to Australia as a whole, but information supplied by four State institutions shows that at 30th June, 1931, 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 £500, 48 per cent.; over £500 but under £750, 16 per cent.; over £750 but under £1,000, 8 per cent.; while those of over £1,000 accounted for 7 per cent. School, Penny Bank, and Special Purpose accounts have been excluded in determining the above percentages. At 30th June, 1930, it was estimated that approximately 95 per cent. of the accounts open had balances of under £300, while the deposits in such accounts represented about 48 per cent. of the total amount on deposit. In the absence of complete information, therefore, inferences respecting the amount of deposits per head of population must be made with caution.

6. **Number of Accounts.**—No statement is shown herein regarding the number of accounts because in some States it is possible for the same person to have an account in the Commonwealth Savings Bank as well as in the State Savings Bank. The effect of this multiplication of accounts was demonstrated by the reduction of numbers which followed the amalgamations referred to in par. 3 *ante*.

7. **Rates of Interest on Deposits.**—The "Premiers Plan" of 1931, which is dealt with in the Appendix to this volume, provided, *inter alia*, for the reduction of the Banks' rate 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 have since taken similar action. The statements given hereunder show the rates of interest allowed at 30th June in each of the years 1931 to 1935, respectively (i) by State or Trustee Banks and (ii) by the Commonwealth Bank.

The table hereunder refers to interest rates allowed by State Savings Banks :—

**STATE SAVINGS BANKS.—INTEREST RATES ON DEPOSITS.**

State.	Interest-bearing Limit.	Rates at—				
		30th June, 1931.	30th June, 1932.	30th June, 1933.	30th June, 1934.	30th June, 1935.
	£	%	%	%	%	%
New South Wales ..	1,000	4	(d)	(d)	(d)	(d)
Victoria ..	1,000	4 (a)	3 ; (b) 3½	2½	2½	2 (b) 2½
Queensland ..	(c)	(e)	(e)	(e)	(e)	(e)
South Australia	1,000	4½	3½	3	3 ; 2½ (g)	2½ ; 2½ (h)
Western Australia	Unlimited	£1-500 .. 4 £501-1,000 .. 3½ Over £1,000 .. 3	(d)	(d)	(d)	(d)
Tasmania (f)—						
Hobart ..	300	4½ ; (c) 5	3 ; (c) 4	2½ ; (c) 3	2½ ; (c) 3	2½ ; (c) 3
Launceston..	300	4½	3½	2½	2½	2½

(a) Similar rate for Deposit Stock. (b) Deposit Stock. (c) Fixed Deposits, twelve months. (d) Absorbed by Commonwealth Bank. *see* following table. (e) State Savings Bank amalgamated with Commonwealth Bank in 1920. (f) Trustee Savings Banks. (g) 2½ per cent. on Deposits in excess of £500 to £1,000 and on accounts closed during year. (h) Accounts open—Deposits from £1 to £500, 2½ per cent.; from £501 to £1,000, 2½ per cent. On accounts closed during year, ½ per cent. less.

Particulars regarding the rates allowed by the Commonwealth Savings Bank are incorporated in the following table :—

**COMMONWEALTH SAVINGS BANK.—INTEREST RATES ON DEPOSITS.**

State.	Interest-bearing Limit.	Rates at—				
		30th June, 1931.	30th June, 1932.	30th June, 1933.	30th June, 1934.	30th June, 1935.
		%	%	%	%	%
New South Wales	£1,300	£1-£500 .. 4	3	2½	2½	2
Victoria ..		£501-£1,000 .. 3½	2½	} 2	1½	1½
South Australia		£1,001-£1,300 3	2			
Western Australia						
Tasmania ..						
Queensland ..	£2,000	£1-£500 .. 4 £501-£2,000 .. 3½	3 2½	2½ 2	2½ 1½	2 1½

On 1st July, 1932, a reduction of one-quarter of one per cent. in the rate of interest allowed on deposits became effective, followed by a similar reduction from 1st November, 1932. Further reductions of one-quarter of 1 per cent. operated from 1st June, 1934, and 1st January, 1935, respectively.

8. **Statistical Returns.**—Commencing from July, 1931, monthly returns have been furnished by Savings Bank authorities, and the collated data are disseminated in the form of monthly press notices. In addition, the particulars are published in the Quarterly Summary of Australian Statistics issued by the Commonwealth Statistician. The information given in the following paragraphs relates to the deposits at the 30th June in each year. For convenience of reference the information has been grouped under the following headings :—

- (i) All Savings Banks ;
- (ii) Commonwealth Savings Banks ; and
- (iii) State (including Trustee Banks in Tasmania) Savings Banks.

9. **All Savings Banks.**—(i) *Returns for Year 1933-34.* The following statement gives details of the business transacted by all Savings Banks for the year 1933-34.

**ALL SAVINGS BANKS.—PARTICULARS, 1933-34.**

States and Territories.	Amount on Deposit at 30th June, 1933.	Amount Deposited during year 1933-34.	Interest Added during year 1933-34.	Total.	Amounts Withdrawn during year 1933-34.	Amount on Deposit at 30th June, 1934.
	£	£	£		£	£
New South Wales	72,307,685	55,849,604	1,694,079	129,851,368	54,137,298	75,714,070
Victoria ..	67,813,543	48,434,657	1,616,943	117,865,143	47,893,732	69,971,411
Queensland ..	23,453,017	23,144,787	554,543	47,152,347	22,318,074	24,834,273
South Australia ..	22,515,288	15,144,577	630,429	38,290,294	14,852,788	23,437,506
Western Australia ..	10,064,404	10,426,400	236,120	20,726,984	10,328,012	10,398,972
Tasmania ..	5,864,807	2,932,064	156,333	8,953,204	2,914,076	6,039,128
Northern Territory	38,411	33,299	907	72,677	28,426	44,251
Federal (Capital Territory) ..	225,054	203,631	5,265	433,950	197,514	236,436
<b>Total ..</b>	<b>202,282,269</b>	<b>156,169,019</b>	<b>4,894,679</b>	<b>363,345,967</b>	<b>152,669,920</b>	<b>210,676,047</b>

(a) Includes inter-branch transfers.

(ii) *Deposits—(a) Years 1930 to 1935.* The table hereunder shows for all Savings Banks the amount at credit of depositors and the average deposits per head of population at 30th June, 1930 to 1935.

**ALL SAVINGS BANKS.—DEPOSITS.**

30th June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Tr.	Fed. Cap. Ter.	All States.
<b>TOTAL.</b>									
	£	£	£	£	£	£	£	£	£
1930	82,465,430	69,367,253	23,901,136	24,012,176	11,728,617	5,699,321	48,913	287,671	217,510,517
1931	69,810,769	63,242,528	22,354,325	21,422,058	10,867,421	5,365,824	43,258	269,214	193,375,397
1932	71,647,869	65,680,220	22,951,758	21,566,825	10,217,739	5,586,620	40,440	274,836	197,966,307
1933	72,307,685	67,813,543	23,453,017	22,515,288	10,064,464	5,864,807	38,411	225,054	202,282,269
1934	75,714,070	69,971,411	24,834,273	23,437,506	10,398,972	6,039,128	44,251	236,436	210,676,047
1935a	77,906,402	72,018,713	26,196,599	24,184,988	10,929,010	6,429,914	53,541	229,896	217,949,063

**PER HEAD OF POPULATION.**

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1930	32 12 0	38 17 4	26 4 0	41 17 11	27 6 7	25 18 2	9 11 6	31 18 4	33 13 1	
1931	27 6 6	35 2 10	24 2 3	37 4 0	25 2 10	23 19 1	8 12 0	31 3 0	29 12 6	
1932	27 15 9	36 6 7	24 9 5	37 6 2	23 9 7	24 13 6	8 4 4	32 0 7	30 1 11	
1933	27 16 0	37 5 1	24 14 11	38 15 1	22 18 7	25 15 4	7 18 1	32 3 1	30 10 2	
1934	28 17 7	38 4 10	25 18 6	40 3 7	23 10 5	26 9 10	8 19 10	32 8 10	31 11 0	
1935a	29 9 2	39 3 8	27 1 3	41 7 1	24 10 5	28 2 3	10 9 6	32 4 15	32 8 3	

(a) Preliminary figures subject to revision.

The aggregate increase on deposits for all States was £7,296,000 or about 3½ per cent. in 1934-35, compared with an increase of £8,394,000 or 4 per cent. in the previous year. In Tasmania, the increase recorded represented 6½ per cent.; in Queensland 5½ per cent.; in Western Australia more than 5 per cent.; in South Australia 3½ per cent.; and in New South Wales and Victoria almost 3 per cent.

(b) *Deposits per head and Purchasing Power.* Particulars of the deposits per head of population, actual and adjusted to purchasing power (in terms of food and housing) at 30th June in each year from 1926 to 1935, 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.
1926	..	..	32.27	1000	32.27	1000	
1927	..	..	33.09	1025	34.57	1071	
1928	..	..	34.14	1058	35.05	1086	
1929	..	..	35.26	1093	35.30	1094	
1930	..	..	33.65	1043	35.42	1098	
1931	..	..	29.63	918	35.95	1114	
1932	..	..	30.10	933	38.93	1206	
1933	..	..	30.51	945	41.39	1283	
1934	..	..	31.55	978	41.46	1285	
1935	..	..	32.41	1004	41.99	1301	

(a) "A" Series All Houses.

Since 1921 deposits per head increased by roughly 3 per cent. per annum until they reached a maximum of £35.26 in 1929. A rapid decline followed in the next two years when the downward trend was reversed, and at 1935 the recovery to £32.41 (slightly above the 1926 level) represented an increase of 6 per cent. on the 1921 figure. When deposits are adjusted to purchasing power a more favourable position is disclosed. Since 1926 a continuous increase has been recorded in the purchasing power of deposits (in terms of food and housing) and the 1935 level represents an increase of 30 per cent. in the ten years.

In interpreting the above figures it should be remembered that Savings Bank accounts are used to some extent by institutions and business people, as well as by individuals, for the investment of personal savings. The relative extent to which Savings Bank accounts are used for business purposes, etc., may—and probably does—fluctuate considerably from time to time.

10. **Commonwealth Savings Bank.**—(i) *Returns for Year 1933-34.* Returns for the States and Territories for the year 1933-34 have been incorporated in the table below.

**COMMONWEALTH SAVINGS BANK.—RETURNS, 1933-34.**

States and Territories.	Amount on Deposit at 30th June, 1933.	Amount Deposited during Year 1933-34. (a)	Interest Added during Year 1933-34.	Total.	Amounts Withdrawn during Year 1933-34. (a)	Amount on Deposit at 30th June, 1934.
	£	£	£	£	£	£
New South Wales	72,307,685	55,849,604	1,694,079	129,851,368	54,137,298	75,714,070
Victoria	7,587,472	8,912,279	179,903	16,679,654	8,318,390	8,361,264
Queensland	23,153,017	23,144,787	554,543	47,152,347	22,318,074	21,834,273
South Australia	2,204,022	2,079,319	51,646	4,334,987	2,030,236	2,304,751
Western Australia	10,064,404	10,426,400	236,120	20,726,934	10,328,012	10,398,972
Tasmania	1,645,053	1,251,050	38,642	2,935,345	1,220,463	1,714,882
Northern Territory	38,111	33,299	967	72,677	28,426	44,251
Federal Cap. Ter.	225,054	203,631	5,265	433,950	197,514	236,436
Total	117,525,178	101,900,969	2,761,165	222,187,312	98,578,413	123,608,899

(a) Includes inter-branch transfers.

(ii) *Deposits—Years 1930 to 1935.* The amount on deposit with the Commonwealth Savings Bank in each State, in the Territories of Papua and New Guinea, and in London, at the 30th June in each of the years 1930 to 1935 was as follows :—

## COMMONWEALTH SAVINGS BANK.—DEPOSITS.

Place of Deposit.	At 30th June—					
	1930.	1931.	1932.	1933.	1934.	1935. (c)
	£	£	£	£	£	£
New South Wales	11,899,198	14,492,937	(a) 71,047,869	72,307,685	75,714,070	77,906,360
Victoria ..	6,424,278	6,104,264	7,098,817	7,587,472	8,361,264	8,910,710
Queensland ..	23,901,136	22,354,325	22,951,758	23,453,017	24,834,273	26,196,597
South Australia ..	2,145,811	1,951,151	2,127,288	2,204,022	2,504,751	2,508,233
Western Australia ..	3,240,252	2,788,373	(a) 10,217,739	10,064,464	10,398,972	10,929,007
Tasmania ..	1,682,727	1,519,418	1,581,718	1,645,053	1,714,882	1,854,282
Northern Territory	48,913	43,258	40,440	38,411	44,251	53,541
Federal Capital Territory ..	220,559	219,935	(a) 274,836	225,054	236,436	229,890
Total ..	49,562,874	49,473,661	115,940,465	117,525,178	123,608,899	128,588,626
Papua and New Guinea (b) ..	114,911	107,919	125,931	135,749	145,900	162,646
London (b) ..	371,936	236,151	233,605	282,554	310,579	372,192
Grand Total ..	50,049,724	49,817,731	116,300,001	117,943,481	124,065,378	129,123,464

(a) State Savings Bank absorbed during 1931-32. (b) Not included in the figures given in pars. 9 (i) and (ii) and 10 (i). (c) Preliminary figures subject to revision.

(iii) *Balance-sheet, 30th June, 1934.* The Commonwealth Savings Bank publishes a half-yearly balance-sheet, and the statement hereunder shows the position at the 30th June, 1934.

## COMMONWEALTH SAVINGS BANK.(a)—BALANCE-SHEET, 30TH JUNE, 1934.

Liabilities.		Assets.	
	£		£
Reserve Fund ..	1,932,359	Coin, Cash Balances and Money at Short Call ..	17,281,478
Depositor's Balances ..	124,065,378	Australian Notes ..	152,134
Other Liabilities ..	4,045,556	Government Securities ..	76,826,538
		Securities of Municipal and Other Public Authorities ..	30,817,992
		Other Assets ..	4,965,151
	130,043,293		130,043,293

(a) Includes London, Papua and Territory of New Guinea Branches.

(iv) *Profits.* For the year ended 30th June, 1934, the profits earned by the Commonwealth Savings Bank were £277,438, one-half of which was paid to the National Debt Sinking Fund and the remainder carried to reserves. The aggregate net profit from the inception of the bank to the 30th June, 1934, was £3,329,950.

II. State Savings Banks.—(i) Returns for 1933-34. Particulars of the transactions of all State Savings Banks for the year 1933-34 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 at 30th June in each year since and including 1929.

## STATE SAVINGS BANKS.—RETURNS, 1933-34.

State or Territory.	Amount on Deposit at 30th June, 1933.	Deposits during 1933-34. (e)	Interest added 1933-34.	Total.	With-drawals during 1933-34. (e)	Total Deposits 30th June, 1934.
	£	£	£	£	£	£
New South Wales (d) ..	..	..	..	..	..	..
Victoria ..	60,226,071	39,522,378	1,437,040	101,185,489	39,575,342	61,610,147
Queensland (a) ..	..	..	..	..	..	..
South Australia ..	20,311,266	13,065,258	578,783	33,955,307	12,822,552	21,132,755
Western Australia (d) ..	..	..	..	..	..	..
Tasmania (b) ..	4,219,754	1,680,414	117,691	6,017,859	1,093,613	4,324,246
Northern Territory (c) ..	..	..	..	..	..	..
Federal Capital Territory (d) ..	..	..	..	..	..	..
<b>Total .. ..</b>	<b>84,757,091</b>	<b>54,268,050</b>	<b>2,133,514</b>	<b>141,158,655</b>	<b>54,091,507</b>	<b>87,067,148</b>

(a) State Savings Bank absorbed by Commonwealth Bank in 1920. (b) Trustee Savings Banks, Hobart and Launceston. (c) No State Savings Bank in operation. (d) State Savings Bank Amalgamated with Commonwealth Savings Bank in 1931. (e) Includes inter-branch transfers.

(ii) Deposits—Years 1930 to 1935. The following statement shows the amount on deposit with State Savings Banks at the 30th June in each of the years 1930 to 1935.

## STATE SAVINGS BANKS.—DEPOSITS.

State or Territory.	At 30th June—					
	1930.	1931.	1932.	1933.	1934.	1935.
	£	£	£	£	£	£
New South Wales ..	70,566,232	55,317,832	(d)	(d)	(d)	(d)
Victoria ..	62,942,975	57,138,264	58,581,403	60,226,071	61,610,147	63,108,006
Queensland (a) ..	..	..	..	..	..	..
South Australia ..	21,866,365	19,470,907	19,439,537	20,311,266	21,132,755	21,700,000
Western Australia ..	8,488,365	8,079,048	(d)	(d)	(d)	(d)
Tasmania (c) ..	4,016,594	3,846,406	4,004,902	4,219,754	4,324,246	4,575,631
Northern Territory (b) ..	..	..	..	..	..	..
Federal Capital Territory ..	67,112	49,279	(d)	(d)	(d)	(d)
<b>Total .. ..</b>	<b>167,947,643</b>	<b>143,901,736</b>	<b>82,025,842</b>	<b>84,757,091</b>	<b>87,067,148</b>	<b>89,383,637</b>

(a) State Savings Bank amalgamated with Commonwealth Bank in 1920. (b) No State Savings Bank in operation. (c) Trustee Savings Banks, Hobart and Launceston. (d) State Savings Bank amalgamated with Commonwealth Savings Bank. (e) Partly estimated.

(iii) *Assets.* At 30th June, 1934, the assets of all State Savings Banks amounted to £93,924,801, distributed as shown hereafter.

STATE SAVINGS BANKS.—ASSETS, 30TH JUNE, 1934.

Particulars.	New South Wales. (b)	Victoria.	Queens-land. (a)	South Australia.	Western Australia. (b)	Tasmania. (c)	Total.
	£	£	£	£	£	£	£
Government Securities ..	..	28,811,745	..	11,292,142	..	2,061,708	42,165,595
Municipal Securities ..	..	2,147,991	..	313,177	..	457,790	2,918,958
Other Public Securities ..	..	14,584,779	..	..	..	..	14,584,779
Mortgages ..	..	1,452,360	..	5,825,194	..	1,004,044	8,281,598
Outstanding Interest, Dividends and Rents ..	..	661,785	..	285,115	..	47,221	994,121
War Service Homes Landed and House Property ..	..	134,441	..	..	..	..	134,441
Fixed Deposits ..	..	899,169	..	70,363	..	12,924	982,456
Cash in hand, in trans- it and on Current Account ..	..	14,840,000	..	3,133,500	..	610,500	18,584,000
All other Assets ..	..	2,751,294	..	1,908,511	..	607,290	5,267,095
	..	8,749	..	1,792	..	1,217	11,758
<b>Total Assets ..</b>	..	<b>66,292,313</b>	..	<b>22,829,794</b>	..	<b>4,802,694</b>	<b>93,924,801</b>

(a) State Savings Bank amalgamated with Commonwealth Bank in 1920. (b) Amalgamated with Commonwealth Savings Bank in 1931. (c) Year ended 31st August, 1934. See par. (i).

(iv) *Profit and Loss Accounts, 1933-34.* Details of the Profit and Loss Accounts of the several State Savings Banks for the year 1933-34 are given in the following table :—

STATE SAVINGS BANKS.—PROFIT AND LOSS ACCOUNTS FOR YEAR  
ENDED 30TH JUNE, 1934.

Particulars.	New South Wales. (a)	Victoria.	Queens-land. (b)	South Australia.	Western Australia. (a)	Tasmania. (c)	Total.
	£	£	£	£	£	£	£
<i>Dr.</i>							
Interest allotted to Depositors ..	..	1,437,040	..	578,783	..	117,730	2,133,553
Amount carried to Res- erves and Deprecia- tion Funds ..	..	..	..	187,525	..	15,000	202,525
Writing off Bank Pre- mises ..	..	27,000	..	..	..	2,000	29,000
Expenses of Manage- ment ..	..	503,645	..	117,419	..	34,082	655,146
All other Expenses ..	..	(r) 284,065	..	(d) 50,834	..	2,100	336,999
Balance carried forward ..	..	144,238	..	96,648	..	84,589	325,475
<b>Total ..</b>	..	<b>2,395,988</b>	..	<b>1,031,209</b>	..	<b>255,501</b>	<b>3,682,698</b>
<i>Cr.</i>							
Balance brought for- ward ..	..	216,746	..	97,355	..	81,403	395,504
Interest, Dividends, and Rents ..	..	2,179,242	..	893,854	..	174,098	3,247,194
All other Receipts ..	..	..	..	40,000	..	..	40,000
<b>Total ..</b>	..	<b>2,395,988</b>	..	<b>1,031,209</b>	..	<b>255,501</b>	<b>3,682,698</b>

(a) State Savings Bank amalgamated with Commonwealth Savings Bank in 1931. (b) State Savings Bank amalgamated with Commonwealth Bank in 1920. (c) Year ended 31st August, 1934; see par. (i). (d) Includes £40,000, provision for interest accrued on Depositors' Balances from 7th to 30th June, 1934. (e) Includes £250,000 to Interest Fluctuation Account.

## C. COMPANIES.

## § 1. General.

Statistics available in regard to registered companies embrace (a) Returns relating to Trustees, Executors and Agency Companies; (b) Returns relating to Registered Building and Investment Societies; and (c) Returns relating to Registered Co-operative Societies.

## § 2. Trustees, Executors and Agency Companies.

Returns for 1934 are available for eight Victorian, two New South Wales, one Queensland, four South Australian, two Western Australian, and four Tasmanian companies. The paid-up capital of these twenty-one companies amounted to £1,355,952; reserve funds and undivided profits to £1,082,082; other liabilities, £426,865; total liabilities, including capital, £2,864,899. Among the assets are included—Deposits with Governments, £230,000; other investments in public securities, fixed deposits, etc., £625,246; loans on mortgage, £480,679; property owned, £1,043,447; other assets, £485,527. Of the twenty-one companies, ten show the total amount of the estates, etc., under administration, the total for 1934 being approximately £142 millions. In respect of the twenty-one companies, net profits for the year totalled £132,417, of which £95,708 was paid in dividends.

## § 3. Registered Building and Investment Societies.

1. Summary.—Returns have been received relating to 205 Societies, but the information is not exhaustive, as particulars regarding unimportant organizations are not included.

## REGISTERED BUILDING AND INVESTMENT SOCIETIES.—SUMMARY, 1933.

Particulars.	N.S.W. (d) 1932-33.	Vic. 1932-33.	Q'land. 1932-33.	S. Aust. 1933.	W. Aust. 1932-33.	Tas. 1933.	Total.
Societies making returns—							
Permanent .. No.	11	21	6	7	5	4	54
Terminating .. No.	117	4	9	15	6	..	151
Total .. No.	128	25	15	22	11	4	205
Number of shareholders ..	(c) 3,166	8,929	9,361	10,814	16,574	4,496	53,340
Number of shares ..	(c) 27,568	(a)	2,296,592	39,356	(a)	46,053	2,409,569
Number of borrowers ..	(c) 4,195	11,047	6,129	2,786	3,281	1,563	29,006
Income for year from interest .. £	139,343	273,132	97,845	19,436	51,391	41,889	622,936
Working expenses for year .. £	85,060	161,196	15,058	10,306	13,082	6,433	291,135
Amount of deposits during year .. £	301,238	1,206,480	205,992	112,115	198,322	20,511	2,044,658
Repayment of loans during year .. £	517,175	678,999	276,773	67,195	216,905	100,112	1,857,159
Loans granted during year .. £	330,029	350,834	233,405	41,233	171,800	56,494	1,183,795

(a) Not available. (b) Exclusive of Victoria and Western Australia. (c) Permanent Societies only. (d) Excludes six Terminating Societies for which complete details are not available.



2. **Liabilities and Assets.**—The balance-sheets of the companies in respect of which particulars of liabilities and assets are stated hereunder cover periods ended during the year 1933. The figures quoted for the States of South Australia and Tasmania refer to the calendar year 1933, while those for the remaining States are for the fiscal year 1932-33.

**REGISTERED BUILDING AND INVESTMENT SOCIETIES.—LIABILITIES, 1933.**

State.	Paid-up Capital or Subscriptions.	Reserve Funds. (a)	Deposits.	Bank Overdrafts and other Liabilities.	Total Liabilities.
	£	£	£	£	£
New South Wales ..	2,585,858	689,367	558,496	70,129	3,903,850
Victoria ..	1,972,855	832,704	1,537,317	205,950	4,548,826
Queensland ..	1,495,740	48,457	7,068	96,715	1,647,980
South Australia ..	655,226	55,899	67,663	14,397	793,185
Western Australia ..	974,868	35,617	87,368	8,020	1,105,873
Tasmania ..	337,705	99,735	275,286	5,744	718,470
Total ..	8,022,252	1,761,779	2,533,198	400,955	12,718,184

(a) Includes Profit and Loss Account.

**REGISTERED BUILDING AND INVESTMENT SOCIETIES.—ASSETS, 1933.**

State.	Advances on Mortgage.	Landed and House Property, Furniture, etc.	Cash in Hand and on Deposit and other Assets.	Total Assets.
	£	£	£	£
New South Wales ..	3,202,104	(a)	(b) 701,746	3,903,850
Victoria ..	3,955,661	304,424	288,741	4,548,826
Queensland ..	1,559,998	28,357	59,625	1,647,980
South Australia ..	714,999	49,175	29,011	793,185
Western Australia ..	1,011,290	41,203	53,380	1,105,873
Tasmania ..	593,298	10,150	115,022	718,470
Total ..	11,037,350	433,309	1,247,525	12,718,184

(a) Included in next column.

(b) Includes Landed and House Property, Furniture, etc.

**§ 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 and the latter as Consumers' Co-operative Societies. Particulars of those Producers' Societies which are also Consumers' Societies were compiled separately for the first time for the year 1931. The particulars given for New South Wales relate to societies registered under the *Co-operation Act 1923-1929*.

## CO-OPERATIVE SOCIETIES.—SUMMARY, 1933.

Particulars.	N.S.W. 1932-33. (a)	Vic. 1932-33.	Qld. 1932-33.	S.A. 1933.	W.A. 1932-33.	Tas. 1932-33.	Total.
<b>PRODUCERS' SOCIETIES.</b>							
Number of Societies	108	63	52	32	3	12	270
Number of Branches	(c)	20	22	9	7	18	(d) 76
Number of Members	46,970	38,959	35,407	7,193	3,614	4,275	136,418
Gross Turnover (Sales)	£ 11,679,120	5,263,511	5,402,577	760,508	364,659	395,617	23,866,001
Other Income	£ 57,370	540,429	270,847	111,913	20,103	15,895	1,016,563
Total Income	£ 11,736,505	5,803,940	5,673,424	872,421	384,762	411,512	24,882,564
Total Purchases during Year	£ 9,265,995	4,203,486	4,091,547	513,631	259,698	303,695	18,637,752
Total Expenditure (b)	£ 11,622,088	5,493,982	5,623,231	737,319	366,817	411,865	24,255,301
Rebates and Bonuses	£ 32,267	1,142	39,521	31,136	16,007	87	120,160
Dividends on Share Capital	£ 25,850	24,404	15,005	7,354	1,622	949	75,844
<b>CONSUMERS' SOCIETIES.</b>							
Number of Societies	53	23	7	7	6	3	98
Number of Branches	(c)	9	2	42	..	3	(d) 59
Number of Members	40,511	9,353	23,502	34,926	1,585	501	110,376
Gross Turnover (Sales)	£ 1,799,499	538,058	56,495	718,615	82,271	57,517	3,252,458
Other Income	£ 23,740	15,404	14,336	19,128	1,637	658	74,905
Total Income	£ 1,823,239	553,462	70,831	737,743	83,908	58,175	3,327,353
Total Purchases during Year	£ 1,321,936	430,297	46,211	561,806	66,780	46,290	2,473,328
Total Expenditure (b)	£ 1,742,716	532,959	72,576	708,506	80,992	56,903	3,194,650
Rebates and Bonuses	£ 42,866	19,455	523	14,007	2,084	..	78,932
Dividends on Share Capital	£ 13,661	3,796	799	14,076	491	995	33,815

## SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

Number of Societies	..	10	9	3	53	..	75
Number of Branches	..	7	27	1	55	..	90
Number of Members	..	5,296	10,265	495	14,115	..	30,171
Gross Turnover (Sales)	£	1,003,348	1,587,547	78,709	1,209,656	..	3,879,260
Other Income	£	19,248	60,874	11,189	211,043	..	302,354
Total Income	£	1,022,596	1,648,421	89,898	1,420,699	..	4,181,614
Total Purchases during year	£	839,108	1,192,678	73,001	1,048,811	..	3,153,688
Total Expenditure (b)	£	1,005,303	1,623,513	85,416	1,406,767	..	4,120,999
Rebates and Bonuses	£	8,124	6,898	2,473	1,741	..	19,236
Dividends on Share Capital	£	4,055	5,831	1,105	4,236	..	15,227

(a) Particulars relate to Societies registered under *Co-operation Act 1923-1929*. (b) Working expenses and purchases. (c) Not available. (d) Excluding New South Wales.

## 2. Liabilities and Assets.—The next table gives the liabilities and assets.

## CO-OPERATIVE SOCIETIES.—LIABILITIES AND ASSETS, 1933.

Particulars.	N.S.W. 1932-33. (a)	Vic. 1932-33.	Qld. 1932-33.	S.A. 1933.	W.A. 1932-33.	Tas. 1932-33.	Total.
<b>PRODUCERS' SOCIETIES.</b>							
Liabilities—	£	£	£	£	£	£	£
Paid-up Capital	923,473	935,631	530,155	186,822	51,650	88,119	2,717,850
Loan Capital	..	178,213	1,048,436	257,660	5,950	45,101	1,535,360
Bank Overdraft	345,767	786,348	278,676	111,071	3,769	39,808	1,565,439
Accumulated Profits	..	92,155	130,793	42,513	30,456	4,303	388,390
Reserve Funds	730,134	269,555	865,804	176,323	28,321	18,033	2,388,390
Sundry Creditors	..	292,527	528,288	280,451	29,160	28,391	1,181,037
Other Liabilities	1,077,157	51,824	22,744	219,071	2,195	5,292	2,537,100
Total Liabilities	3,078,531	2,606,253	3,404,896	1,273,911	151,501	229,047	10,744,139
Assets—							
Land and Buildings	..	..	1,047,893	157,046	35,833	108,748	1,349,480
Machinery, Plant and other fixed Assets	1,728,245	1,210,892	1,490,556	283,178	36,554	40,051	6,138,996
Stocks	383,070	436,292	199,061	573,837	12,181	38,742	1,643,183
Sundry Debtors	614,316	687,752	564,568	118,513	32,817	27,697	2,045,663
Cash in hand and on deposit	58,940	30,084	45,930	55,656	18,881	5,450	214,941
Profit and Loss Account	..	111,104	11,469	18,150	..	5,332	146,055
Other Assets	293,960	130,129	45,419	67,531	15,235	3,027	555,301
Total Assets	3,078,531	2,606,253	3,404,896	1,273,911	151,501	229,047	10,744,139

(a) Particulars relate to Societies registered under *Co-operation Act 1923-1929*.

CO-OPERATIVE SOCIETIES.—LIABILITIES AND ASSETS, 1933—*continued.*

Particulars.	N.S.W.(a) 1932-33.	Vic. 1932-33.	Qld. 1932-33.	S.A. 1933.	W.A. 1932-33.	Tas. 1932-33.	Total.
<b>CONSUMERS' SOCIETIES.</b>							
Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	627,242	169,778	27,949	374,171	15,159	20,592	1,234,891
Loan Capital ..	..	40,366	8,998	144,770	..	5,850	199,984
Bank Overdraft ..	114,604	99,129	6,437	48,201	2,759	1,885	273,015
Accumulated Profits ..	..	9,314	5,299	2,263	2,756	1,135	..
Reserve Funds ..	311,945	98,013	8,392	133,349	2,015	10,534	585,015
Sundry Creditors ..	..	75,875	4,519	22,427	7,926	3,955	..
Other Liabilities ..	304,953	4,791	840	719	326	274	426,605
Total Liabilities ..	1,358,744	497,266	62,434	725,900	30,941	44,225	2,719,510
Assets—							
Land and Buildings ..	..	..	27,162	217,710	5,096	13,991	..
Machinery, Plant and other fixed Assets ..	529,650	182,353	3,084	47,235	1,886	1,532	1,029,699
Stocks ..	305,616	106,992	17,009	202,674	9,727	12,575	654,593
Sundry Debtors ..	349,122	151,247	9,918	109,456	8,652	7,045	635,440
Cash in hand and on deposit ..	13,483	40,306	2,382	59,482	3,206	8,464	127,323
Profit and Loss Account ..	..	9,912	..	10,621	687	235	21,516
Other Assets ..	160,873	6,456	2,879	78,661	1,687	383	250,939
Total Assets ..	1,358,744	497,266	62,434	725,900	30,941	44,225	2,719,510

## SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

Liabilities—	£	£	£	£	£	£	£
Paid-up Capital ..	..	94,169	146,064	17,395	402,508	..	660,136
Loan Capital ..	..	19,879	..	375	133,352	..	153,606
Bank Overdraft ..	..	68,615	84,881	12,424	433,186	..	599,106
Accumulated Profits ..	..	51,922	13,993	..	17,761	..	83,676
Reserve Funds ..	..	80,146	83,014	7,423	71,095	..	241,678
Sundry Creditors ..	..	59,018	79,820	7,075	323,623	..	469,536
Other Liabilities ..	..	8,101	2,383	602	40,771	..	51,857
Total Liabilities ..	..	381,850	410,155	45,294	1,422,296	..	2,259,595
Assets—							
Land and Buildings ..	..	..	129,847	6,089	163,132	..	..
Machinery, Plant and other fixed Assets ..	..	202,028	120,146	9,730	96,373	..	727,345
Stocks ..	..	63,381	66,121	11,981	256,768	..	398,251
Sundry Debtors ..	..	80,511	77,702	14,761	547,069	..	720,043
Cash in hand and on deposit ..	..	3,526	1,839	170	16,016	..	21,551
Profit and Loss Account ..	..	7,745	5	168	62,792	..	70,710
Other Assets ..	..	24,659	14,495	2,395	280,146	..	321,695
Total Assets ..	..	381,850	410,155	45,294	1,422,296	..	2,259,595

(a) Particulars relate to Societies registered under *Co-operation Act* 1923-1929.

## D. INSURANCE.

## § 1. General.

Although insurance business is conducted under State laws where such laws are in existence, or otherwise under various Companies Acts or Special Acts, Section 51 of the *Commonwealth Constitution Act* confers the necessary powers on the Commonwealth Parliament to legislate in regard to "insurance other than State insurance; also State insurance extending beyond the limits of the State concerned." In 1905, the Commonwealth Parliament passed "An Act relating to Assurance on the Lives of Children by Life Assurance Companies or Societies," but no further legislation relating to life assurance was enacted until the passing of the Insurance Acts of 1932, the principal features of which are given hereunder.

Companies, persons or associations of persons carrying on insurance business in the Commonwealth or in any Territory of the Commonwealth are required to deposit money or approved securities with the Commonwealth Treasurer, to the extent specified in the schedule hereunder.

## SCHEDULE OF DEPOSITS.

Class of Company.	Life Assurance Business.	Other Insurance Business.
Existing companies (Australian and foreign)	£1,000 for every £5,000 of net liability up to a maximum deposit of £50,000	£1,000 for each £5,000 of annual premium income. Maximum deposit £40,000
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 deposit until the Commonwealth Treasurer required their return to depositors who immediately had to make deposits with the Commonwealth to the prescribed extent.

The following are not regarded as insurance businesses under the Act:—

- Staff superannuation schemes ;
- Schemes of religious organizations solely for insurance of their property ; and
- Friendly Society, Union and Association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned.

The following shows particulars of deposits under the *Insurance Act* 1932, at 30th June, 1934.

Class of Insurance.	Deposited with—		Total.
	Commonwealth.	States.	
	£	£	
Life .. ..	188,733	1,232,175	1,420,908
Other .. ..	236,997	2,458,410	2,695,407
Total .. ..	425,730	3,690,585	4,116,315

## § 2. Life Assurance.

1. **General.**—Statistical returns since 1907 have been collected from life assurance companies and societies, with results which are in the main satisfactory. The results for each of the earlier years may be found in the several Official Year Books and Finance Bulletins. The figures in the succeeding paragraphs refer to Australian business only, except where otherwise indicated.

2. **Companies Transacting Business.**—(i) *General.* The number of companies transacting life assurance business in Australia during 1933 was 28, including four overseas companies. Of the twenty-four Australian companies, six are purely mutual, and seventeen are public companies. One office is a State government institution.

(ii) *Ordinary and Industrial Business.* Of the societies 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, 1928-1933.**—(i) *Ordinary.* The subjoined table shows the ordinary life business in force for each of the last six years. The amount assured in 1933 represents an average of slightly less than £44 per head of population.

### ORDINARY LIFE ASSURANCE.—AUSTRALIAN BUSINESS.

Year.	Policies in Force.		Amount.	Average per Policy.	Annual Premium Income.	
	No.		£	£	£	
1928	..	..	889,521	276,391,009	311	9,154,560
1929	..	..	908,807	290,313,414	319	9,513,249
1930	..	..	901,645	294,267,070	326	9,780,876
1931	..	..	871,089	285,264,656	327	9,424,411
1932	..	..	866,084	286,288,696	331	9,354,001
1933	..	..	877,173	292,469,393	333	9,703,250

(ii) *Industrial.* Information in regard to industrial business is given in the following table :—

### INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN BUSINESS.

Year.	Policies in Force.		Amount.	Average per Policy.	Annual Premium Income.	
	No.		£	£	£	
1928	..	..	1,564,081	65,966,754	42	3,884,416
1929	..	..	1,640,989	71,053,864	43	4,170,989
1930	..	..	1,598,877	69,977,444	44	4,259,755
1931	..	..	1,549,877	67,440,828	44	4,081,498
1932	..	..	1,595,347	69,409,234	44	4,049,955
1933	..	..	1,667,531	72,180,800	43	4,133,390

4. Receipts and Expenditure.—(i) *Ordinary Business.* The following table shows the aggregate Australian receipts for the last five years of all the societies doing business in Australia. In the latter year premiums—new and renewal—amounted to over 61 per cent., and interest, dividends, and rent to 35 per cent of the Australian receipts.

## ORDINARY LIFE ASSURANCE.—AUSTRALIAN RECEIPTS.

Heading.	Amount.				
	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
Premiums—New ..	1,067,895	1,021,764	815,249	878,085	1,113,998
Renewal ..	8,445,354	8,759,112	8,609,162	8,475,916	8,589,252
Consideration for annuities ..	92,841	69,969	75,569	178,928	226,101
Interest, dividends, and rents ..	6,469,996	6,808,125	6,102,804	5,367,434	5,532,932
Other receipts ..	341,546	371,218	365,225	385,253	326,892
<b>Total Receipts ..</b>	<b>16,417,632</b>	<b>17,030,188</b>	<b>15,968,009</b>	<b>15,285,616</b>	<b>15,789,175</b>

In 1933 expenditure which had steadily increased to almost £13 million in 1931 decreased by over £1 million to £11,738,044 in 1933. Claims accounted for 52 per cent. of the total expenditure; surrenders 18 per cent.; and expenses of management, and licence fees and taxes, each 8 per cent.

## ORDINARY LIFE ASSURANCE.—AUSTRALIAN EXPENDITURE.

Heading.	Amount.				
	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
Claims .. ..	5,389,720	5,356,945	5,733,128	5,834,098	6,071,545
Surrenders .. ..	1,164,504	1,761,192	2,554,249	2,379,753	2,097,678
Annuities .. ..	116,015	103,451	103,560	106,890	119,282
Commission .. ..	769,252	681,424	572,887	586,092	640,305
Expenses of management .. ..	928,696	932,179	925,439	947,420	977,471
Licence fees and taxes .. ..	425,202	509,337	906,134	982,386	882,384
Shareholders' dividends .. ..	102,367	92,953	73,289	62,571	62,084
Cash bonuses paid to shareholders .. ..	579,490	758,991	878,310	726,721	585,688
All other expenditure .. ..	395,726	1,056,318	1,113,645	248,091	301,607
<b>Total Expenditure ..</b>	<b>9,870,972</b>	<b>11,252,790</b>	<b>12,860,641</b>	<b>11,874,022</b>	<b>11,738,044</b>

The excess of receipts over expenditure during the past five years was as follows:—1929, £6,546,660; 1930, £5,777,398; 1931, £3,107,368; 1932, £3,411,594; and 1933, £4,051,131. During each of the above years the proportions that expenditures bore to receipts were as follow:—1929, 60 per cent.; 1930, 66 per cent.; 1931, 80 per cent.; 1932, 78.7 per cent.; and 1933, 74.3 per cent.

(ii) *Industrial Business.* The aggregate Australian receipts for the years 1929 to 1933 of societies transacting industrial business were as follow :—

**INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN RECEIPTS.**

Heading.	Amount.				
	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
Premiums—New and Renewal .. ..	4,170,989	4,259,755	4,081,498	4,049,955	4,133,390
Consideration for annuities .. ..	14	..	..	..	..
Interest, dividends, and rents .. ..	1,105,141	1,205,959	1,239,068	1,062,294	1,082,143
Other receipts .. ..	18,732	17,477	16,220	20,434	26,568
<b>Total Receipts ..</b>	<b>5,294,876</b>	<b>5,483,191</b>	<b>5,336,786</b>	<b>5,132,683</b>	<b>5,242,101</b>

Expenditure during 1933 totalled £3,561,408. Claims amounted to more than 45 per cent. ; commission to over 24 per cent. ; and expenses of management to almost 14 per cent.

**INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN EXPENDITURE.**

Heading.	Amount.				
	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
Claims .. ..	1,408,735	1,586,080	1,584,875	1,656,710	1,614,375
Surrenders .. ..	194,202	317,384	420,115	226,430	193,436
Annuities .. ..	195	195	285	231	1,071
Commission .. ..	988,565	895,421	812,153	840,422	866,430
Expenses of management .. ..	508,883	520,102	492,595	496,207	494,773
Licence fees and taxes .. ..	87,186	106,229	189,408	229,814	211,613
Shareholders' dividends .. ..	68,980	66,705	64,596	54,860	55,784
All other expenditure .. ..	129,597	238,508	403,070	180,864	123,926
<b>Total Expenditure</b>	<b>3,386,343</b>	<b>3,730,624</b>	<b>3,967,097</b>	<b>3,685,538</b>	<b>3,561,408</b>

The excess of receipts over expenditure for each of the last five years was :—1929, £1,908,533 ; 1930, £1,752,567 ; 1931, £1,369,689 ; 1932, £1,447,145 ; and 1933, £1,680,693.

The proportions that expenditures bore to receipts during each of the above years were—1929, 64 per cent. ; 1930, 68 per cent. ; 1931, 74 per cent. ; 1932, 72 per cent. ; and 1933, 68 per cent.

5. *Liabilities and Assets, 1933.*—(i) *General.* The liabilities of the Australian societies consist mainly of their assurance funds, but in the case of public companies there is a further liability on account of the shareholders' capital. The assets consist chiefly of loans on mortgage and policies ; government, municipal, and similar securities ; shares ; freehold property, etc. Loans on personal security are granted by very few of the Australian societies.

(ii) *Ordinary and Industrial Business.* For various reasons several societies do not attempt the division of liabilities and assets between the industrial and ordinary branches, and, therefore, the figures in the following table relate to ordinary and industrial branches combined.

**ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN LIABILITIES.**

Heading.	Amount.				
	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
Shareholders' capital, paid up ..	1,729,408	1,706,160	1,445,045	1,426,306	1,399,390
Assurance and annuity funds ..	91,938,296	90,551,713	90,325,856	93,798,818	97,017,961
Other funds ..	9,532,291	11,098,669	13,022,705	13,430,486	14,377,576
Claims admitted but not paid ..	920,549	884,365	941,450	1,042,886	1,055,402
All other liabilities ..	2,521,056	2,684,814	2,346,360	2,329,505	2,595,643
<b>Total Australian Liabilities ..</b>	<b>106,641,600</b>	<b>106,925,721</b>	<b>108,081,416</b>	<b>112,028,001</b>	<b>116,445,972</b>

Separate details of Liabilities in Australia and outside Australia are not available for the following institutions, viz., Mutual Life and Citizens' Assurance Coy. Ltd., National Mutual Life Association, Western Australian Insurance Coy. Ltd., and Mutual Life Insurance Co. of New York. The aggregate Australian assets of these institutions included hereunder are as follows:—1929, £35,156,189; 1930, £36,680,743; 1931, £39,474,426; 1932, £38,606,189; and 1933, £38,310,932. Assets and liabilities of the Liverpool and London and Globe Insurance Company Ltd. are also excluded as separate details of Life and General Departments are not available.

Assets for the years specified are set out in detail in the table hereunder:—

**ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN ASSETS.**

Heading.	Amount.				
	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
Government and municipal securities ..	70,578,790	72,777,464	74,317,848	79,472,958	82,294,398
Mortgages ..	34,632,357	37,852,782	37,354,976	36,543,532	36,600,242
Loans on companies' policies ..	13,864,243	16,795,179	19,122,781	19,814,898	20,265,261
Landed and house property ..	5,327,568	5,691,395	5,954,157	6,330,864	6,656,560
Life interests and reversions ..	151,724	175,093	205,560	315,043	302,602
Other investments ..	3,195,550	3,404,720	3,127,424	3,557,292	4,140,065
Outstanding premiums	1,052,187	1,170,984	1,122,747	1,073,141	1,020,492
Outstanding interest, dividends, and rents	1,425,585	1,525,703	1,582,472	1,588,516	1,648,410
Cash ..	2,015,003	2,169,606	3,135,283	2,860,915	3,230,495
Establishment and organization accounts	1,259,921	1,084,240	1,082,056	1,017,443	1,091,659
All other assets ..	1,096,050	1,308,602	1,289,439	1,221,284	1,121,755
<b>Total Australian Assets (a) ..</b>	<b>134,598,978</b>	<b>143,955,768</b>	<b>148,294,743</b>	<b>153,795,886</b>	<b>158,371,939</b>

(a) Excludes Australian assets of Liverpool and London and Globe Coy: Assets of other companies referred to above are included herein.



(iii) *Total Assets.* It has been thought desirable to restrict, wherever possible, the figures relating to life assurance to business in Australia. Several of the companies whose head offices are in Australia transact, however, a large amount of business elsewhere, viz., in New Zealand, in South Africa, and in the United Kingdom, while in the case of the foreign companies, the Australian business is insignificant compared with that done elsewhere. Particulars as to this foreign business of both Australian and foreign companies will be found in "Finance Bulletin No. 25."

The total assets of all life companies operating in Australia amounted to £440,815,521 in 1933, of which government and municipal securities (£133,362,539), and mortgages (£99,368,723), represented nearly 53 per cent. The substantial reductions in these figures as compared with those published in the previous issue of this volume are due to the restriction of the returns of the Prudential Insurance Co. Ltd., London, to its Australasian business which is controlled by the Head Office of the Company in Sydney. Amended particulars comparable with the figures in this paragraph are given in Finance Bulletin No. 25, published by this Bureau.

6. *New Policies issued in Australia, 1933.*—(i) *Ordinary Business.* During 1933 83,271 new policies were issued for £28,735,379. The average amount per policy was £345, which compares with an average of £333 per policy for all policies which were in existence at the end of 1933.

(ii) *Industrial Business.* New policies to the number of 303,507 were issued during the year, for a total of £13,064,737. The average per policy which was over £43 was approximately the average for all industrial policies current at the end of 1933.

7. *Policies Discontinued in Australia.*—(i) *Ordinary Business.* The volume of business which from various causes becomes void in each year is always large. The number and amount of policies, including annuities, discontinued in the last three years, and the reasons for discontinuance are given in the following table:—

ORDINARY LIFE ASSURANCE.—POLICIES DISCONTINUED IN AUSTRALIA.(a)

Mode.	1931.		1932.		1933.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	18,266	4,159,657	19,055	4,181,929	19,243	4,310,392
Surrender ..	30,259	9,411,471	27,061	8,407,828	22,591	7,011,616
Forfeiture ..	38,061	15,807,637	31,646	12,196,036	30,035	11,154,904
Transfer ..	(b)	(b)	(c) 28	4,605	(c) 38	(c) 13,375
<b>Total ..</b>	<b>86,586</b>	<b>29,378,765</b>	<b>77,734</b>	<b>24,790,398</b>	<b>71,831</b>	<b>22,463,537</b>

(a) Includes Annuities. transfers from Australia.

(b) Not available.

(c) Transfers to Australian registers exceed

(ii) *Industrial Business.* The number of policies discontinued in this branch each year is also very large. Of the total amount of discontinuance during 1933 only about 14 per cent. was due to death or maturity, while roughly 78 per cent. was due to forfeiture.

## INDUSTRIAL LIFE ASSURANCE.—POLICIES DISCONTINUED IN AUSTRALIA.(a)

Mode.	1931.		1932.		1933.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	54,274	1,482,544	53,060	1,512,020	50,026	1,480,409
Surrender ..	27,783	1,316,062	19,486	918,230	15,860	736,383
Forfeiture ..	215,506	11,215,543	161,545	8,222,649	164,589	8,069,375
Transfer ..	(b)	(b)	35	(c) 501	44	1,754
Total ..	297,563	14,014,149	234,126	10,652,398	230,519	10,287,921

(a) Includes Annuities.  
transfers from Australia.

(b) Not available.

(c) Transfers to Australian registers exceed

8. **Conspectus of Australian Life Assurance Legislation.**—A conspectus of Australian Life Assurance Legislation as then existing appeared in Official Year Book No. 18, pp. 1041 to 1059.

### § 3. Fire, Marine, and General Insurance.

1. **Australasian Companies\*.**—(i) *General.* Returns in some detail are available showing the revenue and expenditure, assets and liabilities, and investments of 42 insurance companies having their head offices either in Australia, New Zealand, or Fiji. The business transacted by these companies represents from 55 to 60 per cent. of the aggregate Australian business, some particulars of which are given in par. 2 following.

(ii) *Revenue and Expenditure.* The most important items of revenue and expenditure are given below. The trade surplus in 1933-34 was £695,271, or 11.51 per cent. of premium income.

#### FIRE, MARINE, AND GENERAL INSURANCE COMPANIES.—SUMMARY OF REVENUE AND EXPENDITURE.

Heading.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
No. of Companies ..	41	39	38	40	42
	£	£	£	£	£
Premiums, less reinsurances ..	8,304,632	6,975,834	5,964,532	5,891,040	6,039,526
Losses ..	4,829,345	4,293,384	3,560,972	3,262,215	3,031,821
Expenses, commission, and taxes	2,795,130	2,549,181	2,297,928	2,278,135	2,312,434
Trade surplus ..	680,157	133,269	105,632	350,690	695,271
Interest, rent, etc. ..	829,410	787,978	745,519	684,674	682,491
Total surplus ..	1,509,567	921,247	851,151	1,035,364	1,377,762
Dividends and Bonuses paid ..	653,595	574,626	546,822	571,134	632,210
Ratio to premium income of—	%	%	%	%	%
(a) Losses ..	58.15	61.55	59.70	55.38	50.20
(b) Expenses, etc. ..	33.66	36.54	38.53	38.67	38.29
(c) Trade surplus ..	8.19	1.91	1.77	5.95	11.51

(iii) *Liabilities and Assets.* The liabilities and assets for the same period are set out in the following tables. Comparison of the results for 1933-34 with those for 1929-30 shows that paid-up capital decreased by 3.5 per cent., while reserves increased by 10 per cent. Government securities represents an increasing proportion of assets.

\* The statistical information in this paragraph has been extracted from the "Australasian Insurance and Banking Record".

## FIRE, MARINE, AND GENERAL INSURANCE COMPANIES.

Heading.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
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## PAID-UP CAPITAL, RESERVES, AND LIABILITIES.

	£	£	£	£	£
Paid-up capital .. ..	6,541,033	6,479,866	6,235,241	6,308,179	6,311,586
Reserves and reinsurance funds (a) .. ..	10,136,075	10,236,760	10,279,065	10,416,126	10,981,830
Undivided profits .. ..	784,695	622,801	662,229	735,443	799,207
Losses unsettled .. ..	974,016	933,350	851,417	929,467	852,986
Sundry creditors, etc. ..	2,419,285	1,979,736	1,754,254	1,691,647	1,601,209
Dividends, etc., to pay ..	376,091	354,279	339,803	369,438	408,619
Life assurance funds (b) ..	2,331,665	2,603,598	2,805,673	3,022,937	3,286,254
<b>Total Liabilities ..</b>	<b>23,562,860</b>	<b>23,210,390</b>	<b>22,927,682</b>	<b>23,473,237</b>	<b>24,241,691</b>

## INVESTMENTS AND OTHER ASSETS.

	£	£	£	£	£
Loans on mortgage .. ..	829,079	845,085	745,445	797,417	747,762
Government securities, etc.	13,932,258	14,464,207	14,470,341	14,878,208	15,458,956
Landed and other property	3,584,044	3,397,399	3,304,802	3,236,307	3,182,121
Fixed deposits, etc. .. ..	2,194,546	1,667,753	1,808,276	1,709,384	2,007,458
Loans on life policies (b) ..	136,899	182,574	223,222	254,077	273,568
Investments .. ..	149,841	165,630	155,952	203,182	214,575
Cash and bills receivable ..	670,078	603,896	703,721	972,852	901,001
Sundry debtors and other assets.. ..	2,066,115	1,883,846	1,515,923	1,421,810	1,456,250
<b>Total Assets ..</b>	<b>23,562,860</b>	<b>23,210,390</b>	<b>22,927,682</b>	<b>23,473,237</b>	<b>24,241,691</b>

(a) Including amount required as reserves against unexpired risks. (b) Some of the companies transact Life Business.

(iv) *Marine Insurance.* The Act No. 11 of 1909, "An Act relating to Marine Insurance" passed by the Commonwealth Parliament, and assented to on the 11th November, 1909, altered the conditions under which marine policies had been issued under certain Imperial and State Acts.

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 1932-33 and 1933-34.

## FIRE, MARINE, AND GENERAL INSURANCE—PREMIUMS AND LOSSES.

State.	Premiums, less reinsurance and returns.		Losses, less reinsurance.		Proportion of Losses on Premiums.	
	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.
	£	£	£	£	%	%
New South Wales ..	4,335,774	4,449,320	1,882,953	2,003,061	43.43	45.02
Victoria ..	3,078,295	3,112,691	1,204,754	1,233,843	36.96	39.64
Queensland ..	981,519	982,785	479,676	333,829	48.93	33.97
South Australia ..	804,493	807,980	206,155	253,238	25.63	31.34
Western Australia ..	893,218	872,956	397,817	400,446	44.54	45.87
Tasmania ..	254,753	285,806	107,765	126,301	42.30	44.19
All States ..	10,348,052	10,511,538	4,279,120	4,350,718	41.35	41.39

(ii) *Classes of Insurance.* The statement hereunder shows premiums and losses in respect of the principal classes of risks, with the proportions of losses on premiums for the years 1932-33 and 1933-34.

## 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.	
	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.
	£	£	£	£	%	%
Fire ..	5,353,896	5,167,372	1,732,623	1,497,097	32.36	28.97
Workers' Compensation ..	1,450,979	1,629,930	1,098,179	1,259,095	75.69	77.25
Motor Vehicle ..	1,613,427	1,650,587	760,533	818,049	47.14	49.56
Marine ..	720,013	747,194	235,866	255,376	32.76	34.18
Personal Accident ..	306,061	324,099	131,320	135,420	42.91	41.78
All other ..	903,676	992,356	320,599	385,681	35.47	38.87
Total ..	10,348,052	10,511,538	4,279,120	4,350,718	41.35	41.39

The volume of business measured by the amounts of premium income shows that fire insurances represented about 52 per cent. of the total during 1932-33 and 49 per cent. during 1933-34, while next in importance were Motor Vehicle (16 per cent.), and Workers' Compensation (14 per cent. during 1932-33 and 16 per cent. during 1933-34).

For several years prior to 1930-31 slightly more than 50 per cent. of the premium income was absorbed in satisfaction of claims. The proportion was reduced to about 48 per cent. in 1931-32, while during the next two years only 41 per cent. was required to meet losses.

## E. FRIENDLY SOCIETIES.

1. *General.*—Friendly societies are an important factor in the social life of the community, as probably more than one-third of the total population of Australia comes either directly or indirectly under their influence. Their total membership exceeds 550,000, 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. Up to and including the year 1930, returns for South Australia were for calendar years. The basis was then changed and the next statistical returns were for the eighteen months ended 30th June, 1932. The figures in the following tables are for the year 1932-33 in respect of all States except Tasmania where they relate to the calendar year 1933.

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, 1933.**

State.	Number of Registered Friendly Societies.	Number of Lodges.	Benefit Members at End of Year.	Average No. of Benefit Members during the Year.
New South Wales .. .. .	(c) 31	(c) 2,452	211,567	218,449
Victoria .. .. .	50	1,443	158,516	158,718
Queensland .. .. .	59	(a) 609	65,220	65,678
South Australia (a) .. .. .	17	823	71,275	71,704
Western Australia .. .. .	15	347	22,233	22,399
Tasmania .. .. .	19	190	24,661	(b) 25,007
Total .. .. .	..	5,864	553,472	561,955

(a) Excluding Juvenile Branches. (b) Estimated. (c) Exclusive of twenty miscellaneous societies consisting of Medical Institutes, Dispensaries, and Accident and Burial Societies.

The total number of registered Friendly Societies is not given for Australia, as many of the societies operate in all the States.

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, 1933.**

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 .. .. .	(a) 41,937	(a) 462,098	11.02	(a) 2,198	10.06
Victoria .. .. .	34,045	428,203	12.28	1,641	10.34
Queensland .. .. .	11,677	129,045	11.05	635	9.67
South Australia .. .. .	14,767	204,244	13.83	752	10.49
Western Australia .. .. .	4,641	47,913	10.32	197	8.80
Tasmania .. .. .	5,372	60,223	11.21	275	11.00
Total .. .. .	112,439	1,331,726	11.84	5,698	10.14

(a) Exclusive of Juvenile Branches.

4. **Revenue and Expenditure.**—(i) *Revenue.* The financial returns are not prepared in the same way in each State, but an attempt has been made in the subjoined table to group the revenue under the main headings :—

## FRIENDLY SOCIETIES.—REVENUE, 1933.

State.	Entrance Fees, Members' Contributions, and Levies.	Interest, Dividends, and Rents.	All other Revenue.	Total Revenue.
	£	£	£	£
New South Wales .. ..	706,755	154,759	54,294	915,808
Victoria .. ..	542,450	233,054	50,679	826,183
Queensland .. ..	223,867	79,617	(a)	303,484
South Australia .. ..	223,883	98,006	39,988	361,877
Western Australia .. ..	82,325	22,812	5,542	110,679
Tasmania .. ..	86,270	18,511	13,336	118,117
<b>Total .. ..</b>	<b>1,865,550</b>	<b>606,759</b>	<b>163,839</b>	<b>2,636,148</b>

(a) Included in interest, dividends, and rents.

(ii) *Expenditure.* The returns relating to expenditure are in greater detail than those for revenue. The figures show that the excess of revenue for the year was £268,430 for Australia, representing about 9s. 7d. per average benefit member.

## FRIENDLY SOCIETIES.—EXPENDITURE, 1933.

State.	Sick Pay.	Medical Attendance and Medicine.	Sums Paid at Death of Members and Members' Wives.	Adminis- tration.	All other Expendi- ture.	Total Expendi- ture.
	£	£	£	£	£	£
New South Wales .. ..	259,351	276,515	83,648	157,175	48,394	825,083
Victoria .. ..	249,489	222,227	40,273	120,238	119,060	751,287
Queensland .. ..	87,649	91,203	31,657	54,427	(a)	264,936
South Australia .. ..	107,196	99,853	33,700	48,008	38,507	318,264
Western Australia .. ..	29,850	29,901	10,387	19,352	7,768	97,258
Tasmania .. ..	33,658	27,582	21,653	17,986	10,011	110,890
<b>Total .. ..</b>	<b>767,193</b>	<b>738,281</b>	<b>221,318</b>	<b>417,186</b>	<b>223,740</b>	<b>2,367,718</b>

(a) Included in administration.

It appears from the above figures that sick pay averaged about 27s. 4d. 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 26s. 3d. per average benefit member.

5. **Funds.**—The two foregoing tables show that the surplus of revenue over expenditure in all States amounted to £268,430 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 1933 the total funds of friendly societies amounted to £15,002,101 (£28 2s. 5d. per benefit member), of which approximately 14½ millions were invested, principally on mortgage, loans on members' homes, real estate, and in Government and Municipal securities.

## F. PROBATES.

1. **Probates and Letters of Administration.**—The value of the estates left by deceased persons gives some idea of the distribution of property among the general population. There were in 1933 approximately 50,094 deaths of adult persons, while the number of probates and letters of administration granted during the same period was 19,785. It would therefore appear that about 40 per cent. of the adults who died during the year were possessed of sufficient property to necessitate the taking out of probate. The details for each State are shown in the table hereunder :—

## PROBATES AND LETTERS OF ADMINISTRATION, 1933.

Particulars.	New South Wales, 1932-33.	Victoria, 1933.	Queensland, 1932-33.	South Australia, 1933.	Western Australia, 1933.	Tasmania, 1933.(c)	Total.
Probates—							
Estates No.	8,010	5,431	967	1,697	(b) 975	564	17,644
Gross Value £	19,292,817	18,849,841	5,087,462	5,305,414	2,275,460	1,586,780	52,397,780
Net Value £	(d)	16,405,608	(d)	4,386,965	1,811,567	1,389,229	23,993,369
Letters of Administration—							
Estates No.	(a)	1,383	181	170	(b) 307	100	(e) 2,141
Gross Value £	(a)	(a)	310,153	200,755	(b) 242,752	79,989	(e) 833,649
Net Value £	(a)	(a)	(d)	136,978	b 175,616	54,294	(e) 366,888
Total—							
Estates No.	8,010	6,814	1,148	1,867	(b) 1,282	664	19,785
Gross Value £	19,292,817	18,849,841	5,397,615	5,506,169	2,518,212	1,666,775	53,231,429
Net Value £	(d)	16,405,608	(d)	4,523,943	1,987,183	1,443,523	24,360,257

(a) Included with Probates. (b) Applications lodged. (c) Applications dealt with  
(d) Not available. (e) Incomplete.

2. **Intestate Estates.**—The number of intestate estates placed under the control of the Curator during the year, and the amount of unclaimed money paid into Consolidated Revenue in each State during the year 1933, are given hereunder :—

## INTESTATE ESTATES, 1933.

Particulars.	N.S.W.	Vic.(c)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.(d)
Intestate estates placed under control of Curator during 1933—							
Number ..	(a)	237	1,345	141	402	87	2,212
Gross Value £	(d)	(b)	945,121	85,194	69,809	19,904	1,120,028
Net Value ..	(a)	60,230	757,721	65,094	(b)	15,560	898,605
Unclaimed money paid into Consolidated Revenue by Curator during 1933 £	(b)	21,428	13,255	6,306	5,551	(b)	51,540

(a) Included with Probates. (b) Not available. (c) Year ended 30th June, 1933.  
(d) Incomplete.

## CHAPTER XVI.

### PUBLIC FINANCE.

#### A.—GENERAL.

In early issues of the Official Year Book the plan was adopted of including in a single Chapter under the general heading of "Finance" the more important particulars available in connexion therewith. A departure was made in Official Year Book No. 25 by dividing the subject into separate Chapters with the two broad headings of "Public Finance" and "Private Finance". Notwithstanding that the financial transactions of Local Government Bodies and certain statutory Governmental Bodies come within the category of Public Finance, it is convenient to deal with these in a separate Chapter.

The subject of "Public Finance" has been dealt with in this Chapter under the two major divisions of Commonwealth Finance—including currency and coinage—and State Finance. The close financial relations between the Commonwealth and States particularly since the *Financial Agreement Act* 1928 has been in operation, however, demand a combination of these two divisions under the heading of Commonwealth and State Finance.

Certain banking activities are conducted by both Commonwealth and State Governments, but as the services provided are essentially connected with the banking system of the Commonwealth they have been included in the section of the Private Finance Chapter relating to Banking. An exception has been made in the case of the Commonwealth Bank Note Issue Department, which is dealt with in sub-section "Currency and Coinage" of this Chapter.

#### B.—COMMONWEALTH FINANCE.

##### § 1. General.

1. **Financial Provisions of the Constitution.**—The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Chapter IV., "Finance and Trade," being sections 81 to 105 of the Constitution Act. Two other sections which have a most important bearing on questions of Commonwealth finance are sections 69 and 51.

Section 69 provides for the transfer to the Commonwealth from the States of certain specified departments, while section 51, in outlining the powers of the Federal Parliament, implies the transfer or creation of various other departments. Section 87 deals with the financial relations between the Commonwealth and the States. These matters have been treated in some detail in previous issues of the Official Year Book and on page 463 of this issue a *résumé* is given of the constitutional obligations upon the Commonwealth regarding payments to the States.

The Commonwealth Treasury issues annually a document entitled "The Treasurer's Statement of Receipts and Expenditure during the year ended the 30th June," with which is incorporated the report of the Commonwealth Auditor-General for the year. This series of annual statements is the principal authority for the majority of the tables given herein.



2. **Accounts of Commonwealth Government.**—(i) *General.* The Commonwealth Government, like the State Governments, bases its accounts mainly upon three funds, the Consolidated Revenue Fund, the Trust Fund, and the Loan Fund. The last mentioned fund came into existence in the financial year 1911-12, but on the outbreak of war it became so important that it was treated in two parts—a General Loan Fund mainly for purposes of Public Works, and a War Loan Fund for purely war purposes. From the year 1923-24 inclusive the loan expenditure on War Service Homes was debited against works loan expenditure. Previously such expenditure had been a charge on War Loans. Since the year mentioned the transactions of the War Loan Fund consisted mainly of credits arising from repayments of expenditure during previous years.

(ii) *Receipts, Expenditure, &c.* The following statement shows for the period 1921-22 to 1934-35 the Receipts, Expenditure, Excess Receipts or Deficiency for the year together with the accumulated result. 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 Act" have been excluded.

Year.	Receipts.	Expenditure.	Excess Receipts.	Deficiency.	Accumulated Result.	
					Excess Receipts.	Deficiency.
					£	£
1921-22 ..	63,985,796	64,195,699	..	209,903	6,408,424	..
1922-23 ..	63,834,385	62,814,235	1,020,150	..	7,428,574	..
1923-24 ..	65,078,688	69,916,109	..	4,837,421	2,591,153 <sup>a</sup>	..
1924-25 ..	67,697,124	67,178,748	518,376	..	3,109,529	..
1925-26 ..	70,203,572	73,027,204	..	2,823,632	285,897	..
1926-27 ..	75,544,382	73,008,785	2,535,597	..	2,821,494 <sup>b</sup>	..
1927-28 ..	73,808,227	79,258,464	..	5,450,237 <sup>b</sup>	..	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 <sup>c</sup>	..	10,757,619 <sup>c</sup>	..	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 <sup>d</sup>	..
1934-35 ..	77,369,105	76,657,900	711,205	..	713,474 <sup>e</sup>	..

(a) Of the accumulated surplus to 30th June, 1924, viz., £10,006,908, £4,915,755 was used for debt redemption, and £2,500,000 transferred to Trust Funds. (b) The following payments amounting to £2,820,000 were made out of the surplus of £2,821,494 available at 30th June, 1927, and brought to account as expenditure during 1927-28:—Naval Construction and Defence Reserve, £2,250,000; Science and Industry Investigation, £250,000; Civil Aviation, £200,000; Purchase of Radium, £100,000; and Geographical Survey of Australia, £20,000. The result of the ordinary transactions of the year 1927-28, omitting these special appropriations, was therefore a deficit of £2,630,237. (c) Excludes Interest, etc., paid on behalf of New South Wales and not recovered at 30th June, 1931. (d) Of this amount £6,160,000 was appropriated in 1934-35, viz., £4,160,000 for Defence equipment and £2,000,000 for financial assistance to the States leaving excess receipts totalling £2,269. (e) It is proposed to allocate £500,000 for financial assistance to the States and to apply the balance towards reduction of the accumulated deficits.

## § 2. Consolidated Revenue Fund.

### Division I.—Nature of Fund.

The provisions made for the formation of a Commonwealth Consolidated Revenue Fund, and the means to be adopted for operating on the fund, are contained in sections 81, 82, and 83 of the Constitution.

## Division II.—Revenue.

1. General.—The following table furnishes details of the revenue from each source and the amount per head of population under each of the three main headings during the years 1929–30 to 1933–34 :—

## COMMONWEALTH CONSOLIDATED REVENUE—SOURCES.

Source.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Taxation (a) .. .. .	58,187,775	50,420,106	53,959,042	56,146,036	56,408,728
Percentage of Total .. .. .	75.4	72.5	75.4	76.4	76.3
Per head of population (d) .. .. .	£9 0 11	£7 15 2	£8 4 8	£8 10 0	£8 9 6
Business Undertakings (a) .. .. .	13,969,124	13,148,341	12,653,704	12,894,580	13,460,911
Percentage of Total .. .. .	18.1	18.9	17.7	17.5	18.2
Per head of population (d) .. .. .	£2 3 5	£2 0 6	£1 18 8	£1 19 1	£2 0 3
Other Revenue—					
Interest, etc. (c)—					
Loans to States for Soldier Settlement .. .. .	1,682,891	1,387,151	1,174,187	1,083,865	1,083,865
Other .. .. .	1,773,723	1,668,479	1,427,307	1,384,639	1,327,195
Coinage .. .. .	41,070	141,846	191,136	49,568	139,263
Defence .. .. .	103,351	79,005	50,510	47,753	41,213
Quarantine .. .. .	28,360	20,814	16,488	17,312	17,068
Territories (b) .. .. .	86,770	207,192	202,402	202,936	235,091
Patents, Trade Marks, etc. .. .. .	58,300	54,429	48,798	45,018	51,444
Marine .. .. .	201,210	196,501	201,218	205,133	193,532
Pension Contributions .. .. .	48,924	43,932	33,147	48,673	31,733
Net Profit on Australian Note Issue .. .. .	703,669	449,506	1,305,955	1,108,519	728,998
Bankruptcy .. .. .	32,086	44,395	41,943	31,787	32,475
Ex-enemy properties .. .. .	.. .. .	1,500,000	.. .. .	.. .. .	.. .. .
Export charges .. .. .	74,034	80,785	64,092	Dr. 1,874	2,072
Miscellaneous .. .. .	152,102	124,438	162,369	248,864	188,365
Total .. .. .	4,986,490	5,998,473	4,919,552	4,472,193	4,072,314
Percentage of Total .. .. .	6.5	8.6	6.9	6.1	5.5
Per head of population (d) .. .. .	£0 15 6	£0 18 5	£0 15 0	£0 13 6	£0 12 3
Grand Total (c) .. .. .	77,143,389	69,566,920	71,532,298	73,512,809	73,941,953
Per head of population (d) .. .. .	£11 19 10	£10 14 1	£10 18 4	£11 2 8	£11 2 2

(a) For details, see succeeding pages. (b) Exclusive of Railways and other items which appear elsewhere under their appropriate headings. (c) Excludes Interest on States' Debts payable by States. (d) Based on mean population of each financial year.

2. Taxation.—(i) Total Collections. (a) Amount. Collections under each heading for the years 1929–30 to 1933–34 are given below.

## TAXATION—TOTAL COLLECTIONS.

Heading.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Customs .. .. .	30,157,040	18,224,227	18,565,630	21,313,793	22,326,823
Excise .. .. .	11,617,351	10,070,846	9,840,166	11,678,650	11,928,019
Sales Tax .. .. .	.. .. .	3,472,854	8,425,067	9,369,276	8,695,689
Flour Tax .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	1,253,957
Land Tax .. .. .	2,840,078	2,758,598	2,156,765	1,650,311	1,325,393
Income Tax .. .. .	11,120,029	13,604,374	13,481,982	10,878,718	9,314,768
Income Tax, Federal Officers' Salaries .. .. .	.. .. .	34,475	4,304	.. .. .	.. .. .
Estate Duties .. .. .	2,122,478	2,068,865	1,385,811	1,126,996	1,511,296
Entertainments Tax .. .. .	316,121	186,661	133,072	134,042	51,216
War Time Profits Tax .. .. .	14,678	Dr. 794	Dr. 33,755	Dr. 5,750	1,567
Total Taxation .. .. .	58,187,775	50,420,106	53,959,042	56,146,036	56,408,728
Percentage on Total Revenue .. .. .	75.4	72.5	75.4	76.4	76.3

(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 :—

## TAXATION—PERCENTAGES ON TOTAL COLLECTIONS.

Heading.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	%	%	%	%	%
Customs .. .. .	51.8	36.1	34.4	38.0	39.6
Excise .. .. .	20.0	20.0	18.2	20.8	21.1
Sales Tax .. .. .	..	6.9	15.6	16.7	15.4
Flour Tax .. .. .	..	..	..	..	2.2
Land Tax .. .. .	4.9	5.5	4.0	2.9	2.4
Income Tax .. .. .	19.1	27.0	25.0	19.4	16.5
Income Tax, Federal Officers' Salaries .. .. .	..	..	..	..	..
Estate Duties .. .. .	3.7	4.1	2.6	2.0	2.7
Entertainments Tax .. .. .	0.5	0.4	0.3	0.2	0.1
War Time Profits Tax .. .. .	..	..	Dr. 0.1	..	..
Total .. .. .	100.0	100.0	100.0	100.0	100.0

(ii) *Customs Revenue. (a) Classified.* Particulars for the five years 1929-30 to 1933-34 are furnished in the following table :—

## COMMONWEALTH CUSTOMS REVENUE—CLASSIFICATION.

Classes.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Stimulants .. .. .	2,598,593	1,045,601	966,952	1,027,012	1,051,843
Narcotics .. .. .	3,069,426	2,875,840	3,088,656	2,529,473	2,661,013
Sugar .. .. .	11,029	674	392	844	605
Agricultural products	1,291,643	1,000,437	1,132,319	1,363,600	1,123,576
Apparel and textiles ..	5,154,257	2,069,610	1,656,599	2,163,750	2,160,207
Metals and machinery	4,758,415	1,594,769	655,363	1,122,346	1,376,997
Oils, paints, and etc. ..	4,137,016	3,945,960	5,032,748	5,392,554	6,110,306
Earthenware, etc. ..	713,599	360,889	179,885	275,660	305,452
Drugs and chemicals ..	539,275	358,334	252,357	287,736	262,752
Wood, wicker and cane	1,802,580	379,328	205,288	401,149	515,400
Jewellery, etc. ..	1,028,151	557,262	254,821	312,914	364,200
Leather, etc. ..	526,056	256,498	355,588	349,918	367,657
Paper and stationery	878,800	732,888	420,551	424,732	419,931
Vehicles .. .. .	2,315,739	377,688	114,938	337,858	657,999
Musical instruments ..	138,329	13,855	4,518	6,451	9,437
Miscellaneous articles	1,116,340	704,833	452,290	640,737	694,092
Primage .. .. .	..	1,812,624	3,057,427	4,512,090	4,080,456
Other receipts .. .. .	77,792	137,137	134,938	164,969	166,700
Total Customs .. .. .	30,157,040	18,224,227	18,565,630	21,313,793	22,326,823

(b) States. The following table shows the Customs Duties collected in each State during the last five years:—

## COMMONWEALTH CUSTOMS DUTIES—COLLECTIONS, EACH STATE.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
New South Wales (a)	14,028,700	8,747,066	8,566,662	9,282,263	9,917,405
Victoria .. ..	8,877,033	5,554,343	6,018,159	7,351,501	7,502,201
Queensland .. ..	2,816,474	1,669,839	1,636,868	1,890,206	1,982,716
South Australia (b) ..	2,182,794	1,060,942	1,113,543	1,363,710	1,423,627
Western Australia .. ..	1,892,050	1,019,024	1,006,911	1,177,655	1,251,919
Tasmania .. ..	359,989	173,013	223,487	248,458	248,955
<b>Total .. ..</b>	<b>30,157,040</b>	<b>18,224,227</b>	<b>18,565,630</b>	<b>21,313,793</b>	<b>22,326,823</b>

(a) Includes Federal Capital Territory.

(b) Includes Northern Territory.

(iii) Excise Revenue. (a) Classified. Particulars concerning the amount of Excise collected under each head during each of the years ending 30th June, 1930 to 1934, are given hereunder:—

## COMMONWEALTH EXCISE REVENUE—CLASSIFICATION.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Beer .. ..	6,105,443	5,200,361	4,739,117	4,867,844	4,770,439
Spirits .. ..	1,856,951	1,248,700	1,337,262	1,298,325	1,352,092
Concentrated Grape					
Must .. ..	..	766	1,840	2,229	2,683
Tobacco .. ..	3,573,198	3,283,545	3,396,098	4,751,575	4,822,658
Petrol .. ..	70,065	315,582	328,073	461,313	517,617
Playing Cards .. ..	120	10,432	11,129	11,548	10,799
Matches .. ..	..	..	8,330	72,735	77,160
Cigarette Tubes and					
Papers .. ..	..	..	6,581	201,186	362,621
Licences .. ..	11,574	11,460	11,736	11,895	11,950
<b>Total Excise .. ..</b>	<b>11,617,351</b>	<b>10,070,846</b>	<b>9,840,166</b>	<b>11,678,650</b>	<b>11,928,019</b>

(b) States. Excise collections in each State for the last five years were as follow:—

## COMMONWEALTH EXCISE REVENUE—COLLECTIONS, EACH STATE.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
New South Wales .. ..	5,775,428	4,753,246	4,200,426	5,156,998	5,558,783
Victoria .. ..	3,051,581	2,986,267	3,146,119	3,463,238	3,561,681
Queensland .. ..	1,080,622	989,918	1,014,614	1,266,235	1,139,280
South Australia (a) .. ..	819,269	569,938	706,898	829,438	746,788
Western Australia .. ..	763,365	651,668	662,514	856,393	810,212
Tasmania .. ..	127,086	119,809	109,595	106,348	111,275
<b>Total .. ..</b>	<b>11,617,351</b>	<b>10,070,846</b>	<b>9,840,166</b>	<b>11,678,650</b>	<b>11,928,019</b>

(a) Includes Northern Territory.

(iv) *Other Taxation.* (a) *Collections paid to Revenue.* The Commonwealth Government imposes other taxes as follow:—Land Tax, Estate Duty, Income Tax, War Time Profits Tax, Entertainments Tax (now discontinued), Sales Tax and Flour Tax. The following statement shows particulars of the collections on account of each of the above taxes during the last ten years. Owing to certain accounting technicalities the figures herein differ slightly from those shown in subsequent sub-sections, wherein further particulars of the several taxes are given.

## OTHER TAXATION COLLECTIONS, AUSTRALIA.

Year.	Land Tax.	Estate Duty.	Income Tax.	War-time Profits Tax.	Entertainments Tax.	Sales Tax.	Flour Tax.
	£	£	£	£	£	£	£
1924-25 ..	2,519,711	1,381,051	11,136,344	Dr. 74,783	686,586	..	..
1925-26 ..	2,521,910	1,411,336	10,858,046	Dr. 77,491	460,326	..	..
1926-27 ..	2,615,900	1,362,351	11,126,278	Dr. 28,357	366,159	..	..
1927-28 ..	3,027,266	1,752,118	10,165,175	Dr. 112,236	358,865	..	..
1928-29 ..	2,988,885	2,080,149	9,841,496	Dr. 24,309	358,697	..	..
1929-30 ..	2,840,078	2,122,478	11,120,029	14,678	316,121	..	..
1930-31 ..	2,758,598	2,068,865	13,604,374	Dr. 794	186,661	3,472,854	..
1931-32 ..	2,156,765	1,385,811	13,481,982	Dr. 33,755	133,072	8,425,067	..
1932-33 ..	1,650,311	1,126,996	10,878,718	Dr. 5,750	134,042	9,369,276	..
1933-34 ..	1,325,393	1,511,296	9,314,768	1,567	51,216	8,695,689	1,253,957

"Other Taxation" is assessed and collected in general by the Commissioner of Taxation. The organization comprises an office in each State, assessing tax-payers who are concerned with that State only, and a Central office assessing tax-payers 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 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 earlier issues of the Official Year Book prior to No. 25. In order to give a more significant picture of the taxation in States, these figures have been discarded, and in their place are given figures supplied by the Commissioner of Taxation, which refer strictly to the assessments made on account of the State specified. The totals of these figures do not quite agree with the total Treasury figures owing to certain technicalities of accounting, but the difference is 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 of the Central Office collections, which include taxation on account of all States. These Central Office collections have not been analysed and allocated to the States. In the absence of precise information, it may be assumed as a fair 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 in 1910-11, when the rate of tax was 1 1-30,000d. on the first £1 in excess of an unimproved value of £5,000, increasing by 1-30,000d. for every additional £1 up to £75,000 where the increment of tax was 6d. and the average rate 3½d. The increment of tax of 6d. operated only on the excess of £75,000. The general exemption of £5,000 did not apply to absentees, the rate for whom is always 1d. more than for residents, and the first £5,000 of value for an absentee bore a flat rate of 1d. per £1. In 1914-15, the rate of tax was amended by making the tax on £1, 1 1-18,750d. increasing by 1-18,750d. for each additional £1 reaching an increment of tax of 9d. at £75,000 with an average over the whole of such field of 5d. per £1. The increment of tax applied to the excess over £75,000. Absentees correspondingly paid 1d. per £1 more than for a resident. A 20 per cent.

increase which was imposed in 1918-19 was withdrawn in 1922-23 and a further reduction of 10 per cent. was granted in 1927-28. No further alteration was made in the rates until 1932-33, when the rates were reduced by 33½ per cent. For 1933-34, the rates were further reduced to 50 per cent. of those effective in 1927-28. The unimproved value of lessees' estates on pastoral leases from the Crown was subject to land tax only in the years 1914-15 to 1922-23 inclusive.

Land Tax receipts in each State and Central Office for the years 1929-30 to 1933-34 were as follow. The particulars shown differ slightly from those in a preceding sub-section :—

## LAND TAX RECEIPTS.

State, etc.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34
	£	£	£	£	£
Central Office .. ..	984,408	945,045	702,715	564,149	440,522
New South Wales .. ..	945,112	923,876	699,551	530,293	456,434
Victoria .. ..	588,826	571,096	484,995	366,229	286,756
Queensland .. ..	46,442	62,739	54,085	34,636	19,179
South Australia .. ..	164,484	137,768	99,362	67,432	52,410
Western Australia .. ..	82,477	76,602	76,095	61,569	41,913
Tasmania .. ..	37,343	33,157	22,708	15,238	11,644
Total .. ..	2,849,092	2,750,283	2,139,511	1,639,546	1,308,858

(c) *Estate Duty.* The *Commonwealth Estate Duty Act* 1914 and Estate Duty Assessment Acts impose a duty on the estates of deceased persons where the net value of the estate exceeds £1,000. The rate of tax where the value of the estate for duty does not exceed £2,000 is £1, increasing by one-fifth of £1 for each £1,000 or part thereof in excess of £2,000, so that the percentage shall not exceed £15. Where the estate passes to a widow, children, or grand-children, the duty is payable at two-thirds of the ordinary rate.

Particulars of the collections in each State and Central Office for the last five years are appended. Owing to certain accounting technicalities, these figures differ slightly from the Treasury returns given in a previous sub-section.

## ESTATE DUTY RECEIPTS.

State, etc.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Central Office .. ..	1,067,388	1,228,385	683,060	466,972	697,474
New South Wales .. ..	452,649	384,307	283,316	273,467	379,524
Victoria .. ..	396,109	271,103	296,417	215,223	249,808
Queensland .. ..	87,211	82,063	43,832	56,507	57,104
South Australia .. ..	69,181	45,632	58,075	63,459	66,734
Western Australia .. ..	35,464	30,140	19,371	28,180	17,832
Tasmania .. ..	9,474	16,514	14,248	15,252	40,117
Northern Territory .. ..	63	18	136	..	..
Total .. ..	2,117,539	2,058,162	1,398,455	1,119,060	1,508,593

The average dutiable value of estates and the average amount of duty paid in 1933-34 were £5,246 and £182 respectively, as compared with an average dutiable value of £6,209 and an average duty of £282 in 1930-31. The reduced dutiable value may be attributed to the depressed property values.

(d) *Income Tax.* The first Commonwealth Income Tax was levied during the year 1915-16. The legislation on the subject comprises the *Income Tax Assessment Act* No. 34 of 1915 and subsequent amending Acts. Full details as to the original Acts are

given in Official Year Book No. 9. The following statement gives an index of the rate of normal tax on personal exertion and property incomes up to and including the year 1933-34. The table gives an index of the rate of tax on the taxable amount of income, and does not take into account the variations in assessment due to changes in exemption and abatements and in the methods of assessment.

## INCOME TAX—INDEX OF RATE.

Assessment years in which Rates were Amended.		Index of Rate of Tax.	Assessment years in which Rates were Amended.		Index of Rate of Tax.
1915-16	.. ..	1,000	1927-28	.. ..	1,080
1916-17	.. ..	1,250	1929-30	.. ..	1,214 (a)
1918-19	.. ..	1,625	1930-31	.. ..	1,351 (a) (b)
1920-21	.. ..	1,706	1931-32	.. ..	1,419 (a) (c)
1922-23	.. ..	1,535	1932-33	.. ..	1,419 (a) (d)
1924-25	.. ..	1,380	1933-34	.. ..	1,313 (a) (e)
1925-26	.. ..	1,200			

(a) Estimated. (b) In addition, a further tax of *rs. 6d.* in the *£1* was imposed on all taxable income from property. (c) In addition, a further tax of *2s.* in *£1* was imposed on all taxable income from property. (d) In addition, a further tax of *2s.* in the *£1* was imposed on all taxable income from property over and above the exemption of *£250.* (e) In addition, a further tax of *rs. 2.4d.* in the *£1* was imposed on all taxable income from property over and above the exemption of *£250.*

For the assessment years 1929-30 and 1930-31 the increases in the rates of tax were graduated according to the amount of taxable income. In 1929-30, for example, no increase was made on taxable incomes up to *£200*, while increases of 10 per cent., 15 per cent., and 20 per cent. were imposed on higher taxable income groups. For the 1930-31 assessment, taxable income from property was, in addition, subject to a further tax of *rs. 6d.* in the *£1*.

A new scale of rates was struck for the assessment year 1931-32, designed to consolidate all existing rates to 1930-31, and increase them by 5 per cent. At the same time the further tax on property income was increased to *2s.* in the *£1*.

No change was made in the rates of normal tax for the 1932-33 assessment but the further tax of *2s.* in the *£1* on income from property was payable only on such income in excess of *£250.* For the 1933-34 assessment the consolidated rate for Personal Exertion incomes assessments was reduced by 15 per cent. Ordinary Rates on Incomes from Property remained unaltered, but the further tax was reduced to *rs. 2.4d.* in the *£1*.

The following table shows the receipts from Income Tax in each State and Central Office for the last five years. As previously mentioned, the totals differ from figures given in an earlier sub-section of this Chapter.

## INCOME TAX RECEIPTS.

State, etc.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Central Office .. ..	3,736,828	5,534,785	4,560,756	2,977,481	3,237,722
New South Wales .. ..	3,156,231	3,170,739	3,787,417	4,052,877	2,780,215
Victoria .. ..	2,231,928	2,672,274	2,540,726	2,299,232	1,946,022
Queensland .. ..	841,272	940,372	1,036,295	717,827	549,157
South Australia .. ..	510,922	607,708	728,647	342,303	352,193
Western Australia .. ..	478,164	480,471	587,121	341,979	300,743
Tasmania .. ..	137,147	190,061	205,796	132,337	107,768
Northern Territory .. ..	2,204	3,260	3,211	2,671	1,002
Total .. ..	11,094,696	13,599,670	13,449,969	10,866,707	9,274,822

In the above table 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, etc.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
New South Wales .. .. .	25 3	25 1	29 8	31 5	21 5
Victoria .. .. .	25 3	29 11	28 3	25 5	21 5
Queensland .. .. .	18 8	20 7	22 4	15 4	11 7
South Australia .. .. .	17 10	21 2	25 4	11 10	12 1
Western Australia .. .. .	22 9	22 5	27 2	15 9	13 8
Tasmania .. .. .	12 8	17 3	18 4	11 8	9 6
<b>Six States .. .. .</b>	<b>23 1</b>	<b>25 0</b>	<b>27 3</b>	<b>24 0</b>	<b>18 3</b>

Agreements made in 1923, between the Commonwealth and all the States except Western Australia, provide that the Commonwealth tax and the State tax shall be collected by an officer acting for the Commonwealth and State, the Commonwealth appointing the State Commissioner as Deputy Commonwealth Commissioner for the State under the Income Tax Assessment Act of the Commonwealth. Provisions are included relating to the transfer of officers, the accounting of receipts, and the division of expenses. A joint form of income tax return is to be used in cases where the income is derived in one State only. The respective agreements are to remain in operation for a period of five years, and thereafter until the expiration of not less than six calendar months, upon notice in writing by either party to the agreement.

In Western Australia an arrangement was made previously by which the Commonwealth undertakes the collection of the State income tax.

(e) *Entertainments Tax.* The tax on admission to entertainments operated from 1st January, 1917, when the rate imposed was 1d. for admissions exceeding 6d. but not exceeding 1s. For admissions exceeding 1s. the rate was 1d. for the first 6d. and  $\frac{1}{2}$ d. for each 6d. or part in excess of 1s. On 1st December, 1919, the rate of tax was amended to  $\frac{1}{2}$ d. on admissions of 6d., and 1d. where admission exceeded 6d. but did not exceed 1s.; otherwise the original rate operated. A further amendment, operative from 2nd October, 1922, provided for the payment of 1d. for admissions of 1s., but did not affect the rate on admissions exceeding 1s. From 15th October, 1925, until 27th October, 1933, when the *Entertainments Tax Act* was repealed, the Act provided for the payment of a tax of 2 $\frac{1}{2}$ d. on admissions of 2s. 6d. with an additional  $\frac{1}{2}$ d. for each 6d. or part of 6d. by which the payments exceed 2s. 6d.

The amount of Entertainments Tax received in each State for the last five years is given below.

## ENTERTAINMENTS TAX RECEIPTS.

State, etc.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.(c)
	£	£	£	£	£
New South Wales (a) .. .. .	132,392	76,597	52,278	52,413	19,383
Victoria .. .. .	100,951	63,541	47,620	49,650	18,010
Queensland .. .. .	35,598	23,887	16,371	14,798	6,787
South Australia (b) .. .. .	12,231	4,991	4,051	4,252	1,665
Western Australia .. .. .	25,550	15,068	12,283	10,546	4,475
Tasmania .. .. .	4,093	1,810	1,026	981	332
<b>Total .. .. .</b>	<b>310,815</b>	<b>185,894</b>	<b>133,629</b>	<b>132,640</b>	<b>50,652</b>

(a) Includes Federal Capital Territory.

(b) Includes Northern Territory.

(c) Portion of

year only, see letterpress above.



(f) *War Time Profits Tax.* This tax which came into force in September, 1917, provides for a tax on the amount by which the profits made in war time exceed the pre-war standard of profits. Further details regarding its application are given in Official Year Book No. 22, 1929. The net collections, after allowing for refunds, for the five years ended 30th June, 1934, are shown hereunder :—

## WAR TIME PROFITS TAX RECEIPTS.

State, etc.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Central Office .. ..	1,566	Dr. 12,659	1,106	..	1,568
New South Wales .. ..	3,707	16,043	1,243	1,585	..
Victoria .. ..	5,255	75	85	80	..
Queensland .. ..	5,905	Dr. 1,077	Dr. 25	..	..
South Australia .. ..	Dr. 2,069	Dr. 3,331	..	..	..
Western Australia .. ..	183	..	..	..	..
Tasmania .. ..	Dr. 1,099	..	..	..	..
<b>Total .. ..</b>	<b>13,448</b>	<b>Dr. 949</b>	<b>2,409</b>	<b>1,665</b>	<b>1,568</b>

(g) *Sales Tax.* The Sales Tax was imposed in August, 1930, as part of the Budget proposals for the year 1930-31. The rate of tax, which was fixed at 2½ per cent., was expected to yield £6.5 millions (£5 millions for the ten remaining months of the financial year) on an estimated taxable field of sales amounting to £260 millions for the year. The actual field for ten months proved to be £138 millions—equivalent to £157 millions for a full year—and realized net collections of £3,471,837. This lower total of taxable sales largely resulted from the volume of sales of exempted goods. The operation of the tax is controlled chiefly by a system of registration of taxpayers and all manufacturers and wholesale merchants who are the taxpayers under the Act in respect of goods sold in Australia must be registered with the Department.

The Sales Tax legislation was amended on 5th October, 1932, to remove certain difficulties connected with the administration of the Acts; to extend the list of exemptions designed to assist primary production; and to provide for additional exemptions and abatements. Further exemptions applicable to goods manufactured in Australia became effective for the period 11th November, 1932, to 30th June, 1933, with the provision that they may be continued by regulation for a period terminating not later than 30th September, 1933. These temporary exemptions were subsequently made permanent. On 26th October, 1933, a further schedule of exemptions became effective.

Under the *Sales Tax Assessment (New Zealand Imports) Act 1933*, the Commonwealth provided that the exemptions from Sales Tax applicable to certain goods of Australian origin only shall extend to similar classes of goods of New Zealand origin.

The rate of tax was increased to 6 per cent. on taxable sales to operate during the year 1931-32. On the 26th October, 1933, the rate of Sales Tax payable was reduced to 5 per cent.

Particulars of the net amount of Sales Tax payable, sales of taxable, non-taxable, and exempt goods in each State for 1933-34 are given in the following table. The figures regarding "Tax payable" are in respect of the period 1st July, 1933, to 30th June, 1934 adjusted on account of rebates of tax allowed in returns to taxpayers as deductions while those relating to sales are in respect of the period 1st June, 1933, to 31st May 1934.

## SALES TAX AND AMOUNT OF SALES, 1933-34.(a) (c)

State or Territory.	Gross Taxable Sales. (b)	Non-Taxable Sales.	Sales of Exempt Goods.	Net Amount of Sales on which Sales Tax was payable. (b)	Tax Payable. (a)
	£'000.	£'000.	£'000.	£'000.	£
New South Wales .. ..	64,521	54,719	69,987	62,289	3,334,677
Victoria .. ..	55,884	50,770	59,191	53,793	2,867,555
Queensland .. ..	21,154	9,974	33,224	20,311	1,082,004
South Australia .. ..	12,348	8,864	15,032	11,821	627,136
Western Australia .. ..	10,136	4,368	13,698	9,712	519,194
Tasmania .. ..	3,138	2,198	6,344	3,019	158,709
Northern Territory .. ..	15	1	37	15	806
<b>Total .. ..</b>	<b>167,196</b>	<b>130,894</b>	<b>197,513</b>	<b>160,960</b>	<b>8,590,081</b>

(a) The difference between the amount of tax collected and 6 per cent. (5 per cent. from 26th October, 1933) on 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". (b) Includes imports taxable at Customs House. (c) Final figures.

Of the total tax collections, £543,820 was collected by the Customs Department in respect of imported goods.

It should be mentioned that the figures given in the foregoing table 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.* In connexion with the Government's decision to provide £3,000,000 for assistance to necessitous wheat farmers who did not during 1932-33 receive income which was subject to Commonwealth Income Tax, the *Flour Tax Act* was passed in December, 1933. The rate of tax imposed was £4 5s. per short ton on all flour sold or delivered by a miller; imported into Australia; used in the manufacture of goods imported into Australia; or held in stock by a person other than a miller. The Act, which operated from the 4th December, 1933, and terminated on 31st May, 1934, was expected to yield £1,600,000. The Flour Tax, with a reduction in the rate to £2 12s. 6d. per short ton, was reimposed for a period of twelve months to operate from 7th January, 1935. Net collections after allowing for refunds made and outstanding were as follow:—

## FLOUR TAX.

State.	1933-34.	1934-35.
	£	£
New South Wales .. ..	532,538	311,991
Victoria .. ..	362,633	226,163
Queensland .. ..	165,898	80,999
South Australia .. ..	99,916	66,990
Western Australia .. ..	86,992	50,059
Tasmania .. ..	37,503	25,504
<b>Total .. ..</b>	<b>1,285,480</b>	<b>761,706</b>

(i) *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 have been presented and conferences between representatives of the several Governments and Taxation Departments have agreed upon certain matters relating to uniform laws and it is anticipated that amending legislation will be introduced in the near future.

3. *Business Undertakings.*—(i) *Postal Revenue.* Particulars concerning this branch of revenue for each of the financial years from 1929-30 to 1933-34 are contained in the following table:—

## COMMONWEALTH POSTAL REVENUE.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Private boxes and bags ..	69,185	64,959	63,089	63,307	64,850
Commission—					
Money orders and postal notes ..	259,609	216,645	228,421	216,837	233,889
Telegraphs .. ..	1,390,012	1,152,918	1,085,960	1,091,823	1,136,928
Telephones .. ..	5,862,686	5,644,356	5,399,365	5,445,838	5,647,972
Postage .. ..	5,179,082	5,276,663	5,086,919	5,116,052	5,349,776
Radio receipts .. ..	166,847	155,672	168,197	210,134	336,857
Miscellaneous .. ..	623,666	327,891	331,200	449,601	358,899
<b>Total .. ..</b>	<b>13,551,087</b>	<b>12,839,104</b>	<b>12,363,151</b>	<b>12,593,592</b>	<b>13,129,171</b>

Further particulars of Postal Revenue are given in Chapter VI., Transport and Communication.

(ii) *Railway Revenue.* The Commonwealth Government is responsible for four lines—the Trans-Australian, the Central Australian, the North Australian and the Federal Capital Territory lines. The appended table shows the amounts paid into the credit of the Consolidated Revenue Fund on account of each of these railways for the last five years.

## COMMONWEALTH RAILWAY REVENUE.

Railway.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Trans-Australian ..	274,816	190,028	177,254	187,043	205,052
Central Australian ..	104,724	86,360	85,456	86,938	94,444
North Australian ..	31,291	28,986	23,548	22,149	27,714
Federal Capital Territory ..	7,206	3,863	4,295	4,858	4,530
<b>Total .. ..</b>	<b>418,037</b>	<b>309,237</b>	<b>290,553</b>	<b>300,988</b>	<b>331,740</b>

Further particulars are given in Chapter VI., part B, Railways.

4. **Other Sources of Revenue.**—The most important investments of the Commonwealth Government from which interest is derived are—Loans to States, General Trust Funds, Loans placed in London, Fixed Deposits with the Commonwealth and other Banks, and certain advances. In 1933-34 the total included interest on Loans to States for Soldier Land Settlement and for advances for Development and Migration and for miscellaneous purposes, payable by States; Interest on General Trust Fund Investments; Interest, Nauru Island Agreement; Interest from British Government on Development and Migration; and repayment of advances to the States for the benefit of Settlers. As previously mentioned, the "Balance of Interest on States' Debts" payable by States under the *Financial Agreement Act* has not been included in the detailed statement.

### Division III.—Expenditure.

1. **Nature of Commonwealth Expenditure.**—The disbursements by the Commonwealth Government of the revenue collected by it fell naturally, under the "book-keeping" system, into three classes, viz. :—

- (a) Expenditure on transferred services;
- (b) Expenditure on new services; and
- (c) Payment to States of surplus revenue;

Of these three, only the first two were actual expenditure, the last being merely a transfer, the actual expenditure being incurred by the States. In accordance with the provisions of the Constitution, the expenditure on transferred services was, under the "book-keeping" system, debited to the several States in respect of which such expenditure was incurred, while the expenditure on new services was distributed *per capita*. Surplus Commonwealth revenue was paid to the States monthly. Until the end of the year 1903-4, new works, etc., for transferred departments were treated as transferred expenditure, and were charged to the States on whose behalf the expenditure had been incurred. In subsequent years all such expenditure was regarded as expenditure on new services, and distributed amongst the States *per capita*. Under the arrangement which superseded the "book-keeping" system, a specific subsidy of 25s. per head of population was made annually by the Commonwealth to the States, and there was no further debiting of expenditure to the several States. The *States Grants Act* (No. 4 of 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 had been ratified by all Governments concerned. This agreement (except the temporary provisions) has been incorporated in Chapter I.

The *Financial Emergency Act* (No. 10, 1931) provided for a reduction of internal interest by 22½ per cent., and of 20 per cent. on salaries and wages of Government employees and on war pensions, and of 12½ per cent. on old-age pensions. The *Financial Relief Acts* (No. 17, 1933 and No. 16, 1934) restored in some measure these reductions in addition to reducing the rates of Income Tax, Land Tax and Sales Tax, etc. More complete details regarding the steps taken to reduce expenditure and balance the budget and of later restorations are given in the Appendix. (*See Financial Crisis.*)

2. **Details of Expenditure from Consolidated Revenue.**—(i) *General.* The following table gives details of the expenditure from Consolidated Revenue exclusive of the "Balance of Interest on States' Debts" (recoverable from the States) during the last five years. Details for each Department, as constituted at 30th June, 1934, are stated hereinafter.

\* For an exposition of the "book-keeping system" see Official Year Book No. 6. page 780.

Administrative changes involving the amalgamation of certain departments and the transfer of some services from one department to another which were effected in April, 1932, are referred to in the paragraphs relating to the departments concerned.

## COMMONWEALTH EXPENDITURE FROM CONSOLIDATED REVENUE.

Departments, &c.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Departments—	£	£	£	£	£
Governor-General .. .. .	55,927	29,505	25,833	25,401	27,225
Parliament .. .. .	561,301	427,016	459,109	345,532	357,204
Prime Minister .. .. .	1,413,324	1,463,390	1,315,482	1,430,371	1,540,788
Treasury (a) .. .. .	975,076	1,487,920	2,953,972	2,256,959	2,414,742
Attorney-General .. .. .	245,491	233,199	196,528	197,070	207,279
Interior .. .. .	1,093,721	1,085,904	994,919	970,862	987,333
Defence—					
Military .. .. .	1,819,967	1,697,717	1,520,004	1,456,441	1,683,514
Naval .. .. .	2,170,127	1,834,773	1,507,222	1,586,185	1,691,110
Air .. .. .	555,132	547,172	482,737	475,132	489,872
Trade and Customs .. .. .	1,263,313	1,156,604	984,516	911,946	797,421
Health .. .. .	280,433	226,634	180,005	175,426	184,336
Commerce .. .. .	646,307	600,414	581,972	763,058	888,133
<b>Total, Departments .. .. .</b>	<b>11,060,719</b>	<b>10,790,248</b>	<b>11,201,399</b>	<b>10,594,383</b>	<b>11,268,957</b>
Business Undertakings—					
Postmaster-General .. .. .	13,025,358	12,994,870	11,753,788	11,703,098	11,422,670
Railways .. .. .	1,109,405	1,056,806	1,040,210	1,016,748	1,066,006
<b>Total, Business Undertakings .. .. .</b>	<b>14,134,763</b>	<b>14,051,676</b>	<b>12,793,998</b>	<b>12,719,846</b>	<b>12,488,685</b>
Territories—					
Federal Capital Territory .. .. .	309,690	598,947	606,580	585,005	534,017
Northern Territory .. .. .	138,925	149,152	161,271	145,013	154,683
Papua .. .. .	49,853	52,969	47,857	52,136	67,369
New Guinea .. .. .	12,911	8,054	2,947	2,740	2,989
Norfolk Island .. .. .	4,000	4,000	3,500	3,500	3,000
<b>Total, Territories .. .. .</b>	<b>515,379</b>	<b>813,122</b>	<b>822,155</b>	<b>788,394</b>	<b>762,038</b>
New Works .. .. .	245,536	74,445	832,622	874,390	1,443,693
War and Repatriation (b) .. .. .	29,734,336	29,140,828	20,963,413	19,121,967	19,154,363
Invalid and Old-age Pensions .. .. .	10,791,325	11,710,953	11,125,956	10,771,061	10,963,090
Maternity Allowances .. .. .	642,990	630,652	378,222	320,986	302,928
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 .. .. .	994,432	1,057,703	1,153,591	1,188,522	1,289,810
Special Grants .. .. .	910,000	1,720,000	1,550,000	1,830,000	2,130,000
Federal Aid Roads .. .. .	2,000,000	2,000,000	1,812,139	1,922,048	2,207,683
Unemployment Relief .. .. .	.. .. .	750,000	.. .. .	.. .. .	.. .. .
<b>Total to or for States (c) .. .. .</b>	<b>11,489,344</b>	<b>13,112,615</b>	<b>12,100,642</b>	<b>12,525,482</b>	<b>13,212,414</b>
Relief to Primary Producers .. .. .	.. .. .	.. .. .	.. .. .	2,249,692	3,044,195
<b>Grand Total .. .. .</b>	<b>78,614,392</b>	<b>80,324,539</b>	<b>70,218,207</b>	<b>69,966,201</b>	<b>72,640,383</b>
Per head of Population .. .. .	£ s. d. 12 4 5	£ s. d. 12 7 3	£ s. d. 10 14 4	£ s. d. 10 15 10	£ s. d. 10 18 4
Excess Receipts (d) .. .. .	.. .. .	.. .. .	1,314,091	3,546,608	1,301,570

(a) Excludes Invalid and Old-age Pensions and Maternity Allowances; see page 458. (b) For details see page 476. (c) Excludes balance of interest payable on States' Debts (recoverable from States). (d) Appropriated for payment of Invalid and Old-age Pensions in following year.

The items included under the above general heads are referred to in some detail in the succeeding sub-sections. Particulars for each department do not include the expenditure on new works which is given in sub-section (iii) (a).

(ii) *Cost of Departments.*—(a) *Governor-General.* Section 30 of the Constitution enacts that, until the Commonwealth Parliament otherwise provides, there shall be payable out of the Consolidated Revenue Fund for the salary of the Governor-General an annual sum of ten thousand pounds, and a proviso is made that the salary of the Governor-General shall not be altered during his continuance in office. The expenditure in connexion with the Governor-General and establishment for the five years 1929-30 to 1933-34 is as follows:—

## EXPENDITURE.—GOVERNOR-GENERAL AND ESTABLISHMENT.

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Salary .. .. .	10,000	10,000	(b) 8,900	(b) 8,900	(b) 8,900
Governor-General's Establishment .. .. .	15,329	11,064	9,802	9,962	11,878
Contingencies (a) .. .. .	5,395	3,099	1,885	2,101	1,984
Interest and Sinking Fund .. .. .	5,203	5,342	5,246	4,438	4,463
<b>Total .. .. .</b>	<b>35,927</b>	<b>29,505</b>	<b>25,833</b>	<b>25,401</b>	<b>27,225</b>

(a) Represents official services outside the Governor-General's personal interests, and carried out mainly at the instance of the Government. (b) Voluntary reduction.

(b) *Parliament.* Under this head have been grouped all the items of expenditure connected with the parliamentary government of the Commonwealth for the last five years. Although the administration of the Electoral Act and the conduct of elections come within the functions of the Department of the Interior, the expenditure in connexion therewith is fundamentally incurred on account of the parliamentary government system, and for that reason is included herein.

## EXPENDITURE.—COMMONWEALTH PARLIAMENT.

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Salaries of Ministers .. .. .	15,300	15,300	11,858	10,997	11,730
Allowances to Senators .. .. .	35,746	35,504	28,324	27,115	28,363
Allowances to Members of House of Representatives .. .. .	74,107	74,012	59,004	56,863	59,164
Officers, staff, contingencies, etc. .. .. .	78,039	75,764	60,441	56,173	54,261
Repairs, maintenance, etc. .. .. .	5,561	5,327	6,275	7,443	8,395
Printing .. .. .	35,003	31,644	26,035	22,404	15,227
Travelling expenses of Members and others .. .. .	26,699	25,006	25,708	25,833	25,722
Electoral Office .. .. .	90,951	92,182	72,199	73,334	74,386
Election expenses .. .. .	106,932	1,717	91,054	..	1,047
Administration of Electoral Act .. .. .	39,465	21,874	33,971	17,315	13,262
Interest and Sinking Fund .. .. .	40,665	38,942	38,632	38,505	38,178
Miscellaneous .. .. .	13,733	9,744	5,608	9,550	27,469
<b>Total .. .. .</b>	<b>561,301</b>	<b>427,016</b>	<b>459,109</b>	<b>345,532</b>	<b>357,204</b>

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 and reductions under Financial Emergency legislation, will be found on pages 9 and 12 of this issue.

(c) *Prime Minister's Department.* This Department was created during the financial year 1911-12. In addition to the services indicated below, this Department administers the external Territories of New Guinea, Papua, Nauru, and Norfolk Island.

For convenience, particulars of expenditure on account of these Territories are shown hereinafter under that heading. The expenditure for the last five years is shown in the following table :—

## EXPENDITURE.—PRIME MINISTER'S DEPARTMENT.(a)

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Salaries, contingencies, and miscellaneous .. .. .	£ 160,409	£ 240,746	£ 133,886	£ 202,124	£ 151,217
Audit Office .. .. .	36,871	34,984	31,179	29,405	30,817
Rent, repairs, etc. .. .. .	14,458	6,982	7,333	8,039	7,194
Public Service Board's Office .. .. .	52,851	49,877	33,720	34,517	35,880
High Commissioner's Office .. .. .	60,684	56,777	46,446	47,661	51,577
Commissioner for Australia in United States of America .. .. .	15,516	11,228	6,086	5,196	5,073
Interest and Sinking Fund .. .. .	977,626	970,623	963,722	974,040	978,644
Mail Service, Pacific Islands .. .. .	51,989	47,848	42,262	41,000	40,997
Secretariat, League of Nations .. .. .	28,078	30,762	42,656	50,323	52,553
Scientific and Industrial Research .. .. .	8,664	8,165	1,925	(b)30,902	(b)78,599
Pensions and Superannuation .. .. .	6,178	5,398	6,267	7,164	8,237
Assistance to Migrant Settlers(c) .. .. .	..	..	..	..	100,000
<b>Total .. .. .</b>	<b>1,413,324</b>	<b>1,463,390</b>	<b>1,315,482</b>	<b>1,430,371</b>	<b>1,540,788</b>

(a) Excluding Territories, see page 463.

(b) Includes £29,000 in 1932-33 and £76,619 in 1933-34 for investigations.

(c) To be recovered from Victoria.

(d) *Department of the Treasury.* The sub-departments under the control of the Commonwealth Treasurer are the Treasury, the Pensions Department, the Taxation Office, the Supply and Tender Board, the Superannuation Fund Management Board, and the Bureau of Census and Statistics which was transferred from the Department of Home Affairs on 13th April, 1932. Details of the expenditure of this Department for the last five years are given in the following table :—

## EXPENDITURE.—DEPARTMENT OF THE TREASURY.

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Treasury .. .. .	52,869	51,775	48,642	45,233	48,856
Taxation Office .. .. .	440,102	493,793	455,516	480,066	510,143
Pensions Office .. .. .	86,940	91,278	80,008	87,390	102,750
Maternity Allowance Office .. .. .	15,028	15,002	13,882	12,122	11,729
Census and Statistics .. .. .	31,217	29,593	26,063	24,609	24,119
Census .. .. .	1,019	130	..	137,224	64,357
Coinage .. .. .	11,534	3,485	20,058	19,526	22,604
Rent, repairs, etc. .. .. .	13,801	8,320	8,259	14,867	14,198
Interest and Sinking Fund .. .. .	176,262	560,743	963,535	639,338	688,674
Exchange .. .. .	98,367	185,843	1,030,425	713,537	723,851
Miscellaneous .. .. .	48,537	47,958	(a)307,584	83,047	(b)203,461
<b>Departmental Expenditure .. .. .</b>	<b>975,676</b>	<b>1,487,920</b>	<b>2,953,972</b>	<b>2,256,959</b>	<b>2,414,742</b>
Invalid and Old-age Pensions .. .. .	10,633,979	11,549,828	10,978,633	10,643,196	10,836,263
Maternity Allowance .. .. .	642,990	630,652	378,022	320,986	302,928
Maintenance of persons in charitable institutions .. .. .	157,346	161,125	147,323	127,865	126,827
<b>Total .. .. .</b>	<b>12,409,991</b>	<b>13,829,525</b>	<b>14,457,950</b>	<b>13,349,006</b>	<b>13,680,760</b>

(a) Includes £250,000, Unemployment Relief. (b) Includes £51,161 Loan Redemption and Conversion expenses and £62,744 to be recovered from Victoria in respect of interest on Soldier Land Settlement loans.

(e) *Attorney-General's Department.* Prior to April, 1932, the Attorney-General was also Minister for External Affairs, but the expenditure of the latter department is included in that of the Prime Minister's Department. The Bankruptcy Administration was created in 1927-28. Details for the five years 1929-30 to 1933-34 are furnished hereunder :—

## EXPENDITURE.—ATTORNEY-GENERAL'S DEPARTMENT.

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Attorney-General's Office .. ..	19,691	19,709	15,126	15,333	16,252
Crown Solicitor's Office .. ..	27,983	27,144	22,244	21,635	22,526
Salaries of Justices of High Court ..	17,926	17,371	18,500	18,500	18,500
High Court expenses .. ..	15,441	15,609	11,047	10,233	11,324
Court of Conciliation and Arbitration	27,195	21,785	18,046	17,875	18,220
Public Service Arbitrator's Office ..	5,471	1,740	2,678	2,721	2,673
Rent, repairs, etc. .. ..	22,613	18,624	17,890	21,113	18,160
Patents, Trade Marks, etc. .. ..	56,301	54,136	41,328	39,008	43,773
Investigation Branch .. ..	11,896	12,175	9,712	9,246	9,915
Bankruptcy .. ..	24,909	32,586	32,521	28,279	31,549
Miscellaneous .. ..	16,065	12,320	11,436	13,127	14,387
Total .. ..	245,491	233,199	196,528	197,070	207,279

(f) *Department of the Interior.* In April 1932, the Departments of Home Affairs and Works were abolished, and the services under the control of these departments were assumed by a new Department styled the Department of the Interior. The Bureau of Census and Statistics, formerly under the Department of Home Affairs, was, however, transferred to the Department of the Treasury. The Northern and Federal Capital Territories and the Commonwealth Railways, which are administered by the Department of the Interior, are for convenience included under Territories and Railways respectively (sub-section (ii) (m) and (l) hereinafter). The Electoral Office was previously attached to the Department of Home Affairs, but, as was the case in previous years, the expenditure of this branch is included under Parliament, in sub-section (ii) (b) ante.

Particulars of the expenditure for the last five years on services under the control of this Department are as follow :—

## EXPENDITURE.—DEPARTMENT OF THE INTERIOR.(a)

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Salaries, Contingencies and Miscellaneous—					
Administrative .. ..	119,573	140,975	85,904	79,695	93,532
Meteorological Bureau .. ..	36,199	36,040	30,733	30,762	31,832
Solar Observatory .. ..	5,497	5,486	4,369	4,552	4,639
Forestry Branch .. ..	7,509	7,253	6,182	5,173	5,319
Rent, Repairs and Maintenance .. ..	25,944	10,693	12,335	11,456	11,040
Pensions and Retiring Allowances (b) .. ..	10,315	12,530	11,955	14,353	16,570
Petroleum Prospecting .. ..	18,800	10,000	1,000	4,550	4,850
Interest .. ..	816,544	814,324	789,005	769,002	764,506
Sinking Fund .. ..	45,933	25,667	49,849	51,299	55,045
All Other .. ..	7,407	22,936	2,687	20	..
Total .. ..	1,093,721	1,085,904	994,019	970,862	987,333

(a) Excludes Territories, Railways and Electoral Office.

(b) Includes Superannuation.



(g) *Defence.* The expenditure in connexion with defence for the last five years was as follows:—

## EXPENDITURE.—DEPARTMENT OF DEFENCE.

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Defence—Chief Office .. .. .	23,483	22,809	19,447	19,825	18,898
Military .. .. .	1,455,241	1,364,187	1,180,128	1,111,740	1,337,294
Audit (Proportion) .. .. .	6,729	6,302	4,977	4,567	4,792
Pensions and Retiring Allowances (a) .. .. .	23,809	37,336	32,909	33,270	40,254
Rent, Repairs, etc. .. .. .	47,526	25,050	23,657	36,959	27,084
Interest and Sinking Fund .. .. .	238,406	231,440	237,715	238,378	244,377
Exchange .. .. .	..	4,827	7,869	4,160	4,425
Miscellaneous .. .. .	24,683	5,766	13,302	7,542	6,390
<b>Total .. .. .</b>	<b>1,819,967</b>	<b>1,697,717</b>	<b>1,520,004</b>	<b>1,456,441</b>	<b>1,683,514</b>
Navy—Chief Office .. .. .	80,537	66,788	50,009	1,470,126	1,541,573
Naval .. .. .	1,946,418	1,610,590	1,326,357		
Audit (Proportion) .. .. .	2,323	2,537	2,004		
Pensions and Retiring Allowances (a) .. .. .	2,807	3,283	3,403		
Rent, Repairs, etc. .. .. .	37,166	24,624	15,539		
Interest and Sinking Fund .. .. .	83,802	81,012	82,078		
Exchange .. .. .	..	38,698	24,153		
Miscellaneous .. .. .	17,074	7,221	3,679		
<b>Total .. .. .</b>	<b>2,170,127</b>	<b>1,834,773</b>	<b>1,507,222</b>	<b>1,586,185</b>	<b>1,691,110</b>
Air Services—					
Civil Branch—Pay, etc. .. .. .	27,477	27,429	24,615	24,643	26,603
Development of Civil Aviation .. .. .	75,332	108,787	101,266	99,472	93,921
R.A.A.F.—					
Pay, etc. .. .. .	237,305	230,301	191,719	307,442	323,793
General Contingencies .. .. .	82,913	69,518	66,844		
General Stores and Maintenance .. .. .	80,962	53,470	54,898		
Rent, Repairs, etc. .. .. .	9,440	9,282	6,783		
Interest and Sinking Fund .. .. .	28,543	27,877	28,157		
Exchange .. .. .	..	11,170	2,440		
Miscellaneous .. .. .	13,160	9,338	6,015		
<b>Total .. .. .</b>	<b>555,132</b>	<b>547,172</b>	<b>482,737</b>	<b>475,132</b>	<b>489,872</b>
<b>Grand Total .. .. .</b>	<b>4,545,226</b>	<b>4,079,662</b>	<b>3,509,963</b>	<b>3,517,758</b>	<b>3,864,496</b>

(a) Includes Superannuation.

(h) *Trade and Customs Department.* Under this head have been included the expenditure of all the sub-departments under the control of the Minister for Trade and Customs, in addition to the amounts payable as bounties and the expenses in connexion therewith. Particulars for the five years 1929-30 to 1933-34 are given in the following table:—

## EXPENDITURE.—TRADE AND CUSTOMS DEPARTMENT.

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Chief Office .. .. .	73,855	67,708	49,771	51,247	54,700
Customs—Ordinary .. .. .	505,038	545,598	435,612	427,104	450,886
Audit (proportion) .. .. .	9,647	10,332	9,052	8,917	9,355
Pensions and Superannuation .. .. .	36,952	38,781	37,571	40,689	41,861
Rent, Repairs, etc. .. .. .	11,906	5,169	4,240	4,766	7,120
Bounties .. .. .	517,582	446,344	410,173	343,193	175,714
Interest and Sinking Fund .. .. .	34,405	33,288	34,555	34,721	34,893
Miscellaneous .. .. .	13,928	9,384	3,542	1,309	22,892
<b>Total .. .. .</b>	<b>1,263,313</b>	<b>1,156,604</b>	<b>984,516</b>	<b>911,946</b>	<b>797,421</b>

(i) *Health Department.* This department came into existence in the financial year 1921-22. The Minister for Health also administers the Department of Repatriation, and the expenditure on Repatriation is included under War Services. Details of expenditure for the last five years are as follow :—

## EXPENDITURE.—HEALTH DEPARTMENT.

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Central Administration ..	19,216	27,498	22,437	24,356	26,459
Salaries, Contingencies, etc.	92,743	88,790	72,703	68,534	71,691
Interest .. ..	18,549	18,553	18,776	17,760	17,716
Sinking Fund .. ..	1,914	1,414	2,132	2,239	2,351
Rent and repairs .. ..	17,537	8,917	4,337	9,420	8,373
Subsidy, Cattle Tick Control .. ..	57,318	53,066	44,450	44,450	44,450
Miscellaneous .. ..	73,156	28,396	15,170	8,667	13,296
<b>Total .. ..</b>	<b>280,433</b>	<b>226,634</b>	<b>180,005</b>	<b>175,426</b>	<b>184,336</b>

Items included in "Miscellaneous" are subsidies in connexion with the control of venereal diseases and tuberculosis, maternal and infant hygiene, Health Research Council, and grants in aid of research, etc.

(j) *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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Salaries, Contingencies and Miscellaneous—					
Administrative .. ..	71,376	70,306	61,910	65,228	66,141
Marine .. ..	263,901	237,103	193,934	195,667	189,762
Administration of Commerce Act .. ..	35,648	45,772	45,055	53,583	58,667
Export Control—					
Canned Fruits .. ..	4,990	6,500	5,994	..	..
Dried Fruits .. ..	46,152	38,779	27,167	..	..
Dairy Produce .. ..	22,898	24,309	24,410	..	..
Assistance Marketing					
Primary Produce .. ..	50,000	31,000	19,500	16,000	15,000
Rent, Repairs, Maintenance, etc. .. ..	7,419	5,071	7,338	5,510	5,652
Pensions and Retiring					
Allowances .. ..	5,585	6,847	6,466	5,516	8,539
Interest .. ..	93,040	96,174	132,130	210,935	178,583
Sinking Fund .. ..	9,210	6,010	26,790	183,095	192,262
All Other .. ..	36,088	32,543	31,278	27,524	173,527
<b>Total .. ..</b>	<b>646,307</b>	<b>600,414</b>	<b>581,972</b>	<b>763,058</b>	<b>888,133</b>

(k) *Postmaster-General's Department.* Details of the expenditure of this Department for the last five years are given in the table hereunder :—

## EXPENDITURE.—POSTAL DEPARTMENT.

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Chief Office .. ..	87,395	93,845	69,637	7,936,906	8,048,760
Postal Department (ord- inary) .. ..	9,847,327	9,381,512	7,792,014		
Wireless .. ..	69,800	74,790	72,422		
Audit (proportion) .. ..	12,150	12,930	9,700		
Pensions and retiring allow- ances .. ..	110,032	110,480	103,830	112,124	95,232
Superannuation .. ..	136,095	156,822	160,739	170,273	215,416
Rents, repairs, etc. .. ..	129,145	68,989	61,471	73,108	77,693
Interest on transferred pro- perties .. ..	290,262	290,262	290,262	290,262	290,262
Interest on Commonwealth Securities .. ..	1,619,995	1,648,754	1,598,759	1,582,672	1,411,921
Sinking Fund on Common- wealth Securities .. ..	560,125	742,569	779,699	818,684	859,618
Exchange .. ..	..	300,115	724,708	691,615	389,617
Miscellaneous .. ..	163,032	113,802	90,547	17,654	24,460
<b>Total .. ..</b>	<b>13,025,358</b>	<b>12,994,870</b>	<b>11,753,788</b>	<b>11,703,098</b>	<b>11,422,679</b>

(l) *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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Working Expenses—					
Trans-Australian .. ..	294,090	251,577	195,454	197,938	219,614
North Australian .. ..	56,155	55,606	45,733	39,007	39,528
Central Australian .. ..	198,108	157,076	111,937	108,548	112,136
Federal Capital Territory .. ..	8,458	6,344	5,035	4,762	4,917
Interest .. ..	490,491	500,319	477,801	460,966	450,178
Sinking Fund .. ..	52,479	37,789	58,158	61,066	64,121
Exchange .. ..	..	38,281	136,366	135,152	81,878
Miscellaneous .. ..	9,624	9,814	9,726	9,309	(a)93,634
<b>Total .. ..</b>	<b>1,109,405</b>	<b>1,056,806</b>	<b>1,040,210</b>	<b>1,016,748</b>	<b>1,066,006</b>

(a) Includes Sleeper Renewals—Trans-Australian, £76,440.

Additional details of the financial operations of the Commonwealth Railways are given in Chapter VI., "Transport and Communication."

(m) *Territories.* The following table shows the expenditure on account of territorial services for the last five years. The internal territories are administered by the Department of the Interior, while the Prime Minister's Department controls the external territories. The expenditure has been grouped in one table for convenience:—

## EXPENDITURE.—TERRITORIES.

Details.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
<b>Internal—</b>					
North and Central Australia (a) ..	138,925	(b)149,152	(b)161,271	(b)145,013	(b)154,683
Federal Capital Territory(a) ..	309,690	598,947	606,580	585,005	534,017
<b>External—</b>					
Papua .. ..	49,853	52,969	47,857	52,136	67,369
New Guinea .. ..	12,911	8,054	2,947	2,740	2,989
Norfolk Island .. ..	4,000	4,000	3,500	3,500	3,000
<b>Total</b> .. ..	<b>515,379</b>	<b>813,122</b>	<b>822,155</b>	<b>788,394</b>	<b>762,058</b>

(a) Exclusive of Railways.

(b) Northern Territory.

(iii) *Miscellaneous.* (a) *New Works.* The expenditure on additions, new works, etc., during the last five years was as follows:—1929-30, £245,536; 1930-31, £74,445; 1931-32, £832,622; 1932-33, £874,390; and 1933-34, £1,443,693.

To 30th June, 1934, the total expenditure from revenue on new works, additions, etc., amounted to almost £54,000,000.

(b) *War Services.* Full details concerning the expenditure from Consolidated Revenue upon War and Repatriation will be found in a later sub-section.

## Division IV.—Payments to or for the States.

1. *Introductory.*—In some previous issues of the Official Year Book particulars were given of the obligations imposed on the Commonwealth in the Constitution Act with reference to the payments to be made to the States, and the following statement briefly outlines the principal financial provisions of the Constitution in regard to the distribution of revenues received by the Commonwealth.

2. *Uniform Customs Duties.*—Prior to Federation, State revenues were largely derived from Customs and Excise duties and as the Commonwealth Constitution Act (Sections 86 and 90) transferred exclusively to the Commonwealth this source of revenue it was essential that the Constitution should provide adequate compensation for this loss to the States. Section 88 directed that uniform duties of customs must be imposed within two years after the establishment of the Commonwealth. This section was complied with on the 8th October, 1901, by the introduction of the first Customs Tariff Bill.

3. *Special Western Australian Tariff.*—Section 95 of the Constitution authorized the Western Australian Government for a period of five years after the imposition of the Uniform Customs Duties to impose customs duties on goods passing into that State and not originally imported from beyond the limits of the Commonwealth, such duties to be collected by the Commonwealth.

Provision was also contained in this section for the regulation of the rates of duty.

4. *Distribution of Commonwealth Revenue.*—Broadly, the requirements of the Commonwealth Constitution in regard to the financial relationship between the Commonwealth and the States may be divided into three phases covering definite periods:

(a) 1901 to 1910. This period was covered by Section 87 (known as the "Braddon Clause") which provided that:

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

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

The scheme outlined in the Constitution for determining the amount to be paid to the several States is contained in sections 89 and 93, the former of which relates to the period prior to the imposition of Uniform Duties of Customs (as provided in Section 88), the latter to the first five years after the imposition of such duties and thereafter until Parliament otherwise provides. The principle involved is that of crediting each State with the Commonwealth revenue collected in respect of that State, and of debiting it with the expenditure incurred on its behalf in connexion with transferred departments, as well as its share on a "per capita" basis of the "new" expenditure of the Commonwealth. On this account the method of allocation provided by the Constitution has become very generally known as the "book-keeping system". As the imposition of Uniform Duties of Customs and Excise throughout the Commonwealth took place on 9th October, 1901, the five years provided for in section 93 expired on 8th October, 1906, and consequently the "book-keeping system" could then be changed at any time by the Commonwealth Parliament.

Section 93 provided that the duties of customs chargeable on goods imported into and duties of excise paid on goods produced or manufactured in one State and consumed in another should be credited to the consuming State. The balance in favour of any State was paid monthly by the Commonwealth.

The *Surplus Revenue Act* 1908 continued the "book-keeping system" but provided that any excess of receipts over expenditure should be distributed monthly to each State in proportion to their respective populations. This act more clearly defined "transferred" and "new" expenditure.

(b) 1911 to 1927 ("*Surplus Revenue Acts*"). The provisions of Section 87 of the Constitution were terminated by the passing of the *Surplus Revenue Act* (No. 8, 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 above payments all surplus revenue (if any) to be paid to the States in proportion to the number of people.
- (iii) A special payment to be made to Western Australia in monthly instalments of an annual sum of £250,000 in the first year, thereafter progressively diminishing by £10,000 each year. One half of the payments so made to be debited to all of the States (including Western Australia) on a population basis and the amount so debited to be deducted from the amount otherwise payable to each State. After 1920 and until 1927 the provisions of the several Surplus Revenue Acts continued to govern the payments by the Commonwealth to the States.

(c) 1928 to date (*Financial Agreement Act*). An Amendment to the Constitution embodied in Section 105A gave effect to the powers conferred on the Commonwealth in Section 105. This amendment included provisions for :—

- (i) taking over the debts of the several States by the Commonwealth ;
- (ii) the payment by the Commonwealth of a fixed annual sum in respect of the interest on such debts and for certain sinking fund contributions ;
- (iii) the indemnification of the Commonwealth by the States in respect of debts taken over from the States ;
- (iv) the borrowing of money by the States or by the Commonwealth or by the Commonwealth for the States ; and
- (v) certain other matters connected with the management, consolidation, renewal, conversion and redemption of such debts.

5. **Special Grants.**—The Constitution provides in Section 96 for the granting of special financial assistance to the States. Reference has already been made herein to the special grant to Western Australia in the *Surplus Revenue Act* 1910. This State has continued to receive financial assistance each year since 1910–11. In 1912, a grant under similar conditions was made to Tasmania ; the amount payable in the first year,

1912-13, was £95,000 which was to be progressively reduced by £10,000 in each successive year. The *Tasmania Grant Act* 1913, provided for an addition to this grant bringing the amount payable to £85,000 per annum to the year 1921-22 after which annual grants of varying magnitude were made.

South Australia received £360,000 in 1929-30 and further grants in each successive year.

In 1930-31 all States participated in a special grant for the relief of unemployment, aggregating £750,000.

**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 in 1933 from the States of South Australia, Western Australia and Tasmania were dealt with by the Commission, which recommended the following grants to be made in 1934-35 :—

						£
South Australia	..	..	..	..	..	1,400,000
Western Australia	..	..	..	..	..	600,000
Tasmania	..	..	..	..	..	400,000

**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 is 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 has been 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.

**8. Amounts Paid.**—(a) 1901 to 1934. The table following shows particulars of the amounts paid to each of the States since Federation, divided into the three periods referred to herein with separate details for Special and Roads Grants. Special Commonwealth grants for the relief of primary producers are not included in this table. Details of these grants will be found in Chapter XXI, Agriculture, § 18.

**PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES.**

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	All States.
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1900-01 to 1909-10 (a) ..	27,606	19,815	8,894	6,148	8,728	2,602	73,793
1910-11 to 1926-27 (b) ..	41,634	31,341	15,184	9,925	6,892	4,368	109,344
1927-28 to 1933-34 (c) ..	23,290	16,480	8,729	5,882	4,071	2,081	60,533
Special Grants (d) ..	..	..	..	4,680	6,056	3,720	14,456
Grants for Road Construction, 1922-23 to 1933-34	4,883	3,184	3,326	2,017	3,397	885	17,692
Unemployment Relief, 1930-31 (e) ..	194	332	73	45	65	41	750
<b>Total</b> ..	<b>97,607</b>	<b>71,152</b>	<b>36,206</b>	<b>28,697</b>	<b>29,209</b>	<b>13,697</b>	<b>276,568</b>

(a) Under Section 87 of the Commonwealth Constitution. (b) Under the several Surplus Revenue Acts. (c) Under *Financial Agreement Act* 1928. (d) Under various State Grants Acts. (e) Expenditure by Commonwealth on Unemployment Relief Works in the several States.

(b) 1933-34. For the year ended 30th June, 1934, the payments made to or for each State are given below.

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES, 1933-34. (c)

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
Contributions towards Interest on State Debts..	2,917,411	2,127,159	1,096,235	703,816	473,432	266,859	7,584,912
Sinking Fund on State Debts (a) .. ..	517,954	279,581	162,494	159,927	136,826	33,037	1,289,819
Special Grants .. ..	..	..	..	1,150,000	600,000	380,000	2,130,000
Federal Aid Roads (b) ..	609,321	397,383	415,044	251,676	423,875	110,384	2,207,683
Total .. ..	4,044,686	2,804,123	1,673,773	2,265,419	1,634,133	790,280	13,212,414

(a) Paid to National Debt Sinking Fund. See Chapter XXI., §18.

(b) Paid to Trust Fund.

(c) Excludes relief to wheat growers, etc.

### § 3. Trust Funds.

The Trust Fund balances on 30th June, 1934, amounted to £21,187,809, as compared with £21,198,487 for the corresponding date in the year 1933.

### § 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 sub-sections:—

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 sub-section 4) and for the administration and the liabilities of the Northern Territory and the Port Augusta-Oodnadatta Railway. At 30th June, 1911, the debt on account of the former was £3,657,836, and on account of the latter, £2,274,486—a total of £5,932,322. As the securities fall in they are redeemed by the Commonwealth Government, the money required being taken from the Loan Fund. At 30th June, 1934, the debt outstanding amounted to £1,243,683, of which £362,024 was on account of the Northern Territory, and £881,659 on account of the railway.

3. **Loan Fund for Public Works, Redemptions, etc.**—Up to the year 1911 the Commonwealth Government had met its public works expenditure out of revenue. In that year, however, in view of the heavy prospective cost of the Trans-Australian Railway and the Federal Capital Territory, a Loan Fund similar to those of the States was instituted. The initiation of this fund was greatly assisted by the fact that the Treasury at that time held a large quantity of gold, principally on behalf of the Australian Notes Account. Up to 30th June, 1914, the money required for loan expenditure was obtained mainly from this source at 3½ per cent., and inscribed stock of an equivalent value was created. Since the outbreak of war, the money required for the Loan Fund has been

mainly obtained by the issue of Treasury Bills and other securities issued in London and New York as well as in Australia. In 1931-32 and 1932-33, all expenditure on works, other than unemployment relief works, was made from revenue.

## COMMONWEALTH EXPENDITURE FROM LOAN FUND.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	Total to 30th June, 1934.
	£	£	£	£	£	£
Works, Buildings, Land, etc.—						
Shipbuilding Yards and Docks	..	..	..	..	..	733,711
Ship Construction	Cr. 165,000	Cr. 165,000	..	Cr. 821,910	Cr. 469	7,571,681
F.C.T. Works, Services and Acquisition of Land	253,988	263,077	..	(c) 100,000	58,764	8,153,092
North Australia Commission	23,000	16,103	..	..	..	111,203
Drill Halls, Stores, Barracks etc.	20,204	458	..	..	137,818	564,902
Rifles and Ammunition Reserve	..	..	..	..	..	315,300
Other Military Services	1,000	..	..	..	..	101,959
Naval Bases, Depots, etc.	93,230	6,229	..	..	..	1,466,556
Fleet Construction	..	..	..	..	27,635	383,032
Other Naval Services	..	..	..	..	..	74,300
Air Services—						
R.A.A.F.	32,740	8,766	..	..	..	473,010
Civil Aviation	..	13,596	..	..	..	53,773
Buildings and Works, Muni- tions Production	83,127	38,467	..	..	..	1,185,852
Other Munitions Supply Services	..	..	..	..	..	1,150
Lighthouses and Lighthouse Services	18,520	89,500	..	..	..	643,900
River Murray Waters Act	200,000	122,000	..	..	..	2,105,625
Telegraph and Telephone Con- struction	2,537,489	1,248,197	..	..	..	30,024,968
Post Office Buildings and Land	224,186	38,190	..	..	..	3,398,382
Wireless	10,037	1,727	..	..	..	56,608
Serum and Health Laboratories	3,748	..	..	..	..	75,220
Railways—						
Trans-Australian	64,622	30,387	..	..	..	6,662,298
North Australian	20,097	910	..	..	..	1,597,559
Central Australian	170,911	30,185	..	..	..	2,477,853
Federal Capital Territory	365	175	..	..	..	28,755
Grafton—South Brisbane	586,000	68,000	..	Cr. 5,000	Cr. 2,000	4,364,000
Other Expenditure	..	..	..	..	..	200,000
Papua—Railways, Wharves, Buildings, etc.	..	..	..	..	..	71,556
War Service Homes (b)	999,964	154,906	..	..	..	7,314,524
London Offices	..	..	..	..	..	880,190
Acquisition of Properties not elsewhere included	769	10,653	..	..	..	134,544
Miscellaneous	..	..	..	..	..	266,899
Unemployment Relief	..	..	153,873	1,155,698	300,161	1,609,732
<b>Total, Works, etc.</b>	<b>5,178,997</b>	<b>1,976,526</b>	<b>153,873</b>	<b>428,788</b>	<b>521,909</b>	<b>83,099,134</b>
Other purposes—						
Loans for Works to External Territories—						
Papua	7,500	7,500	..	..	..	53,420
New Guinea	..	7,000	..	..	..	40,496
Immigration (a)	57,705	..	..	..	..	1,680,835
Subscription to Capital of Commonwealth Oil Refinery	..	..	..	..	..	343,751
Subscription to Capital of Amalgamated Wireless Ltd.	..	..	..	..	..	300,000
Advances for Wire and Wire Netting	50,000	..	..	..	..	610,838
Wheat Bounty	..	..	3,296,464	132,807	257	3,429,529
<b>Total Loan Expenditure</b>	<b>5,294,202</b>	<b>1,991,026</b>	<b>3,450,337</b>	<b>561,595</b>	<b>522,166</b>	<b>89,558,003</b>

(a) Exclusive of Loans to States for Immigration purposes. (b) Prior to 1923-24, expenditure amounting to £13,045,408 was made from War Loan Fund. The total loan expenditure to 30th June, 1934, was £20,359,932. (c) Special loan to Federal Capital Commission in 1929-30 by Commonwealth Bank of Australia for housing not previously recorded as expenditure for the Commonwealth.



4. **Properties Transferred from States.**—At the time of federation, when the Commonwealth took over the control of several departments previously administered by the States, a large amount of property was handed over to the Commonwealth Government, which paid interest to the States at the rate of  $3\frac{1}{2}$  per cent. on the value of the properties so transferred. (Particulars of the valuation of the properties are given in Official Year Book No. 14, page 694). The temporary provisions of the Financial Agreement between the Commonwealth Government and the Governments of the several States provided, *inter alia*, that, the Commonwealth Government would for the period of two years from 1st July, 1927, pay to each State interest at the rate of 5 per cent. per annum on the agreed value of transferred properties as follow :—New South Wales, £4,788,005; Victoria, £2,302,862; Queensland, £1,560,639; South Australia, £1,035,631; Western Australia, £736,432; and Tasmania, £500,754; a total of £10,924,323.

From 1st July, 1929, the Commonwealth Government assumed all liability for so much of the Public Debt of the States maturing in London bearing interest at the rate of 5 per cent. per annum as is equivalent to the agreed value of the transferred properties shown above. The Commonwealth Government received the freehold or equivalent title to the transferred properties consisting of land or interests in land, and all liability of the Commonwealth to the State in respect of transferred properties was extinguished from that date.

5. **War Loan from the Imperial Government.**—On the outbreak of the European war in 1914, the Commonwealth Government obtained a loan from the Imperial Government for the purpose of financing the prospective large military expenditure. At first, the arrangement was that the Imperial Government should advance the sum of £18,000,000. Subsequently further loans amounting to £31,500,000 were negotiated. In addition to this capital indebtedness of £49,500,000, a further sum of £42,696,500 was due to the British Government for the maintenance of Australian troops.

Early in 1921 an arrangement was concluded with the Imperial Government, by which almost the entire debt (upwards of £92,000,000) was consolidated. The Commonwealth Government undertook to extinguish the debt in about 35 years by annual payments representing 6 per cent. on the original debt, providing for interest at £4 18s. 4d. per cent., and a sinking fund of £1 1s. 8d. per cent. The Imperial Government agreed to suspend for 1931–32 and 1932–33 the repayment of principal moneys due under the Funding arrangement, and under the “Hoover Plan,” the payment of interest for the year 1931–32 was also suspended, the suspended payments under the “Hoover Plan” to be liquidated by ten equal annuities running from 1st July, 1933, at a rate of interest to be determined. These annuities are additional to the usual annual payments. Interest payments due in 1932–33 and 1933–34 were suspended by arrangement with the British Government. The suspension of interest and sinking fund payments represented a saving to the Commonwealth Government of approximately £7,000,000, including exchange, for the year 1933–34. The principal outstanding on 30th June, 1934, was £79,724,220.

6. **Flotation of War Loans in Australia.**—In addition to the advances from the Imperial Government, the Commonwealth Government raised large amounts of money in Australia. Full details of the seven War Loans are given in Official Year Book No. 14.

7. **London Conversion Loans.**—Loans aggregating £22 millions were due for redemption in London in 1932–33, and in addition the Government had optional rights of redemption over a further £88 millions, all of which was 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 £109,848,000 between October, 1922, and February, 1934. In November, 1934, January and July, 1935, additional conversions were effected of loans maturing and loans with optional rights of redemption aggregating over £50 millions.

Details of the several conversions effected during the period October, 1932, to July, 1935, are given in the following table:—

DETAILS OF LOANS CONVERTED IN LONDON, 1932 TO 1935.

When Converted.	Commonwealth or State.	Amount.	Old Interest Rate.	Terms of Conversion.				Annual Saving.	
				Interest Rate.	Price of Issue.	Yield to Investor.	Year of Maturity.	Interest (a).	Ex-change.
		£'000.	%	%	£	£ s. d.	1936-37	£'000.	£'000.
1932— October ..	New South Wales	12,361	5½	3½	97½	4 1 2	1936-37	209	53
1933— February	New South Wales	9,621	4	4	100	4 0 0	1955-70	..	..
May ..	New South Wales	6,427						178	45
	South Australia	2,983	6½	3½	99	3 14 5	1937-38	83	21
	Tasmania	2,000						56	15
July ..	New South Wales	9,527	6	4	99	4 1 10	1943-48	182	46
	Queensland	2,000						38	10
	South Australia	2,978						57	14
	Western Australia	2,716	6	3½	98	3 17 11	1948-53	52	13
September	Commonwealth	15,000						316	80
	New South Wales	4,901	5½	3½	98	3 17 11	1948-53	91	23
	Western Australia	1,050	5½					19	5
December	New South Wales	2,980	5½	3½	99	3 16 9	1946-49	115	20
	Victoria	6,888						65	17
	South Australia	5,633						13	3
	Tasmania	1,146	5						
1934— February	New South Wales	3,979	5	3½	97	3 13 8	1954-59	52	13
	Victoria	13,876						182	46
	Queensland	3,782						69	17
November	South Australia	789	5½	3½	99	3 6 0	1964-74	4	1
	Western Australia	3,735	4					2	
	Tasmania	2,435	3	3½	99	3 6 0	1964-74	6	2
	Commonwealth	2,960	3½					64	16
	Victoria	3,745	5	1	..				
	Tasmania	1,338	4½	7	2				
	Commonwealth	1,000	4						
1935— January	Commonwealth	17,355	5	3½	100	3 5 0	1956-61	394	77
	Victoria	807						14	4
	Queensland	1,328						23	6
	South Australia	799						14	3
	Western Australia	1,895						33	9
	Tasmania	200						4	1
July ..	New South Wales	12,420	3	3	100	3 0 0	1939-41	..	..
	Victoria	1,050	5					21	5
Total ..	Commonwealth	32,355	(b)	(b)	(b)	(b)	..	620	157
	New South Wales	62,216	5.46	3.48	99.07	3 12 0	..	762	193
	Victoria	22,621	4.99	3.59	98.85	3 15 3	..	332	84
	Queensland	7,110	5.15	3.54	97.86	3 13 8	..	130	33
	South Australia	16,917	5.55	3.59	98.12	3 14 4	..	249	63
	Western Australia	14,601	5.16	3.59	99.05	3 13 10	..	167	43
	Tasmania	4,434	4.63	3.42	99.06	3 9 8	..	81	21
	Commonwealth	160,304	5.13	3.54	98.77	3 13 4	..	2,341	594
	Grand Total ..	160,304	5.13	3.54	98.77	3 13 4	..	2,341	594

(a) Based on yield to investor in new securities.

(b) Approximate average.

The annual saving in interest based on the yield to the investor in the new securities amounts to £2.3 millions with a consequential saving of roughly £600,000 in exchange at the existing rate.

8. Loan Raisings, 1933-34.—Particulars of Loan raisings in Australia during 1933-34 are given in the following table.

LOAN RAISINGS, AUSTRALIA, 1933-34.

Service.	For—	Rate of Interest.	Date of Maturity.	Price.	Amount.
Public Works and Redemption of Treasury Bills	Commonwealth States	3½	15.8.1943	99	£ 1,249,470 9,060,100
Public Works and Redemption of Treasury Bills	Commonwealth States ..	3½	15.11.1948	98½	857,870 11,375,810
Conversion and Redemption of State Securities(a)	States ..	Various	Various	Par.	2,550,085
Treasury Bills (b)	Commonwealth	2½	..	Par.	2,000,000

(a) "Over the Counter Sales" and Conversions at State Treasuries. (b) General Trust Fund Investment.

No new loans were raised overseas, and particulars of conversion loans in London are given in the preceding paragraph.

9. Public Debt for Commonwealth Purposes.—(i) *Total Debt*. Reference has already been made to the development of the Commonwealth Public Debt and the table appended shows the debt of the Commonwealth (excluding that of the States) at 30th June, 1934.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE, 1934.

Particulars.	Maturing in London.	Maturing in New York.	Maturing in Australia.	Total (a)
War Debt—	£ Stg.	£ (c)	£ Aust.	£
Stock, Bonds, etc. .. ..	11,020,160	..	216,500,428	227,520,588
Indebtedness to United Kingdom Government .. ..	79,724,220	..	..	79,724,220
Total .. ..	90,744,380	..	216,500,428	307,244,808
Deduct advances to States for Soldier Land Settlement, etc. .. ..	..	..	27,096,629	27,096,629
Total, War Debt .. ..	90,744,380	..	189,403,799	280,148,179
Works and other Purposes—				
Short dated Treasury Bills and Debentures	10,220,160	..	..	10,220,160
Other Treasury Bills (d) .. ..	..	..	13,300,000	13,300,000
Stock, Bonds, etc. .. ..	55,380,465	16,711,476	15,935,688	88,027,629
Balance of Loans taken over from South Australia—				
Northern Territory .. ..	329,100	..	32,924	362,024
Port Augusta Railway .. ..	859,035	..	22,624	881,659
Properties transferred from New South Wales .. ..	..	..	111,125	111,125
Total, Works and other Purposes	66,788,760	16,711,476	29,402,361	112,902,597
Total Commonwealth Purposes ..	157,533,140	16,711,476	218,806,160	393,050,776

PER HEAD OF POPULATION. (b)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.
War .. ..	13 11 10	..	28 7 4	41 19 2
Works and other Purposes .. ..	10 0 0	2 10 1	4 8 1	16 18 2
Total Commonwealth Purposes ..	23 11 10	2 10 1	32 15 5	58 17 4

(a) The total "face" or "book" value of the public debt without adjustment on account of currency changes since the loans were floated. (b) Based on population at 30th June, 1934.

(c) Payable in terms of dollars. For the purposes of these tables dollars have been arbitrarily converted to £'s. at the rate of 4.8665 to £1.

(d) General Trust Fund investment.

(ii) *Loans to States for Soldier Land Settlement.* In regard to the item "Advances to States for Soldier Land Settlement", the Commonwealth Government agreed to make remissions to the States in connexion with the losses sustained in respect of Soldier Land Settlement. In anticipation of the ratification of the proposals by all Governments concerned, the Commonwealth Government from 1st October, 1925, assumed responsibility for £5,000,000 of States' debts maturing in Australia, and an additional amount of £2,597,783 from 1st July, 1927. Further reference is made to this matter in Chapter V., Land Tenure and Settlement, § 8 pars. 9 and 10.

(iii) *Place of Flotation.* The loans taken over from South Australia, which constituted the first portion of the Federal Public Debt, included both London and Australian securities. The presence in the Treasury of a large holding of gold and the moderate rate of interest ruling on gilt-edged securities made the conditions in 1911 and for some little time afterwards very favourable for the local flotation of loans. London securities were redeemed as they fell due, and replaced by the 3½ per cent. stock of the Loan Fund. Consequently, up to 1914 the amount of the securities repayable in London fell steadily, and the amount repayable in Australia rose rapidly. In 1915 the military loan from the Imperial Government caused a sharp rise in the amount of the securities repayable in London, which was maintained in the two following years. This was, however, more than offset by the local flotation of war loans. In 1925-26 a loan of £15,411,487, of which £10,402,754 was for Commonwealth purposes and £5,008,733 for the States, was raised in New York. The appended table gives particulars of Commonwealth loans outstanding in each of the last five years which had been floated overseas and in Australia respectively.

## PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—PLACE OF FLOTATION.

Place of Flotation, etc.	At 30th June—				
	1930.	1931.	1932.	1933.	1934.
<b>War Debt—</b>					
London .. .. £ Stg.	92,314,742	90,744,381	90,744,380	90,744,381	90,744,380
Total Overseas (a) ..	92,314,742	90,744,381	90,744,380	90,744,381	90,744,380
Australia .. .. £ Aust.	197,673,573	194,633,628	195,315,356	192,389,981	189,403,799
Total War Debt (a) ..	289,988,315	285,378,009	286,059,736	283,134,362	280,148,179
<b>Works and other purposes—</b>					
London .. .. £ Stg.	58,431,406	66,694,426	68,031,550	67,897,843	66,788,760
New York .. .. £ (b)	17,155,718	17,155,718	17,115,997	16,889,983	16,711,476
Total Overseas (a) ..	75,587,124	83,850,144	85,147,547	84,787,826	83,500,236
Australia .. .. £ Aust.	14,979,706	27,088,176	27,677,447	28,884,315	29,402,361
Total Debt for Works, etc. (a)	90,566,830	110,938,320	112,824,994	113,672,141	112,902,597
<b>Total Debt—</b>					
London .. .. £ Stg.	150,746,148	157,438,806	158,775,930	158,642,224	157,533,140
New York .. .. £ (b)	17,155,718	17,155,718	17,115,997	16,889,983	16,711,476
Total Overseas (a) ..	167,901,866	174,594,524	175,891,927	175,532,207	174,244,616
Australia .. .. £ Aust.	212,653,279	221,721,804	222,992,803	221,274,296	218,806,160
Grand Total (a) ..	380,555,145	396,316,328	398,884,730	396,806,503	393,050,776

(a) The figures given represent the total "face" or "book" value of the public debt without any adjustment on account of currency changes since the loans were floated. (b) See note (c) to table on page 470.

The particulars given above for war debt maturing in Australia take into account the remissions by the Commonwealth on account of losses incurred by the States in connexion with Soldier Land Settlement, and differ on that account from the figures given in earlier issues.

(iv) *Amount of Debt at Various Rates of Interest.*—The first debt taken over from South Australia consisted mainly of securities bearing interest varying from 3 per cent. to 4 per cent., the average rate of interest for the first year being £3 12s. 4d. For the first three years the increase in the debt was due almost entirely to the expansion of the 3½ per cent. stock of the Loan Fund, consequently the average rate of interest fell steadily, until on 30th June, 1914, it stood at £3 11s. 10d. With the loans raised for war and repatriation purposes interest rates rose until the National Debt Conversion Loan (July-August, 1931), reduced interest rates on internal loans by 2½ per cent. Conversion loans in London referred to on page 468 have reduced the average rate of interest on debt maturing in London by approximately one quarter of one per cent. from £4 18s. 11d. per cent. in 1932 to £4 13s. 4d. in 1934. The average rate of interest on internal loans at 30th June, 1934, was £3 17s. 4d. per cent. as compared with £5 10s. 4d. per cent. at 30th June, 1931. The average rate of interest payable on the total debt decreased from £5 5s. 0d. per cent. in 1931 to £4 4s. 7d. per cent. at 30th June, 1934.

The accompanying table gives particulars of rates of interest on the debt for Commonwealth purposes for the year ended 30th June, 1934.

**PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—RATES OF INTEREST.**

Rates of Interest.				At 30th June, 1934—Debt Maturing in—			
				London.	New York.	Australia.	Total.
	%	£ (Stg.)	£ (c)	£ (Aust.)	£ (a)		
5	.. .. .	46,510,625	12,525,881 (b)	9,092	59,045,598		
4.91675	.. .. .	79,724,220	..	..	79,724,220		
4.75	.. .. .	6,000,000	..	..	6,000,000		
4.65	.. .. .	..	..	922,250	922,250		
4.5	.. .. .	..	4,185,595	..	4,185,595		
4.45625	.. .. .	..	..	84,650	84,650		
4.2625	.. .. .	..	..	1,018,887	1,018,887		
4.25	.. .. .	..	..	94,859	94,859		
4.06875	.. .. .	..	..	4,361,020	4,361,020		
4	.. .. .	656,779	..	209,517,308	210,174,087		
3.875	.. .. .	..	..	8,447,522	8,447,522		
3.75	.. .. .	13,890,000	..	1,990,570	15,880,570		
3.5	.. .. .	531,329	..	1,354,745	1,886,074		
3.25	.. .. .	..	..	892,530	892,530		
3	.. .. .	27	..	3,817,083	3,817,110		
2.90625	.. .. .	..	..	1,204	1,204		
2.7125	.. .. .	..	..	2,008	2,008		
2.5	.. .. .	9,220,160	..	..	9,220,160		
2.25	.. .. .	..	..	13,300,000	13,300,000		
2	.. .. .	1,000,000	..	..	1,000,000		
Overdue and Unconverted (d)		..	..	89,061	89,061		
Deduct Loans to States for Soldier Land Settlement	..	..	..	27,096,629	27,096,629		
<b>Total</b>	.. .. .	<b>157,533,140</b>	<b>16,711,476</b>	<b>218,806,160</b>	<b>393,050,776</b>		
<b>Average rate %</b>	.. .. .	<b>4.663</b>	<b>4.875</b>	<b>3.868</b>	<b>4.229</b>		

(a) See note (a) to table on page 470.

(b) War Savings Certificates.

(c) See note (c) to table on page 470.

(d) Includes War Savings Stamps, £14,582 and unconverted securities, £30,630.

(v) *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 1930 to 1934 inclusive.

## PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—INTEREST PAYABLE.

Interest on and where payable.	At 30th June—				
	1930.	1931.	1932.	1933.	1934.
War Debt—					
London (c) .. .. . £ Stg.	4,647,992	4,570,782	4,570,782	4,570,782	4,345,782
Australia .. .. . £ Aust.	10,709,304	10,865,537	7,828,852	7,694,479	7,571,996
Total War Debt .. .. £ (a)	15,357,296	15,436,319	12,399,634	12,265,261	11,917,778
Average Rate .. .. %	£5 5s. 11d.	£5 8s. 2d.	£4 6s. 8d.	£4 6s. 8d.	£4 5s. 1d.
Works and other Purposes—					
London .. .. . £ Stg.	2,943,397	3,216,561	3,287,368	3,154,851	3,000,772
New York .. .. . £ (b)	836,109	836,109	834,133	823,249	814,646
Total Overseas .. .. £ (a)	3,779,506	4,052,670	4,121,501	3,978,100	3,815,418
Australia .. .. . £ Aust.	664,756	1,324,706	980,353	902,778	890,334
Total Debt for Works, etc. .. £ (a)	4,444,262	5,377,376	5,101,854	4,880,878	4,705,752
Average Rate .. .. %	£4 18s. 2d.	£4 16s. 11d.	£4 10s. 5d.	£4 5s. 11d.	£4 3s. 4d.
Total Debt—					
London (c) .. .. . £ Stg.	7,591,389	7,787,343	7,858,150	7,725,633	7,346,554
New York .. .. . £ (b)	836,109	836,109	834,133	823,249	814,646
Total Overseas .. .. £ (a)	8,427,498	8,623,452	8,692,283	8,548,882	8,161,200
Australia .. .. . £ Aust.	11,374,060	12,190,243	8,809,205	8,597,257	8,462,330
Grand Total .. .. . £ (a)	19,801,558	20,813,695	17,501,488	17,146,139	16,623,530
Average Rate .. .. %	£5 4s. 1d.	£5 5s. 0d.	£4 7s. 9d.	£4 6s. 5d.	£4 4s. 7d.

(a) The totals shown represent the nominal amount of interest, taking no account of exchange.  
 (b) See note (c) to table on p. 470.  
 (c) Includes suspended interest on War Debt owing to British Government.

(vi) *Dates of Maturity.* The dates of maturity of the several portions of the Commonwealth debt are shown hereunder according to years ending 30th June. On that account the figures given are not directly comparable with those published prior to 1929-30 which were given for calendar years. 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, 1934. While the actual dates of maturity extend from 1934-35 to 1975-76, or a period of 41 years, the average period till maturity is only about 10 years.

**PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—DUE DATES OF AMOUNTS  
OUTSTANDING ON 30th JUNE, 1934(a).**

Due Dates (year ended 30th June).				Due in—			Total.
				London.	New York.	Australia.	
				(Stg.)	£ (d)	£ (Aust.)	£ (c)
1935	..	..	..	10,303,211	..	14,242,129	24,545,340
1936	..	..	..	573,727	..	538,212	1,111,939
1937	..	..	..	371,806	..	299,330	671,136
1938	..	..	..	..	..	147,586	147,586
1939	..	..	..	159,523	..	42,270,176	42,429,699
1940	..	..	..	..	..	432,438	432,438
1941	..	..	..	..	..	374,650	374,650
1942	..	..	..	..	..	33,650,280	33,650,280
1943	..	..	..	..	..	4,259,000	4,259,000
1944	..	..	..	..	..	1,243,620	1,243,620
1945	..	..	..	17,354,817	..	27,637,538	44,992,355
1948	..	..	..	..	..	24,803,857	24,803,857
1949	..	..	..	..	..	1,332,450	1,332,450
1951	..	..	..	..	..	16,617,871	16,617,871
1954	..	..	..	13,890,000	..	15,957,340	29,847,340
1956	..	..	..	..	14,275,454	15,823,728	30,099,182
1958	..	..	..	..	2,436,022	15,374,336	17,810,358
1960	..	..	..	..	..	15,340,102	15,340,102
1961	..	..	..	6,000,000	..	..	6,000,000
1962	..	..	..	..	..	14,909,825	14,909,825
1976	..	..	..	29,155,809	..	..	29,155,809
Overdue	..	..	..	..	..	89,061	89,061
Half-yearly	..	..	..	..	..	239,336	239,336
Indefinite	..	..	..	27	..	208,799	208,826
Annual repayments	..	..	..	79,724,220	..	..	79,724,220
Transferred Properties (b)	..	..	..	..	..	111,125	111,125
Deduct loans to States for Soldier Land Settlement, etc.	..	..	..	..	..	27,096,629	27,096,629
<b>Total</b>	..	..	..	<b>157,533,140</b>	<b>16,711,476</b>	<b>218,806,160</b>	<b>393,050,776</b>

(a) Loans of which the Government has the option of redemption during a specified period have been in each case classified according to the latest date of maturity. (b) From New South Wales. See § 4.4 hereinbefore. (c) See note (a) to table on page 470. (d) See note (c) to table on page 470.

10. Sinking Funds.—Particulars relating to the creation of sinking funds are included in previous issues.

The old sinking funds were merged in the National Debt Sinking Fund on 11th August, 1923. Particulars of receipts and expenditure of the Commonwealth Account from the year 1929-30 are as follow:—

**PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—SINKING FUND.**

Items.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	Total.
	£	£	£	£	£	£
Cr. Brought forward ..	746,737	573,276	512,944	2,050,172	1,959,870	..
Balance transferred to Fund on 11th August, 1923 ..	..	..	..	..	..	2,262,982
From Consolidated Revenue	2,668,133	889,170	2,507,100	2,684,654	2,927,671	25,777,564
Repayments of Sundry Loans ..	261,855	2,967	28,475	41,426	27,944	1,213,510
Purchase Money and Repayments under War Service Homes Act ..	702,244	491,887	409,996	550,802	419,320	7,158,949
Half Net Profit Commonwealth Bank ..	362,825	391,013	396,905	337,702	335,077	3,147,894
Reparation Moneys ..	877,832	1,264,519	Dr. 616	524	649	5,572,277
Interest on Investments ..	28,573	24,544	21,015	58,271	27,836	630,699
Contributions by States ..	24,945	9,898	10,088	11,178	13,457	100,724
<b>Total .. ..</b>	<b>5,673,144</b>	<b>3,647,274</b>	<b>3,885,907</b>	<b>5,734,729</b>	<b>5,711,824</b>	<b>45,864,599</b>
<b>Dr. Redemptions .. ..</b>	<b>5,099,868</b>	<b>3,134,330</b>	<b>1,835,735</b>	<b>3,774,859</b>	<b>4,830,124</b>	<b>44,982,899</b>
Carried forward ..	573,276	512,944	2,050,172	1,959,870	881,700	881,700
<b>Total .. ..</b>	<b>5,673,144</b>	<b>3,647,274</b>	<b>3,885,907</b>	<b>5,734,729</b>	<b>5,711,824</b>	<b>45,864,599</b>

The Imperial Government loan comes in a different category from the others, since it is being liquidated by the funding arrangement described on page 468.

Information regarding the transactions of the States' Account of the National Debt Sinking Fund is published in Finance Bulletin No. 25 issued by this Bureau.

**§ 5. Cost of War and Repatriation.**

In view of the importance of the subject, a further reference is here made to the cost of the war. 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. The total cost from both sources to the 30th June, 1934, is set out in the following table:—

## COST OF WAR SERVICES.

Year.	From Consolidated Revenue.			From War Loan. (b)
	War and Repatriation Services, including War Pensions.	Interest and Sinking Fund.	Total.	
	£	£	£	
1914-15 .. .. .	896,190	115,145	1,011,335	14,100,000
1915-16 .. .. .	1,718,887	2,059,491	3,778,378	37,423,568
1916-17 .. .. .	2,439,271	5,988,058	8,427,329	53,114,237
1917-18 .. .. .	4,049,955	7,813,296	11,863,251	55,028,180
1918-19 .. .. .	6,536,927	14,718,174	21,255,101	59,547,080
1919-20 .. .. .	8,976,793	15,774,938	24,751,731	43,294,764
1920-21 .. .. .	13,672,345	19,613,888	33,286,233	24,148,501
1921-22 .. .. .	10,261,471	21,075,693	31,337,164	7,576,977
1922-23 .. .. .	9,298,560	20,801,912	30,100,472	1,762,694
1923-24 .. .. .	8,161,230	20,555,063	28,716,293	691,247
1924-25 .. .. .	8,232,656	20,155,426	28,388,082	Cr. 32,051
1925-26 .. .. .	8,473,717	20,539,123	29,012,840	Cr. 7,613
1926-27 .. .. .	8,814,001	20,300,101	29,114,102	23,938
927-28 .. .. .	8,788,037	20,005,972	28,794,009	Cr. 23,741
1928-29 .. .. .	9,026,749	20,771,652	29,798,401	Cr. 12,972
1929-30 .. .. .	9,520,750	20,213,586	29,734,336	Cr. 2,669
1930-31 .. .. .	10,468,748	18,672,080	29,140,828	Cr. 2,206
1931-32 .. .. .	8,764,848	12,198,565	20,963,413	..
1932-33 .. .. .	7,928,817	11,193,150	19,121,967	..
1933-34 .. .. .	8,187,952	10,966,411	19,154,363	..
Discounts and Flotation Expenses on Loans .. .. .	..	..	..	5,999,094
Indebtedness to the Government of the United Kingdom for payments made, services rendered, and goods supplied during the war (a) .. .. .	..	..	..	43,398,098
War Gratuities paid in cash .. .. .	454,708	..	454,708	27,049,485
Total to 30th June, 1934	154,672,612	303,531,724	458,204,336	373,076,611

(a) The total indebtedness to the Government of the United Kingdom involved in the *Funding Arrangements Act 1921* was £92,480,157. At 30th June, 1934, the amount outstanding had been reduced to £79,724,221. (b) Excluding expenditure on War Service Homes from 1923-24. (See page 467.)

## § 6. Old-age and Invalid Pensions.

1. *General.*—In previous issues of the Year Book an account was given of the introduction of the old-age pension system in Australia, together with a detailed description of the Commonwealth *Invalid and Old-age Pensions Act* of 1908, which

became operative on 1st July, 1909. (See Official Year Books, Nos. 3 to 8.) The following statement shows the rates of pension under the original Act and the rates as they have been varied from time to time :—

RATES OF PENSION PAYABLE.

Date from which Operative.	Pension Payable (Annual Rate.)			Pensioner's Annual Income including pension not to exceed—		
	£	s.	d.	£	s.	d.
1st July, 1909 .. .. .	26	0	0	52	0	0
12th October, 1916 .. .. .	32	10	0	58	10	0
1st January, 1920 .. .. .	39	0	0	65	0	0
13th September, 1923 .. .. .	45	10	0	78	0	0
8th October, 1925 .. .. .	52	0	0	84	10	0
23rd July, 1931 .. .. .	45	10	0	78	0	0
13th October, 1932 .. .. .	45	10	0 (a)	71	10	0
26th October, 1933 .. .. .	45	10	0	78	0	0
4th July, 1935 .. .. .	46	16	0	79	6	0

(a) Maximum amount of pension payable.

In 1916 an old-age pension of 2s. per week was first paid to pensioners who became inmates of Benevolent Asylums. This amount was increased to 3s. per week in 1923 and extended to pensioners entering hospitals. Further increments in these cases were granted in 1925 and 1928 raising the pension to 4s. and 5s. 6d. per week respectively. The amount was reduced to 5s. per week in 1931 and to 3s. 9d. per week in 1932, but was restored to 5s. per week in 1933.

Asiatics, generally, are not eligible to receive an invalid or old-age pension, unless born in Australia, but, by an amending Act which came into operation from 7th October, 1926, pension rights were extended to Indians who were born in British India.

Invalid pensions were granted from 15th December, 1910. An applicant for an invalid pension must satisfy the Department that his or her disability is both total and permanent and became so in Australia.

In 1920 special provision was made for a permanently blind person, by which the annual pension may be at such a rate (not exceeding that shown in the table above) as will make his income plus that of his wife together with the pension equal to an amount not exceeding £221 per annum, or such other amount as is declared to be a basic wage. The maximum pension now payable to a blind person is £46 16s. per annum and the limit of income is £222 6s. per annum.

The *Financial Emergency Act 1931* reduced old-age and invalid pensions to £45 10s. per annum and the permissible income to £78 per annum. A reduction to 5s. per week was also made in the cases of pensioners in Benevolent Asylums and Hospitals.

The *Financial Emergency Act 1932*, which operated from 13th October, 1932, materially amended the conditions under which pensions were granted. The maximum rate of pension payable, viz., £45 10s. per annum, was not altered, but this rate was made to apply only to pensioners without other means. Where pensioners were in receipt of other income or were possessed of property (other than their own homes) valued at £60 or over the rates of pension were graduated. Payments to pensioner inmates of Benevolent Asylums and Hospitals and to these institutions for pensioners' maintenance were reduced to 3s. 9d. and 11s. 3d. per week respectively. The *Financial Relief Act 1933* restored from 26th October, 1933, the reductions imposed by the *Financial Emergency Act 1932* and the rates and permissible income were placed on the level of those operating from July, 1931. Provision was also made for an annual review of the rate of pension, based on the cost of living index-number. Pensions may be increased to not more than £52 per annum or reduced to not less than £45 10s. per annum. In pursuance of this provision the rate of pension was reviewed in 1935 and was increased to £46 16s. per annum from 4th July, 1935. The permissible income was increased to £79 6s. per annum from the same date.

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, 1933, there were 176,425 old-age pensions in force. During 1933-34, 22,518 pension claims were granted, while 15,546 pensions fell in through cancellations and deaths. The net increase for the year was 6,972, and the total in existence at 30th June, 1934, 183,397.

(ii) *Sexes of Pensioners.* Of the pensioners at 30th June, 1934, 80,090 (or 44 per cent.) were males, and 103,307 (or 56 per cent.) were females. Details for the several States are as follow :—

#### OLD-AGE PENSIONS.—SEXES OF PENSIONERS, 1933-34.

State.	Males.	Females.	Total.	Masculinity. (a)
New South Wales .. .. .	31,548	39,584	71,132	79.7
Victoria .. .. .	21,534	39,053	51,587	71.7
Queensland .. .. .	10,763	12,519	23,282	86.0
South Australia .. .. .	6,856	10,457	17,313	65.6
Western Australia .. .. .	5,665	6,189	11,854	91.5
Tasmania .. .. .	3,724	4,505	8,229	82.7
<b>Total .. .. .</b>	<b>80,090</b>	<b>103,307</b>	<b>183,397</b>	<b>77.5</b>

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Condition of Pensioners.* The recorded ages of the 22,518 persons, 11,362 males and 11,156 females, to whom pensions were granted during the year 1933-34 varied considerably, ranging from 3,935 at age 60 to 2 at age 99. The conjugal condition of these pensioners was as follows :—Males—single, 2,498; married, 6,870; and widowed, 1,994. Females—single, 1,435; married, 5,847; and widowed, 3,874.

3. *Invalid Pensions.*—(i) *Number in force, 1934.* During the year 1933-34 the number of invalid pensioners increased from 72,742 to 77,282, an increase of 4,540 persons. Altogether 10,207 claims were allowed and 5,667 pensions were cancelled.

(ii) *Sexes of Pensioners.* Of the 77,282 persons in receipt of invalid pensions on 30th June, 1934, 34,309, or 44 per cent. were males, and 42,973, or 56 per cent. were females. Details for the several States are as follow :—

#### INVALID PENSIONS.—SEXES OF PENSIONERS, 1933-34.

State.	Males.	Females.	Total.	Masculinity. (a)
New South Wales .. .. .	14,618	18,735	33,353	78.0
Victoria .. .. .	9,237	11,622	20,859	79.5
Queensland .. .. .	5,071	5,502	10,573	92.2
South Australia .. .. .	2,142	3,350	5,492	63.9
Western Australia .. .. .	1,932	2,190	4,122	88.2
Tasmania .. .. .	1,309	1,574	2,883	83.2
<b>Total .. .. .</b>	<b>34,309</b>	<b>42,973</b>	<b>77,282</b>	<b>79.8</b>

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Conditions of Pensioners, 1934.* The recorded ages of the 10,207 persons (5,371 males and 4,836 females) to whom invalid pensions were granted during the period under review varied from 16 to 89.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows:—Males—single, 2,333; married, 2,710; and widowed, 328. Females—single, 1,940; married, 1,790; and widowed, 1,106.

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. During the year 1933–34 the total cost to the Commonwealth of administering the Old-age and Invalid Pensions Department was £105,308, or about 0.96 per cent. of the amount paid to pensioners and to Benevolent Asylums and Hospitals.

The actual sum disbursed in old-age and invalid pensions in the financial year 1933–34, apart from the cost of administration and inclusive of the amount paid to asylums and hospitals for the maintenance of pensioners, was £10,963,090.

5. *Summary.*—The following table gives details concerning the working of the Act for the last five years:—

#### OLD-AGE AND INVALID PENSIONS.—SUMMARY, AUSTRALIA.

Year ended 30th June—	Number of Pensioners.				Amount Paid in Pensions.	Total Payment to Pensioners and to Asylums and Hospitals for Maintenance of Pensioners.	Cost of Administration.	Cost of Administration per £100 paid to Pensioners and to Asylums and Hospitals.	Average Fort-nightly Pension on last day of Financial Year.
	Old-age.		Invalid.	Total.					
	No.	Est. No. per 1,000 of persons eligible on age qualification. (a)							
1930	155,196	315	63,304	218,500	10,633,979	10,791,325	89,201	16 6	38 5
1931	172,177	338	68,343	240,520	11,549,828	11,710,953	93,077	15 11	38 4
1932	183,317	348	72,292	255,609	10,978,633	11,125,956	81,859	14 9	33 3b
1933	176,425	325	72,742	249,167	10,643,196	10,771,061	92,305	17 2	31 10
1934	183,397	327	77,282	260,679	10,836,263	10,963,090	105,308	19 3	33 8

(a) Based on an estimate in 1935 of the number of old-age pensioners per 1,000 of the aggregate of males aged 65 and over and females aged 60 and over as disclosed at the Censuses of 1921 and 1933.  
 (b) A general reduction of 5s. per fortnight was made in July, 1931, as provided by the *Financial Emergency Act 1931*.

### § 7. Maternity Allowance.

1. *General.*—During the session of 1912 the Federal Parliament passed an Act (assented to on 10th October, 1912) providing for the payment of maternity allowances. The scope and main provisions of the Act are given in Year Book No. 14, p. 1047. The most important conditions in the original Act were that the sum of five pounds was payable in the case of each confinement resulting in the birth of a viable child whether such child was born alive or dead. The mother must be a native of Australia or intend to settle permanently therein. No payment is made in the case of an aboriginal or an Asiatic. 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.

As 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, but the maximum income must not exceed £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.

The following table gives a summary in connexion with the working of the *Maternity Allowance Act* for the years 1930 to 1934 :—

#### MATERNITY ALLOWANCE.—SUMMARY.

Year.	Claims Paid.	Claims Rejected.	Amount Paid.	Cost of Administration.	Cost per £100 of allowance paid.
	No.	No.	£	£	£ s. d.
1929-30 ..	128,598	821	642,990	15,157	2 7 2
1930-31 ..	126,149	770	630,652(a)	15,322	2 8 7
1931-32 ..	92,410	5,229	378,022	14,180	3 15 0
1932-33 ..	80,311	6,631	320,986	12,420	3 17 5
1933-34 ..	75,781	7,289	302,928	11,799	3 17 11
Aggregate— 1912-13 to 1933-34 ..	2,723,977	31,457	13,379,216	303,725	2 5 5

(a) Excluding £93 refunded.

2. **Claims paid in each State.**—The following table shows the number of maternity allowance claims paid in each State during the last five years :—

#### MATERNITY ALLOWANCE.—CLAIMS PAID IN EACH STATE.

Year ended 30th June.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Total.
1930 .. ..	52,335	33,381	18,490	10,361	9,030	4,959	42	128,598
1931 .. ..	51,660	32,241	18,790	9,720	8,909	4,778	51	126,149
1932 .. ..	36,569	23,988	13,240	7,637	6,773	4,169	34	92,410
1933 .. ..	31,699	20,100	11,680	7,048	5,879	3,880	25	80,311
1934 .. ..	29,960	19,499	10,780	6,783	4,951	3,788	20	75,781
Total, 1910 to 1933-34 ..	1,086,043	713,343	400,562	237,226	172,976	112,980	847	2,723,977

### § 8. Commonwealth Public Service Superannuation Fund.

This Fund, which was inaugurated on the 20th November, 1922, is maintained by contributions of officers of Parliament, of employees of the Commonwealth Public Service and the Defence Department, and by payments from the Consolidated Revenue, the latter being made when the officers retire on pension. Full particulars as to the benefits, etc., will be found in Official Year Book No. 18, page 383.

The number of contributors to the fund at 30th June, 1934, was 30,389, viz., 27,245 males and 3,144 females, and the average pension contributed for was 4.491 units or £116 15s. 4d. per annum.

During 1933-34 the receipts of the fund amounted to £574,622 of which officers' contributions represented £384,469. The payments from the fund for the year were £452,138, of which £320,289 was invested, bringing the total funds invested to £4,475,929 (at cost). The average rate of interest on investments at 30th June, 1934, was 4.46 per cent.

Pensions in force on the 30th June, 1934, numbered 4,909, with a net annual liability of £428,121, of which £338,115 represented the share payable from the Consolidated Revenue Fund.

Contributions from the Commonwealth Consolidated Revenue to the fund were reduced by 20 per cent. from July, 1931, under the *Financial Emergency Act* 1931, and as the Government contribution in respect of any officer does not commence until he is superannuated, the reduced contribution affected all pensioners. The investments of the fund were subject to the interest reduction of approximately 22½ per cent. as provided in the above mentioned Act. The *Financial Relief Act* 1933 provided for the restoration of full pensions from the 21st October, 1933.

### § 9. Currency and Coinage.

1. **Australian Mints.**—Soon after the discovery of gold in Australia a branch of the Royal Mint was established in Sydney. The formal opening took place on the 14th May, 1855. The Melbourne branch was opened on the 12th June, 1872, and the Perth branch on the 20th June, 1899. The States of New South Wales, Victoria and Western Australia provided an annual endowment in return for which the mint receipts were paid into the respective State Treasuries, and it might be said until recently that, apart from expenditure on buildings, new machinery, etc., the accounts 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. 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 1934 and the aggregate at each mint to the end of 1934 were as follow :—

#### AUSTRALIAN MINTS.—RECEIPTS OF GOLD, 1934, AND TOTAL.

Mint.	Deposits during 1934.	Total to end of 1934.		
		Quantity.		Value.
		Gross.	Fine.	
	ozs.	ozs.	ozs.	£
Sydney ..	..	(a) 42,082,928	(a) 36,907,045	(a) 156,771,141
Melbourne ..	317,528	42,899,284	39,150,000	166,298,523
Perth ..	813,662	36,232,083	29,650,175	125,945,854
<b>Total ..</b>	<b>1,131,190</b>	<b>121,214,295</b>	<b>105,707,220</b>	<b>449,015,518</b>

(a) To end of 1926.

In cases of deposits containing over a certain minimum of silver, the excess is paid for at the rate fixed from time to time by the Deputy-Master of the branch mint concerned.

(ii) *Issues.* The Australian mints, besides issuing gold coin in the shape of sovereigns and half-sovereigns, also issue gold bullion, partly for the use of local manufacturers (jewellers and dentists), and partly for export. Since September, 1931, when the United Kingdom departed from the gold standard, the minting of gold coins by Australian mints has ceased. Australian exports of gold are mainly in the form of 400-oz. ingots, but in earlier years a considerable amount of gold was shipped in 10-oz. bars to India. During recent years the export was subject to regulation by the Commonwealth Government. The issues during 1934, 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.		
1934—	£	£	£	£	£
Melbourne ..	..	..	..	..	..
Perth ..	..	..	..	2,778,114	2,778,114
Total, 1934	..	..	..	2,778,114	2,778,114
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	17,210,202	165,440,113
Perth ..	106,384,197	367,338	106,751,535	19,193,979	125,945,514
Total to end of 1934 ..	398,102,878	6,095,118	404,197,996	43,978,589	448,176,585

(iii) *Withdrawals of Worn Coin.* The mints receive light and worn coin for recoinage. The total withdrawals of worn gold coin were as follows:—Sydney (to 1926), £1,110,867; Melbourne, £882,304 (since and including 1890); and Perth, £1,401.

4. *Price of Gold.*—In consequence of Great Britain's departure from the gold standard on 21st September, 1931, the market value of gold immediately rose by about 17½ per cent. from £4 4s. 11d. to £4 19s. 7d. per ounce fine. Considerable fluctuations have since taken place, and the average monthly value of gold based on the London open market price per ounce fine adjusted to the telegraphic transfer exchange rate (Australia on London) less a small percentage for shipping charges is given in the following table in £ Sterling and £ Australian from January, 1932, to September, 1935. Particulars are also shown for the value of the sovereign.

## PRICE OF GOLD.—LONDON AND AUSTRALIA, 1932 to 1935.

Month.	London.		Australia.		
	Average price per ounce, fine.	Average value of Sovereign.	Average price per ounce, fine.	Average value of Sovereign.	Equivalent to a premium of—
1932—	£s s. d.	£s s. d.	£A s. d.	£A s. d.	%
January ..	6 0 5	1 8 4	7 8 8	1 15 0	74.9
February ..	5 19 8	1 8 2	7 7 9	1 14 9	73.9
March ..	5 14 1	1 6 10	7 0 1	1 13 2	65.8
April ..	5 10 3	1 6 0	6 16 2	1 12 1	60.2
May ..	5 12 10	1 6 7	6 19 3	1 12 9	64.0
June ..	5 13 4	1 6 8	6 19 11	1 12 11	64.7
July ..	5 16 0	1 7 4	7 3 2	1 13 8	68.5
August ..	5 18 6	1 7 11	7 6 4	1 14 5	72.2
September ..	5 18 8	1 7 11	7 6 6	1 14 6	72.4
October ..	6 1 5	1 8 7	7 9 10	1 15 3	76.4
November ..	6 5 9	1 9 7	7 15 2	1 16 6	82.7
December ..	6 5 9	1 9 7	7 15 2	1 16 6	82.7
Average for Year ..	5 18 0	1 7 9	7 5 8	1 14 4	71.5
1933—					
January ..	6 2 6	1 8 10	7 11 2	1 15 7	78.0
February ..	6 0 9	1 8 5	7 9 0	1 15 1	75.4
March ..	6 0 4	1 8 4	7 8 6	1 15 0	75.0
April ..	6 0 8	1 8 5	7 8 11	1 15 1	75.3
May ..	6 3 5	1 9 1	7 12 4	1 15 10	79.3
June ..	6 2 3	1 8 9	7 10 11	1 15 6	77.7
July ..	6 4 0	1 9 2	7 13 1	1 16 0	80.2
August ..	6 5 8	1 9 7	7 15 2	1 16 6	82.6
September ..	6 11 4	1 10 11	8 2 2	1 18 2	90.9
October ..	6 11 6	1 11 0	8 2 4	1 18 3	91.1
November ..	6 8 9	1 10 3	7 18 11	1 17 5	87.1
December ..	6 6 2	1 9 9	7 15 9	1 16 8	83.4
Average for Year ..	6 4 11	1 9 5	7 14 2	1 16 3	81.4
1934—					
January ..	6 10 1	1 10 8	8 0 7	1 17 10	89.1
February ..	6 16 11	1 12 3	8 9 1	1 19 10	99.0
March ..	6 16 6	1 12 2	8 8 5	1 19 8	98.3
April ..	6 15 2	1 11 10	8 6 10	1 19 3	96.3
May ..	6 16 3	1 12 1	8 8 3	1 19 7	98.0
June ..	6 17 9	1 12 5	8 10 0	2 0 0	100.1
July ..	6 17 10	1 12 6	8 10 2	2 0 1	100.4
August ..	6 18 7	1 12 8	8 11 1	2 0 3	101.4
September ..	7 0 10	1 13 2	8 13 10	2 0 11	104.6
October ..	7 1 7	1 13 4	8 14 10	2 1 2	105.8
November ..	6 19 5	1 12 10	8 12 2	2 0 6	102.6
December ..	7 0 7	1 13 1	8 13 7	2 0 10	104.3
Average for Year ..	6 17 8	1 12 5	8 9 11	2 0 0	100.0
1935—					
January ..	7 1 10	1 13 5	8 15 1	2 1 3	106.1
February ..	7 2 9	1 13 7	8 16 2	2 1 6	107.4
March ..	7 6 9	1 14 7	9 1 1	2 2 8	113.2
April ..	7 4 3	1 13 11	8 18 1	2 1 11	109.6
May ..	7 2 7	1 13 7	8 16 0	2 1 5	107.2
June ..	7 1 3	1 13 3	8 14 4	2 1 1	105.2
July ..	7 0 10	1 13 2	8 13 10	2 0 11	104.6
August ..	7 0 3	1 13 0	8 13 2	2 0 9	103.8
September ..	7 1 0	1 13 2	8 14 0	2 1 0	104.8

NOTE.—"£s" represents £ sterling while Australian £'s are indicated by "£A."



5. **Silver and Bronze Coinage.**—(i) *Prices of Silver.* The value of silver has greatly decreased since its demonetization and restricted coinage in almost the whole of Europe. A noticeable increase, however, took place for some years after 1915, the price of silver following the general trend of world prices. Its average price in the London market in recent years is shown in § 4 par. 5 of Chapter XIX., 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 cost, at the average 1934 London market price of 1s. 9.22d. per ounce, approximately 21s. 3d. The difference nearly represents, therefore, the gross profit or seigniorage made on the coinage of every £3 6s. Negotiations for the coinage of silver and bronze coin in Australia extended over a number of years between the Imperial authorities and the Governments of New South Wales and Victoria, but no decision was arrived at. As section 51 of the Commonwealth Constitution makes legislation concerning "currency, coinage, and legal tender" a Commonwealth matter, the question remained in abeyance until 1907, when the matter was discussed at the Colonial Conference, London, with the result that in the latter part of 1908 the Commonwealth Treasurer announced his intention of initiating the coinage. Since 1916 silver and bronze coins have been minted in Australia on behalf of the Commonwealth Treasury.

(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.		
	2/-.	1/-.	6d.	3d.	Total.	1d.	½d.	Total.
	£	£	£	£	£	£	£	£
1910 to 1928 ..	3,354,000	1,750,900	823,100	783,300	6,711,300	395,513	103,895	499,408
1928-29 ..	71,000	12,400	20,000	24,600	128,000	13,030	5,510	18,540
1929-30 ..	30,000	10,000	11,200	10,000	61,200	3,020	2,310	5,330
1930-31 ..	192,000	45,000	..	..	237,000	..	..	..
1931-32 ..	257,600	19,000	7,200	5,200	289,000	11,600	6,270	17,870
1932-33 ..	23,400	9,200	5,200	6,600	44,400	13,470	8,140	21,610
1933-34 ..	81,400	29,200	23,800	24,200	158,600	21,890	7,500	29,390
<b>Total ..</b>	<b>4,009,400</b>	<b>1,875,700</b>	<b>890,500</b>	<b>853,900</b>	<b>7,629,500</b>	<b>368,523</b>	<b>133,625</b>	<b>502,148</b>

(iv) *Withdrawals of Worn Silver Coin.* An examination of the wear on silver coins made by the London Mint Authorities in 1909 revealed that the average life of silver coins (then .925 fine) was:—2s. pieces, 45 years; 1s., 41 years; 6d., 28 years; and 3d., 32 years. The value of worn silver coins received during 1934 was as follows:—Melbourne, nil; Perth, nil. The total withdrawals of worn silver coin to 1934 were:—Melbourne, £1,747,409; Perth, £129,738; Sydney (to 1926), £1,248,672.

6. **Australian Note Issue.**—(i) *General.* Information in some detail regarding Australian Notes has been given in earlier issues of this work. In December, 1920, the Australian Note Issue passed to the control of the Commonwealth Bank, the notes, however, remaining Treasury Notes. The Note Issue Department is administered by the Board of Directors of the Commonwealth Bank.

(ii) *Reserve against Note Issue.* Prior to 19th June, 1931, the reserve held in gold against the note issue was fixed at 25 per cent. of the total notes in circulation. To permit further shipments of gold to meet short-term obligations in London, an Amending Act reduced the statutory gold reserve to 15 per cent. with provision for the restoration by graduations to 25 per cent. within a period not exceeding five years. A further Amending Act provided that portion of the note issue reserve may be held in British sterling, which was defined as follows:—(a) Balances standing to the credit of the Bank at the Bank of England or at any other of its bankers in London; (b) Bills of Exchange or advances secured thereby which will mature in not more than three months and

which are payable in the United Kingdom in currency which is legal tender therein; and (c) Treasury Bills or other securities of the United Kingdom which will mature in not more than three months.

(iii) *Notes in Circulation.* Particulars of the average notes in circulation and of the gold reserve for the years 1914 and 1931 to 1934 are given in the following table:—

## COMMONWEALTH NOTE ISSUE.—PARTICULARS.

Particulars.	Average of monthly statements for year—				
	1914.	1931.	1932.	1933.	1934.
Notes held by—	£	£	£	£	£
Banks ..	(a)	24,939,874	24,916,825	22,685,449	21,198,854
Public ..	(a)	25,221,885	25,740,767	25,033,410	25,872,512
Total ..	11,944,848	50,161,759	50,657,592	47,718,859	47,071,366
Gold Reserve ..	5,368,822	13,144,494	(b)10,616,563	(b)11,672,099	(b)15,524,204
Percentage of Reserve on Total Issue ..	%	%	%	%	%
	44.9	26.2	21.0	24.5	33.0

(a) Not available.

(b) Includes English sterling.

Details of the average value of each of the several denominations of Australian Notes outstanding in 1914 and from 1930 to 1934 are given in Finance Bulletin No. 25 issued by this Bureau.

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 1930 to 1934.

## ESTIMATED LEGAL TENDER EXTANT.—AUSTRALIA.

Particulars.	1930.	1931.	1932.	1933.	1934.
Australian Note Issue (a)—	£'000.	£'000.	£'000.	£'000.	£'000.
Held by Banks ..	22,342	25,351	26,505	23,346	21,284
Held by Public ..	22,572	25,302	24,798	24,207	25,017
Notes of Trading Banks outstanding (b)	199	198	197	181	174
Coin—Gold—Held by Banks (c)	1,091	312	158	61	20
Held by Public ..	..	..	..	..	..
Silver—Held by Banks ..	2,577	2,026	2,289	2,047	2,007
Held by Public ..	4,163	5,031	5,057	5,289	5,482
Bronze—Held by Banks ..	145	133	110	105	109
Held by Public ..	288	300	341	364	389
Total ..	53,377	58,653	59,455	55,600	54,482

(a) Last Monday in June.

(b) Average for June quarter.

(c) At 30th June.

The figures given above for silver coin represent the total issues of Australian silver coin less the excess of exports of Australian coins to New Zealand and the Pacific Islands over the re-imports of Australian coins. The amount of English coin in circulation in Australia is negligible, and as it is not possible to ascertain accurately its volume, no allowance has been made therefor. The figures given for bronze coins refer to the total issues of Australian coin, the small amount of British coin in circulation being disregarded.

## C.—STATE FINANCE.

## § 1. General.

1. **Functions of State Governments.**—In comparing the financial returns of the States allowance must be made for the various functions discharged by the respective Governments, and for local conditions in each case. Direct comparisons of the revenue, expenditure and debt of the individual States are difficult, owing to the fact that functions which in one State are assumed by the Central Government are in another relegated to municipal or semi-governmental bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the Central Government. Care, therefore, is needed in instituting comparisons, and the particulars contained in this Chapter should be read with those contained in the Chapter dealing with Local Government. In many respects, moreover, the budgets of the Australian Governments differ materially from those of most European countries, owing to the inclusion therein of the revenue and expenditure of departments concerned in rendering public services, such for instance as railways, tramways, water supply, etc., which in other countries are often left to private enterprise.

2. **Accounts of State Governments.**—The various financial transactions of the States are in each case mainly concerned with one or other of three Funds—the “Consolidated Revenue Funds,” the “Trust Funds,” and the “Loan Funds.” 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. From 1st July, 1928, the accounts of the Railway and Tramway services, Sydney Harbour Trust, and certain water supply services were separated from the Consolidated Revenue Fund of New South Wales. To preserve the comparability of the State finance statistics, information in respect of the above services has been included in the tabular statements in this section. The Trust Funds comprise all moneys held in trust by the Government, and include such items as savings banks funds, sinking funds, insurance companies' deposits, etc. The Loan Funds are 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 463 of this issue details are given in regard to the constitutional and other requirements in the matter of the distribution of Commonwealth revenues.

## § 2. Consolidated Revenue Funds:

## Division I.—Revenue,

1. **General.**—The principal sources of State revenue are :—

- (a) Taxation ; (b) The public works and services 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* ; and (e) Miscellaneous sources, comprising fines, fees, interest, etc.

In regard to item (b) attention is directed to the statement (see C. § 1 (2) *ante*) appertaining to the New South Wales accounts. In connexion with the Railway Accounts for that State the Consolidated Revenue Fund contributed to the Railways Commissioners an amount not exceeding £800,000 in respect of losses on country

developmental railways during each of the last four years. To avoid duplication in determining the aggregate receipts and expenditure this amount has not been included in the railways receipts or Consolidated Revenue Expenditure. During 1929-30 a refund of £327,129 was made to the Railways Commissioners from the Consolidated Revenue Surplus of 1928-29 in respect of Sinking Fund Contribution paid by the Railways Commissioners in 1928-29. This amount also has been excluded in revenue year 1929-30.

Of these sources, that yielding the largest revenue for the States as a whole is the group of Public Works and Services, the principal contributor being the Government Railways and Tramways. Next in magnitude comes Taxation, followed in order by the Commonwealth Payments and Interest Receipts.

By the *Finances Adjustment and Financial Adjustment (Further Provisions) Acts* 1932, the receipts and payments of the Unemployment Relief and Family Endowment Funds of New South Wales were brought into the Consolidated Revenue Fund, and the division of the Consolidated Revenue Account known as the Special Purposes (Revenue) Fund was abandoned. The figures showing receipts and expenditure include the transactions relating to the Social Services referred to.

2. Revenue Received.—The following table furnishes particulars of the total amounts and the amounts per head, of consolidated revenue received by the several States during the last five years:—

## STATE CONSOLIDATED REVENUE.

Year.	N.S.W. (a)	Victoria. (a)	O'land. (b)	S. Aust.	W. Aust. (b)	Tasmania.	All States.
TOTAL COLLECTIONS.							
	£	£	£	£	£	£	£
1929-30	48,791,604	27,323,842	15,997,870	10,551,016	9,750,515	2,956,272	115,371,119
1930-31	45,857,262	25,575,504	15,072,652	10,725,811	8,686,756	2,609,290	108,527,275
1931-32	45,607,700	24,555,272	12,994,113	10,481,976	8,035,316	2,385,495	104,059,872
1932-33	49,329,557	24,705,985	13,396,644	10,160,712	8,332,153	2,522,191	108,447,242
1933-34	45,509,438	24,567,739	13,859,385	10,187,986	8,481,697	2,698,214	105,304,459

## PER HEAD OF POPULATION.(c)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1929-30	19 7 5	15 7 3	17 14 0	18 8 6	22 17 11	13 9 8	17 19 5
1930-31	18 0 5	14 5 4	16 8 4	18 13 5	20 3 0	11 14 2	16 14 9
1931-32	17 15 2	13 12 3	13 19 3	18 3 5	18 10 7	10 11 1	15 18 3
1932-33	19 0 9	13 12 3	14 4 9	17 10 8	19 1 5	11 1 4	16 9 1
1933-34	17 8 3	13 9 3	14 11 7	17 9 10	19 5 2	11 15 7	15 17 2

(a) Includes certain moneys not paid into Consolidated Revenue Fund, such as receipts from Railways, Tramways, Sydney Harbour Trust, certain Water Supply and Sewerage Services and motor taxation in New South Wales and motor taxation in Victoria. See letterpress above regarding Social Services, New South Wales. (b) Excludes motor taxation. (c) Based on mean population of each financial year.

The revenue for all States per head of the population, which had been progressively increasing each year, declined slightly in 1928-29 to £18 15s. 2d., and with the advent of the depression receded to £15 17s. 2d. in 1933-34, the lowest figure recorded since 1923-24. The fall in the receipts from Business Undertakings, amounting to nearly £16,000,000 since 1928-29, was largely responsible for the decline in State revenue.

3. Sources of Revenue.—(i) *General.* Classifying the revenue of the several States in the manner indicated in 1 *ante*, particulars for the year 1933-34 are as follow:—

## STATE CONSOLIDATED REVENUE.—SOURCES, 1933-34.

Particulars.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>TOTAL REVENUE.</b>							
	£	£	£	£	£	£	£
Taxation (c) ..	14,198,932	8,461,944	3,279,820	2,909,126	1,368,720	1,132,889	31,351,431
Business Under-takings ..	23,074,973	11,036,179	6,336,659	4,502,916	4,578,327	493,010	50,022,064
Territorial ..	1,598,086	378,878	1,357,481	188,025	312,818	55,442	3,890,730
Commonwealth payments ..	2,917,411	2,127,159	1,096,235	61,733,816	61,073,432	(b) 646,859	9,594,912
Interest ..	849,770	1,721,612	1,074,086	789,278	(c) 42	351,464	4,786,210
Miscellaneous ..	2,870,266	841,967	715,104	64,825	1,148,400	18,550	5,659,112
<b>Total ..</b>	<b>45,509,438</b>	<b>24,567,739</b>	<b>13,859,385</b>	<b>10,187,986</b>	<b>8,481,697</b>	<b>2,698,214</b>	<b>105,304,459</b>

## PER HEAD OF POPULATION.(h)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Taxation (c) ..	5 8 8	4 12 9	3 9 0	4 19 11	3 2 2	4 18 11	4 14 5
Business Under-takings ..	8 16 7	6 0 11	6 13 4	7 14 8	10 7 11	2 3 1	7 10 8
Territorial ..	0 12 3	0 4 2	1 8 7	0 6 5	0 14 2	0 4 10	0 11 9
Commonwealth payments ..	1 2 4	1 3 4	1 3 1	2 19 6	2 8 9	2 16 6	1 8 11
Interest ..	0 6 6	0 18 10	1 2 7	1 7 1	(e)	1 10 3	0 14 5
Miscellaneous ..	1 1 11	0 9 3	0 15 0	0 2 3	2 12 2	0 1 7	0 17 0
<b>Total ..</b>	<b>17 8 3</b>	<b>13 9 3</b>	<b>14 11 7</b>	<b>17 9 10</b>	<b>19 5 2</b>	<b>11 15 7</b>	<b>15 17 2</b>

(a) Includes certain moneys not paid into Consolidated Revenue Fund. See note (a) to table immediately preceding. (b) Including special grant. (c) In some States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections see next page. (d) Excludes £800,000 paid to Railways Commissioners from Consolidated Revenue in respect of losses on country developmental railways. (e) Included with Miscellaneous. (f) Excludes Western Australia. (g) Includes Unemployment Relief and Family Endowment Taxes. (h) 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.

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.



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 Unemployment Relief and Income Taxes. In addition to these, a State land tax and licence fees of various kinds are collected in all the States, and a dividend tax is levied in Western Australia.

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 1933-34 are given in the following table :—

## STATE REVENUE FROM TAXATION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1929-30	15,170,582	7,426,295	4,846,179	3,487,815	1,846,333	1,119,722	33,896,926
1930-31	16,190,756	8,104,229	5,542,526	3,399,942	1,524,846	1,071,263	35,833,562
1931-32	14,855,306	7,709,694	4,761,880	3,076,374	1,439,559	905,715	32,748,528
1932-33	18,052,914	8,301,194	5,661,151	2,733,445	1,573,451	1,003,454	37,325,609
1933-34	14,198,932	8,461,944	5,846,301	2,925,106	1,835,829	1,132,889	34,401,001

## PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1929-30	6 0 6	4 3 6	5 7 3	6 1 10	4 6 9	5 2 2	5 5 7
1930-31	6 7 3	4 10 5	6 0 9	5 18 5	3 10 9	4 16 2	5 10 6
1931-32	5 15 9	4 5 6	5 2 4	5 6 8	3 6 5	4 0 2	5 0 2
1932-33	6 19 4	4 11 6	6 0 4	4 14 4	3 12 0	4 8 0	5 13 3
1933-34	5 8 8	4 12 9	6 3 0	5 0 5	4 3 4	4 18 11	5 3 7

(a) Based on mean population of each financial year.

Taking the States as a whole, taxation decreased by 2s. od. per head during the period covered by the above table. The peak of State taxation was reached in 1932-33 with £5 13s. 3d. per head. A decrease of 9s. 8d. per head followed in 1933-34 when the taxation per head in New South Wales fell by £1 10s. 8d. to £5 8s. 8d. largely on account of reduced collections of Unemployment Relief and Family Endowment taxes.

(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 XV., Private Finance, Section F.)

The duties collected for the last five financial years are as follow :—

## STATE PROBATE AND SUCCESSION DUTIES.—COLLECTIONS.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
New South Wales ..	1,860,052	1,496,641	1,251,650	1,639,979	1,542,475
Victoria ..	1,133,422	1,131,603	1,014,669	1,164,200	1,143,330
Queensland ..	491,892	528,129	424,522	452,872	459,314
South Australia ..	395,082	254,264	323,008	299,826	298,676
Western Australia ..	75,707	72,093	63,162	91,995	70,154
Tasmania ..	65,991	78,275	86,764	117,387	156,935
<b>Total .. ..</b>	<b>4,022,146</b>	<b>3,561,005</b>	<b>3,163,775</b>	<b>3,766,259</b>	<b>3,670,884</b>

(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 :—

## STATE STAMP DUTIES.—COLLECTIONS.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
New South Wales ..	1,362,147	931,308	843,986	929,158	1,013,604
Victoria ..	985,088	704,958	639,578	725,834	733,054
Queensland ..	555,391	442,149	418,205	423,450	446,587
South Australia ..	379,546	285,915	164,708	177,396	190,193
Western Australia ..	255,725	170,949	189,174	181,642	209,965
Tasmania ..	64,929	114,401	137,876	100,020	97,719
<b>Total .. ..</b>	<b>3,602,826</b>	<b>2,649,680</b>	<b>2,393,527</b>	<b>2,537,500</b>	<b>2,691,122</b>

(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 amount collected by means of such taxes during the financial years 1929-30 to 1933-34 :—

## STATE LAND TAX.—COLLECTIONS.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
New South Wales ..	2,588	2,486	2,453	1,968	2,199
Victoria ..	531,426	506,025	497,609	503,752	535,947
Queensland ..	556,532	503,656	346,064	442,584	433,881
South Australia ..	440,265	486,505	434,544	306,198	346,411
Western Australia ..	219,066	168,579	132,368	130,963	118,973
Tasmania ..	99,453	97,963	95,916	92,823	90,812
<b>Total .. ..</b>	<b>1,849,330</b>	<b>1,765,214</b>	<b>1,508,954</b>	<b>1,478,288</b>	<b>1,528,223</b>



(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. In earlier years revenues now derived from income tax were to some extent supplied by a dividend tax mainly from profits on gold mining.

The following table shows the total amount collected in the several States during the years 1929-30 to 1933-34. In the case of Western Australia the amount of dividend duty collected is included. The tax levied on prizes in lotteries although coming within the Income Tax class has been excluded from the amounts given below.

#### STATE INCOME AND DIVIDEND TAXES.—COLLECTIONS.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
New South Wales ..	7,084,465	6,183,481	3,411,146	3,870,616	2,808,851
Victoria ..	2,981,050	2,659,585	2,061,561	2,117,000	2,329,629
Queensland ..	2,405,810	2,522,300	1,652,329	1,689,383	1,607,499
South Australia ..	1,507,375	1,802,176	1,484,066	1,254,961	1,302,083
Western Australia ..	751,116	562,695	436,767	336,001	362,593
Tasmania ..	322,098	302,925	242,347	339,239	361,143
<b>Total ..</b>	<b>15,051,914</b>	<b>14,033,162</b>	<b>9,288,216</b>	<b>9,607,200</b>	<b>8,771,798</b>

(f) *Unemployment Relief Tax.* During 1930-31 a special unemployment relief tax was levied in New South Wales, Victoria and Queensland. In South Australia portion of the moneys for expenditure on unemployment relief was raised by an increment in the rate of income tax. In Western Australia a Financial Emergency tax was levied and in Tasmania a tax on wages provided the funds necessary for the relief of unemployment. Further references to this matter may be found in the *Labour Report*, Nos. 22 to 25.

(g) *Motor Taxation.* Motor taxation comprises tax and registration fees on motor vehicles; licences of motor dealers, motor drivers and motor cycle riders, and public vehicles except when controlled by local government authorities. The following table shows the collections for the last five years:—

#### MOTOR TAXATION.—COLLECTIONS.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
New South Wales ..	1,807,376	1,669,969	1,617,387	1,608,154	1,770,828
Victoria ..	1,196,831	1,118,170	1,124,362	1,222,684	1,280,878
Queensland ..	523,881	519,108	519,467	525,967	587,421
South Australia ..	a 620,627	461,955	499,704	503,386	529,432
Western Australia (b) ..	314,300	286,140	278,816	274,721	292,768
Tasmania ..	89,791	95,370	93,567	97,210	101,720
<b>Total ..</b>	<b>4,552,806</b>	<b>4,150,712</b>	<b>4,133,303</b>	<b>4,232,122</b>	<b>4,563,047</b>

(a) Includes motor spirit tax.

(b) Includes amounts collected by local governing authorities outside metropolitan area.

The proceeds of motor tax and motor registration fees are now paid into a special roads fund and the amounts do not appear in the Consolidated Revenue Fund, except for the State of Tasmania. In New South Wales a proportion of the collections is paid to Consolidated Revenue as an offset against administrative charges.

(iii) *Business Undertakings.* (a) 1933-34. A very large proportion of State gross revenues is made up of receipts from public works and services under the control of the Governments. The principal of these are railways and tramways, harbour works, and water supply and sewerage, while, in addition, State batteries for the treatment of auriferous ores exist in Western Australia, and various minor revenue-producing services are rendered by the Governments of all States. For the year 1933-34 the revenue from these sources was £50,022,064, or 47 per cent. of the revenue from all sources. Details of revenue are as follow:—

## STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1933-34.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Railways and tramways	18,355,241	8,876,355	6,103,881	2,609,470	3,165,594	432,569	39,503,110
Harbour services	355,959	58,823	83,906	538,351	271,016	..	1,808,055
Water supply and sewerage	2,732,959	661,118	..	920,012	575,131	..	4,829,220
Other .. .. .	1,130,814	1,499,883	148,872	435,083	566,586	100,441	3,881,679
<b>Total .. .. .</b>	<b>23,074,973</b>	<b>11,036,179</b>	<b>6,336,659</b>	<b>4,502,916</b>	<b>4,578,327</b>	<b>493,010</b>	<b>50,022,064</b>

(a) Railways only. (b) Water supply only. (c) Not paid into Consolidated Revenue. See C. § 1 (2). (d) Portion only of this amount is paid to Consolidated Revenue Fund. (e) Excludes Electricity supply.

As mentioned on page 486 the particulars shown above for New South Wales railways and tramways do not include a sum of £300,000, recouped to Railways Commissioners from Consolidated Revenue in respect of losses on operating country developmental railways. The figures for South Australia exclude £120,000, portion of Commonwealth Grant which was paid direct to Railways.

(b) 1929-30 to 1933-34. Particulars of the revenue from Business Undertakings for the last five years are given below:—

## STATE REVENUE FROM BUSINESS UNDERTAKINGS.(a)

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Railways and Tramways ..	48,606,108	40,943,417	39,822,890	40,190,873	39,503,110
Harbour Services .. .. .	2,120,023	1,742,907	1,761,715	1,859,527	1,808,055
Water Supply and Sewerage	5,185,780	5,008,555	5,189,034	5,163,816	4,829,220
Other .. .. .	4,868,376	4,388,903	4,114,160	4,015,877	3,881,679
<b>Total .. .. .</b>	<b>60,780,287</b>	<b>52,083,782</b>	<b>50,887,799</b>	<b>51,230,093</b>	<b>50,022,064</b>

(a) See notes to previous table.

During the above period the total revenue from Business Undertakings decreased by 17.7 per cent., Railways and Tramways showing a decrease of 18.7 per cent., and Harbour Services 14.7 per cent. Revenue from Water Supply and Sewerage Services has been fairly constant since 1929-30, although there was a slight decrease in 1933-34.

(iv) *Territorial.* The revenue from the sale and rental of Crown lands has, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and has been applied to meet ordinary expenses. Where the rentals received are for lands held for pastoral or residential purposes such application of the revenue would appear justifiable. On the other hand, where the rentals are for mineral and timber lands, and in all cases of sales of lands, the proceeding is essentially a disposal of capital to defray current expenses, and is, therefore, open to criticism. The following table gives the revenue from sales and rentals of Crown lands for the year 1933-34 :—

## STATE TERRITORIAL REVENUE, 1933-34.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Sales ..	39,680	64,826	..	18,312	8,489	12,069	143,376
Rentals ..	1,479,725	159,482	1,190,603	169,713	221,135	26,173	3,246,831
Forestry ..	78,681	154,570	166,878	..	83,194	17,200	500,523
<b>Total ..</b>	<b>1,598,086</b>	<b>378,878</b>	<b>1,357,481</b>	<b>188,025</b>	<b>312,818</b>	<b>55,442</b>	<b>3,890,730</b>

(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, represent in each instance a considerable proportion of the States' revenue, and for the year 1933-34 aggregated £9,594,912, or 9.1 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 1933-34 interest, mainly from loans to local governing bodies and on public account balances, was responsible for £4,786,210, exclusive of Western Australia, where interest is included under "Miscellaneous" which aggregated £5,659,112.

## 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 and tramways; (c) Justice; (d) Police; (e) Penal establishments; (f) Education; (g) Medical and charitable expenditure; and (h) All other expenditure.

In earlier years the working expenses of Railways and Tramways were the most important item in Governmental expenditure, but in recent years Public Debt charges represent the heaviest item, notwithstanding the reduction in interest as a result of the 1931 internal conversion loan and the more recent conversion operations in London. Prior to 1930-31 Railway working expenses represented about 30 to 35 per cent. of the total. In 1930-31 the decreased revenue necessitated considerable curtailment of services, which, together with staff reductions and other economies, reduced the expenditure as compared with the previous year by £7,476,395 to £34.3 millions or 28 per cent. of the total expenditure. The effect of further economies in 1931-32 is shown in the reduction of expenditure by £3,576,049 (11 per cent.) as compared with the previous year. In 1933-34 working expenses were £587,973 less than for 1932-33 and represented 26 per cent. of the total expenditure, while Public Debt charges represented 36 per cent. of the total expenditure; next in importance were Charitable, 8 per cent.; Education, 8 per cent.; Law and Order, 4 per cent.; and Public Health and Hospitals, 3 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) (b)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
1929-30	53,603,952	28,496,712	16,721,055	12,176,840	10,268,519	2,981,992	124,249,070
1930-31	54,609,697	28,029,702	15,914,696	12,539,668	10,107,295	2,854,394	124,055,452
1931-32	59,834,538	26,163,594	15,069,293	11,545,336	9,593,212	2,657,109	124,863,082
1932-33	52,960,277	25,547,486	14,951,088	11,169,610	9,196,234	2,577,407	116,402,102
1933-34	48,925,538	25,336,797	14,987,916	11,031,802	9,270,609	2,746,099	112,298,761

## PER HEAD OF POPULATION.(c)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1929-30	21 5 8	16 0 5	18 10 0	21 5 4	24 2 3	13 12 0	19 7 1
1930-31	21 9 2	15 12 8	17 6 8	21 16 7	23 8 11	12 16 2	19 2 8
1931-32	23 6 0	14 10 1	16 3 10	20 0 3	22 2 5	11 15 1	19 1 11
1932-33	20 8 10	14 1 7	15 17 10	19 5 6	21 1 0	11 6 2	17 13 3
1933-34	18 14 5	13 17 8	15 15 4	18 18 10	21 0 11	11 19 9	16 18 2

(a) Includes expenditure of certain moneys not paid into Consolidated Revenue, such as receipts from Railways, Tramways, Sydney Harbour Trust, certain Water Supply and Sewerage Services, and motor taxation in New South Wales and motor taxation in Victoria. (b) Includes Social Services. Refer to letterpress on page 487. (c) Based on mean population of each financial year.

3. Details of Expenditure for 1933-34.—The following table shows the total expenditure and expenditure per head under each of the principal items:—

## STATE EXPENDITURE.—DETAILS, 1933-34.

Particulars.	N.S.W. (c)	Victoria. (c)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
Public debt (interest, sinking fund, exchange, etc.) ..	15,734,230	8,415,124	6,291,042	5,226,548	4,070,022	1,214,327	40,951,293
Railways and Tramways (working expenses) ..	4,163,261	6,011,453	4,403,370	2,067,610	2,366,443	639,474	29,406,311
Water Supply and Sewerage (f) ..	981,026	238,009	15,883	299,486	242,993	..	1,615,397
Justice ..	461,430	203,655	168,807	60,911	71,274	30,597	996,674
Police ..	1,421,749	807,435	522,132	279,481	218,523	85,161	3,334,481
Penal establishments ..	299,798	106,332	28,356	39,209	26,008	11,590	511,293
Education ..	3,731,820	2,428,447	1,400,811	874,739	633,163	252,682	9,321,662
Medical and charitable ..	7,145,673	2,807,318	1,019,906	1,092,052	550,804	365,850	12,981,603
All other expenditure ..	5,148,551	4,319,024	1,137,609	1,091,766	1,091,379	391,718	13,180,047
Total ..	48,925,538	25,336,797	14,987,916	11,031,802	9,270,609	2,746,099	112,298,761

(a) Including 9.79 miles of electric tramways operated by the Victorian Railways. (b) Railways only. (c) Includes expenditure of certain moneys not paid into Consolidated Revenue, see note (a) to previous table. (d) Excludes £800,000 paid from Consolidated Revenue Fund on account of losses on country developmental railways. (e) Water Supply and Irrigation Commission only. (f) Includes Water Conservation and Irrigation—New South Wales, £73,702 and South Australia, £76,813. (g) Portion only from Consolidated Revenue Fund.

## STATE EXPENDITURE.—DETAILS, 1933-34—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>PER HEAD OF POPULATION.(a)</b>							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Public debt (interest, sinking fund, etc.)	6 0 5	4 12 3	6 12 4	8 19 6	9 4 10	5 6 0	6 3 4
Railways and Tramways (working expenses) ..	5 8 5	3 5 11	4 12 8	3 11 0	5 7 5	1 14 5	4 8 7
Water Supply and Sewerage ..	0 6 3	0 2 7	0 0 4	0 10 4	0 11 0	0 ..	0 4 10
Justice ..	0 3 6	0 2 3	0 3 7	0 2 1	0 3 3	0 2 8	0 3 0
Police ..	0 10 11	0 8 10	0 11 0	0 9 7	0 9 11	0 7 5	0 10 1
Penal establishments	0 2 3	0 1 2	0 0 7	0 1 4	0 1 2	0 1 0	0 1 6
Education	1 8 7	1 6 7	1 9 6	1 10 0	1 8 9	1 2 1	1 8 1
Medical and charitable	2 14 8	1 10 9	1 1 5	1 17 6	1 5 0	1 11 11	1 19 1
All other expenditure	1 19 5	2 7 4	1 3 11	1 17 6	2 9 7	1 14 3	1 19 8
<b>Total</b> ..	<b>18 14 5</b>	<b>13 17 8</b>	<b>15 15 4</b>	<b>18 18 10</b>	<b>21 0 11</b>	<b>11 19 9</b>	<b>16 18 2</b>

(a) Based on mean population of the financial year.

**Division III.—Surplus Revenue.**

The following table shows for each of the years 1929-30 to 1933-34 the amount and amount per head of the surplus or deficit of each State.

**STATE SURPLUS REVENUE.**

Year.	N.S.W.(a)	Victoria.(a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1929-30..	-4,812,348	-1,172,870	-723,185	-1,625,824	-518,004	-25,720	-8,877,951
1930-31..	b -8,752,433	-2,454,198	-842,044	-1,813,857	-1,420,539	-245,104	-15,528,177
1931-32..	-14,226,838	-1,608,322	-2,075,180	-1,063,360	-1,557,896	-271,614	-20,803,210
1932-33..	-3,630,720	-841,501	-1,554,444	-1,008,898	-864,081	-55,216	-7,954,866
1933-34..	-3,416,100	-769,058	-1,128,531	-843,816	-788,912	-47,385	-6,994,302

**PER HEAD OF POPULATION.(c)**

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1929-30..	-1 18 3	-0 13 2	-0 16 0	-2 16 10	-1 4 4	-0 2 4	-1 7 8
1930-31..	-3 8 9	-1 7 4	-0 18 4	-3 3 2	-3 5 11	-1 2 0	-2 7 11
1931-32..	-5 10 10	-0 17 10	-2 4 7	-1 16 10	-3 11 10	-1 4 0	-3 3 8
1932-33..	-1 8 0	-0 9 3	-1 13 1	-1 14 10	-1 19 7	-0 4 10	-1 4 2
1933-34..	-1 6 2	-0 8 5	-1 3 9	-1 9 0	-1 15 9	-0 4 2	-1 1 0

NOTE.—Minus sign (-) indicates deficit.

(a) After allowing for payments into and expenditure from certain special funds. (b) Excludes £1,672,222 interest, etc., paid by Commonwealth Government on behalf of New South Wales and which is included in New South Wales expenditure for 1931-32. (c) Based on mean population of each financial year.

### § 3. State Trust Funds.

1. *Nature.*—In addition to the moneys received as revenue and paid to the credit of Consolidated Revenue Funds, considerable sums are held by the State Governments in trust for various purposes. Municipal sinking funds placed in the hands of the Governments are paid to the credit of the appropriate Trust Fund. In all the States except New South Wales, where the practice is confined to those companies transacting workers' compensation insurance, life assurance companies operating are required to deposit a substantial sum in cash or approved securities with the Government, and these deposits help to swell the trust funds. Various other deposit accounts, superannuation funds, suspense accounts, etc., also find a place.

2. *Extent.*—The amount of trust funds held on the 30th June, 1934, was as follows:—

#### STATE TRUST FUNDS, 30th JUNE, 1934.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Amount of trust funds	23,053,914	6,028,740	2,467,644	1,639,572	2,852,397	634,385	36,676,652

### § 4. State Loan Funds.

#### Division I.—Loan Expenditure.

1. *General.*—As far back as the year 1842 revenue collections were supplemented with borrowed moneys, the earliest loan being by New South Wales for the purpose of assisting immigration, at rates of interest varying from 2½d. to 5¼d. 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 largely been used for improvements to harbours and rivers, and the construction of roads, water supply and sewerage works. The State loan expenditure and public debt thus differ very materially from those of most European countries, and from those of the Commonwealth, where such expenditure was very largely incurred for purposes of defence, or in the prosecution of war. As shown above, the State debts consist chiefly of moneys raised and expended with the object of assisting the development of the resources of the country, and are to a very large extent represented by tangible assets.

Statements relating to Loan Expenditure are given below for both the "gross" and the "net" expenditure during the year. The gross expenditure represents the amounts disbursed during the year whereas the net expenditure represents the gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc. It might be mentioned that such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

2. Loan Expenditure, 1933-34.—(a) *Gross Loan Expenditure, 1933-34.* Particulars of the gross loan expenditure for the year 1933-34 are given in the following table :—

## STATE GROSS LOAN EXPENDITURE, 1933-34.

Heads of Expenditure.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	All States.
	£	£	£	£	£	£	£
<b>Public Works and Services—</b>							
Railways .. .. .	460,424	194,770	366,031	82,953	316,124	127,724	1,548,026
Tramways .. .. .	338,119	..	..	(b) 1,865	11,290	..	351,274
Roads .. .. .	3,708	143,037	} 251,390	..	124,647	} 49,404	1,118,403
Bridges .. .. .	75,648	1,076		..	..		
Harbours and Rivers .. .. .	99,286	..	..	123,973	} 246,144	..	..
Lights and Lighthouses .. .. .	..	..	..	..		..	..
Water Supply .. .. .	117,936	315,870	..	339,484	397,201	..	1,170,491
Sewerage .. .. .	226,272	(e) 5,382	..	220,325	177,673	..	629,652
Electricity Supply .. .. .	10,368	..	..	..	2,069	59,534	71,971
Public Buildings .. .. .	430,314	..	357,208	137,301	98,020	20,253	1,043,096
Loans to Local Bodies .. .. .	(d)	..	1,140,354	50,000	400	1,395	1,192,149
Unemployment Relief .. .. .	55,184,900	1,292,236	..	..	..	56,106	6,533,242
Advances for Housing .. .. .	459	..	266,203	100,486	35,000	12,806	414,954
Other Public Works .. .. .	..	..	..	102,768	12	15,588	118,368
<b>Primary Production—</b>							
Soldier Settlement .. .. .	..	266,012	7,864	19,406	1,199	113,233	407,714
Land for Settlement .. .. .	..	373,296	159,165	10	..	19,473	551,944
Water Conservation .. .. .	461,868	..	} 15,458	274	15,395	..	} 794,668
Irrigation and Drainage .. .. .	56,497	..		4,219	240,957	..	
Rabbit-proof Fencing .. .. .	25,000	37,228	25,402	4,827	..	..	92,457
Agriculture .. .. .	..	..	45,999	..	194,990	..	240,989
Agricultural Bank .. .. .	..	..	147,760	..	325,000	..	472,760
Advances to Settlers .. .. .	1	146,047	..	643,766	205,487	49,471	1,044,772
Forestry .. .. .	..	33,784	35,914	158,788	151,572	..	380,058
<b>Mines and Mineral Resources .. .. .</b>							
Resources .. .. .	..	..	35,960	..	76,685	..	112,645
Other .. .. .	302,657	..	50,000	1,896	..	..	354,553
<b>Other Purposes .. .. .</b>	<b>3,881</b>	<b>..</b>	<b>a 268,521</b>	<b>659</b>	<b>44,157</b>	<b>..</b>	<b>317,218</b>
<b>Total Public Works, Services, etc., Expenditure .. .. .</b>	<b>7,797,428</b>	<b>2,808,738</b>	<b>3,173,229</b>	<b>1,993,000</b>	<b>2,664,022</b>	<b>524,987</b>	<b>18,961,404</b>
<b>Per head of Population .. .. .</b>	<b>£2 19 8</b>	<b>£1 10 9</b>	<b>£3 6 9</b>	<b>£3 8 5</b>	<b>£6 1 0</b>	<b>£2 5 10</b>	<b>£2 17 1</b>
<b>Other than Works—</b>							
Sinking Fund Contribution .. .. .	..	..	100,000	..	..	..	100,000
Discounts and Flotation Expenses .. .. .	940,043	526,093	..	..	136,561	..	1,602,697
Revenue and General Cash Deficits .. .. .	3,820,000	..	1,128,531	1,008,898	788,912	..	6,746,341
<b>Total Non-Works Expenditure .. .. .</b>	<b>4,760,043</b>	<b>526,093</b>	<b>1,228,531</b>	<b>1,008,898</b>	<b>925,473</b>	<b>..</b>	<b>8,449,038</b>
<b>Grand Total .. .. .</b>	<b>12,557,471</b>	<b>3,334,831</b>	<b>4,401,760</b>	<b>3,001,898</b>	<b>3,589,495</b>	<b>524,987</b>	<b>27,410,442</b>

(a) Includes advances to Railway Superannuation Fund, £233,831. (b) Loans to Local Bodies for Tramways. (c) Loans to Local Bodies for Unemployment Relief. (d) Included with Unemployed Relief. (e) Country Towns.

(b) *Net Loan Expenditure, 1933-34.* For the year ended 30th June, 1934, State net loan expenditure on Public Works amounted to £14,264,880, while other non-works expenditure was £8,449,038, making an aggregate for the year of £22,713,918. Details for the year for each State are given in the following table :—

## STATE NET LOAN EXPENDITURE, 1933-34.

Heads of Expenditure.	New South Wales.	Victoria. (a)	Queensland.	South Australia.	Western Australia.	Tasmania.	All States.
<b>Public Works and Services—</b>	£	£	£	£	£	£	£
Railways .. .. .	122,203	1,044	341,917	Cr. 79,856	316,081	Cr. 644	700,745
Tramways .. .. .	277,061	..	..	Cr. 17,330	11,290	..	271,021
Roads .. .. .	Cr. 87,444	113,786	210,700	Cr. 12,701	123,815	..	825,248
Bridges .. .. .	49,517	633	..	..	..	..	..
Harbours and Rivers ..	95,977	Cr. 33,260	Cr. 1,172	72,509	246,068	..	..
Lights and Lighthouses	..	..	..	Cr. 5	..	..	..
Water Supply .. .. .	69,413	304,294	..	254,470	395,460	..	1,023,637
Sewerage .. .. .	218,863	(b) 3,889	..	193,824	152,085	..	568,661
Electricity Supply .. .	7,645	..	..	..	2,069	31,318	41,032
Public Buildings .. .	422,960	Cr. 869	341,245	125,753	98,009	27,675	1,004,773
Loans to Local Bodies ..	5,117,403	Cr. 54,886	969,455	23,576	Cr. 516	Cr. 27,346	7,354,498
Unemployment Relief ..	..	1,287,744	..	..	..	39,068	..
Advances for Housing ..	Cr. 11,332	..	Cr. 4,960	Cr. 53,238	34,995	Cr. 16,905	Cr. 51,440
Other .. .. .	Cr. 138	..	..	62,915	12	11,804	74,593
<b>Primary Production—</b>							
Soldier Settlement .. .	..	186,269	Cr. 71,799	Cr. 65,841	Cr. 51,313	18,940	16,256
Land for Settlement .. .	Cr. 95	281,123	113,125	Cr. 19,788	..	Cr. 2,826	371,539
Water Conservation .. .	367,677	..	Cr. 199,391	Cr. 8,157	15,392	..	418,388
Irrigation and Drainage	25,658	..	..	Cr. 23,055	240,264	..	..
Rabbit-Proof Fencing ..	24,918	17,655	Cr. 1,535	Cr. 4,751	..	..	36,287
Agriculture .. .. .	..	..	17,505	..	190,597	..	208,162
Agricultural Bank .. .	..	..	Cr. 349,115	..	325,000	..	Cr. 24,115
Advances to Settlers .. .	Cr. 150	71,443	..	210,280	204,497	874	486,944
Forestry .. .. .	..	33,784	30,937	73,477	151,572	..	289,770
Mines and Mineral Resources	..	Cr. 7,520	29,168	..	70,879	..	92,467
Other .. .. .	301,924	..	50,000	Cr. 9,500	..	..	342,424
Other Purposes .. .. .	1,752	Cr. 14,579	(e) 241,102	Cr. 51,116	36,831	..	213,990
<b>Total Public Works, Services, etc., Expenditure</b>	7,003,812	2,190,550	1,717,182	(d) 671,466	2,563,087	118,783	14,264,880
Per head of Population	£2 13 7	£1 4 0	£1 16 2	£1 3 1	£5 16 5	£0 10 4	£2 3 0
<b>Other than Works—</b>							
Sinking Fund Contribution	..	..	100,000	..	..	..	100,000
Discount and Flotation Expenses	940,043	526,093	..	..	136,561	..	1,602,697
Revenue and General Cash Deficits	3,820,000	..	1,128,531	1,008,898	788,912	..	6,746,341
<b>Total Non-Works Expenditure</b>	4,760,043	526,093	1,228,531	1,008,898	925,473	..	8,449,038
<b>Grand Total</b>	11,763,855	2,716,643	2,945,713	1,680,364	3,488,560	118,783	22,713,918

(a) Expenditure from Loan and on account of Loan; includes expenditure from Public Account Advances Account, from Treasurer's Advance Account, and from State Loans Repayment Fund. (b) Country towns. (c) Loans to Local Bodies for Tramways. (d) Credits allowed for of £276,319 arising from cancellation of securities redeemed from Sinking Fund. (e) Includes advances to Railways Superannuation Fund.

3. Net Loan Expenditure, 1929-30 to 1933-34.—The following table gives the works net loan expenditure during each of the years 1929-30 to 1933-34:—

## STATE NET LOAN EXPENDITURE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>TOTAL.</b>							
	£	£	£	£	£	£	£
1929-30	10,878,627	5,868,445	2,129,586	2,493,287	3,539,470	146,853	24,222,548
1930-31	5,951,488	3,068,068	2,727,317	464,541	1,675,015	209,137	12,095,566
1931-32	3,387,143	1,002,224	Cr. 2,206,351	286,828	1,267,865	26,254	5,763,963
1932-33	4,319,766	2,094,271	2,672,474	641,683	2,048,224	Cr. 74,907	9,701,511
1933-34	7,003,812	2,190,550	2,171,182	671,466	2,563,087	118,783	14,264,880

(a) In addition, £967,502 was charged to Loan in 1929-30, and £1,074,945 in 1930-31, to cover debit balances on certain industrial undertakings, on account of which expenditure was made from Trust Funds in previous years. Figures for 1930-31 to 1933-34 are exclusive also of £100,000 portion of repayments transferred to Consolidated Revenue and applied to Sinking Fund contributions. For the year 1931-32 repayments include £298,365 transferred from Governments Savings Bank Inscribed Stock Account. (b) Excludes £616,352 Soldier Settlement and other losses funded.



STATE NET LOAN EXPENDITURE—*continued.*

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
PER HEAD OF POPULATION.							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1929-30	4 6 5	3 6 0	1 8 8	4 7 1	8 6 3	0 13 5	3 15 6
1930-31	2 6 9	1 14 3	0 15 10	0 16 2	3 17 9	0 18 9	1 17 4
1931-32	1 6 5	0 11 1	Cr. 0 4 5	0 9 11	2 18 6	0 2 4	0 17 8
1932-33	1 13 4	1 3 1	0 14 4	1 2 2	4 13 9	Cr. 0 6 7	1 9 5
1933-34	2 13 7	1 4 0	0 16 2	1 3 1	5 16 5	0 10 4	2 3 0

The loan expenditure per head of population which varies in the different States and in different years, reached its highest point for the five years under review in 1929-30 with £3 15s. 6d. per head, and its lowest in 1931-32 with 17s. 8d. per head.

4. Total Loan Expenditure to 30th June, 1934.—The total loan expenditure inclusive of revenue deficits, etc., of the States from the initiation of borrowing to the 30th June, 1934, amounted to £889,303,602. The purposes for which this sum was expended are shown in the following table:—

## TOTAL STATE LOAN EXPENDITURE TO 30th JUNE, 1934.

Heads of Expenditure.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
<b>Public Works and Services—</b>							
Railways ..	139,727,811	74,280,758	61,994,052	31,860,614	24,355,906	6,938,769	339,157,910
Tramways ..	12,598,165	..	..	63,424,041	1,107,553	83,134	17,212,893
Roads and Bridges	16,401,310	11,995,940	2,674,240	3,127,902	2,959,747	..	37,159,139
Harbours, Rivers, Lighthouses ..	20,206,082	990,506	2,413,141	7,820,289	6,361,652	6,882,134	81,832,943
Water Supply ..	23,612,082	28,563,240	..	13,424,210	6,867,379	..	72,466,911
Sewerage ..	14,372,821	2,217,784	..	2,996,200	2,196,882	..	19,783,687
Electricity Supply	1,210,656	17,839,227	..	..	1,188,849	3,791,030	24,029,762
Public Buildings ..	8,485,054	6,411,211	3,965,639	3,274,010	1,716,485	1,820,313	25,672,712
Loans to Local Bodies	7,988,995	1,129,414	12,181,895	514,800	93,596	1,164,330	25,719,449
Unemployment Relief	..	2,493,069	..	..	..	148,350	2,641,419
Advances—Housing	771,692	..	4,119,396	5,962,255	670,495	174,688	11,698,526
Commonwealth Services ..	3,965,937	149,323	524,387	1,283,387	332,293	270,634	6,525,961
Other Public Works and Services ..	10,968,375	1,330,283	..	2,342,303	1,178,368	1,419,782	17,239,111
<b>Primary Production—</b>							
Soldier Settlement ..	4,289,332	27,588,216	1,505,919	8,530,893	7,343,444	2,669,415	44,317,229
Land for Settlement	..	12,744,590	2,531,523	1,639,987	324,662	395,745	94,179,350
Closer Settlement ..	9,738,429	2,007,299	..	3,239,296	9,287,095	343,505	24,270,626
Advances to Settlers	(f)	..	..	1,371,775	1,027,764	..	2,399,539
Water Conservation	4,537,273	..	2,256,999	4,765,573	1,604,604	..	25,104,003
Irrigation and Drainage ..	9,540,015	..	..	..	..	..	9,540,015
Rabbit Proof Fencing ..	(f)	774,364	298,041	247,827	341,765	..	1,661,997
Agricultural Bank ..	..	..	1,888,054	..	5,828,695	..	7,716,749
Mines and Mineral Resources ..	581,321	520,421	1,947,211	..	2,670,366	3,633	5,722,952
Other ..	..	701,793	1,287,464	1,529,628	3,703,294	..	7,222,184
Other Purposes ..	63,660,020	1,740,225	67,276,000	1,785,742	3,524,051	235,714	18,221,752
Total Public Works, Services, etc., Expenditure ..	292,655,370	191,482,668	106,863,961	99,140,732	84,684,945	26,341,176	801,168,852
<b>Other than Works—</b>							
Exchange on Remittances ..	14,266,807	..	..	..	..	..	14,266,807
Discounts and Flotation Expenses ..	..	5,453,842	..	..	3,544,339	(g)	23,264,988
Sinking Fund Contribution ..	..	..	500,000	..	..	..	500,000
Revenue and General Cash Deficits ..	34,093,775	3,875,682	2,682,975	7,746,203	11,269,517	496,272	60,184,424
Treasury Bills Retired ..	..	..	4,185,338	..	..	..	4,185,338
<b>Grand Total ..</b>	<b>341,015,952</b>	<b>200,812,192</b>	<b>114,232,274</b>	<b>106,886,935</b>	<b>99,518,801</b>	<b>6,837,448</b>	<b>889,303,602</b>

(a) Includes Public Buildings other than Schools and Hospitals. (b) Loans to Local Bodies for Tramways. (c) Includes Industrial Undertakings. (d) Country Sewerage. (e) Includes Advances to Settlers. (f) Included with Soldier Settlement, etc. (g) Included with other Public Works.

The figures in the 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. In the public debt statement, however, 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.

### Division II.—State Public Debts.

1. *General.*—The first government loan raised in Australia was obtained by New South Wales in 1842. This and nine other loans prior to 1855 were all procured locally. In the last-mentioned year New South Wales approached the London market for the first instalment of a 5 per cent. loan for £683,300. Victoria first appeared as a borrower in 1854, and made its first appearance on the London market in 1859. The first public loans were raised by the other States in the following years:—Queensland 1861, South Australia 1856, Western Australia 1845, and Tasmania 1867.

2. *State Debts, 1930 to 1934.*—The table hereunder shows the State public debts and the amounts owing per head of population at the 30th June in each year from 1930 to 1934 inclusive. The totals include sums advanced by the Commonwealth to the States for settling returned soldiers on the land, and for this reason they differ in some cases from those given in previous issues. On the transfer of the Queensland State Savings Bank business to the Commonwealth Bank in 1920, Queensland Government securities were handed to the latter for the Savings Bank current account credit balance and for amounts owing on account of Advances to Settlers and Workers' Dwellings. This transaction added a total of £5,936,916 to the Public Debt without involving any additional borrowing.

As provided in the *Financial Agreement Act 1928* (particulars of which are given in Chapter I, pages 21 to 33), 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. V. of this volume to certain remissions which the Commonwealth Government agreed to make to the States on account of losses sustained by the States in connexion with soldier land settlement. The States' debts at 30th June, 1926, were reduced by £5,000,000, and from 30th June, 1927, by £7,597,783, by the Commonwealth taking over these amounts in anticipation of legal ratification of the agreement by the States. The following figures which represents the total "face" or "book" value of the debt of States leaving out of account currency changes since the loans were floated have been adjusted on this account, and therefore differ from those given in earlier issues.

### STATE PUBLIC DEBTS.

Date.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
30th June, 1930	268,356,126	153,558,928	112,011,746	92,614,130	71,194,141	22,306,982	720,042,053
" 1931	285,556,834	163,797,724	112,093,956	98,722,459	76,564,885	22,983,932	759,719,790
" 1932	305,599,877	167,673,004	111,911,785	100,794,244	79,707,953	23,265,275	788,943,138
" 1933	314,067,707	169,238,072	114,530,854	102,902,345	83,514,697	23,597,945	807,851,620
" 1934	324,606,868	172,971,789	117,817,353	104,614,292	85,847,802	23,649,918	829,508,022
PER HEAD OF POPULATION.(a)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
30th June, 1930	106 1 8	86 0 9	122 15 7	161 11 10	165 17 8	101 8 0	111 13 0
" 1931	111 15 7	91 0 5	120 18 4	171 8 11	177 2 6	102 12 0	116 12 9
" 1932	118 10 4	92 14 11	119 6 3	174 7 1	183 3 0	102 15 3	120 3 10
" 1933	120 14 11	92 19 6	120 16 10	177 2 4	190 5 3	103 13 8	122 1 10
" 1934	123 16 2	94 10 9	122 19 8	179 6 11	194 3 5	103 14 11	124 9 11

(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 £109 millions or at the rate of over £27 millions per annum. The debt per head of population increased during the period by £12 16s. 11d. to £124 9s. 11d. per head or about

11½ per cent. In some States certain public functions such as Tramways, Water Supply and Sewerage, and Harbour Services, etc., are controlled by Boards or Trusts which, in addition to receiving advances from the Central Government, raise loans by public borrowing on their own behalf, while in other States these services are controlled by the Central Governments. Comparisons of the debts of the States are therefore difficult, but on page 513 figures showing the aggregate debts of the States including these local and semi-governmental bodies are given for the year 1932-33.

3. *Place of Flotation of Loans.*—As pointed out previously, the early loans, usually for comparatively small amounts, were raised locally, but, with the increasing demand for loan funds and the more favourable terms offering in the London market, the practice of raising loans in London came into vogue, and for many years local flotations, except for short terms or small amounts, were comparatively infrequent. In more recent years, however, the accumulating stocks of money in Australia seeking investment have led to the placing of various redemption and other loans locally, with very satisfactory results. Moreover, loans have been placed in New York on account of all States. The following table gives particulars of loans outstanding on the 30th June, 1934, which had been floated abroad and in Australia respectively:—

**STATE PUBLIC DEBTS, 30th JUNE, 1934.—PLACE OF FLOTATION OF LOANS.**

State.	Floated Abroad.			Floated in Australia.	Grand Total.
	London.	New York.	Total Overseas.		
	£ Stg.	£ (b)	£ (a)	£ Aust.	£ (a)
New South Wales	161,680,120	13,346,142	175,026,262	149,580,606	324,606,868
Victoria ..	63,250,904	4,592,459	67,843,363	105,128,426	172,971,789
Queensland ..	63,211,358	7,233,659	70,445,017	47,372,336	117,817,353
South Australia	43,565,157	1,770,656	45,335,813	59,278,479	104,614,292
Western Australia	44,521,246	2,060,372	46,581,618	39,266,184	85,847,802
Tasmania ..	13,563,537	233,556	13,797,093	9,852,825	23,649,918
Total ..	389,792,322	29,236,844	419,029,166	410,478,856	829,508,022

**PER HEAD OF POPULATION.**

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
	(Stg.)	(b)	(a)	(Aust.)	(a)
New South Wales	61 13 4	5 1 10	66 15 2	57 1 0	123 16 2
Victoria ..	34 11 5	2 10 2	37 1 7	57 9 2	94 10 9
Queensland ..	65 19 8	7 11 0	73 10 8	49 9 0	122 19 8
South Australia..	74 13 9	3 0 8	77 14 5	101 12 6	179 6 11
Western Australia	100 14 0	4 13 2	105 7 2	88 16 3	194 3 5
Tasmania ..	59 10 0	1 0 6	60 10 6	43 4 5	103 14 11
Total ..	58 10 0	4 7 9	62 17 9	61 12 2	124 9 11

(a) Total "face" or "book" value of the debt of each State without adjustment on account of currency changes since the loans were floated. (b) See note (c) page 470.

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 508.

4. *Rates of Interest.*—(i) *At 30th June, 1934.* As mentioned previously, the highest rate of interest paid for the earliest State loans was 5¼d. per £100 per diem, or, approximately, 8 per cent. per annum. At present the rates vary from 7 per cent. to 2 per cent., twenty-eight separate rates being involved. The average rate payable on the aggregate indebtedness is £3 18s. 9d. per cent. For the separate States the average varies, being lowest for Tasmania 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, 1934, 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 on page 470.

STATE PUBLIC DEBTS.

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The totals given represent the total "face" or "book" value of the debts of each State without adjustment on account of currency changes since the loans were floated, and the nominal amount (and average rate) of interest payable, taking no account of exchange.

STATE PUBLIC DEBTS.—RATES OF INTEREST PAYABLE AT 30th JUNE, 1934.

Rate of Interest.	Place of Maturity.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	All States.
%		£	£	£	£	£	£	£
7.0	New York	..	..	1,843,522	..	..	..	1,843,522
6.0	New York	..	..	2,054,865	..	..	..	2,054,865
5.25	London	17,870,500	..	..	..	..	..	17,870,500
5.0375	Australia	3,035	..	2,794,020	8,000	250,000	268,740	3,323,795
5.0	London	38,751,516	16,316,074	39,219,645	14,709,099	18,779,352	1,438,987	129,214,673
	New York	9,453,509	3,779,904	2,242,084	1,770,656	2,060,372	233,556	19,540,081
4.75	London	..	5,999,000	..	..	..	..	5,999,000
4.65	Australia	577,910	..	..	2,030,200	1,267,973	200,000	4,076,083
	London	10,954,600	..	..	..	2,631,165	..	13,585,765
4.5	New York	3,892,633	812,555	1,093,188	..	..	..	5,798,376
4.45625	Australia	18,837	3,117,450	..	..	..	..	3,136,287
4.2625	Australia	12,928,919	212,352	2,186,120	942,072	62,797	..	16,332,260
4.25	London	..	..	..	..	..	137,750	137,750
4.06875	Australia	11,496,140	2,488,740	..	2,580,000	750,198	35,850	17,350,928
4.0	Australia	63,184,580	57,424,293	15,668,738	37,039,403	18,356,095	7,556,349	199,829,458
	London	29,241,932	2,962,116	8,000,000	9,042,021	7,680,385	3,800,000	60,726,454
3.875	Australia	134,600	10,456,169	1,630,048	2,688,325	1,913,809	137,030	16,959,981
3.75	Australia	13,092,480	14,558,415	2,292,788	2,822,900	3,276,100	441,940	36,484,623
	London	7,772,632	6,887,649	1,988,300	6,227,700	1,938,601	1,091,000	25,905,882
3.625	Australia	..	877,000	..	..	277,930	27,200	1,182,130
3.5	Australia	4,434,450	3,059,495	1,406,816	1,382,440	1,793,869	75,050	12,152,120
	London	34,547,401	19,957,995	9,737,000	7,337,112	7,627,825	6,156,500	85,363,833
3.4875	Australia	63,400	500	6,397,816	83,050	..	167,060	8,477,384
3.29375	Australia	..	..	..	..	..	2,000	2,000
3.25	Australia	6,114,200	2,426,175	793,830	500,000	1,964,970	125,090	11,924,265
3.1	Australia	483,211	691,149	5,424,115	2,150	1,566,000	225,813	8,392,438
3.0	Australia	6,000,134	3,146,759	5,475,280	2,838,780	232,700	286,703	18,880,356
	London	14,485,113	6,141,546	4,266,413	2,433,499	3,300,104	448,300	31,074,975
2.90625	Australia	307,200	220,000	5,100	30,251	..	..	562,551
2.7125	Australia	291,421	446,845	352,915	207,457	78,185	..	1,376,823
2.5	London	8,047,776	4,986,524	..	2,815,726	2,563,814	..	18,413,840
2.325	Australia	659,974	778,084	54,750	373,451	..	..	1,866,259
2.25	Australia	29,190,000	5,225,000	2,890,000	5,150,000	5,710,000	304,000	48,469,000
2.0	London	..	..	..	1,000,000	..	491,000	1,491,000
Overdue and unconverted	Australia	115	..	..	..	..	..	115
	London	8,650	..	..	..	..	..	8,650
Total Debt	Australia	149,580,606	105,128,426	47,372,336	59,278,479	39,266,184	9,852,825	410,478,856
	London	161,680,120	63,250,904	63,211,358	43,565,157	44,521,246	13,563,537	389,792,322
	New York	13,346,142	4,592,459	7,233,659	1,770,656	2,060,372	233,556	29,236,844
	Total	324,606,868	172,971,789	117,817,353	104,614,292	85,847,802	23,649,918	829,508,022
Total Interest	Australia	5,328,342	3,985,058	1,716,410	2,239,370	1,420,432	384,445	15,074,057
	London(a)	6,674,792	2,484,967	2,824,330	1,750,872	1,867,356	509,463	16,111,780
	New York	647,845	225,561	413,635	88,533	103,018	11,678	1,490,270
	Total	12,650,979	6,695,586	4,954,375	4,078,775	3,390,806	905,586	32,676,107
Average Rate of interest payable	Australia	£ 8. d.	£ 8. d.	£ 8. d.	£ 8. d.	£ 8. d.	£ 8. d.	£ 8. d.
	London	3 11 3	3 15 10	3 12 6	3 15 7	3 12 4	3 18 0	3 13 5
	New York	4 2 7	3 18 7	4 9 4	4 0 5	4 3 11	3 15 1	4 2 8
	Total	4 17 1	4 18 3	5 14 4	5 0 0	5 0 0	5 0 0	5 1 11
	Total	3 17 11	3 17 5	4 4 1	3 18 0	3 19 0	3 16 7	3 18 9

(a) Includes contributions payable by Commonwealth and British Governments towards the interest on Migration Loans.

The average rate of interest payable shows a very substantial decrease due to the internal debt conversion in July and August, 1931, which is referred to in the Appendix. The average rate for debt maturing in Australia has been reduced from £5 4s. 9d. per cent. in 1931 to £3 13s. 5d. per cent. in 1934. 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 prior to 30th June, 1934, fell to £4 2s. 8d., while for New York loans it fell from £5 2s. 6d. per cent. in 1931 to £5 1s. 11d. in 1934.

(ii) *Variations from 1901 to 1934.*—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.	1932.	1933.	1934.
	%	%	%	%	%	%	%
Not exceeding 3 per cent.	18.0	17.9	10.2	5.3	6.6	14.4	14.7
Exceeding 3 per cent. but not exceeding 4 per cent. ..	78.5	81.9	45.4	17.2	48.2	47.4	56.4
Exceeding 4 per cent. but not exceeding 5 per cent. ..	3.1	0.1	15.6	36.8	34.3	30.5	25.9
Exceeding 5 per cent. but not exceeding 6 per cent. ..	0.4	0.1	23.5	38.4	9.2	7.5	2.8
Exceeding 6 per cent. ..	..	..	5.3	2.3	1.7	0.2	0.2
Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average Rate ..	3.7	3.6	4.4	4.9	4.3	4.1	3.9

5. *Dates of Maturity.*—Securities like the British Consols are interminable, but Australian debts have in most cases a fixed date for repayment, there being a few exceptions which are included in the following table under the headings “interminable,” “Treasurer’s option,” and “not fixed.” Those terminable at “Treasurer’s option” include amounts which are payable by the respective Governments after giving a specified notice, and those “not fixed” consist of certain amounts owing to the Commonwealth Government. Generally, renewal is effected at date of maturity in respect of the greater portion of the loan. In order to avoid application to the market at an unfavourable time, several States adopted the practice of specifying a period prior to the date of maturity within which the Government, on giving twelve, or in some cases six months’ notice, has the option of redeeming the loan. The Government can, therefore, take advantage of opportunities that may offer during the period for favourable renewals. Particulars concerning the due dates of the State loans outstanding on the 30th June, 1934, are given in the following table, the various maturities being grouped according to years ending 30th June.

Where the Government has the option of redemption during a specified period the loan is classified according to the latest date of maturity.

STATE PUBLIC DEBTS.—LATEST DATE OF MATURITY OF AMOUNT  
OUTSTANDING ON 30th JUNE, 1934.

Year of Maturity (Ended 30th June).	Maturing in London.	Maturing in New York.	Total Maturing Overseas.	Maturing in Australia.	Grand Total.
	£ Stg.	£ (b)	£ (a)	£ Aust.	£ (a)
1935 .. .. .	31,002,917	..	31,002,917	71,282,165	102,285,082
1936 .. .. .	14,162,201	..	14,162,201	8,449,377	22,611,578
1937 .. .. .	2,593,833	..	2,593,833	10,347,174	12,941,007
1938 .. .. .	23,770,923	..	23,770,923	4,041,472	27,812,395
1939 .. .. .	2,358,276	..	2,358,276	46,993,657	49,351,933
1940 .. .. .	5,604,800	..	5,604,800	1,653,713	7,258,513
1941 .. .. .	..	..	..	5,288,486	5,288,486
1942 .. .. .	..	1,843,522	1,843,522	50,681,340	52,524,862
1943 .. .. .	..	..	..	27,869,047	27,869,047
1944 .. .. .	..	..	..	10,664,250	10,664,250
1945 .. .. .	12,759,046	..	12,759,046	23,747,303	36,506,349
1946 .. .. .	12,004,468	..	12,004,468	16,500	12,020,968
1947 .. .. .	5,684,213	2,054,865	7,739,078	1,287,928	9,027,006
1948 .. .. .	..	..	..	13,819,284	13,819,284
1949 .. .. .	38,683,687	..	38,683,687	12,079,830	50,763,517
1950 .. .. .	6,082,195	..	6,082,195	932,829	7,015,024
1951 .. .. .	20,579,928	..	20,579,928	13,675,307	34,255,235
1952 .. .. .	..	..	..	554,186	554,186
1953 .. .. .	..	..	..	491,718	491,718
1954 .. .. .	5,951,225	..	5,951,225	12,898,151	18,849,376
1955 .. .. .	3,250,204	..	3,250,204	778,078	4,028,282
1956 .. .. .	21,657,000	10,673,379	32,330,379	12,164,941	44,495,320
1957 .. .. .	..	4,719,100	4,719,100	346,685	5,065,785
1958 .. .. .	17,870,500	9,945,978	27,816,478	11,837,193	39,653,671
1959 .. .. .	21,636,550	..	21,636,550	384,082	22,020,632
1960 .. .. .	3,850,724	..	3,850,724	11,617,872	15,468,596
1961 .. .. .	29,152,134	..	29,152,134	..	29,152,134
1962 .. .. .	4,964,083	..	4,964,083	11,384,315	16,348,398
1963 .. .. .	10,392,396	..	10,392,396	106,804	10,499,200
1964 .. .. .	..	..	..	1,566,000	1,566,000
1966 .. .. .	16,761,165	..	16,761,165	..	16,761,165
1970 .. .. .	1,970,300	..	1,970,300	..	1,970,300
1971 .. .. .	9,322,446	..	9,322,446	..	9,322,446
1976 .. .. .	65,283,759	..	65,283,759	50,064	65,333,823
Overdue .. .. .	8,650	..	8,650	115	8,765
Interminable .. .. .	1,200	..	1,200	462,089	463,289
Treasurer's Option .. .. .	2,433,499	..	2,433,499	6,568,232	9,001,731
Half-yearly Drawings .. .. .	..	..	..	4,923,886	4,923,886
Not fixed .. .. .	..	..	..	31,514,783	31,514,783
<b>Total .. .. .</b>	<b>389,792,322</b>	<b>29,236,844</b>	<b>419,029,166</b>	<b>410,478,856</b>	<b>829,508,022</b>

(a) Total "face" or "book" value of the Public Debt of the States without adjustment on account of currency changes since the loans were floated. (b) See note on page 470.

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 State had established sinking funds in connexion with each of its loans the contributions to which varied from 1 per cent. to 3 per cent. per annum of the nominal amount of the loan. The funds are placed with trustees in London, by whom they are invested in securities, and applied from time to time to the redemption of loans falling due. In the other States the sinking fund provision varies, consisting in certain instances of the revenues from specified sources, in others of the Consolidated Revenue Fund surplus, and in others again of fixed annual amounts. The *Financial Agreement Act 1928* contains provisions for the establishment of a sinking fund

on States' debts, and details are included in Part III., Section 3 of the Financial Agreement between the Commonwealth and States which is shown in Chapter I., pages 21 to 33, of this volume. Details of the transactions of the National Debt Sinking Fund (States' Account) are given in Finance Bulletin No. 25 issued by this Bureau.

#### 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 1933-34, 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.
	£	£	£
1930 .. .. .	75,137,161	106,876,206	182,013,367
1931 .. .. .	67,882,839	98,472,363	166,355,202
1932 .. .. .	70,139,488	94,924,960	165,064,448
1933 .. .. .	72,143,014	99,032,638	171,175,652
1934 .. .. .	72,597,082	95,589,547	168,186,629

(a) Excluding Interest on Loans to States for Soldier Land Settlement, Miscellaneous Loans, and Balance of Interest on States' Debts. (b) Excluding Payments by Commonwealth Government under "Surplus Revenue", "Special Grants", "Financial Agreement", and "Federal Aid Roads" Acts.

##### COMMONWEALTH AND STATES.—EXPENDITURE.

Year ended 30th June—	Expenditure by Commonwealth Government.(a)	Expenditure by State Governments.	Total.
	£	£	£
1930 .. .. .	68,113,252	124,249,070	192,362,322
1931 .. .. .	68,585,546	124,055,452	192,640,998
1932 .. .. .	61,004,576	124,863,082	185,867,658
1933 .. .. .	(b) 59,181,802	116,402,102	175,583,904
1934 .. .. .	(b) 61,580,600	112,298,761	173,879,361

(a) Excluding Payments to States and Interest on States' Debts, etc. (b) Payments to States by Commonwealth for relief of Wheat-growers not deducted.

2. **Taxation.**—The table hereunder shows the combined Commonwealth and State taxation for each of the years 1929-30 to 1933-34, 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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
<b>Commonwealth—</b>					
Customs and Excise ..	41,774,391	28,295,073	28,405,796	32,992,443	34,254,842
Other .. ..	16,413,384	22,125,033	25,553,246	23,153,593	22,153,886
<b>Total .. ..</b>	<b>58,187,775</b>	<b>50,420,106</b>	<b>53,959,042</b>	<b>56,146,036</b>	<b>56,408,728</b>
<b>State .. ..</b>	<b>33,896,926</b>	<b>35,833,562</b>	<b>32,748,528</b>	<b>37,325,609</b>	<b>34,401,001</b>
<b>Grand Total ..</b>	<b>92,084,701</b>	<b>86,253,668</b>	<b>86,707,570</b>	<b>93,471,645</b>	<b>90,809,729</b>
<b>Taxation per head (b)—</b>					
<b>Commonwealth—</b>	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Customs and Excise ..	6 9 11	4 7 1	4 6 8	4 19 11	5 2 11
Other .. ..	2 11 0	3 8 1	3 18 0	3 10 1	3 6 7
<b>Total .. ..</b>	<b>9 0 11</b>	<b>7 15 2</b>	<b>8 4 8</b>	<b>8 10 0</b>	<b>8 9 6</b>
<b>State .. ..</b>	<b>5 5 7</b>	<b>5 10 6</b>	<b>5 0 2</b>	<b>5 13 3</b>	<b>5 3 7</b>
<b>Grand Total ..</b>	<b>14 6 4</b>	<b>13 5 6</b>	<b>13 4 8</b>	<b>14 3 1</b>	<b>13 12 11</b>

(a) Includes Sales Tax, £3,472,854 (10s. 8d. per head) in 1930-31; £8,425,067 (£1 5s. 9d. per head) in 1931-32; £9,369,276 (£1 8s. 5d. per head) in 1932-33; and £8,695,689 (£1 6s. 2d. per head) in 1933-34 and Flour Tax, £1,253,957 (3s. 9d. per head) in 1933-34. (b) Based on mean population of each financial year; that for States, on the aggregate mean population of the six States.



3. *Public Debt.*—(i) *General.* The table hereunder shows the public debt of the Commonwealth and of the States at the 30th June in each of the years 1930 to 1934. 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 STATES' PUBLIC DEBTS.

Particulars.	Where Redeemable.	At 30th June—				
		1930.	1931.	1932.	1933.	1934.
		£ (a)	£ (a)	£ (a)	£ (a)	£ (a)
Commonwealth	Aust. . .	212,653,279	221,721,804	222,992,803	221,274,296	218,806,160
	London	150,746,148	157,438,806	158,775,930	158,642,224	157,533,140
	New York	17,155,718	17,155,718	17,115,997	16,889,983	16,711,476
	Total (b)	380,555,145	396,316,328	398,884,730	396,806,503	393,050,776
States	Aust. . .	314,315,385	335,178,302	363,227,126	386,113,942	410,478,356
	London	375,039,685	394,105,816	395,752,485	392,156,801	389,792,322
	New York	30,686,983	30,435,672	29,963,527	29,580,787	29,236,844
	Total (b)	720,042,053	759,719,790	788,943,138	807,851,620	829,508,022
Total, Commonwealth and States	Aust. . .	526,968,664	556,900,106	586,219,929	607,388,238	629,285,016
	London	525,785,833	551,544,622	554,528,415	550,799,115	547,325,462
	New York	47,842,701	47,591,390	47,079,524	46,470,770	45,948,320
	Grand Total(b)	1,100,597,198	1,156,036,118	1,187,827,868	1,204,658,123	1,222,558,798

(a) The units of currency are—

For debt maturing in Australia	..	..	..	£ (Aust.)
For debt maturing in London	..	..	..	£ (Stg.)
For debt maturing in New York	..	..	..	•

\* Payable in terms of dollars. See note (c) on page 470.

(b) 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, 1934, the amounts of Commonwealth and States' securities maturing in Australia and overseas according to year of maturity, together with the amount of interest payable yearly thereon. It should be noted that the year of maturity is given for fiscal years ended 30th June and for that reason the information is not directly comparable with statements published in issues of the Official Year Book prior to No. 24. Debts with optional dates of maturity, representing about 75 per cent. of the total overseas obligations, have been grouped according to the latest year of maturity.

COMMONWEALTH AND STATES' PUBLIC DEBTS, 30th JUNE, 1934.—  
DATES OF MATURITY.

Year of Maturity.	Commonwealth and States' Debts.				Annual Interest Payable at 30th June, 1934, in respect of Commonwealth and States' Debts Maturing in the Years stated.			
	Maturing in Australia.	Maturing in London.	Maturing in New York.	Total.	Interest Payable.			
					In Australia.	In London.	In New York.	Total.
	£ (Aust.)	£ (Stg.)	£ (c)	£ (a)	£ (Aust.)	£ (Stg.)	£ (c)	£ (b)
1934-35 .. ..	85,524,295	41,306,128	..	126,830,423	2,390,259	1,114,137	..	3,504,396
1935-36 .. ..	8,987,588	14,735,928	..	23,723,516	385,542	466,636	..	852,178
1936-37 .. ..	10,646,504	2,965,639	..	13,612,143	409,427	100,810	..	510,237
1937-38 .. ..	4,189,058	23,770,923	..	27,959,981	153,349	831,982	..	985,331
1938-39 .. ..	89,263,833	2,517,799	..	91,781,632	3,493,998	88,123	..	3,582,121
1939-40 .. ..	2,086,151	5,604,800	..	7,690,951	80,146	198,927	..	279,073
1940-41 .. ..	5,663,136	..	..	5,663,136	195,050	..	..	195,050
1941-42 .. ..	84,331,620	..	1,843,522	86,175,142	3,379,719	..	129,047	3,508,766
1942-43 .. ..	32,128,047	..	..	32,128,047	1,224,175	..	..	1,224,175
1943-44 .. ..	11,907,870	..	..	11,907,870	428,795	..	..	428,795
1944-45 .. ..	51,384,841	30,113,863	..	81,498,704	1,969,696	1,445,918	..	3,415,614
1945-46 .. ..	16,500	12,004,468	..	12,020,968	453	545,451	..	545,904
1946-47 .. ..	1,287,928	5,684,213	2,054,865	9,027,006	48,792	177,615	123,292	349,699
1947-48 .. ..	38,623,141	..	..	38,623,141	1,534,148	..	..	1,534,148
1948-49 .. ..	13,412,280	38,683,687	..	52,095,967	438,685	1,454,885	..	1,893,570
1949-50 .. ..	932,829	6,082,195	..	7,015,024	31,640	212,877	..	244,517
1950-51 .. ..	30,293,178	20,579,928	..	50,873,106	1,204,676	764,297	..	1,968,973
1951-52 .. ..	554,186	..	..	554,186	19,327	..	..	19,327
1952-53 .. ..	491,718	..	..	491,718	17,149	..	..	17,149
1953-54 .. ..	28,855,491	19,841,225	..	48,696,716	1,149,880	744,046	..	1,893,926
1954-55 .. ..	778,078	3,250,204	..	4,028,282	30,140	113,757	..	143,897
1955-56 .. ..	27,988,669	21,657,000	24,948,833	74,594,502	1,119,164	1,082,850	1,197,522	3,399,536
1956-57 .. ..	346,685	..	4,719,100	5,065,785	13,867	..	235,955	249,822
1957-58 .. ..	27,211,529	17,870,500	12,382,000	57,464,029	1,087,701	938,201	619,100	2,645,002
1958-59 .. ..	384,082	21,636,550	..	22,020,632	13,443	757,279	..	770,722
1959-60 .. ..	26,957,974	3,850,724	..	30,808,698	1,078,247	151,807	..	1,230,054
1960-61 .. ..	..	35,152,134	..	35,152,134	..	1,672,895	..	1,672,895
1961-62 .. ..	26,204,140	4,964,083	..	31,258,223	1,051,766	198,563	..	1,250,329
1962-63 .. ..	106,804	10,392,396	..	10,499,200	3,311	415,696	..	419,007
1963-64 .. ..	1,566,000	..	..	1,566,000	48,546	..	..	48,546
1964-65 .. ..	..	..	..	..	..	..	..	..
1965-66 .. ..	..	16,761,165	..	16,761,165	..	824,903	..	824,903
1966-67 .. ..	..	..	..	..	..	..	..	..
1967-68 .. ..	..	..	..	..	..	..	..	..
1968-69 .. ..	..	..	..	..	..	..	..	..
1969-70 .. ..	..	1,970,300	..	1,970,300	..	68,961	..	68,961
1970-71 .. ..	..	9,322,446	..	9,322,446	..	372,898	..	372,898
1971-72 .. ..	..	..	..	..	..	..	..	..
1972-73 .. ..	..	..	..	..	..	..	..	..
1973-74 .. ..	..	..	..	..	..	..	..	..
1974-75 .. ..	..	..	..	..	..	..	..	..
1975-76 .. ..	50,064	94,439,567	..	94,489,631	1,552	4,721,978	..	4,723,530
Overdue .. ..	(d) 89,176	8,650	..	97,826	1,225	..	..	1,225
Interminable .. ..	462,089	1,200	..	463,289	15,217	60	..	15,277
Treasurers' Option .. ..	6,601,467	2,433,527	..	9,034,994	190,343	73,006	..	263,349
Half-yearly Drawings .. ..	5,163,222	..	..	5,163,222	173,179	..	..	173,179
Annual Repayments .. ..	..	79,724,220	..	79,724,220	..	3,919,776	..	3,919,776
Transferred Properties .. ..	111,125	..	..	111,125	3,890	..	..	3,890
Indefinite .. ..	4,593,718	..	..	4,593,718	149,890	..	..	149,890
Total .. ..	629,285,016	547,325,462	45,948,320	1,222,558,798	23,536,387	23,458,334	2,304,916	49,209,637

(a) The total "face" or "book" value of the Public Debt without adjustment on account of currency changes since the loans were floated. (b) Nominal amount of interest payable taking no account of exchange.

(c) See note (c) on page 470.

(d) Includes £30,630 unconverted.

(iii) *Rates of Interest, 30th June, 1934.* The amount of Commonwealth and States' Public Debt at each rate of interest (internal and external debt shown separately) is given in the following table :—

**COMMONWEALTH AND STATES' PUBLIC DEBTS, 30th JUNE, 1934.—AMOUNT AT EACH RATE OF INTEREST.**

Rate of Interest.	Commonwealth and States' Debt maturing—			
	In Australia.	In London.	In New York.	Total.
%	£ (Aust.)	£ (Stg.)	£ (c)	£ (b)
2 .. ..	..	2,491,000	..	2,491,000
2.25 .. ..	61,769,000	..	..	61,769,000
2.325 .. ..	1,866,259	..	..	1,866,259
2.5 .. ..	..	27,634,000	..	27,634,000
2.7125 .. ..	1,378,831	..	..	1,378,831
2.90625 .. ..	563,755	..	..	563,755
3 .. ..	22,397,439	31,075,002	..	53,472,441
3.1 .. ..	8,392,438	..	..	8,392,438
3.25 .. ..	12,816,795	..	..	12,816,795
3.29375 .. ..	2,000	..	..	2,000
3.4875 .. ..	8,477,384	..	..	8,477,384
3.5 .. ..	13,506,865	85,895,162	..	99,402,027
3.625 .. ..	1,182,130	..	..	1,182,130
3.75 .. ..	38,475,193	39,795,882	..	78,271,075
3.875 .. ..	25,407,503	..	..	25,407,503
4 .. ..	409,377,396	61,383,233	..	470,760,629
4.06875 .. ..	21,711,948	..	..	21,711,948
4.25 .. ..	94,859	137,750	..	232,609
4.2625 .. ..	17,351,147	..	..	17,351,147
4.45625 .. ..	3,220,937	..	..	3,220,937
4.5 .. ..	..	13,585,765	9,983,971	23,569,736
4.65 .. ..	4,998,333	..	..	4,998,333
4.75 .. ..	..	11,999,000	..	11,999,000
4.91667 .. ..	..	79,724,220	..	79,724,220
5 .. ..	9,092	175,725,298	32,065,962	207,800,352
5.0375 .. ..	3,323,795	..	..	3,323,795
5.25 .. ..	..	17,870,500	..	17,870,500
6 .. ..	..	..	2,054,865	2,054,865
7 .. ..	..	..	1,843,522	1,843,522
Overdue .. ..	(a)58,546	8,650	..	67,196
Deduct Loans to States for Soldier Land Settlement .. ..	— 27,096,629	..	..	— 27,096,629
Total .. ..	629,285,016	547,325,462	45,948,320	1,222,558,798
Average Rate of Interest .. ..	£ s. d. 3 14 10	£ s. d. 4 5 9	£ s. d. 5 0 4	£ s. d. 4 0 8

(a) Excludes unconverted securities. (b) Total "face" or "book" value of the Public Debt without adjustment on account of currency changes since the loans were floated. (c) See note on page 470.

(iv) *Interest Payable.* The table hereunder shows the interest payable on the public debt of the Commonwealth and of the States at the 30th June in each of the years 1930 to 1934.

## COMMONWEALTH AND STATES' PUBLIC DEBTS, INTEREST PAYABLE.

Particulars.	Where Payable.	At 30th June.				
		1930.	1931.	1932.	1933.	1934.
		£ (a)	£ (a)	£ (a)	£ (a)	£ (a)
Commonwealth ..	Australia ..	11,374,060	12,190,243	8,809,205	8,597,257	8,462,330
	London ..	7,591,389	7,787,343	7,858,150	7,725,633	7,346,554
	New York ..	836,109	836,109	834,133	823,249	814,646
	Total (b) ..	19,801,558	20,813,695	17,501,488	17,146,139	16,623,530
States .. ..	Australia ..	16,395,263	17,551,862	14,271,278	14,500,728	15,074,057
	London (c) ..	17,594,511	18,244,281	18,442,628	17,279,585	16,111,780
	New York ..	1,574,789	1,559,597	1,531,720	1,509,006	1,490,270
	Total (b) ..	35,564,563	37,355,740	34,245,626	33,289,319	32,676,107
Total Commonwealth and States	Australia ..	27,769,323	29,742,105	23,080,483	23,097,985	23,536,387
	London ..	25,185,900	26,031,624	26,300,778	25,005,218	23,458,334
	New York ..	2,410,898	2,395,706	2,365,853	2,332,255	2,304,916
	Total (b) ..	55,366,121	58,169,435	51,747,114	50,435,458	49,299,637
Average Rate per cent.	Australia ..	£ s. d. 5 5 5	£ s. d. 5 6 10	£ s. d. 3 18 9	£ s. d. 3 16 1	£ s. d. 3 14 10
	London ..	4 15 10	4 14 5	4 14 11	4 10 10	4 5 9
	New York ..	5 0 9	5 0 8	5 0 6	5 0 5	5 0 4
	Total (b) ..	5 0 7	5 0 8	4 7 1	4 3 9	4 0 8

(a) The units of currency are—

For interest payable in Australia .. ..	£ (Aust.)
For interest payable in London .. ..	£ (Stg.)
For interest payable in New York .. ..	*

\* Payable in terms of dollars, see note (c) on page 470.

(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.

The average rate of interest payable on debt maturing in Australia rose from £3 10s. 1d. per cent. in 1912 to £4 16s. 7d. per cent. in 1922 and reached the maximum rate of £5 6s. 10d. per cent. in 1931. The National Debt Conversion Loan of 1931-32, which was designed to reduce the interest payable on all internal loans by 22½ per cent., resulted in a decrease of £1 8s. 1d. per cent. to £3 18s. 9d. per cent., which rate is slightly above that ruling in 1917. The rate was further reduced by 3s. 11d. to £3 14s. 10d. during the next two years owing principally to the reductions in the rate for Treasury Bills in Australia particulars of which are given on page 512. There was little variation in the rate of interest payable on overseas loans for several years, but the series of conversion loans in London (referred to on page 468) was responsible for the drop of about nine shillings between 1931-32 and 1933-34. The maximum benefit of these conversions will not take effect until the year 1934-35.

(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, 1930, to 30th June, 1935, are given in the following table:—

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, 1930 ..	175	4,825	5,000	..	2,300	2,300
30th June, 1931 ..	8,808	24,267	33,075	5,066	15,554	20,620
30th September, 1931	10,220	27,855	38,075	6,525	24,700	31,225
31st December, 1931	10,220	27,605	37,825	8,225	31,535	39,760
31st March, 1932 ..	10,220	27,355	37,575	(b) 9,224	34,201	43,425
30th June, 1932 ..	10,220	27,105	37,325	6,330	38,660	44,990
30th September, 1932	10,220	24,155	34,375	3,940	47,285	51,225
31st December, 1932	10,220	24,155	34,375	2,085	48,760	50,845
31st March, 1933 ..	10,220	24,155	34,375	2,815	49,030	51,845
30th June, 1933 ..	10,220	23,905	34,125	3,500	45,375	48,875
30th September, 1933	10,220	23,905	34,125	..	50,700	50,700
31st December, 1933	10,220	23,655	33,875	..	50,820	50,820
31st March, 1934 ..	10,220	23,405	33,625	..	51,250	51,250
30th June, 1934 ..	10,220	23,405	33,625	..	48,469	48,469
30th September, 1934	10,220	23,405	33,625	..	51,033	51,033
31st December, 1934	10,220	23,405	33,625	..	51,068	51,068
31st March, 1935 ..	10,220	23,405	33,625	..	48,888	48,888
30th June, 1935 ..	10,220	23,405	33,625	..	45,124	45,124

(a) Exclusive of overdrafts.

(b) Excludes £1,796,000 on account of New South Wales.

The foregoing figures do not include overdrafts. At the 30th June, 1930, approximately £29,000,000 of London unfunded debt was on account of overdrafts. This amount was covered by the issue of Treasury Bills and Debentures during 1930-31, and at the 30th June, 1931, London overdrafts amounted to £5,000,000.

(b) *Interest rates. (i) London.* The rates of interest payable on Treasury Bills and Debentures in London during the period 1929-30 to 1933-34 were as follow:—

Year.		Minimum Rate.	Maximum Rate.
1929-30 .. .. .	.. .. .	% 5 $\frac{3}{8}$	% £6 2s. 8d.
1930-31 .. .. .	.. .. .	3	5
1931-32 .. .. .	.. .. .	3	6 $\frac{1}{2}$
1932-33 .. .. .	.. .. .	2	4 $\frac{1}{2}$
1933-34 .. .. .	.. .. .	2	3

(ii) *Australia.* The Treasury Bills rates in Australia were as follow:—

- 5 $\frac{1}{2}$  per cent. from 10th October, 1929.
- 6 per cent. from 1st October, 1930.
- 4 per cent. from 31st July, 1931.
- 3 $\frac{1}{2}$  per cent. from 27th October, 1932.
- 3 $\frac{1}{4}$  per cent. from 21st January, 1933.
- 2 $\frac{3}{4}$  per cent. from 18th February, 1933.
- 2 $\frac{1}{2}$  per cent. from 1st June, 1933.
- 2 $\frac{1}{4}$  per cent. from 1st April, 1934.
- 2 per cent. from 15th October, 1934.
- 1 $\frac{1}{2}$  per cent. from 1st January, 1935.

(vi) *Debts of States and Municipal and Semi-Governmental Bodies.* For the reasons indicated in paragraph 2, Division II. § 4 (page 502) direct comparisons of the debts of the several States should be made with caution. The table following shows for 1932-33 particulars of the debts of the States and the debts due to the Public Creditor by Municipal and Semi-Governmental bodies. This affords a more reliable comparison, but as complete records are not available for a long period, particulars showing comparisons of the growth of the debt cannot be made.

**PUBLIC DEBT—STATES, MUNICIPAL AND SEMI-GOVERNMENTAL BODIES,  
1932-33.**

State.	Debts of the States. (a)	Due to Public Creditor (b)		Grand Total.
		Municipal.	Semi-Governmental Bodies.	
	£'000.	£'000.	£'000.	£'000.
New South Wales .. .. .	314,068	35,202	7,343	356,613
Victoria .. .. .	169,238	12,105	37,542	218,885
Queensland .. .. .	114,531	14,634	667	129,832
South Australia .. .. .	102,902	798	1,372	105,072
Western Australia .. .. .	83,515	3,206	79	86,800
Tasmania .. .. .	23,598	2,717	53	26,368
<b>Total, All States .. .. .</b>	<b>807,852</b>	<b>68,662</b>	<b>47,056</b>	<b>923,570</b>

**DEBT PER HEAD OF POPULATION.**

	£	£	£	£
New South Wales .. .. .	120.8	13.5	2.8	137.1
Victoria .. .. .	93.0	6.6	20.6	120.2
Queensland .. .. .	120.9	15.4	0.7	137.0
South Australia .. .. .	177.1	1.4	2.4	180.9
Western Australia .. .. .	190.2	7.3	0.2	197.7
Tasmania .. .. .	103.7	11.9	0.2	115.8
<b>Total, All States .. .. .</b>	<b>122.1</b>	<b>10.4</b>	<b>7.1</b>	<b>139.6</b>

(a) Includes amounts due by Municipal and Semi-Governmental bodies. (b) Excluding debts due to Central Government.

4. **The Australian Loan Council.**—The Australian Loan Council was created during 1923-24 as the result of representations made by the Commonwealth Government, and had for its object the prevention of competition in the loan market. Until July, 1925, the Council consisted of representatives (usually the Treasurers) of the Commonwealth and of each of the States; in August of that year the representative of New South Wales withdrew from the Council, but rejoined at the end of 1927.

Prior to the passing of the *Financial Agreement Validation Act (No. 4, 1929)*, assented to on 18th March, 1929, the Australian Loan Council functioned on a purely voluntary basis. The Act referred to embodies the agreement between the Commonwealth and State Governments, and invests the Loan Council with full constitutional authority. Details of the constitution of the Loan Council are included in Part I., section 3 of the *Financial Agreement* and may be found in Chapter I. pp., 23-25 of this volume.

The present objects and powers of the Loan Council as a constitutional body are set out in the *Financial Agreement Act*.

## CHAPTER XVII.

### POPULATION.

#### § 1. Enumerations and Estimates.

The nature of the early "musters" of the population and the subsequent Census enumerations which have been conducted in Australia were reviewed in Official Year Book, Number 15, pp. 1083-5. This review was accompanied by a tabular statement showing the dates on which the various enumerations were made, and the number 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 be accepted without reservation. The estimates of population since the Census of 1921, which have been published in earlier Year Books, have been adjusted in accordance with the results of the Census of 30th June, 1933, and the revised figures are given in this chapter. These figures, however, are subject to further amendment on the completion of the detailed tabulation.

Since the establishment of the Commonwealth Bureau of Census and Statistics attention has been given to the improvement of intercensal estimates. There was little doubt that the principal source of error was in the records of migration, and efforts were directed particularly to the improvement of these records with very gratifying results. The Census of 1911 disclosed an error in the pre-censal estimates of an amount equal to a percentage on the recorded oversea departures from Australia of 14.5 per cent. for males and 10 per cent. for females. After the Census of 1921 these adjusting factors were reduced to 1 per cent. for males and 4½ per cent. for females, and from the results of the Census of the 30th June, 1933, it would appear that the accuracy of the records of oversea migration is such that in future no adjustment of the recorded figures 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, 1881 to 1933.

1. Census of 1933.—The first occasion on which the Census of the several Australian Colonies was taken on the same date was in the year 1881. Under the provisions of the Commonwealth Census and Statistics Act, which provides for the enumeration being dealt with from one centre, instead of by each State as formerly, the first Census for the Commonwealth of Australia was taken by the Commonwealth Statistician in 1911, and the second in 1921. In accordance with the provisions of the Census and Statistics Act 1905-1930 the third Commonwealth Census would have been taken in 1931, but owing to the necessity for economy in government expenditure it was decided to defer this Census, and the date was subsequently fixed for the 30th June, 1933. the Census

for the whole of Australia being taken as for the night between the 29th and the 30th June, 1933. The numbers recorded in the several States and Territories on the 4th April, 1921, and the 30th June, 1933, were as follow :—

POPULATION.—CENSUS, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

States and Territories.	4th April, 1921.			30th June, 1933. (a)		
	Males.	Females.	Persons.	Males.	Females.	Persons.
States—						
New South Wales ..	1,071,501	1,028,870	2,100,371	1,318,471	1,282,376	2,600,847
Victoria ..	754,724	776,556	1,531,280	903,244	917,017	1,820,261
Queensland ..	398,969	357,003	755,972	497,217	450,317	947,534
South Australia ..	248,267	246,893	495,160	290,962	289,987	580,949
Western Australia ..	177,278	155,454	332,732	233,937	204,915	438,852
Tasmania ..	107,743	106,037	213,780	115,097	112,502	227,599
Territories—						
Northern ..	2,821	1,046	3,867	3,378	1,472	4,850
Federal Capital ..	1,567	1,005	2,572	4,805	4,142	8,947
Australia ..	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839

(a) Revised figures.

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 of each sex enumerated at the Census of 3rd April, 1881, 5th April, 1891, 31st March, 1901, 3rd April, 1911, 4th April, 1921, and 30th June, 1933, was as follows :—

POPULATION.—AUSTRALIA, 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	3,197,794	6,514,127	103.71
30th June, 1933 ..	3,367,111	3,262,728	6,629,839	103.20

(a) Number of males to each 100 females. Census of 30.6.1933.

(b) These figures have been estimated from the

(ii) *States and Territories.* The postponement till 1933 of the Census which ordinarily would have been taken in 1931 created a divergence from the intercensal period of ten years which had been observed 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 Census of 30th June, 1933, 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 follow:—

POPULATION.—INTERCENSAL INCREASES.

State or Territory.	1881-1891.	1891-1901.	1901-1911.	1911-1921.	1921-1931 (estimated)	1921-1933 (12½ years).
New South Wales .. {						
Number	374,129	230,892	293,602	453,637	450,930	500,476
Per cent.	49.90	20.54	21.67	27.55	21.47	23.83
Victoria .. {						
Number	278,274	61,230	114,481	215,729	266,178	288,981
Per cent.	32.30	5.37	9.53	16.40	17.38	18.87
Queensland .. {						
Number	180,193	104,411	107,684	150,159	164,388	191,562
Per cent.	84.39	26.52	26.52	24.79	21.75	25.34
South Australia .. {						
Number	39,119	42,813	50,212	86,602	80,024	85,789
Per cent.	14.15	13.57	14.01	21.20	16.16	17.33
Western Australia .. {						
Number	20,074	134,342	97,990	50,618	98,679	106,120
Per cent.	67.57	209.86	53.22	17.94	29.66	31.89
Tasmania .. {						
Number	30,962	25,808	18,736	22,569	10,674	13,819
Per cent.	26.76	17.60	10.86	11.80	4.99	6.46
Northern Territory {						
Number	1,447	(b) -87	(b) -1,501	557	1,104	983
Per cent.	41.93	(b) -1.78	(b) -31.20	16.83	28.55	25.42
Federal Capital Territory .. {						
Number	(a)	(a)	(a)	858	6,416	6,375
Per cent.	(a)	(a)	(a)	50.06	249.46	247.86
Australia .. {						
Number	924,198	599,409	681,204	980,729	1,078,393	1,194,105
Per cent.	41.07	18.88	18.05	22.01	19.84	21.97

(a) Included in New South Wales.

(b) Decrease.

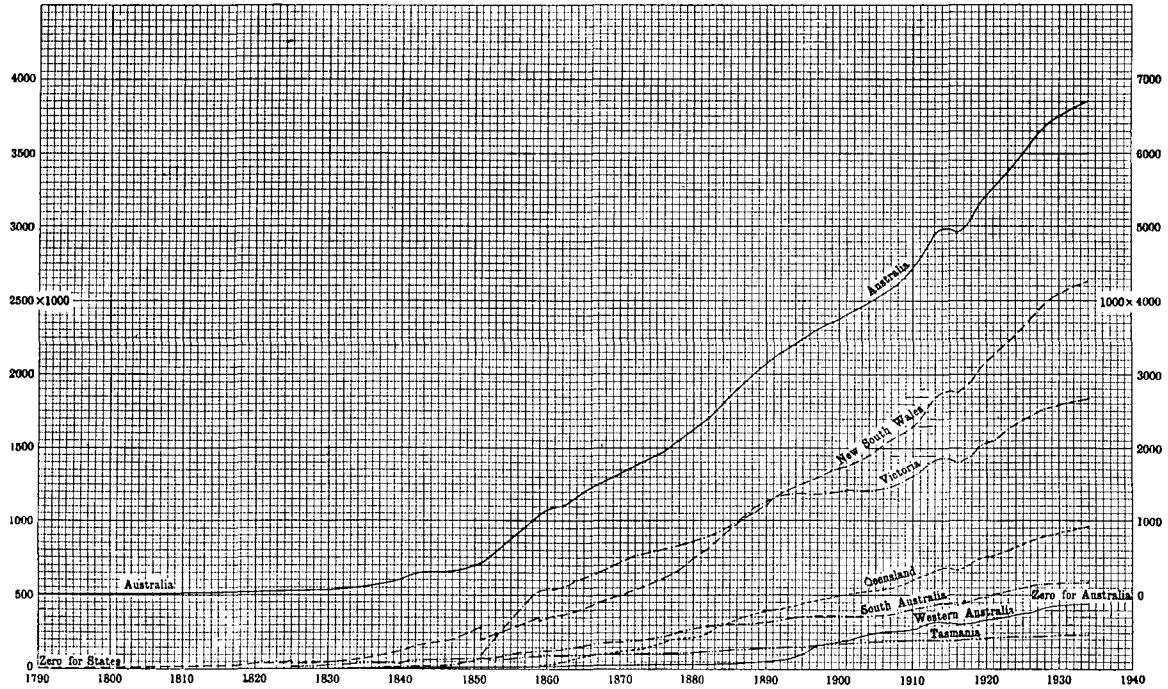
For Australia as a whole the numerical increase during the period 1921-1931 was greater by 97,664 than that for the period 1911-1921, but the percentage increase declined from 22.01 for 1911-1921 to 19.84 for 1921-1931. During the earlier period the increase corresponds to 2.01 per cent. per annum, and in the later to 1.83 per cent. per annum.

#### § 4. Distribution and Fluctuation of Population.

1. **Present Numbers.**—The population of Australia on the 31st December, 1934, was estimated at 6,705,677 persons, of whom 3,401,079, or 50.72 per cent., were males and 3,304,598, or 49.28 per cent., were females. The increase during the year 1934 was 49,526, equal to 0.74 per cent., males having increased by 22,300, or 0.66 per cent., and females by 27,226, or 0.83 per cent. Of the increase referred to, 47,246 was due to the excess of births over deaths and 2,280 to the excess of arrivals over departures. For the past two years arrivals have exceeded departures, but during each of the three years prior to 1933 departures were in excess.

2. **Growth and Distribution.**—In issues of the Official Year Book up to No. 15, the male and female population of Australia as a whole were given at quinquennial periods from 1788, but it is considered that the abridged table presented herewith will suffice for general purposes. The figures for the years 1921 to 1933 inclusive have been adjusted in accordance with the revised results of the 1933 Census.

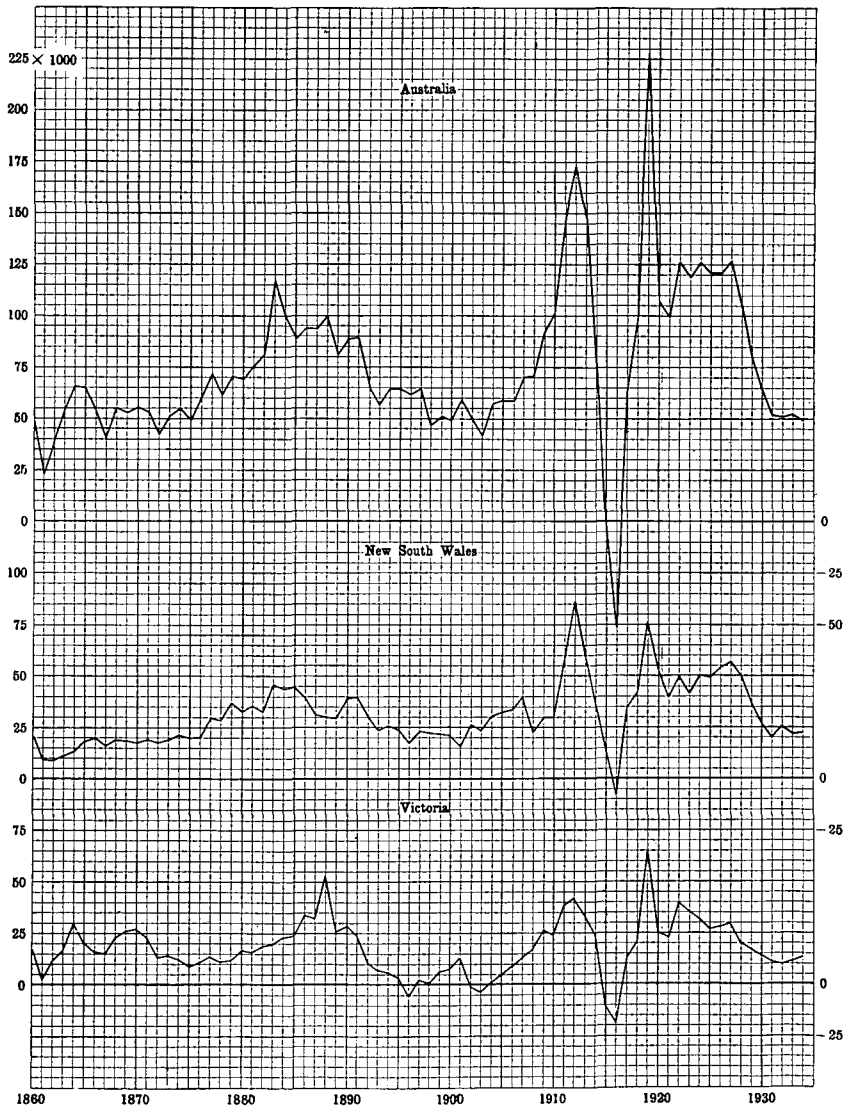
TOTAL POPULATION, 1788 TO 1934.



(See page 522.)

EXPLANATION.—The base of each small square represents one year's interval for the States and Australia and the vertical height for the States 50,000 persons, and for Australia 100,000 persons.

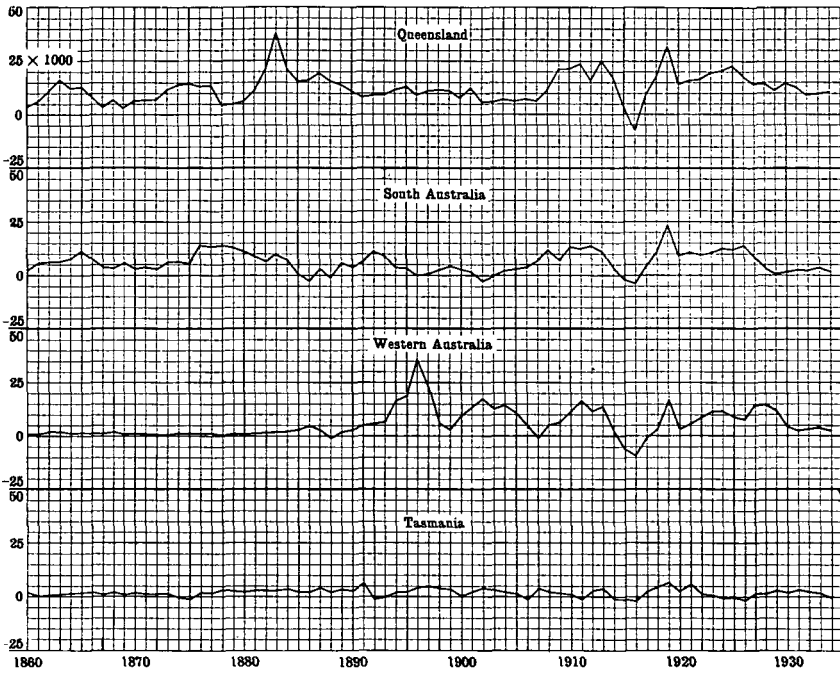
TOTAL INCREASE OF POPULATION—AUSTRALIA, NEW SOUTH WALES AND VICTORIA, 1860 TO 1934.



EXPLANATION.—The base for each small square represents an interval of one year for both States and Australia; the vertical height represents 5,000 persons. In the above graph three zero lines are taken (i) for Australia, (ii) for New South Wales, and (iii) for Victoria. In the second portion of the graph (on page 519) four zero lines are taken (i) for Queensland, (ii) for South Australia, (iii) for Western Australia, and (iv) for Tasmania.

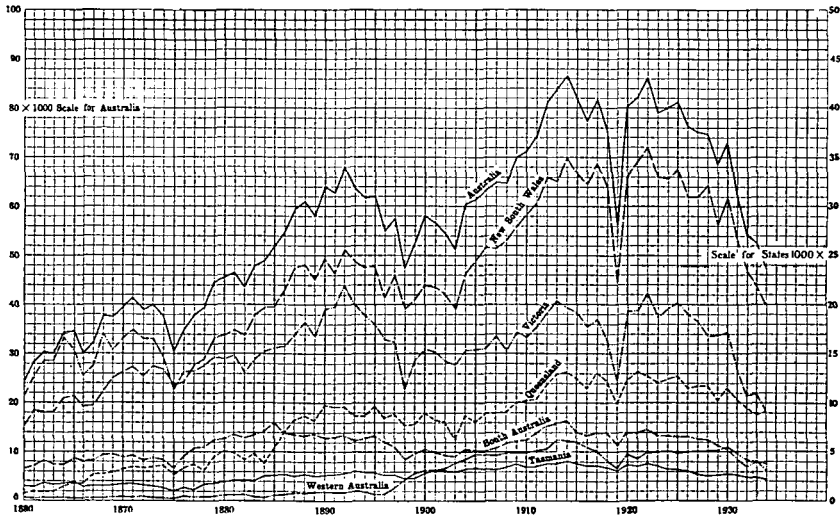
DECREASES in population are shown by carrying the curve in such cases below the zero line, the distance below the zero line indicating the extent of the decrease.

TOTAL INCREASE OF POPULATION—QUEENSLAND, SOUTH AUSTRALIA, WESTERN AUSTRALIA, AND TASMANIA, 1860 TO 1934.



(For explanation see previous page).

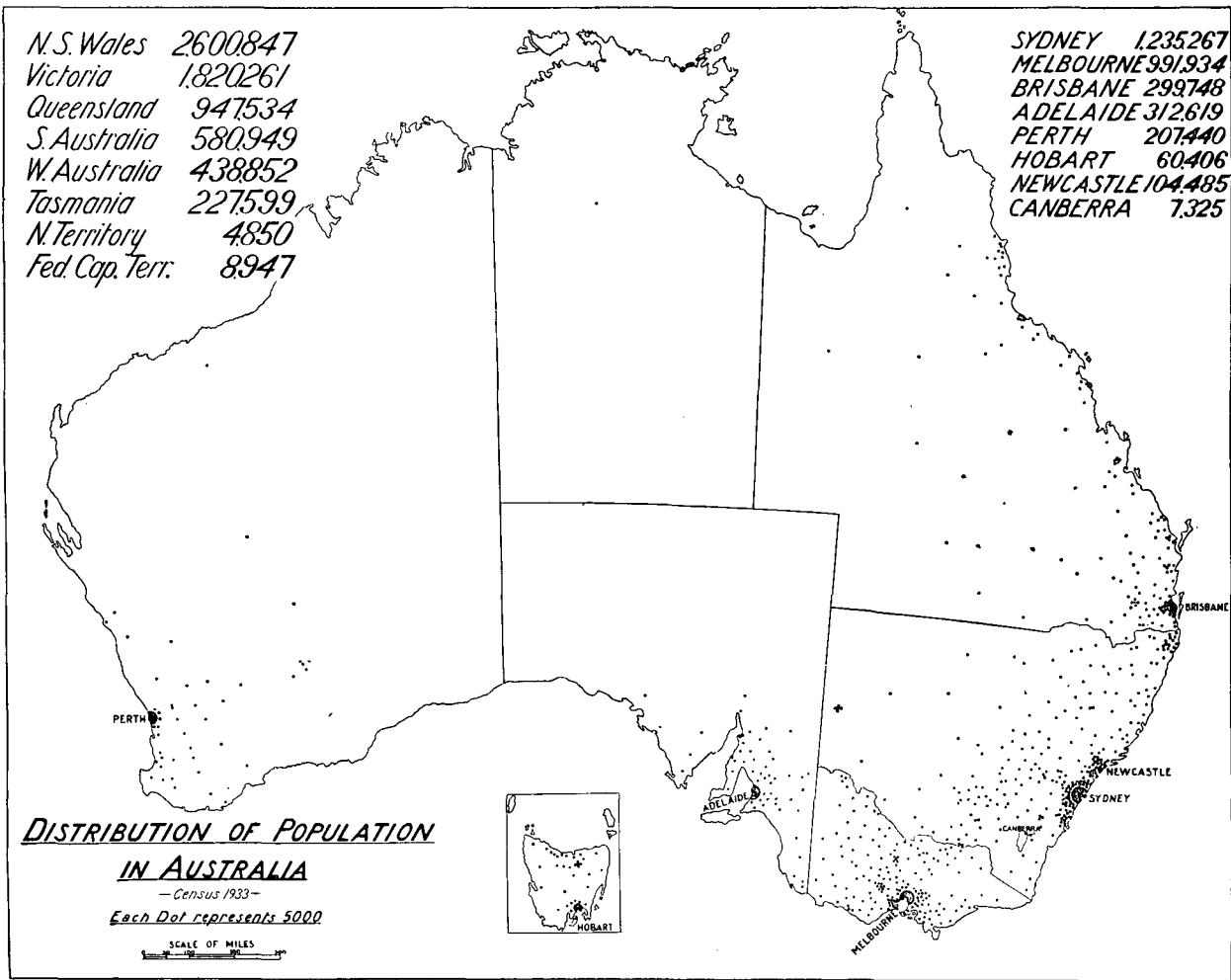
NATURAL INCREASE OF POPULATION, 1860 TO 1934.



EXPLANATION.—The base of each small square represents one year for both States and Australia and the vertical height 1,000 persons for the States and 2,000 persons for Australia.  
 The distances upward from the zero line, marked 0 for both Australia and States, denote the excess of births over deaths. The scale on the left relates to Australia, and that on the right to the States.

*N.S. Wales* 2600847  
*Victoria* 1,820261  
*Queensland* 947534  
*S. Australia* 580,949  
*W. Australia* 438852  
*Tasmania* 227599  
*N. Territory* 4850  
*Fed. Cap. Terr.* 8947

*SYDNEY* 1,235,267  
*MELBOURNE* 991,934  
*BRISBANE* 299,748  
*ADELAIDE* 312,619  
*PERTH* 207,440  
*HOBART* 60,406  
*NEWCASTLE* 104,485  
*CANBERRA* 7,325



**DISTRIBUTION OF POPULATION**  
**IN AUSTRALIA**

— Census 1933 —  
 Each Dot represents 5000

SCALE OF MILES  
 0 25 50 75 100

ESTIMATED POPULATION.—1800 to 1934.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

As at 31st Decem-ber—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
MALES.									
(a)1800	3,780	..	..	..	..	..	..	..	3,780
1810	7,585	..	..	..	..	..	..	..	7,585
1820	23,784	..	..	..	..	..	..	..	23,784
1830	33,900	..	..	..	877	(b)18,108	..	..	52,885
1840	85,560	..	..	8,272	1,434	32,040	..	..	127,306
1850	154,976	..	..	35,902	3,576	44,229	..	..	238,683
1860	197,851	(b)330,302	(b)16,817	64,340	9,597	49,653	..	..	668,560
1870	272,121	397,230	69,221	94,894	15,511	53,517	..	..	902,494
1880	404,952	450,558	124,013	147,438	16,985	60,568	..	..	1,204,514
1890	602,704	595,519	223,252	160,049	28,854	76,453	..	..	1,692,831
1900	716,047	601,773	274,684	180,349	110,088	89,703	(c)4,288	..	1,979,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	(b)1,062	2,751,730
1921	1,086,454	765,306	403,261	251,170	178,968	110,353	2,765	1,138	2,799,415
1922	1,112,319	789,517	411,955	255,181	184,471	110,262	2,653	1,467	2,867,825
1923	1,134,444	807,884	422,261	261,681	191,131	110,760	2,704	1,445	2,932,310
1924	1,160,794	825,919	431,847	268,615	197,676	110,238	2,782	1,696	2,999,567
1925	1,184,465	840,817	444,330	276,265	202,554	110,172	2,860	2,298	3,063,761
1926	1,212,046	855,035	452,968	285,013	206,797	108,805	3,146	2,902	3,126,802
1927	1,241,763	870,718	460,319	289,303	215,851	110,013	3,569	3,322	3,194,858
1928	1,266,254	879,478	468,323	289,639	225,072	110,750	3,231	4,670	3,247,417
1929	1,283,241	886,472	473,948	288,597	231,361	112,244	3,496	4,736	3,284,095
1930	1,294,419	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1931	1,302,893	896,429	487,932	289,397	232,397	115,176	3,462	4,891	3,335,577
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	116,811	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

FEMALES.

(a)1800	1,437	..	..	..	..	..	..	..	1,437
1810	3,981	..	..	..	..	..	..	..	3,981
1820	9,759	..	..	..	..	..	..	..	9,759
1830	10,688	..	..	..	295	(b) 6,171	..	..	17,154
1840	41,908	..	..	6,358	877	13,959	..	..	63,102
1850	111,924	..	..	27,798	2,310	24,641	..	..	166,673
1860	150,695	(b) 207,932	(b) 11,239	61,242	5,749	40,168	..	..	277,025
1870	225,871	326,695	46,051	89,652	9,624	47,369	..	..	745,262
1880	336,190	408,047	87,027	123,955	12,576	54,222	..	..	1,027,017
1890	510,571	538,209	168,864	152,898	19,648	68,334	..	..	1,458,524
1900	644,258	594,440	219,163	176,901	69,879	83,137	(c) 569	..	1,788,347
1910	785,674	654,926	273,506	200,311	118,861	94,937	503	..	2,128,775
1920	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	(b) 910	2,659,567
1921	1,045,236	785,421	362,463	250,572	157,580	108,323	994	940	2,711,529
1922	1,069,198	800,756	370,424	256,421	161,073	109,506	959	1,124	2,769,461
1923	1,088,435	817,571	379,583	260,531	165,728	109,651	946	1,231	2,823,676
1924	1,112,229	831,232	390,237	266,331	170,648	109,434	946	1,378	2,882,435
1925	1,137,875	843,234	400,512	270,783	174,073	109,192	961	1,736	2,939,266
1926	1,164,632	856,952	409,518	275,912	178,436	108,680	951	2,137	2,997,218
1927	1,191,892	871,114	416,066	280,327	184,046	109,138	1,027	2,548	3,056,158
1928	1,216,875	882,268	422,554	284,948	189,549	109,569	1,023	3,567	3,108,353
1929	1,236,452	891,797	428,188	284,376	195,276	111,804	1,284	3,711	3,152,118
1930	1,251,934	900,183	435,177	285,849	198,742	111,792	1,365	3,987	3,189,029
1931	1,263,421	907,141	441,794	287,682	201,289	113,288	1,384	4,030	3,220,029
1932	1,276,728	912,724	446,581	289,039	203,271	114,540	1,433	4,004	3,248,320
1933	1,288,680	919,429	451,563	290,955	205,822	115,219	1,448	4,256	3,277,372
1934	1,301,080	927,117	456,992	291,775	207,371	114,495	1,504	4,264	3,304,598

(a) Details as to sex not available for earlier years. (b) Previously included with New South Wales. (c) Previously included with South Australia.

ESTIMATED POPULATION—*continued.*

As at 31st December—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
<b>PERSONS.</b>									
1788	859	..	..	..	..	..	..	..	859
1790	2,056	..	..	..	..	..	..	..	2,056
1800	5,217	..	..	..	..	..	..	..	5,217
1810	11,566	..	..	..	..	..	..	..	11,566
1820	33,543	..	..	..	..	..	..	..	33,543
1830	44,588	..	..	..	1,172	(b)24,279	..	..	70,039
1840	127,468	..	..	14,630	2,311	45,999	..	..	190,408
1850	266,900	..	..	63,700	5,886	68,870	..	..	405,356
1860	348,546	(b)538,234	(b)28,056	125,582	15,346	89,821	..	..	1,145,585
1870	497,992	723,925	115,272	184,546	25,135	100,886	..	..	1,647,756
1880	741,142	858,605	211,040	276,393	29,561	114,790	..	..	2,231,531
1890	1,113,275	1,133,728	392,116	318,947	48,502	144,787	..	..	3,151,355
1900	1,360,305	1,196,213	493,847	357,250	179,967	172,900	(a)4,857	..	3,765,339
1910	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	(b)1,972	5,411,297
1921	2,131,690	1,550,727	765,724	501,742	336,548	218,676	3,759	2,078	5,510,944
1922	2,181,517	1,590,273	782,379	511,602	345,544	219,768	3,612	2,391	5,637,286
1923	2,222,879	1,625,455	801,844	522,212	356,859	220,411	3,650	2,676	5,755,986
1924	2,273,023	1,657,151	822,084	534,946	368,324	219,672	3,728	3,074	5,882,002
1925	2,322,340	1,684,051	844,842	547,048	377,527	219,364	3,821	4,034	6,003,027
1926	2,376,678	1,711,987	862,486	560,925	385,233	217,575	4,097	5,039	6,124,020
1927	2,433,655	1,743,852	876,385	569,630	399,897	219,151	4,596	5,870	6,251,016
1928	2,483,129	1,761,746	890,877	572,587	414,621	220,319	4,254	8,237	6,355,770
1929	2,519,693	1,778,269	902,436	572,973	426,037	223,278	4,780	8,447	6,445,213
1930	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1931	2,566,314	1,803,570	929,726	577,079	433,686	228,464	4,816	8,921	6,552,606
1932	2,591,731	1,813,387	939,097	579,293	436,320	230,607	4,786	8,564	6,603,785
1933	2,613,519	1,824,479	949,031	582,677	440,264	232,110	4,818	9,253	6,656,151
1934	2,636,203	1,837,490	959,497	584,294	442,610	231,447	4,944	9,192	6,705,677

(a) Previously included with South Australia.

(b) Previously included with New South Wales.

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 graphs accompanying this chapter on pages 517 to 520.

3. Mean Population.—(i) *Calendar Years.* The following table shows the mean population for each State and Territory for the calendar years 1921 to 1934. The figures have been adjusted in accordance with the revised results of the 1933 Census :—

## MEAN POPULATION, CALENDAR YEARS, 1921 to 1934.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Year ended 31st December—	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Terr.	Fed. Cap. Terr.	Australia.
1921 ..	2,108,485	1,537,042	762,072	497,001	334,084	213,404	3,914	2,487	5,458,489
1922 ..	2,155,522	1,570,883	776,806	504,910	341,375	215,379	3,698	2,838	5,571,411
1923 ..	2,201,531	1,607,850	795,103	515,372	350,772	216,420	3,689	3,360	5,694,097
1924 ..	2,244,403	1,641,944	814,078	526,648	363,152	216,274	3,716	3,912	5,814,127
1925 ..	2,295,516	1,671,537	836,844	539,920	372,970	215,552	3,829	4,809	5,940,977
1926 ..	2,346,903	1,697,758	857,071	553,800	380,930	213,800	3,946	6,215	6,059,423
1927 ..	2,403,881	1,727,734	870,643	565,284	392,071	213,051	4,451	7,469	6,184,584
1928 ..	2,460,410	1,751,974	884,815	570,863	407,576	215,471	4,459	8,198	6,303,766
1929 ..	2,503,026	1,770,133	897,569	572,457	420,756	217,752	4,467	8,541	6,394,701
1930 ..	2,532,289	1,786,217	910,319	573,242	429,079	220,833	4,979	8,961	6,466,019
1931 ..	2,555,871	1,799,241	924,825	575,717	432,347	224,811	4,959	8,801	6,526,572
1932 ..	2,579,741	1,808,618	935,575	578,010	435,041	227,084	4,917	8,925	6,577,911
1933 ..	2,601,782	1,820,568	945,454	581,019	438,688	228,434	4,860	9,056	6,629,861
1934 ..	2,623,560	1,830,898	955,584	583,343	441,611	229,161	4,933	9,259	6,678,349

(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, 1921 to 1935. The figures have been adjusted in accordance with the revised results of the 1933 Census.

## MEAN POPULATION, FINANCIAL YEARS, 1921 to 1935.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Year ended 30th June.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Terr.	Fed. Cap. Terr.	Australia.
1921 ..	2,089,330	1,524,498	754,374	491,833	331,973	211,719	3,977	2,339	5,410,043
1922 ..	2,130,297	1,552,601	769,180	500,902	337,269	214,689	3,833	2,591	5,511,452
1923 ..	2,180,329	1,589,673	785,466	510,157	345,891	216,028	3,659	3,138	5,634,341
1924 ..	2,221,767	1,625,703	804,442	520,694	350,751	216,355	3,698	3,593	5,753,003
1925 ..	2,270,024	1,657,111	825,313	533,461	368,525	215,997	3,768	4,312	5,878,511
1926 ..	2,320,184	1,683,724	847,757	546,514	376,933	214,795	3,875	5,443	5,999,225
1927 ..	2,375,204	1,711,855	864,502	560,179	385,780	213,212	4,152	6,873	6,121,757
1928 ..	2,432,731	1,741,432	877,753	568,746	399,777	214,074	4,557	7,912	6,246,982
1929 ..	2,484,071	1,761,212	891,435	572,028	414,480	216,411	4,369	8,419	6,352,434
1930 ..	2,518,553	1,778,761	903,703	572,577	425,785	219,269	4,762	8,836	6,432,246
1931 ..	2,544,691	1,792,802	917,830	574,383	431,022	222,820	5,011	8,877	6,497,436
1932 ..	2,567,639	1,804,014	930,456	576,893	433,596	226,045	4,932	8,961	6,552,536
1933 ..	2,590,840	1,814,797	940,628	579,422	436,798	227,927	4,867	8,740	6,604,019
1934 ..	2,613,063	1,824,943	950,351	582,394	440,363	229,041	4,883	9,294	6,654,332
1935 ..	2,634,353	1,836,439	960,859	584,162	443,160	229,147	5,020	9,276	6,702,416

## 4. Proportion of Area and Population, Masculinity, and Density—States, 1934.—

A previous table showed the estimated number of persons on the 31st December, 1934, in each of the States and Territories. In the following table the percentages of the total area and of the total population represented by each State or Territory are given, together with the masculinity and the density of population :—

## AREA, POPULATION, MASCULINITY, AND DENSITY, 1934.

State or Territory.	Percentage of Total Area.	Percentage of Estimated Population, 31st December, 1934.			Masculinity.(a)	Density.(b)
		Males.	Females.	Persons.		
New South Wales ..	10.40	39.26	39.37	39.31	102.62	8.52
Victoria ..	2.96	26.77	28.06	27.41	98.19	20.91
Queensland ..	22.54	14.77	13.83	14.31	109.96	1.43
South Australia ..	12.78	8.60	8.83	8.71	100.25	1.54
Western Australia ..	32.81	6.92	6.27	6.60	113.44	0.45
Tasmania ..	0.88	3.44	3.46	3.45	102.15	8.83
Northern Territory ..	17.60	0.10	0.05	0.07	228.72	0.01
Federal Capital Territory ..	0.03	0.14	0.13	0.14	115.57	9.78
Australia ..	100.00	100.00	100.00	100.00	102.92	2.25

(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 cover those cities and towns which are not adjacent to the metropolitan areas, and which are incorporated for local government purposes; the rural area comprises the remainder of the State whether incorporated or not incorporated; while those persons classed as migratory were on board ships in Australian ports or were travelling on long-distance trains throughout Census night.

The revised results obtained at the Census for each State and Territory are shown in the following table:—

**URBAN AND RURAL POPULATION.—CENSUS 30th JUNE, 1933.**  
(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Division.	Males.	Females.	Persons.	Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
				Census 1921.	Census 1933.	
<b>NEW SOUTH WALES.</b>						
Urban—						
Metropolitan	591,104	644,163	1,235,267	42.80	47.50	37.40
Provincial ..	283,439	282,001	565,440	25.00	21.74	7.70
Rural ..	439,486	355,615	795,101	31.64	30.57	19.64
Migratory ..	4,442	597	5,039	0.56	0.19	—56.99
Total ..	1,318,471	1,282,376	2,600,847	100.00	100.00	23.83
<b>VICTORIA.</b>						
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
<b>QUEENSLAND.</b>						
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
<b>SOUTH AUSTRALIA.</b>						
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

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	Males.	Females.	Persons.	Percentage of Total Population of State.		Percentage Increase since the 1921 Census.
				Census 1921.	Census 1933.	
<b>WESTERN AUSTRALIA.</b>						
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
<b>TASMANIA.</b>						
Urban—						
Metropolitan	28,351	32,055	60,406	24.49	26.54	15.36
Provincial ..	26,971	29,806	56,777	26.03	24.95	2.04
Rural ..	59,138	50,629	109,767	49.17	48.23	4.42
Migratory ..	637	12	649	0.31	0.28	-0.46
Total ..	115,097	112,502	227,599	100.00	100.00	6.46
<b>NORTHERN TERRITORY.</b>						
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
<b>FEDERAL CAPITAL TERRITORY.</b>						
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
<b>AUSTRALIA.</b>						
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

At the 30th June, 1933, the metropolitan divisions contained 46.87 per cent. of the total population of Australia as compared with 43.01 per cent. at the Census of 1921. Victoria has the largest percentage of population residing in the metropolitan area (54.49) but is 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 has declined from 37.35 per cent. in the year 1921 to 35.91 per cent. on the 30th June, 1933. Tasmania, with 48.23 per cent., has the largest proportion of population residing in the rural sections of the State and Queensland is next with 46.92 per cent. Since the Census of 1921, however, the greatest percentage of increase in rural population has 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.—The abnormal concentration of population in the capitals of the States of Australia, as compared with other countries, may be readily seen from the following table. It may be mentioned, however, that, in many of the other countries, the capital is not the most populous of the great cities, whereas, in Australia, the capital is invariably the most populous city of its State, and in some States is the only one of important magnitude :—

METROPOLITAN POPULATION.—AUSTRALIA AND OTHER COUNTRIES.

State or Country.	Metropolis.	Year.	Metropolitan Population.	Percentage of Total of State or Country.
				%
Australia .. ..	Canberra .. ..	1934	7,500	..
New South Wales ..	Sydney .. ..	..	1,249,040	47.38
Victoria .. ..	Melbourne .. ..	..	1,000,000	54.42
Queensland .. ..	Brisbane .. ..	..	304,930	31.77
South Australia ..	Adelaide .. ..	..	313,778	53.70
Western Australia ..	Perth .. ..	..	208,448	47.10
Tasmania .. ..	Hobart .. ..	..	60,500	26.14
Australia .. ..	(7 Cities) .. ..	..	3,144,196	46.89
England .. ..	London (a) .. ..	1934	8,401,000(a)	20.75
Scotland .. ..	Edinburgh .. ..	1935	461,400	(b) 9.19
Northern Ireland ..	Belfast .. ..	1929	415,000	33.20
Irish Free State ..	Dublin .. ..	1935	428,800	(b) 14.03
Canada .. ..	Ottawa .. ..	1931	126,872	1.22
South Africa .. ..	Capetown (c) ..	1932	138,400	7.44
New Zealand .. ..	Wellington .. ..	1934	146,800	9.48
Austria .. ..	Vienna .. ..	1934	1,874,130	27.72
Belgium .. ..	Brussels .. ..	1933	891,422	10.81
Czechoslovakia ..	Prague .. ..	1933	807,251	5.97
Denmark .. ..	Copenhagen .. ..	1932	812,619	22.42
France .. ..	Paris .. ..	1931	2,891,020	6.91
Germany .. ..	Berlin .. ..	1934	4,181,959	6.32
Greece .. ..	Athens .. ..	1931	473,200	7.30
Hungary .. ..	Budapest .. ..	1934	1,039,853	11.69
Italy .. ..	Rome .. ..	1934	1,063,316	2.50
Japan .. ..	Tokyo .. ..	1934	5,662,900(d)	8.39
Netherlands .. ..	Amsterdam .. ..	1934	781,659	9.31
Norway .. ..	Oslo .. ..	1930	253,124	9.55
Portugal .. ..	Lisbon .. ..	1933	594,000	8.88
Russia (Soviet Union)	Moscow .. ..	1933	3,663,300	2.21
Spain .. ..	Madrid .. ..	1933	1,014,704	4.19
Sweden .. ..	Stockholm .. ..	1933	521,618	8.40
United States .. ..	Washington .. ..	1930	486,869	..
N. Y. State.. ..	New York .. ..	1934	7,473,701	(b) 55.34

(a) Greater London. (b) Percentage in 1933. (c) European population. (d) Greater Tokyo.

7. Principal Urban Areas.—The following table gives the revised figures of 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.
<b>New South Wales—</b>		<b>Queensland—continued.</b>	
Sydney and Suburbs .. ..	1,235,267	Townsville .. ..	25,876
Newcastle and Suburbs .. ..	104,485	Ipswich .. ..	22,498
Broken Hill .. ..	26,925	Cairns .. ..	11,993
Goulburn .. ..	14,849	Bundaberg .. ..	11,466
Cessnock .. ..	14,385	Maryborough .. ..	11,415
Lithgow .. ..	13,444	Mackay .. ..	10,665
Lismore .. ..	11,762	Gympie .. ..	7,749
Wagga Wagga .. ..	11,631	Charters Towers .. ..	6,978
Wollongong .. ..	11,403	Warwick .. ..	6,664
Albury .. ..	10,543		
Bathurst .. ..	10,413	<b>South Australia—</b>	
Tamworth .. ..	9,913	Adelaide and Suburbs .. ..	312,619
Orange .. ..	9,634	Port Pirie .. ..	11,677
Fairfield .. ..	8,709	Mount Gambier .. ..	5,542
Dubbo .. ..	8,344	Murray Bridge .. ..	3,651
West Maitland .. ..	8,191	Port Augusta .. ..	3,270
Armidale .. ..	6,794	Peterborough .. ..	3,059
Katoomba .. ..	6,445	Port Lincoln .. ..	3,006
Grafton .. ..	6,411		
Liverpool .. ..	6,315	<b>Western Australia—</b>	
Cabramatta and Canley Vale .. ..	6,107	Perth and Suburbs .. ..	(a)207,440
Parkes .. ..	5,846	Kalgoorlie and Suburbs .. ..	17,326
Forbes .. ..	5,355	Bunbury .. ..	5,140
Glen Innes .. ..	5,352	Geraldton .. ..	4,984
Inverell .. ..	5,305	Northam .. ..	4,817
Casino .. ..	5,287	Albany .. ..	4,076
Cowra .. ..	5,056	Collie .. ..	3,784
<b>Victoria—</b>		<b>Tasmania—</b>	
Melbourne and Suburbs .. ..	991,934	Hobart and Suburbs .. ..	60,406
Geelong and Suburbs .. ..	39,223	Launceston and Suburbs .. ..	32,841
Ballarat and Suburbs .. ..	37,411	Devonport .. ..	5,151
Bendigo and Suburbs .. ..	29,131	Queenstown .. ..	3,809
Warrnambool .. ..	8,906	Burnie .. ..	3,390
Mildura .. ..	6,617	Ulverstone .. ..	2,701
Hamilton .. ..	5,786		
Shepparton .. ..	5,698	<b>Northern Territory—</b>	
Maryborough .. ..	5,631	Darwin .. ..	1,566
Wonthaggi .. ..	5,593		
Horsham .. ..	5,273	<b>Federal Capital Territory—</b>	
Castlemaine and Suburbs .. ..	5,221	Canberra .. ..	7,325
<b>Queensland—</b>			
Brisbane and Suburbs .. ..	299,748		
Rockhampton .. ..	29,369		
Toowoomba .. ..	26,423		

(a) Includes the City of Fremantle, 25,224.

8. Principal Cities in the World.—The following table shows the population of the world's largest cities at the latest available dates :—

POPULATION OF THE WORLD'S LARGEST CITIES.

(Cities in the British Empire are printed in Italics.)

Country.	City.	Year.	City Population (ooo omitted).	Country.	City.	Year.	City Population (ooo omitted).
England	<i>London</i>	1934	8,401(a)	China	Chengtu	1931	800
U.S.A.	New York	1934	7,474	Netherlands	Amsterdam	1934	782
Japan	Tokyo	1934	5,663(b)	U.S.A.	Boston	1930	781
Germany	Berlin	1934	4,182	China	Hankow	1931	778
Russia	Moscow	1933	3,663	England	<i>Manchester</i>	1933	758
U.S.A.	Chicago	1930	3,376	Germany	Cologne	1933	757
China	Shanghai	1931	3,259	Chile	Santiago	1932	740
France	Paris	1931	2,891	Germany	Munich	1933	735
Russia	Leningrad	1933	2,776	Germany	Leipzig	1933	713
Japan	Osaka	1934	2,723	Russia	Baku	1933	710
Argentina	Buenos Aires	1934	2,231	Japan	Yokohama	1934	704
U.S.A.	Philadelphia	1930	1,951	U.S.A.	Pittsburgh	1930	670
Austria	Vienna	1934	1,874	Uruguay	Montevideo	1933	667
Brazil	Rio de Janeiro	1933	1,736	Egypt	Alexandria	1932	663
U.S.A.	Detroit	1930	1,569	Russia	Kharkov	1933	654
China	Tientsin	1931	1,387	Germany	Essen	1933	654
Australia	<i>Sydney</i>	1931	1,349	India	<i>Madras</i>	1931	647
U.S.A.	Los Angeles	1930	1,238	Germany	Dresden	1933	642
Egypt	Cairo	1932	1,233	Rumania	Bucharest	1932	636
India	<i>Calcutta</i>	1931	1,197	Italy	Genoa	1931	636
Poland	Warsaw	1931	1,179	China	Chungking	1931	635
India	<i>Bombay</i>	1931	1,161	U.S.A.	San Francisco	1930	634
Germany	Hamburg	1933	1,129	China	Nanking	1931	633
Mexico	Mexico City	1932	1,117	Canada	<i>Toronto</i>	1931	631
Scotland	<i>Glasgow</i>	1934	1,114	China	Wenchow	1931	621
Italy	Rome	1934	1,063	Hong Kong	<i>Hong Kong</i>	1932	627
Spain	Barcelona	1933	1,061	Germany	Breslau	1933	625
Japan	Kyoto	1934	1,053	Italy	Turin	1934	619
Italy	Milan	1934	1,049	China	Wuchang	1931	610
Hungary	Budapest	1934	1,040	China	Changsha	1931	607
Japan	Nagoya	1934	1,018	Poland	Lozdz	1931	605
Spain	Madrid	1933	1,015	Portugal	Lisbon	1932	594
England	<i>Birmingham</i>	1933	1,012	Netherlands	Rotterdam	1934	588
Brazil	Sao Paulo	1932	1,000	Cuba	Havana	1931	581
Australia	<i>Melbourne</i>	1934	1,000	France	Lyons	1931	580
U.S.A.	Cleveland	1930	900	U.S.A.	Milwaukee	1930	578
Czechoslovakia	Prague	1933	897	U.S.A.	Buffalo	1930	573
Belgium	Brussels	1933	891	Siam	Bangkok	1932	569
Italy	Naples	1934	874	Germany	Frankfort on		
China	Canton	1931	861	Maine		1933	556
England	<i>Liverpool</i>	1933	859	Germany	Dortmund	1933	541
Japan	Kobe	1934	854	Russia	Kiev	1933	539
U.S.A.	St. Louis	1930	822	Sweden	Stockholm	1933	522
Canada	<i>Montreal</i>	1931	819	Russia	Rostov-on-		
Denmark	Copenhagen	1932	813	Don		1933	521
China	Peiping	1930	811	England	<i>Sheffield</i>	1933	521
U.S.A.	Baltimore	1930	805	China	Hanchow	1931	507
France	Marseilles	1931	801	China	Lanchow	1931	500

(a) Greater London.

(b) Greater Tokyo.

§ 5. Elements of Increase.

1. Natural Increase.—(i) *General.* The two factors which contribute to the growth of a population are the "natural increase" by excess of births over deaths, and the "net immigration," i.e., the excess of arrivals over departures. In earlier issues of the Official Year Book particulars of the natural increase from 1861 were given for each sex and State (See No. 22, page 899). In the following table particulars for the last fourteen years only are given for each sex, and for each quinquennium from 1901 to 1930 for persons. The natural increase for Australia from 1861 to 1934 inclusive was 4,243,671, consisting of 1,969,719 males and 2,273,952 females, and represented 76.32 per cent. of the total increase in population. During the present century the rate of natural increase grew until it reached the maximum rate of 17.44 per thousand of population in the year 1914, since when it has declined steadily to 7.07 in the year 1934. A graph showing the natural increase to the population of each State and of Australia, from year to year since 1860, appears on page 519 of this chapter.

## POPULATION.—NATURAL INCREASE (a)—1921 to 1934.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
MALES.									
1921 ..	16,515	9,026	6,241	3,467	1,779	1,778	-31	12	39,387
1922 ..	17,204	10,551	5,891	3,613	2,169	1,911	-14	12	41,337
1923 ..	15,744	9,430	5,464	3,249	2,107	1,748	5	-4	37,743
1924 ..	15,463	9,037	5,610	3,297	2,176	1,523	-13	4	37,697
1925 ..	15,934	10,010	5,735	3,095	2,053	1,583	-15	13	38,408
1926 ..	14,547	9,438	5,110	3,230	2,175	1,544	-17	8	36,035
1927 ..	14,825	9,086	5,351	3,092	2,251	1,441	-37	13	36,022
1928 ..	15,505	8,421	5,499	3,045	2,264	1,263	-27	37	36,007
1929 ..	13,046	8,263	4,430	2,725	2,076	1,334	-25	56	31,905
1930 ..	14,507	8,548	5,255	2,491	2,479	1,419	-25	61	34,735
1931 ..	12,654	6,442	4,650	1,978	2,052	1,410	-25	64	29,225
1932 ..	11,010	5,078	4,272	1,721	1,817	1,179	-22	60	25,115
1933 ..	10,072	5,183	3,872	2,013	1,608	1,133	-13	42	23,910
1934 ..	8,931	4,245	4,010	1,519	1,427	1,116	-13	42	21,277
FEMALES.									
1921 ..	18,095	9,800	6,946	3,525	2,548	1,780	30	11	42,735
1922 ..	18,800	10,582	6,944	3,780	2,795	1,909	24	14	44,848
1923 ..	17,277	9,228	6,625	3,482	2,817	1,772	29	13	41,243
1924 ..	17,407	10,000	6,771	3,425	2,862	1,737	26	22	42,250
1925 ..	17,859	10,075	7,003	3,383	2,817	1,639	18	22	42,816
1926 ..	16,410	9,589	6,440	3,376	2,776	1,532	26	26	40,175
1927 ..	16,265	9,215	6,404	3,272	2,838	1,359	29	12	39,394
1928 ..	16,629	8,369	6,308	3,216	2,800	1,296	39	36	38,693
1929 ..	15,043	8,624	5,747	2,901	3,045	1,287	13	58	36,718
1930 ..	16,386	8,620	6,229	2,642	2,947	1,419	19	71	38,333
1931 ..	13,797	6,857	5,658	2,213	2,816	1,295	27	61	32,724
1932 ..	12,542	5,581	5,282	1,843	2,433	1,290	28	62	29,061
1933 ..	11,801	5,753	4,924	1,983	2,476	1,228	26	51	28,242
1934 ..	10,930	4,935	5,158	1,537	2,298	1,009	41	61	25,960
PERSONS.									
1901-05 ..	110,342	74,163	39,538	24,850	19,751	15,982	-195	(b)	284,431
1906-10 ..	135,424	81,577	47,463	29,254	24,116	17,225	-231	(b)	334,828
1911-15 ..	164,144	96,418	60,960	37,991	28,992	18,990	-139	156	407,512
1916-20 ..	153,829	84,274	59,167	33,238	22,972	17,494	10	147	371,131
1921-25 ..	170,298	98,939	63,230	34,316	24,123	17,380	59	119	408,464
1926-30 ..	153,163	88,173	56,773	29,990	25,651	13,894	-5	378	368,017
1921 ..	34,610	19,426	13,187	6,992	4,327	3,558	-1	23	82,122
1922 ..	36,004	21,133	12,835	7,393	4,964	3,820	10	26	86,185
1923 ..	33,021	18,658	12,089	6,731	4,924	3,520	34	9	78,986
1924 ..	32,870	19,637	12,381	6,722	5,038	3,260	13	26	79,947
1925 ..	33,793	20,085	12,738	6,478	4,870	3,222	3	35	81,224
1926 ..	30,957	19,027	11,550	6,606	4,951	3,076	9	34	76,210
1927 ..	31,090	18,301	11,755	6,364	5,089	2,800	-8	25	75,416
1928 ..	32,134	16,790	11,807	6,261	5,064	2,559	12	73	74,700
1929 ..	28,089	16,887	10,177	5,626	5,121	2,621	-12	114	68,623
1930 ..	30,893	17,168	11,484	5,133	5,426	2,838	-6	132	73,068
1931 ..	26,451	13,299	10,308	4,191	4,868	2,705	2	125	61,949
1932 ..	23,552	10,659	9,554	3,564	4,250	2,469	6	122	54,176
1933 ..	21,873	10,936	8,796	3,996	4,084	2,361	13	93	52,152
1934 ..	19,861	9,180	9,168	3,056	3,725	2,125	28	103	47,246

(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.	Fed. Cap. Terr.	Australia.
<b>RATE OF NATURAL INCREASE (b)—PERSONS.</b>									
1901-05..	15.59	12.31	15.34	13.92	18.07	17.85	-8.8	(c)	14.60
1906-10..	17.25	13.11	16.99	15.44	18.52	18.37	-12.6	(c)	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
1921 ..	16.41	12.64	17.30	14.07	12.95	16.67	-0.26	9.25	15.04
1922 ..	16.70	13.45	16.52	14.64	14.54	17.74	2.70	9.16	15.47
1923 ..	15.00	11.60	15.20	13.06	14.04	16.26	9.22	2.68	13.87
1924 ..	14.65	11.96	15.21	12.76	13.87	15.07	3.50	6.65	13.75
1925 ..	14.72	12.02	15.22	12.00	13.06	14.95	0.78	7.28	13.67
1926 ..	13.19	11.21	13.48	11.93	13.00	14.39	2.28	5.47	12.58
1927 ..	12.93	10.59	13.50	11.26	12.98	13.14	-1.80	3.35	12.19
1928 ..	13.06	9.58	13.34	10.97	12.42	11.88	2.69	8.90	11.85
1929 ..	11.22	9.54	11.34	9.83	12.17	12.04	-2.69	13.35	10.73
1930 ..	12.20	9.61	12.62	8.95	12.65	12.03	-1.21	14.73	11.30
1931 ..	10.35	7.39	11.15	7.28	11.26	12.85	0.40	14.20	9.49
1932 ..	9.13	5.89	10.21	6.17	9.77	10.87	1.22	13.67	8.24
1933 ..	8.41	6.01	9.30	6.88	9.31	10.34	2.67	10.27	7.87
1934 ..	7.57	5.01	9.59	5.24	8.44	9.27	5.68	11.12	7.07

(a) Excess of births over deaths. (b) Excess of births over deaths per 1,000 mean annual population. (c) Part of New South Wales prior to 1911.

NOTE.—Minus sign (-) denotes excess of deaths over births.

(ii) *Comparison with other Countries.* Notwithstanding its low birth-rate in comparison with some other countries Australia has a comparatively high rate of natural increase, owing to the fact that its death-rate is very low. The following table gives a comparison between the average rates per annum of natural increase during the period 1930-34 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 been added for purposes of comparison:—

**NATURAL INCREASE PER ANNUM PER 1,000 OF MEAN POPULATION.**  
(VARIOUS COUNTRIES.)

Country.	1909-13.	1930-34.	Country.	1909-13.	1930-34.
Australasia—			Europe— <i>continued.</i>		
Tasmania ..	18.8	11.1	Irish Free State ..	6.3	5.4
Western Australia ..	18.1	10.3	Scotland ..	10.7	5.3
Queensland ..	17.9	10.6	Germany ..	12.8	5.2
New South Wales ..	18.0	9.5	Switzerland ..	9.3	4.9
New Zealand ..	17.1	8.8	Belgium ..	7.8	4.6
<b>Australia ..</b>	<b>16.7</b>	<b>8.8</b>	England and Wales ..	10.7	3.3
South Australia ..	16.8	6.9	Sweden ..	10.4	2.8
Victoria.. ..	13.6	6.8	France ..	0.8	1.3
Europe—			Asia—		
Russia .. ..	15.8	(a) 22.3	Japan .. ..	13.1	14.1
Netherlands ..	15.1	12.8	Africa—		
Spain .. ..	9.3	11.1	Union of South		
Italy .. ..	12.8	10.4	Africa (whites only)	(b)	14.9
Denmark .. ..	13.9	7.1	America—		
Northern Ireland..	6.3	6.0	Canada .. ..	(b)	12.7
Norway .. ..	12.4	5.4	United States ..	(b)	6.7

(a) 1926-27.

(b) Not available.

2. Net Immigration.\*—The other factor of increase in the population, viz., the excess of arrivals over departures, known as "net immigration" 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.

Information is given below for the last fourteen years in the case of males and females, and for quinquennial periods from 1901 to 1930 for persons. The figures have been adjusted for the years 1921 to 1933 in accordance with the revised results of the Census of the 30th June, 1933, and supersede all similar figures previously published for those years:—

## POPULATION.—INCREASE BY NET IMMIGRATION.—1921 to 1934.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
MALES.									
1921 ..	1,994	1,877	465	2,403	294	1,316	— 115	64	8,298
1922 ..	8,661	13,660	2,803	398	3,334	—2,002	— 98	317	27,073
1923 ..	6,381	8,937	4,842	3,251	4,553	—1,250	46	18	26,742
1924 ..	10,887	8,398	3,976	3,637	4,309	—2,045	91	247	29,560
1925 ..	7,737	4,888	6,748	4,555	2,825	—1,649	93	589	25,786
1926 ..	13,034	4,780	3,528	5,518	2,068	—2,821	303	596	27,006
1927 ..	14,892	6,597	2,000	1,198	6,803	— 323	460	407	32,034
1928 ..	8,886	339	2,505	—2,709	6,957	— 526	— 311	1,311	16,552
1929 ..	3,941	—1,269	1,195	—3,767	4,213	160	290	10	4,773
1930 ..	—3,329	—2,598	2,356	—2,470	— 972	— 158	128	— 65	—7,108
1931 ..	—4,180	—2,435	1,723	—1,199	—2,523	261	— 112	95	—8,370
1932 ..	1,100	— 844	312	— 864	—1,165	— 288	— 87	— 391	—2,227
1933 ..	— 236	— 796	1,080	— 545	— 215	— 309	30	395	— 596
1934 ..	1,353	1,078	1,027	— 722	— 630	—1,055	83	— 111	1,023
FEMALES.									
1921 ..	3,364	1,515	1,448	1,341	604	1,050	— 114	19	9,227
1922 ..	5,162	4,753	1,017	2,069	698	— 726	— 59	170	13,084
1923 ..	1,960	7,587	2,534	628	1,838	—1,627	— 42	94	12,972
1924 ..	6,387	3,661	3,883	2,375	2,058	—1,954	— 26	125	16,509
1925 ..	7,787	1,927	3,272	1,069	1,508	—1,881	— 3	336	14,015
1926 ..	10,347	4,129	2,566	1,753	687	—2,044	— 36	375	17,777
1927 ..	10,995	4,947	144	1,143	2,772	— 901	— 47	399	19,546
1928 ..	8,354	2,785	180	— 595	2,703	— 865	— 43	983	13,502
1929 ..	4,534	905	— 113	—1,473	2,682	178	248	86	7,047
1930 ..	— 904	— 234	760	—1,169	519	— 661	62	205	—1,422
1931 ..	—2,310	101	959	— 380	— 269	201	— 8	— 18	—1,724
1932 ..	765	21	— 495	— 486	— 451	— 38	21	— 88	— 770
1933 ..	151	952	58	— 67	75	— 549	— 11	201	810
1934 ..	1,470	2,753	271	— 717	— 749	—1,733	15	— 53	1,257

NOTE.—Minus sign (—) indicates the excess of departures over arrivals.

\* The subject of immigration is dealt with at some length later in this chapter.



POPULATION.—INCREASE BY NET IMMIGRATION—*continued.*

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
PERSONS.									
1901-05..	17,237	-59,955	-1,903	-19,479	50,420	-2,497	- 616	(a)	-16,793
1906-10..	20,547	9,410	20,071	14,993	2,578	-9,807	- 514	(a)	57,278
1911-15..	87,095	26,619	25,091	1,132	10,839	-15,257	1,315	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
1921 ..	5,358	3,392	1,913	3,744	898	2,366	- 229	83	17,525
1922 ..	13,823	18,413	3,820	2,467	4,032	-2,728	- 157	487	40,157
1923 ..	8,341	16,524	7,376	3,879	6,391	-2,877	4	76	39,714
1924 ..	17,274	12,059	7,859	6,012	6,427	-3,999	65	372	46,069
1925 ..	15,524	6,815	10,020	5,624	4,333	-3,530	90	925	39,801
1926 ..	23,381	8,909	6,094	7,271	2,755	-4,865	267	971	44,783
1927 ..	25,887	11,544	2,144	2,341	9,575	-1,224	507	806	51,580
1928 ..	17,340	3,124	2,685	-3,304	9,660	-1,391	- 354	2,294	30,054
1929 ..	8,475	- 364	1,082	-5,240	6,895	338	538	96	11,820
1930 ..	- 4,233	-2,832	3,116	-3,639	- 453	- 819	190	140	-8,530
1931 ..	- 6,490	-2,334	2,682	-1,579	-2,792	462	- 120	77	-10,094
1932 ..	1,865	- 842	- 183	-1,350	-1,616	- 326	- 66	- 479	-2,997
1933 ..	- 85	156	1,138	- 612	- 140	- 858	19	596	214
1934 ..	2,823	3,831	1,298	-1,439	-1,379	-2,788	98	- 164	2,280

(a) Part of New South Wales prior to 1911.

NOTE.—Minus sign (-) indicates the excess of departures over arrivals.

From 1861 to 1934 the increment to the population arising from net immigration amounted to 1,316,421 or 23.68 per cent. of the total increase in population. During the 34 years since 1900 the total increase to the population was made up of 2,389,906 or 81.28 per cent. by natural increase, and 550,432 or 18.72 per cent. by net immigration.

Rates of increase by migration from 1901 to 1934 may be found for each State and Territory of Australia in Australian Demography Bulletin No. 52.

3. **Total Increase.**—The total increase of the population is obtained by the combination of the natural increase with the net immigration.

The total increase in each decade from 1861 to 1920 was given in Year Book No. 22. p. 902. The total increment to the population from the beginning of the year 1861 to the end of the year 1934 was 5,560,092 while that from 1901 to 1934 was 2,940,338. The results for the last fourteen years only are shown below for males and females, but quinquennial figures from 1901 to 1930 are added for persons. The figures have been adjusted for the years 1921 to 1933 in accordance with the revised results of the Census of the 30th June, 1933, and supersede all similar figures previously published for those years. A graph showing the increase in the population in each State and Territory and of Australia from 1860 accompanies this chapter on pages 518 and 519.

## POPULATION.—TOTAL INCREASE—1921 to 1934.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
MALES.									
1921 ..	18,509	11,503	6,706	5,870	2,073	3,094	- 146	76	47,685
1922 ..	25,865	24,211	8,694	4,011	5,503	- 91	- 112	329	68,410
1923 ..	22,125	18,367	10,306	6,500	6,660	498	51	- 22	64,485
1924 ..	26,350	18,035	9,586	6,934	6,545	- 522	78	251	67,257
1925 ..	23,671	14,898	12,483	7,650	4,878	- 66	78	602	64,194
1926 ..	27,581	14,218	8,638	8,748	4,243	-1,277	286	604	63,041
1927 ..	29,717	15,683	7,351	4,290	9,054	1,118	423	420	68,056
1928 ..	24,491	8,760	8,004	336	9,221	737	- 338	1,348	52,559
1929 ..	16,987	6,994	5,625	-1,042	6,289	1,494	265	66	36,678
1930 ..	11,178	5,950	7,611	21	1,507	1,261	103	- 4	27,627
1931 ..	8,474	4,007	6,373	779	- 471	1,671	- 137	159	20,855
1932 ..	12,110	4,234	4,584	857	652	891	- 109	- 331	22,888
1933 ..	9,836	4,387	4,952	1,468	1,393	824	17	437	23,314
1934 ..	10,284	5,323	5,937	797	797	61	70	- 60	22,300

## FEMALES.

1921 ..	21,459	11,315	8,394	4,866	3,152	2,830	- 84	30	51,962
1922 ..	23,962	15,335	7,961	5,849	3,493	1,183	- 35	184	57,932
1923 ..	19,237	16,815	9,159	4,110	4,655	145	- 13	107	54,215
1924 ..	23,794	13,661	10,654	5,800	4,920	- 217	..	147	58,759
1925 ..	25,646	12,002	10,275	4,452	4,325	- 242	15	358	56,831
1926 ..	26,757	13,718	9,006	5,129	3,463	- 512	- 10	401	57,952
1927 ..	27,260	14,162	6,548	4,415	5,610	458	76	411	58,940
1928 ..	24,983	11,154	6,488	2,621	5,593	431	- 4	1,019	52,195
1929 ..	19,577	9,529	5,634	1,428	5,727	1,465	261	144	43,765
1930 ..	15,482	8,386	6,989	1,473	3,466	758	81	276	36,911
1931 ..	11,487	6,958	6,617	1,833	2,547	1,496	19	43	31,000
1932 ..	13,307	5,583	4,787	1,357	1,982	1,252	49	- 26	28,291
1933 ..	11,952	6,705	4,982	1,916	2,551	679	15	252	29,052
1934 ..	12,400	7,688	5,429	820	1,549	- 724	56	8	27,226

## 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	39,123	39,831	3,733	1,176	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
1921 ..	39,968	22,818	15,100	10,736	5,225	5,924	- 230	106	99,647
1922 ..	49,827	39,546	16,655	9,860	8,996	1,092	- 147	513	126,342
1923 ..	41,362	35,182	19,465	10,610	11,315	643	38	85	118,700
1924 ..	50,144	31,696	20,240	12,734	11,465	- 739	78	398	126,016
1925 ..	49,317	26,900	22,758	12,102	9,203	- 308	93	960	121,025
1926 ..	54,338	27,936	17,644	13,877	7,706	-1,789	276	1,005	120,993
1927 ..	56,977	29,845	13,899	8,705	14,664	1,576	499	831	126,996
1928 ..	49,474	19,914	14,492	2,957	14,724	1,168	- 342	2,367	104,754
1929 ..	36,564	16,523	11,259	386	12,016	2,959	526	210	80,443
1930 ..	26,660	14,336	14,600	1,494	4,973	2,019	184	272	64,538
1931 ..	19,961	10,965	12,990	2,612	2,076	3,167	- 118	202	51,855
1932 ..	25,417	9,817	9,371	2,214	2,634	2,143	- 60	- 357	51,170
1933 ..	21,788	11,092	9,934	3,384	3,944	1,503	32	689	52,366
1934 ..	22,684	13,011	10,466	1,617	2,346	- 663	126	- 61	49,526

(a) Part of New South Wales prior to 1911.

NOTE.—Minus sign (-) denotes decrease.

4. Rates of Increase.—(i) For 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. The Australian rates for the periods 1921-26 and 1926-31 have been adjusted in accordance with the revised results of the 1933 Census.

## POPULATION.—RATES OF INCREASE.

## VARIOUS COUNTRIES.

Country.	Annual Rate of Increase of Population during period—							
	1891 to 1896.	1896 to 1901.	1901 to 1906.	1906 to 1911.	1911 to 1916.	1916 to 1921.	1921 to 1926.	1926 to 1931.
AUSTRALASIA—	%	%	%	%	%	%	%	%
Australia ..	1.86	1.49	1.88	2.03	1.95	1.99	2.11	1.50
New South Wales (a) ..	1.99	1.57	1.99	2.03	2.61	2.17	2.20	1.74
Victoria ..	0.37	0.52	0.18	2.17	1.38	1.68	2.00	1.18
Queensland ..	2.49	2.25	1.35	2.76	2.20	2.21	2.38	1.53
South Australia (b) ..	1.63	0.77	0.27	2.46	1.52	2.34	2.17	0.81
Western Australia ..	20.81	7.25	6.22	2.43	1.76	1.27	2.66	2.56
Tasmania ..	1.06	1.83	1.33	0.65	0.58	1.84	0.04	1.01
New Zealand ..	2.41	1.98	2.86	2.56	1.61	2.32	1.95	1.25
EUROPE—								
England and Wales ..	1.15	1.15	1.04	1.04	-0.95	1.89	0.62	0.47
Scotland ..	1.06	1.06	0.55	0.56	0.31	0.24	0.09	-0.21
Ireland ..	-0.60	-0.43	-0.22	-0.06	-0.21	0.58	-0.60	-0.12
Belgium ..	1.15	0.92	1.26	0.69	0.54	-0.56	1.03	(c)0.68
Denmark ..	0.99	1.32	1.12	1.26	1.20	2.13	1.01	(c)0.65
France ..	0.09	0.24	0.15	0.06	-0.72	0.55	0.76	0.53
Germany ..	1.17	1.51	1.46	1.36	0.71	-1.62	0.73	(c)0.56
Italy ..	0.68	0.61	0.52	0.80	1.16	0.22	0.91	(c)0.88
Netherlands ..	1.28	1.30	1.53	1.22	1.72	1.16	1.53	(c)1.39
Norway ..	0.96	1.31	0.52	0.66	1.00	1.14	0.90	(c)0.38
Spain ..	0.45	0.45	0.52	0.87	0.66	0.82	0.65	(c)0.72
Sweden ..	0.61	0.86	0.61	0.84	0.70	0.64	0.40	(c)0.30
Switzerland ..	1.22	1.10	1.28	1.17	0.81	0.01	0.38	(c)0.77
ASIA—								
Ceylon ..	1.41	2.03	1.62	1.20	1.71	1.28	2.30	(c)2.27
Japan ..	0.96	1.25	1.29	1.08	1.42	0.37	1.42	(c)1.48
AMERICA—								
Canada ..	0.97	1.19	2.99	2.99	2.20	1.81	1.33	1.97
United States ..	1.93	2.02	2.00	1.82	1.67	1.21	1.67	1.26

(a) Including Federal Capital Territory.

(b) Including Northern Territory.

(c) 1926 to 1930.

NOTE.—The minus sign (-) denotes decrease.

(ii) Variations in the Rates.—The fluctuations in the rates of increase to the population of Australia are for the greater part due to variations in the volume of immigration.

The increase of population in Australia during the present century is shown in the following table :—

Period from 31st December.	Interval.		Average Annual Increase.	Average Annual Rate of Increase.
	Years.	Increase During Period.		
1900 to 1913 .. ..	13	1.12	86	2.04
1913 to 1923 .. ..	10	0.87	87	1.64
1923 to 1928 .. ..	5	0.60	120	2.00
1928 to 1933 .. ..	5	0.30	60	0.93

From 1900 to 1923 the average annual increase of population was 86,500 and the average annual rate was 1.86 per cent. From 1900 to 1933 the average annual increase of population was 87,600 and the average annual rate was 1.74 per cent.

If the population increased at the average rate of the decennium 1924-1933 (roughly  $1\frac{1}{2}$  per cent.), it would double itself in 48 years. If the rate of increase were that for the quinquennium 1929-1933 (about 1 per cent.), the time required would be 75 years. If the increase for the year 1934 (0.73 per cent.) were maintained, the time required would be extended to 96 years.

Rates of increase from 1901 to 1934 may be found for each State and Territory of Australia in Australian Demography Bulletin No. 52.

## § 6. Seasonal Variations of Population.

1. **Variations in Natural Increase.**—The following notes are based on the experience of the ten years 1925-1934. For Australia as a whole the rate of natural increase was greatest in the quarter ended 31st March, and least in the quarter ended 30th 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 Immigration.**—For the decade 1925-1934 for Australia as a whole the December quarter 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 December quarter 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 December quarter is due to the influx of tourists from the mainland.

## § 7. Influences affecting Increase and Distribution.

In previous issues of the Official Year Book the influence of the various factors affecting the growth and distribution of population was traced. Detailed information on this subject will be found in Official Year Book No. 22, pp. 906 and 907.

## § 8. Density.

1. **General.**—From certain aspects population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,974,581 square miles, and a population on 31st December, 1934, of 6,760,525 including 54,848 full-blood aboriginals, has a density of only 2.27 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 follow:—Europe, 118; Asia, 71; Africa, 12; North and Central America, 20; and South America, 13. The population of Australia has thus about 18 per cent. of the density of South America and of Africa; about 11 per cent. of that of North and Central America; about 3 per cent. of that of Asia; and about 2 per cent. of that of Europe.

On account of the enormous area of Australia the density of population must necessarily increase slowly. In Australia as a whole the figure has increased from 1.29 per square mile in 1901 to 2.27 in 1934. Victoria's density, however, has grown from 13.77 to 20.91, and that of New South Wales from 4.43 to 8.52 in the same period.

A map showing the density of population throughout Australia at the Census of 1933 appears on page 520 of this chapter.

Particulars concerning the number and density of the population of the most important countries of the world at the 31st December, 1933, are given in the following table. These figures have been taken, with the exception of those for China, Afghanistan,

Persia and Australia, from the Statistical Year Book of the League of Nations 1934-35. The figures for the excepted countries other than Australia were taken from the "Statesman's Year Book, 1934". 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.—1933.

Country.	Population. (ooo omitted)	Density. (a)	Country.	Population. (ooo omitted)	Density. (a)
<b>EUROPE.</b>			<b>AFRICA.</b>		
Russia (European) ..	132,500	57.2	Nigeria and Protectorate (c)	20,131	54.0
Germany .. .. .	65,350	360.9	Egypt .. .. .	15,281	39.6
Great Britain and North- ern Ireland .. .. .	46,610	494.7	French West Africa ..	14,400	8.0
Italy .. .. .	42,621	356.1	Belgian Congo .. .. .	10,000	10.9
France .. .. .	41,900	196.9	Union of South Africa ..	8,488	18.0
Poland .. .. .	33,418	223.1	Algeria .. .. .	6,910	8.2
Spain (including Canary and Balearic Islands) ..	24,242	124.8	Anglo-Egyptian Sudan ..	5,729	5.9
Rumania .. .. .	18,800	165.1	Abyssinia .. .. .	5,300	15.8
Czechoslovakia .. .. .	15,057	278.6	Other .. .. .	58,636	10.8
Yugoslavia .. .. .	14,730	153.8	<b>Total Africa .. .. .</b>	<b>145,075</b>	<b>12.5</b>
Hungary .. .. .	8,895	247.7	<b>NORTH AND CENTRAL AMERICA.</b>		
Netherlands .. .. .	8,392	639.2	United States of America	126,000	45.6
Belgium .. .. .	8,248	712.1	Mexico .. .. .	17,600	23.2
Portugal .. .. .	7,177	201.2	Canada .. .. .	10,835	2.9
Austria .. .. .	6,760	208.4	Cuba .. .. .	4,075	92.6
Greece .. .. .	6,630	132.1	Other .. .. .	15,285	13.5
Sweden .. .. .	6,212	35.8	<b>Total North and Central America .. .. .</b>	<b>173,795</b>	<b>20.1</b>
Bulgaria .. .. .	6,020	151.4	<b>SOUTH AMERICA.</b>		
Switzerland .. .. .	4,153	262.3	Brazil .. .. .	44,900	13.6
Denmark .. .. .	3,650	220.2	Argentina .. .. .	12,164	11.3
Finland .. .. .	3,534	23.6	Colombia .. .. .	9,225	20.6
Irish Free State .. .. .	3,013	113.1	Peru .. .. .	6,700	13.9
Norway .. .. .	2,871	23.0	Chile .. .. .	4,465	15.6
Other .. .. .	9,886	64.4	Other .. .. .	11,704	8.2
<b>Total Europe .. .. .</b>	<b>520,675</b>	<b>118.0</b>	<b>Total South America ..</b>	<b>89,158</b>	<b>12.7</b>
<b>ASIA.</b>			<b>OCEANIA, ETC.</b>		
China and Dependencies	489,309	114.1	Australia (b) .. .. .	6,761	2.3
British India:			New Zealand .. .. .	1,549	15.0
British Provinces ..	271,475	247.7	Territory of New Guinea	520	5.7
Feudatory States ..	81,311	114.1	Hawaii .. .. .	380	57.9
Japan and Dependencies	97,045	370.3	Papua .. .. .	280	3.1
Dutch East Indies ..	63,500	86.4	Fiji .. .. .	193	26.3
Russia in Asia .. .. .	35,500	6.1	Other .. .. .	502	18.2
Turkey, including Armenia and Kurdistan (d) ..	14,050	49.2	<b>Total Oceania, etc. ..</b>	<b>10,185</b>	<b>3.1</b>
Philippine Islands ..	13,055	114.2	<b>SUMMARY.</b>		
Siam .. .. .	12,743	63.7	Europe .. .. .	520,675	118.0
Afghanistan .. .. .	12,000	47.8	Asia .. .. .	1,156,321	71.5
Iran (Persia) .. .. .	10,000	15.9	Africa .. .. .	145,075	12.5
Tongking .. .. .	8,096	183.9	America, North and Central	173,795	20.1
Arabia .. .. .	7,000	7.0	America, South .. .. .	89,158	12.7
Nepal .. .. .	5,600	103.6	Oceania, etc. .. .. .	10,185	3.1
Ceylon .. .. .	5,463	214.4	<b>Total .. .. .</b>	<b>2,095,209</b>	<b>41.0</b>
Annam .. .. .	5,122	91.5			
Other .. .. .	25,952	44.2			
<b>Total Asia .. .. .</b>	<b>1,156,321</b>	<b>71.5</b>			

(a) Number of persons per square mile. (b) Including 55,000 full-blood aboriginals and adjusted in accordance with the revised figures of the Census of the 30th June, 1933. (c) Including British Cameroons. (d) Excludes European Territory—1,120,000.

2. Position of the British Empire.—The approximate relationship of the British Empire to the world as a whole in regard to its area and population is given hereunder:—

## BRITISH EMPIRE IN RELATION TO THE WORLD.

Particulars.	The World. (a)	British Empire. (a)
Area in square miles (exclusive of Polar Circles) ..	51,104,000	13,355,426
Population .. .. .	2,095,209,000	495,764,000
Population per square mile .. .. .	41.00	37.12

(a) Statistical Year Book of the League of Nations, 1934-35, and The Statesman's Year Book, 1935.

## § 9. General Characteristics.

1. Sex Distribution.—(i) *General.* Detailed information respecting the distribution of the sexes in the population of Australia will be found in previous issues of the Official Year Book, but limitations of space preclude its retention in the present issue. (See No. 22, page 910.)

(ii) *Masculinity.*—(a) *States.* The number of males to each hundred females has been adopted as the "masculinity" of the population. On pages 163 to 165 in the second issue of this publication a table was included showing the masculinity of the population of each of the States for each year from 1796 to 1907. In the fifth issue, on page 123, the figures in this table for the years 1901 to 1907 were modified in accordance with the results of the Census of 3rd April, 1911.

With the exception of some dislocation arising from the war there has been a continuous diminution of the masculinity of the population. In 1900, the masculinity was 110.55; in 1910, 107.87 and in 1920, 103.47. After 1921, however, the masculinity tended to rise until 1927 (104.54) since when it has gradually fallen to 102.92 in the year 1934.

The following table gives the masculinity of the population for the years 1901 to 1934:—

## POPULATION.—MASCULINITY, 1901 to 1934.

(Males per 100 Females.)

As at 31st December—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
1901 .. ..	110.12	101.16	125.78	102.71	155.69	107.90	593.32	..	110.15
1902 .. ..	110.56	100.07	124.64	100.72	153.55	108.96	613.56	..	109.78
1903 .. ..	110.71	99.20	124.26	99.45	148.04	108.56	549.39	..	109.28
1904 .. ..	110.01	98.29	123.23	100.26	145.01	107.55	507.80	..	109.02
1905 .. ..	111.05	97.09	121.75	101.65	141.35	106.09	496.76	..	108.65
1906 .. ..	111.10	97.07	120.07	103.12	138.23	104.73	495.12	..	108.24
1907 .. ..	111.55	96.61	119.08	102.60	135.08	104.69	482.09	..	107.93
1908 .. ..	110.77	96.76	118.70	102.08	133.47	104.43	486.53	..	107.64
1909 .. ..	109.96	97.68	119.41	102.34	132.33	104.13	508.15	..	107.71
1910 .. ..	109.23	98.71	119.02	103.12	132.90	104.14	486.32	..	107.87
1911 .. ..	110.11	99.66	119.29	104.25	133.40	103.46	448.89	125.20	108.70
1912 .. ..	111.58	99.65	118.57	105.15	132.02	105.15	447.13	124.01	109.25
1913 .. ..	111.64	99.93	118.73	104.16	129.51	105.89	424.81	122.12	109.24
1914 .. ..	109.45	98.81	118.45	103.39	125.06	103.73	429.57	116.94	107.66
1915 .. ..	105.60	95.07	114.74	98.26	117.23	99.77	400.33	109.75	103.55
1916 .. ..	100.76	90.23	108.47	92.73	107.85	96.37	390.02	116.03	98.26
1917 .. ..	100.08	89.90	106.77	91.69	105.51	95.96	356.03	105.47	97.46
1918 .. ..	100.78	90.87	106.47	92.37	106.35	97.41	307.29	111.97	98.13
1919 .. ..	104.61	96.97	112.75	99.56	114.46	102.74	289.13	110.64	103.58
1920 .. ..	104.31	97.38	112.00	99.83	114.55	101.67	270.04	116.70	103.47
1921 .. ..	103.94	97.44	111.26	100.24	113.57	101.87	278.17	121.06	103.24
1922 .. ..	104.03	98.60	111.21	99.52	114.53	100.69	276.64	130.52	103.55
1923 .. ..	104.23	98.82	111.24	100.44	115.33	101.01	285.84	117.38	103.85
1924 .. ..	104.37	99.36	110.66	100.86	115.84	100.73	294.08	123.08	104.06
1925 .. ..	104.09	99.71	110.94	102.02	115.76	100.90	297.61	132.37	104.24
1926 .. ..	104.07	99.78	110.61	103.30	115.89	100.20	330.81	135.80	104.32
1927 .. ..	104.10	99.95	110.64	103.20	117.28	100.80	347.52	130.38	104.54
1928 .. ..	104.06	99.68	110.83	102.36	118.74	101.08	315.84	130.92	104.47
1929 .. ..	103.78	99.40	110.99	101.48	118.48	101.09	272.27	127.62	104.19
1930 .. ..	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1931 .. ..	103.12	98.82	110.44	100.60	115.45	101.67	250.14	121.36	103.50
1932 .. ..	103.00	98.68	110.29	100.42	114.65	101.33	233.98	113.89	103.30
1933 .. ..	102.81	98.44	110.17	100.26	113.91	101.45	232.73	117.41	103.09
1934 .. ..	102.62	98.19	109.96	100.25	113.44	102.15	228.72	115.57	102.92

(b) *Various Countries.* The difference between young and old countries in the masculinity of their populations is clearly illustrated by the comparisons furnished in the following table, which are based on the latest statistics available :—

## POPULATION.—MASCULINITY.

(VARIOUS COUNTRIES.)

Country.	Year.	Number of Males to each 100 Females.	Country.	Year.	Number of Males to each 100 Females.
Argentina .. ..	1928	114.1	Hungary .. ..	1930	95.8
Canada .. ..	1931	107.4	Italy .. ..	1931	95.7
New Zealand .. ..	1934	103.7	Denmark .. ..	1930	95.7
Irish Free State .. ..	1932	103.7	Spain .. ..	1930	95.3
Union of South Africa(a)	1932	103.5	Norway .. ..	1930	95.1
<b>Australia .. ..</b>	<b>1934</b>	<b>102.9</b>	Germany .. ..	1933	94.3
United States of America	1930	102.5	Northern Ireland .. ..	1932	94.2
Japan .. ..	1930	102.0	Russia .. ..	1926	93.5
Netherlands .. ..	1930	98.7	Poland .. ..	1921	93.4
Belgium .. ..	1930	98.1	Scotland .. ..	1931	92.4
Yugoslavia .. ..	1931	97.9	France .. ..	1931	92.3
Sweden .. ..	1933	97.5	England and Wales .. ..	1931	92.0

(a) White population only.

2. *Age Distribution.*—The age distribution of the population is obtained only at a Census. The following table shows the variation which has taken place in the age constitution of the population during the 12½ years since the 1921 Census. There are regular wave-like movements in the increments to the numbers in the several age groups. These movements are due to the gradual decline in the birth-rate and to the age constitution of the net increment of immigrants during the intercensal period. The curve of age constitution for the 1921 Census showed definite troughs in the age group 0 to 4 years owing to the decline in the birth-rate during the war years, and in the age group 20 to 24 years due to the decline in the birth-rate in the late nineties of last century and to the loss of young adult males during the war of 1914–1919. At the 1933 Census these same troughs are still prominent, but owing to the lapse of time they now show at the later ages of 12 to 16 years and 32 to 36 years. Another depression has appeared in the age group 0 to 4 years, which makes an even greater trough in the age constitution curve than that caused by the war. This is due to the serious decline in the birth-rate, which has been exaggerated by the recent economic dislocation. Marriages have been postponed and births have diminished.

Of the 6,610,996 persons for whom age was stated 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; 9.5 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 11.1 per cent. were under 5 years; 11.0 per cent. 5 to 9 years; 9.8 per cent. 10 to 14 years; 8.5 per cent. 15 to 19 years; and 42.1 per cent. under 21 years of age. It will be seen that there has been a considerable decrease in the percentage under 5 years of age, a smaller decrease in the percentage between 5 and 9 years, and a heavy decrease in the percentage under age 21.

Actually there were 31,241 less children under 5 years of age in Australia on the 30th June, 1933, than at the previous Census of the 4th April, 1921, notwithstanding the fact that the total population increased by 22.0 per cent. during the intercensal period.

An analysis of the number under age 5 shows that whereas there were increases averaging about 1.5 per cent. over the 1921 Census in the numbers at age 2, 3 and 4 years, amounting in all to 5,480, yet there has been a decrease of 28,062 children, or 21 per cent. in the number under 1 year of age, and of 8,659 children, or 7.6 per cent., in the number between 1 and 2 years of age. These figures reflect the decline in the birth-rate in the two years preceding the Census date.

The effect of the falling birth-rate on the number of young lives in the population is indicated in some degree 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 217,085 persons, yet in the subsequent 12½ years, 1921 to 1933, the increment to the numbers in this age-group was only 381. Had the average effective birth-rate which prevailed between the Censuses of 1911 and 1921 continued until the 30th June, 1933, there would have been about 350,000 more children under 10 years of age in Australia than were actually enumerated at the Census.

On the other hand, the number of persons aged 65 years and over in Australia at the 30th June, 1933, was 188,630 more than at the previous Census, as compared with an increase of 48,813 during the previous intercensal period from 1911 to 1921.

At the 1933 Census the maximum number of persons at any single age was at the age of 12 years as compared with under 1 year of age at the 1921 Census. The number of youths arriving at adult age in the year 1935 is 20,000 more than the number of children at age 1 year at the 1933 Census. When those aged 12 years at the Census eventually reach adult age there will be a gradual decline in the number reaching adult age in each of the following twelve years.

It is an interesting feature of the 1933 Census results that for both males and females aged 30 years and over there is an apparent over-statement at ages ending with 0 and 2, and an under-statement at ages ending with 1.

### POPULATION.—AGE DISTRIBUTION—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Revised Figures.)

Age last Birthday.	Census 1921.			Census 1933.			Increase 1921— 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
<b>Years.</b>							
0-4 .. .. .	305,522	294,684	600,206	290,461	278,504	568,965	-31,241
5-9 .. .. .	301,573	294,185	595,758	318,937	308,443	627,380	31,622
10-14 .. .. .	268,003	261,037	529,040	317,526	307,696	625,222	96,182
15-19 .. .. .	233,956	228,472	462,428	310,491	302,505	612,996	150,568
20-24 .. .. .	219,830	232,481	452,311	296,756	285,504	582,320	130,009
25-29 .. .. .	224,525	236,193	460,718	276,304	255,570	531,874	71,156
30-34 .. .. .	226,883	220,732	447,615	250,464	236,796	487,260	39,645
35-39 .. .. .	196,356	189,281	385,637	227,703	230,628	464,331	78,694
40-44 .. .. .	169,562	160,654	330,216	228,862	225,642	454,504	124,288
45-49 .. .. .	144,184	135,173	279,357	208,450	198,660	407,110	127,753
50-54 .. .. .	135,563	119,493	255,056	170,970	162,179	333,149	78,093
55-59 .. .. .	115,876	90,206	215,082	131,764	128,387	260,151	45,069
60-64 .. .. .	90,276	78,428	168,704	114,378	113,330	227,708	59,004
65-69 .. .. .	55,880	48,724	104,604	92,561	90,167	182,728	78,124
70-74 .. .. .	33,232	31,714	64,946	65,743	64,049	129,792	64,846
75-79 .. .. .	19,526	20,347	39,873	35,771	36,123	71,894	32,021
80-84 .. .. .	9,549	10,330	19,879	13,803	15,680	29,483	9,604
85-89 .. .. .	3,623	4,208	7,831	4,621	6,212	10,833	3,002
90-94 .. .. .	880	1,061	1,941	1,143	1,601	2,744	803
95-99 .. .. .	126	160	286	184	305	489	203
100 and over .. .. .	25	11	36	31	32	63	27
Not stated .. .. .	7,920	6,290	14,210	10,188	8,655	18,843	4,633
<b>Total .. .. .</b>	<b>2,762,870</b>	<b>2,672,864</b>	<b>5,435,734</b>	<b>3,367,111</b>	<b>3,262,728</b>	<b>6,629,839</b>	<b>1,194,105</b>
<b>Under 21 years .. .. .</b>	<b>1,155,526</b>	<b>1,125,861</b>	<b>2,281,387</b>	<b>1,298,625</b>	<b>1,256,482</b>	<b>2,555,107</b>	<b>273,720</b>
<b>21 years and over .. .. .</b>	<b>1,599,424</b>	<b>1,540,713</b>	<b>3,140,137</b>	<b>2,058,298</b>	<b>1,997,591</b>	<b>4,055,889</b>	<b>915,752</b>
<b>Not stated .. .. .</b>	<b>7,920</b>	<b>6,290</b>	<b>14,210</b>	<b>10,188</b>	<b>8,655</b>	<b>18,843</b>	<b>4,633</b>
<b>Total .. .. .</b>	<b>2,762,870</b>	<b>2,672,864</b>	<b>5,435,734</b>	<b>3,367,111</b>	<b>3,262,728</b>	<b>6,629,839</b>	<b>1,194,105</b>

NOTE.—Minus sign (—) denotes decrease.

The next table shows the change which has been taking place in the age constitution of the population of Australia since the year 1871. Each successive Census except 1921 has revealed a larger percentage of the population over 15 years of age than was recorded at the previous Census. This movement, as previously mentioned, was greatly accentuated during the period 1921 to 1933 owing to the serious decline in the birth-rate which was partly the



outcome of the recent economic dislocation. This change has resulted during the intercensal period in an increase in the average age of males in Australia from 28.54 to 30.44 years and of females from 28.29 to 30.62 years. Not only has there been an increase in the average age of both sexes but also a steady approach to similarity in the age composition of males and females in harmony with the equalization of the numbers of each sex in Australia.

POPULATION.—AGE DISTRIBUTION—AUSTRALIA, 1871 to 1933.

Census Year.	Males.				Females.				Persons.			
	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.
	%	%	%	%	%	%	%	%	%	%	%	%
1871	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881	36.37	60.85	2.78	100	41.89	56.07	2.04	100	38.91	58.65	2.44	100
1891	34.77	62.02	3.21	100	39.36	58.08	2.56	100	36.90	60.20	2.90	100
1901	33.87	61.82	4.31	100	36.50	59.85	3.65	100	35.12	60.88	4.00	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	27.61	66.02	6.37	100	27.49	65.93	6.58	100	27.55	65.97	6.48	100

3. **Conjugal Condition.**—Of the total population of Australia at the 1933 Census, 55.5 per cent. had never married; 39.2 per cent. were married; 5.0 per cent. widowed; and 0.3 per cent. divorced. Since the year 1921 the number never married has increased by 15.4 per cent.; those married by 29.8 per cent.; the widowed by 37.9 per cent.; and the divorced by 148 per cent.

The relatively low rate of increase in the number of single persons under age 14 is another symptom of the falling birth-rate. At the 30th June, 1933, the number of males aged 14 years and over who had never married was 195,056 more than the females, and the excess of males was 40,921 greater than at the previous Census.

The marriage rate for Australia has declined from 9.6 per 1,000 of population in the year 1920 to 7.0 per 1,000 of population in the year 1933. The divorce rate for the period 1911-1920 was 8.1 per 10,000 existing marriages, but increased to nearly double (15.5) during the decennium 1921-1930. Widowed females increased in number by 65,700, and at a higher percentage rate of increase (39.9) than the widowed males (33.3) during the same period. Actually there were more than twice as many widowed females as widowed males in Australia at the 30th June, 1933. The greater number of widowed females than widowed males is the result of two influences. The first is the greater longevity of married females coupled with the usually younger age at marriage; and the second is that a larger proportion of males cancel their widowhood by remarriage.

POPULATION.—CONJUGAL CONDITION—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

Conjugal Condition.	Census 1921.			Census 1933.			Increase 1921-1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Never Married—							
Under age 14 ..	823,521	800,046	1,623,567	868,390	838,026	1,706,416	82,849
Age 14 and over ..	853,374	699,239	1,552,613	1,077,121	882,065	1,959,186	406,573
Total .. ..	1,676,895	1,499,285	3,176,180	1,945,511	1,720,091	3,665,602	489,422
Married .. ..	999,274	999,388	1,998,662	1,299,693	1,293,922	2,593,615	594,953
Widowed .. ..	73,341	164,480	237,821	97,775	230,180	327,955	90,134
Divorced .. ..	4,230	4,298	8,528	10,251	10,862	21,113	12,585
Not Stated .. ..	9,130	5,413	14,543	13,881	7,673	21,554	7,011
Total .. ..	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,103

4. **Dependent Children under 16 years of Age.**—In reply to this question, 792,393 males and 77,613 females stated they had children under 16 years of age dependent on them at the 30th June, 1933, the total number of dependent children under age 16 claimed being 1,930,126, of whom 1,789,747 or 92.7 per cent. were dependent on males and 140,379 or 7.3 per cent. were dependent on females. This represents an average of 2.3 for each male with dependent children and 1.8 for each female with dependent children. For each adult male in Australia there was an average of 0.87 dependent children, and for each male breadwinner (excluding pensioners) an average of 0.80 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, 55 per cent. had one dependent child; 24 per cent. two children; 11 per cent. three children; 5 per cent. four children; 3 per cent. five children; and 2 per cent. more than five children.

**POPULATION.—PERSONS WITH DEPENDENT CHILDREN UNDER SIXTEEN YEARS OF AGE.—AUSTRALIA, 1921 AND 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

Number of Dependent Children.	Number of Persons with Dependent Children.			Total Number of Children Dependent on.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1 .. ..	301,134	42,761	343,895	301,134	42,761	343,895
2 .. ..	228,883	18,938	247,821	457,766	37,876	495,642
3 .. ..	129,189	8,763	137,952	387,567	26,289	413,856
4 .. ..	69,485	4,092	73,577	277,940	16,368	294,308
5 .. ..	34,676	1,842	36,518	173,380	9,210	182,590
6 .. ..	17,270	805	18,075	103,620	4,830	108,450
7 .. ..	7,497	282	7,779	52,479	1,974	54,453
8 .. ..	2,931	103	3,034	23,448	824	24,272
9 .. ..	964	23	987	8,676	207	8,883
10 .. ..	281	4	285	2,810	40	2,850
11 .. ..	69	..	69	759	..	759
12 .. ..	14	..	14	168	..	168
<b>Total ..</b>	<b>792,393</b>	<b>77,613</b>	<b>870,006</b>	<b>1,789,747</b>	<b>140,379</b>	<b>1,930,126</b>

5. **Orphanhood.**—The number of children under 16 years of age in Australia at the 30th June, 1933, totalled 1,941,050, of whom 51 per cent. were males and 49 per cent. females. Of all children for whom particulars were stated, 94.0 per cent. had both parents living; 3.6 per cent. were without father living; 2.1 per cent. without mother; and 0.3 per cent. were bereft of both parents.

The number of fatherless children is much greater than the number without mothers. For every two children who are motherless there are approximately four who are fatherless. This is due to the higher rate of mortality amongst males of middle age as compared with females. The ratio of children without one or both parents to the total children enumerated is the same for both boys and girls.

**POPULATION.—ORPHANHOOD OF CHILDREN UNDER SIXTEEN YEARS OF AGE—  
AUSTRALIA, 1921 AND 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision).

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
<b>Total .. .. .</b>	<b>987,510</b>	<b>953,540</b>	<b>1,941,050</b>

6. **Schooling.**—The total number of children at the ages 6 to 14 years inclusive in Australia at the 30th June, 1933, was 1,127,691. The number receiving instruction at Government schools at the date of the Census totalled 904,383, or 77 per cent.; those attending private schools numbered 224,994, or 19 per cent.; and 33,126 children or 3.0 per cent., were stated to be receiving instruction at home. Since the 1921 Census the number attending Government schools has increased by 14 per cent., while those attending private schools increased by 16 per cent.

As the increase in the total population of Australia during the intercensal period was 22.0 per cent., it will be seen that the falling birth-rate is already having its effect on the numbers attending schools. It is also apparent that a further decline in the proportion of the population attending school will be experienced during the next five years, at least. The rate of increase in the number attending the University was actually higher than the rate of increase in the numbers attending Government schools or private schools.

At both the 1921 and 1933 Censuses the males represented 52 per cent. of those attending Government schools, but the proportion of males at private schools increased from 46 per cent. at the previous Census to 48 per cent. in the year 1933.

**POPULATION.—SCHOOLING—PERSONS RECEIVING INSTRUCTION AT DATE OF  
THE CENSUS, AUSTRALIA, 1921 AND 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

Receiving Instruction at—	Census 1921.			Census 1933.			Increase 1921— 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Government School	413,035	378,689	791,724	474,087	430,296	904,383	112,659
Private School .. .. .	88,800	104,974	193,774	107,091	117,903	224,994	31,220
University .. .. .	5,129	2,123	7,252	6,252	2,273	8,525	1,273
Home .. .. .	14,141	16,571	30,712	16,623	16,503	33,126	2,414
<b>Total .. .. .</b>	<b>521,105</b>	<b>502,357</b>	<b>1,023,462</b>	<b>604,053</b>	<b>566,975</b>	<b>1,171,028</b>	<b>147,566</b>

7. **War Service.**—This inquiry was restricted to those who served with the Australian Forces during the Great War of 1914-19. The numbers recorded at the Census of the 30th June, 1933, as having served abroad were 226,438 males and 1,844 females, so that 11 per cent. of the adult male population of Australia were ex-members of the Australian Forces with oversea service.

It is estimated that 5,500 of this number served with the naval forces, so that the approximate number of ex-members of the A.I.F. in Australia at the 30th June, 1933, was 223,000. According to official records, 265,000 members of the A.I.F. were discharged in Australia upon return from service overseas, but, as this figure includes duplications for those persons who enlisted on more than one occasion and consequently were discharged on more than one occasion, it is not possible without further detailed inquiry to ascertain the actual reduction in the number of returned soldiers since their return to Australia.

**POPULATION.—WAR SERVICE—PERSONS WHO SERVED ABROAD WITH THE AUSTRALIAN FORCES IN THE WAR OF 1914-1919—CENSUS 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

State or Territory.	Metro- politan.	Provincial.	Rural.	Migratory.	Total.
New South Wales .. ..	44,681	14,676	23,681	237	83,275
Victoria .. ..	38,116	6,098	23,273	102	67,589
Queensland .. ..	11,215	5,411	13,397	186	30,209
South Australia .. ..	11,953	1,484	6,658	73	20,168
Western Australia .. ..	8,995	1,662	8,482	87	19,226
Tasmania .. ..	2,286	1,619	2,959	43	6,907
Federal Capital Territory .. ..	..	541	64	..	605
Northern Territory .. ..	..	66	237	..	303
<b>Total .. ..</b>	<b>117,246</b>	<b>31,557</b>	<b>78,751</b>	<b>728</b>	<b>228,282</b>

8. Religion.—At the 1921 Census 92,258 persons in Australia, or 1.7<sup>7</sup> 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.

Of those who stated their religion, the Church of England had the greatest number of adherents with 2,565,118 (44.4 per cent.) followed by Roman Catholic, 1,161,455 (20.1 per cent.), not including 127,542 (2.2 per cent.) stated as Catholic undefined; Presbyterian, 713,229 (12.3 per cent.); and Methodist, 684,022 (11.8 per cent.). At the 30th June, 1933, the four denominations named embraced 90.8 per cent. of the total who stated their religion as compared with 90.1 per cent. at the previous Census.

The greatest numerical increase during the intercensal period was recorded by the Church of England, followed by the Roman Catholic and Catholic undefined, which may be grouped, without serious error, as the latter term usually signified Roman Catholic. Then followed Presbyterian and Methodist. The greatest proportional increases, however, were recorded by the Christian Scientist, Greek Catholic, and Seventh Day Adventist denominations, whilst the greatest proportional decreases were experienced by the Australian Church, Catholic Apostolic, Latter Day Saints, and Congregational denominations.

Ninety-nine per cent. of those who stated their religion professed the Christian Faith as compared with 98 per cent. in the year 1921. For every 100 females who declared they were adherents to some Christian denomination, there were 99 male adherents, as compared with 101 males at the previous Census. Since the previous Census the number who stated they were of non-Christian religion decreased by 20 per cent., and those specifically stating they had no religion decreased by 43 per cent. These comparisons with the 1921 figures, however, need to be interpreted with some care, in view of the fact that so large a proportion of the population gave no reply to this question at the 1933 Census.

## POPULATION.—RELIGION—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

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	5,992	7,973	13,965	2,660
Other .. ..	16,508	16,162	32,670	19,605	22,241	41,846	9,176
Total Christian .. ..	2,649,644	2,617,997	5,267,641	2,859,826	2,867,912	5,727,738	460,097
Non-Christian—							
Buddhist .. ..	1,945	120	2,065	640	95	735	- 1,330
Chinese .. ..	3,512	79	3,591	298	7	305	- 3,286
Confucian .. ..	2,536	156	2,692	772	15	787	- 1,905
Hebrew .. ..	11,392	10,223	21,615	12,183	11,370	23,553	- 1,938
Mohammedan .. ..	2,647	221	2,868	1,668	209	1,877	- 991
Other .. ..	1,896	678	2,574	865	348	1,213	- 1,361
Total Non-Christian .. ..	23,928	11,477	35,405	16,426	12,044	28,470	- 6,935
Indefinite .. ..	13,096	6,790	19,886	8,133	4,896	13,029	- 6,857
No Religion .. ..	16,022	4,522	20,544	8,969	2,685	11,654	- 8,890
No Reply .. ..	60,180	32,078	92,258	473,757	375,191	848,948	756,690
Total .. ..	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (-) denotes decrease.

9. Birthplace.—At the 1933 Census the native-born element of the population represented 86.4 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 37,557 or 5.6 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 23,925, or 33.6 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 5,777, or 19 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.

The number of persons in Australia who were born in Ireland has shown a continuous diminution for many years, and decreased even further by 26,516, or 25 per cent., during the intercensal period 1921 to 1933. On the other hand, the number born in Scotland increased by 23,483, or 22 per cent., and those born in England increased by 39,602, or 9 per cent.

The number who were born in China decreased by 6,669, or 44 per cent., the corresponding rate of decrease for the previous intercensal period from 1911 to 1921 being 27 per cent. The number of German birthplace decreased by 5,567, or 25 per cent.; of Danish by 1,524; Swedish, 1,136; French, 668; and Japanese, 506.

On the other hand, those born in Yugoslavia increased by 3,099, or 374 per cent., and those born in Italy by 228 per cent. from 8,135 persons in the year 1921 to 26,693 at the 1933 Census. The number born in Greece increased by 4,639 (127 per cent.); in Poland by 1,451; and in Malta by 1,457.

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.) (Preliminary figures—subject to revision.)

Birthplace.	Census 1921.			Census 1933.			Increase 1921— 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons	
Australia .. .. .	2,273,999	2,307,664	4,581,663	2,843,831	2,873,398	5,717,229	1,135,566
New Zealand .. .. .	20,002	18,609	38,611	23,798	22,126	45,924	7,313
Other Australasian .. .. .	315	209	524	471	306	777	253
<b>Total Australasia .. .. .</b>	<b>2,294,316</b>	<b>2,326,482</b>	<b>4,620,798</b>	<b>2,868,100</b>	<b>2,895,830</b>	<b>5,763,930</b>	<b>1,143,132</b>
England .. .. .	246,134	199,990	446,124	268,070	217,656	485,726	39,602
Wales .. .. .	7,845	5,645	13,490	8,484	5,994	14,478	988
Scotland .. .. .	60,419	48,337	108,756	73,320	58,919	132,239	23,483
Ireland .. .. .	53,221	51,812	105,033	41,484	37,933	78,517	-26,516
Germany .. .. .	14,117	8,279	22,396	10,818	6,011	16,829	-5,567
Greece .. .. .	3,147	507	3,654	6,516	1,777	8,293	4,639
Italy .. .. .	6,306	1,829	8,135	20,012	6,681	26,693	18,558
Other European .. .. .	27,576	9,265	36,841	31,370	11,766	43,136	6,295
<b>Total Europe .. .. .</b>	<b>418,765</b>	<b>325,664</b>	<b>744,429</b>	<b>460,074</b>	<b>345,837</b>	<b>805,911</b>	<b>61,482</b>
British India .. .. .	4,976	1,942	6,918	4,611	2,230	6,841	-77
China .. .. .	14,859	365	15,224	8,049	506	8,555	-6,669
Other Asiatic .. .. .	6,541	1,609	8,150	6,606	2,513	9,119	969
<b>Total Asia .. .. .</b>	<b>26,376</b>	<b>3,916</b>	<b>30,292</b>	<b>19,266</b>	<b>5,249</b>	<b>24,515</b>	<b>-5,777</b>
South African Union .. .. .	2,784	2,624	5,408	3,270	2,908	6,178	770
Other African .. .. .	806	561	1,367	926	716	1,642	275
<b>Total Africa .. .. .</b>	<b>3,590</b>	<b>3,185</b>	<b>6,775</b>	<b>4,196</b>	<b>3,624</b>	<b>7,820</b>	<b>1,045</b>
Canada .. .. .	2,378	1,172	3,550	2,621	1,299	3,920	370
United States of America .. .. .	4,134	2,470	6,604	3,560	2,494	6,054	-550
Other American .. .. .	1,195	723	1,918	965	628	1,593	-325
<b>Total America .. .. .</b>	<b>7,707</b>	<b>4,365</b>	<b>12,072</b>	<b>7,146</b>	<b>4,421</b>	<b>11,567</b>	<b>-505</b>
Polynesia .. .. .	1,991	1,177	3,168	1,575	1,305	2,880	-288
At Sea .. .. .	1,872	1,836	3,708	985	1,066	2,051	-1,657
Not Stated .. .. .	8,253	6,239	14,492	5,769	5,396	11,165	-3,327
<b>Total .. .. .</b>	<b>2,762,870</b>	<b>2,672,864</b>	<b>5,435,734</b>	<b>3,367,111</b>	<b>3,262,728</b>	<b>6,629,839</b>	<b>1,194,105</b>

NOTE.—Minus sign (-) denotes decrease.

10. Period of Residence in Australia.—The decline in immigration into Australia during recent years is reflected in the figures in this table. They show that, of residents not born in Australia who stated their period of residence, 6 per cent. had resided in Australia for a period of less than five years, and 25 per cent. for less than ten years, as compared with 11 per cent. and 35 per cent. respectively at the previous Census.

Fluctuations in immigration into Australia over a long period are also partially revealed by this table, which classifies the immigrant population of Australia according to the period of their residence in Australia. Those in the group 80—84 years represent the survivors in Australia of the arrivals during the gold rush of the fifties, while the heavy numbers in the 45—49 group are the survivors of those arriving during the boom period of the eighties. The particularly heavy immigration of the pre-war years, 1911—1913, is reflected in the outstanding number in the 20—24 years group, followed by the slump during the war period in the numbers in the 15—19 years group; and the increasing immigration after the war in the 10—14 and 5—9 years groups. The great reduction in immigration brought about by the recent economic dislocation is the cause of the relatively small numbers in the 0—4 years group. The 10,188 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.

**POPULATION.—IMMIGRANT—PERIOD OF RESIDENCE IN AUSTRALIA OF PERSONS WHO WERE NOT BORN IN AUSTRALIA—AUSTRALIA, 1921 AND 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

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	7,405	2,783	10,188	-38,025
1 .. .. .	8,375	16,998	25,373	2,133	1,856	3,989	-21,384
2 .. .. .	2,026	2,490	4,516	2,241	2,277	4,518	2
3 .. .. .	1,715	1,404	3,119	5,681	5,411	11,092	7,973
4 .. .. .	2,779	2,623	5,402	10,761	9,121	19,882	14,480
0-4 .. .. .	43,281	43,342	86,623	28,221	21,448	49,669	-36,954
5-9 .. .. .	111,895	87,723	199,618	104,644	68,663	173,307	-26,311
10-14 .. .. .	58,919	31,883	90,802	66,067	56,687	122,754	31,952
15-19 .. .. .	15,077	7,818	22,895	26,963	26,102	53,065	30,170
20-24 .. .. .	18,875	8,990	27,865	112,895	77,719	190,614	162,749
25-29 .. .. .	16,873	10,721	27,594	23,169	10,940	34,109	6,515
30-34 .. .. .	47,206	32,273	79,479	16,450	8,334	24,784	-54,695
35-39 .. .. .	56,144	38,272	94,416	11,178	6,308	17,486	-76,930
40-44 .. .. .	31,843	20,851	52,694	22,074	17,200	39,274	-13,420
45-49 .. .. .	16,616	11,776	28,392	36,626	28,300	64,926	36,534
50-54 .. .. .	10,954	9,649	20,603	27,121	20,486	47,607	27,004
55-59 .. .. .	13,077	12,912	25,989	11,405	9,434	20,839	-1,150
60-64 .. .. .	10,372	11,671	22,043	5,744	5,429	11,173	-10,870
65-69 .. .. .	11,378	13,594	24,972	3,754	4,424	8,178	-16,794
70-74 .. .. .	2,875	3,669	6,544	2,938	3,675	6,613	69
75-79 .. .. .	716	935	1,651	2,674	4,051	6,725	5,074
80-84 .. .. .	519	693	1,212	1,246	1,927	3,173	1,961
85-89 .. .. .	78	124	202	113	167	280	78
90-94 .. .. .	16	15	31	27	44	71	40
95-99 .. .. .	1	..	1	3	5	8	7
100 and over .. .. .	..	..	..	..	1	1	1
Not Stated .. .. .	13,903	12,050	25,953	19,968	17,986	37,954	12,001
Total not born in Australia .. .. .	480,618	358,961	839,579	523,280	389,330	912,610	73,031
Born in Australia .. .. .	2,282,252	2,313,903	4,596,155	2,843,831	2,873,398	5,717,229	1,121,074
Total .. .. .	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

NOTE.—Minus sign (—) denotes decrease.

11. Nationality.—The number of foreign nationals in Australia has increased since the 1921 Census by 32 per cent.—males by 25 per cent. and females by 71 per cent.—as compared with an increase of 22 per cent. in the number of British nationality. There has been little change, however, in the proportion of foreign nationals relative to the total population, 99.1 per cent. of the population being British subjects, as compared

with 99.2 per cent. at the previous Census. The greatest increases numerically among the foreign nationals were—Italian, 12,755; Greek, 2,835; Yugoslavian, 2,217; and Polish, 1,257; whilst those of Chinese nationality decreased by 6,007; Dutch by 702; and Japanese by 555.

The number of persons in Australia who were born in countries outside the British Empire totalled 113,661, and of this number 60,259, or 53 per cent., were of foreign nationality at the 30th June, 1933, the remainder being British subjects by naturalization, etc.

The percentage of foreign nationals to the numbers born in the corresponding foreign birthplaces is as follows :—Japanese nationals, 92 per cent. of the Japanese born; Chinese, 91 per cent.; Yugoslavian, 72 per cent.; Greek, 68 per cent.; Italian, 66 per cent.; Russian, 42 per cent.; United States of America, 42 per cent.; and German, 22 per cent.

### POPULATION.—NATIONALITY (i.e., ALLEGIANCE), AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

Nationality.	Census 1921.			Census 1933.			Increase, 1921— 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
British .. .. .	2,722,152	2,665,053	5,387,205	3,317,800	3,251,116	6,568,916	1,181,711
Foreign—							
Chinese .. .. .	13,614	185	13,799	7,614	178	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 .. .. .	1,655	662	2,317	1,283	772	2,055	-262
Spanish .. .. .	405	140	545	463	133	596	51
Swedish .. .. .	1,399	80	1,479	1,274	96	1,370	-109
Swiss .. .. .	413	151	564	680	272	952	388
United States of America .. .. .	2,520	737	3,257	1,904	653	2,557	-700
Yugoslavian .. .. .	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	48,841	11,418	60,259	14,505
Not Stated .. .. .	1,651	1,124	2,775	470	194	664	-2,111
Total .. .. .	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

(a) Included with "Other" in 1921. NOTE.—Minus sign (-) denotes decrease.

12. Race.—The people of Australia may be classified into two groups with respect to racial characteristics, viz., non-indigenous and indigenous. The former group comprises the European and other races who have migrated to Australia and their descendants born in Australia, while the latter group consists of the full-blood aboriginal natives of Australia whose estimated numbers at the 30th June, 1933, were 54,848 but who are not included in the general population figures of the Commonwealth. The non-indigenous population of Australia is fundamentally British in race and nationality. The Australian people have the essential characteristics of their British ancestors, with perhaps some accentuation of the desire for freedom from restraint. The complete change of climatic and social environment, the greater opportunity for an open-air life and the absence of the restricting conventions of older countries are exerting a noticeable influence upon the physical characteristics and social instincts of the people.



At the 30th June, 1933, 99.2 per cent. of the population of Australia was of European race and 0.8 per cent. of non-European as compared with 99.1 per cent. and 0.9 per cent. respectively at the 1921 Census. The non-European group is divided into two sections, viz., full-bloods who represented 46 per cent. of the total non-Europeans at the 1933 Census and 64 per cent. at the previous Census, and half-castes who accounted for 54 per cent. and 36 per cent. respectively.

During the intercensal period the number of full-blood non-Europeans decreased by 8,157 persons, or 26 per cent., and the number of half-castes increased by 9,415 persons, or 53 per cent. Of the latter the greatest proportion was half-caste Australian aboriginals, who increased in number by 9,073 persons, or 79 per cent. The half-caste population, i.e., persons having a mixture of European and non-European blood, was equivalent to 0.41 per cent. of the total population of Australia as compared with 0.32 per cent. in the year 1921.

Persons of Chinese race decreased in number by 6,311 or 37 per cent.; Japanese by 499; and British Indians by 478.

### POPULATION.—RACE—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

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	3,245,215	6,579,990	1,192,847
Non-European—							
Chinese .. ..	16,011	1,146	17,157	9,311	1,535	10,846	-6,311
Cingalese .. ..	231	38	269	198	78	276	7
Filipino .. ..	319	103	422	214	78	292	-130
Indian (a) .. ..	2,743	138	2,881	2,215	188	2,403	-478
Japanese .. ..	2,546	194	2,740	2,007	234	2,241	-499
Malay .. ..	986	101	1,087	813	156	969	-118
Papuan .. ..	142	21	163	221	18	239	76
Polynesian (other) .. ..	1,562	551	2,113	883	481	1,364	-749
Syrian .. ..	1,584	1,308	2,892	1,552	1,327	2,879	-13
Other .. ..	1,077	174	1,251	911	393	1,309	58
Total, Non-European Full-blood .. ..	27,201	3,774	30,975	18,325	4,493	22,818	-8,157
Half-caste—							
Australian Aboriginal .. ..	5,980	5,556	11,536	10,631	9,978	20,609	9,073
Chinese .. ..	1,891	1,778	3,669	1,887	1,594	3,481	-188
Indian (a) .. ..	366	329	695	358	334	692	3
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	14,011	13,020	27,031	9,415
Total .. ..	2,762,870	2,672,864	5,435,734	3,367,111	3,262,728	6,629,839	1,194,105

a) Native of India.

NOTE.—Minus sign (—) denotes decrease.

13. Foreign Language.—On the occasion of the 1933 Census, persons who could not read and write English but could read and write some foreign language were asked to state that language. This question had never appeared on the Census Schedule before and there is some doubt whether the question was correctly understood, as it appears that some persons who were able to read and write English and a foreign language also may have replied to this question incorrectly.

The recorded figures indicate that at the 1933 Census, 29,738 persons, comprising 23,638 males and 6,100 females, stated they were not able to read and write English, but were able to read and write a foreign language. 39 per cent. of this number were able to read and write Italian; 17 per cent. Chinese; 10 per cent. Greek; 5 per cent. Yugoslavian; 4 per cent. Japanese; and 4 per cent. German. Included in the total are 1,014 persons who were passengers, or members of the crews, of oversea vessels in Australian waters on Census night.

Forty-three per cent. of the Italian-born population of Australia stated that they were unable to read and write English but were able to read and write Italian. Similarly, 59 per cent. of those born in China; 54 per cent. of the Japanese; 36 per cent. of the Yugoslavian; 37 per cent. of the Greeks; and 20 per cent. of those born in Malta stated that they were unable to read and write English but could read and write a foreign language.

Particulars were not obtained concerning the number, if any, of foreign born persons who could not read and write any language.

**POPULATION.—IMMIGRANT—FOREIGN LANGUAGE—PERSONS NOT ABLE TO READ AND WRITE ENGLISH, BUT ABLE TO READ AND WRITE A FOREIGN LANGUAGE—AUSTRALIA, 1921 AND 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

Foreign Language.	Males.	Females.	Persons.
Albanian .. .. .	428	1	429
Arabic .. .. .	178	99	277
Chinese .. .. .	5,008	64	5,072
Finnish .. .. .	233	49	282
French .. .. .	105	130	235
German .. .. .	598	466	1,064
Goanese .. .. .	221	..	221
Greek .. .. .	2,185	906	3,091
Hebrew .. .. .	134	203	337
Hindu .. .. .	614	8	622
Italian .. .. .	8,630	2,897	11,527
Japanese .. .. .	1,142	77	1,219
Malayan .. .. .	389	1	390
Maltese .. .. .	445	119	564
Polish .. .. .	102	124	226
Russian .. .. .	278	302	580
Spanish .. .. .	277	93	370
Yugoslavian .. .. .	1,158	263	1,421
Other .. .. .	1,513	298	1,811
<b>Total .. .. .</b>	<b>23,638</b>	<b>6,100</b>	<b>29,738</b>

14. **Industry.**—The following table shows the population of Australia classified according to the industry group in which they are usually engaged. The number of breadwinners in Australia at the 30th June, 1933, was 3,155,621, of whom 2,367,780 were males and 787,841 females. The term "breadwinner" generally includes persons of all ages who are employers, working on own account, wage and salary earners, unemployed persons, pensioners, and those of independent means. Pensioners included in this number totalled 263,064. Excluding pensioners, the breadwinners numbered 2,892,557, comprising 2,244,013 males and 648,544 females. Owing to the change to an improved classification since the 1921 Census, in accordance with the recommendations of the Conference of Empire Statisticians, there has been some difficulty in making a

strictly accurate comparison between the numbers engaged in each group at the Censuses of 1921 and 1933. The main divergence is that relating to the proportion of breadwinners to total population. This is the result of the exclusion of pensioners from the industry groups under the new classification.

At the 1921 Census pensioners were classified to their previous industry, or to the dependent or independent groups, whichever was stated. On this occasion, however, they were specifically directed to state if they were pensioners and they have been classed accordingly. These facts need to be borne in mind in considering the recorded changes to which attention is called below.

The proportion of breadwinners (including all pensioners shown) in the male population increased from 68.1 per cent. at the 1921 Census to 70.3 per cent. at the 1933 Census, and female breadwinners from 17.5 per cent. to 24.1 per cent. If pensioners are excluded, the proportion of breadwinners at the 1933 Census was as follows:—Males, 66.6 per cent. and females 19.9 per cent. Comparable figures for the year 1921 are not available.

Since the 1921 Census the total of male breadwinners, including pensioners, has increased by 25.8 per cent., and female breadwinners by 68.7 per cent. This increase in the number of female breadwinners is due in large measure to the increase in the stated number of old-age and invalid pensioners in 1933 as compared with the stated number in 1921. Excluding those who were not definitely stated to be associated with some occupation or industry, the number of breadwinners has increased by 17.9 per cent.—males by 15.4 per cent. and females by 27.9 per cent.

At the 1933 Census, as also at the previous Census, the "Industrial" group (factories, construction works, etc.) was the predominant group of industries and included 32.1 per cent. of the breadwinners in Australia (excluding those not definitely associated with industry) in 1933 as compared with 31.4 per cent. at the 1921 Census. The number of persons engaged in industrial occupations throughout Australia exceeded those in all primary industries by 209,340, 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 greatest percentage rate of increase occurred in the Commerce and Finance group which increased by 120,714 persons, and represented 16.7 per cent. of the total breadwinners, as compared with 14.5 per cent. in the year 1921. The percentage rate of increase in this group during the intercensal period was three times as great as that for the primary industries and nearly twice as great as for the Industrial (manufacturing) group.

There was a slight increase in the proportion engaged in Fishing and Trapping and in Entertainment, Sport and Recreation. On the other hand, the proportion engaged in Public Administration and Professional occupations decreased from 9.4 to 8.6 per cent.; Personal and Domestic Service from 9.2 to 9.0 per cent.; Transport and Communication from 9.1 to 8.3 per cent.; Mining and Quarrying from 2.9 to 2.5 per cent. and Forestry from 1.3 to 1.0 per cent.

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 rate of increase during the intercensal period in the number of females is particularly outstanding in the Transport and Communication group (63 per cent.); Commerce and Finance (56 per cent.); and in Public Administration and Professional occupations (28 per cent.). It is a striking feature that in the last-mentioned group the number of males actually decreased during the same period by 4.7 per cent.

The proportion of females to the total number of persons engaged in the various occupational groups has increased in the majority of groups, as follows:—Personal and Domestic Service from 76.2 per cent. in the year 1921 to 78.4 per cent. in the year 1933; Public Administration and Professional from 39.0 per cent. to 46.1 per cent.; Commerce and Finance to 24.9 per cent. (21.8); Entertainment, Sport and Recreation to 16.4 per cent. (13.0); Transport and Communication to 5.2 per cent. (3.5); and

Agricultural, Pastoral, etc., to 3.6 per cent. (2.1). In the Industrial Group (factories, construction works, etc.), the numbers of persons engaged in the Building and Construction Sections—where the proportion of females is low—have increased more than in the factory group with the result that the proportion of females in the group has fallen from 16.7 per cent. to 15.9 per cent. Considered separately it will be seen that the proportion of females in the several sections has scarcely altered since 1921 so that the smaller proportion of females in the group as a whole is due to the altered values of the component parts of the group. In all industry groups taken together the proportion of females to the total number of persons engaged has increased from 19.9 to 21.6 per cent.

**POPULATION.—OCCUPATIONS—NUMBERS ENGAGED IN INDUSTRY—AUSTRALIA,  
1921 AND 1933.**

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

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	528,117	19,633	547,750	66,395
Forestry .. .. .	30,191	89	30,280	26,002	114	26,116	- 4,164
Mining and Quarrying ..	66,524	242	66,766	68,161	193	68,354	1,588
<b>Industrial—</b>							
Manufacturing .. .. .	326,847	118,727	445,574	375,434	136,077	511,511	65,937
Building .. .. .	94,878	396	95,274	107,939	407	107,446	12,172
Roads, Earthworks, etc.	137,057	49	137,106	217,335	321	217,656	80,550
Other .. .. .	39,126	726	39,852	28,584	974	29,558	-10,294
<b>Total, Industrial ..</b>	<b>597,908</b>	<b>119,898</b>	<b>717,806</b>	<b>728,392</b>	<b>137,779</b>	<b>866,171</b>	<b>148,365</b>
Transport and Communica- tion .. .. .	200,523	7,214	207,737	212,161	11,732	223,893	16,156
Commerce and Finance ..	258,595	72,083	330,678	339,057	112,335	451,392	120,714
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	129,829	65,601	195,430	134,016
Pensioners .. .. .	(b)	(b)	(b)	123,767	139,297	263,064	(b)
<b>Total, Breadwinners Dependants .. .. .</b>	<b>1,882,672</b> 880,198	<b>466,939</b> 2,205,875	<b>2,349,661</b> 3,086,073	<b>2,367,780</b> 999,331	<b>787,841</b> 2,474,887	<b>3,155,621</b> 3,474,218	<b>805,960</b> 388,145
<b>Total .. .. .</b>	<b>2,762,870</b>	<b>2,672,864</b>	<b>5,435,734</b>	<b>3,367,111</b>	<b>3,262,728</b>	<b>6,629,839</b>	<b>1,194,105</b>

(a) Includes unemployed persons for whom industry was not stated; also a number who were described as independent and who have been included tentatively pending further analysis. (b) Comparable figures not available. NOTE.—Minus sign (—) denotes decrease.

**15. Grade of Employment.**—This table shows the population of Australia classified according to the capacity in which they are engaged in the various branches of industry. The number of employers at the 30th June, 1933, was 207,680, an increase of 48.7 per cent. over the number stated at the 1921 Census, but actually 2 per cent. less than the number of employers at the earlier 1911 Census. Those persons who were stated to be working on own account showed an increase of 7.9 per cent. since the 1921 Census.

It appears that many who stated at the 1921 Census that they were working on own account may have described themselves as employers at the 1933 Census. This variation will be examined further when the detailed analysis of the returns is made. Of the population of Australia at the 30th June, 1933, 2,145,564 persons or 32.4 per cent. were in the wage-earning group. This was slightly more than the percentage of

31.2 recorded at the previous Census. Since the 1921 Census the number of persons in the wage-earning group has increased by 26.5 per cent.—males increasing by 23.7 per cent., and females by 35.9 per cent.

The proportion of females to the total number of persons in the wage-earning group has increased from 22.4 per cent. in the year 1921 to 24.0 per cent. at the time of the 1933 Census.

Of the wage-earning group, 1,447,507 or 67.5 per cent. were in full-time employment at the date of the Census; 170,997 persons, or 8.0 per cent., were employed part-time (this number includes those who stated themselves to be on Sustenance Work or Relief Work); 481,044, or 22.4 per cent., stated themselves to be unemployed; and 46,016, or 2.1 per cent., were helpers not receiving salary or wages.

#### POPULATION.—GRADE OF EMPLOYMENT—AUSTRALIA, 1921 AND 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

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	1,148,132	354,761	1,502,893	1,019,158	401,982	1,421,140	115,611
Apprenticed .. .. .				20,674	5,693	26,367	
Wage Earner .. .. .	137,675	21,405	159,080	144,170	26,827	170,997	321,904
Employed Part Time ..				405,269	75,775	481,044	
Unemployed .. .. .	31,620	3,172	34,792	49,754	5,262	46,016	11,224
Helper not receiving ..	994,590	2,229,653	3,224,243	1,226,806	2,674,756	3,901,562	677,319
Salary or Wages .. .. .	25,420	7,362	32,782	4,480	1,178	5,658	-27,124
Grade not applicable (a) ..							
Not Stated .. .. .							
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, persons engaged in home duties scholars and other dependants. NOTE.—Minus sign (-) denotes decrease.

16. **Unemployment.**—The number of persons who stated they were wholly unemployed at the 30th June, 1933, totalled 481,044, or 22.4 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 24.9 for males and 14.7 for females respectively.

Corresponding percentages of unemployment from the 1921 Census results were males 10.5 per cent. and females 5.6 per cent. unemployed. 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 total number recorded as unemployed in the year 1933 was three times as great as the corresponding number at the 1921 Census, and that number was nearly three times as great as that for the earlier Census taken in the year 1911.

The percentage of males unemployed in Australia according to the Census returns (24.9 per cent.) was slightly less than 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, 453,587 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 has decreased since the 1921 Census from 2.6 per cent. to 1.3 per cent. for males, and from 2.6 per cent. to 1.7 per cent. for females.

## CAUSE OF UNEMPLOYMENT.—AUSTRALIA, 1921 and 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

Cause.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Scarcity of Employment ..	68,751	6,092	74,843	355,935	56,296	412,231	337,388
Illness ..	29,799	9,551	39,350	17,223	8,268	25,491	-13,859
Industrial Dispute ..	4,249	290	4,539	1,526	85	1,611	-2,928
Accident ..	4,556	246	4,802	4,484	391	4,875	73
Other Causes ..	24,069	4,061	(a)28,130	1,590	308	1,898	-26,232
Voluntarily (so described) (c)	(c)	(c)	(c)	4,579	2,802	7,381	(c)7,381
Not Stated ..	6,251	1,165	7,416	19,932	7,625	27,557	20,141
Total ..	137,675	21,405	159,080	405,269	75,775	481,044	321,964

(a) Many classified as "Other Causes" were due to "Scarcity of Employment". (b) Excluding Wage Earners stated to be employed part time or on Sustenance or Relief Work. (c) Not shown separately in 1921. NOTE.—Minus sign (-) denotes decrease.

Of those who stated the duration of their unemployment, 24.9 per cent. had been unemployed for less than 24 weeks; 14.1 per cent. between 24 weeks and 1 year; 13.9 per cent. between 1 and 2 years; 18.2 per cent. between 2 and 3 years; 18.9 per cent. between 3 and 4 years; and 10.0 per cent. for 4 years or longer. Sixty-four per cent. of the males unemployed and 43 per cent. of the females unemployed stated that a period of over one year had elapsed since they were last regularly employed.

## DURATION OF UNEMPLOYMENT.—AUSTRALIA, 1921 and 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

Duration of Unemployment.	Census 1921.			Census 1933.			Increase, 1921- 1933.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Under 1 week ..	12,107	1,751	13,858	1,970	682	2,652	-11,206
1 week ..	14,250	2,318	16,568	4,612	1,980	6,592	-9,976
2 weeks ..	11,537	1,795	13,332	5,698	2,218	7,916	-5,416
3 ..	9,477	1,424	10,901	5,035	1,917	6,952	-3,949
4 weeks and under 8 weeks	20,967	3,289	24,256	16,637	5,382	22,019	-2,237
8 ..	12,202	1,958	14,160	13,711	3,771	17,482	3,322
12 ..	10,662	1,698	12,360	17,815	4,542	22,357	9,997
16 ..				10,352	2,441	12,793	
20 ..				7,007	1,512	8,519	
24 ..				24,607	6,306	30,913	
28 ..				6,289	1,171	7,460	
32 ..				6,046	1,103	7,149	
36 ..				7,240	1,213	8,453	
40 ..				3,882	691	4,573	
44 ..				113	10	123	
48 ..				2,170	358	2,528	
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 .. and over ..				40,607	2,616	43,223	
Not Stated ..	20,671	3,477	24,148	35,391	13,826	49,217	25,069
Total ..	137,675	21,405	159,080	405,269	75,775	481,044	321,964

(a) Excluding Wage Earners stated to be employed part time or on Sustenance or Relief Work. NOTE.—Minus sign (-) denotes decrease.

17. **Income.**—The 1933 Census was the first occasion on which any question regarding income was placed on the Census Schedule in Australia. Its successful introduction in the New Zealand Census in the year 1926 inspired the hope that a similar inquiry could be successfully undertaken in Australia. It is satisfactory that only 1.6 per cent. of the total number of male breadwinners in Australia and 2.7 per cent. of the female breadwinners failed to specify the particulars required concerning their incomes. Until the detailed analysis of these returns according to occupation and grade of employment has been completed it is not possible to compare the information supplied with known facts concerning rates of wages. The Census figures have not so far been analysed separately for employers, those working on own account, wage and salary earners, those in part-time employment, unemployed persons, apprentices, and pensioners. Consequently, conclusions can as yet be drawn only with respect to the incomes of all breadwinners as a group, and not with respect to the incomes of wage-earners or any other individual section of breadwinners.

Of the 3,155,621 breadwinners in Australia, 3,096,451 gave the required particulars concerning their income. As previously mentioned 481,044 unemployed persons and 263,064 pensioners are included amongst the 3,155,621 breadwinners. 13.3 per cent. of the male breadwinners stated that they received no income during the year ended 30th June, 1933; 24.3 per cent. received some income but less than £1 per week; 16.5 per cent. between £1 and £2 per week; 11.7 per cent. between £2 and £3 per week; 11.4 per cent. between £3 and £4 per week; 9.6 per cent. between £4 and £5 per week; and 13.2 per cent. £5 per week or over. The corresponding percentages for female breadwinners were as follow:—10.9 per cent. no income; 40.3 per cent. some income but less than £1 per week; 24.6 per cent. between £1 and £2 per week; 13.4 per cent. between £2 and £3 per week; 5.4 per cent. between £3 and £4 per week; 2.3 per cent. between £4 and £5 per week; and 3.1 per cent. £5 per week or over. Including pensioners and unemployed, two-thirds of the male breadwinners had no income or incomes under £3 per week, and three-fourths of the females had no income or incomes under £2 per week.

In addition to breadwinners, 218,616 persons, comprising dependants and others who stated that the questions concerning occupation were not applicable to their circumstances, were in receipt of some income during the year ended 30th June, 1933, and of these 62.7 per cent. received income less than £1 per week; 19.9 per cent. between £1 and £2 per week; 8.0 per cent. between £2 and £3 per week; 3.4 per cent. between £3 and £4 per week; 2.0 per cent. between £4 and £5 per week; and 4.0 per cent. £5 per week or over.

#### INCOMES OF POPULATION.—AUSTRALIA, CENSUS 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (Preliminary figures—subject to revision.)

Income.	Breadwinners.			Other persons (a) with Incomes.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
No Income .. ..	308,747	83,688	392,435	..	..	..
Under £52 per annum ..	566,814	308,689	875,503	8,139	128,872	137,011
£52 to £103 per annum ..	385,055	188,556	573,611	552	43,004	43,556
£104 „ £155 „ „ ..	273,933	102,653	376,586	220	17,193	17,413
£156 „ £207 „ „ ..	265,049	41,550	307,199	126	7,430	7,556
£208 „ £259 „ „ ..	222,772	17,508	240,280	40	4,285	4,325
£260 or over „ „ ..	307,804	23,933	331,737	90	8,665	8,755
Not Stated „ „ ..	37,906	21,264	59,170	..	..	..
<b>Total .. ..</b>	<b>2,367,780</b>	<b>787,841</b>	<b>3,155,621</b>	<b>9,167</b>	<b>209,449</b>	<b>218,616</b>

(a) Includes persons engaged in home duties, scholars, and other dependants.

§ 10. Dwellings.

The following table represents a summary of the information relating to the number of dwellings in each State and Territory which was obtained at the Census of the 30th June, 1933 :—

DWELLINGS.—CENSUS 30th JUNE, 1933.

(Exclusive of Dwellings occupied solely by Full-blood Aboriginals.)

(Revised figures.)

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage of Total Dwellings.
<b>NEW SOUTH WALES.</b>					
Urban—					%
Metropolitan .. ..	288,240	10,941	253	299,434	47.59
Provincial .. ..	127,190	4,701	192	132,083	20.99
Rural .. ..	184,320	13,095	301	197,716	31.42
Total .. ..	599,750	28,737	746	629,233	100.00
<b>VICTORIA.</b>					
Urban—					%
Metropolitan .. ..	235,672	6,669	394	242,735	53.66
Provincial .. ..	47,668	1,543	103	49,314	10.90
Rural .. ..	149,532	10,551	253	160,336	35.44
Total .. ..	432,872	18,763	750	452,385	100.00
<b>QUEENSLAND.</b>					
Urban—					%
Metropolitan .. ..	69,535	2,270	86	71,891	31.85
Provincial .. ..	44,989	2,618	77	47,684	21.12
Rural .. ..	101,598	4,423	138	106,159	47.03
Total .. ..	216,122	9,311	301	225,734	100.00
<b>SOUTH AUSTRALIA.</b>					
Urban—					%
Metropolitan .. ..	77,021	2,242	44	79,307	54.78
Provincial .. ..	12,361	478	22	12,861	8.88
Rural .. ..	49,892	2,633	94	52,619	36.34
Total .. ..	139,274	5,353	160	144,787	100.00
<b>WESTERN AUSTRALIA.</b>					
Urban—					%
Metropolitan .. ..	47,713	1,506	176	49,395	45.79
Provincial .. ..	10,187	270	26	10,483	9.72
Rural .. ..	45,678	2,253	58	47,989	44.49
Total .. ..	103,578	4,029	260	107,867	100.00



DWELLINGS.—CENSUS 30TH JUNE, 1933—*continued.*

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage of Total Dwellings.
<b>TASMANIA.</b>					
Urban—					%
Metropolitan .. ..	14,066	495	23	14,584	26.50
Provincial .. ..	12,844	441	48	13,333	24.23
Rural .. ..	25,574	1,485	58	27,117	49.27
Total .. ..	52,484	2,421	129	55,034	100.00
<b>NORTHERN TERRITORY.</b>					
Urban—					%
Provincial .. ..	437	17	1	455	33.53
Rural .. ..	864	38	..	902	66.47
Total .. ..	1,301	55	1	1,357	100.00
<b>FEDERAL CAPITAL TERRITORY.</b>					
Urban—					%
Provincial .. ..	1,583	37	5	1,625	77.27
Rural .. ..	412	66	..	478	22.73
Total .. ..	1,995	103	5	2,103	100.00
<b>AUSTRALIA.</b>					
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

For Australia the average number of inmates per occupied dwelling was less in 1933 at 4.08 than in 1921 at 4.40. In the metropolitan areas it was also less at 4.04 than in 1921 at 4.42.

The proportion of unoccupied dwellings was practically the same for Australia in 1933 (4.25 per cent.) as in 1921 (4.23 per cent.) and for the metropolitan areas the respective percentages were 3.19 per cent. in 1933 and 2.77 per cent. in 1921. The total number of unoccupied dwellings in 1933 was 68,772 against 51,163, and in the metropolitan areas there were 24,123 unoccupied compared with 14,109 in 1921.

The number of dwellings reported as being built in 1933 was 2,352 or 0.15 per cent. of all dwellings, against 6,338 or 0.52 in 1921. In the metropolitan areas the percentage of dwellings being built was 0.13 in 1933 as compared with 0.82 per cent. in 1921.

The numerical relation between the population and dwellings is perhaps of greater importance in the metropolitan areas than elsewhere, and for those areas the cardinal facts, so far as they have been ascertained to date, are as follow:—The average number of inmates per occupied dwelling is slightly less, though the proportion of unoccupied

dwellings is greater in 1933 than in 1921. The dwellings in course of construction, both in actual number and in relation to the number already existing, were much less in 1933 than at the earlier Census. The above figures convey the merest impression of what has been happening since 1921; more definite conclusions must await the analysis of the returns regarding occupied private dwellings according to the number of rooms and inmates. Particulars concerning each State as at the 1933 Census are being issued in Census Bulletins as the tabulations are completed.

### § 11. Oversea Migration.

1. Oversea Migration during Present Century.—Earlier issues of The Official Year Book contained in summary form tables showing the increase of population by net migration from 1861 to the latest date, while the Demography Bulletins issued by this Bureau give this information in respect of the individual years. On page 532 of this Chapter a summary will be found of the increase by net migration to the population of the States—from 1901 to 1930 in quinquennial groups and from 1921 to 1934 in single years. The following table shows for Australia as a whole the arrivals and departures as well as the net immigration since 1901. Departures and net immigration have been adjusted in accordance with the revised figures of the 1933 Census:—

#### OVERSEA MIGRATION.—AUSTRALIA.

Period.	Arrivals.			Departures.			Net Immigration.		
	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..	422,927	209,893	632,820	382,552	113,406	495,958	40,375	96,487	136,862
1916-20..	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
1921 ..	53,221	34,717	87,938	44,923	25,490	70,413	8,298	9,227	17,525
1922 ..	58,057	35,456	93,513	30,984	22,372	53,356	27,073	13,084	40,157
1923 ..	56,415	36,444	92,859	29,673	23,472	53,145	26,742	12,972	39,714
1924 ..	62,400	41,267	103,667	32,840	24,758	57,598	29,560	16,509	46,069
1925 ..	59,602	40,473	100,075	33,816	26,458	60,274	25,786	14,015	39,801
1926 ..	62,743	45,181	107,924	35,737	27,404	63,141	27,006	17,777	44,783
1927 ..	69,540	47,883	117,423	37,506	28,337	65,843	32,034	19,546	51,580
1928 ..	55,921	43,871	99,792	39,369	30,369	69,738	16,552	13,502	30,054
1929 ..	44,508	37,740	82,248	39,735	30,693	70,428	4,773	7,047	11,820
1930 ..	33,881	29,212	63,093	40,989	30,634	71,623	- 7,108	- 1,422	- 8,530
1931 ..	21,986	18,428	40,414	30,356	20,152	50,508	- 8,370	- 1,724	- 10,094
1932 ..	22,637	19,360	41,997	24,864	20,130	44,994	- 2,227	- 770	- 2,997
1933 ..	24,457	23,335	47,792	25,053	22,525	47,578	- 596	810	214
1934 ..	27,451	26,253	53,704	26,428	24,996	51,424	1,023	1,257	2,280

NOTE.— Minus sign (-) indicates an excess of departures over arrivals.

The net immigration has varied greatly during the above periods, reaching a maximum in the five years 1921-25. The Great War, during which 331,781 members of the Australian Imperial Forces embarked for service overseas, was responsible for a very large increase in the departures during the years 1914 to 1918. Immigration increased rapidly from 1910 to 1912, the gain during the latter year being the greatest in any one year in the present century (with the exception of 1919 when the troops were returning to Australia).

Although the quinquennium 1926-30 as a whole resulted in the considerable gain of 129,707 persons, the figures for the individual years show the decline in immigration which set in after 1927 and which resulted in an actual loss of population in 1930, 1931 and 1932. In the last-mentioned year, however, the loss by migration was considerably less than in the previous year. There was a slight improvement in 1933 when a small gain of population by migration of 214 was shown and a further improvement to a net gain of 2,280 in the year 1934.

The influence of the Commonwealth immigration policy is clearly reflected in the above figures. 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	1928 .. ..	22,394
1906-10 .. ..	7,945	1929 .. ..	12,943
1911-15 .. ..	30,111	1930 .. ..	2,683
1916-20 .. ..	2,326	1931 .. ..	275
1921-25 .. ..	23,090	1932 .. ..	175
1926-30 .. ..	19,881	1933 .. ..	25
		1934 .. ..	21

The number of arrivals of nominated and selected immigrants reached its peak in 1926, and has since diminished each year until only 21 were received in 1934.

At present, assistance is confined to nominees who desire to join their families in Australia.

2. **Country of Embarkation and Destination.**—The countries from which the migrants arrived or to which they departed are shown for the year 1934 in Demography Bulletin No. 52. Annual averages for the period 1925-29 will be found in Official Year Book No. 25.

3. **Nationality or Race.**—The preponderance of migrants to and from Australia is of British nationality, while only a small proportion is of non-European race.

The number of arrivals and departures of migrants since 1921 classified according to nationality or race is shown in the next table. The recorded departures have been adjusted in accordance with the revised figures of the 1933 Census:—

**NATIONALITY OR RACE OF ARRIVALS AND DEPARTURES.—AUSTRALIA.**

Nationality or Race.	Arrivals.			Departures.		
	1921-25.	1926-30.	1934.	1921-25.	1926-30.	1934.
British .. ..	404,792	386,669	45,450	249,374	281,449	44,641
French .. ..	2,738	3,394	626	2,288	3,292	541
German .. ..	1,052	3,172	308	851	1,961	263
Greek .. ..	4,247	3,842	358	847	2,040	242
Italian .. ..	17,092	19,170	1,765	3,467	8,617	902
Yugoslavian ..	(a) 950	4,426	197	(a) 533	2,280	132
United States ..	6,875	8,916	1,111	4,088	8,101	1,071
Other European ..	12,659	15,355	980	4,999	7,001	855
<b>Total European ..</b>	<b>450,405</b>	<b>444,944</b>	<b>50,795</b>	<b>266,447</b>	<b>314,741</b>	<b>48,647</b>
Chinese .. ..	17,133	15,649	1,580	18,380	17,513	1,613
Japanese .. ..	2,256	1,762	381	2,725	2,004	355
Indian and Cingalese	2,150	2,790	410	2,154	2,095	299
Other Non-European	6,108	5,335	538	5,080	4,420	510
<b>Total Non-European</b>	<b>27,647</b>	<b>25,536</b>	<b>2,909</b>	<b>28,339</b>	<b>26,032</b>	<b>2,777</b>
<b>Total .. ..</b>	<b>478,052</b>	<b>470,480</b>	<b>53,704</b>	<b>294,786</b>	<b>340,773</b>	<b>51,424</b>

(a) 1925 only.

During the above periods there was a considerable influx of Italian, Greek and Yugoslavian settlers, so that although there was also much concurrent emigration of these nationals they provided a large permanent addition to the population of Australia. During recent years there has generally been an excess of departures of non-European people as a whole though it is not true of all non-European nationals. The movements of Chinese show a consistent excess of departures, but with regard to other nationals

the movements have been variable. The net gain or loss according to nationality or race for the same periods and the percentage of each nationality on the total gain or loss for the year are given in the following table:—

## NET GAIN OR LOSS.—NATIONALITY OR RACE.—AUSTRALIA.

Nationality or Race.	Net Gain or Loss.			Proportion.		
	1921-25.	1926-30.	1934.	1921-25.	1926-30.	1934.
British .. ..	155,418	105,220	809	84.80	81.12	35.48
French .. ..	450	102	85	0.25	0.08	3.73
German .. ..	201	1,211	45	0.11	0.93	1.98
Greek .. ..	3,400	1,802	116	1.86	1.39	5.09
Italian .. ..	13,625	10,553	863	7.43	8.14	37.85
Yugoslavian .. ..	417	2,146	65	0.23	1.65	2.85
United States .. ..	2,787	815	40	1.52	0.63	1.75
Other European .. ..	7,660	8,354	125	4.18	6.44	5.48
Total European .. ..	183,958	130,203	2,148	100.38	100.38	94.21
Chinese .. ..	-1,247	-1,864	33	-0.68	-1.44	-1.45
Japanese .. ..	-469	-242	26	-0.26	-0.19	1.14
Indian and Cingalese .. ..	-4	695	111	0.00	0.54	4.87
Other Non-European .. ..	1,028	915	28	0.56	0.71	1.23
Total Non-European .. ..	-692	-496	132	-0.38	-0.38	5.79
Total .. ..	183,266	129,707	2,280	100.00	100.00	100.00

Owing to the depressed conditions in Australia the gain by immigration has decreased considerably since the year 1927, and the year 1934 showed a net gain of only 2,280 persons. Migrants of Italian nationality showed the greatest net gain in numbers in the year 1934, followed by British and Greeks in that order. Over 83 per cent. of the net immigration in 1921-30 consisted of persons of British nationality and the remaining 17 per cent. were other Europeans. In the year 1934, however, only 35 per cent. were of British nationality, 59 per cent. being other Europeans and 6 per cent. non-Europeans.

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 period 1926-30 and the years 1931, 1932, 1933 and 1934 which have been adjusted in accordance with the revised figures of the 1933 Census are as follow:—

## MIGRANTS CLASSIFIED ACCORDING TO INTENDED RESIDENCE.—AUSTRALIA.

Classification.	1926-30.	1931.	1932.	1933.	1934.
Permanent new arrivals ..	224,010	9,441	9,868	10,749	11,778
Australian residents returning from abroad ..	121,395	13,357	13,098	18,917	18,875
Temporary visitors ..	125,029	17,616	19,031	18,125	23,951
Not Stated .. ..	46	..	..	..	..
Total Arrivals .. ..	470,480	40,414	41,997	47,791	53,704
Australian residents departing permanently ..	103,209	21,558	14,476	12,113	12,166
Departing temporarily ..	111,714	10,193	12,804	17,849	18,257
Temporary visitors ..	125,772	18,752	17,714	17,616	21,001
Not Stated .. ..	78	5	..	..	..
Total Departures .. ..	340,773	50,508	44,994	47,578	51,424

Permanent new arrivals have decreased very considerably since the year 1927, and the number for 1934, although showing a slight increase over the previous year, was only one-fourth of the annual average for the decennium 1926-30. Permanent departures were far more numerous in the years 1928 to 1931 than in the earlier years of the period but decreased during the past three years, the number in 1933 being the lowest 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.

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) The Encouragement of Immigration into Australia.

1. **Joint Commonwealth and States' Immigration Scheme.**—An outline of the arrangements made between the Commonwealth and State Governments to regulate immigration into Australia will be found in Official Year Book No. 22, p. 929.

Owing to financial and industrial depression, the Commonwealth Government early in 1930 decided to reduce the flow of assisted migrants by limiting the assisted passage concession to boys for farm work, young women for household employment, and to nominees, mainly wives and children of husbands who were already in Australia.

The Governments of the various States have since cancelled all requisitions for boys and household workers, so that assisted passages are now confined to persons whose admission effects the reunion of a family.

2. **Assisted Passages.**—The British and Commonwealth Governments jointly donate the following contributions towards the passages of approved settlers to Australia from the United Kingdom:—Children under 12 years, £16 10s. (representing the full fare at half rate); juveniles 12 years and under 17 years, £27 10s.; juveniles 17 years and under 19 years, £22; married couples, including widowers or widows, and wives nominated by husbands, with at least one child under 19 years, £22 per parent (children at rate according to age); household workers, £22; others, including children 19 years of age and over, £16 10s. Allowing for this financial assistance, children under 12 years are carried free; juveniles 12 years of age and under 17 years, who are ordinarily charged for by the shipping companies as adult passengers, are required to pay only £5 10s. each; juveniles 17 years and under 19 years, £11 each; married couples, including widowers or widows, and wives nominated by husbands, with at least one child under 19 years, £11 per parent (children at rate according to age); household workers, £11; others, including children 19 years and over, £16 10s. each. Persons who have previously resided in Australia are not eligible for assistance.

In addition to these contributions, loans of the balance of the passage money are in special cases granted by the Governments concerned. Persons entitled to assisted passages are divided into two classes—"Selected" and "Nominated." Selected immigrants are those such as boy farm learners and household workers who were originally recruited abroad by the Commonwealth Government. Nominated immigrants are those nominated by persons resident in Australia, and the nominators, who must submit their applications through the officers in charge of the State Immigration Offices in the various capital cities, are held responsible for their nominees upon arrival, so that they shall not become a burden upon the State.

Intending settlers or immigrants may, on application, obtain full information from the Official Secretary, High Commissioner's Office, Australia House, Strand, London, W.C.2; or from the Secretary, Department of the Interior, Canberra. F.C.T.

3. Results of Assisted Immigration.—The number of assisted immigrants for the years 1929 to 1934 and the total from the earliest years up to the end of 1934 are given in the following table:—

IMMIGRATION.—NUMBER OF PERSONS ASSISTED.

Persons.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Fed. Cap. Terr.	Total.
Assisted during 1929 ..	5,431	2,604	1,292	526	2,976	101	13	12,943
„ „ 1930 ..	1,174	468	484	61	471	20	5	2,683
„ „ 1931 ..	76	45	43	6	99	5	1	275
„ „ 1932 ..	21	3	23	..	123	5	..	175
„ „ 1933 ..	11	3	1	1	9	..	..	25
„ „ 1934 ..	11	4	1	..	5	..	..	(a) 21
Total from earliest years to end of 1934 ..	345,829	255,312	235,994	115,818	86,221	24,957	67	1,064,198

(a) There were no selected assisted immigrants in 1934 but during that year there were, however, 138 selected immigrants, comprising 98 boys and 40 girls, for Fairbridge Farm School, Western Australia. Of the 21 nominated persons who entered during the year, six were males and fifteen females, and they were described as dependants.

## (B) The Regulation of Immigration into Australia.

1. Powers and Legislation of the Commonwealth.—(i) *Constitutional*. Under Part V., Sec. 51, xxvii. and xxviii. of the *Commonwealth Constitution Act*, the Parliament of the Commonwealth is empowered to make laws with respect to immigration and emigration and the influx of criminals.

(ii) *Legislation*. A summary of the provisions of the *Immigration Act 1901-1925* and the *Contract Immigrants Act 1905* (excepting the provisions of the Amending Immigration Acts of 1920, 1924 and 1925, which will be found in Official Year Book, No. 21, p. 927), containing particulars regarding the admission of immigrants, prohibited immigrants, the liabilities of shipmasters and others, and kindred matters will be found in preceding Year Books (see Official Year Book, No. 12, pp. 1166 to 1168).

*The Immigration Act 1930*.—Under this Act it is provided that Section 5, subsection (1) of the *Immigration Act 1901-1925* applies to any person who, since the commencement of the *Immigration Restriction Act 1901*, evaded an officer when entering Australia, or gained admission or re-admission by fraudulent means. Steps can be taken to deal with such persons as prohibited immigrants at any time after they have landed in Australia.

*The Immigration Act 1932.*—This Act provides (a) that any alien who fails to satisfy an officer that he holds a landing permit, or that his admission has been authorized, may be prohibited from landing; (b) for the increase of the period during which a person may be declared a prohibited immigrant from three to five years; (c) that a person not a British subject and who has been convicted of a crime of violence against the person may be deported pursuant to an order of the Minister without his being subjected to a dictation test; (d) for the deportation of a person who has been convicted of a criminal offence or who has become an inmate of an insane asylum or public charitable institution within five years from the date of arrival instead of three years as hitherto; and (e) that where the wife of a person whom it is proposed to deport so desires, her name and the names of her dependent children may be included in her husband's deportation order. This would of course apply only to wives and children who were themselves immigrants.

*The Immigration Act 1933.*—This Act provides that Section 8A, as amended by the *Immigration Act 1932*—see (d) above—shall apply to persons who arrived in Australia since the commencement of the Section, i.e., since 2nd December, 1920. It also makes statutory provision for the taking of securities for compliance with the provisions of the Act.

*The Immigration Act 1935.*—The main purpose of this Act was to add a penalty clause to Section 5 of the principal Act, to overcome a legal difficulty which had arisen in regard to relying on Section 7 for the imposition of penalties on persons convicted under Section 5 on charges of being prohibited immigrants offending against the Act.

2. **Conditions of Immigration into Australia.**—(i) *Immigration of Non-European or Coloured Persons.* In pursuance of the "White Australia" policy, the general practice is not to permit Asiatics or other coloured immigrants to enter Australia for the 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.* Owing to economic conditions in Australia, it has been found necessary to continue to restrict alien immigration to persons who obtain landing permits or special authority for admission from the Department of the Interior. Such authority, as a rule, is being confined to close dependent relatives of persons already settled in Australia, and persons who can produce their own capital to the amount of £500 (Australian currency) in each case. Other cases having special features are considered on their merits, and provision has also been made for the temporary admission of bona fide visitors who may wish to enter Australia for purposes of business or pleasure.

Aliens seeking to enter Australia are also required to hold valid national passports visaed by a British Consul for travel to Australia except in cases where visa requirements have been abolished by reciprocal arrangements to which the Commonwealth Government is a party. The exemptions so far apply to nationals of the following countries, viz. :—Austria, Belgium, Czechoslovakia, Denmark, France, Germany, Italy, Liechtenstein, Netherlands, Norway, Sweden and Switzerland.

(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, F.C.T., Australia; (b) In Great Britain : The Official Secretary, Australia House, Strand, London, England; (c) In the United States of America : The Official Secretary, Commissioner for Australia in the United States of America, "Cunard Building," 25 Broadway, New York City, U.S.A.

3. **Persons Admitted Without Dictation Test.**—The following table shows the number and nationality of persons admitted during the year 1934 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, 1934.**

Nationality or Race.	1934.	Nationality or Race.	1934.
Albanian .. .. .	29	United States of America .. .. .	1,111
Austrian .. .. .	22	Other Whites .. .. .	59
Belgium .. .. .	49	American Negro .. .. .	1
British .. .. .	45,450		
Bulgarian .. .. .	9	ASIATICS—	
Czechoslovakian .. .. .	45	Afghan .. .. .	2
Danish .. .. .	61	Chinese .. .. .	731
Dutch .. .. .	148	Filipino .. .. .	10
Estonian .. .. .	11	Japanese .. .. .	305
Finnish .. .. .	10	Javanese .. .. .	1
French .. .. .	626	Koepangers .. .. .	79
German .. .. .	308	Malay .. .. .	18
Greek .. .. .	358	Natives of India and Ceylon .. .. .	141
Hungarian .. .. .	19	Palestinian .. .. .	31
Italian .. .. .	1,765	Syrian .. .. .	50
Maltese (British) .. .. .	63		
Norwegian and Swedish .. .. .	88	OTHER RACES—	
Polish .. .. .	141	Pacific Islanders .. .. .	18
Russian .. .. .	86	Papuan .. .. .	245
Spanish .. .. .	38	Unspecified .. .. .	30
Swiss .. .. .	102		
Yugoslavian .. .. .	197	Total .. .. .	52,457

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 races who left Australia during the year 1934 was 1,754, distributed among the various nationalities as follows :—Afghans, 2; American Negro, 1; Arabs, 3; Chinese, 892; Filipinos, 6; Natives of India and Ceylon, 131; Japanese, 324; Javanese, 1; Koepangers, 98; Malays, 30; Papuans, 236; Pacific Islanders, 13; and others 17.

### (C) Passports.

Provision is made in the *Immigration Act 1901-1932* for the production of passports by all persons over 16 years of age who desire to enter Australia. Similarly, the *Passports Act 1920* provides that no person over the age of 16 years shall leave Australia unless—

- (a) he is the holder of a passport or other document authorizing his departure; and  
 (b) his passport has been visaed or indorsed in the prescribed manner for that journey, and the visa or indorsement has not been cancelled.

Among the exceptions to this requirement are natural-born British subjects leaving for New Zealand, Papua, or Norfolk Island; members of the crew of any vessel who sign on in Australia for an oversea voyage and who satisfy an authorized officer that they are by occupation seafaring men; aboriginal natives of Asia, or of any island in the East Indies, or in the Indian or Pacific Oceans. The charge for a Commonwealth passport is £1, for an ordinary visa 16s., and for a transit visa 4s.

With regard to the abovementioned condition (b), the Commonwealth Government has agreed to the inclusion of Australia in reciprocal arrangements for the abolition of visa requirements made by the British Government with the respective Governments of the following countries, viz.:—Austria, Belgium, Czechoslovakia, Denmark, France, Germany, Italy, Liechtenstein, Netherlands, Norway, Sweden and Switzerland.



### § 13. Naturalization.

1. **Commonwealth Legislation.**—Naturalization in Australia is governed by the *Nationality Act 1920-1930*. 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.

A summary of the main provisions of the Principal Act will be found in Official Year Book No. 22, pp. 934-935.

2. **Certificates Granted.**—(i) *Australia*. Particulars regarding the previous nationalities of the recipients of certificates of naturalization issued under the Act during the year 1934, and the countries from which such recipients had come, are given in the following table :—

#### NATURALIZATION.—CERTIFICATES GRANTED, 1934.

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 ..	21	Norwegian ..	16	America (North) ..	32	Norway ..	6
American, U.S. ..	25	Polish ..	70	America (South) ..	8	Palestine ..	36
Austrian ..	18	Rumanian ..	7	Belgium ..	5	Poland ..	46
Belgian ..	3	Russian ..	76	China ..	25	Russia ..	26
Czechoslovakian ..	16	Spanish ..	11	Denmark ..	11	South Africa ..	2
Danish ..	22	Swedish ..	20	Egypt ..	31	Spain ..	8
Dutch ..	11	Swiss ..	21	Finland ..	10	Sweden ..	9
Estonian ..	17	Syrian ..	18	France ..	55	Switzerland ..	16
Finnish ..	19	Yugoslavian ..	145	Germany ..	79	Syria ..	14
French ..	9	Other ..	68	Great Britain ..	56	Yugoslavia ..	117
German ..	92			Greece ..	96	Other ..	122
Greek ..	108			Holland ..	5		
Italian ..	578	Total ..	1,399	Italy ..	573	Total ..	1,399
Latvian ..	8			New Zealand ..	11		

(ii) *States*. The certificates of naturalization granted in 1934 were issued in the various States as follow :—New South Wales, 349 ; Victoria, 245 ; Queensland, 405 ; South Australia, 88 ; Western Australia, 297 ; Tasmania, 5 ; Northern Territory, 9 ; and 1 in the Federal Capital Territory ; Total, 1,399.

### § 14. Population of Territories.

At the Census of the 30th June, 1933, special arrangements were made to obtain complete and uniform information concerning each of the six Territories of Australia including the Mandated Territories of New Guinea and Nauru, viz. :—(1) Northern Territory ; (2) Federal Capital Territory ; (3) Norfolk Island ; (4) Papua ; (5) Mandated Territory of New Guinea ; and (6) Mandated Territory of Nauru.

A summary of the revised figures as to the population and number of dwellings in each Territory at the Census of 1933 is given in the following table :—

## POPULATION AND DWELLINGS.—TERRITORIES, 30th JUNE, 1933.

(EXCLUSIVE OF INDIGENOUS POPULATION.)

Territory.	Population.			Dwellings.			
	Males.	Females.	Persons.	Occu- pied.	Unoccu- pied.	Being Built.	Total.
Northern Territory ..	3,378	1,472	4,850	1,301	55	1	1,357
Federal Capital Territory ..	4,805	4,142	8,947	1,995	103	5	2,103
Norfolk Island ..	662	569	1,231	383	34	6	423
Papua ..	1,232	941	2,173	683	35	1	719
Territory of New Guinea (Mandate) ..	3,709	1,507	5,216	1,776	26	7	1,809
Nauru (Mandate) ..	1,037	64	1,101	81	13	..	94

Particulars concerning the indigenous populations of the Territories of the Commonwealth are included in Chapter XXVII. of this issue.

## § 15. The Aboriginal Population of Australia.

In Official Year Book No. 17, pp. 951 to 961, a brief account was given of the Australian aboriginal population, its origin, its numbers as estimated from time to time, and the steps taken for its protection. On pages 914 to 916 of Official Year Book No. 22 particulars are shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appeared on pages 687-696 of Official Year Book No. 23.

The aboriginals 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 aboriginals taken on the 30th June, 1934, the following particulars were disclosed :—

## ABORIGINAL CENSUS.—30th JUNE, 1934.

State or Territory.	Full-blood.					Half-caste.					Total Full- blood and Half- caste.
	Noma- dic.	In Empley- ment.	In Super- vised Camps.	Other.	Total.	Noma- dic.	In Empley- ment.	In Super- vised Camps.	Other.	Total.	
New South Wales	129	145	547	187	1,008	800	1,173	3,501	3,899	9,373	10,381
Victoria ..	2	17	31	3	53	..	99	204	256	559	612
Queensland ..	2,430	2,722	5,561	1,593	12,306	193	1,000	1,738	1,985	4,916	17,222
South Australia	1,091	347	77	225	1,740	576	357	631	205	1,769	3,509
Western Australia	16,469	3,157	1,761	1,116	22,503	1,313	842	719	1,138	4,012	26,515
Tasmania ..	..	..	..	..	..	..	140	..	130	270	270
Northern Territory	11,427	2,378	2,768	665	17,238	36	333	352	49	770	18,008
Federal Capital Territory ..	..	..	..	..	..	..	35	..	33	68	68
Australia ..	31,548	8,766	10,745	3,789	54,848	2,918	3,979	7,145	7,695	21,737	76,585

The returns for the year ended the 30th June, 1934, show the number of full-bloods as 5,253 less than the number returned for the previous year. This is due to the later estimates for Western Australia and Northern Territory being more accurate than the earlier estimates.

## § 16. The Chinese in Australia.

In Official Year Book No. 18, pp. 951 to 956, a brief historical sketch was given regarding "The Chinese in Australia."

## § 17. The Pacific Islanders in Australia.

In Official Year Book No. 19, pp. 902-3, a brief account was given of the introduction of Kanakas into Australia.

## CHAPTER XVIII. VITAL STATISTICS.

NOTE.—The rates published in this chapter in relation to the population since the year 1921 have been adjusted in accordance with the revised results of the Census of the 30th June, 1933.

### § 1. Births.

1. Births, 1934.—The number of male and female births and the total births registered in Australia during the year ended the 31st December, 1934, are shown in the tables hereunder. The numerical relation which these births bear to the population, and various other associated features, are given in later tables:—

#### BIRTHS, 1934.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
<b>MALE BIRTHS.</b>									
Single births	21,648	13,832	8,662	4,277	3,887	2,284	37	63	54,690
Twins ..	445	322	169	75	70	59	..	..	1,140
Triplets ..	11	4	..	2	1	..	..	..	18
<b>Total ..</b>	<b>22,104</b>	<b>14,158</b>	<b>8,831</b>	<b>4,354</b>	<b>3,958</b>	<b>2,343</b>	<b>37</b>	<b>63</b>	<b>55,848</b>
<b>FEMALE BIRTHS.</b>									
Single births	20,808	13,337	8,348	4,030	3,754	2,073	51	67	52,468
Twins ..	417	329	181	71	88	54	..	4	1,144
Triplets ..	6	4	..	4	1	..	..	..	15
<b>Total ..</b>	<b>21,231</b>	<b>13,670</b>	<b>8,529</b>	<b>4,105</b>	<b>3,843</b>	<b>2,127</b>	<b>51</b>	<b>71</b>	<b>53,627</b>
<b>TOTAL BIRTHS.</b>									
Single births	42,456	27,169	17,010	8,307	7,641	4,357	88	130	107,158
Twins ..	(a) 862	(b) 651	(c) 350	146	(d) 158	113	..	4	(e) 2,284
Triplets ..	(f) 17	(f) 8	..	6	(f) 2	..	..	..	(g) 33
<b>Total ..</b>	<b>43,335</b>	<b>27,828</b>	<b>17,360</b>	<b>8,459</b>	<b>7,801</b>	<b>4,470</b>	<b>88</b>	<b>134</b>	<b>109,475</b>
<b>TOTAL CONFINEMENTS.</b>									
Nuptial Mothers ..	40,845	26,323	16,325	8,131	7,433	4,177	74	131	103,439
Ex-nuptial Mothers ..	2,056	1,177	861	251	293	237	14	1	4,890
<b>Total Mothers</b>	<b>42,901</b>	<b>27,500</b>	<b>17,186</b>	<b>8,382</b>	<b>7,726</b>	<b>4,414</b>	<b>88</b>	<b>132</b>	<b>108,329</b>

(a) Sixteen stillborn twins not included. (b) Five stillborn twins not included. (c) Two stillborn twins not included. (d) Eight stillborn twins not included. (e) Thirty-one stillborn twins not included. (f) One stillborn triplet not included. (g) Three stillborn triplets not included.

2. Birth Rates.—The next table gives the crude birth rates from 1901 to 1934:—

## CRUDE BIRTH RATE.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.(c)	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
1922 ..	25.59	23.10	25.73	23.77	23.82	27.01	18.93	11.28	24.68
1923 ..	24.56	22.32	25.13	22.69	22.39	26.14	19.52	5.65	23.75
1924 ..	23.93	22.01	24.21	22.01	22.86	24.89	15.34	10.48	23.21
1925 ..	23.79	21.49	24.24	21.22	21.95	24.21	16.98	9.77	22.86
1926 ..	22.63	20.84	23.06	20.73	21.79	23.33	18.50	12.07	21.98
1927 ..	22.40	20.30	22.78	20.33	21.63	22.68	15.28	10.31	21.62
1928 ..	22.27	19.69	22.36	19.98	21.36	21.77	18.61	14.64	21.27
1929 ..	21.04	18.98	20.60	18.63	21.51	22.03	11.86	17.91	20.25
1930 ..	20.59	18.55	20.80	17.42	21.44	21.66	14.26	18.30	19.86
1931 ..	18.67	16.86	19.28	15.77	19.77	21.18	14.52	18.29	18.16
1932 ..	17.40	15.19	18.56	14.74	18.31	19.78	16.07	16.92	16.86
1933 ..	16.99	15.60	18.14	15.32	17.95	19.93	15.23	14.47	16.78
1934 ..	16.52	15.20	18.17	14.50	17.66	19.51	17.84	14.47	16.39

(a) Number of births per 1,000 of the mean population for the year. (b) Part of New South Wales.

(c) The birth rates for the Federal Capital Territory in the above table are based on births which occurred in the Federal Capital Territory.

About 25 per cent. of births in respect of which the mother's usual residence is the Federal Capital Territory takes place in Queanbeyan just over the New South Wales border, while the number of births in respect of which the mother's usual residence is New South Wales which take place in the Federal Capital Territory is practically negligible. Consequently the following rates based on births in respect of which the mother's usual residence is the Federal Capital Territory are a fairer measure of birth rates in the Federal Capital Territory:—

1921 ..	14.96	1924 ..	17.26	1927 ..	21.10	1930 ..	22.07	1933 ..	19.11
1922 ..	20.46	1925 ..	20.87	1928 ..	23.38	1931 ..	21.40	1934 ..	17.93
1923 ..	11.79	1926 ..	22.41	1929 ..	23.28	1932 ..	20.09	..	..

The preceding table shows a progressive reduction from 1901 to 1934, broken only by a slight rise in 1911 in some of the States and in Australia as a whole. The rate for Australia for 1934 represents only 60 per cent. of that for 1901 and is the lowest yet recorded.

The principal factor in determining the crude birth rate is the proportion of *married* women of child-bearing age in the community, but as the fecundity of women varies with age, the birth rate per 1,000 married women will vary according to the age composition of the group, and, other things being equal, the rate generally should be highest where the average age of married women is lowest. For the purposes of the following table the child-bearing age has been taken as from 15-44 years inclusive, and all births of which the mothers were stated to be over 45 years have been counted in the group 40-44. The calculations have been made for the last two Census periods and cover in each case the Census year together with the year immediately preceding and the year immediately following.

## BIRTH RATES, AND FACTORS AFFECTING THEM.

Particulars.	1932-34. (Age Distribution at Census of 1933.)							1920- 1922.
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.	
Crude birth rate per 1,000 persons	16.97	15.33	18.29	14.85	17.97	19.74	16.68	25.15
Birth rate per 100 women 15-44 inclusive	7.25	6.46	7.93	6.31	8.05	8.71	7.14	10.74
Birth rate per 100 married women 15-44 incl. (a)	12.98	12.34	14.46	12.01	14.67	16.08	13.14	19.65
Ex-nuptial births—per cent. on all births	5.03	4.35	4.99	3.18	4.15	5.37	4.66	4.69
Ex-nuptial births per 100 unmarried women 15-44 incl.	0.78	0.56	0.83	0.41	0.70	0.96	0.69	1.05
Women 15-44 incl.—per cent. all persons	23.41	23.73	23.05	23.54	22.34	22.66	23.35	23.41
Average age of all women 15-44 incl.	29.06	29.42	28.88	29.12	28.62	28.54	29.10	28.54
Married women 15-44 incl.—per cent. on all persons	12.41	11.88	12.02	11.97	11.74	11.61	12.10	12.20
Average age of married women 15-44 incl.	33.38	34.00	33.41	33.98	33.21	32.98	33.58	32.48

(a) Nuptial births only.

The following figures give a comparison for Australia, based on data obtained at Census periods, of the total births per 1,000 women (married and unmarried) and of the nuptial births per 1,000 married women of ages 15 to 44 inclusive:—

Particulars.	1880-82.	1890-92.	1900-02.	1910-12.	1920-22.	1932-34.
Births per 1,000 women aged 15-44	169.7	158.8	117.3	117.2	107.4	71.4
Nuptial births per 1,000 married women 15-44	321.0	332.0	235.8	236.0	196.5	131.4

3. Birth Rates of Various Countries.—(i) *Crude Rates.* A comparison with other countries shows that the Australian States occupy a midway position. The rates for the pre-war period 1908-1913 have been added for purposes of comparison:—

## CRUDE BIRTH RATES.(a)—VARIOUS COUNTRIES.

Country.	1908 to 1913.	1934.	Country.	1908 to 1913.	1934.
Egypt .. ..	43.6	44.1(e)	Queensland .. ..	28.2	18.2
Soviet Union .. ..	45.6	42.7(d)	Scotland .. ..	26.2	18.0
Ceylon .. ..	36.9	37.2	Germany .. ..	29.5	18.0
Rumania .. ..	43.1	32.0(e)	Denmark .. ..	27.1	17.8
Japan .. ..	32.9	31.6(e)	Western Australia .. ..	28.9	17.7
Portugal .. ..	34.6	28.4	U.S. of America(b) .. ..	(c)	17.1
Poland .. ..	37.4	26.6	New South Wales .. ..	28.2	16.5
Spain .. ..	32.1	26.2	New Zealand .. ..	26.5	16.5
Argentina .. ..	37.1	25.3	Belgium .. ..	23.4	16.5(e)
Union of South Africa (whites) .. ..	(c)	23.5	Australia .. ..	27.4	16.4
Italy .. ..	32.4	23.2	Switzerland .. ..	24.7	16.2
Netherlands .. ..	29.1	20.7	France .. ..	19.5	16.1
Canada .. ..	(c)	20.4	Great Britain and Ireland .. ..	..	..
Northern Ireland .. ..	23.1	19.8	..	24.6	15.3
Tasmania .. ..	29.6	19.5	Victoria .. ..	..	25.3
Irish Free State .. ..	23.1	19.2	Norway .. ..	..	26.0
Czechoslovakia .. ..	31.1	18.8	England and Wales..	..	24.9
Finland .. ..	29.5	18.4(e)	South Australia .. ..	..	27.1
			Sweden .. ..	..	24.4

(a) Number of births per 1,000 of the mean population.

(b) Figures for "existing birth-registration area."

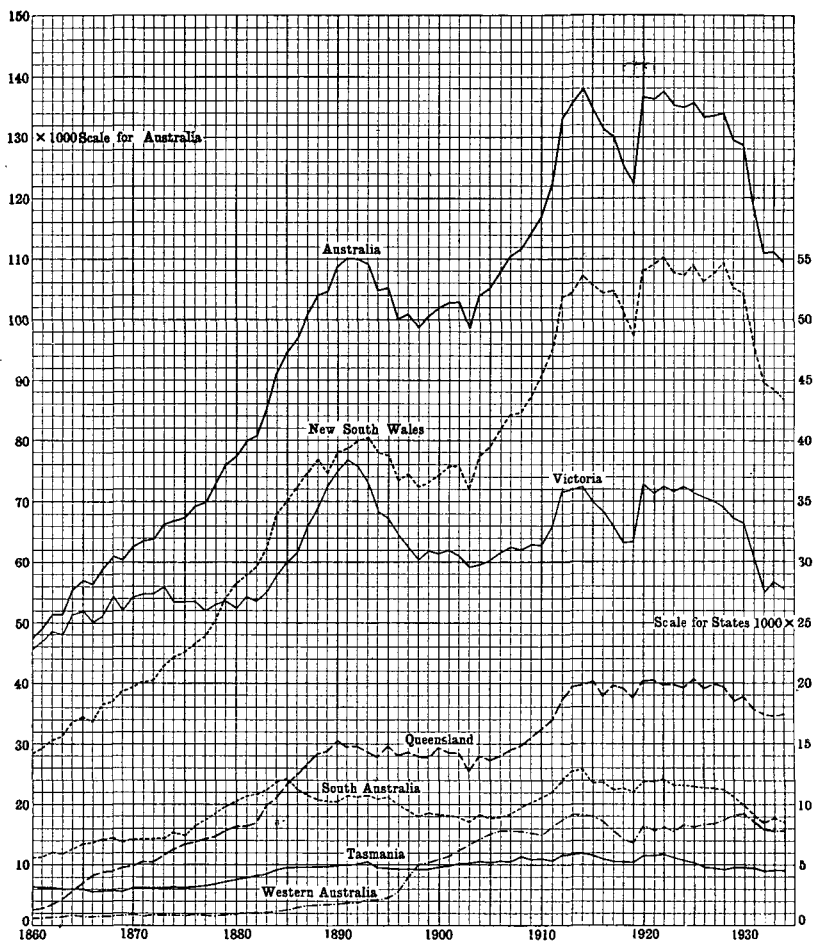
(c) Not available.

(d) For 1932.

(e) For 1933.

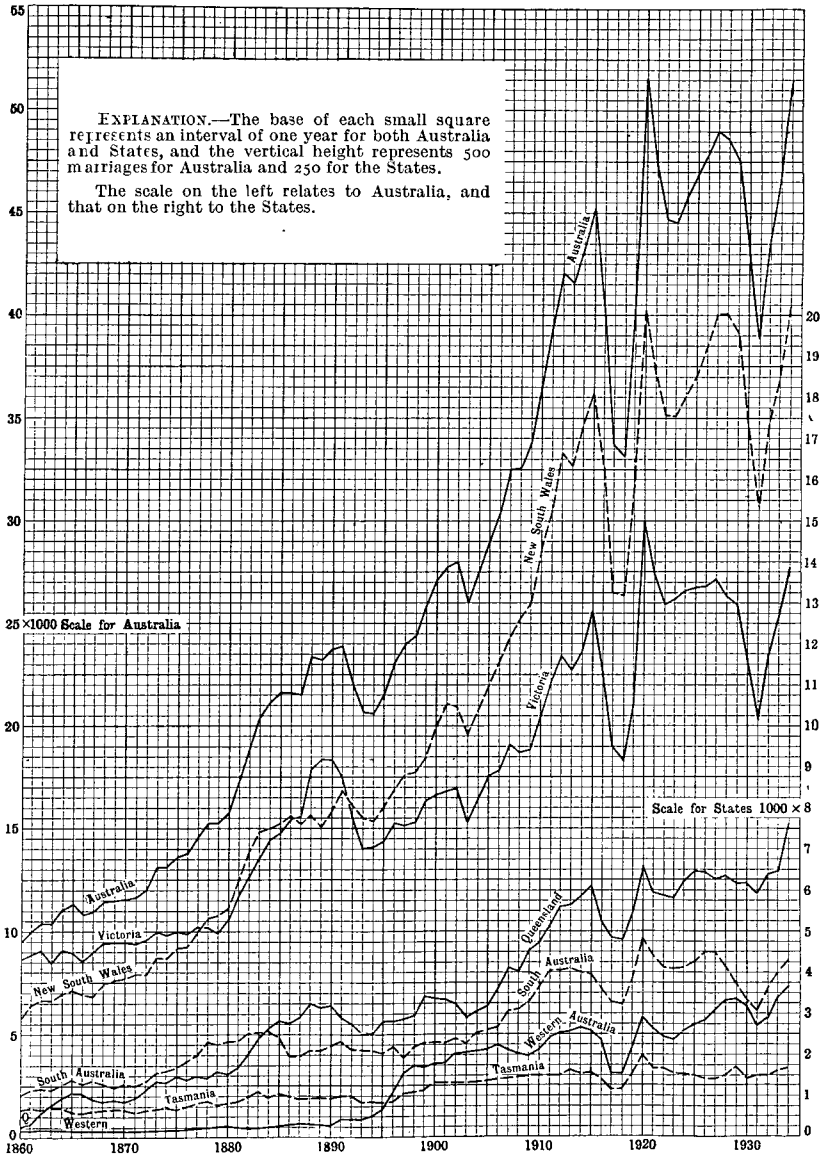
(ii) *Nuptial Birth Rates at Child-bearing Ages.* The wide discrepancies between the crude birth rates of the various countries are, to some extent, due to differences in sex and age constitution and in conjugal condition. If the birth rates are calculated per 1,000 women of child-bearing ages, the comparison gives more reliable results. A table

## BIRTHS, 1860 TO 1934.

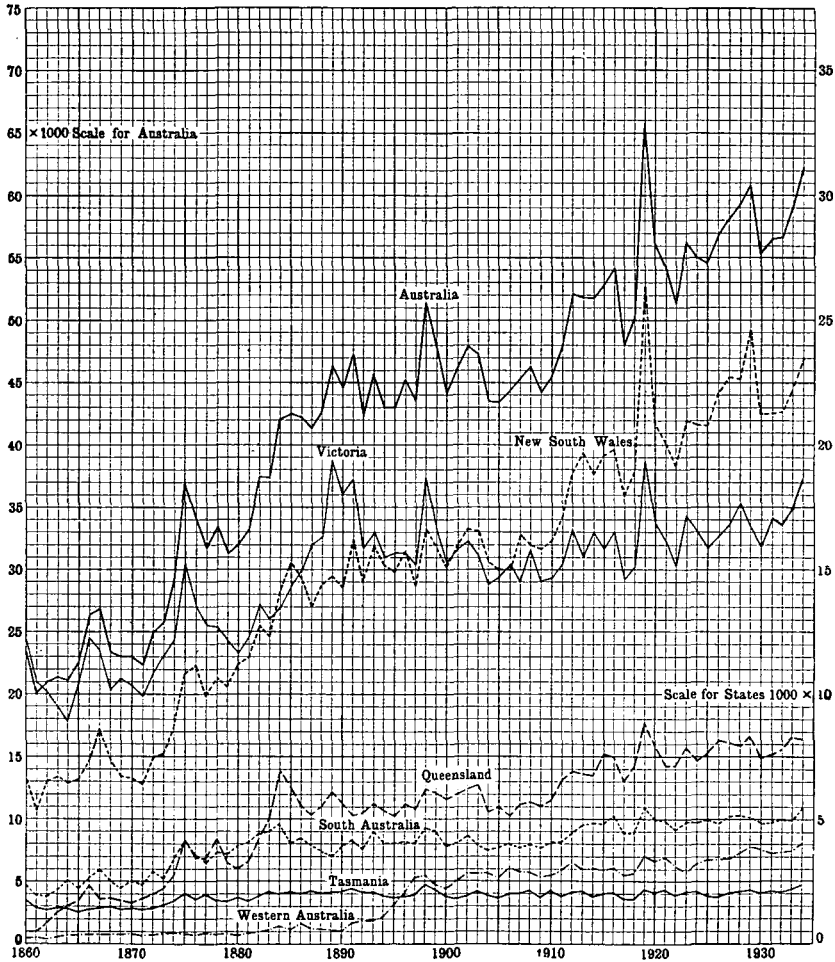


EXPLANATION.—The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 2,000 persons for Australia and 1,000 for the States. The scale on the left relates to Australia and that on the right to the States.

MARRIAGES, 1860 TO 1934.



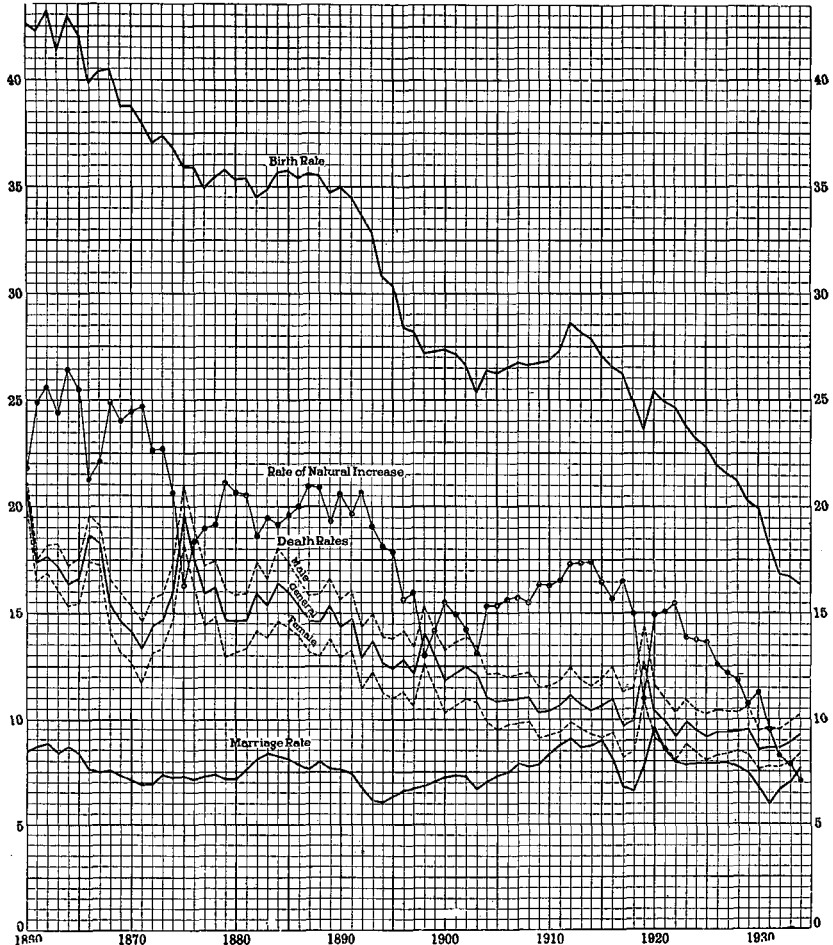
## DEATHS, 1860 TO 1934.



EXPLANATION.—The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 1,000 persons for Australia and 500 for the States.  
The scale on the left relates to Australia, and that on the right to the States.

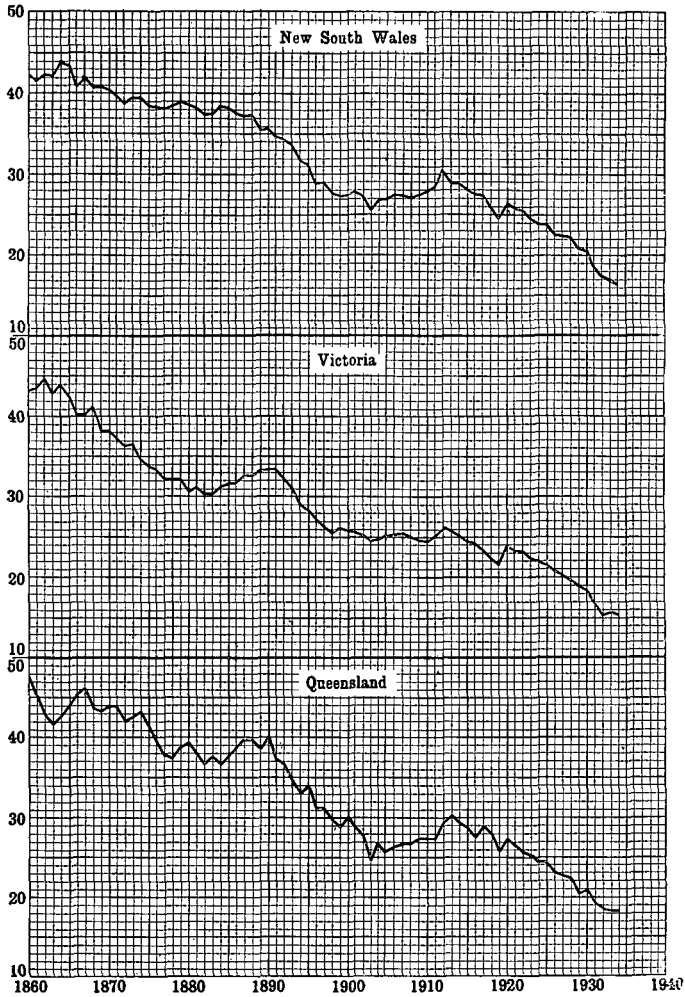


RATES—BIRTH, NATURAL INCREASE, DEATH (MALE, GENERAL AND FEMALE) AND MARRIAGE—AUSTRALIA, 1860 TO 1934.



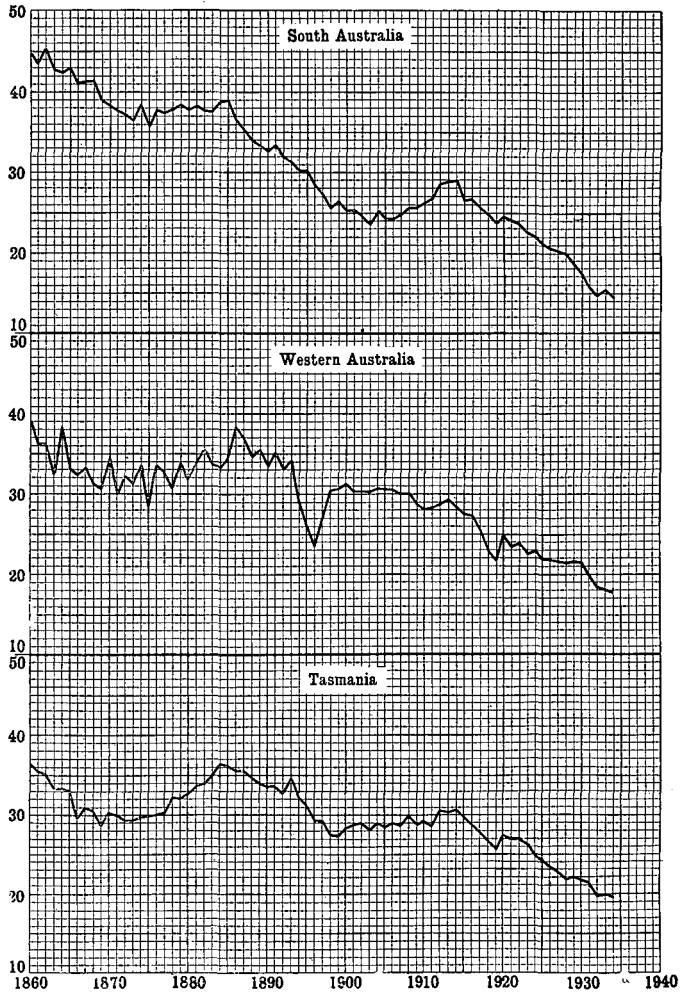
EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one-half per thousand of the population.

## BIRTH RATES—STATES, 1860-1934.



STATE BIRTH-RATE GRAPHS.

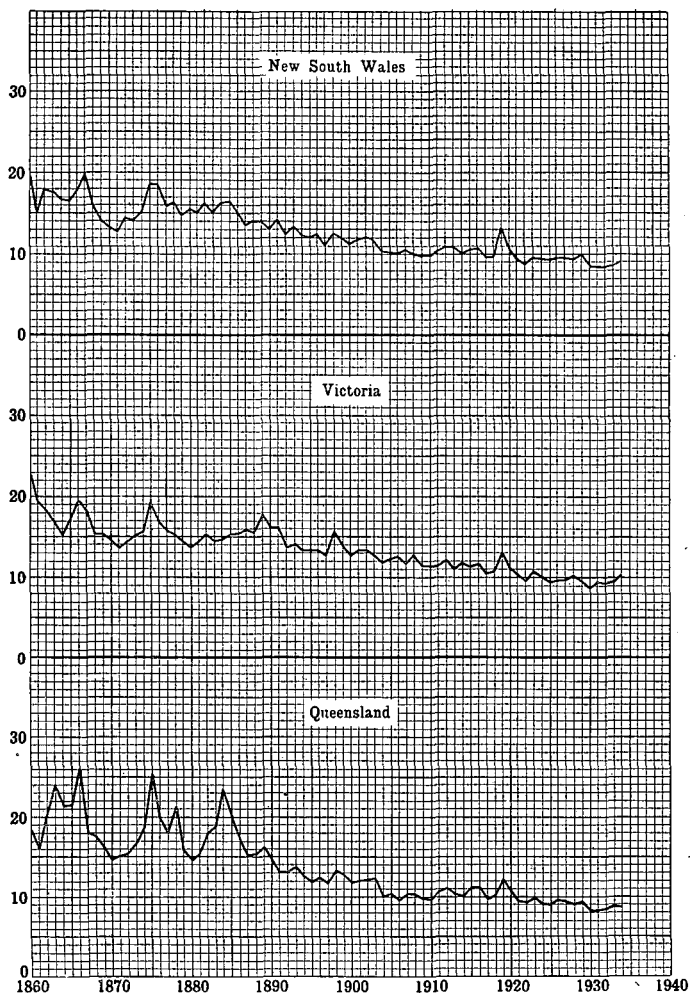
EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being ten per thousand of the population.

BIRTH RATES—STATES, 1860-1934—*continued.*

STATE BIRTH-RATE GRAPHS.

EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being ten per thousand of the population.

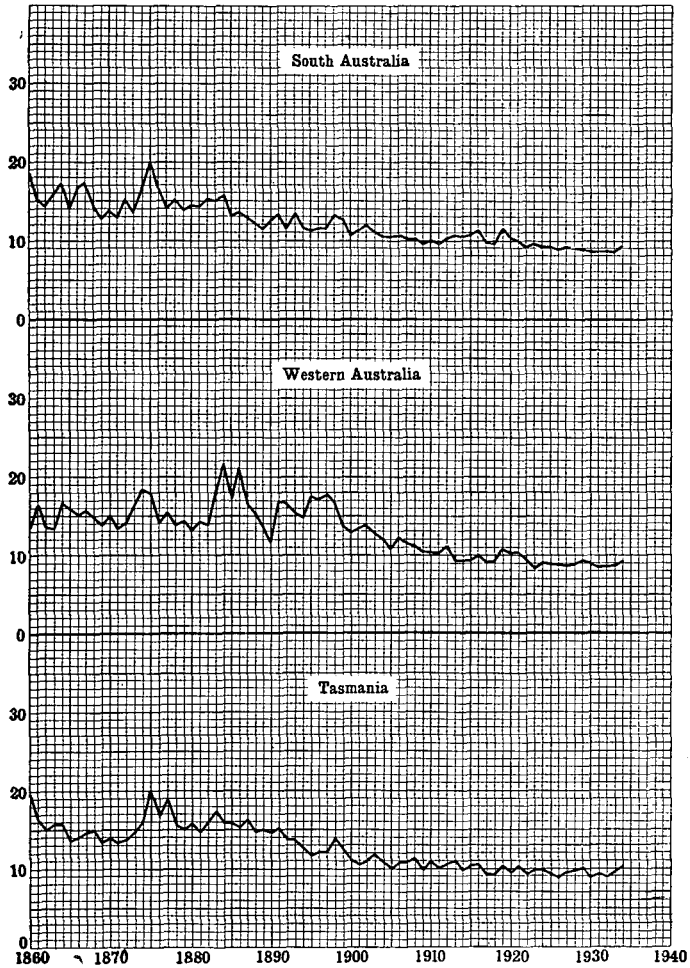
## DEATH RATES—STATES, 1860-1934.



STATE DEATH-RATE GRAPHS.

EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one death per thousand of the population. The zero for each State is shown by a thickened line.

## DEATH RATES—STATES, 1860-1934—continued.



STATE DEATH-RATE GRAPHS.

EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one death per thousand of the population. The zero for each State is shown by a thickened line.

of results so calculated appeared in Year Book No. 22, p. 941, and showed that Australia, with a rate of 198 nuptial births per 1,000 married women aged 15 to 49 years, was midway between the maximum and minimum of the countries for which these rates were obtained.

4. **Masculinity of Births.**—(i) *General.* The masculinity of births, i.e., the number of males per 100 females registered, varies considerably from State to State and from year to year. For 1934 the figures ranged from 102.99 in Western Australia to 110.16 in Tasmania. The averages for the last inter-censal period were as follow:—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. Greater variations are recorded among ex-nuptial births than among nuptial births. The following table shows the figures for Australia at intervals since 1901:—

**MASCULINITY(a) OF BIRTHS REGISTERED, AUSTRALIA.**

Particulars.	1901.	1911.	1921.	1930.	1931.	1932.	1933.	1934.
Total Births ..	104.11	104.73	105.86	105.39	106.15	105.59	105.64	104.14
Ex-nuptial Births ..	105.50	103.10	106.09	105.15	102.60	106.47	102.83	105.72

(a) Number of male per 100 female births.

(ii) *Masculinity of Nuptial and Ex-nuptial Births—Various Countries.* A table showing the masculinity of nuptial and ex-nuptial births for various countries appeared on p. 942 of Official Year Book No. 22.

5. **Ex-nuptial Births.**—(i) *General.* The number of ex-nuptial births reached its maximum, 7,438, in 1913, but it has since fallen considerably. On the average of the five years 1910–1914 the number of ex-nuptial births in Australia was 7,171, while for the period 1930–1934 it was only 5,448, a decline of 24.0 per cent., whereas the annual average total births for the same period declined by 10.4 per cent., from 129,156 to 115,717; hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.55 to 4.71 per cent. of all births.

The numbers of births and the rates at intervals from 1901 to 1934 are shown below:—

**EX-NUPTIAL BIRTHS AND BIRTH RATES, AUSTRALIA.**

Particulars.	1901.	1911.	1921.	1930.	1931.	1932.	1933.	1934.
Number of Ex-Nuptial Births ..	6,165	7,074	6,463	5,935	5,841	5,300	5,239	4,925
Percentage on Total Births ..	5.99	5.79	4.75	4.62	4.93	4.78	4.71	4.50

It is, of course, possible that the number of ex-nuptial births is somewhat understated owing to diffidence in proclaiming the fact of ex-nuptiality, and it is not unlikely that the majority of unregistered births are ex-nuptial.

The variations of the ex-nuptial birth rates as between the individual States and Territories for 1934 are as follow:—

**EX-NUPTIAL BIRTHS AND BIRTH RATES, 1934.**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
Number ..	2,070	1,188	864	253	296	239	14	1	4,925
Percentage on Total Births	4.78	4.27	4.98	2.99	3.79	5.35	15.91	0.75	4.50

(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. The number of ex-nuptial births per 1,000 unmarried women of ages 15 to 45 has been found to be as follows:—Years 1880–82, 14.49; years 1890–92, 15.93; years 1900–02, 13.30; years 1910–12, 12.53; and years 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 on the average of the years 1906–15.

(iii) *Comparison of Rates.* The following table showing the relative proportions of ex-nuptial and nuptial births to the total population discloses a much greater proportional reduction in the ex-nuptial birth rate than in the nuptial rate:—

**CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES.(a)—AUSTRALIA.**

Rates.	1901.	1911.	1921.	1930.	1931.	1932.	1933.	1934.
Ex-nuptial ..	1.62	1.57	1.18	0.92	0.90	0.80	0.79	0.74
Nuptial ..	25.52	25.64	23.77	18.94	17.26	16.06	15.99	15.65
Total ..	27.14	27.21	24.95	19.86	18.16	16.86	16.78	16.39

(a) Number of births per 1,000 of mean population.

6. *Legitimations.*—In the several States Acts have been passed to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who comes within the scope of their intentions, born before or after the passing thereof, is deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. (During 1933, 833 children were legitimized in Australia.)

7. *Multiple Births.*—Among the total number of 109,475 births registered in Australia in 1934, there were 107,158 single births, 2,284 twins, and 33 triplets. The number of cases of twins was 1,159, and of triplets 12, there being 34 stillborn twins and 3 stillborn triplets. The total number of mothers was, therefore, 108,329, the proportion of mothers of twins being one in every 93, of mothers of triplets one in every 9,027, and of mothers of all multiple births one in every 93 mothers. Multiple births occurred in 1.08 per cent. of confinements.

The proportion of multiple births to total births does not vary greatly from year to year and exhibits no constant tendency towards increase or decrease:—

**MULTIPLE BIRTHS.—AUSTRALIA.**

Particulars.	1911.	1921.	1930.	1931.	1932.	1933.	1934.
Mothers of Multiple Births	1,236	1,465	1,439	1,271	1,107	1,154	1,171
Percentage on Total Mothers	1.02	1.09	1.13	1.08	1.01	1.05	1.08
Number of Mothers to each Multiple Birth ..	98	92	88	92	99	95	93

8. Ages of Parents.—The relative ages of the parents of children registered in 1934 have been tabulated separately for male and female births, twins and triplets being distinguished from single births. For total births and for multiple births the relative single ages of parents are shown in the Bulletin of "Australian Demography," No. 52, published by this Bureau. In the present work the exigencies of space allow the insertion of a table showing the relative ages of parents of all births in groups of five years only:—

AGES OF PARENTS—ALL BIRTHS.—AUSTRALIA, 1934.

Ages of Fathers and Type of Birth.	Total Births.	Ages of Mothers.								
		Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.	Un-specified.
Under 20 { Single Twins	677 8	..	490 3	177 5	9	1	..	..	..	..
20 to 24 { Single Twins Triplets	13,460 108 2	3 ..	3,306 16	8,727 80	1,312 9	101 3	10 ..	1 ..	..	..
25 to 29 { Single Twins Triplets	27,921 245 2	3 ..	1,491 11	11,812 89	12,528 122	1,892 20	182 3	13 ..	..	..
30 to 34 { Single Twins Triplets	26,063 285 2	1 ..	371 4	4,198 36	11,049 104	8,903 117	1,413 23	124 1	4 ..	..
35 to 39 { Single Twins Triplets	16,666 219 1	1 ..	101 ..	1,081 6	3,476 32	6,462 100	4,922 74	614 6	9 1	..
40 to 44 { Single Twins Triplets	10,237 161 3	..	31 ..	342 5	1,072 17	2,657 44	3,946 63	2,126 32	63 ..	..
45 to 49 { Single Twins Triplets	4,821 67 1	..	10 1	133 1	369 ..	892 8	1,668 33	1,550 22	199 2	..
50 to 54 { Single Twins Triplets	1,664 19 ..	..	5 ..	54 ..	118 2	290 2	486 7	604 7	107 1	..
55 to 59 { Single Twins Triplets	514 6 1	..	4 ..	24 ..	45 1	79 ..	168 2	148 3	46 ..	..
60 to 64 { Single Twins Triplets	188 4 ..	..	.. ..	4 ..	15 ..	45 1	46 1	65 ..	13 2	..
65 and upwards { Single Twins Triplets	92 1 ..	..	.. ..	5 ..	13 1	23 ..	25 ..	23 ..	3 ..	..
Un-specified { Single Twins	1 ..	..	.. ..	.. ..	.. ..	.. ..	1 ..	.. ..	.. ..	..
Mothers of Nuptial children { Single Twins Triplets Total	102,304 1,123 12 103,439	8 .. .. 8	5,809 35 .. 5,844	26,557 222 4 26,783	30,006 288 1 30,295	21,345 295 2 21,642	12,867 206 4 13,077	5,268 71 1 5,340	444 6 .. 450	.. .. .. ..
Mothers of ex-nuptial children { Single Twins Triplets Total	4,854 36 .. 4,890	21 .. .. 21	1,404 6 .. 1,410	1,688 15 .. 1,703	761 5 .. 766	492 5 .. 497	318 4 .. 322	145 1 .. 146	25 .. .. 25	.. .. .. ..
Total Mothers { Single Twins Triplets	107,158 1,159 12	29 .. ..	7,213 41 ..	28,245 237 4	30,767 293 1	21,837 300 2	13,185 210 4	5,413 72 1	469 6 ..	.. .. ..
Total	108,329	29	7,254	28,486	31,061	22,139	13,399	5,486	475	..



9. Birthplaces of Parents.—The birthplaces of the parents of children whose births were registered during the year 1934 will be found in the Bulletin of "Australian Demography," 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.	1934.	1911.	1934.	1911.	1934.
<b>AUSTRALASIA—</b>						
Australia .. ..	94,834	87,765	102,073	91,679	6,570	4,556
New Zealand .. ..	1,257	739	1,201	605	68	33
<b>EUROPE—</b>						
England and Wales .. ..	9,849	8,640	6,067	6,679	210	206
Scotland .. ..	2,289	2,384	1,486	1,909	46	46
Ireland .. ..	2,138	924	1,374	595	46	14
Other British Possessions .. ..	49	140	20	57	1	1
Western Europe .. ..	607	228	165	82	9	3
Central Europe .. ..	1,185	328	606	205	8	5
Southern Europe .. ..	360	1,289	203	947	6	5
Eastern Europe .. ..	168	137	81	70	..	1
<b>ASIA—</b>						
British Possessions .. ..	217	198	114	119	2	1
Foreign Countries .. ..	317	181	139	108	3	2
<b>AFRICA—</b>						
British Possessions .. ..	111	203	116	165	2	3
Foreign Countries .. ..	11	8	13	24	..	..
<b>AMERICA—</b>						
Canada .. ..	59	85	34	45	3	..
Other British Possessions .. ..	8	9	5	3	..	..
United States of America .. ..	182	105	87	67	3	3
Other Foreign Countries .. ..	70	22	19	28	1	1
<b>POLYNESIA—</b>						
British .. ..	30	29	21	26	1	1
Foreign .. ..	39	17	13	19	6	1
Indefinite .. ..	159	8	102	7	33	8
Total .. ..	113,939	103,439	113,939	103,439	7,018	4,890

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 1934, and the percentage of each class on the total are given in the following table:—

**OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN.—AUSTRALIA.**

Occupation Group.	Number of Fathers.			Percentage on Total.		
	1921.	1931.	1934.	1921.	1931.	1934.
				%	%	%
Professional .. ..	6,204	5,991	5,655	4.84	5.37	5.47
Domestic .. ..	2,319	2,146	1,682	1.81	1.93	1.63
Commercial .. ..	18,298	16,030	10,635	14.26	14.38	10.28
Transport and Communica- tion .. ..	15,351	12,302	9,980	11.96	11.04	9.65
Industrial .. ..	53,567	49,902	18,782	41.74	44.76	18.16
Agricultural, Pastoral, Min- ing, etc. .. ..	32,405	24,760	22,132	25.25	22.21	21.39
Indefinite .. ..	182	349	34,573 <sup>a</sup>	0.14	0.31	33.42 <sup>a</sup>
Total .. ..	128,326	111,480	103,439	100.00	100.00	100.00

(a) Includes 34,272 (33.13 per cent.) clerks, labourers, etc., where industry was not given, who were formerly included under "Commercial" or "Industrial".

11. *Mother's Age, Duration of Marriage, and Issue.*—(i) *General.* The total number of nuptial confinements excluding stillbirths in 1934 was 103,439, viz., 102,304 single births, 1,123 cases of twins, and 12 cases of triplets. Ex-nuptial children—previous issue by the same father—are included as previous issue, but children by former marriages and stillborn children are excluded. The tables cannot be given in detail but the following are their most salient features. More complete tabulations are shown in "Australian Demography," Bulletin No. 52 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 between 32 and 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 1934 was 2.83, compared with 2.89 in 1933, 2.95 in 1932 and 1931, and 2.92 in 1930.

DURATION OF MARRIAGE AND ISSUE OF MOTHERS.—AUSTRALIA, 1934.

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 ..	18,098	18,256	1.01	17-18 ..	1,036	7,065	6.82
1-2 ..	11,609	14,556	1.25	18-19 ..	972	6,720	6.91
2-3 ..	9,687	16,784	1.73	19-20 ..	833	6,128	7.36
3-4 ..	8,080	16,775	2.08				
4-5 ..	7,871	18,784	2.39	20-21 ..	724	5,751	7.94
				21-22 ..	462	3,758	8.13
5-6 ..	6,995	18,646	2.67	22-23 ..	418	3,548	8.49
6-7 ..	6,234	18,568	2.98	23-24 ..	300	2,692	8.97
7-8 ..	5,235	17,322	3.31	24-25 ..	192	1,839	9.58
8-9 ..	4,481	16,243	3.62				
9-10 ..	3,785	15,005	3.96	25-26 ..	109	1,066	9.78
				26-27 ..	69	693	10.04
10-11 ..	3,277	14,047	4.29	27-28 ..	36	366	10.17
11-12 ..	2,809	12,789	4.55	28-29 ..	30	338	11.27
12-13 ..	2,698	13,138	4.87	29-30 ..	8	92	11.50
13-14 ..	2,489	13,086	5.26				
14-15 ..	2,087	11,657	5.59	30-31 ..	3	43	14.33
				31-32 ..	2	29	14.50
15-16 ..	1,597	9,684	6.06	32-33 ..	2	29	14.50
16-17 ..	1,211	7,644	6.31				
				Total ..	103,439	293,141	2.83

(iii) *Ages of Mothers and Issue.* The following table shows the average number of children borne by mothers of different ages. In the younger ages there is, naturally, little difference in the average number of children to each mother, but with the increase

of the age of the mother the number of issue has fallen in comparison with past years. During the period 1911 to 1934 the average issue of mothers of all ages has fallen by 15.27 per cent.—from 3.34 in 1911 to 2.83 in 1934 :—

#### AGES AND ISSUE OF MOTHERS.—AUSTRALIA.

Ages of Mothers.	Average Number of Children.				Ages of Mothers.	Average Number of Children.			
	1911.	1921.	1931.	1934.		1911.	1921.	1931.	1934.
Under 20 years ..	1.18	1.16	1.21	1.20	40-44 years ..	6.97	6.27	6.00	6.04
20-24 years ..	1.77	1.64	1.74	1.70	45 years and over ..	8.52	8.04	7.48	7.72
25-29 " ..	2.64	2.44	2.46	2.38					
30-34 " ..	3.82	3.57	3.44	3.34					
35-39 " ..	5.28	4.95	4.71	4.60	All ages ..	3.34	3.08	2.95	2.83

(iv) *Previous Issue of Mothers, Various Ages.* The previous issue, according to the age of the mother, is given in the following table :—

#### PREVIOUS ISSUE OF MOTHERS OF VARIOUS AGES.—AUSTRALIA, 1934.

Previous Issue.	Mothers' Ages.							
	Under 20 Years.	20-24 Years.	25-29 Years.	30-34 Years.	35-39 Years.	40-44 Years.	45 Years and Over.	Total.
0	4,777	14,257	10,170	3,852	1,254	308	17	34,635
1	960	7,990	8,635	4,955	1,774	410	13	24,737
2	109	3,147	5,563	4,304	2,099	574	22	15,818
3	5	1,069	3,197	3,164	1,990	654	37	10,116
4	1	248	1,648	2,191	1,638	584	40	6,350
5	..	54	730	1,448	1,340	611	42	4,225
6	..	16	239	928	1,101	515	49	2,848
7	..	2	82	478	808	486	50	1,906
8	..	..	29	199	496	381	36	1,141
9	..	..	2	81	276	314	46	719
10	..	..	..	31	174	208	25	438
11	..	..	..	7	74	132	30	243
12	..	..	..	3	30	90	16	139
13	..	..	..	1	12	38	16	67
14	..	..	..	..	7	21	6	34
15	..	..	..	..	4	6	2	12
16	..	..	..	..	..	5	3	8
17	..	..	..	..	..	3	..	3
Total Mothers	5,852	26,783	30,295	21,642	13,077	5,340	450	103,439

(v) *Previous Issue of Mothers of Twins and Triplets.* Figures regarding the previous issue of mothers of twins and triplets show that 289 mothers had twins at their first confinement; 246 at their second; 188 at their third; 138 at their fourth; 90 at their fifth; 62 at their sixth; 46 at their seventh; 32 at their eighth; 17 at their ninth; 9 at their tenth; 4 at their eleventh; and 2 at their thirteenth.

Of the 12 cases of triplets registered during 1934, 5 were second, 1 third, 2 fourth, 1 fifth, 2 sixth, and 1 seventh confinements.

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 1934 respectively. Twins, triplets and quadruplets are included, the eldest born only being enumerated:—

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH.—AUSTRALIA.

Interval.	Number of First Children.				Percentage on Total.			
	1911.	1921.	1931.	1934.	1911.	1921.	1931.	1934.
					%	%	%	%
Under 1 month ..	562	437	395	298	1.81	1.07	1.15	0.86
1 month ..	608	538	523	401	1.96	1.31	1.52	1.16
2 months ..	817	735	750	625	2.63	1.79	2.17	1.81
3 " ..	1,125	1,017	1,135	996	3.63	2.48	3.29	2.88
4 " ..	1,299	1,336	1,409	1,417	4.19	3.26	4.09	4.09
5 " ..	1,651	1,781	1,968	1,993	5.33	4.34	5.71	5.75
6 " ..	2,089	2,420	2,517	2,809	6.74	5.90	7.30	8.11
7 " ..	1,602	2,231	2,022	2,167	5.17	5.44	5.86	6.26
8 " ..	1,529	1,950	1,139	1,276	4.93	4.75	3.30	3.68
9 " ..	3,361	4,222	2,272	2,380	10.84	10.29	6.59	6.87
10 " ..	2,623	3,630	1,859	1,986	8.46	8.85	5.39	5.73
11 " ..	1,893	2,645	1,636	1,603	6.11	6.45	4.74	4.63
Total under 1 year	19,159	22,942	17,625	17,951	61.80	55.93	51.11	51.83
1-2 years ..	7,400	11,149	8,888	8,749	23.87	27.18	25.77	25.26
2-3 " ..	2,101	2,923	3,441	3,236	6.78	7.13	9.98	9.35
3-4 " ..	908	1,413	1,823	1,604	2.93	3.45	5.29	4.63
4-5 " ..	471	837	967	1,057	1.52	2.04	2.80	3.05
5-9 " ..	762	1,473	1,424	1,746	2.46	3.59	4.13	5.04
10-14 " ..	159	223	262	238	0.51	0.54	0.76	0.69
15-19 " ..	31	54	50	46	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	34,635	100.00	100.00	100.00	100.00

The masculinity of first births was 104.37 as compared with 104.14 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 nuptial and ex-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 3 to 4. 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. 52, 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 80 per cent. among mothers under 20 years of age to a minimum among mothers 25 to 34 years and then rises rapidly to mothers 45 years and over.

**AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, ETC.—AUSTRALIA.**

Age of Mother at Birth of Child.	1934.				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.	1934.
	I	II.	III.	IV.				
Under 20 years	1,431	3,594	5,025	6,208	% 83.12	% 79.23	% 82.60	% 80.94
20 to 24 years	1,703	6,100	7,803	15,960	53.91	45.82	48.43	48.89
25 to 29 "	766	1,620	2,386	10,936	32.50	25.60	21.89	21.82
30 to 34 "	497	462	959	4,349	28.06	23.05	22.20	22.05
35 to 39 "	322	169	491	1,576	32.64	29.43	30.86	31.15
40 to 44 "	146	35	181	454	36.56	35.31	38.95	39.87
45 and over ..	19	2	21	36	60.47	54.84	48.89	58.33
Total ..	4,884	11,982	16,866	39,519	48.14	39.74	43.80	42.68

13. Interval between Birth and Registration of Birth.—Detailed information for the years 1911 to 1921 regarding the period which elapsed between birth and registration of birth was contained in Demography Bulletins issued by this Bureau for those years. The average interval for the year 1921 was 14.22 days for all children. Although no complete measurements have been made since 1921 it may be assumed that the interval has decreased to about 13 days.

### § 2. Marriages.

1. Marriages, 1934.—The number of marriages registered in Australia during the year ended the 31st December, 1934, was 51,465, giving a rate of 7.71 per 1,000 of the mean population for the year. The number of marriages in each State during 1934 together with the crude marriage rates for a series of years are given hereunder:—

#### MARRIAGES.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Aus-tralia.
Marriages in 1934..	20,210	13,862	7,635	4,310	3,682	1,678	30	58	51,465
Crude Rate—(a)									
1901 ..	7.73	6.99	6.66	6.45	9.68	7.76	1.05	..	7.32
1911 ..	9.19	8.40	8.41	9.80	8.44	7.77	3.02	2.81	8.79
1921 ..	8.78	8.90	7.82	8.82	7.95	7.82	3.83	0.80	8.59
1922 ..	8.16	8.27	7.57	8.21	7.17	7.77	3.52	..	8.03
1923 ..	7.96	8.16	7.31	7.95	6.77	7.36	1.90	1.19	7.82
1924 ..	8.05	8.10	7.66	7.82	7.15	7.07	4.57	1.02	7.89
1925 ..	8.07	8.00	7.73	7.88	7.36	6.98	5.22	2.29	7.89
1926 ..	8.19	7.90	7.50	8.13	7.47	6.71	3.55	2.74	7.90
1927 ..	8.34	7.88	7.21	7.96	7.93	6.72	5.84	3.88	7.93
1928 ..	8.16	7.53	7.14	7.26	8.12	6.97	5.16	3.54	7.71
1929 ..	7.80	7.31	6.87	6.50	8.00	7.86	4.48	5.03	7.43
1930 ..	6.86	6.52	6.81	5.78	7.47	6.56	6.23	3.79	6.69
1931 ..	6.02	5.66	6.43	5.33	6.34	6.68	5.04	4.09	5.96
1932 ..	6.73	6.49	6.86	6.29	6.68	6.64	4.47	4.82	6.63
1933 ..	7.07	6.96	6.84	6.84	7.69	7.13	5.76	5.85	7.03
1934 ..	7.70	7.57	7.99	7.39	8.34	7.32	6.08	6.26	7.71

(a) Number of marriages (not persons married) per 1,000 of mean annual population.

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 four 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 follow:—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.

2. Marriage Rates in Various Countries.—The following table shows the marriage rate for Australia in comparison with the rates for various other countries:—

CRUDE MARRIAGE RATES. (a)—VARIOUS COUNTRIES.

Country.	1908 to 1913.	1934.	Country.	1908 to 1913.	1934.
Germany .. ..	7.8	11.2	New South Wales ..	8.8	7.7
Soviet Union ..	8.6	10.6(f)	Australia .. ..	8.4	7.7
Denmark .. ..	7.3	9.5	Victoria .. ..	8.0	7.6
Union of South Africa(c)	(d)	8.8(e)	Scotland .. ..	6.7	7.5
Spain .. ..	7.0	8.6	South Australia ..	9.1	7.4
England and Wales ..	7.6	8.5	Netherlands .. ..	7.5	7.3
Poland .. ..	7.0	8.4	Tasmania .. ..	7.9	7.3
Rumania .. ..	9.5	8.3(e)	Italy .. ..	7.7	7.3
Western Australia ..	8.1	8.3	Japan .. ..	9.3	7.2(e)
Queensland .. ..	8.2	8.0	France .. ..	7.9	7.1
Czechoslovakia ..	7.7	7.9	Finland .. ..	6.1	6.9(e)
United States (b) ..	(d)	7.9(g)	Canada .. ..	(d)	6.8
Belgium .. ..	7.9	7.9(e)	Portugal .. ..	6.9	6.7
Switzerland .. ..	7.3	7.8	Norway .. ..	6.2	6.7
Sweden .. ..	6.0	7.8	Argentina .. ..	6.8	6.6
Great Britain and			Northern Ireland ..	5.2	6.4
Ireland .. ..	7.3	7.7(e)	Ceylon .. ..	5.2	5.5
New Zealand .. ..	8.5	7.7	Irish Free State ..	5.2	4.7

(a) Number of marriages per 1,000 of mean population. (b) Registration area. (c) White population only. (d) Not available. (e) For 1933. (f) For 1929. (g) For 1932.

3. Ages and Conjugal Condition at Marriage.—(i) *General.* The ages at marriage of bridegrooms and brides will be found in "Australian Demography," Bulletin No. 52, published by this Bureau. A summary in age-groups is given in the table hereunder, which also shows the previous conjugal condition of the contracting parties. There were 2,600 males who were less than twenty-one years of age married during 1934, while the corresponding number of females was 11,123. At the other extreme there were 64 men of sixty-five years and upwards who described themselves as bachelors, and 12 spinsters of corresponding age.

The information regarding the percentage distribution of bridegrooms and brides is shown in the last five lines of the table for the years 1911, 1921, 1931, 1933 and 1934.

## AGES AND CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1934.

Ages at Marriage.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20..	1,206	..	..	1,206	7,604	2	1	7,607
20-24 years	15,603	20	16	15,639	22,600	44	63	22,707
25-29 "	18,207	138	101	18,446	12,090	144	248	12,482
30-34 "	7,785	265	205	8,255	3,749	218	287	4,254
35-39 "	2,713	344	215	3,272	1,424	285	224	1,933
40-44 "	1,175	411	200	1,786	623	271	135	1,029
45-49 "	540	389	137	1,066	277	261	79	617
50-54 "	274	358	68	700	140	195	37	372
55-59 "	124	261	38	423	71	120	9	200
60-64 "	62	217	13	292	30	97	8	135
65 years and over ..	64	302	14	380	12	114	3	129
Total ..	47,753	2,705	1,007	51,465	48,620	1,751	1,094	51,465
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
1933 ..	92.76	5.22	2.02	100.00	94.53	3.48	1.99	100.00
1934 ..	92.79	5.26	1.95	100.00	94.47	3.40	2.13	100.00

(ii) *Relative Ages, Bridegrooms and Brides.* The relative ages of bridegrooms and brides are shown for single years in "Australian Demography," Bulletin No. 52; a condensation into age-groups of five years is given below:—

## RELATIVE AGES OF PERSONS MARRIED.—AUSTRALIA, 1934.

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 ..	1,206	3	848	336	15	4	..	..	..
20 to 24 "	15,639	10	4,386	9,503	1,573	137	19	7	4
25 to 29 "	18,446	4	1,762	9,266	6,308	926	137	35	8
30 to 34 "	8,255	3	423	2,654	3,067	1,598	403	80	27
35 to 39 "	3,272	1	95	639	949	824	567	132	65
40 to 44 "	1,786	..	39	199	326	432	397	259	134
45 to 49 "	1,066	..	18	62	151	192	209	232	202
50 to 54 "	700	..	6	31	59	92	92	148	272
55 to 59 "	423	..	2	4	24	23	61	78	231
60 to 64 "	292	..	4	8	7	18	28	26	201
65 years and over ..	380	..	3	5	3	8	20	32	309
Total Brides ..	51,465	21	7,586	22,707	12,482	4,254	1,933	1,029	1,453

(iii) *Average Ages, Bridegrooms and Brides.* The age at marriage of brides has declined slightly during recent years to an average of about 25½ years. The figures for the five years are:—1930, 25.49; 1931, 25.30; 1932, 25.41; 1933, 25.42; and 1934, 25.65. For the five years 1907-11 the average age was 25.70 years compared

with 25.92 years for the five years 1912-16, 26.07 years for the five years 1917-21, and 25.76 years for the five years 1925-29. The average age of bridegrooms was in 1930, 29.20; in 1931, 28.99; in 1932, 29.06; in 1933, 29.07; and in 1934, 29.24 years. It follows, therefore, that brides are, generally speaking, three and one-half years younger than bridegrooms.

4. **Previous Conjugal Condition.**—The number of bachelors and spinsters, widowed and divorced persons, who were married during the year 1934, has already been given. The following table shows the conjugal condition of the contracting parties:—

**PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1934.**

Conjugal Condition of Bridegrooms.	Total Bridegrooms.	Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors .. .. .	47,753	46,091	899	763
Widowers .. .. .	2,705	1,786	733	186
Divorced .. .. .	1,007	743	119	145
<b>Total Brides .. .. .</b>	<b>51,465</b>	<b>48,620</b>	<b>1,751</b>	<b>1,094</b>

5. **Birthplaces of Persons Married.**—The following table shows the birthplaces of persons who were married in 1911, 1921 and 1934. In "Australian Demography," Bulletin No. 52, the relative birthplaces of bridegrooms and brides married in 1934 will be found tabulated in detail:—

**BIRTHPLACES OF PERSONS MARRIED.—AUSTRALIA.**

Birthplace.	Bridegrooms.			Brides.		
	1911.	1921.	1934.	1911.	1921.	1934.
<b>AUSTRALASIA—</b>						
Australia .. .. .	31,298	37,925	43,273	33,922	40,137	46,540
New Zealand .. .. .	450	405	492	303	280	368
<b>EUROPE—</b>						
England and Wales .. .. .	3,023	3,590	4,592	1,675	2,488	2,829
Scotland .. .. .	739	867	1,364	460	656	866
Ireland .. .. .	494	470	434	363	281	226
Other British Possessions .. .. .	16	30	49	9	14	22
Western Europe .. .. .	205	175	127	45	45	38
Central Europe .. .. .	311	149	201	92	61	77
Southern Europe .. .. .	62	139	411	21	56	170
Eastern Europe .. .. .	47	83	75	18	21	37
<b>ASIA—</b>						
British Possessions .. .. .	59	59	87	27	24	46
Foreign Countries .. .. .	83	57	46	16	12	39
<b>AFRICA—</b>						
British Possessions .. .. .	42	58	114	20	39	74
Foreign Countries .. .. .	1	3	10	2	5	6
<b>AMERICA—</b>						
Canada .. .. .	44	45	43	6	11	37
Other British Possessions .. .. .	6	8	7	..	5	1
United States of America .. .. .	58	90	72	16	25	34
Other Foreign Countries .. .. .	44	11	13	15	10	9
<b>POLYNESIA—</b>						
British .. .. .	13	9	20	7	11	16
Foreign .. .. .	25	18	8	7	13	13
Indefinite .. .. .	41	22	27	37	19	17
<b>Total .. .. .</b>	<b>37,061</b>	<b>44,213</b>	<b>51,465</b>	<b>37,061</b>	<b>44,213</b>	<b>51,465</b>



6. **Occupations and Ages of Bridegrooms.**—On the experience of 1931 the average ages at marriage of bridegrooms in the larger classes of occupations were as follow:—Professional, 30.01 years; Domestic, 30.47 years; Commercial, 29.20 years; Transport, 28.71 years; Industrial, 28.08 years; and Primary Producers, 30.15 years.

7. **Fertility of Marriages.**—The quotient obtained by division of the nuptial births registered, e.g., during the five years 1930 to 1934, by the number of marriages registered during the five years 1925 to 1929, 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 2.58—in other words, the number of children to be expected from every marriage in Australia is about three. This method, while not absolutely accurate, generally furnishes results which agree fairly well with those found by more elaborate and careful investigation. For the following five-yearly periods the results were:—1925-29, 2.84; 1926-30, 2.88; 1927-31, 2.80; 1928-32, 2.53; 1929-33, 2.91; and 1930-34, 2.58.

8. **Celebration of Marriages.**—In all the States marriages may be celebrated either by ministers of religion whose names are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1934 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 1934 are shown in the following table:—

MARRIAGES IN EACH DENOMINATION, 1934.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.	
									No.	Per Cent.
										%
Church of Eng-land ..	8,190	3,997	2,298	974	1,393	635	..	25	17,512	34.03
Roman Catholic ..	4,280	2,540	1,773	447	594	274	4	24	9,936	19.31
Methodist ..	2,354	2,148	1,187	1,348	567	246	2	3	7,855	15.26
Presbyterian ..	2,382	2,330	1,165	192	321	141	..	2	6,533	12.69
Baptist ..	372	654	165	169	60	71	..	3	1,494	2.90
Congregational ..	420	248	128	229	104	52	..	..	1,181	2.29
Church of Christ ..	120	391	58	209	67	16	13	..	874	1.70
Lutheran ..	34	77	168	221	2	..	..	..	502	0.98
Salvation Army	101	104	68	33	24	13	..	..	343	0.67
Seventh-Day Adventist ..	52	15	21	7	16	4	..	..	115	0.22
Greek Catholic ..	29	11	10	5	16	..	..	..	71	0.14
Unitarian ..	4	43	..	12	..	..	..	..	59	0.11
Other Christian ..	143	84	282	43	15	19	4	..	590	1.15
Hebrew ..	62	64	3	3	8	..	..	..	140	0.27
Registrar's Office	1,667	1,156	309	418	495	207	7	1	4,260	8.28
<b>Total ..</b>	<b>20,210</b>	<b>13,862</b>	<b>7,635</b>	<b>4,310</b>	<b>3,682</b>	<b>1,678</b>	<b>30</b>	<b>58</b>	<b>51,465</b>	<b>100.00</b>
<b>Marriages cele- brated by Ministers of Religion</b>										
per cent.	91.75	91.66	95.95	90.30	86.56	87.66	76.67	98.28	91.72	..
<b>Marriages cele- brated by Civil Officers</b>										
per cent.	8.25	8.34	4.05	9.70	13.44	12.34	23.33	1.72	8.28	..

## § 3. Deaths.

1. Deaths, 1934.—The following table shows the number of deaths, male and female, registered in each State during the year :—

## DEATHS, 1934.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
Male ..	13,173	9,913	4,821	2,835	2,531	1,227	50	21	34,571
Female ..	10,301	8,735	3,371	2,568	1,545	1,118	10	10	27,658
Total ..	23,474	18,648	8,192	5,403	4,076	2,345	60	31	62,229

2. Crude Death Rates.—The crude death rates at intervals from 1901 to 1934 are shown in the following table :—

## CRUDE DEATH RATES.(a)

Year and Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
1901 ..	11.75	13.22	11.98	11.12	13.39	10.51	19.10	(b)	12.22
1911 ..	10.31	11.52	10.65	9.81	10.19	10.14	19.63	5.61	10.66
1921 ..	9.50	10.52	9.37	10.02	10.42	10.30	20.44	1.61	9.91
1922 ..	8.89	9.65	9.21	9.13	9.28	9.27	16.22	2.11	9.21
1923 ..	9.56	10.71	9.93	9.63	8.35	9.87	10.30	2.98	9.88
1924 ..	9.28	10.05	9.00	9.25	8.99	9.82	11.84	3.83	9.46
1925 ..	9.07	9.47	9.02	9.22	8.89	9.26	16.19	2.50	9.18
1926 ..	9.44	9.63	9.58	8.81	8.79	8.94	16.22	6.60	9.40
1927 ..	9.46	9.71	9.28	9.07	8.65	9.54	17.07	6.96	9.42
1928 ..	9.21	10.11	9.01	9.02	8.93	9.89	15.92	5.73	9.42
1929 ..	9.82	9.44	9.26	8.80	9.34	9.99	14.55	4.57	9.52
1930 ..	8.39	8.93	8.19	8.46	8.80	8.82	15.46	3.57	8.56
1931 ..	8.32	9.47	8.14	8.49	8.51	9.15	14.12	4.09	8.67
1932 ..	8.27	9.29	8.35	8.58	8.54	8.90	14.85	3.25	8.63
1933 ..	8.58	9.59	8.84	8.44	8.64	9.60	12.55	4.20	8.92
1934—									
Male ..	9.91	10.92	9.62	9.71	10.77	10.59	14.59	4.21	10.20
Female ..	7.96	9.46	7.41	8.82	7.47	9.87	6.60	2.34	8.41
Total ..	8.95	10.19	8.57	9.26	9.23	10.23	12.16	3.35	9.32

(a) Number of deaths per 1,000 of annual mean population. (b) Part of New South Wales prior to 1911.

3. Index of Mortality.—(i) *General.* The death rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking the age constitution into consideration. Other conditions being equal, however, the death rate of a country will be lower if it contains a large percentage of young people (not infants). In order to obtain a comparison of the mortality of various countries on a uniform basis so far as sex and age constitution are concerned, the standard population compiled by the International Institute of Statistics according to age distribution (eleven age-groups) of the population of nineteen European countries at their censuses nearest to the year 1900 is used in the computation of the "Index of Mortality" as distinguished from the crude death rate. Full details of the "Standard Population" will be found in Year Book No. 22, page 962.

(ii) *Comparison of Rates.* For the year 1934 on the basis of the crude rates there is a range of 1.66 per 1,000 persons between the lowest rate in Queensland (8.57) and the highest rate in Tasmania (10.23), whereas the standardized rates decrease the range to 1.06 per 1,000, i.e., between 8.39 in South Australia and 9.45 in Western Australia. In its application to the figures for 1934 the process of adjustment altered the relative positions of all States, particularly those of South Australia and Western Australia, from those determined by the crude rates. Thus South Australia which was third in the crude rates became sixth, and Western Australia, which was fourth, became first. The index of mortality for each State for 1921, 1931, 1933 and 1934 is shown in the following table:—

## INDEX OF MORTALITY.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
1921	10.35	10.79	10.24	10.38	11.88	10.83	13.71	1.89	10.58
1931	8.41	8.78	8.36	7.85	8.66	8.58	16.37	5.27	8.49
1933	8.52	8.74	9.10	7.66	8.74	8.86	7.71	6.09	8.62
1934	8.96	9.30	8.84	8.39	9.45	9.43	10.97	5.14	9.04

4. *Crude Death Rates of Various Countries.*—The following table gives the crude death rates of various countries for a pre-war period and the latest available year:—

## CRUDE DEATH RATES.(a)—VARIOUS COUNTRIES.

Country.	1908-13.	1934.	Country.	1908-13.	1934.
Netherlands ..	13.9	8.4	Argentina ..	17.5	11.8
New Zealand ..	9.3	8.5	England and Wales ..	14.1	11.8
Queensland ..	10.3	8.6	Great Britain and Ireland ..	14.5	12.5(e)
New South Wales ..	10.3	9.0	Scotland ..	15.5	12.9
Western Australia ..	10.3	9.2	Irish Free State ..	16.9	13.0
South Australia ..	10.1	9.3	Belgium ..	15.7	13.1(e)
<b>Australia ..</b>	<b>10.7</b>	<b>9.3</b>	Italy ..	20.4	13.1
Canada (including Quebec) ..	(c)	9.4	Czechoslovakia ..	21.0	13.2
Union of South Africa (Whites) ..	(c)	9.7	Finland ..	16.4	13.6(e)
Norway ..	13.6	9.8	Northern Ireland ..	16.9	14.3(e)
Tasmania ..	10.7	10.2	Poland ..	21.0	14.5
Victoria ..	11.7	10.2	France ..	18.6	15.1
Denmark ..	13.2	10.4	Spain ..	22.8	15.9
United States (b) ..	(c)	10.6(e)	Japan ..	20.5	17.8(e)
Germany ..	16.5	10.9	Rumania ..	24.7	18.7(e)
Sweden ..	14.0	11.2	Soviet Union ..	28.9	18.8(d)
Switzerland ..	15.2	11.3	Ceylon ..	31.4	22.9
			Egypt ..	25.8	27.8(e)

(a) Number of deaths per 1,000 of mean population.  
available. (d) For year 1928.

(b) Registration area.

(c) For year 1933.

(e) Not

5. *Infantile Deaths and Death Rates.*—(i) *Australia, 1901 to 1934.* 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 296,887 male infants born from 1930 to 1934, 14,126 (47.57 per 1,000) died during their first year of life, while of 281,698 female infants only 10,683 (37.92 per 1,000) died during the first year.

## 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
1930 ..	3,419	2,646	6,065	51.90	42.33	47.24
1931 ..	2,889	2,105	4,994	47.34	36.62	42.14
1932 ..	2,621	1,960	4,581	46.00	36.32	41.30
1933 ..	2,500	1,897	4,397	43.74	35.06	39.52
1934 ..	2,697	2,075	4,772	48.29	38.69	43.59

(a) Number of deaths under 1 year per 1,000 live births registered.

(ii) States, 1901 to 1934. For the States and Territories the rates of infantile mortality during the period 1901-34 were as follow :—

## INFANTILE MORTALITY RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Cap. Terr.	Australia.
1901-05..	97.02	95.91	94.35	86.60	124.79	90.00	149.35	(c)	96.91
1906-10..	77.30	79.90	71.27	68.38	89.80	83.18	143.79	(c)	77.61
1911-15..	71.05	72.23	65.68	67.26	72.43	70.91	85.11	32.56	70.32
1916-20..	64.82	67.18	63.04	61.93	61.73	63.84	67.15	40.40	64.67
1921-25..	58.11	61.93	50.99	54.19	59.14	60.44	40.82	60.24	57.88
1926-30..	54.74	52.34	47.41	46.95	49.27	53.37	66.09	71.31	51.99
1930 ..	49.84	46.61	39.97	48.38	46.74	50.56	70.42	24.39 <sup>b</sup>	47.24
1931 ..	43.48	44.47	36.67	36.35	41.53	45.90	83.33	37.27 <sup>b</sup>	42.14
1932 ..	40.98	43.00	40.19	36.62	44.57	41.19	75.95	19.87 <sup>b</sup>	41.30
1933 ..	39.35	40.43	42.74	32.13	36.83	41.07	94.59	45.80 <sup>b</sup>	39.52
1934 ..	46.36	44.63	40.61	35.58	40.89	42.28	68.18	7.46 <sup>b</sup>	43.59

(a) Number of deaths under 1 year per 1,000 live births registered. (b) Based on deaths of infants born in the Federal Capital Territory. (c) Part of New South Wales prior to 1911.

## INFANTILE MORTALITY RATES—UNDER ONE MONTH AND UNDER ONE YEAR.

State.	Under one month.			One month and under one year.		
	1911-15.	1921-25.	1934.	1911-15.	1921-25.	1934.
New South Wales ..	31.75	29.97	28.94	39.30	28.14	17.42
Victoria ..	33.07	32.19	27.78	39.16	29.74	16.85
Queensland ..	30.73	27.44	28.80	34.95	23.55	11.81
South Australia ..	29.07	27.83	22.46	38.19	26.36	13.12
Western Australia ..	30.87	27.56	26.15	41.56	31.58	14.74
Tasmania ..	32.68	31.73	27.07	38.23	28.71	15.21
Australia ..	31.69	29.91	27.80	38.63	27.97	15.79

These tables disclose the striking decrease in infantile mortality, the rate for 1934 being 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 1934 numbered 4,772, the mortality rate being 43.59. Among the States South Australia had the lowest and New South Wales the highest rate.

(iii) *Districts.* The total number of births and of deaths of children under one year of age for 1934 are shown in Australian Demography Bulletin, No. 52, for each of the sixty-four districts for which the vital statistics have been tabulated.

(iv) *Various Countries and Cities.* Compared with other countries the States of Australia occupy a very favourable position, being surpassed only by New Zealand, and in some instances in 1934 by Netherlands. The Australian cities, Adelaide, Perth, Hobart, Brisbane and Sydney are among the cities having the twelve lowest rates in the list shown on the next page. The list is headed by Oslo (20), Wellington (31) and San Francisco (33), the next nine cities being Amsterdam, Auckland, Stockholm, Christchurch, Adelaide, Perth, Hobart, Brisbane and Sydney. The highest rate recorded in 1934 was 247 in Bombay. A study of the respective rates shows that a high birth rate is often, though not invariably, accompanied by a high infantile death rate:—

#### INFANTILE MORTALITY RATES.(a)—VARIOUS COUNTRIES.

Country.	Infantile Mortality Rate.(a)		Crude Birth Rate.(b) 1934.	Country.	Infantile Mortality Rate.(a)		Crude Birth Rate.(b) 1934.
	1906-15.	1934.			1906-15.	1934.	
New Zealand ..	61	32	16.5	Great Britain and Ireland ..	..	66(e)	14.9(e)
South Australia ..	68	36	14.5	Germany ..	168	66	18.0
Western Australia ..	81	41	17.7	Denmark ..	103	68(e)	17.8
Queensland ..	68	41	18.2	France ..	122	69	16.1
Tasmania ..	77	42	19.5	Northern Ireland ..	92	70	19.4(e)
Netherlands ..	115	43	20.7	Canada (including Quebec) ..	(c)	72	20.4
<b>Australia ..</b>	<b>74</b>	<b>44</b>	<b>16.4</b>	Scotland ..	113	78	18.0
Victoria ..	76	45	15.2	Belgium ..	139	85(e)	16.5(e)
New South Wales ..	74	46	16.5	Italy ..	144	100(e)	23.2
Switzerland ..	108	46	16.2	Spain ..	156	113	20.2
Norway ..	68	47(f)	14.8	Japan ..	151	121(e)	31.6(e)
Sweden ..	74	47	13.8	Czechoslovakia ..	(c)	126	18.8
England and Wales ..	113	58	14.8	Hungary ..	205	150	21.4
United States (Registration Area)	(c)	60	17.1	Egypt ..	(c)	162(e)	44.1(e)
Union of South Africa (Whites)	(c)	62	23.5	Ceylon ..	(c)	173	37.2
Irish Free State	92	63	19.2	Soviet Union ..	(c)	173(d)	42.7(f)
				Rumania ..	(c)	174(e)	32.0(e)

(a) Number of deaths under 1 year per 1,000 births registered of mean population. (c) Not available. (d) For year 1930.

(b) Number of births per 1,000 of year 1932. (e) For year 1933. (f) For

## INFANTILE MORTALITY RATES.(a)—VARIOUS CITIES.

City.	Rate of Infantile Mortality.(a)		City.	Rate of Infantile Mortality.(a)	
	1921.	1934.		1921.	1934.
Oslo .. ..	54	20	Antwerp .. ..	98	57
Wellington ..	61	31	Cologne .. ..	140	59
San Francisco ..	50	33	Berlin .. ..	135	60
Amsterdam ..	54	34	Edinburgh ..	96	63
Auckland ..	54	37	Washington ..	83	65
Stockholm ..	61	39	Munich .. ..	126	65
Christchurch ..	54	39	Breslau .. ..	170	66
Adelaide ..	74	40	London .. ..	80	67
Perth .. ..	81	41	Birmingham ..	82	67
Hobart .. ..	75	41	Leipzig .. ..	136	67
Brisbane ..	62	42	Manchester ..	94	69
Sydney .. ..	62	44	Leeds .. ..	98	71
Cape Town ..	82	45	Paris .. ..	95	76
Copenhagen ..	67	45	Aberdeen .. ..	108	77
Dresden .. ..	115	45	Johannesburg ..	101	77
Melbourne ..	74	48	Dublin .. ..	123	79
Chicago .. ..	84	49	Liverpool .. ..	105	80
Detroit .. ..	83	50	Madrid .. ..	..	81
Toronto .. ..	91	51	Belfast .. ..	115	81
New York City ..	72	52	Montreal .. ..	158	93
Los Angeles ..	68	53	Glasgow .. ..	106	98
Philadelphia ..	78	54	Cairo .. ..	..	201
Sheffield .. ..	99	55	Madras .. ..	281	232
Hamburg .. ..	95	55	Bombay .. ..	402	247

(a) Number of deaths under 1 year per 1,000 births registered.

## CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.—AUSTRALIA, 1934.

Age at Death.	Measles.	Whooping Cough.	Diphtheria.	Erysipelas.	Meningococcal Meningitis.	Pulmonary Tuberculosis.	Tubercular Meningitis.	Tuberculosis, other forms.	Syphills.	Meningitis.	Convulsions.	Acute Bronchitis.
Under 1 week .. ..	..	..	..	..	..	..	..	..	2	..	17	2
1 week and under 2 weeks ..	..	..	3	1	..	..	1	..	..	..	2	4
2 weeks " 3 .. ..	..	3	1	..	..	..	..	..	2	2	1	1
3 " " 1 month .. ..	..	3	1	..	..	..	..	..	1	2	..	3
1 month " 2 months .. ..	..	36	1	1	1	..	..	..	1	4	2	4
2 months " 3 " .. ..	..	37	1	1	1	..	..	..	7	10	1	5
3 " " 4 " .. ..	1	30	3	1	1	..	..	..	2	7	1	4
4 " " 5 " .. ..	1	24	..	..	..	1	..	..	2	3	1	3
5 " " 6 " .. ..	..	12	..	..	..	1	..	2	1	5	..	..
6 " " 7 " .. ..	..	13	1	..	..	1	..	1	1	6	..	..
7 " " 8 " .. ..	1	18	2	1	..	1	..	1	1	1	1	1
8 " " 9 " .. ..	3	17	2	..	..	3	1	1	1	6	1	1
9 " " 10 " .. ..	..	22	3	..	..	5	1	..	2	1	1	1
10 " " 11 " .. ..	..	20	5	..	1	1	1	..	5	2	..	..
11 " " 1 year .. ..	6	25	4	1	1	1	2	1	1	1	..	..
Total under 1 year .. ..	12	260	27	5	7	4	14	5	21	54	30	28
Infantile Mortality (a)—												
1911 .. ..	0.34	1.57	0.25	0.16	..	0.08	0.31	0.22	0.85	1.83	2.55	2.34
1921 .. ..	0.15	1.97	0.59	0.24	0.03	0.07	0.18	0.08	0.56	1.10	1.45	1.50
1931 .. ..	0.10	1.58	0.25	0.11	0.08	0.03	0.22	0.04	0.20	0.32	0.39	0.32
1934 .. ..	0.11	2.38	0.25	0.04	0.06	0.04	0.13	0.05	0.19	0.49	0.27	0.26
Ex-nuptial deaths under 1 year included in above	..	26	6	..	..	..	1	..	2	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
1934 .. ..	..	5.28	1.22	..	..	..	0.20	..	0.41	0.41	..	0.20

(a) Rate per 1,000 total births.

(b) Rate per 1,000 ex-nuptial births.

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.—AUSTRALIA,  
1934—continued.

Age at Death.	Broncho-Pneumonia.	Pneumonia.	Other Diseases of Stomach.	Diarrhoea and Enteritis.	Hernia and Intestinal Obstruction.	Malformation.	Congenital Debility, Icterus and Sclerema.	Premature Birth.	Injury at Birth.	Other Diseases peculiar to Early Infancy.	Other Causes.	Total.
Under 1 week . . . . .	30	13	..	3	1	278	133	1,244	348	365	56	2,492
1 week and under 2 weeks	19	4	1	9	2	48	16	101	27	56	13	301
2 weeks	21	2	..	4	..	20	8	38	7	18	16	144
3 " " 1 month	13	3	..	4	1	17	7	20	3	7	14	106
1 month " 2 mths	65	14	1	21	6	47	22	16	21	9	47	302
2 months " 3 "	40	11	1	17	1	23	19	10	10	4	21	211
3 " " 4 "	34	13	1	20	4	30	10	3	1	..	23	191
4 " " 5 "	22	15	..	29	1	10	5	..	..	..	23	141
5 " " 6 "	28	13	..	37	3	12	4	1	..	..	23	143
6 " " 7 "	23	8	..	29	4	12	4	1	..	1	10	125
7 " " 8 "	24	10	..	23	7	9	3	..	1	..	21	124
8 " " 9 "	24	10	..	31	2	5	4	..	..	..	23	135
9 " " 10 "	16	11	..	14	2	8	..	..	..	..	21	104
10 " " 11 "	21	10	1	20	4	5	..	..	..	..	25	133
11 " " 1 year	31	6	..	20	2	7	5	..	..	..	16	120
<b>Total under 1 year ..</b>	<b>411</b>	<b>143</b>	<b>9</b>	<b>288</b>	<b>42</b>	<b>528</b>	<b>236</b>	<b>1,439</b>	<b>392</b>	<b>455</b>	<b>362</b>	<b>4,772</b>
<b>Infantile Mortality (a)</b>												
1911 .. .. .	2.86	1.90	0.47	16.99	0.72	2.99	..	22.41	4.07		5.58	68.49
1921 .. .. .	3.08	2.08	0.71	15.01	0.57	3.74	7.64	15.29	5.53		4.16	65.73
1931 .. .. .	2.82	1.62	0.13	3.26	0.41	4.23	2.60	14.04	2.81	3.29	3.29	42.14
1934 .. .. .	3.75	1.31	0.08	2.63	0.38	4.82	2.16	13.14	3.58	4.16	3.31	43.59
<b>Ex-nuptial deaths under 1 year included in above ..</b>	<b>39</b>	<b>7</b>	<b>..</b>	<b>26</b>	<b>1</b>	<b>30</b>	<b>24</b>	<b>98</b>	<b>14</b>	<b>17</b>	<b>35</b>	<b>329</b>
<b>Infantile Mortality (b)—</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
1934 .. .. .	7.92	1.42	..	5.28	0.20	6.09	4.87	19.90	2.84	3.45	7.11	66.80

(a) Rate per 1,000 total births.

(b) Rate per 1,000 ex-nuptial births.

(v) *Causes of Deaths of Children under one Year.* The preceding table gives for twenty-three causes the ages of all children who died under one year of age during 1934. The infantile mortality rates for 1911, 1921, 1931 and 1934 have been added for all births, and for 1925, 1931 and 1934 for ex-nuptial births. Particulars for males and females may be found in Bulletin No. 52 of "Australian Demography."

Pre-natal influences, such as malformation, congenital debility and premature birth, together with injuries at birth, accounted for 3,050 or 64 per cent. of all deaths under one year; and of these 3,050 deaths, 2,492 or 82 per cent., occurred less than a week after birth. Among the survivors of the first week, broncho-pneumonia caused the greatest number of deaths. This disease was responsible for 411 deaths, representing 9 per cent. of all deaths under one year, or 3.75 per 1,000 births. Diarrhoea and enteritis caused 288 deaths and whooping cough 260 deaths.

(vi) *Deaths of Ex-nuptial Children under one Year.* The deaths of ex-nuptial children were tabulated by this Bureau for the first time in 1925. The causes of death of these children in 1934 and the rates in respect of 1925, 1931 and 1934 are shown as an addendum to the preceding table.





7. Deaths at Single Ages and in Age-Groups.—(i) *General.* The 62,229 deaths registered in Australia in the year 1934 will be found tabulated in groups of five years for each State and Territory in Bulletin No. 52 "Australian Demography, 1934." The deaths during the first two years of life have been tabulated in shorter periods. A summary for Australia is given in the following table :—

## DEATHS AT SINGLE AGES AND IN AGE-GROUPS.—AUSTRALIA, 1934.

Ages.	Males.	Fe- males.	Total.	Ages.	Males.	Fe- males.	Total.
Under 1 week ..	1,439	1,053	2,492	Total 5-9 years ..	509	360	869
1 week and under 2 ..	172	129	301	" 10-14 " ..	413	305	720
2 weeks and under 3 ..	76	68	144	" 15-19 " ..	578	430	1,008
3 weeks and under 1 month ..	65	41	106				
Total under 1 month	1,752	1,291	3,043	" 20-24 " ..	768	629	1,397
				" 25-29 " ..	743	726	1,469
				" 30-34 " ..	772	729	1,501
				" 35-39 " ..	871	869	1,740
				" 40-44 " ..	1,220	1,063	2,283
				" 45-49 " ..	1,693	1,291	2,984
1 month and under 3 ..	316	197	513	" 50-54 " ..	2,012	1,442	3,454
3 months and under 6 ..	249	226	475	" 55-59 " ..	2,492	1,614	4,106
6 months and under 12	380	361	741	" 60-64 " ..	3,113	2,068	5,181
Total under 1 year ..	2,697	2,075	4,772	" 65-69 " ..	3,725	2,770	6,495
				" 70-74 " ..	4,213	3,281	7,494
				" 75-79 " ..	3,741	3,110	6,851
				" 80-84 " ..	2,400	2,176	4,576
1 year and under 2 ..	444	350	794	" 85-89 " ..	1,113	1,290	2,403
2 years ..	211	185	396	" 90-94 " ..	380	476	856
3 " ..	187	153	340	" 95-99 " ..	99	116	215
4 " ..	134	128	262	" 100 and over	18	17	35
				Age Unspecified ..	23	5	28
Total under 5 years ..	3,673	2,891	6,564	Total All Ages ..	34,571	27,658	62,229

(ii) *Rates.* The death rate per 1,000 living at each age in each State for the three years 1920, 1921 and 1922, i.e., the Census year 1921, and the years immediately preceding and following, may be found in Official Year Book No. 22, page 975. It is expected that figures based on the 1933 Census results will be available for the next issue of the Year Book.

8. Deaths of Centenarians.—Particulars concerning the thirty-five persons—eighteen males and seventeen females—who died in 1934 aged 100 years and upwards, are given in the following table. While the Registrars-General of the various States verify the figures as far as possible, absolute reliance cannot be placed on their accuracy, owing to the well-known tendency of very old people to overstate their ages. In connexion with this question it may be noted that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically from 1874 only, the Act of 1836 having left many loopholes for those unwilling to register the births of their children.

## DEATHS OF CENTENARIANS.—AUSTRALIA, 1934.

Age.	Locality where Death occurred.	State.	Cause of Death.	Occupation.	Birthplace.	Length of Residence in Australia.	Conjugal Condition
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## MALES.

100	Manning ..	N.S.W. ..	Senility ..	Grazier ..	N.S.W. ..	Native ..	Married
100	Patrick Plains	" ..	" ..	Farmer ..	" ..	" ..	"
100	Kyeamba ..	" ..	" ..	" ..	India ..	50 years ..	"
100	Werribee ..	Victoria ..	" ..	Labourer ..	Victoria ..	Native ..	"
100	Mansfield ..	" ..	" ..	Publican ..	N.S.W. ..	" ..	"
100	McIvor ..	" ..	Arterio-Sclerosis	Farmer ..	Denmark ..	70 years ..	"
100	Doncaster	" ..	Senility ..	Gentleman	England ..	88 years ..	Single
100	Brisbane ..	Queensland	" ..	Miner ..	" ..	66 years ..	"
101	Yanco ..	N.S.W. ..	" ..	Farmer ..	" ..	71 years ..	Married
101	Albury ..	" ..	Influenza with Hypostatic Pneumonia	Labourer ..	Victoria ..	Native ..	"
101	Preston ..	West. Aust.	Senility ..	Farmer ..	England ..	70 years ..	"
102	Wollongong	N.S.W. ..	" ..	Miner ..	" ..	84 years ..	"
103	Manly ..	" ..	Lobar Pneumonia	Blacksmith	N.S.W. ..	Native ..	"
103	Launceston	Tasmania	Influenzal Broncho-Pneumonia	Retired Merchant	England ..	80 years ..	"
104	Adelaide ..	Sth. Aust.	Senility ..	Gentleman	Scotland ..	54 years ..	Unknown
104	Canberra ..	Fed. Cap. Terr.	Hypostatic Pneumonia; Fall	Old-age Pensioner	Germany	102 years	Single
104	Beaconsfield	Tasmania	Cerebral Thrombosis	Not Stated	Tasmania	Native ..	Married
106	Granville ..	N.S.W. ..	Senility ..	Labourer ..	Italy ..	55 years ..	"

## FEMALES.

100	Ballarat E.	Victoria ..	Senility ..	..	England ..	77 years ..	Married
100	Fitzroy ..	" ..	" ..	..	" ..	93 years ..	"
100	Adelaide ..	Sth. Aust.	" ..	..	Scotland ..	83 years ..	Single
100	Yankalilla ..	" ..	" ..	..	Ireland ..	79 years ..	Married
100	Kadina ..	" ..	" ..	..	England ..	78 years ..	"
100	Kearsley ..	N.S.W. ..	Cerebral Thrombosis	..	" ..	94 years ..	"
101	Flinders ..	Victoria ..	Senility ..	..	" ..	87 years ..	"
101	Lilydale ..	" ..	" ..	..	" ..	80 years ..	"
102	Randwick	N.S.W. ..	Chronic Myocarditis	..	Ireland ..	80 years ..	"
102	Glen Innes	" ..	Acute Bronchitis	..	England ..	Unknown	"
102	Williamstown	Victoria ..	Senility ..	..	Scotland ..	74 years ..	"
102	Brunswick	" ..	" ..	..	Ireland ..	77 years ..	"
102	Adelaide ..	Sth. Aust.	Heat Exhaustion	..	" ..	83 years ..	"
103	Sandringham	Victoria ..	Senility ..	..	England ..	80 years ..	"
104	Avoca ..	" ..	" ..	..	Ireland ..	74 years ..	"
105	Cardwell ..	Queensland	Senile Gangrene	..	South Sea Islands	55 years ..	"
109	Rosedale ..	Victoria ..	Senility ..	..	England ..	76 years ..	"

NOTE.—The particulars shown in this table are those given in the death certificates, and no attempt has been made by the Commonwealth Bureau of Census and Statistics to verify them.

9. Length of Residence in Australia of Persons who Died.—The length of residence in Australia of all persons whose deaths were registered in the year 1934 is shown in the following table :—

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1934.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in Australia ..	23,849	20,463	44,312	Resident 25 to 29 years	366	181	547
Resident under 1 year ..	39	16	55	"  30 to 34 " ..	406	172	578
"  1 year ..	11	10	21	"  35 to 39 " ..	314	157	471
"  2 years ..	18	6	24	"  40 to 44 " ..	706	391	1,097
"  3 " ..	27	8	35	"  45 to 49 " ..	1,075	686	1,761
"  4 " ..	28	25	53	"  50 to 54 " ..	1,597	985	2,582
"  5 " ..	43	44	87	"  55 to 59 " ..	710	451	1,161
"  6 " ..	76	47	123	"  60 to 64 " ..	629	468	1,097
"  7 " ..	90	46	136	"  65 yrs. and over	1,315	1,735	3,050
"  8 " ..	91	70	161	Length of residence not			
"  9 " ..	78	61	139	stated ..	1,497	463	1,960
"  10 to 14 years	402	341	743				
"  15 to 19 " ..	169	143	312				
"  20 to 24 " ..	1,035	689	1,724	Total ..	34,571	27,658	62,229

10. Birthplaces of Persons who Died.—The following table provides a summary of birthplaces of persons whose deaths were registered in 1911 and 1934. More detailed information in respect of 1934 will be found in "Australian Demography," Bulletin No. 52 :—

BIRTHPLACES OF PERSONS WHO DIED.—AUSTRALIA.

Birthplace.	1911.			1934.		
	Males.	Females.	Total.	Males.	Females.	Total.
<b>AUSTRALASIA—</b>						
Australia .. ..	14,476	12,279	26,755	23,849	20,463	44,312
New Zealand .. ..	126	79	205	256	204	460
<b>EUROPE—</b>						
England and Wales .. ..	5,639	3,541	9,180	5,192	3,707	8,899
Scotland .. ..	1,666	1,112	2,778	1,357	947	2,304
Ireland .. ..	2,837	2,528	5,365	1,453	1,523	2,976
Other British Possessions .. ..	40	26	66	41	20	61
Western Europe .. ..	365	62	427	388	84	472
Central Europe .. ..	678	292	970	467	259	726
Southern Europe .. ..	122	15	137	246	64	310
Eastern Europe .. ..	71	6	77	88	24	112
<b>ASIA—</b>						
British Possessions .. ..	102	28	130	117	37	154
Foreign Countries .. ..	470	8	478	265	19	284
<b>AFRICA—</b>						
British Possessions .. ..	29	18	47	36	30	66
Foreign Countries .. ..	2	1	3	5	4	9
<b>AMERICA—</b>						
Canada .. ..	73	15	88	54	16	70
Other British Possessions .. ..	5	6	11	13	5	18
United States of America .. ..	72	18	90	76	36	112
Other Foreign Countries .. ..	35	12	47	11	2	13
<b>POLYNESIA—</b>						
British .. ..	47	4	51	22	5	27
Foreign .. ..	44	10	54	46	6	52
Indefinite .. ..	692	218	910	589	203	792
<b>Total .. ..</b>	<b>27,591</b>	<b>20,278</b>	<b>47,869</b>	<b>34,571</b>	<b>27,658</b>	<b>62,229</b>

11. **Occupations of Males who Died.**—Information as to the main groups of the occupations of the 34,569 males who died in Australia in 1934 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 on Total.		
	1921.	1931.	1934.	1921.	1931.	1934.
Professional .. ..	1,307	1,534	1,958	4.26	4.82	5.66
Domestic .. ..	830	846	780	2.71	2.66	2.26
Commercial .. ..	2,739	3,727	2,914	8.94	11.72	8.43
Transport and Communica- tion .. ..	1,841	2,189	2,584	6.01	6.89	7.47
Industrial .. ..	8,613	10,330	5,393	28.10	32.49	15.60
Agricultural, Pastoral' and Mining, &c. .. ..	5,711	6,157	6,799	18.63	19.36	19.67
Indefinite .. ..	1,436	1,802	(a)9,206	4.68	5.67	(a)26.63
Dependent .. ..	8,175	5,211	4,935	26.67	16.39	14.28
<b>Total Male Deaths ..</b>	<b>30,652</b>	<b>31,796</b>	<b>34,569</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(a) Includes clerks, labourers, &c., where industry was not given, who were formerly included under "Commercial" or "Industrial" as follows:—1934, 6,954 (20.12 per cent.).

12. **Causes of Death.**—(i) *General.* The classification adopted by the Commonwealth Bureau of Census and Statistics is that of the International Institute of Statistics, as amended by the Committees of Revision which met in Paris in 1909, 1920, and 1929.

(ii) *Mortality Statistics for 1907 and Subsequent Years.* The statistics relating to causes of death in Australia from the year 1907 onward have been tabulated in the Commonwealth Bureau of Census and Statistics in accordance with the above-mentioned classification, and the system is being employed also in the various State statistical offices.

(iii) *Classification of Causes of Death, 1930 to 1934, according to Abridged International Classification.* An abridged classification, which enumerates forty-three diseases and groups of diseases according to the revised classification, is in use in many European countries and American States, and a table has been prepared showing the causes of death according to the abridged classification, so that the results may be compared with those of countries which use the abridged index.

The compilations for the years 1930 to 1934 will be found in full in Bulletins Nos. 48 to 52 of "Australian Demography." In the following tables the abridged classification has been employed. Tables A, B and C show deaths of males, females and persons for the year 1934. Table D shows the number of persons who died in each of the years 1930 to 1934 and gives the rate per million of population for the last-named year.

Since death rates are subject to continual fluctuation, it is unsafe to base deductions on the figures relating to a single year. In order, therefore, to furnish a valid basis for comparison, Table E giving the number of deaths and the rates per 1,000,000 persons for three quinquennial periods has been prepared. While the absolute number of deaths has increased, the death rate has shown a very satisfactory decrease, which is reflected in the great majority of the causes specified in the table.

## A—CAUSES OF DEATH.—MALES, 1934.

Abridged Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
1. Typhoid Fever .. ..	1, 2	15	7	12	3	12	2	..	..	51
2. Typhus Fever .. ..	3	..	..	..	..	..	..	..	..	..
3. Small-pox .. ..	6	..	..	..	..	..	..	..	..	..
4. Measles .. ..	7	19	10	5	3	..	..	..	..	..
5. Scarlet Fever .. ..	8	9	11	..	3	..	..	..	..	37
6. Whooping Cough .. ..	9	139	45	23	9	1	2	..	..	23
7. Diphtheria .. ..	10	95	43	19	3	..	3	..	1	214
8a. Influenza—Pneumonic .. ..	11 (a)	105	114	50	19	19	9	..	2	196
8b. Influenza—Other .. ..	11 (b)	56	37	30	9	21	8	..	..	344
10. Tuberculosis of the Respiratory System .. ..	23	567	419	207	146	151	53	..	2	1,545
11a. Tubercular Meningitis .. ..	24	23	22	4	11	8	4	..	..	72
11b. Other Tuberculous Diseases .. ..	25-32	24	54	7	7	5	3	..	..	100
12. Syphilis .. ..	34	46	39	19	11	11	10	..	..	136
13. Malaria .. ..	38	1	2	9	..	7	..	3	..	22
14. Other Infectious or Parasitic Diseases .. ..	*	120	76	50	20	24	10	1	..	301
15. Cancer and other Malignant Tumours .. ..	45-53	1,369	1,073	482	320	281	132	3	1	3,661
16. Tumours, Non-Malignant or of Unspecified Nature .. ..	54, 55	70	36	27	16	10	5	..	..	164
17. Chronic Rheumatism, Gout .. ..	57, 58	18	27	5	7	7	4	..	..	68
18. Diabetes Mellitus .. ..	59	147	116	40	38	21	15	..	..	377
19. Acute and Chronic Alcoholism .. ..	75	13	3	7	4	3	2	..	..	32
20. Other General Diseases .. ..	*	190	149	77	41	27	10	..	..	494
21. Locomotor Ataxy, General Paralysis of Insane .. ..	80, 83	53	32	12	11	7	3	..	..	118
22. Cerebral Haemorrhage, Embolism, etc. .. ..	82	544	444	184	142	96	60	3	..	1,473
23. Other Diseases of Nervous System and Sense Organs .. ..	*	291	181	103	51	58	21	3	1	709
24. Diseases of the Heart .. ..	90-95	3,147	1,997	960	514	442	297	1	5	7,363
25. Other Diseases of the Circulatory System .. ..	96-103	618	519	209	107	101	73	..	..	1,627
26a. Acute Bronchitis .. ..	106(a)(c)	47	25	13	13	5	1	..	..	104
26b. Chronic Bronchitis .. ..	106(b)(d)	107	109	37	40	28	13	..	..	334
27. Pneumonia (all forms) .. ..	107-109	863	777	294	219	196	101	3	3	2,456
28. Other Diseases of the Respiratory System .. ..	104, 105, 110-114	183	241	106	51	60	12	3	..	656
29a. Diarrhoea and Enteritis (under two years of age) .. ..	119	74	64	14	13	24	16	..	..	205
29b. Diarrhoea and Enteritis (two years and over) .. ..	120	47	84	32	16	18	10	1	..	208
30. Appendicitis .. ..	121	154	80	62	30	18	11	..	..	355
31a. Cirrhosis of the Liver .. ..	124	57	59	32	14	12	1	..	1	176
31b. Other Diseases of the Liver and Biliary Calculi .. ..	125-127	59	53	26	11	13	3	..	..	165
32a. Hernia, Intestinal Obstruction .. ..	122	133	87	42	22	22	9	..	1	316
32b. Other Diseases of the Digestive System .. ..	*	227	173	80	55	50	21	1	..	607
33. Nephritis .. ..	130-132	839	598	300	141	113	52	3	..	2,046
34. Other Diseases of the Genito-Urinary System .. ..	133-139	251	231	138	80	47	24	..	..	771
37. Diseases of the Skin, Bones, etc. .. ..	151-156	94	49	35	18	20	8	..	..	224
38. Congenital Debility, Malformations, Premature Birth, etc. .. ..	157-161	756	436	300	125	125	70	2	..	1,814
39. Senility .. ..	162	371	497	216	174	116	26	8	..	1,408
40. Suicide .. ..	163-171	263	130	109	59	65	13	3	1	643
41. Homicide .. ..	172-175	26	16	10	3	7	10	..	..	72
42. Accidental or Violent Death (except Suicide and Homicide) .. ..	176-198	875	703	417	191	234	71	8	2	2,501
43. Non-specified and Ill-Defined Causes .. ..	199-200	68	45	17	68	10	4	4	1	217
Total—Males .. ..	..	13,173	9,913	4,821	2,835	2,531	1,227	50	21	34,571

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 81, 84-89; No. 32b:—115-118, 123, 128, 129.

## B—CAUSES OF DEATH.—FEMALES, 1934.

Abridged Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
1. Typhoid Fever .. .. .	1, 2	4	4	3	1	4	1	..	..	17
2. Typhus Fever .. .. .	3	..	..	..	..	..	..	..	..	..
4. Measles .. .. .	7	15	15	5	5	..	..	..	..	40
5. Scarlet Fever .. .. .	8	10	8	1	1	..	2	..	..	22
6. Whooping Cough .. .. .	9	147	39	30	4	1	8	..	..	229
7. Diphtheria .. .. .	10	98	67	22	5	17	13	..	..	222
8a. Influenza—Pneumonic .. .. .	11 (a)	81	117	35	18	27	23	1	..	302
8b. Influenza—Other .. .. .	11 (b)	45	46	17	5	12	6	..	..	131
10. Tuberculosis of the Respiratory System .. .. .	23	388	334	108	105	67	40	..	1	1,043
11a. Tubercular Meningitis .. .. .	24	17	19	3	5	2	5	..	..	51
11b. Other Tuberculous Diseases .. .. .	25-32	26	41	7	6	9	7	..	..	96
12. Syphilis .. .. .	34	15	9	6	3	1	3	..	..	37
13. Malaria .. .. .	38	..	..	6	..	..	..	..	..	6
14. Other Infectious or Parasitic Diseases .. .. .	*	75	47	35	21	10	9	3	..	200
15. Cancer and other Malignant Tumours .. .. .	45-53	1,293	1,104	394	331	168	127	..	2	3,419
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	54, 55	87	46	27	20	7	5	..	..	192
17. Chronic Rheumatism, Gout .. .. .	57, 58	41	46	12	15	8	2	..	..	124
18. Diabetes Mellitus .. .. .	59	265	203	80	72	29	20	..	..	669
19. Acute and Chronic Alcoholism .. .. .	75	6	1	..	..	3	..	..	..	10
20. Other General Diseases .. .. .	*	232	180	80	53	38	24	..	..	607
21. Locomotor Ataxy, General Paralysis of Insane .. .. .	80, 83	11	5	4	2	2	1	..	..	25
22. Cerebral Hæmorrhage, Embolism, etc. .. .. .	82	573	540	189	180	93	73	1	2	1,651
23. Other Diseases of Nervous System and Sense Organs .. .. .	*	214	174	93	64	32	31	1	1	610
24. Diseases of the Heart .. .. .	90-95	2,257	1,687	626	442	256	274	1	1	5,544
25. Other Diseases of the Circulatory System .. .. .	96-103	539	562	159	126	53	56	..	..	1,495
26a. Acute Bronchitis .. .. .	106(a)(c)	63	27	13	12	4	3	1	..	123
26b. Chronic Bronchitis .. .. .	106(b)(d)	80	103	30	21	9	14	..	1	258
27. Pneumonia (all forms) .. .. .	107-109	669	650	178	183	129	93	..	..	1,902
28. Other Diseases of the Respiratory System .. .. .	104, 105, 110-114	133	126	53	57	37	18	..	..	424
29a. Diarrhœa and Enteritis (under two years of age) .. .. .	119	64	42	18	17	30	9	..	..	180
29b. Diarrhœa and Enteritis (two years and over) .. .. .	120	53	89	24	30	13	10	..	..	219
30. Appendicitis .. .. .	121	82	44	33	14	10	8	..	..	191
31a. Cirrhosis of the Liver .. .. .	124	33	28	7	9	5	1	..	..	83
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	102	99	50	35	20	13	..	..	319
32a. Hernia, Intestinal Obstruction .. .. .	122	98	71	39	32	21	5	..	..	266
32b. Other Diseases of the Digestive System .. .. .	*	102	88	42	34	22	11	..	..	299
33. Nephritis .. .. .	130-132	692	522	244	119	62	38	..	2	1,679
34. Other Diseases of the Genito-Urinary System .. .. .	133-139	103	91	51	16	25	11	..	..	297
35a. Post-abortive Sepsis .. .. .	140(a)	24	8	15	8	7	1	..	..	63
35b. Criminal Abortion .. .. .	140(b)	49	37	4	1	5	..	..	..	96
35c. Puerperal Septicæmia .. .. .	145	39	32	8	8	7	4	..	..	98
36. Other Diseases of Pregnancy and Labour .. .. .	141-144, 146-150	151	93	53	44	19	13	1	..	374
37. Diseases of the Skin, Bones, etc. .. .. .	151-156	55	38	18	10	8	6	..	..	135
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	157-161	551	358	234	83	82	51	..	..	1,359
39. Senility .. .. .	162	342	590	180	196	120	42	..	..	1,470
40. Suicide .. .. .	163-171	86	42	20	19	11	5	..	..	183
41. Homicide .. .. .	172-175	10	9	6	6	5	..	..	..	36
42. Accidental or Violent Death (except Suicide and Homicide) .. .. .	176-198	267	233	94	95	50	30	..	..	769
43. Non-specified and Ill-Defined Causes .. .. .	199-200	14	21	15	35	5	2	1	..	93
Total—Females .. .. .	..	10,301	8,735	3,371	2,568	1,545	1,118	10	10	27,658

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 81, 84-89; No. 32b:—115-118, 123, 128, 129.

## C—CAUSES OF DEATH.—PERSONS, 1934.

Abridged Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Aus-tralia.
1. Typhoid Fever .. ..	1, 2	19	11	15	4	16	3	..	..	68
2. Typhus Fever .. ..	3	..	..	..	..	..	..	..	..	..
3. Small-pox .. ..	6	..	..	..	..	..	..	..	..	..
4. Measles .. ..	7	34	25	10	8	..	..	..	..	77
5. Scarlet Fever .. ..	8	19	19	1	1	1	4	..	..	45
6. Whooping Cough .. ..	9	286	84	53	7	1	11	..	1	443
7. Diphtheria .. ..	10	193	110	41	14	36	22	..	2	418
8a. Influenza—Pneumonic .. ..	11 (a)	186	231	85	37	58	48	1	..	646
8b. Influenza—Other .. ..	11 (b)	101	83	47	14	38	14	..	..	297
10. Tuberculosis of the Respiratory System .. ..	23	955	753	315	251	218	93	..	3	2,588
11a. Tubercular Meningitis .. ..	24	40	41	7	16	10	9	..	..	123
11b. Other Tuberculous Diseases .. ..	25-32	50	95	14	13	14	10	..	..	196
12. Syphilis .. ..	34	61	48	25	14	12	13	..	..	173
13. Malaria .. ..	38	1	2	15	..	7	..	3	..	28
14. Other Infectious or Parasitic Diseases .. ..	*	195	123	85	41	34	19	4	..	501
15. Cancer and other Malignant Tumours .. ..	45-53	2,662	2,177	876	651	449	259	3	3	7,080
16. Tumours, Non-Malignant or of Unspecified Nature .. ..	54, 55	157	82	54	36	17	10	..	..	356
17. Chronic Rheumatism, Gout .. ..	57, 58	59	73	17	22	15	6	..	..	192
18. Diabetes Mellitus .. ..	59	412	319	120	110	50	35	..	..	1,046
19. Acute and Chronic Alcoholism .. ..	75	19	4	7	4	6	2	..	..	42
20. Other General Diseases .. ..	*	422	329	157	94	65	34	..	..	1,101
21. Locomotor Ataxy, General Paralysis of Insane .. ..	80, 83	64	37	16	13	9	4	..	..	143
22. Cerebral Hæmorrhage, Embolism, etc. .. ..	82	1,117	984	373	322	189	133	4	2	3,124
23. Other Diseases of Nervous System and Sense Organs .. ..	*	505	355	196	115	90	52	4	2	1,319
24. Diseases of the Heart .. ..	90-95	5,404	3,684	1,586	956	698	571	2	6	12,907
25. Other Diseases of the Circulatory System .. ..	96-103	1,157	1,081	368	233	154	129	..	..	3,122
26a. Acute Bronchitis .. ..	106(a)(c)	110	52	26	25	9	4	1	..	227
26b. Chronic Bronchitis .. ..	106(b)(d)	187	212	67	61	37	27	..	1	592
27. Pneumonia (all forms) .. ..	107-109	1,532	1,427	472	402	325	194	3	3	4,358
28. Other Diseases of the Respiratory System .. ..	104, 105, 110-114	316	367	159	108	97	30	3	..	1,080
29a. Diarrhœa and Enteritis (under two years of age) .. ..	119	138	106	32	30	54	25	..	..	385
29b. Diarrhœa and Enteritis (two years and over) .. ..	120	100	173	56	46	31	20	1	..	427
30. Appendicitis .. ..	121	236	124	95	44	28	19	..	..	546
31a. Cirrhosis of the Liver .. ..	124	90	87	39	23	17	2	..	1	259
31b. Other Diseases of the Liver and Biliary Calculi .. ..	125-127	161	152	76	46	33	16	..	..	484
32a. Hernia, Intestinal Obstruction .. ..	122	231	158	81	54	43	14	..	1	582
32b. Other Diseases of the Digestive System .. ..	*	329	261	122	89	72	32	1	..	906
33. Nephritis .. ..	130-132	1,531	1,120	544	260	175	90	3	2	3,725
34. Other Diseases of the Genito-Urinary System .. ..	133-139	354	322	189	96	72	35	..	..	1,068
35a. Post-Abortive Sepsis .. ..	140(a)	24	8	15	8	7	1	..	..	63
35b. Criminal Abortion .. ..	140(b)	49	37	4	1	5	..	..	..	96
35c. Puerperal Septicæmia .. ..	145	39	32	8	8	7	4	..	..	98
36. Other Diseases of Pregnancy and Labour .. ..	141-144, 146-150	151	93	53	44	19	13	1	..	374
37. Diseases of the Skin, Bones, etc. .. ..	151-156	149	87	53	28	28	14	..	..	359
38. Congenital Debility, Malformations, Premature Birth, etc. .. ..	157-161	1,307	794	534	208	207	121	2	..	3,173
39. Senility .. ..	162	713	1,087	396	370	236	68	8	..	2,878
40. Suicide .. ..	163-171	349	172	129	78	76	18	3	1	826
41. Homicide .. ..	172-175	36	25	16	9	12	10	..	..	108
42. Accidental or Violent Death (except Suicide and Homicide) .. ..	176-198	1,142	936	511	286	284	101	8	2	3,270
43. Non-specified and Ill-Defined Causes .. ..	199-200	82	66	32	103	15	6	5	1	310
Total—Persons .. ..	..	23,474	18,648	8,192	5,403	4,076	2,345	60	31	62,229

\* No. 14 :—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20 :—56, 60-74, 76, 77; No. 23 :—78, 79, 81, 84-89; No. 32b :—115-118, 123, 128, 129.

## D—CAUSES OF DEATH.—AUSTRALIA, 1930 TO 1934.

Abridged Classification.	General Classification Numbers.	1930.	1931.	1932.	1933.	1934.	1934—Rate per 1,000,000 Population.
1. Typhoid Fever .. .. .	1, 2	113	103	81	64	68	10
2. Typhus Fever .. .. .	3	2	1	5	3	..	..
3. Small-pox .. .. .	6	2	..	1	..	..	..
4. Measles .. .. .	7	146	45	35	105	77	12
5. Scarlet Fever .. .. .	8	79	74	106	80	45	7
6. Whooping Cough .. .. .	9	330	304	153	124	443	66
7. Diphtheria .. .. .	10	387	423	425	405	418	63
8a. Influenza—Pneumonic .. .. .	11(a)	137	586	195	561	646	97
8b. Influenza—Other .. .. .	11(b)	141	260	154	318	297	44
10. Tuberculosis of the Respiratory System .. .. .	23	2,850	2,823	2,661	2,596	2,588	387
11a. Tubercular Meningitis .. .. .	24	153	152	138	100	123	18
11b. Other Tubercular Diseases .. .. .	25-32	255	192	205	228	196	29
12. Syphilis .. .. .	34	166	146	164	158	173	26
13. Malaria .. .. .	38	22	24	16	12	28	4
14. Other Infectious or Parasitic Diseases .. .. .	*	562	535	609	517	501	75
15. Cancer and other Malignant Tumours .. .. .	45-53	6,120	6,589	6,875	6,971	7,080	1,060
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	54, 55	349	345	360	347	356	53
17. Chronic Rheumatism, Gout .. .. .	57, 58	139	171	152	158	192	29
18. Diabetes Mellitus .. .. .	59	722	902	999	1,060	1,046	157
19. Acute and Chronic Alcoholism .. .. .	75	74	52	52	48	42	6
20. Other General Diseases .. .. .	*	1,093	1,102	1,072	1,041	1,101	165
21. Locomotor Ataxy, General Paralysis of Insane .. .. .	80-83	142	169	144	179	143	21
22. Cerebral Hæmorrhage, Embolism, etc. .. .. .	82	2,810	2,884	3,021	3,206	3,124	468
23. Other Diseases of Nervous System and Sense Organs .. .. .	*	1,149	1,105	1,176	1,199	1,319	198
24. Diseases of the Heart .. .. .	90-95	8,626	10,382	11,074	12,002	12,907	1,932
25. Other Diseases of the Circulatory System .. .. .	96-103	2,646	2,537	2,626	2,778	3,122	467
26a. Acute Bronchitis .. .. .	106(a)(c)	215	226	211	231	227	34
26b. Chronic Bronchitis .. .. .	106(b)(d)	625	640	551	577	592	89
27. Pneumonia (all forms) .. .. .	107-109	3,328	3,795	3,441	3,934	4,358	652
28. Other Diseases of the Respiratory System .. .. .	104, 105, 110-114	956	1,008	960	1,003	1,080	162
29a. Diarrhœa and Enteritis (under two years of age) .. .. .	119	1,078	530	472	339	385	58
29b. Diarrhœa and Enteritis (two years and over) .. .. .	120	464	413	404	364	427	64
30. Appendicitis .. .. .	121	508	518	491	517	546	82
31a. Cirrhosis of the Liver .. .. .	124	276	252	267	254	259	39
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	462	422	477	486	484	72
32a. Hernia, Intestinal Obstruction .. .. .	122	560	523	550	539	582	87
32b. Other Diseases of the Digestive System .. .. .	*	791	832	871	882	906	136
33. Nephritis .. .. .	130-132	3,182	3,306	3,440	3,562	3,725	558
34. Other Diseases of the Genito-Urinary System .. .. .	133-139	1,011	1,027	1,079	1,041	1,068	160
35a. Post-Abortive Sepsis .. .. .	140(a)	†	76	71	68	63	9
35b. Criminal Abortion .. .. .	140(b)	†	71	88	72	90	14
35c. Puerperal Septicæmia .. .. .	145	242	103	84	92	98	15
36. Other Diseases of Pregnancy and Labour .. .. .	141-144, 146-150	438	400	375	339	374	56
37. Diseases of the Skin, Bones, etc. .. .. .	151-156	364	324	339	349	359	54
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	157-161	3,742	3,259	3,174	3,142	3,173	475
39. Senility .. .. .	162	3,071	2,750	2,750	2,887	2,878	431
40. Suicide .. .. .	163-171	943	827	754	790	826	124
41. Homicide .. .. .	172-175	103	128	91	97	108	16
42. Accidental or Violent Death (except Suicide and Homicide) .. .. .	176-198	3,356	2,937	3,042	2,979	3,270	490
43. Non-specified and Ill-Defined Causes .. .. .	199, 200	401	287	276	310	310	46
Total .. .. .	..	55,331	56,560	56,757	59,117	62,229	9,317

\* No. 14 :—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20 :—56, 60-74, 76, 77; No. 23 :—78, 79, 81, 84-89; No. 32b :—115-118, 123, 128, 129. † Not available, included in 35c and 36.



## E—CAUSES OF DEATH.—AUSTRALIA, NUMBERS AND RATES.

Abridged Classification.	General Classification Numbers.	Number of Deaths.			Rate per 1,000,000 of Population.		
		1911-15.	1921-25.	1930-34.	1911-15.	1921-25.	1930-34.
1. Typhoid Fever .. .. .	1, 2	2,848	1,209	429	119	42	13
2. Typhus Fever .. .. .	3	..	4	11	..	..	..
3. Small-pox .. .. .	6	6	4	3	..	..	..
4. Measles .. .. .	7	1,505	582	408	63	20	12
5. Scarlet Fever .. .. .	8	237	235	384	10	8	12
6. Whooping Cough .. .. .	9	1,657	1,612	1,354	69	57	41
7. Diphtheria .. .. .	10	3,677	2,565	2,058	154	90	63
8a. Influenza—Pneumonic .. .. .	11(a)	1,894	1,808	2,125	79	64	65
8b. Influenza—Other .. .. .	11(b)		1,344	1,170		47	36
9. Plague .. .. .	14		1	72		3	..
10. Tuberculosis of the Respiratory System .. .. .	23	15,737	15,321	13,518	659	538	411
11a. Tubercular Meningitis .. .. .	24	1,156	876	666	48	31	20
11b. Other Tuberculous Diseases .. .. .	25-32	1,460	1,404	1,076	61	49	33
12. Syphilis .. .. .	34	837	632	807	35	22	24
13. Malaria .. .. .	38	112	150	102	5	5	3
14. Other Infectious or Parasitic Diseases .. .. .	5*	2,820	3,063	2,724	118	108	83
15. Cancer and other Malignant Tumours .. .. .	45-53	17,838	25,794	33,635	746	906	1,023
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	54, 55	546	633	1,757	23	22	53
17. Chronic Rheumatism, Gout .. .. .	57, 58	552	862	812	23	30	25
18. Diabetes Mellitus .. .. .	59	2,322	3,355	4,729	97	118	144
19. Acute and Chronic Alcoholism .. .. .	75	920	763	268	38	27	8
20. Other General Diseases .. .. .	*	4,039	5,355	5,409	169	188	164
21. Locomotor Ataxy, General Paralysis of Insane .. .. .	80-83	1,074	1,118	777	45	39	23
22. Cerebral Hæmorrhage, Embolism, etc. .. .. .	82	10,957	13,637	15,045	458	479	458
23. Other Diseases of Nervous System and Sense Organs .. .. .	*	12,550	10,323	5,948	525	363	181
24. Diseases of the Heart .. .. .	90-95	24,358	31,588	54,991	1,019	1,109	1,673
25. Other Diseases of the Circulatory System .. .. .	96-103	7,869	7,191	13,709	329	253	417
26a. Acute Bronchitis .. .. .	106(a)(c)	2,250	1,580	1,113	94	56	34
26b. Chronic Bronchitis .. .. .	106(b)(d)	4,962	4,053	2,985	208	142	91
27. Pneumonia (all forms) .. .. .	107-109	15,201	18,400	18,856	636	646	574
28. Other Diseases of the Respiratory System .. .. .	104, 105, 110-114	4,583	5,781	5,007	192	203	152
29a. Diarrhœa and Enteritis (under two years of age) .. .. .	119	15,207	9,866	2,804	636	346	85
29b. Diarrhœa and Enteritis (two years and over) .. .. .	120	4,027	3,144	2,072	169	110	63
30. Appendicitis .. .. .	121	1,761	2,035	2,580	74	71	78
31a. Cirrhosis of the Liver .. .. .	124	1,932	1,531	1,308	81	54	40
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	1,445	1,796	2,331	60	63	71
32a. Hernia, Intestinal Obstruction .. .. .	122	2,336	2,648	2,754	98	93	84
32b. Other Diseases of the Digestive System .. .. .	*	3,968	4,053	4,282	166	142	130
33. Nephritis .. .. .	130-132	10,751	12,803	17,215	450	450	523
34. Other Diseases of the Genito-Urinary System .. .. .	133-139	3,065	4,146	5,226	128	146	159
35a. Post-Abortive Sepsis .. .. .	140(a)	†	†	†278	†	†	†8
35b. Criminal Abortion .. .. .	140(b)	†	†	†327	†	†	†10
35c. Puerperal Septicæmia .. .. .	145	1,072	1,138	619	45	40	19
36. Other Diseases of Pregnancy and Labour .. .. .	141-144, 146-150	2,060	2,321	1,926	86	82	59
37. Diseases of the Skin, Bones, etc. .. .. .	151-156	994	1,556	1,735	42	55	53
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	157-161	21,410	21,511	16,490	896	755	502
39. Senility .. .. .	162	20,004	20,429	14,336	875	717	436
40. Suicide .. .. .	163-171	3,123	3,106	4,140	131	109	126
41. Homicide .. .. .	172-175	449	439	527	19	15	16
42. Accidental or Violent Death (except Suicide and Homicide) .. .. .	176-198	14,842	13,875	15,584	621	487	474
43. Non-specified and Ill-Defined Causes .. .. .	199, 200	3,026	3,460	1,584	127	122	48
<b>Total</b> .. .. .	..	256,337	271,171	289,994	10,726	9,522	8,820

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 81, 84-89; No. 32b:—113-118, 123, 128, 129. † 1931 to 1934 only. ‡ Not available, included in 35c and 36.

13. **Deaths from Specific Causes.**—(i) *Typhoid Fever*. The number of deaths from typhoid fever declined from 113 in 1930 to 68 in 1934, the rate for the latter year being ten per 1,000,000 living, and much lower than the average of 13 for the last five years. Of the 68 who died, 51 were males and 17 females. During the quinquennium 1911 to 1915 the death rate from typhoid fever was 119 per 1,000,000.

(ii) *Typhus*. Deaths from typhus have been rare in Australia. There were no deaths in 1934. In 1933 three deaths were recorded—one in New South Wales and two in Western Australia. In 1932 one death was recorded in New South Wales, one in South Australia and three in Western Australia. Only one death, which occurred in Western Australia, was recorded during 1931. During 1930, two deaths were recorded from this cause, both of which occurred in Western Australia.

(iii) *Small-pox*. The number of deaths from small-pox in Australia is very small. During the five years under review only three deaths were recorded from this cause, one of which occurred in 1932 in Queensland and the other two in 1930 in Western Australia.

(iv) *Measles*. Of the deaths from measles in the last five years the greatest number occurred during 1930, when 146 were registered, while the minimum of 35 was in 1932. There were 77 deaths in 1934 of which 37 were males and 40 females. The death rate for the last five years, viz., 12 per 1,000,000, was less than that for the years 1921 to 1925, and much less than the 63 per 1,000,000 recorded in 1911 to 1915.

(v) *Scarlet Fever*. The number of deaths had decreased each year since 1929 until 1932 when it rose to 106 compared with 74 in 1931; but it fell again to 45 in 1934. The increase in 1932 was confined to females, there being 33 male and 73 female deaths in that year compared with 35 male and 39 female deaths in 1931. Of the 45 deaths registered in 1934, 19 occurred in New South Wales and 19 in Victoria. The rate per 1,000,000 in 1930-34, viz., 12, was the highest for the three periods reviewed on the previous page. The rate for 1934 was 7.

(vi) *Whooping Cough*. During 1934 deaths from whooping cough numbered 443 (214 males and 229 females) representing a death rate of 66 per 1,000,000 persons, which is heavier than any recorded in the last five years. The death rate for this disease is almost invariably heavier for females than for males. For both sexes combined it has declined from 69 in 1911-15 to 41 per 1,000,000 in 1930-34.

(vii) *Diphtheria*. The number of deaths due to diphtheria was 418 in 1934. Of these deaths (representing a death rate of 63 per 1,000,000 persons) 196 were males and 222 females. The death rate is now less than half of that experienced during the five years ended 1915.

(viii) *Influenza*. The deaths from influenza during 1934 were more than in any year since 1929. Of the 943 deaths during 1934 from this disease, 646 were ascribed to pneumonic influenza and 297 to ordinary influenza.

(ix) *Plague*. Since 1911 deaths from this disease numbered 1 in 1912; 57 in 1921; 14 in 1922; and 1 in 1923.

(x) *Tuberculosis of the Respiratory System*. Of the various forms of tuberculosis prevalent in Australia, phthisis, or tuberculosis of the lungs, has attracted the most attention. The intimate relation, however, between tuberculosis of the lungs and of other parts of the respiratory system renders it desirable that all forms of tuberculosis of the respiratory system should be brought under one head for investigations concerning the age incidence and duration of this disease.

The decline in the toll levied by this disease on the community is plainly disclosed by the table on page 604, which shows how both the number of deaths and the death rate have declined since the period 1911 to 1915.

During 1934 there were 2,588 deaths (1,545 males and 1,043 females) from tuberculosis of the respiratory system, which compares favourably with the average of 2,786 for the preceding five years. The deaths in 1934 represented a rate of 387 per 1,000,000 persons.

(xi) *Tuberculosis of the Meninges*. The number of deaths ascribed to this cause in 1934 was 123, which is below the average for the preceding five years.

(xib) *Other Forms of Tuberculosis.* The deaths in 1934 include the following:—Tuberculosis of the intestines and peritoneum, 46; spinal column, 42; other bones and joints, 9; skin, 3; lymphatic system, 4; genito-urinary system, 19; other organs, 7; acute disseminated tuberculosis, 56; chronic disseminated tuberculosis, 1; and disseminated tuberculosis not specified as acute or chronic, 9.

(xic) *All Forms of Tuberculosis—(a) General.* The total number of deaths in 1934 was 2,907, viz., 1,717 males and 1,190 females.

(b) *Ages at Death.* The following table shows the ages of the 2,907 persons. Corresponding figures are also given for the year 1911:—

#### TUBERCULAR DISEASES.—DEATHS IN AGE-GROUPS, AUSTRALIA.

Ages.	1911.			1934.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years .. ..	124	114	238	57	39	96
5 years and under 10 ..	30	31	61	15	16	31
10 " " 15 ..	44	42	86	15	13	28
15 " " 20 ..	70	148	218	42	64	106
20 " " 25 ..	168	260	428	110	175	285
25 " " 30 ..	219	255	474	132	177	309
30 " " 35 ..	220	206	426	136	159	295
35 " " 40 ..	187	176	363	147	126	273
40 " " 45 ..	246	140	386	178	95	273
45 " " 50 ..	223	100	323	204	85	289
50 " " 55 ..	164	49	213	186	62	248
55 " " 60 ..	140	49	189	188	51	239
60 " " 65 ..	89	43	132	123	50	173
65 " " 70 ..	64	37	101	89	37	126
70 " " 75 ..	42	19	61	65	19	84
75 " " 80 ..	15	6	21	17	16	33
80 " " over ..	7	6	13	13	6	19
Age unspecified .. ..	3	..	3	..	..	..
Total .. ..	2,055	1,681	3,736	1,717	1,190	2,907

(c) *Occupations at Death, Males.* A tabulation of occupations of the males who died from tubercular diseases and the percentage which each class bears on the total male deaths from these diseases in 1921, 1931 and 1934 is given hereunder:—

#### OCCUPATIONS OF MALES WHO DIED FROM TUBERCULAR DISEASES.—AUSTRALIA.

Occupation Group.	Number of Male Deaths.			Percentage on Total.		
	1921.	1931.	1934.	1921.	1931.	1934.
Professional .. ..	167	107	99	%	%	%
Domestic .. ..	95	64	58	7.69	5.83	5.76
Commercial .. ..	292	270	132	4.38	3.48	3.38
Transport and Communication	165	170	153	13.45	14.71	7.69
Industrial .. ..	784	694	309	7.60	9.26	8.91
Agricultural, Pastoral, Mining, etc. .. ..	404	303	289	36.11	37.80	18.00
Indefinite .. ..	80	157	545(a)	18.61	16.50	16.83
Dependent .. ..	184	71	132	3.68	8.55	31.74(a)
Total Male Deaths ..	2,171	1,836	1,717	8.48	3.87	7.69
				100.00	100.00	100.00

(a) Includes 431 (25.10 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

(d) *Length of Residence in Australia.* The length of residence in Australia of persons who died from tubercular diseases in 1934 is given in the next table :—

**LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1934.**

Length of Residence in Australia.	Male.	Fem.	Total.	Length of Residence in Australia.	Male.	Fem.	Total.
Born in Australia ..	1,284	1,009	2,293	Resident 10 years & under 15	47	31	78
Resident under 1 year ..	3	..	3	"    15    "    "    20	11	11	22
"    1 year ..	1	..	1	"    20    "    & over ..	260	93	353
"    2 years ..	1	..	1	Length of residence not stated	54	7	61
"    3    "    ..	..	..	..				
"    4    "    ..	5	..	5				
"    5    "    and under 10	51	39	90	Total Deaths ..	1,717	1,190	2,907

(e) *Death Rates.* The preceding table and the table on page 598 show that among persons who have lived less than five years in Australia, 188 deaths occurred, and of these, 10, or 5.3 per cent., were due to tubercular diseases.

In order to show the prevalence of tuberculosis in the several States and the change in the incidence in recent years the death rates from tubercular diseases in respect of the years 1911 and 1934 are given in the following table, together with the proportion which deaths from tuberculosis bear to 10,000 deaths from all causes :—

**TUBERCULOSIS (ALL FORMS).—DEATH RATES (a) AND PROPORTION OF TOTAL DEATHS.**

State or Territory.	Death Rate per 100,000 of Mean Population.					
	1911.			1934.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales ..	85	67	76	46	33	40
Victoria ..	101	97	99	55	43	49
Queensland ..	74	58	67	44	26	35
South Australia ..	81	91	86	56	40	48
Western Australia ..	84	71	78	70	38	55
Tasmania ..	90	82	86	51	46	49
Northern Territory ..	293	..	241	..	..	..
Federal Capital Territory ..	..	131	56	40	23	32
Australia ..	88	78	83	51	36	44

State or Territory.	Proportion per 10,000 Deaths from all Causes.					
	1911.			1934.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales ..	737	737	737	466	418	445
Victoria ..	801	936	862	499	451	477
Queensland ..	613	648	626	452	350	410
South Australia ..	775	995	877	578	452	518
Western Australia ..	718	870	770	648	505	594
Tasmania ..	839	854	846	489	405	478
Northern Territory ..	1,356	..	1,231	..	..	..
Federal Capital Territory ..	..	2,000	1,000	952	1,000	968
Australia ..	745	829	780	497	430	467

(a) Number of deaths from tuberculosis per 100,000 of mean population.

(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 ..	1934	33	35	England and Wales	1933	69	82
New South Wales ..	1934	36	40	Egypt .. ..	1927	66	85
Union of South Africa (Whites) ..	1933	32	41	Great Britain and Northern Ire-			
New Zealand ..	1933	32	42	land .. ..	1932	68	85
<b>Australia ..</b>	<b>1934</b>	<b>39</b>	<b>44</b>	Italy .. ..	1934	69	92
South Australia ..	1934	43	48	Sweden .. ..	1934	(a)	102
Victoria .. ..	1934	41	49	Switzerland ..	1933	79	106
Tasmania .. ..	1934	41	49	Northern Ireland ..	1934	84	112
Western Australia	1934	49	55	Irish Free State ..	1934	89	113
Netherlands ..	1934	39	55	Spain .. ..	1932	92	117
United States (Registration Area) ..	1934	51	57	Norway .. ..	1932	111	136
Ceylon .. ..	1933	(a)	58	Czechoslovakia ..	1933	127	144
Canada (including Quebec) ..	1933	53	65	France .. ..	1931	131	152
Scotland .. ..	1934	57	65	Greece .. ..	1932	130	161
Denmark .. ..	1932	(a)	69	Hungary .. ..	1933	143	170
Germany .. ..	1932	62	75	Poland (b) .. ..	1933	148	172
Belgium .. ..	1933	61	80	Japan .. ..	1933	139	188
				Finland .. ..	1932	191	223

(a) Not available.

(b) In towns with over 100,000 inhabitants.

(xii) *Syphilis.* In 1934, 173 persons (136 males and 37 females) died from syphilis. The rate per 1,000,000 persons was 26 in 1934 compared with average rates of 24, 22, and 35 for the year groups 1930-34, 1921-25 and 1911-15 respectively.

(xiii) *Malaria.* Deaths from malarial diseases are mainly confined to the tropical districts of Northern Queensland and Western Australia, and to the Northern Territory; 15 out of the 28 deaths registered in 1934 occurred in Queensland, 7 in Western Australia, 3 in Northern Territory, 2 in Victoria and 1 in New South Wales. The death rate was 3 per 1,000,000 for the quinquennium 1930-34, as compared with a rate of 5 for 1911 to 1915, and 1921 to 1925.

(xiv) *Other Infectious and Parasitic Diseases.* The deaths registered under this heading numbered 501 in 1934, including 35 from dysentery, erysipelas 37, lethargic encephalitis 37, acute poliomyelitis 31, meningococcal meningitis 21, tetanus 89, leprosy 10, purulent infection and septicæmia 103, hydatid cysts 72, and other infectious or parasitic diseases 66.

(xv) *Cancer and other Malignant Tumours.* (a) *General.* The number of deaths from cancer increased continuously to 6,256 in 1929, declined slightly to 6,120 in 1930, and rose again to 6,589 in 1931, 6,875 in 1932, 6,971 in 1933, and 7,080 in 1934. Of the deaths registered, 3,661 were of males, viz., 1,369 in New South Wales, 1,073 in Victoria, 482 in Queensland, 320 in South Australia, 281 in Western Australia, 132 in Tasmania, 3 in the Northern Territory and 1 in Federal Capital Territory; while 3,419 were of females, viz., 1,293 in New South Wales, 1,104 in Victoria, 394 in Queensland, 331 in South Australia, 168 in Western Australia, 127 in Tasmania and 2 in the Federal 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 1934 will be found in Bulletin No. 52 of "Australian Demography." A summary regarding type and seat of disease for the year 1934 is given on the next page.

## DEATHS FROM CANCER.—TYPE AND SEAT OF DISEASE, AUSTRALIA, 1934.

Type of Disease.	Males.	Fem.	Persons	Seat of Disease.	Males.	Fem.	Persons.
Cancer .. ..	288	319	607	Buccal Cavity and Pharynx ..	353	46	399
Carcinoma—				Digestive Tract and Peritoneum ..	2,190	1,553	3,743
Carcinoma Simplex	2,726	2,549	5,275	Respiratory Organs	196	75	271
Epithelioma ..	150	75	225	Uterus .. ..	..	506	506
Scirrhus .. ..	2	24	26	Other Female Genital Organs ..	..	190	190
Rodent Ulcer ..	36	23	59	Breast .. ..	6	662	668
Adeno-Carcinoma	31	45	76	Male Genito-Urinary Organs ..	517	..	517
Colloid Carcinoma	3	7	10	Skin .. ..	141	83	224
Sarcoma—				Other or Unspecified Organs ..	258	304	562
Sarcoma .. ..	156	114	270				
Myeloma .. ..	1	2	3				
Endothelioma ..	4	6	10				
Melanoma—							
Melanotic Sarcoma	22	17	39				
Melano-Carcinoma	5	5	10				
Embryonic Tumours—							
Hypernephroma	13	12	25				
Teratoma .. ..	5	..	5				
Chorio-Epithelioma	..	1	1				
Malignant Disease ..	219	220	439				
<b>Total Deaths</b>	<b>3,661</b>	<b>3,419</b>	<b>7,080</b>	<b>Total Deaths</b>	<b>3,661</b>	<b>3,419</b>	<b>7,080</b>

(c) *Ages at Death.* The ages of the persons who died from cancer in 1911 and 1934 are given in the following table, which shows that while the ages below 35 are not immune from the disease, the great majority of deaths occurred at ages from 35 upwards, the maximum being found in the age-group 65 to 69 in 1911 and 70 to 74 in 1934. The table also reveals the very great increase in numbers dying from cancer. The increase in the death rate is shown in a succeeding table :—

## DEATHS FROM CANCER.—AGES, AUSTRALIA.

Ages.	1911.			1934.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 15 years .. ..	21	8	29	22	18	40
15 years and under 20 ..	10	6	16	7	8	15
20 " " 25 ..	10	7	17	16	15	31
25 " " 30 ..	12	17	29	15	21	36
30 " " 35 ..	25	35	60	25	45	70
35 " " 40 ..	29	59	88	43	105	148
40 " " 45 ..	81	100	181	78	199	277
45 " " 50 ..	132	173	305	177	273	450
50 " " 55 ..	208	203	411	253	324	577
55 " " 60 ..	203	179	382	366	408	774
60 " " 65 ..	243	177	420	530	435	965
65 " " 70 ..	306	194	500	647	471	1,118
70 " " 75 ..	203	160	363	693	445	1,138
75 " " 80 ..	150	136	286	480	359	839
80 " " 85 ..	83	67	150	217	182	399
85 years and over ..	44	39	83	92	110	202
Unspecified .. ..	1	..	1	..	1	1
<b>.Total Deaths</b> .. ..	<b>1,761</b>	<b>1,560</b>	<b>3,321</b>	<b>3,661</b>	<b>3,419</b>	<b>7,080</b>

(d) *Occupations.* A tabulation in summarized form of occupations of the males who died from cancer in 1921, 1931 and 1934, together with the percentage of each class on 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 on Total.		
	1921.	1931.	1934.	1921.	1931.	1934.
Professional .. ..	133	188	243	%	%	%
Domestic .. ..	76	97	90	5.45	5.40	6.64
Commercial .. ..	275	446	329	3.11	2.78	2.46
Transport and Communica- tion .. ..	212	295	291	11.27	12.80	8.98
Industrial .. ..	940	1,346	686	8.69	8.47	7.95
Agricultural, Pastoral, Mining, etc. .. ..	639	843	864	38.52	38.63	18.74
Indefinite .. ..	129	130	1,121 <sup>a</sup>	26.19	24.20	23.60
Dependent .. ..	36	139	37	5.29	3.73	30.62 <sup>a</sup>
				1.48	3.99	1.01
<b>Total Male Deaths ..</b>	<b>2,440</b>	<b>3,484</b>	<b>3,661</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(a) Includes 848 (23.16 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

(e) *Death Rates.* The following table shows the death rates per 100,000 of mean population from cancer in each State for the years 1911 and 1934 :—

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.			1934.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales .. ..	77	71	74	103	100	102
Victoria .. ..	80	85	82	118	120	119
Queensland .. ..	71	56	64	96	87	92
South Australia .. ..	70	76	73	110	114	112
Western Australia .. ..	65	57	62	120	81	102
Tasmania .. ..	77	60	69	114	112	113
Northern Territory .. ..	37	..	30	87	..	61
Federal Capital Territory ..	99	..	56	20	47	32
<b>Australia .. ..</b>	<b>75</b>	<b>72</b>	<b>74</b>	<b>108</b>	<b>104</b>	<b>106</b>

(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, 1,138 were due to cancer in 1934, as against 693 per 10,000 total deaths in 1911.

## DEATHS FROM CANCER.—PROPORTIONS ON 10,000 DEATHS.

State or Territory.	1911.			1934.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales ..	662	783	713	1,039	1,255	1,134
Victoria .. ..	637	819	719	1,082	1,264	1,167
Queensland .. ..	586	628	602	1,000	1,169	1,069
South Australia ..	675	828	745	1,129	1,289	1,205
Western Australia ..	557	700	605	1,110	1,087	1,102
Tasmania .. ..	723	629	680	1,076	1,136	1,104
Northern Territory ..	170	..	154	600	..	500
Federal Capital Territory ..	2,000	..	1,000	476	2,000	968
Australia .. ..	638	769	693	1,059	1,236	1,138

(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 the death rate for tuberculosis declined by 43 while the rate for cancer increased by 39 per 100,000 persons. This equal but opposite tendency may be demonstrated by stating that the death rate from tuberculosis and cancer combined remains almost constant from period to period, the figures being:—1901–05, 152 per 100,000; 1906–10, 145; 1911–1915, 152; 1916–20, 154; 1921–25, 153; and 1930–34, 149.

## TUBERCULOSIS AND CANCER.—DEATH RATES(a)—AUSTRALIA.

Period.	Death Rate (a) from Tuberculosis.			Death Rate (a) from Cancer.		
	Males.	Females.	Total.	Males.	Females.	Total.
1901–05 ..	100	77	89	64	61	63
1906–10 ..	81	69	75	71	70	70
1911–15 ..	84	69	77	75	74	75
1916–20 ..	84	59	71	86	80	83
1921–25 ..	71	52	62	93	88	91
1930–34 ..	54	39	46	106	99	102

(a) Number of deaths per 100,000 of mean population.

(h) *Death Rates, Various Countries.* The following table shows the Australian death rate from cancer in comparison with that for other countries:—

## CANCER.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Egypt .. ..	1927	20	Belgium .. ..	1933	106
Greece .. ..	1932	41	<b>Australia .. ..</b>	<b>1934</b>	<b>106</b>
Spain .. ..	1933	68	Irish Free State ..	1934	108
Japan .. ..	1933	70	New Zealand .. ..	1933	111
Italy .. ..	1934	80	Czechoslovakia ..	1933	120
Finland .. ..	1932	80	Sweden .. ..	1932	125
Ceylon .. ..	1933	83	Netherlands .. ..	1934	125
Union of South Africa			Northern Ireland ..	1934	129
(Whites) .. ..	1933	95	Norway .. ..	1932	129
France .. ..	1931	96	Germany .. ..	1932	134
Poland (a) .. ..	1933	99	Denmark .. ..	1932	146
Canada (including			Switzerland .. ..	1933	149
Quebec) .. ..	1933	100	Great Britain and		
United States (Regis-			Northern Ireland ..	1932	151
tration Area) ..	1934	101	England and Wales ..	1933	153
Hungary .. ..	1933	103	Scotland .. ..	1934	153

(a) In towns with over 100,000 inhabitants.



(xvi) *Tumours, Non-malignant or of Unspecified Nature.* The number of deaths in 1934 was 356, including 115 deaths from non-malignant tumours, viz.—female genital organs 66, brain 34, other organs 15; and 241 deaths from tumours of undetermined nature, viz.—female genital organs 6, brain 168, other organs 67. The rate per million was the same for 1934 as for the five-yearly period 1930–34, viz., 53. Comparison with earlier periods is vitiated by the omission from this cause prior to 1928 of tumours of the brain.

(xvii) *Chronic Rheumatism, Gout.* Deaths from this cause in 1934 numbered 192, viz.—68 males and 124 females. The rate per million for 1930–34 was lower than for 1921–25, but higher than for 1911–15.

(xviii) *Diabetes Mellitus.* Table E, page 604, shows that both the number of deaths and the rate per million persons have been steadily increasing. The rate per million for 1930–34 was 144 as compared with 97 for 1911–15. In 1934 the number of deaths from this cause was 1,046, viz.—377 males, and 669 females—representing a rate of 157 per million persons.

(xix) *Acute and Chronic Alcoholism.* Deaths from this cause have been decreasing rapidly. The number of deaths in 1934 was 42, with a rate per million persons of only 6. The rate for the period 1911–15, was 38.

(xx) *Other General Diseases.* Under this head are included rheumatic fever, diseases of the thyroid gland, anæmia, leucæmia, and a number of less important diseases. For the number of deaths under each sub-head see Table F, page 622.

(xxi) *Locomotor Ataxy, General Paralysis of the Insane.* The number of deaths in 1934 was 143, viz.—locomotor ataxy 41 males, 6 females; general paralysis of the insane, 77 males, 19 females. The rate per million persons was 23 for the period 1930–34 as compared with 45 for the period 1911–15.

(xxii) *Cerebral Hæmorrhage, Embolism and Softening of the Brain.* The deaths under this heading have increased in number during the period under review. The figures for 1934 are made up as follow :—Cerebral hæmorrhage and apoplexy, 1,002 males, 1,133 females; cerebral embolism, 39 males, 39 females; cerebral thrombosis 318 males, 344 females; softening of the brain, 19 males, 31 females; hemiplegia and paralysis without specified cause, 95 males, 104 females.

Cerebral hæmorrhage, etc., associated with arterio-sclerosis is not now included in this group but forms part of group (xxv.).

The total of the group, viz., 3,124 ranks seventh in magnitude of the causes shown on p. 603 and corresponds to a death rate of 468 per million.

(xxiii) *Other Diseases of Nervous System.* Deaths in this group have declined from a rate per million of 525 in 1911–15 to 181 in 1930–34. The number of deaths in 1934 was 1,319 representing a rate of 198 per million persons.

(xxiv) *Diseases of the Heart.* The number of deaths in 1934 was 12,907, viz., 7,363 males and 5,544 females. Of these deaths, 34 were attributed to pericarditis, 134 to acute infective endocarditis, 16 to other acute endocarditis, 370 to aortic valve disease, 755 to mitral valve disease, 75 to aortic and mitral valve disease, 194 to endocarditis not returned as acute or chronic, 701 to other and unspecified valve disease, 128 to acute myocarditis, 140 to fatty heart, 5,327 to other myocardial degeneration, 1,888 to myocarditis not returned as acute or chronic, 1,268 to diseases of coronary arteries, 93 to angina pectoris with record of coronary disease, 468 to angina pectoris other, 335 to disordered action of the heart, 85 to cardiac dilatation (cause unspecified), and 896 to heart disease undefined. The sex and territorial distribution of the deaths will be

found in the tables on pages 600 to 602. This class is the largest among causes of death, the death rate having grown from 1,019 per million in 1911-15 to 1,673 in 1930-34. The death rates and proportions per 10,000 deaths in 1934 were as follow:—

**DEATH RATES<sup>(a)</sup> FROM DISEASES OF THE HEART AND PROPORTION OF 10,000 TOTAL DEATHS, 1934.**

State or Territory.	Death Rates (a) from Diseases of the Heart.			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales .. ..	237	174	206	2,389	2,191	2,302
Victoria .. ..	220	183	201	2,015	1,931	1,976
Queensland .. ..	192	138	166	1,991	1,857	1,936
South Australia .. ..	176	152	164	1,813	1,721	1,769
Western Australia .. ..	188	124	158	1,746	1,657	1,712
Tasmania .. ..	256	242	249	2,421	2,451	2,435
Northern Territory .. ..	29	67	41	200	1,000	333
Federal Capital Territory .. ..	100	23	65	2,381	1,000	1,935
Australia .. ..	217	169	193	2,130	2,004	2,074

(a) Number of deaths from diseases of the heart per 100,000 of mean population.

(xxv) *Other Diseases of the Circulatory System.* The principal cause of death under this head was arterio-sclerosis. In 1934 the number of deaths from arterio-sclerosis with record of cerebral vascular lesion (i.e., in association with cerebral hæmorrhage, etc.) was 1,506 and without such record, 1,152. For further particulars see Table F, p. 622.

(xxvia) *Acute Bronchitis.* Deaths from bronchitis are classified under the following headings:—(a) Acute, (b) chronic, (c) unspecified, under five years of age, and (d) unspecified, five years and over. For the purpose of the abridged classification, (a) and (c) are treated as "acute," and (b) and (d) as "chronic" bronchitis. Acute bronchitis caused 227 deaths in 1934, viz., 104 males and 123 females.

(xxvib) *Chronic Bronchitis.* (See xxva). The deaths from this cause in 1934 numbered 592, viz., 334 males and 258 females, which was below the average for the previous four years, and much lower than the average for earlier periods.

(xxvii) *Pneumonia (all forms).* The deaths from pneumonia (all forms) during 1934 were 4,358—2,456 males and 1,902 females—and were equivalent to a rate of 652 per million persons. The average rate for 1930-34 was 574, and for 1911-15 636 per million persons. The total of 4,358 deaths is made up of 1,931 from broncho-pneumonia, 14 from capillary bronchitis, 1,380 from lobar pneumonia and 1,033 from pneumonia other and unspecified.

(xxviii) *Other Diseases of the Respiratory System.* Deaths under this heading in 1930 numbered 956; in 1931, 1,008; in 1932, 960; in 1933, 1,003; and in 1934, 1,080. For causes of death included under this head see Table F, p. 622.

The experience of deaths from diseases of the respiratory system in 1934 was unfavourable, the number being 8 per cent. above the average of the previous five years. The death rate of 937 per million in 1934, though higher than that of 851 for the period 1930-34 is lower than the death rates of 1,048 and 1,130 for the respective periods 1921-25 and 1911-15.

(xxixa) *Diarrhœa and Enteritis (Children under two years of age)*. The number of deaths due to these causes was 385 in 1934 and is the second lowest number recorded for many years. During 1934 5,566 children died before reaching their second birthday, and of these 385, or 6.9 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 594.

The number of deaths (under 2 years of age), the death rates, and proportions of 10,000 deaths due to diarrhœa and enteritis for 1911-15, 1921-25, 1930-34, and 1934 are given below. 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 follow:—

Period—	1911-15	Males, 24.6	Females, 20.9	Total, 22.8
„	1921-25	„ 16.5	„ 13.3	„ 14.9
„	1930-34	„ 4.8	„ 3.9	„ 4.4

**DEATHS, DEATH RATES(a), ETC., DIARRHŒA AND ENTERITIS (UNDER 2 YEARS OF AGE).—AUSTRALIA, 1934.**

State.	Number of Deaths from Diarrhœa and Enteritis. (Under 2 years of age.)			Death Rates (a) from Diarrhœa and Enteritis. (Under 2 years of age.)			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	74	64	138	6	5	5	56	62	59
Victoria ..	64	42	106	7	5	6	65	48	57
Queensland ..	14	18	32	3	4	3	29	53	39.
South Australia..	13	17	30	4	6	5	46	66	56
Western Australia	24	30	54	10	15	12	95	194	132
Tasmania ..	16	9	25	14	8	11	130	81	107
Australia, 1934 ..	205	180	385	6	6	6	59	65	62
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
1930-34 ..	315	246	561	9	8	9	97	96	97

(a) Number of deaths from these diseases per 100,000 of mean population.

(xxixb) *Diarrhœa and Enteritis (2 years and over)*. The number of deaths from the same causes in older ages, viz., 427 was rather higher than the average of 414 for the period 1930 to 1934.

(xxx) *Appendicitis and Typhlitis*. Deaths under this heading numbered 546 in 1934, including 355 males and 191 females. The death rate has remained fairly constant during the periods under review, being 74 per million in 1911-15, 72 in 1921-25, 78 in 1930-34 and 82 in 1934.

(xxxia) *Cirrhosis of the Liver.* The deaths from this cause during 1934 numbered 259, and included 29 deaths from alcoholic cirrhosis.

(xxxib) *Other Diseases of the Liver, and Biliary Calculi.* Under this heading are included deaths from acute yellow atrophy of the liver 20, from other diseases of the liver 50, from biliary calculi 191, and from other diseases of the gall bladder and ducts 223—giving a total of 484 for the group.

(xxxia) *Hernia, Intestinal Obstruction.* The deaths under this heading have not varied greatly from year to year, the number registered in 1934 being 582, viz., hernia, 205, and intestinal obstruction, 377.

(xxxib) *Other Diseases of the Digestive System.* For causes included, see Table F, p. 622. The total number of deaths in 1934 was 906.

(xxxiii) *Acute and Chronic Nephritis.* Of the 3,725 deaths registered in 1934, 138 were ascribed to acute nephritis, and 3,292 to chronic nephritis. Nephritis is amongst the most prolific causes of death, and accounted in 1934 for a death rate of 558 per million persons. The death rate for the period 1930-34, viz., 523 per million, shows a considerable increase on the rates of 450 per million for the periods 1911-15 and 1921-25.

(xxxiv) *Other Diseases of the Genito-Urinary System.* This group of diseases accounted for 1,068 deaths in 1934, the most frequent cause being diseases of the prostate with 483 deaths. For further particulars see Table F, p. 622.

(xxxv) *Puerperal Septicæmia* (including Post-Abortive Sepsis, 35A, but excluding Criminal Abortion, 35B). The 161 deaths from puerperal septicæmia during 1934 showed a decrease from the average of the previous five years. The rate was 1.46 per 1,000 live births. The corresponding rates during the preceding five years were:—1929 1.71, 1930, 1.88; 1931, 1.51; 1932, 1.40; and 1933, 1.44. It is probable that some of the deaths now included under "Criminal Abortion" and excluded from figures affecting the rate for 1934 may have been classified with puerperal septicæmia in previous years. The rate in 1934 per 1,000 live births of 257 deaths from puerperal septicæmia, including criminal abortion, was 2.34. The 257 deaths mentioned above were made up as follow:—Post-abortive sepsis 63, criminal abortion 96, puerperal septicæmia 98. The following table shows the death rate per 1,000 live births from puerperal causes in various countries:—

#### CHILDBIRTH.—DEATHS PER 1,000 LIVE BIRTHS, VARIOUS COUNTRIES.

Country.	Year.	Rates per 1,000 Live Births from—		
		Puerperal Sepsis.	Other Puerperal Causes.	All Puerperal Causes.
Norway .. .. .	1932	1.00	1.62	2.62
Japan .. .. .	1933	0.68	1.97	2.65
France .. .. .	1931	0.94	1.75	2.69
Italy .. .. .	1934	1.06	1.67	2.73
Netherlands .. .. .	1934	1.02	2.16	3.18
Hungary .. .. .	1933	1.78	1.39	3.18
Sweden .. .. .	1932	1.70	1.74	3.44
Spain .. .. .	1932	2.10	1.42	3.52
Egypt .. .. .	1927	1.52	2.28	3.80
Denmark .. .. .	1930	1.18	2.65	3.83
Tasmania .. .. .	1934	1.12	2.91	4.03
England and Wales .. .. .	1933	1.75	2.57	4.32

CHILDBIRTH.—DEATHS PER 1,000 LIVE BIRTHS, VARIOUS COUNTRIES—  
*continued.*

Country.	Year.	Rates per 1,000 Live Births from—		
		Puerperal Sepsis.	Other Puerperal Causes.	All Puerperal Causes.
Irish Free State .. ..	1934	1.59	2.84	4.43
New Zealand .. ..	1933	1.64	2.80	4.44
Great Britain and Northern Ireland .. ..	1932	1.75	2.77	4.52
Switzerland .. ..	1933	1.33	3.24	4.58
Queensland .. ..	1934	1.33	3.28	4.61
Union of South Africa (Whites)	1933	2.54	2.27	4.81
Czechoslovakia .. ..	1933	2.66	2.18	4.85
Western Australia .. ..	1934	1.80	3.07	4.87
Canada (including Quebec) ..	1933	1.55	3.42	4.97
Belgium .. ..	1933	1.80	3.39	5.19
Germany .. ..	1932	2.54	2.74	5.28
Greece .. ..	1932	2.95	2.65	5.60
<b>Australia .. ..</b>	<b>1934</b>	<b>1.46</b>	<b>4.30</b>	<b>5.76</b>
United States (Registration Area) .. ..	1934	2.32	3.63	5.96
New South Wales .. ..	1934	1.45	4.62	6.07
Victoria .. ..	1934	1.44	4.67	6.11
Scotland .. ..	1934	2.68	3.52	6.20
Northern Ireland .. ..	1934	2.17	4.09	6.26
South Australia .. ..	1934	1.89	5.32	7.21
Ceylon .. ..	1927	6.48	11.02	17.50

(xxxvi) *Other Diseases of Pregnancy and Labour.* The deaths under this heading numbered 438 in 1930; 400 in 1931; 375 in 1932; 339 in 1933; and 374 in 1934. Included in the 374 deaths in 1934 were the following:—Abortion not returned as septic, 30; ectopic gestation, 36; other accidents of pregnancy, 3; puerperal hæmorrhage, 80; puerperal albuminuria and convulsions, 96; other toxæmias of pregnancy, 34; phlegmasia alba dolens, embolism or sudden death, 30; other accidents of childbirth, 53; other or unspecified conditions of the puerperal state, 12.

(xxxvii) *All Puerperal Causes.* The 631 deaths in 1934 under the two preceding headings correspond to a death rate of 19.2 per 100,000 females. The death rate may be expressed in other terms by stating that 1 of every 172 women confined in 1934 died from puerperal causes. The corresponding ratios for married women were 1 of every 183, and for single women 1 of every 73. More detailed information will be found in a series of tables in Bulletin No. 52 "Australian Demography."

A tabulation of these causes according to age at death for married and single women separately will be found in the abovementioned Bulletin.

The total number of children left by the married mothers was 1,393, an average of 2.5 children per mother.

Thirty-three of the mothers who died had been married less than one year, 87 between one and two years, and 37 between two and three years. The duration of marriage ranged up to 30 years, apart from 1 case in which the date of marriage was not stated. A tabulation, distinguishing the ages at marriage, will be found in Bulletin, No. 52 "Australian Demography," which also includes a table showing in combination the duration of marriage and previous issue.

(xxxviii) *Diseases of the Skin, Bones, etc.* The number of deaths in 1934 was 359 made up as follows:—Carbuncle 53, cellulitis 83, other diseases of the skin and annæxa 45, osteomyelitis 116, other diseases of the bones (tuberculosis and rheumatism excepted) 26, diseases of the joints and other organs of locomotion 36.

(xxxviii) *Congenital Malformation, Debility and Premature Birth.* The deaths under this heading in 1934 numbered 3,173, of which 3,050 were of children under one year of age. Of all deaths of children under one year of age 64 per cent. was due to these causes. The number of deaths for 1934 is given in the following table:—

## DEATHS FROM CONGENITAL DEBILITY, ETC., AND MALFORMATION, 1934.

State or Territory.	Congenital Malformation.			Premature Birth and Injury at Birth.			Congenital Debility and other diseases peculiar to early infancy.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	164	118	282	443	348	791	149	85	234
Victoria ..	88	67	155	228	188	416	120	103	223
Queensland ..	58	53	111	184	143	327	58	38	96
South Australia..	33	21	54	59	39	98	33	23	56
Western Australia	21	14	35	79	50	129	25	18	43
Tasmania ..	6	8	14	42	28	70	22	15	37
Northern Territory	..	..	..	..	..	..	2	..	2
Federal Capital Territory ..	..	..	..	..	..	..	..	..	..
Australia ..	370	281	651	1,035	796	1,831	409	282	691
Number of deaths under one year	303	225	528	1,035	796	1,831	409	282	691
Number of deaths under one year per 1,000 births	5.43	4.19	9.62	18.53	14.85	33.38	7.32	5.26	12.58

(xxxix) *Senility.* In 1934 2,878 deaths were attributed to this cause—1,408 males and 1,470 females.

Of the deaths described as due to senility, 9 males and 11 females were stated to be aged 100 years or over.

The death rate from senility in 1934 was 431 per million. For the three quinquennia tabulated on page 604 the rate has declined from 875 per million in 1911-15 to 717 in 1921-25 and to 436 in 1930-34, but this decrease is, no doubt, partly due to more particular diagnosis.

(xl) *Suicide.*—(a) *General.* The numbers of deaths from suicide showed an increase each year from 1922 until 1930 then fell to 1932 and rose again to 1934. The number of suicides in 1930, was 943—791 males and 152 females; in 1931, 827—689 males and 138 females; in 1932, 754—598 males and 156 females; in 1933, 790—633 males and 157 females; and in 1934, 826—643 males and 183 females.

(b) *Modes Adopted.* The modes adopted by persons who committed suicide in the years 1926-30, and 1933 and 1934 were as follow:—

## SUICIDES, MODES ADOPTED.—AUSTRALIA.

Mode of Death.	Males.			Females.			Persons.		
	Average of 5 years, 1926-30.	1933.	1934.	Average of 5 years, 1926-30.	1933.	1934.	Average of 5 years, 1926-30.	1933.	1934.
Poisoning .. .. .	156	129	144	62	72	68	218	201	212
Poisonous gas .. .. .	25	40	41	9	18	29	34	58	70
Hanging or Strangulation .. .. .	93	87	73	22	16	18	115	103	91
Drowning .. .. .	41	46	56	18	23	30	59	69	86
Firearms .. .. .	197	196	202	7	9	12	204	205	214
Cutting or piercing instruments .. .. .	104	83	87	12	9	14	116	92	101
Jumping from a high place .. .. .	9	21	19	4	7	5	13	28	24
Crushing .. .. .	15	20	13	4	2	6	19	22	19
Other Modes .. .. .	10	11	8	3	1	1	13	12	9
Total .. .. .	650	633	643	141	157	183	791	790	826

(c) *Death Rates.* The death rates from suicide and the proportion per 10,000 of total deaths are given in the following table for 1934, corresponding rates for the periods 1911-15, 1921-25, 1926-30, 1931, 1932, and 1933, being shown at the foot of the table :—

**SUICIDE.—DEATHS, DEATH RATES(a), AND PROPORTION OF TOTAL DEATHS, 1934.**

State or Territory.	Number of Deaths.			Death Rates (a) from Suicide.			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	263	86	349	20	7	13	200	83	149
Victoria ..	130	42	172	14	5	9	131	48	92
Queensland ..	109	20	129	22	4	14	226	59	157
South Australia ..	59	19	78	20	7	13	208	74	144
Western Australia	65	11	76	28	5	17	257	71	186
Tasmania ..	13	5	18	11	4	8	106	45	77
Northern Territory	3	..	3	87	..	61	600	..	500
Federal Capital Territory ..	1	..	1	20	..	11	476	..	323
Australia, 1934 ..	643	183	826	19	6	12	186	66	133
„ 1933 ..	633	157	790	19	5	12	190	61	134
„ 1932 ..	598	156	754	18	5	12	188	63	133
„ 1931 ..	689	138	827	21	4	13	217	..	146
Average—1926-30	650	141	791	20	5	13	198	56	136
„ 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 1934, it will be seen that both extreme youth and extreme old age are represented :—

**AGES OF PERSONS WHO COMMITTED SUICIDE.—AUSTRALIA, 1934.**

Ages.	M.	F.	Total.	Ages.	M.	F.	Total.
10 years and under 15	2	..	2	60 years and under 65	55	9	64
15 „ „ 20	15	10	25	65 „ „ 70	41	6	47
20 „ „ 25	46	19	65	70 „ „ 75	31	5	36
25 „ „ 30	54	15	69	75 „ „ 80	16	..	16
30 „ „ 35	49	14	63	80 „ „ 85	9	1	10
35 „ „ 40	59	30	89	85 „ „ 90	3	..	3
40 „ „ 45	52	23	75	90 „ „ 95	..	..	..
45 „ „ 50	71	22	93	95 „ „ 100	..	..	..
50 „ „ 55	76	16	92	Not stated	1	..	1
55 „ „ 60	63	13	76	Total Deaths ..	643	183	826

(e) *Occupations of Males.* The next table gives the occupations of the males who committed suicide in 1921, 1931 and 1934:—

#### OCCUPATIONS OF MALES WHO COMMITTED SUICIDE.—AUSTRALIA.

Occupation Group.	Number of Male Deaths.			Percentage on Total.		
	1921.	1931.	1934.	1921.	1931.	1934.
Professional .. ..	32	29	43	6.27	4.21	6.69
Domestic .. ..	20	22	10	3.92	3.19	1.56
Commercial .. ..	81	106	90	15.88	15.38	14.00
Transport and Commu- nication .. ..	42	52	46	8.24	7.55	7.15
Industrial .. ..	180	256	96	35.29	37.16	14.93
Agricultural, Pastoral, Min- ing, etc. .. ..	131	182	147	25.69	26.41	22.86
Indefinite .. ..	21	39	207 <sup>a</sup>	4.12	5.66	32.19 <sup>a</sup>
Dependent .. ..	3	3	4	0.59	0.44	0.62
<b>Total Male Deaths ..</b>	<b>510</b>	<b>689</b>	<b>643</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(a) Includes 178 (27.68 per cent.) clerks, labourers, etc., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial".

(f) *Death Rates, Various Countries.* The following comparative table for various countries shows that Australia occupies a fairly favourable position as regards the death rate from suicide:—

#### SUICIDE.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Egypt .. ..	1927	3.2	Queensland .. ..	1934	13.5
Irish Free State .. ..	1934	3.5	Great Britain and Nor- thern Ireland .. ..	1932	13.6
Spain .. ..	1932	3.9	New Zealand .. ..	1933	13.6
Northern Ireland .. ..	1934	5.2	England and Wales .. ..	1933	14.0
Greece .. ..	1932	5.4	United States .. ..	1934	14.9
Norway .. ..	1932	6.5	Denmark .. ..	1932	17.1
Tasmania .. ..	1934	7.9	Western Australia .. ..	1934	17.2
Netherlands .. ..	1934	8.4	Sweden .. ..	1932	17.7
Italy .. ..	1934	8.6	Belgium .. ..	1933	18.2
Canada .. ..	1933	9.0	France .. ..	1931	19.0
Victoria .. ..	1934	9.4	Japan .. ..	1933	22.0
Scotland .. ..	1934	11.0	Poland (b) .. ..	1933	24.0
<b>Australia .. ..</b>	<b>1934</b>	<b>12.4</b>	Switzerland .. ..	1933	27.2
Union of South Africa (a) .. ..	1933	12.7	Germany .. ..	1932	29.1
New South Wales .. ..	1934	13.3	Czechoslovakia .. ..	1933	30.3
South Australia .. ..	1934	13.4	Hungary .. ..	1933	32.0

(a) White population only.

(b) In towns with over 100,000 inhabitants.

(xli) *Homicide.* Deaths from homicide in 1934 numbered 108, equivalent to about the average for the previous five years. See paragraph (xliia).

(xlii) *Accidental or Violent Deaths (except Suicide and Homicide).* Deaths from accidents in 1934 numbered 3,270, compared with an average of 3,173 for the previous five years. Of the deaths in 1934, 1,142 occurred in New South Wales; 936 in Victoria; 511 in Queensland; 286 in South Australia; 284 in Western Australia; 101 in Tasmania; 8 in Northern Territory; and 2 in the Federal Capital Territory. See paragraph (xliia).



(xliia) *Accidental or Violent Deaths (including Homicide and Suicide)*. The following table shows the various kinds of violent deaths, including homicides and suicides, recorded in Australia for the year 1934.

## DEATHS FROM EXTERNAL VIOLENCE.—AUSTRALIA, 1934.

Cause of Death.	Males.	Females.	Persons.
Suicide (see paragraph (xl) .. .. .)	643	183	826
Infanticide (murder of children under 1 year) ..	8	8	16
Homicide by firearms .. .. .	18	10	28
Homicide by cutting or piercing instruments ..	12	10	22
Homicide by other means .. .. .	34	8	42
<b>Homicide, Total .. .. .</b>	<b>72</b>	<b>36</b>	<b>108</b>
Poisoning by venomous animals—			
(a) Snakebite .. .. .	6	1	7
(b) Other .. .. .	3	1	4
Poisoning by food .. .. .	9	7	16
Accidental absorption of irrespirable or poisonous gas .. .. .	13	8	21
Other acute accidental poisonings (gas excepted) ..	20	11	31
Conflagration .. .. .	8	3	11
Accidental burns (conflagration excepted) ..	101	101	202
Accidental mechanical suffocation .. .. .	21	7	28
Accidental drowning .. .. .	277	64	341
Accidental injury by firearms .. .. .	81	2	83
Accidental injury by cutting or piercing instruments	11	1	12
Accidental injury by falling, crushing, etc.—			
In mines and quarries .. .. .	89	..	89
By machinery .. .. .	49	1	50
Connected with methods of transport—			
Railways .. .. .	130	9	139
Tramways .. .. .	34	9	43
Automobiles .. .. .	732	189	921
Other land vehicles .. .. .	164	21	185
Transport by water .. .. .	12	2	14
Transport by air .. .. .	20	..	20
Fall not otherwise specified .. .. .	242	199	441
Other crushings .. .. .	91	3	94
Cataclysm .. .. .	21	6	27
Injuries by animals (not poisoning) .. .. .	29	1	30
Starvation, thirst, fatigue .. .. .	2	1	3
Excessive cold .. .. .	5	1	6
Excessive heat .. .. .	29	34	63
Lightning .. .. .	6	1	7
Other accidental electric shocks .. .. .	25	6	31
Other and unstated forms of accidental violence—			
Inattention at birth .. .. .	5	2	7
Other .. .. .	113	31	144
Violent deaths of unstated nature (open verdict)—			
Drowning .. .. .	86	26	112
Firearms .. .. .	14	2	16
Cutting or piercing instruments .. .. .	1	..	1
Fall .. .. .	5	2	7
Crushing .. .. .	9	3	12
Other .. .. .	26	14	40
War wounds .. .. .	12	..	12
Capital punishment .. .. .	..	..	..
<b>External Violence, excluding Suicide and Homicide</b>	<b>2,501</b>	<b>769</b>	<b>3,270</b>
<b>Total Deaths from External Violence ..</b>	<b>3,216</b>	<b>988</b>	<b>4,204</b>

The following table of death rates per million of mean population reveals for External Violence (excluding Suicide and Homicide), i.e., "Accidents", a decrease to 1921-25, but an increase in the rates for 1926-30 to which the growth of automobile accidents has contributed very largely. The rates for 1934 were higher than those recorded in the three preceding years.

## DEATH RATES (a) ETC., EXTERNAL VIOLENCE.—AUSTRALIA.

Period.	Death Rates (a) from Homicide.			Death Rates (a) from External Violence excluding Suicide and Homicide.			Death Rates (a) from all External Violence.			All External Violence Proportion of 10,000 Deaths.
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	
1911-15 ..	21	16	19	948	268	621	1,170	330	770	718
1921-25 ..	17	13	15	753	211	488	950	260	610	643
1926-30 ..	19	15	17	843	240	549	1,070	300	690	746
1931 ..	25	14	20	690	204	452	923	261	599	688
1932 ..	19	9	14	700	220	464	898	277	593	685
1933 ..	18	11	15	678	214	449	883	273	583	654
1934 ..	21	11	16	738	234	490	949	301	630	676

(a) Number of deaths per 1,000,000 of mean population.

(xliii) *Unspecified or Ill-defined Diseases.* The number of deaths included under this heading was 401 in 1930, 287 in 1931, 276 in 1932, 310 in 1933, and 310 in 1934, of which 217 were males and 93 females. The detailed classification shows these ill-defined diseases under two headings—sudden death, including syncope; and unspecified or ill-defined causes, of which the following are specimens:—Heart failure, asthenia, anasarca, atrophy, exhaustion, dropsy, ascites, and general oedema, etc. In 1934 the number of deaths which came under the first of these categories was 34, and under the second, 276. It is inevitable that cases will occur regarding which the available information is insufficient to permit of a clear definition of the fatal disease in the certificate of death. In the majority of cases, however, there is little doubt that more *satisfactory certificates might have been given.*

(xliv) "*Other Diseases.*" The abridged classification of causes of death used in Tables A to E in the preceding pages differs from that used in the Official Year Books 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 are expanded into their constituent causes in the following table:—

## F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1934.

Causes.	G.C.N. (a)	M.	F.	Total.
<b>14. OTHER INFECTIOUS OR PARASITIC DISEASES.</b>				
Dysentery—				
Amœbic .. .. .	13a	2	..	2
Bacillary .. .. .	13b	5	4	9
Other .. .. .	13c	12	12	24
Erysipelas .. .. .	15	26	11	37
Acute Poliomyelitis .. .. .	16	17	14	31
Encephalitis Lethargica .. .. .	17	15	22	37
Cerebrospinal Fever .. .. .	18	10	11	21
Anthrax .. .. .	20	..	..	..
Tetanus .. .. .	22	63	26	89
Leprosy .. .. .	33	6	4	10
Other Venereal Diseases .. .. .	35	3	..	3
Purulent Infection and Septicæmia .. .. .	36	58	45	103
Other Diseases due to Protozoa .. .. .	39	7	2	9
Ankylostomiasis .. .. .	40	1	2	3
Hydatid Cysts—				
Liver .. .. .	41a	23	13	36
Other Organs .. .. .	41b	23	13	36
Other Diseases due to Helminths .. .. .	42	..	2	2
Mycoses .. .. .	43	11	2	13
Mumps .. .. .	44a	6	5	11
Other .. .. .	44b	13	12	25
<b>Total .. .. .</b>	<b>..</b>	<b>301</b>	<b>200</b>	<b>501</b>
<b>20. OTHER GENERAL DISEASES.</b>				
Rheumatic Fever .. .. .	56	106	118	224
Scurvy .. .. .	60	..	..	..
Beri-beri .. .. .	61	2	..	2
Pellagra .. .. .	62	..	1	1
Rickets .. .. .	63	1	..	1
Osteomalacia .. .. .	64	..	..	..
Diseases of the Pituitary Gland .. .. .	65	4	2	6
Diseases of the Thyroid and Parathyroid Glands—				
Exophthalmic Goitre .. .. .	66a	14	117	131
Other Diseases of Thyroid Gland .. .. .	66b	10	41	51
Diseases of Parathyroid Gland .. .. .	66c	2	..	2
Diseases of the Thymus Gland .. .. .	67	4	6	10
Diseases of the Adrenals (Addison's Disease) .. .. .	68	16	13	29
Other General Diseases .. .. .	69	10	11	21
Hæmorrhagic Conditions .. .. .	70	27	16	43
Anæmia, Chlorosis—				
Pernicious .. .. .	71a	115	143	258
Others .. .. .	71b	11	17	28
Leucæmia, Lymphadenoma—				
Leucæmia .. .. .	72a	97	73	170
Aleucæmia (Lymphadenoma) .. .. .	72b	46	26	72
Diseases of the Spleen .. .. .	73	13	17	30
Other Diseases of the Blood and Blood-forming Organs .. .. .	74	1	4	5
Chronic Poisoning by Organic Substances .. .. .	76	1	..	1
Chronic Poisoning by Mineral Substances—				
Chronic Lead Poisoning .. .. .	77a	13	2	15
Other .. .. .	77b	1	..	1
<b>Total .. .. .</b>	<b>..</b>	<b>494</b>	<b>607</b>	<b>1,101</b>

(a) G.C.N. = General Classification Number.

F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1934—*continued.*

Causes.	G.C.N. (a)	M.	F.	Total
<b>23. OTHER DISEASES OF NERVOUS SYSTEM AND SENSE ORGANS.</b>				
Encephalitis (not epidemic)—				
Cerebral Abscess .. .. .	78a	31	17	48
Others .. .. .	78b	29	27	56
Simple Meningitis—				
Simple Meningitis .. .. .	79a	112	80	192
Non-Epidemic Cerebro-Spinal Meningitis .. .. .	79b	7	8	15
Other Diseases of the Spinal Cord .. .. .	81	114	93	207
Other Forms of Insanity .. .. .	84	40	57	97
Epilepsy .. .. .	85	113	76	189
Convulsions of Infants under Five years of Age .. .. .	86	21	20	41
Other Diseases of the Nervous System—				
Chorea .. .. .	87a	1	4	5
Neuralgia and Neuritis .. .. .	87b	6	9	15
Paralysis Agitans .. .. .	87c	84	73	157
Disseminated Sclerosis .. .. .	87d	35	54	89
Idiocy, Imbecility .. .. .	87e	13	11	24
Other Diseases .. .. .	87f	36	25	61
Diseases of the Eye and Annexa .. .. .	88	2	3	5
Diseases of the Ear and Mastoid Sinus .. .. .	89	65	53	118
Total .. .. .	..	709	610	1,319
<b>25. OTHER DISEASES OF THE CIRCULATORY SYSTEM.</b>				
Aneurysm (other than of Heart) .. .. .	96	149	47	196
Arterio-sclerosis (of coronary arteries excepted)—				
With record of Cerebro-Vascular Lesion .. .. .	97a	703	803	1,506
Without record of Cerebro-Vascular Lesion .. .. .	97b	647	505	1,152
Gangrene .. .. .	98	39	33	72
Other Diseases of the Arteries .. .. .	99	43	25	68
Diseases of the Veins (Varices, Hæmorrhoids, Phlebitis, etc.) .. .. .	100	7	28	35
Diseases of the Lymphatic System, Lymphangitis, etc. .. .. .	101	8	3	11
Abnormalities of Blood Pressure .. .. .	102	24	44	68
Other Diseases of the Circulatory System .. .. .	103	7	7	14
Total .. .. .	..	1,627	1,495	3,122
<b>28. OTHER DISEASES OF THE RESPIRATORY SYSTEM.</b>				
Diseases of the Nasal Fossæ and Annexa .. .. .	104	17	16	33
Diseases of the Larynx .. .. .	105	17	11	28
Pleurisy .. .. .	110	117	64	181
Congestion, Hæmorrhagic Infraction of Lung .. .. .	111	194	223	417
Asthma .. .. .	112	78	75	153
Pulmonary Emphysema .. .. .	113	8	2	10
Other Diseases of the Respiratory System, Tuberculosis excepted—				
Chronic Interstitial Pneumonia .. .. .	114a	192	9	201
Gangrene of the Lung .. .. .	114b	6	6	12
Other Diseases .. .. .	114c	27	18	45
Total .. .. .	..	656	424	1,080

(a) G.C.N. = General Classification Number;

F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1934—*continued.*

Causes.	G.C.N. (a)	M.	F.	Total.
<b>32B. OTHER DISEASES OF THE DIGESTIVE SYSTEM.</b>				
Diseases of the Buccal Cavity, Pharynx, etc.—				
Buccal Cavity and Annexa .. .. .	115a	15	15	30
Pharynx and Tonsils .. .. .	115b	58	52	110
Diseases of the Oesophagus .. .. .	116	6	4	10
Ulcer of the Stomach or Duodenum—				
Stomach .. .. .	117a	217	68	285
Duodenum .. .. .	117b	135	18	153
Other Diseases of the Stomach (Cancer excepted) .. .. .	118	52	46	98
Other Diseases of the Intestines .. .. .	123	53	31	84
Diseases of the Pancreas .. .. .	128	30	26	56
Peritonitis (without specified cause) .. .. .	129	41	39	80
<b>Total .. .. .</b>	<b>..</b>	<b>607</b>	<b>299</b>	<b>906</b>
<b>34. OTHER DISEASES OF THE GENITO-URINARY SYSTEM.</b>				
Other Diseases of the Kidney and Annexa .. .. .	133	134	132	266
Calculi of the Urinary Passages .. .. .	134	51	23	74
Diseases of the Bladder .. .. .	135	53	24	77
Diseases of the Urethra, Urinary Abscess, etc. .. .. .	136	45	3	48
Diseases of the Prostate .. .. .	137	483	..	483
Diseases of the Male Genital Organs, not stated as Venereal .. .. .				
Venereal .. .. .	138	5	..	5
Diseases of the Female Genital Organs, not stated as Venereal—				
Ovary, Fallopian Tubes and Parametrium .. .. .	139a	..	72	72
Uterus .. .. .	139b	..	40	40
Breast .. .. .	139c	..	1	1
Others .. .. .	139d	..	2	2
<b>Total .. .. .</b>	<b>..</b>	<b>771</b>	<b>297</b>	<b>1,068</b>

(a) G.C.N. = General Classification Number.

14. Causes of Deaths in Classes.—The figures in the preceding sub-sections relate to specific causes of death, and are of greater value in medical statistics than a mere grouping under general headings. The classification under eighteen general headings adopted by the compilers of the International Nomenclature is, however, shown in the

following table, together with the death rates and proportions on total deaths pertaining to those classes. A further table furnishes the death rates for the quinquennia 1911-15, 1921-25 and 1926-30:—

## DEATHS, DEATH RATES(a), ETC., IN CLASSES.—AUSTRALIA, 1934.

Class.	Total Deaths.			Deaths Rates.(a)			Proportion of 10,000 Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Parasitic and Infectious Diseases	3,207	2,396	5,603	95	73	84	928	866	900
2. Cancer and Other Tumours	3,825	3,611	7,436	113	110	111	1,106	1,306	1,195
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases	614	1,102	1,716	18	34	26	178	398	276
4. Diseases of the Blood and Blood-forming Organs	310	296	606	9	9	9	90	107	97
5. Chronic Poisonings and Intoxications	47	12	59	1	..	..	13	4	9
6. Diseases of the Nervous System and of the Organs of Sense	2,300	2,286	4,586	68	70	69	665	827	737
7. Diseases of the Circulatory System	8,990	7,039	16,029	265	214	240	2,600	2,545	2,576
8. Diseases of the Respiratory System	3,550	2,707	6,257	105	82	94	1,027	979	1,005
9. Diseases of the Digestive System	2,032	1,557	3,589	60	47	54	588	563	577
10. Diseases of the Genito-Urinary System and Annexa	2,817	1,976	4,793	83	60	72	815	714	770
11. Pregnancy, Labour and Puerperal State	..	631	631	..	19	9	..	228	101
12. Diseases of the Skin and of the Cellular Tissue	106	75	181	3	2	3	31	27	29
13. Diseases of the Bones and Organs of Locomotion	118	60	178	4	2	3	34	22	29
14. Congenital Malformations	370	281	651	11	9	10	107	101	105
15. Early Infancy	1,444	1,078	2,522	43	33	38	418	390	405
16. Old Age	1,408	1,470	2,878	42	45	43	407	532	463
17. External Causes	3,216	988	4,204	94	30	63	930	357	676
18. Causes of Death not Determined	217	93	310	6	3	5	63	34	50
Total .. .. .	34,571	27,658	62,229	1,020	841	932	10,000	10,000	10,000

(a) Number of deaths per 100,000 of mean population.

## QUINQUENNIAL DEATH RATES IN CLASSES.—AUSTRALIA.

Class.	Number of Deaths per 100,000 of Mean Population.								
	1911 to 1915.			1921 to 1925.			1926 to 1930.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Parasitic and Infectious Diseases							107	86	97
2. Cancer and Other Tumours							100	98	100
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases							19	29	24
4. Diseases of the Blood and Blood-forming Organs							8	9	8
5. Chronic Poisonings and Intoxications							3	1	2
6. Diseases of the Nervous System and of the Organs of Sense	112	93	103	93	83	88	78	77	77
7. Diseases of the Circulatory System	147	116	132	150	118	134	186	150	168
8. Diseases of the Respiratory System	132	93	113	121	88	105	116	85	101
9. Diseases of the Digestive System	135	123	130	97	81	89	79	63	71
10. Non-venereal Diseases of the Genito-Urinary System	72	46	59	72	49	61	77	56	67
11. Puerperal Condition	..	27	13	..	25	12	..	24	12
12. Diseases of Skin and Cellular Tissue	6	5	6	6	4	5	4	3	3
13. Diseases of Organs of Locomotion	2	1	1	3	2	2	3	2	2
14. Congenital Malformations	12	9	10	12	10	11	12	9	10
15. Early Infancy	87	71	79	73	56	65	60	46	54
16. Old Age	94	80	88	76	68	72	55	53	54
17. External Causes	117	33	77	95	26	61	107	30	69
18. Causes of Death not Determined	16	9	13	15	9	12	12	6	9
Total .. .. .	1,193	942	1,073	1,061	841	953	1,026	827	928

15. Ages at Death of Married Males and Females, and Issue.—Bulletin No. 52 "Australian Demography" contains a number of tables showing the ages at marriage, ages at death, birthplace, and occupations, in combination with the issue of married persons who died in Australia in 1934. A summary of those tables is given hereunder. Deaths of married males in 1934 numbered 21,741, and of married females, 19,892. The tabulations which follow deal, however, with only 21,379 males and 19,640 females, the information in the remaining 614 cases being incomplete. The total number of children in the families of the 21,379 males was 92,373, and of the 19,640 females, 89,124. 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.	1934.	1911.	1921.	1934.
Under 20 years .. ..	0.33	..	..	0.94	0.77	0.70
20 to 24 " .. ..	0.77	0.84	0.75	1.27	1.22	1.10
25 " 29 " .. ..	1.25	1.29	1.36	1.82	1.86	1.63
30 " 34 " .. ..	2.05	2.06	1.87	2.74	2.45	2.36
35 " 39 " .. ..	2.80	2.58	2.23	3.64	3.29	2.93
40 " 44 " .. ..	3.47	3.23	2.64	4.09	3.66	3.22
45 " 49 " .. ..	4.09	3.48	3.10	4.54	3.76	3.37
50 " 54 " .. ..	4.75	3.76	3.42	5.35	4.23	3.54
55 " 59 " .. ..	5.44	4.41	3.73	5.86	4.69	3.77
60 " 64 " .. ..	5.95	4.98	3.89	5.99	5.39	4.01
65 " 69 " .. ..	6.23	5.50	4.20	6.50	5.86	4.44
70 " 74 " .. ..	6.41	6.06	4.66	6.38	6.30	5.07
75 " 79 " .. ..	6.75	6.66	5.30	6.72	6.56	5.54
80 " 84 " .. ..	6.68	6.89	5.79	6.22	6.76	6.05
85 " 89 " .. ..	6.67	7.18	6.42	5.97	6.93	6.41
90 " 94 " .. ..	6.03	7.21	7.32	5.69	6.53	6.37
95 " 99 " .. ..	7.30	6.97	7.22	5.05	6.05	6.77
100 years and upwards ..	9.33	9.20	5.71	5.17	5.11	6.40
Age not stated .. ..	4.33	5.36	3.00	4.60	5.80	..
All ages .. ..	5.42	4.97	4.32	5.35	5.05	4.54

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 247. The totals are shown in the following table:—

**ISSUE OF MARRIED MALES AND FEMALES.—AUSTRALIA, 1934.**

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Males.	Females.	Total.
Living ..	38,210	37,476	75,686	Living ..	34,995	34,828	69,823
Dead ..	9,529	7,158	16,687	Dead ..	10,855	8,446	19,301
Total ..	47,739	44,634	92,373	Total ..	45,850	43,274	89,124

16. Ages at Marriage of Deceased Males and Females, and Issue.—While the table giving the average issue of married males and females naturally shows an increase in the averages with advancing ages at death, the following table, which gives the average

issue of males and females according to the age at marriage of the deceased parents shows a corresponding decrease in the averages as the age at marriage advances:—

**AGES AT MARRIAGE OF DECEASED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA.**

Age at Marriage.	Average Issue.					
	Males.			Females.		
	1911.	1921.	1934.	1911.	1921.	1934.
Under 15 years .. ..	..	..	4.00	9.71	7.60	9.22
15 to 19 " .. ..	6.97	6.32	5.89	7.10	6.97	6.48
20 " 24 " .. ..	6.34	6.05	5.33	5.77	5.50	5.07
25 " 29 " .. ..	5.70	5.17	4.64	4.27	4.09	3.72
30 " 34 " .. ..	4.92	4.45	3.77	3.04	2.66	2.45
35 " 39 " .. ..	4.05	3.90	3.09	1.68	1.61	1.31
40 " 44 " .. ..	3.43	2.67	2.46	0.72	0.62	0.45
45 " 49 " .. ..	2.59	2.20	1.82	0.26	0.03	0.07
50 " 54 " .. ..	2.45	1.70	1.54	..	..	..
55 " 59 " .. ..	1.66	1.30	1.36	..	..	..
60 " 64 " .. ..	2.00	0.33	1.26	..	..	..
65 years and upwards ..	1.00	0.25	1.06	..	..	..
Age unspecified .. ..	5.40	4.93	3.31	5.23	5.41	3.62
All Ages .. ..	5.42	4.97	4.32	5.35	5.05	4.54

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 1934, together with the average issue. No generalizations can, of course, be made in those cases in which the number of deaths was small, but where the figures are comparatively large, as in the case of natives of Australia and the British Isles, differences occur between the averages of these individual countries which appear inexplicable on any other ground than that of different age constitution of the locally born population. It will be noted that the differences occur both in the male and female averages.

**BIRTHPLACES OF DECEASED MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA.**

Birthplace.	Married Males.				Married Females.			
	1911.		1934.		1911.		1934.	
	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.
<b>Australasia—</b>								
Australia .. ..	4,074	4.71	13,716	4.28	4,566	4.57	13,409	4.39
New Zealand .. ..	64	3.89	138	3.42	56	3.84	165	3.44
<b>Europe—</b>								
England and Wales .. ..	4,079	5.87	4,177	4.40	3,152	5.86	3,302	4.72
Scotland .. ..	1,133	5.86	1,034	4.38	1,002	6.09	832	4.90
Ireland .. ..	1,766	6.12	958	4.86	2,118	5.83	1,285	5.19
Other British Possessions .. ..	23	6.52	29	4.45	24	5.75	18	4.72
Western .. ..	199	4.33	265	4.33	55	5.07	71	5.38
Central .. ..	484	5.81	371	5.18	270	6.56	241	6.20
Southern .. ..	58	5.09	164	3.17	12	4.92	59	3.75
Eastern .. ..	35	4.37	55	3.55	6	4.50	24	5.41
<b>Asia—</b>								
British Possessions .. ..	32	3.87	54	3.11	17	6.41	33	3.76
Foreign Countries .. ..	74	2.46	105	2.58	5	2.60	17	5.11
<b>Africa—</b>								
British Possessions .. ..	16	3.56	26	3.58	15	4.80	27	4.26
Foreign Countries .. ..	..	..	3	2.00	..	..	4	5.50
<b>America—</b>								
British Possessions .. ..	42	5.55	42	3.50	17	6.47	18	3.77
United States .. ..	40	3.78	52	2.87	17	4.94	31	3.97
Other Foreign Countries .. ..	17	4.53	7	1.00	10	4.50	1	6.00
Polynesia .. ..	5	4.00	21	3.80	9	3.33	7	3.14
Indefinite .. ..	72	4.28	112	4.44	72	4.85	96	5.06
<b>Total .. ..</b>	<b>12,213</b>	<b>5.42</b>	<b>21,379</b>	<b>4.32</b>	<b>11,423</b>	<b>5.35</b>	<b>19,640</b>	<b>4.54</b>



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.	1934.	1921.	1931.	1934.
Professional .. ..	926	1,194	1,599	4.04	3.78	3.59
Domestic .. ..	552	621	544	3.55	3.64	3.30
Commercial .. ..	1,977	2,962	2,403	4.18	3.55	3.55
Transport and Communica- tion .. ..	1,254	1,742	2,078	4.63	4.15	4.09
Industrial .. ..	5,086	6,883	4,306	4.95	4.49	4.16
Agricultural, Pastoral, Min- ing, etc. .. ..	3,983	4,495	5,024	5.83	5.31	5.14
Indefinite .. ..	759	936	5,389 <sup>a</sup>	5.49	4.68	4.45 <sup>a</sup>
Dependent .. ..	15	39	36	4.00	3.85	3.00
<b>Total .. ..</b>	<b>14,552</b>	<b>18,872</b>	<b>21,379</b>	<b>4.97</b>	<b>4.44</b>	<b>4.32</b>

(a) Includes clerks, labourers, &c., not specified as belonging to any industry, who were formerly included under "Commercial" or "Industrial" as follows: 1934, 4,271 (average issue 4.29).

#### § 4. Australian Life Tables.

The Official Year Book, No. 20, pp. 952 and 959 to 973, contained a synopsis of the various Australian Life Tables, also comparisons with other countries of the expectation of life at various ages. Considerations of space, however, do not permit of their repetition herein. The compilation of Life Tables based on the age distribution of the population at the Census of the 30th June, 1933, is now in progress.

#### § 5. Registration of Births, Deaths and Marriages in the Territory for the Seat of Government.

Up to the end of 1929 the provisions of the Registration of Births, Deaths and Marriages Act of 1899 and the Marriage Act of 1899 of New South Wales applied to the Territory for the Seat of Government. Births, deaths and marriages occurring within the Territory were registered by the District Registrars, Queanbeyan and Nowra, and were incorporated in the New South Wales records.

Towards the end of 1929, however, the Registration of Births, Deaths and Marriages Ordinances were enacted, providing for the assumption by the Commonwealth Government of the function of registration within the Territory as from 1st January, 1930. The Commonwealth Statistician is the Principal Registrar, and all registrations are made at Canberra.

Marriages within the Territory are celebrated according to the conditions prescribed by the Marriage Ordinance, 1929. This Ordinance, which closely follows the provisions of the Marriage Act of New South Wales, which it supersedes as regards the Territory for the Seat of Government, came into operation on 1st January, 1930.

## § 6. Graphical Representation of Vital Statistics.

(See Graphs pp. 569 to 576.)

1. **General.**—The progressive fluctuations of the number of births, marriages, and deaths are important indexes of the economic conditions and social ideals of a community. Graphs have accordingly been prepared which show these fluctuations. It should be remembered, however, that, normally, the increase of births and marriages should be proportional to the growth of population. The graphs showing rates have been revised in respect of the years 1921 to 1933 in accordance with the results of the Census of the 30th June, 1933.

2. **Graphs of Annual Births, Marriages, and Deaths.**—The outstanding features of the graph representing births are :—An almost continuous rise in the numbers from 1860 to 1891 ; a decline till 1898, associated with the commercial crises of 1891–93 ; a sharp fall in 1903 which accompanied a severe drought ; an uninterrupted increase from 1903 to 1914, the total for 1914 being the highest recorded ; a rapid decline to 1919, the result of war conditions, followed by an equally rapid increase in 1920. The numbers were fairly constant from 1920 to 1928 after which they declined steeply as the result of the world depression.

The graph for marriages up to 1914 discloses approximately the same features as that for births—financial crises and droughts having a similar effect. The numbers for 1914 and 1915 showed a considerable increase over previous years. From 1916 to 1918 there was a rapid fall, the numbers being much below those of pre-war years. During 1919 and 1920 the recovery was very rapid, the total for the latter year being the highest ever recorded. Marriages declined again to 1923 then recovered to 1927, when the experience of the period 1915 to 1920 was repeated, the graph falling sharply with the progress of the depression and making a striking recovery in the past three years.

The characteristic feature of the graph of deaths is its irregular nature. On the whole, however, there is a fairly steady increase due to the growth of population.

3. **Graphs of Annual Birth, Marriage, and Death Rates, and Rate of Natural Increase.**—The graph of the birth rate indicates a well marked decline throughout the whole period. This reduction of rate has been subject to fluctuations, there being two periods of arrested decline, viz., from 1877 to 1890, and from 1903 to 1912.

The variations in the marriage rates though less abrupt than those in the birth and death rates, have ranged from a minimum of 6.08 per 1,000 which marked the culmination of a commercial depression in 1894 to a maximum of 9.62 per 1,000 in 1920. The depression of 1931, however, was responsible for the establishment of a new minimum of 5.96 per 1,000 in that year. The next three years witnessed a sharp advance to 7.71 per thousand.

On the whole, the graph for the death rate furnishes clear evidence of a satisfactory decline during the period. The graph brings into prominence six years in which the rates were very high when compared with adjacent years, viz., 1860, 1866, 1875, 1884, 1898, and 1919. The high rate of 1919 was due to influenza, while in the other years epidemics of measles were largely responsible.

The graph of natural increase shows roughly the same variations as that for the birth rate, but the influence of the death rate is indicated by the very low rates of natural increase for 1875, 1898, and 1910, which resulted from the exceptionally high death rates of those years. The rate shows a rapid decline since 1922.

## CHAPTER XIX. MINERAL INDUSTRY.

(NOTE.—A table showing particulars of mineral production for the year 1934 will be found in the Appendix. This information was not available at the time of compilation of this chapter.)

### § 1. The Mineral Wealth of Australia.

1. *Place of Mining in Australian Development.*—The value of production from the mineral industry is now considerably less than that returned by the agricultural or the pastoral industry, nevertheless it was the discovery of gold in payable quantities that first attracted population to Australia in large numbers and thus accelerated its national development.

2. *Extent of Mineral Wealth.*—The extent of the total mineral wealth of Australia cannot yet be regarded as completely ascertained, as large areas of country still await systematic prospecting. More detailed allusion to this matter will be found in preceding Official Year Books. (See No. 22, p. 755.)

3. *Quantity and Value of Production in 1933.*—The quantities (where available) and the values of the principal minerals produced in each State, and in Australia as a whole, during the year 1933 are given in the tables immediately following. It must be clearly understood that the figures quoted in these tables refer to the quantities and values of the various minerals in the form in which they were reported to the State Mines Departments, and represent amounts which the Mines Departments consider may fairly be taken as accruing to the mineral industry as such. They are not to be regarded as representative of Australia's potentiality as a producer of *metals*, this matter being dealt with separately in § 17 hereinafter. New South Wales is, of course, in normal times, a large producer of iron and steel from ironstone mined in South Australia. As the table shows, the latter State receives credit for this ironstone in its mineral returns. The iron and steel produced therefrom cannot be assigned to the mineral industry of New South Wales, but the value of the transformation from ore to metal is credited to the manufacturing industry of that State. Similarly lead, silver-lead, and zinc are credited in the form reported to the State of origin—chiefly New South Wales—although the actual metal extraction is carried out to a large extent elsewhere.

### MINERAL PRODUCTION.—QUANTITIES, 1933.

Minerals.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (c)	Australia.
Antimony ..	ton	58	..	1	..	..	..	..	59
Arsenic ..	..	445	..	..	..	1,331	..	..	1,776
Asbestos ..	cwt.	..	..	..	260	5,320	..	..	5,580
Barytes ..	ton	318	..	..	1,772	..	..	5	2,095
Bismuth ..	cwt.	20	..	..	7	..	..	26	53
Brown Coal ..	ton	..	2,580,060	..	..	..	..	..	2,580,060
Coal ..	..	7,118,437	523,000	875,567	..	458,399	116,573	..	9,091,976
Copper (ingot, matte, etc.) ..	..	706	..	2,941	72	35	10,739	..	14,493
Diatomaceous earth ..	..	1,941	884	..	..	..	..	..	2,825
Gold ..	fine oz.	29,252	58,183	91,997	6,361	637,207	6,673	594	830,267
Gypsum ..	ton	2,271	5,132	..	50,561	2,608	..	..	60,572
Ironstone ..	..	5,568	..	8,553	721,185	..	1,498	..	736,604
Kaolin ..	..	4,793	3,177	..	507	..	..	..	8,477
Lead ..	..	(b)	..	45,150	..	..	2,644	..	(b) 47,794
Lead and silver-lead ore, concentrates, etc. ..	..	225,445	..	..	..	7	..	24	225,476
Limestone flux ..	..	63,183	..	21,484	20,215	..	110,347	..	215,229
Magnesite ..	..	9,362	6	150	202	..	..	..	9,720
Manganese ore ..	..	129	..	..	20	..	..	..	149
Molybdenite ..	cwt.	110	..	98	..	..	..	..	208
Osmiridium ..	oz.	..	..	..	..	..	548	..	548
Phosphate ..	ton	70	..	..	26	..	..	..	96
Pigments ..	..	685	..	..	..	..	..	..	685
Platinum ..	oz.	113	..	..	..	..	..	..	113
Salt ..	ton	..	(a)	..	58,587	..	..	..	(e) 58,587
Sapphires ..	oz.	..	..	(d)	..	..	..	..	(d)
Shale (oil) ..	ton	..	..	..	..	..	3,401	..	3,401
Silver ..	fine oz.	55,882	2,435	2,248,804	..	67,036	489,330	..	2,803,487
Tin and tin ore ..	ton	1,135	10	856	..	37	957	25	3,020
Wolfram ..	cwt.	5	..	260	..	..	2,080	..	2,345
Zinc and concentrates ..	ton	230,952	..	..	..	..	..	..	(b) 230,952

(a) Not available for publication.  
30th June.

(d) Quantity not stated.

(b) See letterpress preceding this table.  
(e) Incomplete.

(c) Year ended

The values of the minerals raised in each State in 1933 are given in the following table:—

MINERAL PRODUCTION.—VALUE, 1933.

Minerals.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N.T. (d)	Australia.
	£	£	£	£	£	£	£	£
Antimony ..	2,227	..	25	..	..	..	..	2,252
Arsenic ..	16,171	..	..	..	36,753	..	..	52,924
Asbestos ..	..	..	..	113	4,917	..	..	5,030
Barytes ..	636	..	..	4,746	..	15	..	5,397
Bismuth ..	100	..	..	150	..	705	..	955
Brown Coal ..	..	271,360	..	..	..	..	..	271,360
Coal ..	4,306,799	328,704	693,383	..	289,806	85,848	..	5,704,540
Copper (ingot and matte) ..	26,775	..	105,031	2,928	1,132	395,286	..	531,152
Diamonds ..	123	..	..	..	..	..	..	123
Diatomaceous earth ..	4,852	4,420	..	..	..	..	..	9,272
Gold ..	226,068	448,228	710,168	49,619	4,915,950	51,579	4,449	6,406,061
Gypsum ..	1,135	1,388	..	37,921	3,686	..	..	44,130
Ironstone ..	2,591	..	8,691	829,303	..	1,498	..	842,143
Kaolin ..	2,518	3,577	..	1,454	..	..	..	7,549
Lead ..	(b)	..	527,696	..	..	30,987	..	(b) 558,683
Lead and silver concentrates, etc. ..	1,778,648	..	..	..	68	..	410	1,779,126
Limestone flux ..	22,114	..	15,528	7,581	..	33,048	..	78,271
Magnesite ..	23,405	22	375	280	..	..	..	24,082
Manganese ore ..	448	..	..	53	..	..	..	501
Molybdenite ..	1,215	..	898	..	..	..	..	2,113
Opal ..	4,231	..	400	3,256	..	..	..	7,887
Osmiridium ..	..	..	..	..	..	4,843	..	4,843
Phosphate ..	44	..	..	26	..	..	..	70
Pigments ..	1,027	..	..	..	..	..	..	1,027
Platinum ..	805	..	..	..	..	..	..	805
Salt ..	..	(f)	..	131,821	..	..	..	(g) 131,821
Sapphires ..	..	..	2,826	..	..	..	..	2,826
Shale (oil) ..	..	..	..	..	..	1,483	..	1,483
Silver ..	(b) 4,559	198	181,108	..	6,792	39,808	..	(b) 232,465
Tin and tin ore ..	218,244	1,350	123,620	..	4,557	190,041	2,519	540,331
Wolfram ..	16	..	760	..	..	7,301	..	8,077
Zinc & concentrates ..	283,845	..	..	..	..	..	..	(b) 283,845
Unenumerated ..	(c) 36,238	1,190	2,742	7,123	5,533	3,226	10,772	66,824
<b>Total ..</b>	<b>6,964,834</b>	<b>1,060,437</b>	<b>2,373,251</b>	<b>1,076,434</b>	<b>5,269,194</b>	<b>845,668</b>	<b>18,150</b>	<b>17,607,968</b>

(a) For items excluded see letterpress below. (b) See letterpress above preceding table  
(c) Includes dolomite £9,820, silica £8,321, fireclay, £6,940, and felspar, £6,003. (d) Year ended 30th June.  
(e) Mica, £10,772. (f) Not for publication. (g) Incomplete.

It may be pointed out in connexion with the figures given in the above 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." Valuations of the production of some of these may be obtained from the reports of the various Mines Departments, but in regard to others it is impossible to obtain adequate information. In certain instances, moreover, the published information is of little value. Some of the items excluded, such as cement, carbide and sulphuric acid are included in manufacturing production, and, in any case, only the raw material could properly be included in mineral production. The items excluded from the total for New South Wales in 1933 consisted of—lime, £24,665; building stone, £122,927; Portland cement, £602,082; coke, £512,963; road materials, £567,339; shell grit, £10,918; sulphur and sulphuric acid, £77,673; and brick and pottery clays, £99,166. Carbide, £91,077, and cement, £126,424, have been excluded from the Tasmanian figures.

4. Value of Production, 1929 to 1933.—The value of the mineral production in each State in the five years 1929 to 1933 is given in the table hereunder :—

## MINERAL PRODUCTION.—VALUE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
	£	£	£	£	£	£	£	£
1929 ..	10,155,164	1,116,083	1,683,050	1,295,053	2,087,852	1,556,276	18,345	17,911,823
1930 ..	8,504,034	1,088,343	1,241,125	1,263,398	2,191,393	1,050,923	16,656	15,355,872
1931 ..	6,517,703	882,334	1,274,953	548,204	3,410,472	707,234	11,416	13,352,316
1932 ..	6,533,191	908,994	1,818,701	837,896	4,731,740	739,058	13,811	15,583,391
1933 ..	6,964,834	1,060,437	2,373,251	1,076,434	5,269,194	845,668	18,150	17,607,968

Increases in the value of mineral production were recorded in all States during 1933, mainly through the agency of gold, tin, silver-lead ores and concentrates, zinc concentrates and ironstone. Gold was the most important contributing factor with a rise in production of 116,132 fine ozs., valued at £ A 1,195,000. All the States returned higher yields, but the principal gains were made in Queensland and Western Australia, where the improvement shown in the total value of mineral production was largely due to this metal. Tin followed next in importance with an advance of £238,000. Although the output increased by 624 tons, mainly in the three principal producing States of New South Wales, Queensland and Tasmania, the enhanced price of approximately £52 per ton ruling during 1933 was more largely responsible for the gain reported.

The production of silver-lead ores and concentrates and zinc concentrates increased by 16,343 tons and 42,914 tons valued at £215,785 and £127,917 respectively; these increases were almost wholly in New South Wales.

Ironstone in South Australia increased by 183,000 tons valued at £210,746. Other States also showed increased outputs, but these were relatively small.

The only decreases worthy of mention were lead 2,700 tons, copper 290 tons and brown coal 32,000 tons. Decreased production of lead occurred in Queensland and Tasmania which are the two States where lead is produced from local ores mined. The decreases amounted to 2,566 tons valued at £46,117 in Queensland, and 50 tons valued at £1,650 in Tasmania, making a total decrease of 2,616 tons valued at £47,767. In addition to a smaller output of lead the average price fell in 1933 compared with that in 1932. Copper also showed a reduction of 290 tons, but the improvement in price more than balanced the deficiency and actually showed an increase of £610 on that of the previous year. Brown coal in Victoria declined by 32,000 tons representing a loss of £5,000 on the previous year.

5. Total Production to end of 1933.—In the next table will be found the estimated value of the total mineral production in each State up to the end of 1933. The items mentioned as excluded from the preceding table are also excluded in the following table. Thus the total for New South Wales falls short by over £49,000,000 of that published by the State Department of Mines, the principal items excluded being coke, £15,559,000; cement, £19,885,000; lime, £1,732,000; and considerable values for marble, slate, granite, chert, gravels, etc., which the Department now includes in the returns for quarries.

## MINERAL PRODUCTION.—VALUE TO END OF 1933.

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter. (a)	Australia.
	£	£	£	£	£	£	£	Million. £
Gold ..	64,469,129	304,660,962	86,885,298	1,731,084	177,683,222	9,110,214	2,294,952	647
Silver and lead ..	124,433,446	265,575	5,961,331	383,547	2,294,476	9,226,579	66,313	143
Copper ..	15,651,489	216,686	26,971,494	33,151,464	1,809,960	21,605,077	233,603	100
Iron ..	7,743,457	15,641	498,566	10,769,871	36,722	53,608	..	19
Tin ..	14,914,998	978,856	11,345,014	..	1,612,071	17,609,730	631,697	47
Wolfram	277,887	11,885	1,066,488	301	1,441	243,688	222,479	2
Zinc ..	24,831,507	..	13,460	15,993	5,437	996,077	..	26
Coal ..	202,872,506	14,934,995	21,530,588	..	7,498,926	2,127,987	..	249
Other ..	8,302,976	891,148	2,821,613	4,983,713	327,811	2,162,478	84,389	19
<b>Total ..</b>	<b>463,497,395</b>	<b>321,975,748</b>	<b>157,093,852</b>	<b>51,035,973</b>	<b>191,270,066</b>	<b>63,135,438</b>	<b>3,533,433</b>	<b>1,252</b>

(a) To 30th June, 1933.

The "other" minerals in New South Wales include alunite, £209,000; antimony £367,000; arsenic, £160,000; bismuth, £244,000; chrome, £125,000; diamonds, £147,000; magnesite, £210,000; molybdenite, £215,000; opal, £1,605,000; scheelite, £194,000; and oil shale, £2,695,000. In the Victorian returns antimony ore was responsible for £612,000. The value for coal in this State includes £2,226,000 for brown coal. Included in "other" in the Queensland production were opal, £187,000; gems, £635,000; bismuth, £119,000; cobalt, £157,000; molybdenite, £601,000; limestone flux, £769,000; and arsenic, £124,000. The chief items in South Australian "other" minerals were salt, £3,196,000; limestone flux, £297,000; gypsum, £842,000; phosphate, £135,000; and opal, £134,000. In the Tasmanian returns osmiridium was responsible for £603,000, scheelite for £112,000, and iron pyrites for £94,000.

6. **Quarries.**—Hitherto the data published in the Official Year Book relating to the mineral industry has contained no reference to quarrying. At the Conference of Australian Statisticians held in March, 1935, it was resolved that the values of quarry products should be included with mining. Steps are now being taken to give effect to this resolution, but some time must elapse before material can be collected in all States.

7. **Decline in the Metalliferous Industry.**—On the 1st December, 1921, a Select Committee was appointed by the Legislative Assembly of New South Wales to inquire into and report upon the serious decline in the metalliferous industry. The result of the Committee's investigations was published in a Report issued in 1922 wherein the chief contributing causes of the decline in New South Wales and in Australia generally were summarized as follows:—(1) High cost of production; (2) Deterioration in ore values in existing mines; (3) Inadequate machinery; (4) High freights; (5) High treatment charges; (6) Imperfect labour conditions in mines; (7) Lack of new payable discoveries; and (8) Lack of efficiently-supported prospecting.

8. **Geophysical Methods for Detection of Ore Deposits.**—Reference to the application of geophysical survey methods in Australia will be found in Official Year Book No. 24, p. 570. See also § 16 hereinafter.

## § 2. Gold.

1. **Discovery in Various States.**—The discovery of gold in payable quantities was an epoch-making event in Australian history, for, as one writer aptly phrases it, this event "precipitated Australia into nationhood." A more or less detailed account of the finding of gold in the various States appears under this section in Official Year Books Nos. 1 to 4.

2. **Production at Various Periods.**—In the following table will be found the value 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 1923 to 1934. Owing to the defective information in the earlier years the figures fall considerably short of the actual totals, for during the first stages of mining development large quantities of gold were taken out of Australia by successful diggers who preferred to keep the amount of their wealth secret.

## GOLD.—VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	£	£	£	£	£	£	£	£
1851-60..	11,530,583	93,337,052	14,565	..	..	788,564	..	105,670,764
1861-70..	13,676,103	65,106,264	2,076,494	..	..	12,174	..	80,871,035
1871-80..	8,576,654	40,625,188	10,733,048	579,068	..	700,048	79,022	61,293,028
1881-90..	4,306,541	28,413,792	13,843,081	246,668	178,473	1,514,921	713,345	49,216,821
1891-1900	10,332,120	29,904,152	23,989,359	219,931	22,308,524	2,338,336	906,988	89,999,410
1901-10..	9,569,492	30,136,686	23,412,395	310,080	75,540,415	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	100,652	76,240,384
1921-30..	940,946	2,721,309	1,976,715	47,564	20,458,080	193,833	9,894	26,348,341
1923 ..	83,325	422,105	392,563	4,199	2,232,179	16,300	743	3,151,414
1924 ..	86,905	312,398	459,716	4,093	2,255,932	21,516	3,270	3,143,830
1925 ..	82,498	200,901	197,118	3,535	1,874,320	14,969	1,939	2,375,280
1926 ..	82,551	208,471	43,914	3,219	1,857,716	17,936	594	2,214,401
1927 ..	76,595	163,999	161,321	1,776	1,734,571	20,646	468	2,159,076
1928 ..	54,503	144,068	56,395	2,258	1,671,093	15,306	431	1,944,054
1929 ..	31,842	111,609	40,250	4,289	1,602,142	23,772	553	1,814,457
1930 ..	53,066	102,456	33,224	5,569	1,773,500	18,976	57	1,986,848
1931 ..	118,623	262,488	79,652	17,328	3,054,743	28,150	2,535	3,563,519
1932 ..	203,622	351,586	173,144	22,018	4,413,809	43,137	4,196	5,211,512
1933 ..	226,068	448,228	710,168	49,619	4,915,950	51,579	4,449	6,406,061
1934 ..	307,662	597,040	982,636	58,582	5,534,491	48,139	8,124	7,536,674
Total ..								
1851-1934	64,776,791	305,258,002	87,867,934	1,789,666	183,212,836	9,158,353	2,303,076	654,366,658

The values quoted on this page are in Australian currency throughout.

The value of the gold yield in 1929 was the lowest recorded since the discovery of the precious metal in 1851, while the slight increase in 1930 was to some extent due to the increased activity in prospecting and the working over of old auriferous areas resultant on prevailing economic conditions. Consequent on the enhanced price realized for gold in 1931 the figures for the year show a considerable increase, the total for Australia being the highest recorded since 1921. The average price in Australian currency applied to the production for the year 1931 was £5 19s. 9d.; for the year 1932 the price was taken as £7 5s. 11 $\frac{3}{4}$ d.; for 1933 as £7 14s. 3 $\frac{3}{4}$ d.; and for 1934, £8 10s. 0 $\frac{3}{4}$ d. Reference to the bounty paid by the Commonwealth Government on local production will be found in § 16. i. hereinafter.

The amount of gold raised in Australia in any one year attained its maximum in 1903, in which year Western Australia also reached its highest point. For the other States the years in which the greatest yields were obtained were as follow:—New South Wales, 1852; Victoria, 1856; Queensland, 1900; South Australia, 1894; and Tasmania, 1899.

The following table shows the quantity in fine ounces of gold raised in each State and in Australia during each of the five years ending 1934. A separate line is added showing the total production in thousands of fine ounces from 1851 to 1934.

## GOLD.—QUANTITY PRODUCED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter. (a)	Australia.
	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.
1930 ..	12,493	24,119	7,821	1,311	416,369	4,467	13	466,593
1931 ..	19,673	43,637	13,147	2,782	510,572	4,760	552	595,123
1932 ..	27,941	47,745	23,263	3,014	605,561	5,937	674	714,135
1933 ..	29,252	58,183	91,997	6,361	637,207	6,673	594	830,267
1934 ..	36,123	70,196	115,471	6,870	651,338	5,622	989	886,609
Total (b)								
1851-1934	15,114	71,569	20,378	404	40,710	2,133	540	150,848

(a) Year ended 30th June.

(b) '000 omitted in each case.

3. **Changes in Relative Positions of States as Gold Producers.**—The figures in the table showing the value of gold raised explain the enormous increase in the population of Victoria during the period 1851 to 1861, when an average of over 40,000 persons reached the Colony each year. With the exception of the year 1889, when its output was exceeded by that of Queensland, Victoria maintained its position as the chief gold-producer for a period of forty-seven years, or up to 1898, when its production was surpassed by that of Western Australia, the latter State from this year onward contributing practically half, and so far as the last ten years are concerned nearly four-fifths of the entire yield of Australia. The position of the States from 1898 to 1932 according to the quantities produced was in the following order, viz. :—Western Australia, Victoria, Queensland, New South Wales, Tasmania and South Australia, with the exception of the years 1921, 1926 and 1930 to 1932, when the positions of Queensland and New South Wales were reversed. In 1933 Queensland improved its position and occupied second place, which had been held by Victoria for so long.

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 six years for which returns are available. The figures given in the table have been compiled chiefly from returns obtained directly by the Commonwealth Bureau of Census and Statistics from the gold-producing countries of the world or from other authoritative sources of information.

## GOLD.—WORLD'S PRODUCTION.

Period.	World's Production of Gold.	Gold Produced in Australia.	Percentage of Australia on Total.
	Fine ozs.	Fine ozs.	%
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	5,841,992	3.14
1928 .. .. .	19,745,749	457,674	2.32
1929 .. .. .	19,615,412	427,159	2.18
1930 .. .. .	20,831,245	467,742	2.25
1931 .. .. .	22,786,683	595,123	2.61
1932 .. .. .	24,204,528	714,135	2.95
1933 .. .. .	25,169,639	830,267	3.30

For the year 1933 the world's production of gold in fine ounces was 25,170,000, as compared with a return of 24,205,000 oz. fine in 1932. It is estimated that the world's production in 1934 approximated 27,300,000 fine ounces, of which Australia's share amounted to 887,490 fine ounces or 3.25 per cent.

The quantity of gold produced in the ten chief producing countries in each of the five years 1929 to 1933 is given in the table hereunder. Particulars of the quantity and value of the gold production for all countries for the ten years 1924-33 will be found in the Australian Production Bulletin No. 28 issued by this Bureau.



## GOLD.—PRODUCTION, CHIEF COUNTRIES.

Country.	1929.	1930.	1931.	1932.	1933.
	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.
Union of South Africa	10,412,326	10,716,351	10,877,777	11,558,532	11,013,712
Canada .. ..	1,928,308	2,102,068	2,693,892	3,044,387	2,949,309
Soviet Union ..	1,000,000	1,433,664	1,700,960	1,990,000	2,814,000
United States ..	2,056,629	2,100,395	2,213,741	2,219,198	2,152,726
<b>Australia .. ..</b>	<b>427,159</b>	<b>466,593</b>	<b>595,123</b>	<b>714,135</b>	<b>830,267</b>
Rhodesia .. ..	560,813	547,631	532,111	580,484	645,087
Mexico .. ..	651,873	670,488	623,003	584,198	637,727
Japan .. ..	334,061	388,740	425,000	462,251	498,800
India .. ..	363,869	329,231	330,484	329,600	336,100
Gold Coast ..	207,851	240,899	261,651	278,782	305,908

The next table shows the average yearly production in order of importance of the yield in the chief gold-producing countries for the decennium of 1924-1933.

## GOLD.—AVERAGE ANNUAL PRODUCTION, CHIEF COUNTRIES, 1924 TO 1933.

Country.	Quantity.	Country.	Quantity.
	Fine ozs.		Fine ozs.
Union of South Africa ..	10,418,285	Rhodesia .. ..	584,321
United States .. ..	2,200,944	<b>Australia .. ..</b>	<b>575,527</b>
Canada .. ..	2,147,669	India .. ..	362,373
Soviet Union .. ..	1,421,075	Japan .. ..	357,658
Mexico .. ..	694,573	Gold Coast .. ..	223,785

5. Employment in Gold Mining.—The number of persons engaged in gold mining in each State in 1901, 1903, 1913, 1923, and in each of the last five years is shown in the following table. The figures are inclusive of prospectors, etc., so far as they are ascertainable and includes those who may not have worked during the whole of the year.

## GOLD MINING.—PERSONS EMPLOYED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1901 ..	12,064	27,387	9,438	(a)1,000	19,771	1,112	(a) 200	70,972
1903 (b) ..	11,247	25,208	9,229	(a)1,000	20,716	973	(a) 200	68,573
1913 ..	3,570	11,931	3,123	800	13,445	481	175	33,525
1923 ..	1,141	2,982	603	32	5,555	119	30	10,462
1929 ..	684	864	326	58	4,108	63	5	6,108
1930 ..	4,229	942	903	114	4,452	43	4	10,687
1931 ..	9,944	4,258	2,751	180	6,344	166	70	23,713
1932 ..	8,154	6,089	3,893	142	7,983	250	89	26,600
1933 ..	6,913	6,126	4,161	231	9,900	229	95	27,655

(a) Estimated.

(b) Year of Maximum Production.

The heavy decline noticeable since 1901 is, of course, due to the exhaustion of accessible payable deposits and the failure to locate any considerable fresh sources of supply. As pointed out previously, the increase in number since 1929 was due to the higher price of the metal coupled with lack of other employment bringing about considerable accessions to the ranks of prospectors and fossickers. In every State an expansion in the numbers engaged has been recorded in each successive year since 1929 with the exception of New South Wales. In New South Wales a drop of 3,000 between 1931 and 1933 is shown. This decrease was general throughout the mining districts of the State. In Western Australia a substantial increase in the numbers employed

in 1933 over that of 1932 is recorded and the development has been distributed over all the goldfields of that State.

6. **Bounty on Production.**—A reference to the bounty provided by the Commonwealth on gold production in Australia will be found in § 16. i. hereinafter.

### § 3. Platinum and Platinoid Metals.

1. **Platinum.**—(i) *New South Wales.* The deposits at present worked in the State are situated in the Fifield division, near Parkes, and the production in 1933 amounted to 113 ozs., valued at £805 as compared with 336 ozs., valued at £2,906 in the preceding year, while the total production recorded to the end of 1933 amounted to 19,815 ozs., valued at £125,707.

(ii) *Victoria.* In Gippsland the metal has been found in association with copper and 127 ozs. were produced in 1913, but there was 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 sand 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.* For 1933 the yield of osmiridium was returned as 548 ozs., valued at £4,843, the quantity raised being about 237 ozs. less than in 1932. The greatest production recorded was for the year 1925, when over 3,365 ozs. valued at £103,570 were raised. The decrease in later years was due in large measure to the lower price, which fell from nearly £31 per oz. in 1925 to less than £9 per oz. in 1933, coupled with a reduced demand. It is stated that one of the reasons for the decreased demand for the metal and the consequent fall in price is that the process of treatment is a particularly dangerous one, owing to the fact that osmium oxide, which is a deadly poison, is given off in a gaseous state. Some of the American firms are using African ore containing platinum and iridium, the treatment of which is simpler and less hazardous.

### § 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 Year Books, Nos. 1 to 5, but considerations of space preclude the repetition of this matter.

2. **Production.**—(i) *General.* The value of the production of silver, silver-lead ore, and lead from each State during the five years ending 1933 is given hereunder:—

#### SILVER AND LEAD.—PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter. (a)	Australia.
	£	£	£	£	£	£	£	£
1929 ..	3,032,741	100	14,807	258	12,525	233,353	79	3,293,863
1930 ..	2,088,790	65	9,696	90	9,330	133,658	1,684	2,243,313
1931 ..	1,079,359	99	306,393	5	3,103	54,778	160	1,443,897
1932 ..	1,566,912	208	756,546	..	5,716	69,941	..	2,399,323
1933 ..	1,783,207	198	708,804	..	6,860	70,795	410	2,570,274

(a) Year ended 30th June.

\* Further details in regard to zinc are given in § 7 hereinafter.

(ii) *New South Wales.* The figures quoted above for New South Wales for the year 1933 include silver to the value of £4,559 and silver-lead ore and concentrates valued at £1,778,648. Since the closing down of the Sulphide Corporation's works 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 the refinery of the Broken Hill Associated Smelters Proprietary Limited at Port Pirie in South Australia, while the remainder of the ore is concentrated on the field and dispatched to Port Pirie for refining. Low prices were responsible for the decrease in the quantity raised during the period dealt with and this is reflected in the lower total values shown. In 1933 there was an increased output of silver-lead ores together with a slight improvement in the price of silver. Lead, however, showed a slight fall in price.

It must be understood that the totals for New South Wales in the above table 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 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 lost sight of. The next table, however, which indicates the quantity of these materials locally produced, and the contents by assay of concentrates exported during the years 1903, 1913, 1923 and for each of the last five years, will show, as regards New South Wales, the estimated total production and the value of the metal contents of all ore mined :—

#### SILVER-LEAD MINES.—NEW SOUTH WALES, TOTAL PRODUCTION.

Year.	Metal Produced within Australia.				Contents of Concentrates Exported.			
	Silver.	Lead.	Zinc.	Value.	Silver.	Lead.	Zinc.	Value.
	oz. fine.	tons.	tons.	£	oz. fine.	tons.	tons.	£
1903 ..	6,489,689	92,293	286	1,790,929	1,736,512	29,706	14,625	308,714
1913 ..	5,908,638	106,432	4,121	2,709,867	8,596,251	117,903	184,149	3,759,691
1923 ..	7,233,236	124,570	41,153	5,707,739	4,834,718	40,906	149,319	1,813,287
1929 ..	7,619,884	165,364	46,163	5,918,014	835,697	7,009	76,619	734,261
1930 ..	7,876,894	162,703	53,958	4,579,412	844,188	14,044	87,913	911,724
1931 ..	6,177,863	129,819	53,832	2,995,029	460,958	13,405	43,629	257,705
1932 ..	5,896,193	131,422	53,200	3,001,005	178,034	1,222	30,164	124,719
1933 ..	7,430,479	158,475	53,956	3,579,886	790,792	18,344	63,849	475,161

The figures given above are quoted on the authority of the Mines Department of New South Wales. Accurate details in regard to gold, copper, and antimony contained in the silver-lead ores are not available. Cadmium was first extracted in 1922 at Risdon, in Tasmania, and in 1933 the amount won from ores of New South Wales origin was given as 160 tons, valued at £22,330. As pointed out previously, credit for the value is not taken in the New South Wales returns, the value accruing to the State being taken as that of the declared value of the concentrates at the time of their dispatch.

(a) *Broken Hill.* Broken Hill, in New South Wales, is the chief centre of silver production in Australia. A description of the silver-bearing area in this district is given in earlier issues of the Official Year Book. (See No. 4, page 506.)

Although the returns are not complete in all cases, the following table relating to the companies controlling the principal mines at Broken Hill will give some idea of the richness of the field :—

## SILVER.—BROKEN HILL RETURNS TO END OF 1933.

Mine.	Value of Output to end of 1933.	Dividends and Bonuses Paid to end of 1933.
	£	£
Broken Hill Proprietary Co. Ltd. . . . .	53,324,074	14,103,403
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)	27,223,362	3,466,875
Broken Hill South Ltd. . . . .	23,358,634	5,315,000
North Broken Hill Ltd. . . . .	18,880,503	5,570,190
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. . . . .	10,419,511	3,619,280
Barrier South Ltd. . . . .	151,517	50,000
<b>Total . . . . .</b>	<b>153,611,094</b>	<b>35,307,619</b>

The returns relating to dividends and bonuses paid are exclusive of £1,744,000, representing the nominal value of shares in Block 14, British, and Block 10 companies, allotted to shareholders of Broken Hill Proprietary Company. If the output of the companies which were, prior to 1933, 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 160.9 millions and 38 millions respectively. The authorized capital of the various companies amounted to £6,448,000. In 1933 the dividends and bonuses paid amounted to £653,000 shared in by the Companies controlling the principal mines as follows: Zinc Corporation, £72,000; North Broken Hill, £122,500; Broken Hill South, £160,000, and Broken Hill Proprietary, £299,000.

(b) *Other Areas.* Silver is found in various other localities in New South Wales, but the production therefrom in 1933 was unimportant, operations being restricted by the low price of the metal.

(iii) *Victoria.* The silver produced in 1933 amounted to 2,435 ozs., valued at £198, and was obtained in the refining of gold at the Melbourne Mint.

(iv) *Queensland.* The prices of lead and silver remained at a low level in 1933, but despite this, production was well maintained and amounted to 45,150 tons of lead and 2,249,000 ounces of silver. The Mount Isa Mines Ltd. which produced the greater proportion of these metals was only in operation for ten months of 1933. Activities were suspended owing to the continued low prices. For the same reason operations in the northern fields were at a standstill.

(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 has been no production in recent years.

(vi) *Western Australia.* The quantity of silver obtained as a by-product and exported in 1933 was 67,036 ozs., valued at £6,792. In addition 1 ton of lead in concentrates valued at £13 and 5 tons of lead and silver-lead ore valued at £55 were exported.

(vii) *Tasmania.* The silver produced in 1933 amounted to 489,330 ozs., valued at £39,808, and the lead to 2,644 tons, valued at £30,987. About 362,000 ozs. of the total silver output were contained in silver-lead, while 128,000 ozs. 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 however, hindered by the low price of metals coupled with transport difficulties and lack of permanent water. Rich sulphides have been found at Barrow Creek. There was no record of production in 1931 and 1932, but in 1933, 24 tons of silver-lead ores valued at £410 were raised.

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 quantity 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.	1932.	1933.	1934.
	fine ozs.	fine ozs.	fine ozs.	fine ozs.	fine ozs.
Metal recovered by—					
Smelters .. ..	4,020,904	7,529,845	6,413,999	7,856,448	8,583,133
Mints .. ..	226,019	101,368	85,406	100,700	91,416
Metallic contents in ores and concentrates exported ..	8,901,212	2,242,170	2,494,173	2,945,446	2,579,082
<b>Total Production ..</b>	<b>13,148,135</b>	<b>9,873,383</b>	<b>8,993,578</b>	<b>10,902,594</b>	<b>11,253,631</b>

4. *World's Production.*—The world's production of silver during the last five years for which particulars are available is estimated to have been as follows :—

**SILVER.—WORLD'S PRODUCTION.**

Total.	1929.	1930.	1931.	1932.	1933.
World's production in 1,000 fine ozs. ..	260,970	248,708	195,920	164,749	162,752

(a) Estimated.

The world's production of silver in millions of fine ounces during the years 1913, 1923 and 1933 amounted respectively to 210.0, 246.0, and 162.8, of which Australia contributed 16.7 million, 11.4 million, and 10.9 million fine ounces, or 8 per cent., 4.6 per cent., and 6.7 per cent. respectively. The production for Australia includes an estimate of the silver contents of the ores, bullion and concentrates exported.

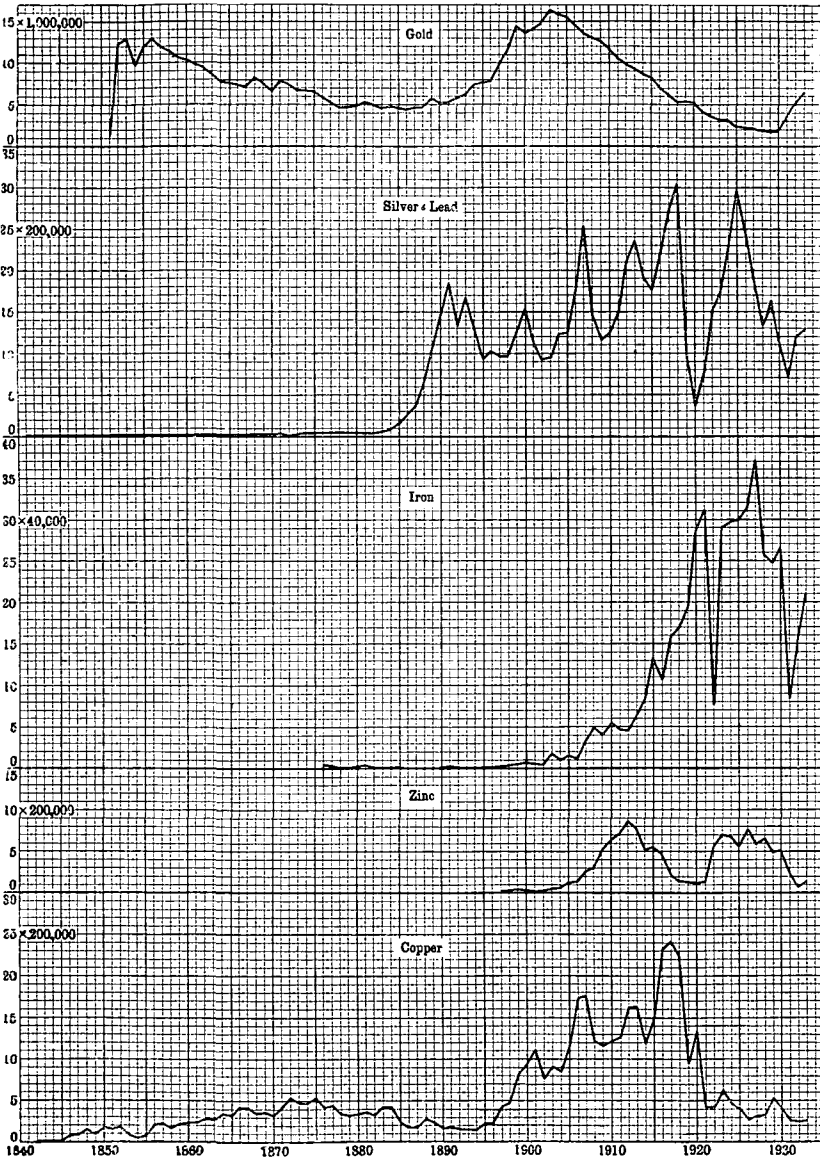
The figures for the world's production are given on the authority of *The Mineral Industry*.

Arranged in order of importance the estimated yields in 1933 from the chief silver producing countries were as follow :—

**SILVER.—PRODUCTION, CHIEF COUNTRIES, 1933.**

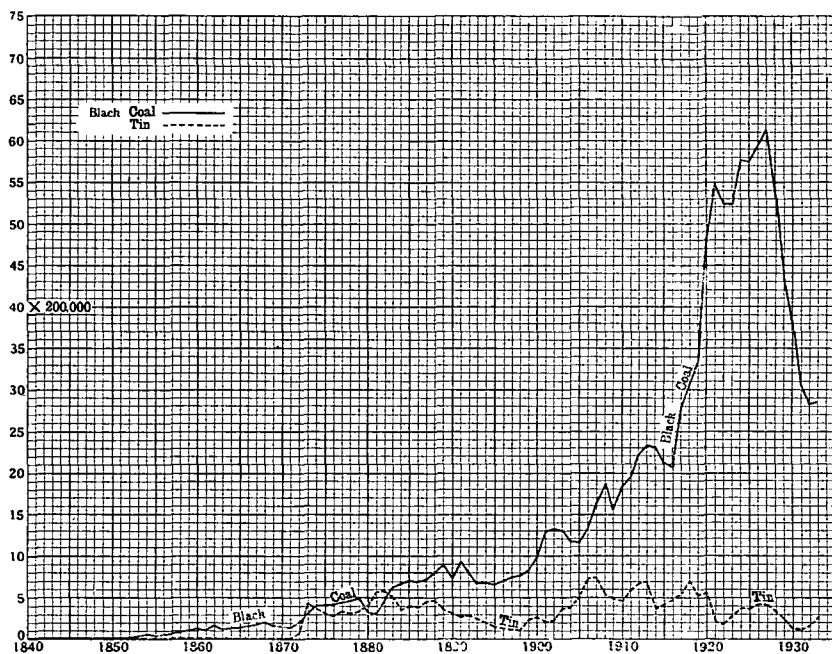
Country.	Production.	Country.	Production.
	Fine ozs. ( <sup>000 omitted.</sup> )		Fine ozs. ( <sup>000 omitted.</sup> )
Mexico .. ..	68,710	British India .. ..	6,054
United States .. ..	22,141	Central America .. ..	4,800
Canada .. ..	15,201	Transvaal .. ..	1,065
Europe .. ..	14,000	East Indies .. ..	900
South America .. ..	11,400	Congo .. ..	415
<b>Australia .. ..</b>	<b>10,903</b>	China .. ..	366
Japan .. ..	6,580	Rhodesia .. ..	120

## VALUES OF PRINCIPAL MINERALS PRODUCED—AUSTRALIA, 1840 TO 1933.

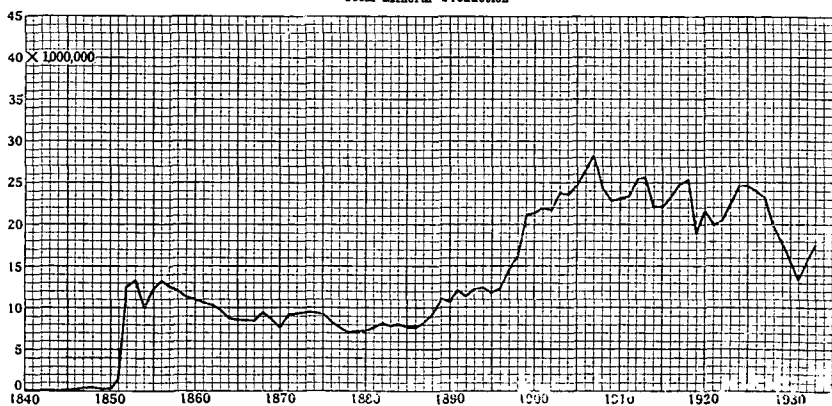


EXPLANATION.—The values shown are those of the total Australian production of certain of the most important minerals in successive years from 1840 onwards.

The base of each small square represents an interval of one year, and the vertical height represents in the case of gold £1,000,000; in the case of silver and lead, zinc and copper £200,000; and in the case of iron £40,000.

VALUES OF PRINCIPAL MINERALS PRODUCED—AUSTRALIA, 1840 TO 1933—*continued.*

## Total Mineral Production



EXPLANATION.—The values shown are those of the total Australian production of certain of the most important minerals in successive years from 1840 onwards.

The base of each small square represents an interval of one year, and the vertical height represents in the case of coal and tin £200,000, and in the case of total mineral production £1,000,000.

5. Prices of Silver, Lead, and Zinc.—In view of the close association in Australia, particularly in New South Wales, of ores containing these metals, the average prices of each metal during the last five years have been incorporated in the table hereunder :—

## PRICES OF SILVER, LEAD, AND SPELTER.

Metal.	1930.		1931.		1932.		1933.		1934.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Silver (Standard)										
per oz.	0	1 5.66	0	1 2.60	0	1 5.84	0	1 6.14	0	1 9.22
Lead .. per ton	18	1 5	13	0 9	12	0 6	11	16 4	11	1 0
Spelter per ton	16	16 9	12	8 11	13	13 10	15	14 10	13	15 6

The above figures are quoted on the authority of the Mines Department of New South Wales.

6. Employment in Silver, Lead and Zinc Mining.—The number of persons employed in mining for these metals during each of the last five years is given below :—

## SILVER, ETC., MINING.—PERSONS EMPLOYED.

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Australia.
	(a) No.	No.	No.	(b) No.	(a) No.	No.	No.
1929 ..	5,001	447	7	31	540	2	6,028
1930 ..	4,489	474	2	..	231	35	5,231
1931 ..	2,812	351	2	15	299	4	3,483
1932 ..	3,145	443	1	16	932	1	4,538
1933 ..	3,197	553	..	10	962	..	4,722

(a) Silver, lead, and zinc.

(b) Principally lead and silver-lead ore.

With the development of the great silver-lead field at Mount Isa in Queensland, it is expected that the employment returns for that State will in future assume considerable importance.

## § 5. Copper.

1. Production.—The production of copper in the various States has been influenced considerably by the ruling prices, which have undergone extraordinary fluctuations. In 1923 when copper was worth £65 18s. 1d. per ton the production of metal amounted to 17,012 tons exclusive of 4,534 tons of ore. During the past three years the price has averaged little more than £34 per ton and the production has dropped to an average of 14,237 tons of copper. Apart from this output of ore has been small. The low price has prevented the profitable working of many copper mines in Australia. The value of the local production as reported and credited to the mineral industry for the years 1929 to 1933 is 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.	1929.		1930.		1931.		1932.		1933.	
		£		£		£		£		£
New South Wales .. ..	..	14,183	..	8,347	..	23,948	..	21,785	..	26,775
Queensland .. ..	..	294,188	..	174,075	..	126,342	..	108,858	..	105,031
South Australia .. ..	..	22,982	..	6,966	..	934	..	..	..	2,928
Western Australia .. ..	..	2,778	..	102	..	..	..	..	..	1,132
Tasmania .. ..	..	740,985	..	620,578	..	416,309	..	399,762	..	395,286
Northern Territory (a)	..	..	..	589	..	25	..	137	..	..
Australia .. ..	..	1,075,146	..	810,657	..	567,558	..	530,542	..	531,152
Ingot, Matte, etc. ..	tons	12,613	..	13,063	..	13,453	..	14,763	..	14,493
Ore .. ..	tons	416	..	251	..	79	..	20	..	..

(a) Year ended 30th June.

(b) Includes £30, value of production in Victoria.



2. Sources of Production.—(i) *New South Wales*. The production during 1933 amounted to 706 tons, practically all of which was electrolytic copper obtained at Port Kembla from the treatment of 2,985 tons of copper matte forwarded by the Broken Hill Smelters and derived from Broken Hill silver-lead ores. No copper mines operated in the State during the year on account of the low price ruling. Since 1919 the production of New South Wales has rarely exceeded 1,000 tons, whilst previously it had ranged from 2,500 tons in 1915 to 10,600 tons in 1911.

(ii) *Queensland*. The yield in this State amounted in 1933 to 2,941 tons valued at £105,031, and shows a serious decline as compared with 1920 when nearly 16,000 tons valued at £1,552,000 were raised. The falling-off in the yield in recent years was due partly to the low prices realized for copper and partly to old-fashioned plant and methods of treatment. Improvement in this regard is now being contemplated. Returns from the chief producing areas in 1933 were as follow :—Cloncurry, 2,088 tons, £74,094 ; Herberton, 360 tons, £12,768 ; and Mount Morgan 423 tons, £15,656.

(iii) *South Australia*. The total production of copper in South Australia easily exceeds that of any other State. In recent years, however, Tasmania and Queensland have been the leading producers, as shown in the table above. Deposits of copper ore are found over a large portion of South Australia. A short account of the discovery, etc., of some of the principal mining areas, such as Kapunda, Burra Burra, Wallaroo, and Moonta, was given in earlier issues of the Official Year Book. Increased attention is being given to the possibility of making fresh discoveries in the Moonta and Wallaroo copper fields. Grants have been made by the Commonwealth and State Governments to that end, and further assistance was provided under an unemployment relief measure. In addition, the State Government has negotiated with the miners and leaseholders on a basis of co-operation known as the Moonta Mining Scheme. Milling operations commenced in September, 1933, and 261 tons of copper and 110 fine ounces of gold were produced during the twelve months following. This field was opened in 1860 and worked continuously until 1923, and up to the close of 1931 had produced copper to the value of £20,500,000. The year 1932 was remarkable for the fact that for the first time since 1842 there was no recorded sale of copper. Mining, however, was not at a standstill during the year, and considerable quantities of ore were raised at various mines. In 1933 the production of the State amounted to 72 tons valued at £2,928.

(iv) *Western Australia*. Thirty-five tons of copper valued at £1,132 were recovered in this State during 1933.

(v) *Tasmania*. The quantity of copper produced in Tasmania during 1933 was 10,739 tons, valued at £395,286, the whole of the production being by the Mount Lyell Mining and Railway Co. Ltd. This Company treated 61,136 tons of ore and concentrates and produced 10,839 tons of blister copper, containing copper, 10,736 tons ; silver, 127,562 ozs. ; and gold, 5,424 ozs., the whole being valued at £440,000.

(vi) *Northern Territory*. Copper has been found at various places, but lack of capital, low prices and difficulty of transport prevent the development of the deposits. The production in 1933 was negligible.

3. Prices.—The great variation in price that the metal has undergone is shown in the following table, which gives the average price in London and New York during each of the last five years. The figures are given on the authority of *The Mineral Industry* :—

COPPER.—PRICES, LONDON AND NEW YORK.

Year.				Average London Price per Ton Standard Copper.	Average New York Price in Cents per lb. Electrolytic Copper.
				£	Cents.
1930	..	..	..	54.62	12.98
1931	..	..	..	38.34	8.12
1932	..	..	..	31.68	5.56
1933	..	..	..	32.52	7.02
1934	..	..	..	30.32	8.43

As evidence of the tremendous variation in the price of copper it may be noted that in December, 1916, the average London price of standard copper was £145.32 per ton, while in June, 1927, it was quoted at £54.03. In 1930 the average price was about the same, i.e., £54. In 1931, 1932, and 1933 the price reached the low levels of £38.4, £31.7 and £32.6 respectively. As previously mentioned this factor has considerably hampered the development of copper mining in Australia.

4. **World's Production of Copper.**—The world's production of copper during the five years 1929–1933 is estimated to have been as follows. The figures have been taken from the latest issue of *The Mineral Industry* :—

**COPPER.—WORLD'S PRODUCTION.**

Year.	1929.	1930.	1931.	1932.	1933.
World's production—tons ..	1,902,311	1,548,900	1,328,600	887,700	1,022,100

The yields from the chief copper-producing countries in 1933 were as follow :—

**COPPER.—PRODUCTION, CHIEF COUNTRIES, 1933.**

Country.	Production.	Country.	Production.
	Tons.		Tons.
United States .. ..	208,600	Soviet Union .. ..	36,900
Africa .. ..	176,800	Spain and Portugal .. ..	36,200
Chile .. ..	160,700	Germany .. ..	26,600
Canada .. ..	132,600	Peru .. ..	24,400
Japan .. ..	68,000	Norway .. ..	18,000
Mexico .. ..	39,900	<b>Australia</b> .. ..	<b>14,500</b>
Yugoslavia .. ..	39,400	Cuba .. ..	7,236

During the five years ending in 1933 the share of the United States in the world's copper production amounted to over 27 per cent.

The Australian production in 1933 amounted to a little over 1.4 per cent. of the total.

The most notable feature of the copper mining industry in 1933 was the general expansion of output throughout almost all of the important copper producing countries of the world with the exception of the United States, which showed a decrease of about 20,000 tons.

5. **Employment in Copper Mining.**—The number of persons employed in copper mining during each of the last five years was as follows :—

**COPPER MINING.—PERSONS EMPLOYED.**

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1929 .. ..	32	366	74	9	1,307	..	(a)1,789
1930 .. ..	33	376	58	3	1,333	6	1,809
1931 .. ..	35	287	61	..	1,442	3	1,828
1932 .. ..	(b) 3	278	51	..	1,518	3	1,853
1933 .. ..	(b) 13	175	54	..	1,483	1	1,726

(a) Including 1 in Victoria. (b) No production from copper mines.

In 1917 over 9,000 persons were engaged in copper mining.

## § 6. Tin.

1. **Production.**—The activity of tin mining is, of course, largely dependent on the price realized for the metal, and, as in the case of copper, the production has been subject to somewhat violent fluctuations. The next table shows the value of the production as reported to the Mines Departments in each of the States during the five years 1929 to 1933. A separate line is appended showing the recorded tonnages for Australia during each of the specified years.

## TIN.—PRODUCTION.

State.	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
New South Wales .. ..	191,199	84,800	103,111	120,124	218,244
Victoria .. ..	3,545	..	440	404	1,350
Queensland .. ..	114,518	49,708	35,744	66,174	123,620
Western Australia .. ..	13,432	10,608	3,945	3,295	4,557
Tasmania .. ..	130,014	69,592	70,634	109,767	190,041
Northern Territory (a) ..	6,958	3,345	2,331	2,322	2,519
<b>Total .. ..</b>	<b>459,666</b>	<b>218,053</b>	<b>216,205</b>	<b>302,086</b>	<b>540,331</b>
<b>Tonnage .. ..</b>	<b>2,723</b>	<b>1,798</b>	<b>1,938</b>	<b>2,396</b>	<b>3,020</b>

(a) Year ended 30th June.

2. **Sources of Production.**—(i) *New South Wales.* The production in 1933 was estimated at 1,135 tons of ingots valued at £218,244. The increase over the previous year's total was due to the rise in price of tin from £136 in 1932 to £195 in 1933. This so stimulated the industry that the production of 1,135 tons is the greatest for any year during the last decade. A large proportion of the output in this State is obtained in normal years by dredging, principally in the New England district, the quantity so won in 1933 being 398 tons, valued at £61,922. The Tingha area was the principal contributor to the output in 1933, the yield from this district comprising 530 tons of concentrates. Amongst other areas, Emmaville produced 261 tons, Ardlethan 195 tons, while the lode mines at Torrington returned a yield of 191 tons.

(ii) *Victoria.* The production in 1929 was obtained by dredging, the Cock's Pioneer Gold and Tin Co. in the Beechworth district contributing 14 tons valued at £2,000, the balance mainly coming from Toora in Gippsland. No production was recorded in 1930, and since that year the output has been trifling.

(iii) *Queensland.* The chief producing districts in Queensland during 1933 were Herberton, 505 tons, valued at £71,285; Cooktown, 46 tons, £6,953; Stanthorpe, 136 tons, £22,009; Chillagoe, 99 tons, £13,097; and Kangaroo Hills, 57 tons, £8,426. The total production, 856 tons, £123,620, showed a considerable advance on that for 1932 but it is far below that of the early years of this century when the production ranged between 2,000 and 5,000 tons per annum.

(iv) *Western Australia.* The export of tin from the State in 1933 amounted to 37 tons, valued at £4,557. The small quantity won during the year was obtained in the Pilbara and Greenbushes fields.

(v) *Tasmania.* For 1933 the output amounted to 957 tons of tin, valued at £190,041, an increase of 160 tons in quantity and £80,000 in value over the return for the previous year. Operations at Mount Bischoff, the principal producer, were mainly carried on by the tributers. An increased output in 1934 is anticipated, due to operations on a number of deposits reaching the productive stage.

(vi) *Northern Territory.* The Maranboy field was the chief contributor to the small output of tin in 1933; the balance (about 9 tons of concentrates) was obtained at Hayes Creek by Chinese tributers. No work was done at Mount Wells nor at any other tin mine during the year.

3. *World's Production.*—According to *The Mineral Industry* the world's production of tin during each of the last five years was as follows :—

## TIN.—WORLD'S PRODUCTION.

1929.	1930.	1931.	1932.	1933.
Tons. 190,600	Tons. 173,100	Tons. 147,900	Tons. 96,100	Tons. 88,000

The comparatively small total for the year 1933, the lowest since 1907, was due principally to the restriction in output agreed upon between the chief producing countries, viz., Malaya, Bolivia, Netherlands East Indies, Siam and Nigeria. These countries produced three-quarters of the world's total production in 1933. An extension of this agreement to control production and export of tin has been effected by these countries for a further period of three years commencing in January, 1934. The International Tin Committee has induced Indo-China, Burma, and Belgian Congo to subscribe to this agreement. There has been no concerted restriction of production in Australia.

The yields from the chief producing countries in 1933 were as follow :—

## TIN.—PRODUCTION, CHIEF COUNTRIES, 1933.

Country.	Production.	Country.	Production.
	Tons.		Tons.
Malaya .. .. .	23,760	Burma .. .. .	3,200
Bolivia .. .. .	14,725	<b>Australia</b> .. .. .	<b>3,020</b>
Netherlands East Indies .. .. .	14,130	Indo-China .. .. .	1,800
Siam .. .. .	10,324	Belgian Congo .. .. .	1,720
China .. .. .	8,000	Great Britain .. .. .	1,543
Nigeria .. .. .	3,651	Union of South Africa .. .. .	734

Australia's share of the world's tin production, estimated at 88,000 tons, would appear therefore to be a little less than  $3\frac{1}{2}$  per cent.

4. *Prices.*—The average price of the metal in the London market for the years 1929 to 1934 was as follows :—

## TIN.—PRICES, LONDON.

Year.	Average Price Per Ton.	Year.	Average Price Per Ton.
	£ s. d.		£ s. d.
1929 .. .. .	203 18 10	1932 .. .. .	135 18 10
1930 .. .. .	141 19 1	1933 .. .. .	194 11 11
1931 .. .. .	118 9 1	1934 .. .. .	230 7 5

For January, 1932, the average London price was £140 5s. 7d., but as the year proceeded, tin dealing tended to become increasingly concentrated in London and Singapore, and the sterling price rather than the gold price ruled quotations. The price fell till April, then fluctuated more or less rapidly till August, when the average rose to

£142 2s. 5d., and reached its highest for the year in November, when the figure stood at £153 13s. 4d. On September 7th and for some little time thereafter as much as £160 per ton was paid, but as pointed out in the preceding sentence the average monthly quotation reached its peak in November. For the year 1932, the average London price was returned at £135 18s. 10d.; in 1933 it increased to £194 11s. 11d. and rose to £230 7s. 5d. in 1934.

5. **Employment in Tin Mining.**—The number of persons employed in tin mining during the last five years is shown below :—

**TIN MINING.—PERSONS EMPLOYED.**

Year.	N.S.W.	Victoria. (a)	Q'land.	W. Aust.	Tas.	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1929 .. ..	1,008	49	750	49	810	66	2,732
1930 .. ..	870	..	579	30	443	60	1,982
1931 .. ..	994	3	548	17	625	29	2,216
1932 .. ..	1,201	27	597	41	870	27	2,763
1933 .. ..	1,448	..	818	63	1,007	33	3,369

(a) The tin produced in Victoria was raised by a dredging company operating primarily for gold.

**§ 7. Zinc.**

1. **Production.**—(i) *New South Wales.* (a) *Values Assigned.* The production of zinciferous concentrates is confined chiefly to the Broken Hill district of New South Wales, where zincblende forms one of the chief constituents in the enormous deposits of sulphide ores. During the earlier years of mining activity on this field a considerable amount of zinc was left in tailings, but from 1909 onwards improved methods of treatment resulted in the profitable extraction of the zinc contents of the accumulations at the various mines.

As the metallic contents of the bulk of the concentrates, etc., produced in the Broken Hill district are extracted outside New South Wales, the mineral industry of that State is not credited by the Mines Department with the value of the finished product. During 1933 the zinc concentrates produced amounted to 230,952 tons, valued at £283,845. Portion of the zinc concentrates produced is treated at Risdon in Tasmania, and the balance is exported overseas.

(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 1929 to 1933 will be found in § 17 hereinafter.

(ii) *Queensland.* The total production of zinc in 1926 was returned at 200 tons, valued at £6,827, produced from ores raised in the Chillagoe area, but there was no record of production in later years.

(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 ores remained suspended during 1933.

The Electrolytic Zinc Co. at Risdon operated on raw materials obtained wholly from Broken Hill in New South Wales. Production in 1933 amounted to 53,956 tons of slab zinc valued at £1,100,950, and 160 tons of cadmium, valued at £22,330. There was no production from local ores. Provision has been made for the treatment of the zinc-lead deposits in the Mount Read-Rosebery districts, but operations have been delayed pending an improvement in price of the metals concerned.

2. **World's Production.**—According to *The Mineral Industry* the world's production of zinc during the five years 1929–33 was as follows:—

**ZINC.—WORLD'S PRODUCTION.**

1929.	1930.	1931.	1932.	1933.
Tons. 1,447,000	Tons. 1,388,000	Tons. 989,000	Tons. 780,000	Tons. 985,000

The yields from the chief producing countries in 1933 were as given hereunder, the figures referring to slab zinc produced in the various countries, irrespective of the source of the ore. In common with the other industrial metals zinc suffered from a combination of low prices and reduced demand during the years 1931 and 1932. In 1933 the average price rose by £2 per ton while the world's production increased by 26 per cent. Practically all producing countries contributed towards this increased output, the exceptions being Mexico, Poland and Spain. The International Zinc Cartel which was organized in 1931 continued to operate in 1933.

**ZINC.—PRODUCTION, CHIEF COUNTRIES, 1933.**

Country.	Production.	Country.	Production.
	Tons.		Tons.
United States .. ..	289,800	Great Britain .. ..	41,000
Belgium .. .. .	135,200	Japan .. .. .	29,000
<b>Australia</b> .. .. .	<b>114,700</b>	Mexico .. .. .	27,400
Canada .. .. .	81,400	Italy .. .. .	21,900
Poland (a) .. .. .	77,000	Soviet Union .. ..	21,600
France .. .. .	54,600	Rhodesia .. .. .	18,500
Germany .. .. .	49,800	Netherlands .. ..	18,400
Norway .. .. .	44,200	Spain .. .. .	8,400

(a) Including Upper Silesia.

The figures for Australia have been taken from returns supplied by the Australian Mines and Metals Association. On a world's production of 985,000 tons Australia's output of 114,700 tons represents 11.6 per cent.

3. **Prices.**—Information regarding prices of zinc will be found in the table in § 4.5, *ante*.

**§ 8. Iron.**

1. **General.**—The wide distribution of iron ore throughout Australia has long been known, extensive deposits having been discovered at various places throughout the States, but the conversion of these deposits to the production of iron and steel is, at present, confined to New South Wales.

2. **Production.**—(i) *New South Wales.* The production from ores mined in New South Wales in 1929 amounted to 3,911 tons, valued at £17,600, but there was no production from this source recorded subsequently, as the smelters now obtain their ore from places outside the State.

The figures quoted do not, therefore, represent the total production of pig iron in New South Wales, since a considerable quantity of ore raised in South Australia, and credited to the mineral returns of that State, is treated in New South Wales. Small quantities of iron oxide produced in New South Wales are used by the various gasworks for purifying gas, and also in the manufacture of paper, and for pigments. These supplies are drawn chiefly from the deposits in the Port Macquarie Division. During 1933 the iron oxide raised amounted to 2,936 tons, valued at £1,641. In addition ironstone flux amounting to 2,432 tons valued at £950 was raised in the Goulburn Division. This is the first production recorded since 1932.

(ii) *South Australia.* The production from the deposits worked by the Broken Hill Pty. Co. Ltd., at Iron Knob, and at Middlebank reached its maximum in 1930, when the ore raised amounted to over 928,000 tons, valued at £1,068,000. In 1931, however, the output fell to 289,179 tons, valued at £332,556, rising to 537,928 tons valued at £618,617 in 1932 and recovering still further in 1933 to 721,185 tons valued at £829,363.

(iii) *Tasmania.* In 1931 about 500 tons of iron pyrites valued at £250 were produced, the last recorded previous production being for the year 1923, when nearly 12,000 tons valued at £27,000 were raised. For 1933 the output was returned at 1,498 tons, valued at £1,498. Apart from this pyritic ore there has been no production of iron ore since the year 1908.

(iv) *Other States.* Reference to the iron ore deposits in the other States will be found in preceding issues of the Official Year Book (see No. 22, page 779).

3. **Iron and Steel Bounties.**—During the year 1933–34 the bounties paid under the Iron and Steel Products Bounty Act on articles manufactured from locally produced materials were as follow :—wire-netting, £9,838 ; traction engines, £5,152.

4. **World's Production of Iron and Steel.**—(i) *General.* The Australian production of iron and steel at present forms a very small proportion of the world's output. According to *The Mineral Industry*, the world's production of each commodity in the years specified distributed over principal countries was as follows :—

#### PIG IRON AND STEEL.—WORLD'S PRODUCTION.

Country.	Pig Iron.			Steel Ingots and Castings.		
	1931.	1932.	1933.	1931.	1932.	1933.
	Thousands of Tons.			Thousands of Tons.		
United States ..	18,426	8,781	13,346	25,429	13,681	23,232
Germany ..	6,063	3,933	5,267	8,291	5,751	7,586
France ..	8,217	5,549	6,327	7,809	5,604	6,526
Saar Territory ..	1,515	1,349	1,592	1,538	1,463	1,676
Belgium ..	3,231	2,783	2,744	3,056	2,758	2,689
Luxemburg ..	2,053	1,959	1,888	2,027	1,956	1,845
Austria ..	145	94	88	322	205	226
Italy ..	509	461	517	1,453	1,391	1,784
Spain ..	476	288	347	604	455	468
Czechoslovakia ..	1,165	450	499	1,526	685	747
Poland ..	347	199	306	1,037	551	817
Sweden ..	389	262	319	551	537	628
Soviet Union ..	4,900	6,370	7,250	5,400	5,800	6,920
China ..	252	200	200	30	25	40
Japan ..	1,408	1,542	2,032	1,864	2,360	3,047
United Kingdom ..	3,773	3,573	4,124	5,203	5,257	7,003
India ..	820	699	913	626	602	694
Canada ..	420	144	229	672	343	408
<b>Australia ..</b>	<b>129</b>	<b>228</b>	<b>350</b>	<b>143</b>	<b>255</b>	<b>375</b>
Total—All Countries	54,795	39,275	48,781	68,031	50,029	67,121

In regard to both iron and steel the figures for world production reached an exceptionally low ebb in 1932. The turning point in the long period of depression appears to have been reached in 1933, when practically all steel producing nations recorded increased production. The principal producers in Australia are the Broken Hill Proprietary and the Australian Iron and Steel Co., the former situated at Newcastle and the latter at Port Kembla in New South Wales.

(ii) *Australia.* The production of steel and pig iron in New South Wales, which is the only producing State, is shown during each of the last ten years.

PIG IRON AND STEEL.—AUSTRALIAN PRODUCTION.

Year ended 30th June—	Pig Iron.	Steel Ingots.	Steel Rails, Bars and Sections.	Year ended 30th June—	Pig Iron.	Steel Ingots.	Steel Rails Bars and Sections.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1925 ..	460,154	388,156	320,693	1930 ..	308,369	314,917	256,696
1926 ..	430,597	385,231	339,463	1931 ..	232,783	228,363	188,708
1927 ..	468,899	410,728	360,212	1932 ..	190,132	221,488	178,740
1928 ..	428,404	405,590	350,941	1933 ..	336,246	392,666	295,523
1929 ..	461,110	432,773	353,921	1934 ..	487,259	518,326	431,765

§ 9. Other Metallic Minerals.

Detailed information in regard to the occurrence and production of other metallic minerals in each of the States will be found in Official Year Book No. 22, pp. 780-3 and preceding issues. About 46 lb. of mercury sulphide valued at £6 was produced in 1933 in the Kilkivan district in Queensland.

§ 10. Coal.

1. *Production in each State.*—An account of the discovery of coal in each State will be found in preceding issues of the Official Year Book. (See No. 3, pp. 515-6.) The quantity and value of the production in each State and in Australia during the years specified are given in the table hereunder:—

COAL.—PRODUCTION.

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
QUANTITY.							
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1913 ..	10,414,165	593,912	1,037,944	..	313,818	55,043	12,414,882
1921 ..	10,793,387	514,859	954,763	..	468,817	66,476	12,798,302
1929 ..	7,617,736	703,828	1,368,745	..	544,719	130,291	10,365,319
1930 ..	7,093,955	703,487	1,094,676	..	501,425	138,716	9,531,359
1931 ..	6,432,382	571,342	841,308	..	432,400	123,828	8,401,260
1932 ..	6,784,222	432,353	841,711	..	415,719	111,853	8,585,858
1933 ..	7,118,437	523,000	875,567	..	458,399	116,573	9,091,976
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
1929 ..	5,952,720	813,370	1,199,599	..	426,706	105,877	8,498,272
1930 ..	5,193,032	807,699	952,856	..	394,758	110,253	7,458,598
1931 ..	4,607,343	362,284	699,926	..	336,178	98,004	6,103,735
1932 ..	4,376,453	274,903	684,555	..	270,630	86,733	5,693,274
1933 ..	4,306,799	328,704	693,383	..	289,806	85,848	5,704,540

(a) Exclusive of brown coal, shown in next table.

(b) At the pit's mouth.



The figures for Victoria quoted before are exclusive of brown coal, the quantity and value of which for the years specified were as follow :—

**BROWN COAL.—PRODUCTION, VICTORIA.**

Year.			Quantity.	Value. (a)	Year.			Quantity.	Value. (a)
			Tons.	£			Tons.	£	
1913	..	..	2,984	569	1930	..	1,831,507	173,713	
1921	..	..	79,224	31,074	1931	..	2,194,453	251,511	
1926	..	..	957,935	188,899	1932	..	2,612,512	274,903	
1929	..	..	1,741,176	178,052	1933	..	2,580,060	271,360	

(a) Cost of Production.

2. **Distribution and Production of Coal in each State.**—(i) *New South Wales.* Estimates of the quantity of merchantable coal available in the deposits in each State were given in preceding issues of the Official Year Book (see No. 20, pp. 752 *et seq.*).

The coal from the various districts differs considerably in quality—that from the Northern district being especially suitable for gas-making and household purposes, while the product of the Southern (Illawarra) and Western (Lithgow) is an excellent steaming coal. At the present time the Greta coal seams in the Northern division are being extensively worked between West Maitland and Cessnock, and this stretch of country, covering a distance of 15 miles, is now the most important coal-mining district in Australasia.

The table hereunder gives the yields in each of the three districts during the five years 1929 to 1933 :—

**COAL.—PRODUCTION IN DISTRICTS, NEW SOUTH WALES.**

District.	1929.	1930.	1931.	1932.	1933.
	Tons.	Tons.	Tons.	Tons.	Tons.
Northern .. ..	3,019,693	3,715,805	4,161,798	4,398,253	4,651,483
Southern .. ..	2,339,837	1,529,674	981,964	1,112,686	1,218,014
Western .. ..	2,258,206	1,847,576	1,288,620	1,273,283	1,248,940
<b>Total .. ..</b>	<b>7,617,736</b>	<b>7,093,055</b>	<b>6,432,382</b>	<b>6,784,222</b>	<b>7,118,437</b>
<b>Total Value (a) £ ..</b>	<b>5,952,720</b>	<b>5,193,032</b>	<b>4,607,343</b>	<b>4,376,453</b>	<b>4,306,799</b>
<b>Average value per ton (a) ..</b>	<b>15s. 8d.</b>	<b>14s. 8d.</b>	<b>14s. 4d.</b>	<b>12s. 11d.</b>	<b>12s. 1d.</b>

(a) At the pit's mouth.

The depression in industry is reflected in the decreased coal production. The output for 1931 was the lowest since 1904, and the value the least since 1917. Although there was a small increase in tonnage in 1932 and in 1933, the values shown for both of those years were below that of 1931. Of the total quantity of coal won in New South Wales since the inception of operations to the end of the year 1933, viz., 378 million tons, about 257 millions or 68 per cent. was obtained in the Northern District, 79 million tons or 21 per cent. came from the Southern District, and 42 million tons or 11 per cent. was contributed by the mines in the Western District.

(ii) *Victoria.* (a) *Black Coal.* The deposits of black coal in Victoria occur in the Jurassic system, the workable seams, of a thickness ranging from two feet three inches to six feet, being all in the Southern Gippsland district.

The output of black coal in Victoria during the last five years was as follows :—

**BLACK COAL.—PRODUCTION, VICTORIA.**

Year.	State Coal Mines.	Other Coal Mines.	Total Production.	Total Value. (a)	Average Value per ton. (a)	
	Tons.	Tons.	Tons.	£	s.	d.
1929 .. ..	634,805	69,023	703,828	813,370	23	1
1930 .. ..	637,261	66,226	703,487	807,699	23	0
1931 .. ..	532,003	39,339	571,342	362,284	12	8
1932 .. ..	359,011	73,342	432,353	274,903	12	9
1933 .. ..	444,868	78,132	523,000	328,704	12	7

(a) At the pit's mouth.

(b) *Brown Coal.*—(1) *General.* Some account of the brown coal deposits and of the operations of the State Electricity Commission in connexion therewith will be found in preceding Official Year Books (see No. 22, page 785), but it is not proposed to repeat this information in the present issue. The brown coal produced in Victoria in 1933 amounted to 2,580,000 tons, the greater proportion being procured at the State open cut at Yallourn. During the year 1933-34 the State Electricity Commission report that 2,692,874 tons of brown coal were won of which 1,438,929 tons went to the power station and 1,253,945 tons to the briquette factory.

(2) *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. By 1930 this production was almost doubled, amounting to 180,905 tons whilst in 1933 it was more than trebled, sales alone reaching 329,000 tons. The Yallourn briquettes are considered to be equal in quality to those produced in the best German factories.

(iii) *Queensland.* The distribution of production during the year 1933 was as follows :—

**COAL PRODUCTION.—QUEENSLAND, 1933.**

District.	1933.	District.	1933.
	Tons.		Tons.
Ipswich .. ..	439,496	Clermont .. ..	35,779
Darling Downs .. ..	70,586	Bowen .. ..	167,600
Wide Bay and Maryborough	66,697	Mount Mulligan (Chillagoe)	18,368
Rockhampton (Central) ..	65,628	Other .. ..	11,413
		Total .. ..	875,567

The production in 1933 shows an improvement on that of 1932, amounting to about 34,000 tons or 4 per cent. This output is still considerably below the maximum of 1929 when 1,369,000 tons were raised. The distribution of the 875,567 tons raised in 1933 was as follows: Railway Department 345,961 tons, Other Industries within the State 464,197 tons, Exported 65,409 tons. There were 56 collieries operating in the Ipswich district, 9 in the Darling Downs, 8 in the Maryborough area, 4 in Clermont district, 5 in Rockhampton district, 1 in Chillagoe district, 1 at Mount Morgan, 1 at Mackay, and 2 in the Bowen district. State coal mines are in operation at Collinsville in the Bowen field, at Styx in the Central area, and at Mount Mulligan.

(iv) *South Australia.* So far no coal has been worked in South Australia (see Official Year Book No. 22, page 786). Prospecting for lignite in 1933 was continued in the Inkerman and Balaclava areas, one drill being employed.

(v) *Western Australia.* The production from the six collieries operating on the Collie field amounted in 1933 to 458,000 tons, an increase of about 43,000 tons on the return for 1932. The deposits at Wilga again remained unworked during the year.

(vi) *Tasmania*. The production in 1933 amounted to 116,573 tons, about 5,000 tons more than the total for 1932. The industry is being carried on under difficulties owing to restricted markets and consequently operations are not continuous. About 52,000 tons of the total output in 1933 were contributed by the Cornwall Coal Company, 31,000 tons by the Mt. Nicholas Proprietary and 16,000 tons by the Jubilee Company. The three mines combined raised 99,000 tons or 85 per cent. of the total output.

(vii) *Australia's Coal Reserves*. A summary of the information available in regard to estimated actual and possible reserves of coal for Australia as a whole was given in tabular form on page 755 of Official Year Book No. 20.

3. **Production in Various Countries.**—The total known coal production of the world in 1933 amounted to about 1,140 million tons, towards which Australia contributed about 11.6 million tons, or 1 per cent. The following tables show the production of the chief British and foreign countries during each of the last four years where the returns are available :—

#### COAL PRODUCTION.—BRITISH EMPIRE.

Year.	Great Britain.	British India.	Canada.	Australia.	New Zealand.	Union of S. Africa.
BLACK COAL.						
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1930 .. ..	243,881,800	23,803,000	10,202,700	9,531,400	1,382,900	12,029,500
1931 .. ..	219,459,000	21,716,000	8,329,000	8,401,260	979,600	10,709,100
1932 .. ..	208,733,000	20,153,000	7,386,000	8,586,000	928,200	9,764,400
1933 .. ..	207,112,000	19,789,000	7,609,000	9,092,000	843,800	10,545,200

#### BROWN COAL, LIGNITE.

1930 .. ..	..	..	..	3,083,100	1,831,500	1,159,200	..
1931 .. ..	..	..	..	2,598,700	2,194,500	1,178,100	..
1932 .. ..	..	..	..	3,093,000	2,612,500	913,700	..
1933 .. ..	..	..	..	3,002,000	2,580,000	977,400	..

#### COAL PRODUCTION.—FOREIGN COUNTRIES.

Year.	Germany.	Austria.	Hungary.	Belgium.	France. (b)	Czechoslovakia.	Yugoslavia.
BLACK COAL.							
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1930 .. ..	140,444,000	212,500	798,700	26,972,700	53,033,000	14,207,000	300,400
1931 .. ..	116,766,300	224,500	764,100	26,608,300	50,256,300	12,895,800	426,700
1932 .. ..	103,086,300	217,800	880,700	21,075,000	43,536,000	10,788,000	362,200
1933 .. ..	108,184,600	235,200	787,000	24,878,400	46,113,200	10,471,800	377,400
Year.	Poland.	Netherlands.	Soviet Union.	Japan.	China. (c)	United States.	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
1930 .. ..	36,914,000	12,018,200	47,635,600	30,880,700	26,037,000	479,384,900	
1931 .. ..	37,661,000	12,697,600	55,737,000	27,545,300	19,857,000	394,406,300	
1932 .. ..	28,379,200	12,555,000	63,299,000	27,610,300	19,990,000	321,040,000	
1933 .. ..	26,924,000	12,375,000	70,000,000	31,750,000	(d)	336,908,000	

BROWN COAL, LIGNITE.

Year.	Germany.	Austria.	Hungary.	Belgium.	France.	Czecho-slovakia.	Yugoslavia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1930 ..	143,704,000	3,014,600	6,073,900	..	1,124,700	18,890,500	4,826,700
1931 ..	131,205,200	2,935,000	6,014,800	..	1,023,600	17,648,400	4,487,500
1932 ..	120,709,600	3,035,000	5,837,800	..	975,700	15,608,000	4,042,000
1933 ..	124,793,400	2,966,900	5,815,000	..	1,071,100	14,886,000	3,711,500

Year.	Poland.	Nether-lands.	Soviet Union.	Japan.	China.	United States.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1930 ..	..	54,000	141,900	(a)	126,600	..
1931 ..	..	38,800	120,300	(a)	115,900	..
1932 ..	..	32,900	122,000	(a)	106,800	..
1933 ..	..	32,900	95,500	(a)	107,000	..

(a) Included with black coal. (b) Exclusive of Saar District, which produced 13,026,700 tons in 1930, 11,187,500 tons in 1931, 10,273,200 tons in 1932, and 10,394,400 tons in 1933. (c) Includes about 300,000 tons of lignite yearly. (d) Not available.

The figures generally show a slight improvement over the year 1932, except in certain instances where the production either remained stationary or declined slightly.

4. Exports.—(i) *General.* The quantity of coal of Australian production (exclusive of bunker coal) exported to other countries in 1933-34 was 292,416 tons, valued at £269,000. New South Wales exported 291,835 tons, followed by Tasmania with 320 tons, Queensland with 253 tons, and Victoria 8 tons. The quantity and value of the oversea exports of Australian coal for the years specified are shown in the appended table.

COAL.—OVERSEA EXPORTS, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 (a) ..	2,098,505	1,121,505	1930-31 ..	387,851	411,612
1921-22 ..	1,028,767	1,099,899	1931-32 ..	344,015	341,800
1928-29 ..	346,658	428,754	1932-33 ..	282,977	281,512
1929-30 ..	294,503	346,916	1933-34 ..	292,416	269,296

(a) Calendar Year.

Australian coal taken for bunker purposes during the same years was as follows :—

COAL.—BUNKER, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 (a) ..	1,647,870	1,018,375	1930-31 ..	509,303	607,537
1921-22 ..	1,498,935	2,178,101	1931-32 ..	506,140	534,897
1928-29 ..	739,713	1,009,163	1932-33 ..	562,442	550,277
1929-30 ..	507,349	742,383	1933-34 ..	523,014	495,032

(a) Calendar Year.

(ii) *New South Wales.* The total export of coal from New South Wales in 1933 amounted to 2,455,178 tons, valued at £2,125,700, of which 2,104,558 tons, valued at £1,776,701, were shipped from Newcastle. Interstate exports amounted to 1,623,840 tons, valued at £1,358,612, and were divided as follows :—Cargo, 1,387,608 tons, £1,179,987, bunker, 236,232 tons, £178,625. Oversea exports totalled 831,338 tons, valued at £767,088, representing 540,594 tons of bunker coal, valued at £488,741, and 290,744 tons of cargo coal, valued at £278,347.

The distribution of the total output from New South Wales collieries during the last five years was as follows, the particulars given of quantity exported including coal shipped as bunker coal:—

**COAL.—DISTRIBUTION OF OUTPUT, NEW SOUTH WALES.**

Year.	Exports to Australian Ports.	Exports to Foreign Ports.	Local Consumption.	Total.
	(a)	(a)		
	Tons.	Tons.	Tons.	Tons.
1929 .. ..	1,237,272	694,913	5,685,551	7,617,736
1930 .. ..	1,279,288	624,106	5,189,661	7,093,055
1931 .. ..	1,460,039	802,760	4,169,583	6,432,382
1932 .. ..	1,501,598	792,750	4,489,874	6,784,222
1933 .. ..	1,623,840	831,338	4,663,259	7,118,437

(a) Including Bunker.

For the period of five years shown in the table above, 20 per cent. of the total output was exported to other States, 11 per cent. was sent overseas, and 69 per cent. was consumed locally.

The figures quoted in the table above are given on the authority of the New South Wales Mines Department.

5. **Consumption in Australia.**—An estimate of the consumption of coal in Australia may be arrived at by adding the imports to the home production, and deducting the exports (including bunker coal taken by oversea vessels). The following table shows the consumption computed in the manner specified for the last five years:—

**COAL.—CONSUMPTION, AUSTRALIA.**

Year.	Quantity of Coal Consumed.		
	Home Produce.	Produce of Other Countries.	Total.
	Tons.	Tons.	Tons.
1929 .. ..	11,140,576	493,461	11,634,037
1930 .. ..	10,446,019	392,675	10,838,694
1931 .. ..	9,696,738	1,962	9,698,700
1932 .. ..	10,366,300	4,674	10,370,974
1933 .. ..	10,836,613	4,368	10,840,981

The bunker coal taken away in 1933 was estimated at 543,000 tons. Figures for brown coal produced in Victoria are included in the total for home produce, the amounts so included being 2,194,000 tons in 1931, 2,613,000 tons in 1932, and 2,580,000 tons in 1933. With the exception of a few tons the whole of the oversea imports in 1933, which amounted to 4,368 tons, came from the United Kingdom.

6. **Prices.**—(i) *New South Wales.* The price of New South Wales coal depends on the district from which it is obtained, the northern district coal generally realizing a somewhat higher rate than the southern or western product. The average price on the mine in each district and for the State as a whole during the last five years was as follows:—

**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.
1929 .. ..	16 8	16 11	12 11	15 8
1930 .. ..	15 4	15 8	12 4	14 8
1931 .. ..	15 2	13 11	12 0	14 4
1932 .. ..	13 8	12 5	10 8	12 11
1933 .. ..	12 9	12 6	9 5	12 1

(ii) *Victoria*. In Victoria the average price of coal per ton at the pit's mouth in 1929 was 23s. 1d.; in 1930, 23s.; in 1931, 12s. 8d.; in 1932, 12s. 9d.; and in 1933, 12s. 7d. These averages are exclusive of brown coal, which in 1933 cost 2s. 1d. per ton to produce.

(iii) *Queensland*. Prices in the principal coal-producing districts during the last five years were :—

COAL.—PRICES, QUEENSLAND.

District.	Value at Pit's Mouth.				
	1929.	1930.	1931.	1932.	1933.
	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.
Ipswich .. ..	16 10	16 7	15 8	15 2	14 9
Darling Downs .. ..	19 5	19 5	18 6	18 4	18 2
Wide Bay and Maryborough	23 2	23 0	22 10	22 10	22 7
Rockhampton .. ..	22 11	20 5	16 8	17 6	16 6
Clermont .. ..	12 2	14 3	14 7	14 0	13 11
Bowen .. ..	15 4	15 5	15 1	14 9	13 9
Mount Mulligan (Chillagoe)	31 9	29 9	28 10	27 1	28 5
Average for State ..	17 6	17 5	16 8	16 3	15 10

In 1901 the average value at the pit's mouth was 7s. per ton, and the average for the ten years 1901 to 1910 was about 6s. 8d.

(iv) *Western Australia*. The average prices of the Collie (Western Australia) coal during the last five years were :—In 1929, 15s. 8d.; in 1930, 15s. 9d.; in 1931, 15s. 7d.; in 1932, 13s. 0d.; and in 1933, 12s. 8d. per ton.

(v) *Tasmania*. The average prices per ton of coal at the pit's mouth in Tasmania for the last five years were :—In 1929, 16s. 3d.; in 1930, 15s. 11d.; in 1931, 15s. 10d.; in 1932, 15s. 6d.; and in 1933, 14s. 9d. per ton.

7. *Prices in the United Kingdom*.—During the five years 1929 to 1933 the average selling value of coal per ton at the pit's mouth in the United Kingdom was :—In 1929, 13s. 5d.; in 1930, 13s. 7d.; in 1931, 13s. 6d.; in 1932, 13s. 3d.; and in 1933, 13s. 0d.

8. *Employment in Coal Mines*.—The number of persons employed in coal mines, both above and below ground, in each of the producing States is given in the following table for the years 1913, 1923, and for each of the years 1929 to 1933.

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
1929 ..	14,577	1,926	325	2,773	858	311	20,770
1930 ..	16,624	2,080	187	2,768	896	441	22,996
1931 ..	15,667	1,897	259	2,362	752	363	21,300
1932 ..	14,275	1,663	281	2,392	604	381	19,596
1933 ..	13,349	1,517	272	2,448	626	313	18,525

(a) Production prior to 1924 was of little importance.

The maximum number employed was attained in 1926 when 31,774 persons were engaged in the coal mines of Australia. In 1927 the number dropped to slightly under 31,000, declining further in 1928 to 27,500, then falling rapidly to 20,800 in 1929. New South Wales, the chief producing State, was the heaviest loser as will be seen from the above table. During the period under review the export trade has diminished seriously and the position has recently been aggravated by the industrial depression. At the same time coal has had to meet increasing competition from oil fuel and from electricity generated by water power.

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 it would appear that any disablement from misadventure which rendered the injured unfit for work for fourteen or more days has been uniformly adopted by the State Departments of Mines, and it is on this basis that the accident tables have been compiled. A further table gives the rate of fatalities during the last five years.

COAL MINING.—EMPLOYMENT AND ACCIDENTS, 1933.

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 ..	13,349	10	61	0.75	4.57	711,800	116,700
Victoria ..	1,789	1	18	0.56	1.01	3,103,000	172,400
Queensland ..	2,448	2	113	0.82	46.16	438,000	7,700
Western Australia ..	626	1	190	1.60	303.51	458,400	2,400
Tasmania ..	313	1	5	3.19	15.97	116,600	23,300
Total ..	18,525	15	387	0.81	20.89	778,100	30,200

The next table shows the average number of miners employed, number of fatalities, and rate per 1,000 during the quinquennium 1929-33 :—

COAL MINING.—FATALITIES, 1929 TO 1933.

State.	Average No. of Coal Miners Employed.	Average No. of Fatal Accidents.	Rate per 1,000 Employed.
New South Wales .. ..	14,898	12	0.81
Victoria .. ..	2,082	1	0.48
Queensland .. ..	2,549	2	0.78
Western Australia .. ..	747	1	1.34
Tasmania .. ..	362	1	2.76
Total .. ..	20,638	17	0.82

(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 1929-33 was 1.05, the rates varying between 1.11 in 1929 and 0.98 in 1931, while the rate for Australia for the same period was 0.82. In the United States

during the ten years 1923-32 the death rate per 1,000 employees averaged 4.8 for bituminous coal miners, and 3.9 for anthracite miners. Rates for other coal-producing countries for the same period were—Canada, 2.4; Union of South Africa, 3.2; Germany, 2.2; Spain, 1.8; Poland, 1.7; Belgium, 1.1; and France, 1.0. In comparing these rates, allowance must be made for the circumstance that the methods of calculation are not identical in all countries.

### § 11. Coke.

Notwithstanding the large deposits of excellent coal in Australia, there was prior to the war a fairly considerable amount of coke imported from abroad. During recent years, however, a high standard of excellence has been attained in the local product; and imports have almost ceased, while Australian coke is being shipped to New Zealand and other islands in the Pacific. For the year 1933-34 the coke imported amounted to 850 tons, of which 174 tons were obtained from the United Kingdom and 676 tons from Germany, while the quantity exported was 5,249 tons, valued at £8,598, of which 4,166 tons, valued £5,482, was sent to New Caledonia.

The table hereunder gives the production in New South Wales during the last five years:—

#### COKE.—PRODUCTION, NEW SOUTH WALES.

Items.	1929.	1930.	1931.	1932.	1933.
Quantity .. tons	464,360	367,772	217,509	356,495	473,427
Value, total .. £	757,580	589,343	297,318	403,177	512,693
Value, per ton .. ..	32s. 8d.	32s. 1d.	27s. 4d.	22s. 7d.	21s. 8d.

The figures quoted refer to the product of coke ovens, and are exclusive of coke produced in the ordinary way at gas works. As regards both tonnage and value, the production in 1927, amounting to 709,000 tons valued at £1,131,000, was the highest recorded. The prevailing slackness of trade is reflected in the dwindling returns since that year, but an improvement is noted.

A small quantity of coke is made in Queensland, the quantity returned in 1933 being 12,450 tons, valued at £20,614. The following table shows the amount manufactured locally during the last five years:—

#### COKE.—PRODUCTION, QUEENSLAND.

Year.	1929.	1930.	1931.	1932.	1933.
Quantity .. tons	4,079	3,444	2,280	1,933	12,450

The increased output in 1933 was due to the operations of the coke ovens recently erected at Bowen. Hitherto the coke used at the ore treatment works at Mount Isa and Chillagoe was imported from the southern States but with the erection of a battery of 45 ovens it is anticipated that the output will be sufficient to meet the whole requirements of these works.

In order to avoid duplication with coal values the returns for coke have not been included in the general tables of mineral production in the early part of this chapter.



### § 12. Oil Shale and Mineral Oil.

Reference to the deposits of oil shale as well as to the efforts put forward in connexion with the search for mineral oil in Australia will be found in Official Year Book No. 22, pages 791 to 793.

Negotiations are in progress between the governments of the Commonwealth and of New South Wales with the object of evolving a plan for the development of the oil shale deposits at Newnes. In 1933 a technical Committee recommended the formation of a company but it is the opinion of both Governments that success can only be achieved by the application of technical and engineering knowledge and general business ability of a very high order. Without these qualifications the formation of a company would be futile and the matter is being further investigated. No production was recorded in New South Wales in 1933.

About 57,000 gallons of crude oil were produced in 1933 from shale treated in Tasmania, while the total quantity of oil distilled from shale up to the end of 1933 was set down at 319,000 gallons. An amalgamation of interests was effected in 1931, the individuals and companies concerned now operating under the name of the Tasmanite Shale Oil Company.

Great hopes were at one time entertained in regard to the petroliferous area in Queensland, but while gas and light to medium gravity oils have been found at Roma, and gas and oily wax at Longreach, structural conditions for accumulations on a commercial scale have not yet been located in the drilled areas. The search for oil was continued during 1933 by five companies in localities situated in the south-eastern portion of the State.

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.

Boring was continued in 1933 by the Freney Kimberley Oil Company, but results were indeterminate. Surface explorations were also carried out in the Wooramel, North Western, and South Coastal areas.

The Commonwealth Government encourages the search for oil by placing at the disposal of companies and individuals the advice and experience of its technical staff appointed for this purpose. In co-operation with the Air Board useful aerial reconnaissances have already been made in Queensland by the Commonwealth Geological Adviser, the photographs and mosaics produced proving of great value in conjunction with the ground geological surveys. A further aerial reconnaissance was undertaken to cover most of the possible oil producing regions in Australia. Further reference is made in § 16 hereinafter to the search for oil.

Attention is being directed also to the production of oil from coal by the hydrogenation process. To this end negotiations were entered into by the Commonwealth Government with Imperial Chemical Industries Ltd., England. The company agreed to co-operate but suggested that before any proposals be formulated it was desirable to await the results of the experience gained in the running of its own plant at Billingham in England which commenced operations early in 1935. A Committee consisting of nominees of the Commonwealth and State Governments, excepting Western Australia, and of Imperial Chemical Industries Ltd. has been appointed to advise on specific questions submitted to it. The Committee was unable to complete its investigations through lack of detailed information. This will be done when the data become available.

### § 13. Other Non-metallic Minerals.

A more or less detailed statement regarding the occurrence and production of other non-metallic minerals is given in preceding Official Year Books (*see* No. 22, pages 793 to 796). The tables of quantity and value in § 1 of this Chapter will, however, show the production of the principal items in this class for each State during the year 1933.

### § 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 1933 in New South Wales was estimated at 123 carats, valued at £123, while the total production to the end of 1933 is given at 204,000 carats, valued at £147,000. The yield in 1933 was obtained wholly at Howell and Copeton in the Tingha division.

2. **Sapphires.**—The production of sapphires in New South Wales during 1929 was returned as 65 ozs., valued at £450, obtained wholly at Sapphire in the Inverell division, but no output has been recorded since. Production during recent years was restricted owing to the unfavourable market.

In Queensland, gems to the value of £2,826 were purchased on the Anakie sapphire fields in 1933. About 120 miners carried on operations during the year but no finds of importance were made. Production has declined very considerably since 1920, when the yield was valued at £66,000.

3. **Precious Opals.**—The estimated value of the opal won in New South Wales during the year 1933 was £4,231, obtained on the Lightning Ridge, White Cliffs and Grawin fields. The figures quoted, however, do not represent the total output, as in many instances miners, buyers, and collectors leave the fields before a record of their production or purchases can be secured. Some very fine stones are at times obtained, one weighing 5 ozs. and valued at £300 being found in 1911. Three finds of large stone were made in 1928, the gems weighing 790, 590, and 232 carats respectively, and showing fine fire and lustre. Occasionally black opals of very fine quality are found, one specimen from the Wallangulla field, weighing 6½ carats, being sold in 1910 for £102, while in the early part of 1920 a specimen realized £600. It is stated that this locality is the only place in the world where the "black" variety of the gem has been found. The total value of opal won in New South Wales since the year 1890 is estimated at £1,605,000, but as pointed out above the figures are to some extent understated.

Small quantities of precious opal are found in the Beechworth district in Victoria.

The opaliferous district in Queensland stretches over a considerable area of the western interior of the State, from Kynuna and Opalton as far down as Cunnamulla. The yield in 1933 was estimated at £400, and up to the end of that year at about £187,000. 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. 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 about £3,000 during each of the last three years. The field is extremely prolific, a large quantity of precious white opal having been raised therefrom, while only a small portion of the known opal-bearing area has been thoroughly tested. The greatest yield for the State in any one year was obtained in 1920 when the value of production was returned at £24,000.

According to a report a few years ago by the Australian Trade Commissioner in the East there is a good sale for the gems in China. It is stated that there is no difficulty in cutting and polishing, as the Chinese method of dealing with jade, dating back many centuries, can also be applied to opal.

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, chialstolite, emeralds, garnets, olivines, moonstones, rubies, topazes, tourmalines, turquoises, and zircons. In Western Australia, 609 carats (rough) of emeralds, valued at £278, were produced during 1929 in the Cue district on the Murchison gold-field. The value of the 3,750 carats reported from the same area in 1930 was not ascertainable, as there were no sales during the year. There was no recorded production in the last three years.

### § 15. Numbers Engaged, Wages Paid, and Accidents in Mining.

r. Total Employment in Mining.—The number of persons engaged in the mining industry in Australia fluctuates according to the season, the price of industrial metals, the state of the labour markets, and according to the permanence of new finds, and the development of the established mines. During the year 1933 the number so employed was as follows :—

NUMBER OF PERSONS ENGAGED IN MINING, 1933.

State.	Number of Persons engaged in Mining for—						Total.
	Gold.	Silver, Lead, and Zinc.	Copper.	Tin.	Coal.	Other.	
New South Wales ..	6,913	3,197	13	1,448	13,349	1,006	25,926
Victoria ..	6,126	..	..	..	1,789	49	7,964
Queensland ..	4,161	553	175	818	2,448	357	8,512
South Australia ..	231	..	54	..	..	273	558
Western Australia ..	9,900	10	..	63	626	91	10,690
Tasmania ..	229	962	1,483	1,007	313	239	4,233
Northern Territory ..	95	..	1	33	..	80	209
<b>Australia ..</b>	<b>27,655</b>	<b>4,722</b>	<b>1,726</b>	<b>3,369</b>	<b>18,525</b>	<b>2,095</b>	<b>58,092</b>

Included in the figures for "other" in South Australia were 54 engaged in mining iron ore, 24 gypsum miners, 81 salt gatherers, and 62 opal miners. The Tasmanian figures include 126 osmiridium miners and 113 miscellaneous miners in the metallic and non-metallic groups, and those for the Northern Territory, 80 mica miners.

The following table shows the number of persons engaged in mining in each State during each of the years 1901, 1911, 1921, 1930 to 1933, together with the proportion of the total population so engaged :—

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION.

State.	1901.		1911.		1921.	
	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.
New South Wales ..	36,615	2,685	37,017	2,225	29,701	1,410
Victoria ..	28,670	2,381	15,986	1,210	5,211	339
Queensland ..	13,352	2,664	13,201	2,147	5,847	766
South Australia ..	7,007	1,931	6,000	1,457	2,020	406
Western Australia ..	20,895	11,087	16,596	5,787	7,084	2,122
Tasmania ..	6,923	4,017	5,247	2,760	3,170	1,486
Northern Territory ..	..	..	715	21,595	131	3,356
<b>Australia ..</b>	<b>113,462</b>	<b>2,992</b>	<b>94,762</b>	<b>2,109</b>	<b>53,164</b>	<b>974</b>

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION—*continued.*

State.	1930.		1931.		1932.		1933.	
	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.	Miners employed.	No. per 100,000 of Population.
New South Wales ..	27,512	1,086	30,682	1,200	27,708	1,074	25,926	996
Victoria ..	3,255	182	6,463	359	8,105	448	7,964	437
Queensland ..	5,534	608	6,753	730	8,013	856	8,512	900
South Australia ..	565	99	518	90	531	92	558	96
Western Australia ..	5,442	1,268	7,147	1,653	8,695	1,998	10,690	2,436
Tasmania ..	3,280	1,485	3,397	1,512	4,605	2,028	4,233	1,853
Northern Territory	173	3,468	145	2,918	187	3,795	209	4,256
Australia ..	45,761	708	55,105	844	57,844	879	58,092	876

The general falling-off since 1901 is largely due to the causes mentioned in § 1.7 *ante*. As compared with the preceding year, the proportion to population for Australia as a whole shows increases for 1931 and 1932, attributable mainly to the larger numbers engaged in the search for gold, particularly in New South Wales, Victoria, Queensland, and Western Australia. These increases, however, were offset by decreases in respect of other minerals, especially coal for which the employment figures fell from 23,000 in 1930 to about 18,600 in 1933.

2. **Wages Paid in Mining.**—Information regarding rates of wages paid in the mining industry, which in earlier issues of the Official Year Book was given in this chapter, is now contained in the Labour Report issued by this Bureau.

3. **Accidents in Mining, 1933.**—The following table gives particulars of the number of men killed or injured in mining accidents during the year 1933:—

MINING ACCIDENTS, 1933.

Mining for—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
<b>KILLED.</b>								
Coal ..	10	1	2	..	1	1	..	15
Copper ..	..	..	1	..	..	5	..	6
Gold ..	3	9	1	1	21	..	..	35
Silver, lead, and zinc ..	6	..	3	..	..	..	..	9
Tin ..	3	..	..	..	..	1	..	4
Other minerals	..	..	..	..	..	..	..	..
Total ..	22	10	7	1	22	7	..	69
<b>INJURED.</b>								
Coal ..	61	18	113	..	190	5	..	387
Copper ..	..	..	26	..	..	49	..	75
Gold ..	4	5	24	9	356	..	..	398
Silver, lead, and zinc ..	11	..	19	..	..	7	..	37
Tin ..	1	..	3	..	..	9	..	13
Other minerals	4	..	..	1	..	1	..	6
Total ..	81	23	185	10	546	71	..	916

## § 16. Government Aid to Mining.

1. Commonwealth.—(i) *General*. Assistance to mining has been given by the Commonwealth under the provisions of the *Precious Metals Prospecting Act* 1926, the *Gold Bounty Act* of 1930, the *Petroleum Prospecting Acts* of 1926, 1927, and 1928, and under the *Loan Appropriation (Unemployment Relief) Act* 1934.

In addition to this financial assistance considerable sums have been spent by the Commonwealth Government in its endeavour to locate new mineral fields. In conjunction with the Empire Marketing Board a sum of £32,000 was made available to provide for geophysical prospecting in Australia. This survey was begun in April, 1928, and completed in February, 1930. A report in connexion therewith was issued.

In 1934 the Northern Australia Survey Act was passed. Under this Act the Government 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 at a cost of £150,000. Half of the cost is being borne by the Commonwealth and the other half equally between the two States. The survey is now in full progress. Geological parties are in the field in Western Australia, Northern Territory and Queensland. Geophysical parties have just taken up work in the Cloncurry district in Queensland, and aircraft, having photographed a large portion of the area in Queensland, are now moving across to Western Australia, taking in portion of the Northern Territory en route. A staff, including Air Force personnel, totalling about sixty persons is now employed. This staff will probably be augmented as time goes on.

(ii) *Metalliferous Mining*. (a) The *Precious Metals Prospecting Act* 1926, provided a sum of £40,000, of which £15,000 was to be expended in the Northern Territory, and the balance allocated to the States in such proportions as the Minister determined. At the 30th June, 1934, the expenditure amounted to £18,657 and no further assistance is being granted to the States or to the Northern Territory from this fund.

(b) The *Gold Bounty Act* 1930 provided that for a period of ten years from 1st January, 1931, a bounty of £1 per ounce would be payable under prescribed conditions by the Commonwealth on each ounce of fine gold produced in excess of the average production for the three years 1928–30. Under the *Financial Emergency Act* 1931, the Bounty was reduced to 10s. per ounce, subject to increases of 1s. for each decrease of 3s. per cent. in the average rate of exchange. The rate of exchange on which the reduction to 10s. per ounce was based was taken as 30 per cent. Under the *Financial Emergency Act* of 1932 the bounty was temporarily suspended.

(c) Grants to States for Assistance to Metalliferous Mining. Under the *Loan Appropriation (Unemployment Relief) Act* 1934 a sum of £283,750 was made available to the States as grants for assistance to metalliferous mining. The amount granted to each State and the purpose to which it shall be applied is set out in the table below. In addition to this the sum of £45,000 was allocated to the Northern Territory and £5,000 to Papua, making a total of £333,750. Amounts advanced up to 7th March, 1935, were £115,000.

## COMMONWEALTH GRANTS TO STATES FOR ASSISTANCE TO METALLIFEROUS MINING.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Staff and Administration ..	5,000	8,000	3,000	..	1,000	..	17,000
Prospecting ..	5,000	10,000	17,000	..	50,000	2,500	84,500
Plants and Operation thereof ..	10,000	4,000	20,000	6,000	..	7,500	47,500
Advances (a) ..	17,500	20,000	5,000	17,500	..	9,250	69,250
Metallurgical Investigations ..	..	..	5,000	..	..	1,250	6,250
Batteries ..	..	..	..	10,000	5,000	1,250	16,250
Roads and Tracks ..	..	2,000	..	..	..	4,000	6,000
Other ..	5,000	6,000	20,000	..	6,000	..	37,000
Total ..	42,500	50,000	70,000	33,500	62,000	25,750	283,750

(a) This provision is contingent upon the States providing a similar amount.

The funds are administered by a Trust comprising representatives of the State and one representative of the Commonwealth who in each instance is the Sub-Treasurer Accountant in the State. It is expected, that as a result of this assistance, employment will be provided for more than 5,500 men.

(iii) *Search for Oil.*—(a) *Papua and New Guinea.* Prior to the passage of the *Petroleum Prospecting Act 1926* the Commonwealth Government had expended a sum of £368,790 in connexion with the search for oil principally in Papua and New Guinea.

(b) *Australia.* Under the *Petroleum Prospecting Act 1926–1927* a trust account of £160,000 was established to encourage the search for oil. The Minister was authorized to make advances out of the money standing to the credit of this account to persons or companies engaged in the search for oil, and to assist persons, companies, or State Governments to make geological surveys. The *Petroleum Prospecting Act of 1928* provided a further sum of £50,000. Up to the 30th June, 1934, the total expenditure under these Acts amounted to £196,297. The Government decided to discontinue subsidies for deep drilling and to confine its assistance to geological surveys and scout boring. Owing to financial stringency, however, the payment of all subsidies for oil prospecting has been substantially restricted.

The Commonwealth Oil Refineries Ltd. of which the Government of the Commonwealth of Australia is the principal shareholder has undertaken an extensive programme of prospecting for oil. The investigation is under the control of an Australian Advisory Committee of Geologists appointed by the Company, the personnel of which comprises the Commonwealth Geological Adviser, the Government Geologist of South Australia and two other members. Two oil geologists have now arrived in Australia, and, in company with the Commonwealth Geological Adviser, are at present (May, 1935) carrying out an aerial reconnaissance of likely areas. This reconnaissance is a preliminary to a more detailed examination of areas and a study of all the data which has been collected over a period of years.

(iv) *Appointment of Geological Staff.* In 1927 a small geological staff, including a palaeontologist, was appointed. The Geological Adviser visited the United States and Argentina in 1930 to study oil-field conditions on the spot, and submitted a comprehensive report, which was published as a Parliamentary Paper in 1931. Experimental aerial photographic surveys have been carried out in conjunction with the Royal Australian Air Force to determine whether similar methods were applicable under Australian conditions, and a report on the investigations has been issued.

2. *New South Wales.*—The chief aid given by the Government of New South Wales has been in the assistance to prospectors, but there were no appropriations from the Prospecting Vote for the year 1933–34, all claims being met from Unemployment Relief Funds. Loans are also made to assist in the erection of crushing batteries or reduction plants. Interest is charged at the rate of 4 per cent. During the year 1933 loans totalling £5,292 were approved. Aid is granted on a footage basis to sink, drive, etc., on approved sites to which a valid mining title is held, the actual expenditure in respect of work completed during the year aggregating £18,965. No claims for rewards in connexion with the discovery of new mineral fields were paid during the year.

3. *Victoria.*—During the year 1933 expenditure in connexion with mining amounted to £33,109, of which £8,849 consisted of advances to prospectors, while advances to miners amounted to £11,350, aid to boring, £221, and assistance to batteries and testing plants, £10,330. The total includes also expenses amounting to £2,359 on account of geological surveys, etc.

4. **Queensland.**—State assistance to the mining industry in 1933 amounted to £32,666, of which £29,999 was advanced to prospectors, the balance consisting of grants under the *Mining Machinery Advances Act* and for the provision of transport facilities, etc., to mineral fields.

State coal mines were in operation at Bowen, Styx and at Mount Mulligan. There is also a State Assay Office at Cloncurry at which assays and sampling are carried out for the public, and State batteries were maintained at Kidston, Charters Towers, and Bamford. The battery at Charters Towers was leased privately, but the State Works for the treatment of tin at Irvinebank which had been leased to a co-operative party were, after a period of idleness, put into commission by the Mines Department.

5. **South Australia.**—Aid is given to the industry mining under the terms of the *Mining Act* of 1893, and previous measures. Up to the end of 1933 the total amount of subsidy paid was £70,815 of which £13,698 has been repaid, and £4,549 written off, leaving a debit of £52,568. Portion of this amount is represented by machinery that has fallen into the hands of the Government. Repayments must be provided from profits, but in only two instances have the profits enabled a full return to be made. The State maintains batteries and cyanide works at Mount Torrens, Peterborough, Mongolata, and Tarcoola, and assays for public purposes are made at the School of Mines. Advances to prospectors in 1933 amounted to £1,025.

6. **Western Australia.**—Under the *Mining Development Act* of 1902 assistance was granted in 1933 in accordance with the subjoined statement :—Advances in aid of mining work and equipment of mines with machinery, £152; aid to prospectors, £30,709; subsidies on stone crushed for the public, £475; total, £31,336. Other assistance granted from the vote on various matters during the year amounted to £5,906, principally in connexion with prospecting for gold.

In 1932 there were 25 State batteries in operation. The amount expended thereon up to the end of 1933 was £91,981 from revenue and £337,325 from loan fund giving a total of £429,306. The working expenditure up to the end of 1933 exceeded the revenue by £142,391. The total value of gold and tin produced to the end of 1933 at the State plants was £7,119,413. 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 1933 amounted to £2,259, of which £132 was expended under Part III. of the *Aid to Mining Act* 1927 on drilling and boring, and £2,127 represented assistance and sustenance to prospectors under Part II. In addition a sum of £490 was paid from The Unemployment Relief Act for drilling and boring at Legunia. The amount received from ore sales was £1,645, the bulk of which was paid to tributers. Receipts amounted to £181.

Tributers' assays are made at a nominal charge, and all tribute surveys are carried out free of charge by the Assay and Survey Office at Zeehan.

8. **Northern Territory.**—During the year 1932–33 assistance was granted to approved prospectors at the rate of £1 per week per man for rations with loan of prospecting tools not exceeding £2 in value to each prospector. The total assistance granted during the year amounted to £219.

The Government maintains a battery at Marranboy, and the Government Assayer makes free assays for prospectors, and arranges for the sampling, storage, and sale of ores.

§ 17. Metallic Contents of Ores, etc., Produced and Exported.

1. Local Production.—According to returns compiled from various sources by the Australian Mines and Metals Association, the quantities of the principal metals (exclusive of gold) extracted in Australia during the five years 1929 to 1933 were as follow :—

REFINED METALS PRODUCED IN AUSTRALIA.

Metal.		1929.	1930.	1931.	1932.	1933.
Silver ..	.. ozs.	9,229,514	9,002,705	7,349,794	6,499,405	7,957,148
Lead, pig	.. tons	176,820	168,291	133,306	134,499	159,393
Zinc ..	.. "	51,872	54,901	53,832	53,200	53,956
Copper	.. "	10,874	14,900	12,936	13,307	11,238
Tin ..	.. "	2,260	1,544	1,690	1,958	2,360

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 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 1929-30 to 308,369 tons, in 1930-31 to 232,783 tons, in 1931-32 to 190,132 tons, and in 1932-33, 336,246 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 1929 to 1933, 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—	1929.	1930.	1931.	1932.	1933.	
Silver	ozs. { Lead-Silver-Gold Bullion Lead Concentrates and Ores Zinc Concentrates and Ores Copper and Gold Ores ..	44,677	44,777	1,018,359	2,470,807	2,177,633	
		31,121	179,185	303,307	..	447,943	
		604,014	558,577	183,111	23,366	319,870	
		..	..	..	..	..	
	Total .. ..	679,812	782,539	1,504,777	2,494,173	2,945,446	
Lead	tons { Lead-Silver-Gold Bullion Lead Concentrates and Ores Zinc Concentrates and Ores	689	252	17,130	51,857	45,871	
		878	12,986	10,982	..	16,019	
		5,704	9,482	1,878	1,159	2,196	
		..	..	..	..	..	
	Total .. ..	7,271	22,720	29,990	53,016	64,086	
Zinc	tons { Lead Concentrates and Ores Zinc Concentrates and Ores	21	396	557	..	586	
		69,958	86,761	41,917	31,542	60,142	
		..	..	..	..	..	
	Total .. ..	69,979	87,157	42,474	31,542	60,728	
Copper	tons	Ores, Matte, etc. ..	2,737	3,277	2,765	1,099	1,109
Tin	tons	Concentrates and Ores ..	4	..	17	101	139



## § 18. Oversea Exports of Ores, Metals, etc.

The following table shows the quantity and value of the principal overseas exports of ores, concentrates, and metals, the produce of Australia, together with the countries to which the respective products were forwarded, for the year 1933-34 :—

## OVERSEA EXPORTS OF AUSTRALIAN ORES, METALS, ETC., 1933-34.

Article.	Total Exports.	Exports to—						
		United Kingdom.	United States.	Belgium.	Germany.	Japan.	New Zealand.	Other Countries.
QUANTITY.								
Ores—	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Copper .. ..	3,362	..	..	..	..	..	..	3,362
Silver and Silver-lead	3,737	..	..	3,737	..	..	..	..
Iron .. ..	142,180	..	..	..	..	142,080	..	100
Wolfram .. ..	4,445	191	504	546	2,587	..	..	617
Concentrates—								
Silver and Silver-lead	716,197	..	..	415,665	..	..	..	(a) 300,532
Zinc .. ..	1,925,390	1,680,981	..	96,805	..	100,000	..	(b) 47,604
Cadmium—Blocks, Ingots, etc. ..	6,017	2,871	..	200	1,760	286	..	(c) 900
Copper—								
Matte .. ..	..	..	..	..	..	..	..	..
Ingot .. ..	105,310	67,240	..	5,000	32,960	..	110	..
Tin—Ingot .. ..	24,794	15,322	3,000	800	300	100	2,652	2,620
Lead—								
Pig .. ..	3,687,298	3,210,297	..	207,382	195,054	33,442	22,399	18,724
Zinc—Bars, Blocks, etc.	646,883	384,141	..	..	8,003	118,877	..	(d) 135,862
	oz.	oz.	oz.	oz.	oz.	oz.	oz.	oz.
Platinum, Osmium, etc. .. ..	(e) 671	638	..	..	..	..	..	13
Gold—								
Bar, Dust, etc. ..	978,742	976,243	2,482	..	..	..	17	..
Silver—								
Bar, Ingot, etc. ..	8,657,960	7,686,797	254	..	..	..	1,502 (f)	969,407
VALUE.								
Ores—	£	£	£	£	£	£	£	£
Copper .. ..	1,310	..	..	..	..	..	..	1,310
Silver and Silver-lead	2,114	..	..	2,114	..	..	..	..
Iron .. ..	4,087	..	..	..	..	4,072	..	15
Wolfram .. ..	21,747	564	2,020	2,470	13,696	..	..	2,997
Concentrates—								
Silver and Silver-lead	313,156	..	..	184,204	..	..	..	(a) 128,952
Zinc .. ..	201,308	170,540	..	8,952	..	18,097	..	(b) 3,719
Cadmium—Blocks, Ingots, etc. ..	45,592	18,900	..	1,120	15,454	1,690	..	(c) 8,338
Copper—								
Matte .. ..	..	..	..	..	..	..	..	..
Ingot .. ..	230,458	126,170	..	9,500	94,515	..	273	..
Tin—Ingot .. ..	329,410	207,754	34,011	11,001	4,275	1,375	35,053	35,941
Lead—								
Pig .. ..	2,418,072	2,126,367	..	120,172	116,173	24,995	17,097	13,268
Zinc—Bars, Blocks, etc.	617,520	363,795	..	..	7,200	112,920	..	(d) 133,605
Platinum, Osmium, etc.	(e) 6,753	6,629	..	..	..	..	..	124
Gold—								
Bar, Dust, etc. ..	7,960,877	7,939,917	20,830	..	..	..	130	..
Silver—								
Bar, Ingot, etc. ..	952,407	850,223	22	..	..	..	166 (f)	101,996

(a) Italy. (b) France. (c) France, 600 cwt., £5,228; Sweden, 300 cwt., £3,110.  
 (d) India, 135,483 cwt., £133,148. (e) Mainly osmiridium exported from Tasmania and platinum from New South Wales. (f) Ceylon, 908,466 oz., £95,323; India, 58,721 oz., £6,385; Fiji, 2,170 oz., £282; Samoa, 50 oz., £6.

## CHAPTER XX.

## PASTORAL PRODUCTION.

## § 1. Initiation and Growth of Pastoral Industry.

1. *Early Statistics.*—In earlier issues of the Year Book will be found a brief reference to the pastoral industry in Australia prior to the year 1860. (See Official Year Book No. 6 page 330.)

2. *Subsequent Statistics.*—While the statistical records of live stock in Australia prior to the year 1860 are somewhat defective, from that year onwards fairly complete information is available for most of the States. At the present time, statistics of live stock are collected annually in all the States principally through the agency of the police, but in the years 1885 to 1888 inclusive, and 1893 to 1895 inclusive, these particulars were not collected in South Australia, and similar gaps occur in the Victorian records for the periods 1895 to 1899 inclusive and 1901 to 1903. In order to obtain totals for Australia for these years the missing numbers have been supplied by interpolation. The results so obtained probably differ but slightly from the actual numbers for the respective years.

3. *Increase in Live Stock.*—Particulars concerning the numbers of each of the principal kinds of live stock in Australia at decennial intervals from 1860 to 1920, and from 1928 onwards in single years, are given in the following table, and are shown continuously in the graphs hereinafter.

During the seventy-three years covered by the table the live stock of Australia increased considerably, horses 309 per cent. ; cattle 241 per cent. ; sheep 446 per cent. ; and pigs 198 per cent. The average annual increases which these aggregates represent are as follow :—Horses, 1.95 per cent. ; cattle, 1.70 per cent. ; sheep, 2.35 per cent. ; and pigs, 1.51 per cent.

## LIVE STOCK.—AUSTRALIA.

31st December.				Horses.	Cattle.	Sheep.(a)	Pigs.
1860	..	..	..	431,525	3,957,915	20,135,286	351,006
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
1928	..	..	..	1,942,753	11,300,757	103,430,773	910,181
1929	..	..	..	1,845,614	11,202,134	104,558,342	1,018,324
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

(a) See note to Table in § 4, 2 hereinafter.

4. *Fluctuations.*—The increases referred to, however, have not been continuous, marked fluctuations having taken place during the period, mainly on account of the droughts which have from time to time left their impress on the pastoral history of Australia. These were in evidence in 1868, 1877, 1883-4, 1892, 1893, 1895, 1901-2, 1912, 1914-15, 1918, 1919, 1922-23, 1925-26, and 1927-28.

The years in which the numbers of live stock attained their maxima are as follow :—Horses, 1918, 2,527,149 ; cattle, 1921, 14,441,309 ; sheep, 1932, 112,926,931 ; and pigs, 1917, 1,169,365.

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-three years in the manner shown in the succeeding table :—

#### LIVE STOCK PER HEAD OF POPULATION.—AUSTRALIA.

Year.	Horses.	Cattle.	Sheep.	Pigs.	Year.	Horses.	Cattle.	Sheep.	Pigs.
1860 ..	0.38	3.45	17.58	0.31	1920 ..	0.44	2.49	15.11	0.14
1870 ..	0.43	2.60	25.24	0.33	1929 ..	0.29	1.75	16.30	0.16
1880 ..	0.48	3.37	27.87	0.37	1930 ..	0.28	1.81	17.07	0.17
1890 ..	0.48	3.17	31.06	0.28	1931 ..	0.27	1.88	16.95	0.18
1900 ..	0.43	2.29	18.75	0.25	1932 ..	0.27	1.95	17.23	0.18
1910 ..	0.49	2.65	22.16	0.23	1933 ..	0.26	2.03	16.52	0.16

6. **Live Stock in Relation to Area.**—The numbers of live stock per square mile in the several States and Territories of Australia are given in the following table :—

#### LIVE STOCK PER SQUARE MILE, 1933.

States and Territories.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales .. .. .	1.72	10.86	168.39	1.19
Victoria .. .. .	4.11	22.78	195.67	2.74
Queensland .. .. .	0.67	8.62	29.94	0.32
South Australia .. .. .	0.52	0.93	20.89	0.24
Western Australia .. .. .	0.16	0.91	10.58	0.09
Tasmania .. .. .	1.16	10.00	77.63	1.45
Northern Territory .. .. .	0.06	1.64	0.03	0.00
Federal Capital Territory .. .. .	1.01	7.22	246.53	0.49
Total .. .. .	0.59	4.54	36.95	0.35

7. **Minor Classes of Live Stock.**—Excluding Victoria, details not being available, the numbers of minor classes of live stock returned for 1933 were as follow:—Goats, 152,379; camels, 4,849; mules and donkeys, 14,493; and ostriches, 53. Of these, goats were most numerous in Queensland, camels, mules and donkeys in Western Australia, and ostriches in South Australia. In the raising of goats, attention has in recent years been devoted to the angora goat and its product (mohair), and 6,312 angora goats are included in the total of 152,379 goats shown above. Of these, 2,301 were in New South Wales, 665 in Tasmania, 573 in Western Australia, 1,377 in South Australia, and 1,391 in Queensland, while the quantity of mohair produced in the latter State in 1933 was set down at 444 lb., and the number of skins placed on the market was returned as 106.

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 1929-30 to 1933-34 were as follow:—

## NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Products.	Unit of Quantity.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
QUANTITIES.						
Animals (living)—						
Cattle .. .. .	No.	6,191	174	331	189	115
Horses .. .. .	"	5,969	4,926	4,771	3,227	3,249
Sheep .. .. .	"	38,764	26,071	47,131	51,821	42,914
Bones .. .. .	cwt.	10,503	12,238	9,416	8,299	8,737
Glue-pieces and Sinews .. .. .	"	-20,176	-15,927	186	495	225
Glycerine .. .. .	lb.	-703,682	-254,290	13,575	93,126	-288,222
Hair .. .. .	(a)	(a)	126,712	74,445	-121,363	-119,775
Hoofs .. .. .	cwt.	11,273	(a)	(a)	(a)	(a)
Horns .. .. .	"	(a)	(a)	(a)	(a)	(a)
Meats—						
Frozen Beef .. .. .	lb.	156,748,365	155,630,647	165,871,501	153,972,403	173,076,002
" Mutton and Lamb .. .. .	"	100,410,980	109,252,956	165,281,142	166,797,195	171,106,849
" Rabbits and Hares .. .. .	pair	3,873,337	(a)	(a)	(a)	(a)
" Other .. .. .	lb.	6,115,445	6,920,925	8,061,876	9,579,958	12,214,574
Potted, and Extract of .. .. .	"	(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc. .. .. .	lb.	3,381,248	4,265,578	5,258,749	7,212,976	4,620,270
Other (excluding Bacon and Ham) .. .. .	"	434,050	344,712	277,562	330,186	466,613
Sausage Casings .. .. .	cwt.	30,984	8,976	11,562	10,429	19,361
Skins—						
Hides .. .. .	No.	702,135	(a)	(a)	(a)	(a)
Sheep .. .. .	"	12,944,781	(a)	(a)	(a)	(a)
Rabbit and Hare .. .. .	cwt.	77,566	63,348	69,774	77,873	99,339
Other (including Undressed Furs) .. .. .	"	(a)	(a)	(a)	(a)	(a)
Tallow .. .. .	cwt.	592,231	484,762	768,511	745,422	471,591
Wool—						
Greasy .. .. .	lb.	696,578,126	767,050,003	772,804,985	848,468,549	728,676,211
Scoured .. .. .	"	44,195,688	43,685,080	55,708,642	73,248,756	72,670,544
Tops .. .. .	"	552,152	1,033,823	2,170,330	2,525,380	2,923,974

NOTE.—The minus sign (—) signifies net imports.

(a) Quantity not available.

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 £242,796,009 for the period, or an average of £48,559,202 per annum, of which wool represents 79.66 per cent. Meat, skins, and tallow rank next in order of importance.

## NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Products.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
VALUES. (a)					
	£	£	£	£	£
<b>Animals (living)—</b>					
Cattle .. .. .	-19,814	- 7,788	-5,673	-7,089	-27,300
Horses .. .. .	85,178	105,254	100,935	78,054	35,646
Sheep .. .. .	35,681	3,346	8,496	12,654	14,440
Bones .. .. .	8,015	8,702	6,725	5,199	6,058
Glue-pieces and Sinews .. .. .	-13,577	-13,232	1,610	2,489	1,128
Glycerine .. .. .	-15,167	-3,119	4,691	7,421	1,172
Hair .. .. .	-47,591	-9,209	-24,966	-53,063	-58,098
Hoofs .. .. .	7,128	4,412	4,750	4,330	5,755
Horns .. .. .	22,626	18,164	14,815	12,771	14,301
<b>Meats—</b>					
Frozen Beef .. .. .	2,569,782	2,235,526	2,087,812	1,854,569	2,020,049
" Mutton and Lamb .. .. .	2,386,175	2,105,956	2,994,056	2,697,213	3,575,827
" Rabbits and Hares .. .. .	339,917	412,845	478,946	559,367	425,665
" Other .. .. .	152,319	149,643	151,793	170,462	216,428
Potted, and Extract of .. .. .	-52,491	6,981	5,174	-7,584	-29,452
Preserved in Tins, etc. .. .. .	118,513	138,253	135,805	183,539	130,996
Other (excluding Bacon and Ham)	8,695	7,490	6,098	7,710	10,881
Sausage Casings .. .. .	245,246	159,913	56,701	44,002	184,373
<b>Skins—</b>					
Hides .. .. .	459,192	517,132	62,762	52,995	119,344
Sheep .. .. .	3,123,282	1,945,064	1,097,816	1,368,986	2,624,990
Rabbit and Hare .. .. .	1,507,142	557,207	477,476	450,862	949,819
Other (including Undressed Furs)	586,842	175,095	304,696	-43,379	99,772
Tallow .. .. .	981,454	597,594	827,454	788,395	476,309
<b>Wool—</b>					
Greasy .. .. .	32,775,631	29,294,646	28,883,940	32,063,303	49,463,224
Scoured .. .. .	3,563,207	2,469,360	2,817,703	3,952,313	6,640,248
Tops .. .. .	87,781	114,021	248,055	271,993	434,472
Nolls (b) .. .. .	..	30,814	44,520	53,902	121,445
Waste (b) .. .. .	..	9,487	7,940	20,030	32,220
<b>Total Values</b> .. .. .	<b>48,915,166</b>	<b>41,033,557</b>	<b>40,800,130</b>	<b>44,551,444</b>	<b>67,495,712</b>

NOTE.—The minus sign (—) signifies net imports. (a) Australian currency values.  
(b) Not available prior to 1930-31.

9. Value of Pastoral Production.—Owing to the lack of uniformity in the several States in determining prices and costs the values of pastoral production hitherto presented have been gross values at the principal markets in the respective producing States.

Attempts were made at successive conferences of Australian Statisticians to obtain net values of production, and finally in March, 1935, a uniform method was agreed upon.

The following table has been compiled on the lines adopted by the Conference, and represents in its final column a net value of pastoral production for each State and the Commonwealth. The table has been prepared from data furnished by the State Statistical Bureaux, where the particulars were obtained by actual collections wherever possible or carefully estimated from the most reliable sources.

Maintenance costs have not been computed in all of the States and depreciation has not been deducted; consequently the net value of production is inflated to the extent of these costs. In Queensland the costs of production are not yet as exact as might be desired. Production values of the pastoral and other industries are dealt with more fully in Chapter XXVIII.—Miscellaneous.

## GROSS, LOCAL AND NET VALUE OF PASTORAL PRODUCTION, 1933-34.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)
				Fodder fed to Farm Stock.	Value of other materials used in process of Production.	
	£	£	£	£	£	£
New South Wales ..	38,220,000	3,558,000	34,662,000	390,000	13,000	34,259,000
Victoria ..	17,735,382	1,406,914	16,328,468	305,000	120,000	15,903,468
Queensland ..	14,600,528	1,239,101	13,361,427	1,000,000	228,325	12,133,102
South Australia	5,303,925	621,929	4,681,996	61,209	59,840	4,500,947
Western Australia ..	6,642,024	734,745	5,907,279	157,767	106,988	5,642,524
Tasmania ..	1,800,630	123,620	1,677,010	51,710	17,750	1,607,550
Total ..	84,302,489	7,684,309	76,618,180	1,965,686	545,903	74,106,591

(a) No deduction has been made for depreciation and maintenance.

Although depreciation has not been deducted in arriving at the net value of production this item was compiled in each State for 1933-34 and amounted in the aggregate to £496,000.

10. **Consumption of Meats.**—Particulars of the per capita consumption of meat in Australia are shown in the following table, together with figures for certain other countries. The figures have in each case been obtained from official sources, although it is not definitely known that they are all on a similar basis.

The average consumption in Australia is somewhat below that of New Zealand, but is greatly in excess of that of Canada, Great Britain and the United States. Compared with Australia the consumption of beef, mutton and lamb in these countries is relatively small, but pork consumption is greatly in excess of the average recorded both for Australia and New Zealand. There is evidence of a decline in the consumption of beef and a change over to mutton and pork both in countries which formerly consumed more beef than pork and in those where pork has been the chief diet. This is noticeable chiefly in the United States, Germany and other Northern European countries. The consumption of meat as a whole appears to have declined slightly in many countries during the past decade.

## MEATS.—PER CAPITA CONSUMPTION, AUSTRALIA AND OTHER COUNTRIES.

Description.	Australia, 1933-34.	New Zealand, (a)	Great Britain, 1933.	Canada, 1934.	United States of America, 1933.
	lb.	lb.	lb.	lb.	lb.
Beef and Veal ..	110.18	109.00	64.50	68.66	54.20
Mutton and Lamb ..	84.32	106.00	32.50	6.28	7.00
Pork ..	8.21	7.00	(b) 45.50	66.36	72.20
Total ..	202.71	222.00	142.50	141.30	133.40
Bacon and Ham ..	10.49	11.00	(c)	(c)	(c)
Total All Meats ..	213.20	233.00	142.50	141.30	133.40

(a) Average, three years ending 1932-33.

(b) Including Lard.

(c) Probably included with Pork.

## § 2. Horses.

1. **Suitability of Australia for Horse-breeding.**—From the earliest times the suitability of the climate and pastures of Australia for the production of serviceable breeds of horses has been fully recognized. By the importation of high-class sires, and the careful selection of breeding mares, these natural advantages have been utilized to the fullest extent in breeding all classes of horses. As a consequence of this combination of advantages, the Australian horse, whether of the heavy draught, medium weight, or light saddle and carriage variety, compares more than favourably with the product of other lands. The Australian horse is highly regarded by the military authorities in India and considerable numbers are purchased each year for remount purposes, although the demand is not so great as in former years.

2. **Distribution throughout Australia.**—The States of New South Wales, Queensland and Victoria together depasture more than 76 per cent. of the total number of horses in Australia. In the following table figures are given for each State, etc., for each of the last five years :—

## HORSES.—NUMBER.

31st Dec.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T.	Total.
1929	5534,945	393,015	500,104	189,054	159,528	34,336	33,703	a 929	1,845,614
1930	5524,512	379,872	480,970	183,529	156,973	32,700	33,363	a 815	1,792,734
1931	5524,751	375,459	468,603	185,222	156,489	30,659	33,442	b 925	1,775,550
1932	5528,943	372,907	451,644	190,222	157,443	30,269	33,072	b 937	1,765,437
1933	5532,028	361,005	448,918	196,789	159,646	30,299	33,590	b 950	1,763,225

(a) 30th June year following.

(b) 31st March year following.

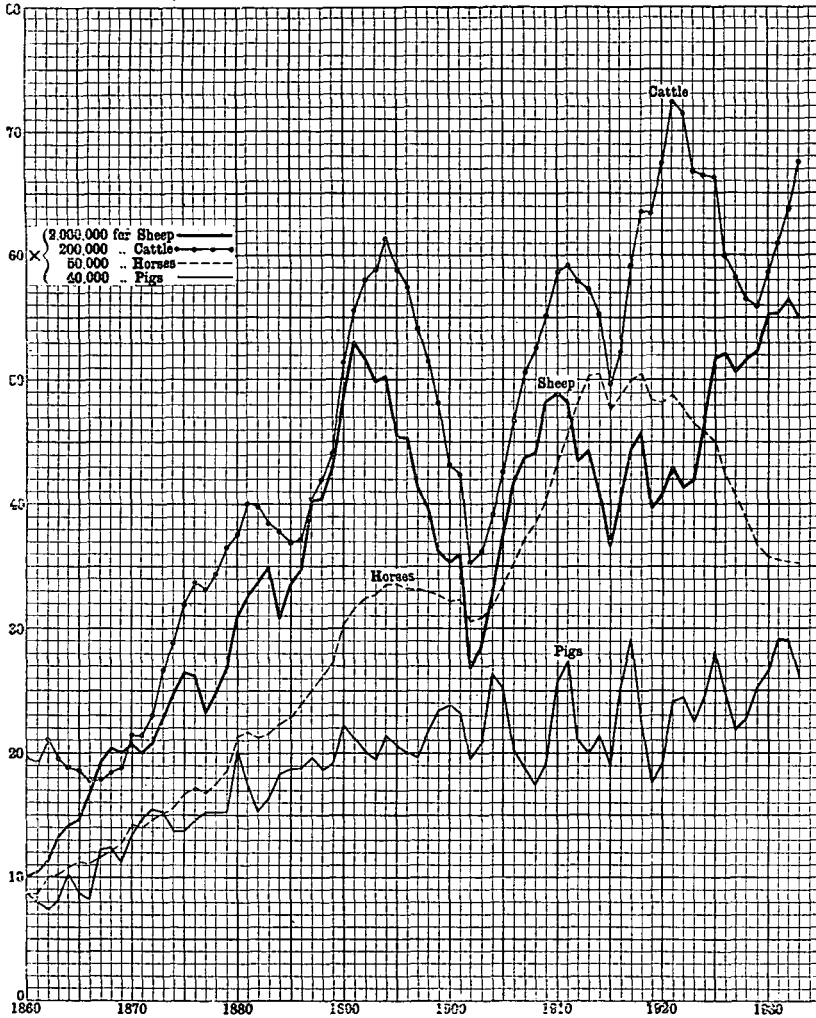
The number of horses attained its maximum in Australia during 1918, when a total of 2,527,149 was recorded. Since that date, however, a general decline has been experienced, and the number for 1933 is the lowest returned since 1905. The numbers of horses in Australia and in the United States of America reached their maxima in 1918, while in Canada the highest total was recorded in 1921. The decline in each country since the years mentioned up to the latest available date amounted to 30, 45 and 22 per cent. respectively. In Argentina on the other hand, a slight increase was recorded in 1930 over the numbers ascertained at the previous census of 1922. The rapid development of motor transport coupled with the use of petrol-driven cultivating and other machinery on farms brought about the decreases alluded to. In Australia, however, there has recently been a tendency to revert to the horse not only on the farm, but to some extent for the transport of goods in the cities. Confirmation of this fact is afforded by increases in 1933 in New South Wales, 3,000, South Australia, 6,500, and Western Australia, 2,200. In Tasmania and the Northern Territory increases of minor importance were recorded. The fairly constant decline noted in Victoria and Queensland during recent years continued in 1933.

The number of horses in Australia from 1860 onwards may be ascertained from the graph herein.

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 the year 1933 were :—New South Wales, 30.17; Victoria, 20.47; Queensland, 25.46; South Australia, 11.16; Western Australia, 9.05; Tasmania, 1.72; Northern Territory, 1.91; and Federal Capital Territory, 0.06 per cent.

The percentages in the various States have remained practically constant during the last quinquennium.

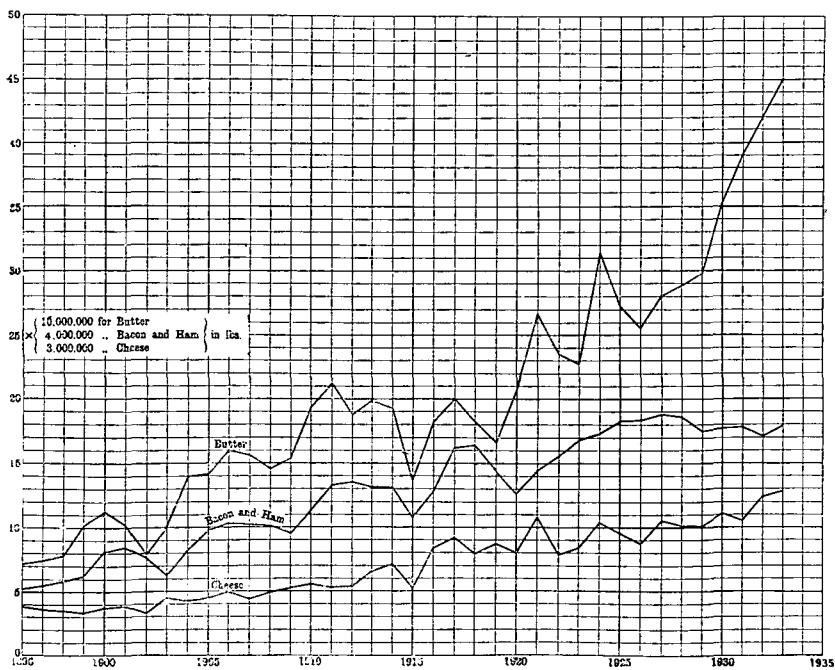
## NUMBER OF HORSES, CATTLE, SHEEP AND PIGS—AUSTRALIA, 1860 TO 1933.



EXPLANATION.—The base of each small square represents an interval of one year, and the vertical side 2,000,000 in the case of sheep, 200,000 for cattle, 50,000 for horses, and 40,000 for pigs.

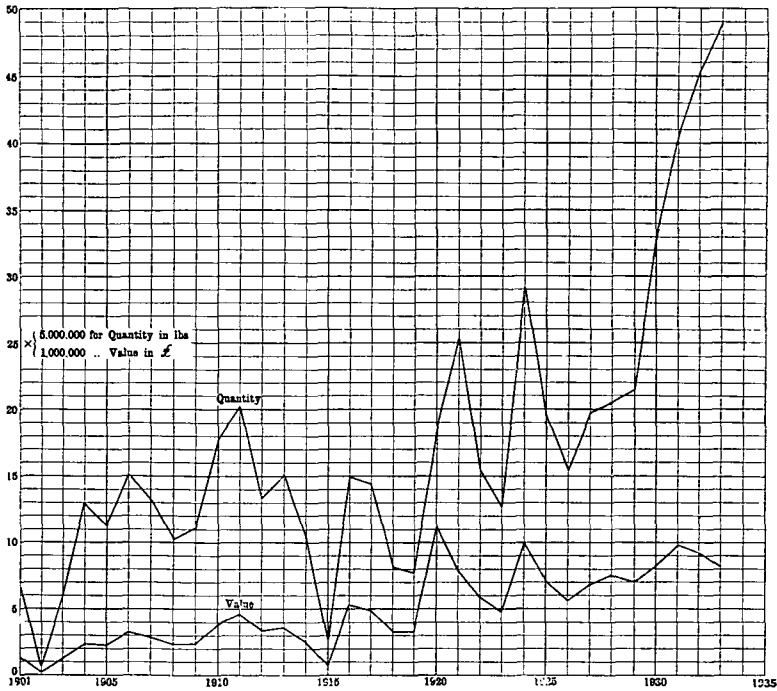


PRODUCTION OF BUTTER, CHEESE, AND BACON AND HAM—AUSTRALIA, 1896 TO 1933-34.



EXPLANATION.—The base of each small rectangle represents an interval of one year, and the vertical height of each denotes in the case of butter 10,000,000 lb., in the case of bacon and ham 4,000,000 lb., and in the case of cheese 3,000,000 lb.

## QUANTITY AND VALUE OF NET EXPORTS OF BUTTER FROM AUSTRALIA, 1901 TO 1933-34.



EXPLANATION.—The base of each small rectangle represents an interval of one year, and the vertical height 5,000,000 lb. in weight, or £1,000,000 in value.

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 Tasmania 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 1933 the relative numbers were :—New South Wales, 0.20; Victoria, 0.20; Queensland, 0.47; South Australia, 0.34; Western Australia, 0.36; Tasmania, 0.13; Northern Territory, 6.86; Federal Capital Territory, 0.10; and Australia, 0.26.

5. *Comparison with other Countries.*—The number of horses in some of the leading horse-breeding countries of the world, according to the latest available returns, is as follows :—

## HORSES.—NUMBER IN PRINCIPAL COUNTRIES.

Country.	Year.	Number of Horses (,000 omitted).	Country.	Year.	Number of Horses (,000 omitted).
Soviet Union ..	1933	16,645	Sweden .. ..	1933	659
U.S. of America ..	1933	11,942	Dutch East Indies	1933	650
Argentina ..	1930	9,858	Uruguay .. ..	1930	623
Brazil .. ..	1931	6,828	Lithuania .. ..	1933	580
Poland .. ..	1933	3,773	Turkey .. ..	1933	534
Germany .. ..	1933	3,397	Denmark .. ..	1933	501
Canada .. ..	1933	2,984	Bulgaria .. ..	1926	482
France .. ..	1933	2,878	Irish Free State ..	1933	441
India (British and Native)	1932	2,323	Chile .. ..	1930	441
Rumania .. ..	1932	2,034	Peru .. ..	1929	432
Mexico .. ..	1930	1,887	Haiti .. ..	1933	400
<b>Australia .. ..</b>	<b>1933</b>	<b>1,763</b>	Bolivia .. ..	1931	390
Japan .. ..	1932	1,541	Latvia .. ..	1933	370
Yugoslavia .. ..	1933	1,187	Finland .. ..	1933	357
United Kingdom ..	1933	1,154	Greece .. ..	1933	341
Italy .. ..	1930	943	Siam .. ..	1933	328
Columbia .. ..	1932	926	Netherlands .. ..	1933	299
Union of South Africa	1930	836	New Zealand .. ..	1933	274
Hungary .. ..	1933	820	Austria .. ..	1930	248
Spain .. ..	1932	803	Estonia .. ..	1933	247
Cuba .. ..	1929	758	Belgium .. ..	1933	233
Czechoslovakia ..	1933	701	French Morocco ..	1933	216
			Paraguay .. ..	1926	210

6. *Oversea Trade in Horses.*—(i) *Exports.* Australia's export trade in horses has fluctuated considerably since the war, and is now far below that of earlier years. For instance, during the period 1901-5 the average number exported was over 18,000, whereas during the last five years the figure was 4,600. The total number of horses exported during the latter period amounted to 23,273, valued at £679,910, equal to an annual average of 4,655 for £135,982. The average export price was £29 4s. 3d.. The horses exported to India, where they are largely used for army remounts, numbered 4,158 or 89 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 race horses from New Zealand. The average value per head of the horses imported during the last

five years was £243. The average number imported per annum was, however, only 226, and the average annual value, £54,969. The following table gives the imports, exports, and net exports of horses during each of the years from 1929-30 to 1933-34 :—

#### HORSES.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
1929-30 ..	362	£ 121,902	6,331	£ 207,080	5,969	£ 85,178
1930-31 (a) ..	101	40,094	5,027	145,348	4,926	105,254
1931-32 (a) ..	121	20,367	4,892	121,302	4,771	100,935
1932-33 (a) ..	180	30,853	3,407	108,907	3,227	78,054
1933-34 (a) ..	367	61,627	3,616	97,273	3,249	35,646

(a) Australian currency values.

### § 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 occupied the leading position as a cattle-raising State, but in that year Queensland took first place, which it has since maintained. The graph herewith shows a 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 14,441,309 cattle was attained in 1921. The decline in the frozen beef trade and the droughts of 1922-23 and 1925-26 were mainly responsible for the heavy decreases recorded in Queensland since that year. Subsequent to 1929 an increase of approximately 500,000 has been recorded annually, half of which was due to expansion in the dairy herds.

The number of cattle in the several States and Territories during each of the last five years is as follows :—

#### CATTLE.—NUMBER.

31st Dec.	N.S.W.	Vic. (b)	Q'land	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Total.
1929	2,686,132	1,335,242	5,208,588	204,516	836,646	214,643	711,607	44,760	11,202,134
1930	2,840,473	1,429,920	5,463,724	218,985	812,844	230,254	720,476	44,240	11,720,916
1931	2,993,586	1,637,530	5,550,399	265,324	826,532	232,444	749,745	65,395	12,260,955
1932	3,141,174	1,900,922	5,535,065	312,932	857,473	250,807	780,121	64,643	12,783,137
1933	3,361,771	2,002,235	5,781,170	352,728	885,669	262,256	859,867	66,790	13,512,486

(a) 30th June, year following.

(b) 31st March, year following.

Although the proportion is not as high as it has been in the past Queensland was carrying 42.8 per cent. of the cattle in Australia in 1933.

The largest relative gain since 1928 occurred in Victoria, followed by South Australia and Tasmania; increases were also recorded in the remaining States. The proportion in each of the States and Territories during 1933 was:—New South Wales, 24.88; Victoria, 14.82; Queensland, 42.79; South Australia, 2.61; Western Australia, 6.55; Tasmania, 1.94; Northern Territory, 6.36; Federal Capital Territory, 0.05.

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)	1932	158,574	Siam .. ..	1933	5,120
U.S. of America ..	1933	67,352	French Equatorial and West Africa	1933	4,972
Brazil ..	1931	42,539	Dutch East Indies..	1933	4,963
Soviet Union ..	1933	38,592	Czechoslovakia ..	1933	4,405
Argentina ..	1930	32,212	New Zealand ..	1933	4,192
China ..	1933	22,327	Rumania.. ..	1932	4,189
Germany ..	1933	19,739	Spain .. ..	1932	4,164
France ..	1933	15,830	Irish Free State ..	1933	4,137
Australia ..	1933	13,512	Cuba .. ..	1932	4,033
Union of South Africa	1930	10,751	Yugoslavia ..	1933	3,876
Mexico ..	1930	10,083	Rhodesia.. ..	1933	3,173
Poland ..	1933	8,985	Denmark .. ..	1933	3,134
Canada ..	1933	8,876	Sweden .. ..	1933	3,086
United Kingdom ..	1933	8,647	Paraguay .. ..	1926	2,973
Columbia ..	1932	7,592	Netherlands ..	1933	2,877
Uruguay ..	1932	7,372	Nigeria .. ..	1933	2,799
Italy ..	1930	7,089	Chile .. ..	1930	2,388
Madagascar ..	1933	6,169	Austria .. ..	1930	2,313
Tanganyika Territory	1933	5,450	Venezuela ..	1922	2,278
Kenya ..	1933	5,225	Uganda .. ..	1933	2,107
Turkey ..	1933	5,123	Bolivia .. ..	1931	2,064

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 follow:—

CATTLE.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1929-30 ..	193	44,309	6,384	24,495	6,191	— 19,814
1930-31 (a) ..	81	11,368	355	3,580	274	— 7,788
1931-32 (a) ..	40	8,543	371	2,870	331	— 5,673
1932-33 (a) ..	98	12,464	287	5,375	189	— 7,089
1933-34 (a) ..	208	33,983	323	6,683	115	— 27,300

(a) Australian currency values.

Note.—The minus sign (—) signifies net imports.

The average value of the cattle imported during the last five years was £178 9s. 10d. per head, while the average value of the cattle exported during the same period was £6 7s. 11d. 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 1929 to 1933 is given hereunder :—

**CATTLE (INCLUDING CALVES) SLAUGHTERED.**

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	N. Ter.	Fed. Cap. Ter. (a)	Total.
1929	680,316	387,662	630,620	117,806	91,195	35,278	1,531	2,143	1,946,551
1930	594,950	328,032	648,473	89,585	95,021	27,338	1,844	1,357	1,786,600
1931	630,372	373,380	540,649	81,285	91,748	28,565	1,844	1,349	1,751,192
1932	704,646	427,644	709,611	89,350	91,359	30,335	1,899	1,506	2,056,350
1933	769,776	471,895	719,277	104,488	99,217	34,558	4,363	2,411	2,205,985

(a) For year ended 30th June of year following.

6. **Production and Consumption of Beef.**—The production of beef in Australia during the year 1933-34 was estimated at 909,878,000 lb. The requirements of the local market absorbed 733,275,000 lb., approximately 81 per cent., leaving a balance of 19 per cent., which was exported as frozen or canned beef. (See also § 1, *ante*.)

7. **Export of Frozen Beef.**—The export of frozen meat from Australia dates from about the year 1881, and since that year the trade in frozen beef has grown considerably, the quantities and values exported during the past five years being as follow, viz. :— 1929-30, 156,748,665 lb., £2,569,788; 1930-31, 155,630,647 lb., £2,235,526; 1931-32, 165,872,145 lb., £2,087,829; 1932-33, 153,972,800 lb., £1,854,582; and 1933-34, 173,076,092 lb., £2,020,050. (See Table § 1, No. 8.) The largest purchaser of Australian beef is the United Kingdom, which during the year 1933-34 took £1,745,245 worth, or about 86.4 per cent., of the total shipments. Other countries importing Australian beef were in order of importance Egypt, Philippine Islands, Belgium, Malta, Malaya (British), and Japan. These countries, together with the United Kingdom, accounted for 97.5 per cent. of the total value of export.

The distance of Australia from the chief markets of the world has hitherto made it necessary that meat should be exported in a frozen condition. This circumstance, in view of the preference for chilled beef, has placed the beef industry in Australia at a serious disadvantage in the past. Investigations conducted by the Council for Scientific and Industrial Research in Australia and the Low Temperature Research Station at Cambridge in England have proved, however, that chilled beef can be successfully transported from Australia to the United Kingdom. Trial shipments of 254,000 lb. were made during 1932-33 and 1,515,000 lb. in 1933-34. Exports in 1934-35, which amounted to 21,570,928 lb., valued at £322,239, indicate that these shipments are now past the experimental stage and forecast the displacement of the frozen beef trade at no distant date. Shipping companies have effected structural alterations to their vessels to permit of the carriage of chilled beef.

8. **Agreements Regarding Meat at the Ottawa Conference.**—A stimulus to the Australian meat industry was provided by the agreement at the Imperial Economic Conference at Ottawa in August, 1932, under the terms of which the Government of the United Kingdom undertook to regulate importations of foreign meat from 1st January, 1932, to 30th June, 1934. The quantities of foreign meat to be imported into the United

Kingdom during each quarter of the period 1st January, 1933, to 30th June, 1934, were limited to certain proportions of the imports during corresponding quarters of the twelve months ending June, 1932. These proportions expressed as percentages are shown below :—

Meat.	1933.				1934.	
	January-March.	April-June.	July-September.	October-December.	January-March.	April-June.
	%	%	%	%	%	%
Frozen Mutton and Lamb ..	90	85	80	75	70	65
Frozen Beef (Carcasses and Boned Beef) ..	90	85	80	75	70	65
Chilled Beef ..	100	100	100	100	100	100

Under the terms of this agreement the rates of restrictions operating on foreign meat imported into the United Kingdom at 30th June, 1934, were to be continued until 1938, unless a permanent policy could be negotiated as a result of consultations between the Governments of the United Kingdom and Australia. In the absence of a permanent policy, short-term agreements have been negotiated in which the quantities of beef, mutton and lamb, and pork which might be imported into the United Kingdom from Australia during 1935 have been determined. Negotiations for 1936 are still proceeding. This matter is more specifically referred to in Chapter VII., Trade. Details of imports of beef, mutton and lamb into the United Kingdom during the period 1929 to 1933 will be found in the tables hereafter.

9. Imports of Chilled and Frozen Beef into the United Kingdom.—The following statement shows the quantities and values of chilled and frozen beef imported into the United Kingdom during each of the five years 1930 to 1934 :—

#### IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES INTO THE UNITED KINGDOM.

Country of Origin.	1930.	1931.	1932.	1933.	1934.
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#### CHILLED—QUANTITY.

	cwt.	cwt.	cwt.	cwt.	cwt.
Brazil ..	506,976	598,664	481,151	517,022	509,103
Uruguay ..	866,685	778,437	503,855	560,392	560,997
Argentina ..	7,713,349	7,911,175	7,804,366	6,951,833	6,942,064
Other Foreign Countries ..	..	..	..	..	..
British ..	..	..	9,369	142,073	238,358
<b>Total Chilled ..</b>	<b>9,087,010</b>	<b>9,288,276</b>	<b>8,798,741</b>	<b>8,171,320</b>	<b>8,250,522</b>

IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES  
 INTO THE UNITED KINGDOM—*continued.*

Country of Origin.	1930.	1931.	1932.	1933.	1934.
CHILLED—VALUE.					
	£	£	£	£	£
Brazil .. .. .	1,276,361	1,160,043	980,342	834,363	798,693
Uruguay .. .. .	2,197,906	1,589,591	986,489	953,839	937,560
Argentina .. .. .	20,248,423	17,384,571	16,198,019	12,832,259	11,694,995
Other Foreign Countries .. .. .	..	..	..	..	..
British .. .. .	..	..	13,807	214,804	380,794
<b>Total Chilled .. .. .</b>	<b>23,722,690</b>	<b>20,134,205</b>	<b>18,178,657</b>	<b>14,835,265</b>	<b>13,812,042</b>

FROZEN—QUANTITY.					
	cwt.	cwt.	cwt.	cwt.	cwt.
United States of America .. .. .	..	..	..	..	..
Brazil .. .. .	106,271	83,477	24,544	5,333	5,473
Uruguay .. .. .	191,180	169,200	98,806	27,815	40,950
Argentina .. .. .	256,502	197,895	149,800	113,910	97,178
Other Foreign Countries .. .. .	..	486	1,090	..	..
Australia .. .. .	719,111	992,462	814,362	947,142	1,323,061
New Zealand .. .. .	230,876	220,317	362,003	431,007	697,259
Other British Countries .. .. .	11,133	1,288	1,244	5,485	4,848
<b>Total Frozen .. .. .</b>	<b>1,515,073</b>	<b>1,665,125</b>	<b>1,451,849</b>	<b>1,530,692</b>	<b>2,168,769</b>
<b>Grand Total (Chilled and Frozen) .. .. .</b>	<b>10,602,083</b>	<b>10,953,401</b>	<b>10,250,590</b>	<b>9,702,012</b>	<b>10,419,291</b>

FROZEN—VALUE.					
	£	£	£	£	£
United States of America .. .. .	..	..	..	..	..
Brazil .. .. .	226,617	149,606	47,788	7,327	7,635
Uruguay .. .. .	476,559	349,300	183,109	42,901	63,800
Argentina .. .. .	664,586	410,853	276,653	181,307	153,608
Other Foreign Countries .. .. .	..	877	1,526	..	..
Australia .. .. .	1,561,342	1,547,425	1,185,849	1,212,096	1,660,948
New Zealand .. .. .	496,784	320,691	479,757	510,518	824,770
Other British Countries .. .. .	22,470	2,503	2,282	7,671	5,560
<b>Total Frozen .. .. .</b>	<b>3,448,358</b>	<b>2,781,255</b>	<b>2,176,964</b>	<b>1,961,820</b>	<b>2,716,321</b>
<b>Grand Total (Chilled and Frozen) .. .. .</b>	<b>27,171,048</b>	<b>22,915,460</b>	<b>20,355,621</b>	<b>16,797,085</b>	<b>16,528,363</b>



### § 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 maintained the premier position in sheep-raising. Within its borders is contained generally one half of the sheep of Australia, and in the years 1924 to 1927 even this high percentage was exceeded.

Fluctuations in the number of sheep recorded for each year in Australia from 1860 onwards may be seen from the graph accompanying this Chapter. Five marked periods of decline depleted the numbers at successive intervals, but these gaps were quickly restored. Since 1925 the sheep flocks have exceeded 100 millions, reaching 104,558,342 in 1929; 110,568,279 in 1930; and 112,926,931 in 1932, the latter figure constituting a record eclipsing the previous record of 110.6 millions in 1931. In 1933 the numbers declined to 109.9 millions, a decrease of 3 million. At no previous period have such large numbers been depastured continuously, and the development has taken place notwithstanding an annual slaughter of some twelve to nineteen million sheep and lambs for the mutton and lamb trade.

The number of sheep in the several States and Territories for each year from 1930 to 1933 with an estimate at the 31st December, 1934, is as follows:—

#### SHEEP.—NUMBER.

31st Dec.	New South Wales.	Victoria. (c)	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Fed. Cap. Ter.	Tota..
1930	553,366,000	16,477,995	22,542,043	5,980,959	9,882,761	2,119,606	15,838	1183,077	110,568,279
1931	552,986,000	16,376,217	22,324,278	6,608,981	10,098,104	2,012,055	18,867	1194,391	110,618,893
1932	553,698,236	17,512,394	21,312,865	7,713,236	10,417,031	2,040,564	18,250	1214,355	112,926,931
1933	552,104,000	17,195,969	20,072,804	7,941,060	10,322,350	2,035,052	18,076	1231,742	109,021,053
1934 <sup>b</sup>	55,000,000	16,783,631	21,574,182	7,700,000	11,163,232	2,050,000	18,000	220,000	114,509,045

(a) 30th June year following.

(b) Estimate as at 31st December, 1934.

(c) 31st March, year following.

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. Slight decreases were recorded in 1933 in New South Wales, Victoria and Queensland, totalling 3 million. South Australia showed an increase of 200,000, while little change was noted in the remaining States.

The percentage distribution in 1933 was:—New South Wales, 47.41; Victoria, 15.64; Queensland, 18.26; South Australia, 7.22; Western Australia, 9.39; Tasmania, 1.85; Federal Capital Territory, 0.21 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 nearly 110 millions, followed by the United States of America with 51 millions, the Soviet Union with 51 millions, and the Union of South Africa, 46 millions. During the years 1925 to 1929 the sheep

flocks of the Soviet Union exceeded those of Australia. The maximum number recorded in that country was 130,000,000 in 1928, but since that year a remarkable decline has taken place and the number depastured in 1933 was only 51,000,000. No explanation of this large decrease is available, but it is known that heavy slaughterings have occurred as a protest against the intensification of the Soviet collectivization plan. Russian sheep are almost entirely coarse-wooled and the poor quality wool does not ordinarily figure in world trade. Efforts are being made, however, by the Soviet Government to improve the quality of the wool and the quantity shorn per fleece, and to this end merino sheep were imported from America and Germany in 1927. In 1928-29 and 1929-30, 2,031 and 5,006 sheep, valued at £6,017 and £13,606, respectively, were exported from Australia to the Soviet Union for breeding purposes. As pointed out in paragraph 5 following, however, the export of stud sheep is subject to control. Production of wool, in the Soviet Union, apparently, amounted to about 140 million lb. only during the year 1933. This represents an average weight of fleece shorn of under 3 lb., which is considerably less than half of that obtained in Australia :—

## SHEEP.—NUMBER IN VARIOUS COUNTRIES.

Country.	Year.	No. of Sheep (,000 omitted).	Country.	Year.	No. of Sheep (,000 omitted).
Australia .. ..	1933	109,921	Yugoslavia .. ..	1933	8,600
United States of America .. ..	1933	51,374	French Morocco .. ..	1933	8,590
Soviet Union (a) .. ..	1933	50,551	Greece .. ..	1933	7,427
Union of South Africa .. ..	1933	46,091	Chile .. ..	1930	6,263
Argentina .. ..	1930	44,413	Algeria .. ..	1933	5,513
India (British and Native) .. ..	1932	43,481	Bolivia .. ..	1931	5,232
New Zealand .. ..	1933	27,556	Iraq .. ..	1933	3,933
United Kingdom .. ..	1933	26,651	Portugal .. ..	1925	3,721
Spain .. ..	1932	16,741	Mexico .. ..	1930	3,674
Uruguay .. ..	1932	15,406	Irish Free State .. ..	1933	3,495
Rumania .. ..	1932	12,294	Germany .. ..	1933	3,387
Peru .. ..	1929	11,209	Canada .. ..	1933	3,386
Turkey .. ..	1933	11,070	Kenya .. ..	1930	3,200
China .. ..	1933	10,985	Tunis .. ..	1933	3,076
Brazil .. ..	1931	10,702	Poland .. ..	1933	2,557
Italy .. ..	1930	10,268	Somaliland .. ..	1933	2,500
French Equatorial and West Africa .. ..	1933	9,995	Manchuria .. ..	1933	2,370
France .. ..	1933	9,730	Tanganyika Territory .. ..	1933	2,346
Persia .. ..	1932	8,916	Sudan (Anglo-Egyptian) .. ..	1933	2,300
Bulgaria .. ..	1926	8,740	Nigeria .. ..	1933	2,241
			Basutoland .. ..	1933	1,885
			Syria and Lebanon .. ..	1933	1,779

(a) Including goats.

5. Oversea Imports and Exports of Sheep.—As in the case of cattle, the oversea exports of live sheep from Australia are of comparatively little importance. During the last five years the principal consignments of ordinary sheep have been made to Malaya (British) from the State of Western Australia. The purchases by buyers from New Zealand, South Africa, Soviet Union and Japan at the Australian Stud Sheep Sales in previous years opened up a regular export trade with these countries in stud sheep. On the 27th November, 1929, however, the export of stud sheep was prohibited, except with the approval of the Minister for Trade and Customs. Consequently exports declined during 1931-32 and amounted to 297 sheep only, valued at £1,702, as compared with 6,389 valued at £32,933 in 1929-30. In 1933-34 exports increased to 3,697 sheep valued at £11,955, of which 3,233 sheep valued at £8,554 were shipped to Japan. The ordinary

sheep exported from Australia are, for the most part, to Malaya and the Pacific Islands. The following table shows the imports and exports of stud and ordinary sheep for the years 1929-30 to 1933-34:—

## SHEEP.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1929-30 ..	2,908	23,278	41,672	58,959	38,764	35,681
1930-31 (a) ..	1,417	10,868	27,478	14,214	26,061	3,346
1931-32 (a) ..	1,566	8,326	48,697	16,822	47,131	8,496
1932-33 (a) ..	1,725	9,843	53,546	22,497	51,821	12,654
1933-34 (a) ..	1,522	12,906	44,436	27,346	42,914	14,440

(a) Australian currency values.

6. Sheep Slaughtered.—The number of sheep slaughtered in the several States during each of the years from 1929 to 1933 was as follows:—

## SHEEP (INCLUDING LAMBS) SLAUGHTERED.

Year.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Nor. Ter.	Fed. Cap. Ter.(a)	Total.
1929..	6,326,925	6,024,702	1,089,978	1,242,835	861,785	341,527	644	23,026	15,911,422
1930..	6,254,436	5,745,475	1,671,245	1,308,976	994,813	363,329	540	23,911	16,362,725
1931..	6,894,961	5,678,252	1,761,974	1,378,931	1,038,672	399,904	540	23,448	17,176,682
1932..	7,534,585	7,139,449	2,082,087	1,279,143	1,044,493	424,519	790	23,444	19,530,510
1933..	7,180,612	7,773,289	1,299,285	1,495,127	1,092,222	366,156	900	36,344	19,243,935

(a) Year ended 30th June year following.

7. Production and Consumption of Mutton and Lamb.—The production of mutton and lamb during the year 1933-34 amounted to 733,463,000 lb., of which 561,180,000 lb., or 77 per cent., was consumed locally, leaving a balance of 23 per cent. for exportation. See also § 1, No. 10.

8. Exports of Frozen Mutton and Lamb.—The export trade of mutton and lamb preserved by cold process expanded rapidly until in 1913 the record shipment of 205 million lb. was despatched. Progress was interrupted during the war years and exports declined to a very low figure. The high wool prices which prevailed during the post war years were no doubt a factor in causing this decline. In 1919-20 and in 1922-23 large shipments were made aggregating 247 million lb. and 168 million lb. respectively, but these were isolated cases. Prior to 1923-24 the shipments consisted mainly of frozen mutton, but from that year onwards lamb supplanted mutton and there has been an almost uninterrupted increase in the quantity shipped overseas each year.

The quantity and value of the shipments of mutton and lamb during each of the last five years were as follow:—1929-30, 100,411,243 lb., £2,386,186; 1930-31, 109,253,195 lb., £2,105,963; 1931-32, 165,281,336 lb., £2,994,062; 1932-33, 166,797,511 lb., £2,697,224; 1933-34, 171,107,297 lb., £3,575,843. See Table § 1, No. 8.

As with beef, the principal customer in this trade is the United Kingdom, which absorbed almost 98 per cent. of the total quantity exported from Australia during the year 1933-34.

9. Resolutions at Ottawa Conference.—Reference has already been made to the agreement reached at the Imperial Economic Conference at Ottawa regarding the regulation of imports of meat into the United Kingdom. See § 3, 8 ante.

10. Imports of Frozen Mutton and Lamb into the United Kingdom.—The quantities and values of frozen mutton and lamb imported into the United Kingdom from various countries for the five years ended 1934 are given in the following table:—

**IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM.**

Country of Origin	1930.	1931.	1932.	1933.	1934.
<b>MUTTON—QUANTITIES.</b>					
	cwt.	cwt.	cwt.	cwt.	cwt.
Chile .. .. .	202,715	125,907	151,195	140,282	82,258
Brazil .. .. .	11,588	1,799	462	1,782	..
Uruguay .. .. .	156,756	53,605	31,649	33,324	13,690
Argentina .. .. .	656,685	485,350	354,233	217,174	137,748
Other Foreign Countries ..	2,641	124	286	..	2,895
<b>Total, Foreign ..</b>	<b>1,030,385</b>	<b>666,785</b>	<b>537,825</b>	<b>392,562</b>	<b>236,591</b>
Australia .. .. .	254,238	502,211	190,952	347,409	461,957
New Zealand .. .. .	1,172,262	1,105,105	1,335,884	998,547	898,876
Other British Countries ..	1,305	3	873	1,763	..
<b>Total, British ..</b>	<b>1,427,805</b>	<b>1,607,319</b>	<b>1,527,709</b>	<b>1,347,719</b>	<b>1,360,833</b>
<b>Grand Total ..</b>	<b>2,458,190</b>	<b>2,274,104</b>	<b>2,065,534</b>	<b>1,740,281</b>	<b>1,597,424</b>
<b>MUTTON—VALUE.</b>					
	£	£	£	£	£
Chile .. .. .	335,882	203,360	216,577	214,655	163,574
Brazil .. .. .	29,466	3,038	659	2,412	..
Uruguay .. .. .	366,746	103,301	58,559	54,863	23,260
Argentina .. .. .	1,594,543	952,349	555,712	348,525	261,398
Other Foreign Countries ..	5,912	244	534	..	4,744
<b>Total, Foreign ..</b>	<b>2,332,549</b>	<b>1,262,292</b>	<b>832,041</b>	<b>620,455</b>	<b>452,976</b>
Australia .. .. .	552,149	810,537	296,577	513,354	847,060
New Zealand .. .. .	2,699,759	2,033,978	2,083,185	1,612,378	1,716,567
Other British Countries ..	3,752	8	1,621	2,888	..
<b>Total, British ..</b>	<b>3,255,660</b>	<b>2,844,523</b>	<b>2,381,383</b>	<b>2,128,620</b>	<b>2,563,627</b>
<b>Grand Total ..</b>	<b>5,588,209</b>	<b>4,106,815</b>	<b>3,213,424</b>	<b>2,749,075</b>	<b>3,016,603</b>

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM—  
continued.

Country of Origin.	1930.	1931.	1932.	1933.	1934.
<b>LAMB—QUANTITIES.</b>					
	cwt.	cwt.	cwt.	cwt.	cwt.
Iceland .. .. .	16,910	18,097	30,661	15,236	..
United States .. .. .	2,443	..	..	..	..
Chile .. .. .	152,052	113,992	144,952	124,368	124,067
Brazil .. .. .	15,785	10,362	4,841	9,929	..
Uruguay .. .. .	266,571	230,695	131,220	138,637	124,696
Argentina .. .. .	795,358	1,067,959	1,017,417	929,420	783,884
Other Foreign Countries .. .. .	182	280	266	..	27,641
<b>Total, Foreign .. .. .</b>	<b>1,249,301</b>	<b>1,441,385</b>	<b>1,329,357</b>	<b>1,217,590</b>	<b>1,060,288</b>
Australia .. .. .	555,932	1,027,134	961,140	956,948	1,165,928
New Zealand .. .. .	2,120,580	2,364,656	2,570,958	2,736,546	2,655,635
Other British Countries .. .. .	905	..	85	1,404	242
<b>Total, British .. .. .</b>	<b>2,677,417</b>	<b>3,391,790</b>	<b>3,532,183</b>	<b>3,694,898</b>	<b>3,821,805</b>
<b>Grand Total .. .. .</b>	<b>3,926,718</b>	<b>4,833,175</b>	<b>4,861,540</b>	<b>4,912,488</b>	<b>4,882,093</b>

**LAMB—VALUE.**

	£	£	£	£	£
Iceland .. .. .	50,177	45,310	58,784	38,718	..
United States .. .. .	8,761	..	..	..	..
Chile .. .. .	443,906	274,645	347,020	290,447	365,115
Brazil .. .. .	51,500	24,319	4,046	20,421	..
Uruguay .. .. .	820,209	603,981	315,141	314,292	311,939
Argentina .. .. .	2,519,074	2,806,270	2,357,467	2,151,109	2,051,597
Other Foreign Countries .. .. .	634	687	945	..	67,008
<b>Total, Foreign .. .. .</b>	<b>3,894,261</b>	<b>3,755,212</b>	<b>3,083,403</b>	<b>2,814,987</b>	<b>2,795,659</b>
Australia .. .. .	1,933,600	2,785,113	2,199,041	2,395,193	3,321,812
New Zealand .. .. .	8,232,156	7,600,524	7,154,472	7,435,731	8,414,584
Other British Countries .. .. .	3,339	..	290	3,615	674
<b>Total, British .. .. .</b>	<b>10,169,095</b>	<b>10,385,637</b>	<b>9,353,803</b>	<b>9,834,539</b>	<b>11,737,070</b>
<b>Grand Total .. .. .</b>	<b>14,063,356</b>	<b>14,140,849</b>	<b>12,437,206</b>	<b>12,649,526</b>	<b>14,532,729</b>

## § 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 produced in 1933-34 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, nevertheless the amount so used represents under 7 per cent. of the total production.

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 .. .. .	1933-34	109.9	995.9
United States .. .. .	1933	51.4	428.9
Soviet Union .. .. .	1933	50.5	(b)138.0
Argentina .. .. .	1933-34	(a)44.4	385.0
Union of South Africa .. .. .	1933-34	46.1	284.0
New Zealand .. .. .	1933-34	27.6	300.5

(a) Year 1930. (b) Estimate.

2. **Greasy and Scoured Wool.**—Whether the weight of the wool clip should be stated as “in the grease” or as “scoured or washed” is a matter which seriously affects comparisons between the clips of different seasons and of different countries. The quantity of extraneous matter and grease in a fleece differs, not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, while it varies also with the breed and the condition of the sheep. There is, moreover, no clearly defined standard in regard to the cleanliness of wool described as scoured or washed. Consequently, any comparisons of the weight of the Australian clip for different years or seasons whether on a greasy or a scoured basis cannot be regarded as scrupulously exact. After extensive inquiry, however, by this Bureau it has been accepted that, for the purpose of converting the Australian clip from the greasy to the clean category, the clean weight may be estimated at 46.15 per cent. of the greasy weight; in other words, 2½ lb. of greasy wool are equivalent to 1 lb. of clean wool.

The quantity of scoured or washed Australian wool exported during the last five years was approximately 15 per cent. of the total wool exports regarded as “greasy”.

3. **Production.**—(i) *Quantity.* The bulk of the Australian wool production is shorn from live sheep. Approximately 6 per cent. is obtained by fellmongering and about 4 per cent. is on exported skins. 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 :—

## WOOL.—TOTAL PRODUCTION.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	lb.	lb.	lb.	lb.	lb.
New South Wales (a)	461,852,890	428,752,210	503,275,416	533,710,404	486,152,493
Victoria .. .. .	160,662,578	146,862,612	159,721,916	170,807,900	161,146,436
Queensland .. .. .	161,087,873	182,061,407	184,716,462	185,833,546	169,989,516
South Australia .. .. .	67,300,881	63,478,524	67,021,312	75,727,946	79,288,903
Western Australia .. .. .	72,562,594	76,951,500	77,985,741	81,307,832	85,118,808
Tasmania .. .. .	15,000,000	14,800,000	14,700,000	15,200,000	14,200,000
Northern Territory (b)	30,000	35,000	35,000	35,000	35,000
Total .. .. .	938,496,816	912,941,253	1,007,455,847	1,062,622,628	995,931,156

(a) Including Federal Capital Territory.

(b) Approximate figures.

(ii) *Estimate for 1934-35.* Although the returns are not yet complete, the total wool production of Australia during 1934-35 is estimated at 1,031,000,000 lb., valued at approximately £41,884,000 or 9.75 d. per lb. in Australian currency.

4. *Care Needed in Comparing Clips.*—In comparing successive clips allowance must be made for the circumstance that, owing to climatic or other conditions, the time of shearing may be so far delayed in some areas that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

5. *World's Wool Production.*—The following table gives details of the world's wool production and shows the importance of Australia as a wool-producing country. Out of a total production of 3,656 million lb. in 1933, Australia produced 995.9 million lb., or 27.2 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 1,853 million lb., or 50.7 per cent.

### WOOL.—WORLD'S PRODUCTION.

(In millions of lb., "greasy" basis.)

Countries.	Average Annual Pre-war Production. (a)	1929.	1930.	1931.	1932.	1933.
<b>Australia</b> .. ..	<b>741.4</b>	<b>938.5</b>	<b>912.9</b>	<b>1,007.5</b>	<b>1,062.3</b>	<b>995.9</b>
United States .. ..	314.1	382.2	412.2	438.3	411.5	428.9
Argentina .. ..	358.7	332.0	354.0	378.0	388.0	385.0
Union of South Africa	165.9	306.0	299.0	314.0	330.0	284.0
Soviet Union (Russia)	380.0	394.0	306.0	220.0	140.0	138.0
New Zealand .. ..	198.5	272.9	271.1	282.8	288.4	300.5
Uruguay .. ..	157.0	163.0	165.0	115.0	120.0	110.0
China (b) .. ..	100.0	120.0	120.0	120.0	120.0	120.0
United Kingdom ..	134.0	110.0	111.0	113.0	119.0	120.0
India (b) .. ..	100.0	100.0	100.0	100.0	100.0	100.0
Spain .. ..	72.0	83.3	80.5	77.5	80.5	70.0
Rumania .. ..	13.2	43.9	43.5	42.8	43.3	(b) 45.0
Persia .. ..	12.1	45.0	45.0	49.0	(b) 49.0	(b) 49.0
France .. ..	80.7	46.1	46.1	44.8	43.4	43.0
Turkey .. ..	118.0	35.4	36.8	41.3	41.3	38.7
Italy .. ..	55.0	50.0	48.0	44.0	42.0	(b) 42.0
Algeria .. ..	35.2	47.2	49.3	28.1	39.3	39.3
Chile .. ..	17.4	27.1	26.7	29.6	32.5	33.9
Brazil .. ..	35.0	31.0	31.5	32.0	(b) 32.0	(b) 32.0
Germany .. ..	52.0	32.0	32.4	32.4	31.5	31.3
Yugoslavia .. ..	25.4	27.0	27.1	27.8	29.5	30.1
Canada .. ..	11.2	20.3	21.0	20.4	20.5	19.2
Morocco (French) ..	14.9	31.0	27.9	23.1	26.4	27.0
Bulgaria .. ..	23.7	21.2	19.6	19.8	20.7	20.9
Irish Free State ..	..	18.6	18.9	19.3	19.6	19.6
Basutoland .. ..	..	12.9	9.7	9.3	11.8	9.9
Falkland Islands ..	..	4.1	3.7	3.9	3.9	4.0
Other Countries ..	71.2	187.6	171.9	179.2	134.7	119.2
<b>Total</b> .. ..	<b>3,286.6</b>	<b>3,882.3</b>	<b>3,790.8</b>	<b>3,812.9</b>	<b>3,781.1</b>	<b>3,656.4</b>

(a) Average for years 1909 to 1913 inclusive.

(b) Estimated.

6. Wool Locally Used.—The quantity of wool used locally, so far as can be ascertained, is shown in the following table. Precise details of consumption are difficult to obtain, but the quantities shown hereunder should closely approximate the truth:—

**WOOL.—ESTIMATED CONSUMPTION OF GREASY WOOL—AUSTRALIA.**

Particulars.	1929-30	1930-31.	1931-32.	1932-33.	1933-34.
Wool Consumption — in terms of Greasy ..	lb. 44,231,610	lb. 34,824,134	lb. 51,703,628	lb. 67,884,548	lb. 65,081,398

7. Export of Wool.—(i) *Greasy—Quantities.* Of the total weight of greasy wool shipped overseas during the last five years 31 per cent. was sent to the United Kingdom, as compared with 38 per cent. dispatched in pre-war years. The other leading consignees since 1930-31 were Japan, France, Germany, Belgium, Italy and the United States of America, the principal continental countries taking 42 per cent., and America and Japan 24 per cent. of the total shipments. The following table shows the quantities of "greasy" wool exported, and the principal countries of destination:—

**WOOL IN THE GREASE.—EXPORTS, AUSTRALIA.**

Country to which Exported.	Average Five Years 1909-13.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	212,004,088	228,196,396	256,845,443	244,011,182	209,887,487	292,725,835
France ..	149,835,946	147,453,999	116,355,296	122,536,429	65,017,851	75,760,166
Japan ..	7,262,683	151,201,649	185,672,264	196,847,697	170,444,959	196,125,519
Germany ..	106,344,696	104,320,246	80,565,488	111,703,527	113,529,765	27,220,923
Belgium ..	55,143,706	74,488,232	63,822,477	89,832,720	92,649,202	124,169,015
United States of America ..	15,486,447	20,378,195	9,362,688	5,500,120	5,359,242	5,448,868
Italy ..	4,381,197	37,724,169	56,740,272	63,099,517	58,549,566	17,694,730
Netherlands ..	(a)	956,029	461,462	2,255,552	3,270,646	16,450,416
India ..	425,547	466,704	673,314	1,210,144	882,129	937,589
Canada ..	126,653	23,735	102,134	112,292	264,826	209,358
Other Countries ..	5,830,377	3,759,976	4,626,184	12,758,245	15,969,007	29,042,202
<b>Total ..</b>	<b>556,841,340</b>	<b>768,969,330</b>	<b>775,227,022</b>	<b>849,927,425</b>	<b>735,823,780</b>	<b>785,784,621</b>

(a) Included in Other Countries.

(ii) *Scoured and Washed—Quantities.* The exports of "scoured and washed" wool during the period shown were as follow:—

**WOOL, SCOURED AND WASHED (a).—EXPORTS, AUSTRALIA.**

Country to which Exported.	Average Five Years 1909-13.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	32,032,577	23,762,729	33,355,887	34,180,339	32,869,622	34,462,119
France ..	16,068,910	6,206,301	5,371,571	9,828,929	5,863,131	9,843,830
Japan ..	1,888,161	2,334,505	2,508,758	4,159,095	1,862,198	549,812
Belgium ..	7,528,058	5,255,927	6,007,231	10,101,445	14,691,550	10,733,445
Germany ..	12,310,967	5,174,277	4,883,089	9,019,009	11,190,255	2,879,686
United States of America ..	66,156	376,543	356,088	231,561	162,569	93,779
Canada ..	(b)	1,091,112	1,599,432	2,603,940	3,221,629	1,229,816
Italy ..	265,442	616,790	2,604,242	2,570,836	2,638,595	728,040
Netherlands ..	(b)	24,995	208,112	231,687	542,420	907,970
India ..	59,684	459,440	549,272	925,895	533,872	633,950
Other Countries ..	127,155	355,390	385,984	1,950,694	2,378,041	4,432,019
<b>Total ..</b>	<b>70,347,110</b>	<b>45,658,009</b>	<b>57,889,666</b>	<b>75,803,430</b>	<b>75,953,882</b>	<b>66,494,466</b>

(a) Including "tops."

(b) Included with Other Countries.



The figures for "scoured and washed wool" include tops as follow:—in 1930-31, 1,033,913 lb., valued at £114,035; in 1931-32, 2,170,330 lb., valued at £248,055; in 1932-33, 2,525,380 lb., valued at £271,993; in 1933-34, 2,929,970 lb., valued at £435,469; and in 1934-35, 3,104,275 lb., valued at £331,839. See also § 1, No. 8. The total exports of wool tops during the last five years amounted to 11,763,868 lb., valued at £1,401,391, of which 6,708,100 lb., or more than 57 per cent., were shipped to Canada and 4,688,000 lb., or nearly 40 per cent., to the United Kingdom.

(iii) *Total Value of Exports.* The total value of the wool exported from Australia during the five years ending 1934-35 averaged 40 per cent. of the value of the total exports of merchandise of local origin, while during 1933-34 the proportion was 39 per cent. The total value during the periods under review together with the principal countries to which wool was exported is shown in the next table:—

WOOL EXPORTS.—TOTAL VALUE, AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	£	£	£	£	£	£
United Kingdom ..	10,608,967	10,257,653	11,841,995	11,479,976	17,762,789	16,007,777
France ..	6,494,832	5,479,746	4,004,983	4,996,227	4,691,624	3,558,066
Japan ..	516,528	6,478,587	7,513,519	7,969,600	12,131,655	8,680,119
United States of America ..	795,328	1,117,533	542,728	337,215	494,294	352,466
Germany ..	5,131,282	4,165,020	3,223,083	4,561,321	8,668,744	1,511,094
Belgium ..	2,546,915	2,623,906	2,284,555	3,376,311	6,864,243	5,433,157
Italy ..	202,434	1,482,943	2,174,633	2,567,680	4,237,212	807,775
Netherlands ..	(a)	41,616	36,651	119,867	303,844	825,665
Canada ..	6,765	109,280	178,703	241,346	409,798	310,460
India ..	22,308	41,839	64,638	94,509	106,873	84,977
Other Countries ..	267,283	205,182	237,408	663,881	1,424,450	1,694,384
Total ..	26,592,642	32,003,305	32,102,896	36,407,933	57,125,526	39,265,940

(a) Included with Other Countries.

8. *Exports and Local Sales of Wool.*—Approximately 90 per cent. of Australian wool is now disposed of locally. Buyers from the United Kingdom, France, Belgium, Germany and other European countries, and from America, Japan, China, and India attend the sales conducted in Sydney, Albury, Melbourne, Geelong, Ballarat, Brisbane, Adelaide, Perth, Hobart, and Launceston. Particulars regarding exports and local sales, as well as quantities and proportions of the various descriptions of wool marketed in each State, will be found in the Production Bulletins issued by this Bureau.

9. *Value.*—Wool is the chief factor in the pastoral wealth of Australia, and the nation's prosperity is largely dependent upon the satisfactory sale of the clip. The heavy decline in the price of wool which commenced in 1929-30 continued during the three succeeding years. In 1933-34, however, 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. The effect of this improvement upon the national income is reflected in the following figures. Based on the average auction room price of greasy wool the output for the season 1933-34 was valued at £62,336,000, compared with £38,600,000 for the clip of 1932-33, and £81,430,000 for 1924-25, when the record price was realized. On the average of the five seasons 1929-30 to 1933-34 the annual clip was valued at £43,007,000.

The following table gives the average auction room price in Australia of greasy and scoured wool as compiled by the National Council of Wool-selling Brokers. The price shown represents the average price realized for all greasy and scoured wool of whatever type or quality marketed.

WOOL.—AVERAGE MARKET PRICE PER LB.

Description.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
Greasy ..	16.44	10.29	8.36	8.46	8.72	15.84	9.75
Scoured ..	28.12	18.69	13.74	12.65	14.08	24.00	17.05

Measured in terms of Australian, Sterling, and Gold currencies the approximate value of greasy wool per lb. was as follows:—

AVERAGE VALUE OF GREASY WOOL PER LB.—AUSTRALIA.

Year.	Australian Currency.	Sterling.	Gold Prices.
	<i>d.</i>	<i>d.</i>	<i>d.</i>
1929-30 .. ..	10.29	10.29	10.29
1930-31 .. ..	8.36	6.96	6.96
1931-32 .. ..	8.46	6.69	5.10
1932-33 .. ..	8.72	6.98	4.84
1933-34 .. ..	15.84	12.65	8.19
1934-35 .. ..	9.75	7.78	4.68

The average values shown in sterling and gold currencies have been calculated by converting the average prices shown in Australian currency on the basis of the average rate of exchange between the months of September and June in each year. Though not exact these results will suffice for general purposes.

10. Wool Realization Scheme.—The affairs of the British-Australian Wool Realization Association have been liquidated and consequently references to its operations which appeared in previous Official Year Books are not repeated in this issue.

11. United Kingdom Importation of Wool.—The appended statement of the quantity and value of wool imported into the United Kingdom during the year 1933 from the principal wool-producing countries shows the important position which Australia occupied in the supply of wool to the mother country:—

WOOL (a).—IMPORTS, UNITED KINGDOM, 1933.

Country.	Quantity.	Value.	Country.	Quantity.	Value.
	lb.	£		lb.	£
Australia ..	308,677,400	12,893,452	Other British Possessions..	4,804,400	170,176
New Zealand ..	243,749,100	8,287,992	Peru ..	4,066,600	165,371
Union of South Africa ..	174,104,600	7,086,453	Belgium ..	3,435,200	211,256
Argentina ..	81,124,100	1,923,564	Falkland Islands	2,405,500	73,035
India ..	40,642,600	1,032,635	Germany ..	925,700	39,046
Uruguay ..	25,344,000	1,069,085	United States of America ..	852,500	26,406
France ..	23,521,400	1,540,608	Other Countries	6,584,900	205,543
Chile ..	21,026,400	627,441			
Irish Free State	10,755,000	260,527			
			Total ..	952,019,400	35,612,590

(a) Greasy, Scoured, and Tops.

Of the importations of wool into the United Kingdom, Australian wool represented 32 per cent. of quantity and 36 per cent. of value, and New Zealand 26 per cent. of quantity and 23 per cent. of value. Altogether, 785,138,600 lb., valued at £29,804,570, were received from British Possessions, these figures being equivalent to 82 per cent. of the total weight and 84 per cent. of the total value of all wool imported.

Preliminary figures show that during 1934, 791.2 million lb. of wool was imported into the United Kingdom; the chief sources of supply being Australia 254.6 million lb., New Zealand 216.4 million lb., South Africa 106.0 million lb., and Argentina 84.3 million lb.; a total of 661.3 million lb. or nearly 84 per cent.

12. *Inquiry into Wool Industry.*—(i) *General.* A Committee under the chairmanship of the Honorable John Gunn was appointed by the Commonwealth Government on the 15th August, 1932, to inquire into and report on the condition of the Australian Wool Industry. The report of the Committee was presented on the 24th November, 1932. The inquiry covered costs of production, prices, etc., and recommendations were made for the rehabilitation of the industry.

(ii) *Costs of Production.* Information relating to costs of production was obtained by the Committee from 668 returns covering the operations of representative properties in all States, these properties carrying altogether about 8 million sheep. It is claimed in the Report that the figures given are representative of typical average costs on medium and large properties under the favourable seasonal conditions experienced in 1931. It should be noted that the costs quoted refer to the production of wool only, as distinct from stock and other station produce.

AVERAGE COSTS ATTRIBUTABLE TO WOOL ONLY.

	Per lb. of Wool.
Expenses of production—	<i>d.</i>
Working Expenses excluding all Interest .. .. .	6½
Annual Maintenance and Average Drought Expenses .. .. .	1½
Total Wool Expenses at Sheep Properties .. .. .	8½
Add Rail Freight, Handling and Selling Charges .. .. .	1
Average Cost when sold .. .. .	9½

The summary above does not take into account interest on borrowed capital or capital invested. This item at an average rate of interest of 5 per cent. on property valued at £3 per sheep area would amount to a further increase of 4½d. per lb. of wool, making a total cost including all interest to the point of sale of 14d. per lb. No allowance has been made for management or the risk of investment in the industry.

(iii) *Recommendations.* Recommendations were made by the Committee with a view to reducing the gap between cost and price. The recommendations refer, amongst other things, to reductions in rail freights, State Government charges generally, land tax (Commonwealth and State), private business charges generally, interest rates, and handling and selling charges. The Committee also recommended (a) the formation of a Commonwealth Wool Executive, consisting of representatives of the wool-growers and wool-selling brokers; and (b) that the Commonwealth Government, by regulation or otherwise, should take to itself power to prohibit the export of wool, except on such conditions as may be prescribed, provided that such power should not be exercised except upon request of the Commonwealth Wool Executive.

The Australian Woolgrowers' Council in its Annual Report in June, 1933, gave general support to all of these recommendations with the exception of those relating to the establishment of a Commonwealth Wool Executive and the prohibition of the export of wool below a minimum reserve price.

Relief from those charges which come within the jurisdiction of the Commonwealth Government has been effected, while assistance has been rendered by some of the States by means of reduction in rail freight and in taxation. In addition private business charges have been lowered to assist the industry, viz., reduction in handling and selling charges and in oversea freight rates. In common with other industries relief has been effected by the lowering of interest rates.

### § 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 1930-31 to 1934-35 amounted to £16,224,362, or an average of £3,244,872 per annum.

2. **Sheepskins with Wool.**—The exports of sheepskins with wool aggregating £8,837,810 during the five years constitute the largest item in the values referred to in the preceding paragraph. During the year 1934-35 France was the largest purchaser, taking 62 per cent. of the total consignments, while the United Kingdom ranked next with 16 per cent., followed by Spain, United States, and Belgium. The exports of sheepskins with wool during each of the years from 1929-30 to 1934-35 were as follow :—

#### SHEEPSKINS WITH WOOL.—EXPORTS, AUSTRALIA.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Number ..	12,562,384	12,016,672	9,146,335	10,448,928	11,478,513	10,765,364
Value £	3,103,558	1,949,048	1,106,195	1,382,583	2,627,389	1,772,595

3. **Sheepskins without Wool.**—Sheepskins without wool are exported chiefly to France and the United Kingdom. In 1934-35 the purchases of these two countries accounted for nearly 70 per cent. of the total shipments. Quantities and values for the last five years are given in the table hereunder :—

#### SHEEPSKINS WITHOUT WOOL.—EXPORTS, AUSTRALIA.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Number ..	673,221	280,128	131,276	146,564	177,814	247,050
Value £	53,415	13,612	3,643	3,914	13,384	11,768

4. **Hides.**—(i) *Exports.* The export trade in cattle hides, which fell away during the war years, has again become important. Considerable quantities were shipped oversea during each of the last five years. The consignments in 1934-35 were distributed as follow :—Japan, £107,983; United Kingdom, £102,488; Italy, £80,288; Finland, £47,609; other countries, £78,073.

The exports during the last five years are given in the table below :—

#### CATTLE HIDES.—EXPORTS, AUSTRALIA.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Number ..	754,846	752,366	293,890	450,857	482,339	690,578
Value £	794,991	610,720	212,539	292,841	369,927	417,071

Calfskins exported during the years 1930-31 to 1934-35 numbered 959,307 valued at £182,862 and were shipped mainly to the United States of America, the value of the skins taken by that country averaging 60 per cent. of the total exports during the last five years. The annual export of horse hides is very small, and averaged only 7,713 hides, valued at £3,457.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the average value during the last five years amounting to £227,199. New Zealand is the chief source of supply, and small quantities are obtained also from the Pacific Islands, France and Italy. The number and value of cattle hides, including calfskins, imported into Australia during the years 1929-30 to 1934-35 were as follow :—

## CATTLE HIDES.—IMPORTS, AUSTRALIA.

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Number ..	340,150	(a)	(a)	(a)	(a)	(a)
Value (b) £	401,793	169,165	157,057	250,569	288,125	271,081

(a) Not available. (b) Australian currency values.

The number of horse hides imported into Australia is small. The value of imports during the last five years averaged £237.

5. *Other Skins.*—The exports of skins other than those mentioned in the preceding sub-sections were valued as follow :—

## OTHER SKINS.—EXPORTS, AUSTRALIA.

Description.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	£	£	£	£	£	£
Rabbit and Hare	1,526,242	570,240	488,736	460,182	953,901	876,221
Opossum ..	681,472	215,711	333,209	29,177	7,832	134,044
Kangaroo ..	193,385	127,932	96,997	74,389	175,597	159,571
Fox ..	115,241	47,787	56,435	105,356	168,034	50,232
Wallaby ..	38,714	25,012	7,848	6,826	30,325	12,051
Other ..	19,281	7,230	2,509	2,238	6,779	722
Total ..	2,574,335	993,912	985,734	678,168	1,342,468	1,232,841

The United States of America and the United Kingdom were the chief purchasers of these skins in 1934-35 as shown below :—

## OTHER SKINS.—EXPORTS TO UNITED STATES AND UNITED KINGDOM, 1934-35.

Description.					United Kingdom.	United States of America.
					£	£
Rabbit and Hare .. .. .	..	..	..	..	175,766	681,844
Opossum .. .. .	..	..	..	..	118,532	13,345
Kangaroo .. .. .	..	..	..	..	3,528	155,922
Fox .. .. .	..	..	..	..	44,156	4,742
Wallaby .. .. .	..	..	..	..	4,293	7,058
Other .. .. .	..	..	..	..	335	134
Total .. .. .	..	..	..	..	346,610	863,045

## CHAPTER XXI.

## AGRICULTURAL PRODUCTION.

NOTE.—Except where otherwise stated, the "agricultural" years hereafter mentioned are taken as ending on 30th June.

## § 1. Introductory.

Preceding issues of the Official Year Book contain 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. (See No. 22, p. 670.)

## § 2. Progress of Agriculture.

1. **Early Records.**—In an "Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797," Governor Hunter gives the acreage under crop as follows:—Wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres.

At a muster taken in 1808 the following was the return of crops:—Wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

By the year 1850 the area under crop had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850 the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres.

The gold discoveries of 1851 and subsequent years had at first a very disturbing effect on agricultural progress, the area under crop declining from 491,000 acres in 1850 to 458,000 acres in 1854. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres. The largest increase took place in Victoria, which returned an area of 299,000 acres. For the same year South Australia had 264,000 acres in cultivation, Tasmania 229,000 acres, and New South Wales 223,000 acres.

2. **Progress of Cultivation.**—The following table shows the area under crop in each of the States and Territories of Australia at decennial intervals since 1860 and during each of the last six seasons:—

## AREA UNDER CROP.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1860-1	246,143	387,283	3,353	359,284	24,705	152,860	..	..	1,173,628
1870-1	385,151	692,840	5,210	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	3,231,033	1,804,987	297,383	296	1,966	15,069,858
1928-29	5,442,982	5,505,651	1,044,632	4,660,003	4,259,269	273,152	392	3,476	21,189,557
1929-30	5,500,946	5,579,258	1,046,235	4,966,916	4,566,001	265,317	609	4,439	21,929,721
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
1931-32	5,108,554	5,407,109	1,216,402	5,219,870	3,961,459	247,353	1,030	5,123	21,166,900
1932-33	6,332,716	5,115,745	1,245,638	5,166,656	4,261,047	279,117	1,045	6,525	22,408,489
1933-34	6,283,951	5,266,913	1,313,438	5,078,558	4,215,360	288,390	1,250	6,467	22,454,327

The progress of agriculture was uninterrupted from 1860 until 1915-16, when, as the result of a special war effort to produce wheat, Australia cultivated 18,528,234 acres. This effort, however, was not maintained and four years later the area under crop was down to 13,296,407 acres. When shipping tonnage again became available after the

dislocation due to the war, and it was possible to dispose of the accumulated stocks of wheat the area under crop steadily rose to over 25 million acres in 1930-31, which is the largest area yet planted in Australia. The increase in acreage was almost entirely due to wheat. Coincident with the commencement of the economic depression the area planted with all crops dropped to 21.2 million acres in 1931-32, a decrease of 4 million acres, or 16 per cent., on the previous year. During 1932-33 and 1933-34, however, it has remained constant at 22.4 million acres. Wheat is by far the most extensively grown crop in Australia, representing 71 per cent. of the total area under crop in 1933-34. Consequently changes in the area sown to wheat dominate the changes in the total area planted.

3. **Artificially-sown Grasses.**—In all the States there are considerable areas under artificially-grown grasses mainly sown on uncultivated land after burning off the scrub, and not included in "area under crops." These areas are, however, liable to revert to their natural state, and the information respecting them is too uncertain for formal record.

4. **Australian Agricultural Council.**—Arising out of a conference of Commonwealth and State Ministers on agricultural and marketing matters held at Canberra in December, 1934, a permanent organization known as the Australian Agricultural Council was formed. The Council consists of the Federal Minister for Commerce, the Federal Minister in charge of Development and the corresponding State Ministers with power to co-opt the services of other Federal and State Ministers as required. The principal functions of the Council are (i) the promotion of the welfare and development of agricultural industries generally; (ii) the improvement of the quality of agricultural products and the maintenance of high grade standards; (iii) to ensure, as far as possible, balance between production and available marketing markets; and (iv) organized marketing, etc.

In addition a permanent technical committee known as the Standing Committee on Agriculture was formed to act in an advisory capacity to the Council and to undertake the following duties:—(i) to secure co-operation and co-ordination in agricultural research throughout Australia; (ii) to advise the Commonwealth and State Governments, either directly or through the Council, on matters pertaining to the initiation and development of research on agricultural problems; and (iii) to secure co-operation between the Commonwealth and States and between the States themselves, with respect to quarantine measures relating to pests and diseases of plants and animals, and to advise the Commonwealth and State Governments with respect thereto. The personnel of this Committee consists of the permanent heads of the State Departments of Agriculture; members of the Executive Committee of the Council for Scientific and Industrial Research; the Secretary, Department of Commerce; and the Director-General of Health.

### § 3. Distribution, Production, and Value of Crops.

1. **Distribution of Crops.**—The following table gives the areas in the several States under each of the principal crops for the season 1933-34:—

DISTRIBUTION OF CROPS, 1933-34.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Aus-tralia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Wheat ..	4,584,092	3,052,931	232,053	3,821,795	3,183,216	24,097	..	3,087	14,901,271
Oats ..	203,693	525,976	5,207	265,074	342,042	31,199	..	130	1,373,921
Maize ..	117,231	19,538	166,948	18	14	..	..	12	303,761
Barley—									
Malting ..	4,881	84,732	5,728	290,152	17,583	7,402	..	..	410,478
Other ..	5,125	21,607	3,037	17,271	6,951	438	..	52	54,481
Beans and Peas ..	54	15,364	120	11,901	1,873	41,285	..	..	70,597
Rye ..	4,231	1,114	47	766	379	92	..	50	6,679
Other Cereals ..	20,221	..	..	..	233	82	..	..	20,536
Hay ..	724,538	1,196,259	92,943	507,248	479,768	77,625	..	2,299	3,080,680
Green Forage ..	444,946	121,737	311,462	70,147	146,402	25,689	..	699	1,121,082
Grass and other Seeds ..	..	3,529	5,596	1,999	..	1,010	..	..	12,134
Orchards and other Fruit Gardens ..	90,227	76,045	31,511	28,890	20,658	33,679	..	70	281,989





3. Area under Chief Crops, Australia.—The area under the chief crops during each of the last six seasons, together with the average for the decennial period 1914-24 is shown hereunder :—

AREA UNDER CHIEF CROPS.—AUSTRALIA.

Crop.	Average, 1914-24.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.
Barley (a) .. ..	184	307	389	328	299	400	410
Maize .. .. .	313	315	298	293	269	228	304
Oats .. .. .	855	1,046	1,516	1,082	1,085	1,027	1,374
Rice .. .. .	..	14.1	19.8	19.9	19.6	22	20
Wheat .. .. .	9,595	14,840	14,977	18,165	14,741	15,766	14,901
Green Forage .. ..	733	860	977	845	950	1,087	1,121
Hay .. .. .	2,990	2,739	2,659	3,323	2,635	2,727	3,081
Beans and Peas .. ..	39	48	50	42	42	52	71
Onions .. .. .	7.8	8.6	8.9	7.4	6	9	8
Potatoes (b) .. ..	134	138	124	142	145	147	140
Sugar Beet .. .. .	1	2.1	2.5	3	3	3	3
Vineyards .. .. .	79	115	115	113	113	114	116
Hops .. .. .	1.5	1.5	1.4	1.2	1	1	1
Sugar Cane .. .. .	186	299	307	312	326	307	329
Cotton .. .. .	12	26	28	36	50	56	87
Tobacco .. .. .	2	2.2	2.5	3.4	18	26	16
Market Gardens (c) ..	42	45	52	54	51	46	51
Orchards .. .. .	265	277	278	276	273	274	282
All Other Crops .. ..	104	106	126	118	110	116	139
<b>Total .. .. .</b>	<b>15,544</b>	<b>21,190</b>	<b>21,930</b>	<b>25,164</b>	<b>21,167</b>	<b>22,408</b>	<b>22,454</b>

(a) Malting only. (b) Not including Sweet Potatoes. (c) Including Pumpkins and Melons.

4. Total and Average Production, Chief Crops, Australia.—The following table shows the production of the chief crops for the six years ended 1933-34 and for the decennium 1914-1924 :—

TOTAL AND AVERAGE PRODUCTION, CHIEF CROPS.—AUSTRALIA.

Crop.	Unit of Quantity.	Average, 1914-24.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Barley (a) .. ..	1,000 bushels	3,440	5,692	6,439	5,674	5,547	7,837	7,014
Maize .. .. .	..	7,690	8,323	7,946	8,026	7,062	5,066	7,494
Oats .. .. .	..	13,124	14,109	14,424	16,658	15,195	16,160	16,922
Rice .. .. .	..	..	1,308	1,829	1,428	1,350	1,901	2,172
Wheat .. .. .	..	110,214	159,679	126,884	213,594	190,612	213,927	177,338
Hay .. .. .	.. tons	3,627	3,175	2,725	4,150	3,167	3,571	3,583
Beans and Peas .. ..	.. bushels	632	663	813	737	497	1,000	1,057
Onions .. .. .	.. tons	36	34	50	47	24	49	52
Potatoes (b) .. ..	..	349	284	343	365	397	384	328
Sugar (Beet) .. ..	..	1.7	2.1	3.5	5.0	5.4	5.7	5.3
Grapes .. .. .	..	141	393	386	284	324	410	362
Wine .. .. .	.. gallons	8,276	18,600	16,069	13,078	14,191	16,418	13,996
Raisins and Currants ..	.. cwt.	410	1,444	1,469	1,016	1,207	1,540	1,370
Hops .. .. .	.. lb.	2,048	2,342	2,340	1,973	1,810	1,669	1,953
Sugar (Cane) .. ..	.. tons	238	538	538	530	604	533	666
Cotton, Unginned .. ..	.. lb.	1,800	12,291	8,024	17,023	15,245	6,270	17,718
Tobacco .. .. .	..	1,705	1,839	1,702	1,594	10,160	9,723	4,348
Pumpkins and Melons ..	.. tons	49	37	45	59	58	38	54

(a) Malting only. (b) Not including Sweet Potatoes.

5. Average Yield per Acre, Chief Crops, Australia.—Details of the average yield per acre for Australia of the principal crops are shown hereunder for the periods indicated:—

## AVERAGE YIELD PER ACRE, CHIEF CROPS.—AUSTRALIA.

Crop.	Unit of Quantity.	Average, 1914-24.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Barley (a)	bushel	18.74	18.53	16.56	17.30	18.55	19.60	17.09
Maize	"	24.59	26.41	26.71	27.34	26.21	22.20	24.67
Oats	"	15.34	13.49	9.52	15.39	14.00	15.73	12.32
Rice	"	"	93.02	92.44	71.88	68.91	86.30	107.36
Wheat	"	11.49	10.76	8.47	11.76	12.93	13.57	11.90
Hay	ton	1.21	1.16	1.03	1.25	1.20	1.31	1.16
Beans and Peas	bushel	16.18	13.74	16.16	17.45	11.96	19.14	14.97
Onions	ton	4.77	4.03	5.57	6.29	3.67	5.53	6.35
Potatoes (b)	"	2.60	2.06	2.76	2.57	2.74	2.61	2.35
Sugar (Beet)	"	1.33	0.99	1.39	1.67	1.70	1.80	1.64
Grapes (c)	"	2.30	3.71	3.61	2.67	3.02	3.78	3.31
Wine (c)	gallon	257	400	345	281	299	341	296
Raisins and Currants (c)	cwt.	18.63	27.52	27.77	19.17	22.88	29.02	25.00
Hops (c)	lb.	1,441	1,594	1,708	1,689	1,747	1,753	2,001
Sugar (Cane) (c)	ton.	2.10	2.42	2.41	2.33	2.50	2.50	2.80
Cotton, Unginned (c)	lb.	339	605	535	752	679	209	260
Tobacco	"	812	822	689	475	572	426	291
Pumpkins and Melons	ton	3.62	2.79	2.76	2.96	3.13	2.54	2.84

(a) Malting only. (b) Not including Sweet Potatoes. (c) Per acre of productive crops.

6. Gross Value of Agricultural Production, Australia.—The following table shows the gross value of recorded agricultural production at the principal markets in each State for the years 1926-27 to 1933-34.

## GROSS VALUE OF AGRICULTURAL PRODUCTION.—AUSTRALIA.

Crops.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
Barley (a)	1,109	1,006	1,096	1,059	685	829	911	884
Maize	2,317	2,799	1,665	2,085	1,617	1,193	1,234	1,277
Oats	2,165	2,321	2,137	2,097	1,437	1,448	1,550	1,853
Rice	52	198	234	335	295	297	352	392
Wheat	42,453	31,895	38,303	27,299	25,047	33,728	33,316	27,897
Green Forage	3,912	2,731	2,680	3,167	2,385	2,612	3,046	2,540
Hay	17,252	15,120	14,137	12,721	14,397	8,145	9,520	10,265
Beans and Peas	337	333	256	257	199	220	302	234
Onions	221	319	314	193	139	253	318	230
Potatoes (b)	3,116	2,327	3,424	2,375	1,690	2,073	1,791	1,905
Sugar Beet	20	54	33	58	82	86	73	91
Grapes	5,590	3,786	4,022	4,145	3,496	3,495	3,918	3,674
Hops	171	258	189	132	157	144	128	142
Sugar Cane	6,568	7,469	7,444	7,476	7,340	7,649	7,098	7,601
Tobacco	123	108	97	92	187	1,115	961	340
Cotton, Unginned	190	145	214	186	355	308	125	283
Market Gardens (c)	2,680	2,374	2,384	2,640	2,259	2,152	1,965	2,029
Orchards	8,198	9,109	8,807	8,469	7,086	7,030	7,414	7,082
Other Crops	1,821	1,976	2,004	2,323	1,647	1,682	1,640	2,013
Total, Gross Value	98,295	84,328	89,440	77,109	70,500	74,489	75,562	70,732

(a) Malting only. (b) Not including Sweet Potatoes. (c) Including Pumpkins and Melons.

7. Value of Production—Gross and Net.—In previous issues of the Official Year Book the gross, local and net values of agricultural production were shown for each of the years 1926-27 to 1932-33, computed in accordance with resolutions of the several Conferences of Australian Statisticians. It was apparent, however, that the methods adopted in each State were not in complete harmony and at the Conference held in March, 1935, attention was directed to the elimination of any existing differences in computation. The success achieved at that conference makes it possible to present the value of agricultural production for 1933-34 on a basis of uniformity not hitherto attained. Sufficient time has not elapsed to enable the State Statisticians to carry this revision back to 1925-26 as is intended and consequently it is possible to publish results for one year only. A more detailed reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used will be found in Chapter XXVIII., § 9.

Attention is directed to the fact that 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 greater than it should be.

### GROSS, FARM AND NET VALUE OF AGRICULTURAL PRODUCTION.—AUSTRALIA, 1933-34.

(AS ESTIMATED BY STATE STATISTICIANS IN ACCORDANCE WITH CONFERENCE RESOLUTIONS.)

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Seed used, and Fodder for Farm Stock.	Value of other Materials used in process of production.	Net Value of Production. (a)	Depreciation.
New South Wales ..	£1,000 18,606	£1,000 4,304	£1,000 14,302	£1,000 1,808	£1,000 770	£1,000 11,724	£1,000 887
Victoria ..	17,664	3,539	14,125	2,755	1,293	10,077	850
Queensland ..	12,303	883	11,420	904	812	9,704	509
South Australia ..	9,767	1,681	8,086	1,284	892	5,910	626
Western Australia ..	9,511	2,489	7,022	1,403	1,021	4,598	446
Tasmania ..	2,819	710	2,109	306	124	1,679	56
Total ..	70,670	13,606	57,064	8,460	4,912	43,692	3,374

(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. A searching inquiry was made by the Commission and the results of its investigations were submitted in a series of reports. The chief recommendations refer to the application of a home consumption price for flour and the adjustment of farmers' debts, while a scheme for the controlled marketing of wheat was recommended by a majority decision. The Commonwealth Government has taken action to give effect to these recommendations so far as it is involved.

Reference to the financial assistance to the wheat industry will be found in § 18, Bounties hereafter.

2. Progress of Wheat-growing.—(i) Area and Production. (a) Seasons 1929-30 to 1934-35. Wheat is the principal crop raised in Australia, and the expansion of this industry since 1860 has been almost continuous, the exceptions being the period of the

Great War and of the economic crisis of 1929-30 and subsequent years. As previously mentioned, any change in the area sown to this cereal dominates the changes in the total area under crop. The area and yield of wheat for grain are given below for each State for the five years ended 1933-34 and are shown from the year 1860 onwards in the graphs hereinafter. The figures in the table include an estimate for the 1934-35 crop, and the averages for the past decennium have also been inserted:—

## WHEAT.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1929-30 ..	3,974,064	3,566,135	294,116	3,645,764	3,568,225	16,805	1,455	14,976,564
1930-31 ..	5,134,960	4,600,200	272,316	4,180,513	3,955,763	19,107	2,061	18,164,920
1931-32 ..	3,682,945	3,565,872	248,783	4,071,370	3,158,888	11,722	1,733	14,741,313
1932-33 ..	4,863,943	3,230,955	250,049	4,066,782	3,389,352	20,985	3,438	15,765,504
1933-34 ..	4,584,092	3,052,931	232,053	3,821,795	3,183,216	24,097	3,087	14,901,271
1934-35 (a) ..	3,848,927	2,458,583	221,729	3,188,225	2,703,786	15,800	1,844	12,498,894
Average for ten seasons 1924-34 ..	3,912,645	3,293,330	205,269	3,390,705	3,014,833	19,997	1,515	13,838,294
PRODUCTION.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1929-30 ..	34,407,000	25,412,587	4,235,172	23,345,093	39,081,183	375,849	27,738	126,884,622
1930-31 ..	65,877,000	53,814,369	5,107,561	31,871,526	53,504,149	391,490	28,296	213,594,391
1931-32 ..	54,966,000	41,955,856	3,863,894	48,093,102	41,521,245	182,913	29,178	199,612,188
1932-33 ..	78,870,000	47,843,129	2,493,902	42,429,614	41,791,866	433,031	65,439	213,926,981
1933-34 ..	57,057,000	42,613,106	4,361,614	35,373,466	37,305,100	560,665	66,852	177,337,803
1934-35 (a) ..	49,000,000	25,850,528	4,076,181	27,455,600	26,961,090	316,000	40,398	133,699,797
Average for ten seasons 1924-34 ..	50,840,277	40,812,474	3,149,393	32,969,534	35,774,399	433,542	26,300	164,005,919

(a) Final estimate.

The acreage under wheat for grain increased steadily until 1915-16, when, largely as the result of a special war effort, 12,484,512 acres were sown. After that year, however, there was a serious decline, brought about by war conditions and unfavourable seasons, and the area in 1919-20 fell to 6,419,160 acres, or only half that of 1915-16.

From 1920-21 onwards there was a rapid extension of the area under wheat until in response to the urge of Commonwealth and State Governments the maximum area of 18 million acres was sown in 1930-31. The acreage declined to 14½ million acres in the following year, and after expanding by more than one million acres in 1932-33 declined heavily in the next two years to 12½ million acres.

The season 1933-34 was fairly satisfactory and resulted in average or nearly average yields being obtained in all States. The average for Australia amounted to 11.90 bushels per acre, as compared with 13.57 bushels for the previous year, and 11.85 bushels, the average for the decennium ending 1933-34. The total production of grain for the year amounted to 177.3 million bushels compared with the record harvest of 213.9 million bushels of the previous year.

The annual production of wheat over the fourteen seasons ending with 1933-34 has exceeded 100 million bushels, and during the four seasons ending with that year it has averaged 198 million bushels with an average yield of 12.47 bushels per acre. It is the opinion of agricultural experts that, notwithstanding the vagaries of the weather, the improved methods of agriculture—seed selection, bare fallowing, application of fertilizers, etc.—will assure the wheat crop of Australia against total failure in the future.

Although final figures are not yet available for all States, the data to hand for the year 1934-35 indicate the area sown to wheat for grain in Australia to be about 12,500,000 acres, a decrease of approximately 2,400,000 acres or 16.1 per cent. on that of the previous year. Production is estimated to amount to 134 million bushels, or 10.70 bushels per acre, compared with 177 million bushels or 11.90 bushels per acre for the previous year. Excluding minor fluctuations and the drop on the resumption of normal sowings after the "grow more wheat" campaign in 1930-31, this decline is the second recorded in successive years and is probably an indication of the seriousness of the conditions affecting the wheat industry. There are several factors contributing to this decrease, namely: (i) the continued unremunerative prices to growers; (ii) the accumulation of abnormally large stocks in America; (iii) the restriction of imports by importing European countries; and (iv) the restriction of exports by Australia and other exporting countries in accordance with the Wheat Agreement made in London in August, 1933.

(b) *Area, Production and Prices, 1861-70 to 1921-30.* The following table gives average area, production and yield per acre for decennial periods since 1861, together with the average wholesale price since 1871. The price quoted represents the average at Melbourne (Williamstown), and may be accepted as fairly representative for Australia.

**WHEAT.—AVERAGE AREA, PRODUCTION, AND WHOLESALE PRICE,  
AUSTRALIA.**

Period.	Area.	Production.	Yield per Acre.	Average Wholesale Price.
	Acres.	Bushels.	Bushels.	s. d.
1861-70 .. ..	831,457	10,621,697	12.77	(a)
1871-80 .. ..	1,646,383	17,711,312	10.76	5 1
1881-90 .. ..	3,257,709	26,992,020	8.29	4 7
1891-1900 .. ..	4,086,701	29,933,993	7.32	3 8
1901-10 .. ..	5,711,230	56,058,070	9.82	3 10
1911-20 .. ..	8,927,974	95,479,866	10.69	5 0
1921-30 .. ..	11,290,543	135,399,860	11.99	5 8

(a) Not available.

(ii) *Average Yield.* In the next table will be found the average yield of wheat per acre in each of the last five seasons, and for the decennium 1924-34 :—

**WHEAT.—YIELD PER ACRE.**

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1929-30 ..	8.66	7.13	20.75	6.40	10.95	22.37	19.06	8.47
1930-31 ..	12.83	11.70	18.76	8.34	13.53	20.49	13.73	11.76
1931-32 ..	14.92	11.77	15.53	11.81	13.14	15.61	16.84	12.93
1932-33 ..	16.42	14.81	9.97	10.43	12.33	20.64	19.03	13.57
1933-34 ..	12.45	13.96	18.80	9.26	11.72	23.27	21.66	11.90
Average 10 seasons, 1924-34	12.99	12.39	15.34	9.72	11.87	21.68	17.36	11.85

Variations in the average yields are chiefly due to the vagaries of the seasons. Definite improvement has been shown in the averages for the last three decades, the

figures being 11.18, 11.49, and 11.85 bushels per acre respectively, the increase being principally due to the improvement in cultural methods. The best average yields for single seasons were obtained in 1924-25, 15.20 bushels; in 1920-21, 16.08 bushels; and in 1866, 16.35 bushels. In the last mentioned year less than 1,000,000 acres of relatively fertile land were sown.

(iii) *Relation to Population.* The main wheat producing States of Australia are New South Wales, Victoria, South Australia and Western Australia. Queensland production closely approaches local demands, but Tasmania imports from the mainland to satisfy its needs though partly in exchange it ships flour made from local wheat which is particularly suitable for biscuits. Normally the production of wheat greatly exceeds Australian requirements, and from half to three-quarters of the crop is exported overseas. During recent years Australia has ranked third on the list of exporting countries, as compared with sixth in the pre-war period 1909-13. For the later years its exports are exceeded by those of Canada and Argentina. The quantity exported is approximately 17½ per cent. of the total quantity shipped by exporting countries.

3. *Wheat Farms.* Particulars of the number of farms growing wheat for grain on 20 acres and upwards during the past four years are shown in the following table. It should be noted, however, 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.	1930-31.	1931-32.	1932-33.	1933-34.
	No.	No.	No.	No.
New South Wales .. .. .	16,140	15,192	17,040	16,312
Victoria .. .. .	17,215	14,846	15,299	14,319
Queensland (a) .. .. .	2,719	2,251	1,927	2,569
South Australia .. .. .	13,186	13,456	13,434	13,133
Western Australia .. .. .	9,703	9,808	9,532	9,632
Tasmania .. .. .	(a) 922	195	378	413
Total .. .. .	59,885	55,748	57,610	56,378

(a) Total number of farms growing wheat for grain.

4. *Australian and Foreign Wheat Yields.*—(i) *Average Yield.* The next table gives the average return per acre in the principal wheat-growing countries of the world, ranging from a maximum in Denmark of 42 bushels per acre to a minimum in Tunis of nearly 7 bushels per acre.

WHEAT.—YIELD PER ACRE, VARIOUS COUNTRIES.

Country.	Average Yield in Bushels per acre.		Country.	Average Yield in Bushels per acre.	
	Average, 1930-1932.	1933.		Average, 1930-1932.	1933.
Denmark .. .. .	41.51	44.27	Chili .. .. .	15.49	16.79
Netherlands .. .. .	40.64	45.36	Manchuria .. .. .	..	15.47
Belgium .. .. .	36.01	40.48	Yugoslavia .. .. .	15.15	18.80
Sweden .. .. .	31.82	36.54	United States of		
Germany .. .. .	31.09	35.96	America .. .. .	14.49	11.04
United Kingdom .. .. .	30.94	35.78	Rumania .. .. .	13.86	15.46
New Zealand .. .. .	29.63	31.57	Spain .. .. .	13.84	12.38
Switzerland .. .. .	29.49	35.30	Argentina .. .. .	12.91	15.88
Egypt .. .. .	28.06	28.01	Australia .. .. .	12.70	11.90

WHEAT—YIELD PER ACRE, VARIOUS COUNTRIES—*continued.*

Country.	Average Yield in Bushels per acre.		Country.	Average Yield in Bushels per acre.	
	Average 1930-1932.	1933.		Average, 1930-1932.	1933.
Finland ..	25.03	26.92	Syria .. ..	11.92	11.12
Japan .. ..	24.94	26.75	Peru .. ..	11.92	8.96
Czechoslovakia ..	23.95	32.10	Portugal ..	11.82	10.59
Norway .. ..	23.69	26.85	India .. ..	11.01	10.69
Austria .. ..	22.57	26.93	Soviet Union ..	10.65	12.42
France .. ..	21.00	26.83	Korea .. ..	10.53	11.27
Italy .. .. .	20.34	23.75	Mexico .. ..	9.77	10.33
Latvia .. ..	19.65	21.77	French Morocco ..	9.63	9.01
Lithuania .. ..	19.21	16.43	Greece .. ..	9.37	16.58
China .. .. .	..	19.18	Cyprus .. ..	8.70	9.32
Bulgaria .. ..	18.69	17.90	Uruguay .. ..	8.26	12.35
Hungary .. ..	18.46	24.56	Union of South Africa .. ..	7.91	8.13
Estonia .. ..	17.18	15.77	Algeria .. ..	7.66	8.01
Brazil .. .. .	(b) 16.90	(a) 12.94	Tunis .. .. .	6.65	5.24
Poland .. ..	16.76	19.08			
Canada .. ..	16.23	10.85			

(a) Year 1928.

(b) Average 1924-28.

(ii) *Total Production.* The latest available official statistics of the production of wheat in various countries are given in the following table :—

## WHEAT.—TOTAL PRODUCTION, VARIOUS COUNTRIES.

Country.	Yield in Bushels (,000 omitted).		Country.	Yield in Bushels (,000 omitted).	
	Average, 1930-1932.	1933.		Average, 1930-32.	1933.
Soviet Union ..	929,333	1,018,903	Sweden .. ..	22,006	29,204
China .. .. .	..	874,500	Portugal .. ..	15,191	15,074
United States of America ..	835,922	528,984	Syria .. .. .	14,479	13,476
Canada .. .. .	422,982	281,897	Belgium .. ..	14,143	15,067
India .. .. .	358,255	352,427	Tunis .. .. .	13,938	9,186
France .. .. .	276,256	362,334	Greece .. ..	13,448	28,385
Italy .. .. .	243,955	298,357	Mexico .. ..	12,444	12,122
Argentina .. ..	230,348	286,491	Austria .. ..	11,737	14,616
Australia .. ..	206,044	177,338	Union of South Africa .. ..	11,643	10,226
Germany .. ..	159,533	205,922	Denmark .. ..	10,422	11,546
Spain .. .. .	155,113	138,277	Lithuania .. ..	9,695	8,192
Rumania .. ..	107,204	119,073	Korea .. .. .	8,634	8,887
Yugoslavia .. ..	77,521	96,583	Netherlands ..	8,548	15,326
Hungary .. ..	73,784	96,357	New Zealand ..	8,072	9,036
Poland .. .. .	71,672	79,884	Uruguay .. ..	7,957	14,674
Bulgaria .. ..	56,356	55,454	Brazil .. .. .	(a) 4,759	..
Manchuria .. ..	..	52,537	Latvia .. .. .	4,247	6,725
Czechoslovakia ..	48,525	72,896	Switzerland ..	3,958	4,957
Egypt .. .. .	46,138	39,952	Peru .. .. .	3,709	2,674
United Kingdom ..	41,224	62,424	Estonia .. .. .	1,819	2,451
Japan .. .. .	30,589	40,377	Cyprus .. .. .	1,560	1,638
Algeria .. .. .	29,109	31,998	Finland .. ..	1,156	2,460
French Morocco ..	26,352	28,903	Norway .. .. .	687	755
Chile .. .. .	23,707	35,307			

(a) Average 1924-28.

NOTE.—The harvests reported above for 1933 relate to the year 1933 for the Northern, and 1933-34 for the Southern Hemisphere.

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 producing countries reporting with the following results:—

## WHEAT.—WORLD'S PRODUCTION.(a)

Year.		Area.	Production.	Yield per acre.
		Acres.	Bushels.	Bushels.
Average 1909-1913		270,266,000	3,779,479,000	13.98
1929	.. ..	324,640,000	4,305,627,000	13.26
1930	.. ..	344,630,470	4,882,135,000	14.17
1931	.. ..	347,076,660	4,623,460,000	13.32
1932	.. ..	345,322,250	4,587,451,000	13.28
1933	.. ..	332,127,110	4,816,364,000	14.50
Average, 1929-1933		338,759,298	4,643,007,400	13.71

(a) From countries reporting.

The chief country excluded from the above table is China, which for the year 1933 produced 875 million bushels of wheat from an area of 45½ million acres or an average yield of 19.2 bushels per acre. It is stated by the International Institute, however, that these figures are largely conjectural and can be accepted only as approximate estimates. In addition they do not include all of the territories embraced in the Chinese Republic. By the addition of the production of China the world's total production for the year 1933 would exceed 5,700 million bushels.

The total area harvested in 1933 shows a decrease on the figures for the previous year. This decrease was due principally to the heavy decline in the United States and the contraction of areas in Canada, Australia and the Soviet Union. Importing European countries and Argentina increased their acreages but not sufficiently to offset the decreases already mentioned. In comparison with the average for the period 1925-29 areas sown to wheat throughout the world have increased considerably, the Soviet Union being the chief contributor.

The world's acreage under wheat in 1931 was the highest ever recorded, but the production was somewhat lower than that for the record year of 1930. A succession of bountiful years commencing in 1928 led to very heavy accumulations of stocks, particularly in North America. These accumulations, in conjunction with an increase in the production of European countries and the raising of trade barriers, were largely responsible for a collapse in prices. The average wholesale price of wheat in Melbourne fell from 5s. 2d. per bushel in 1928 to 2s. 5¼d. in 1931, a decrease of 53 per cent. In 1932, however, the price increased to 3s. 1d., but declined again to 2s. 10d. in 1933 and dropped further to 2s. 7½d. in 1934.

The Australian contribution to the world's production during the last five years was not quite 3½ per cent.

5. Export Price of Wheat.—The table hereunder shows export prices of Australian wheat during each of the last five years:—

## AUSTRALIAN WHEAT.—EXPORT PRICES.

Item.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Price per bushel .. ..	s. d. 2 5½	s. d. 3 0¼	s. d. 2 11½	s. d. 2 10½	s. d. 3 0½



The export prices here shown are the averages for the successive years in the principal markets of Australia in Australian currency.

6. Exports of Wheat and Flour.—(i) *Quantities.* The table appended shows the exports and net exports of wheat and flour from 1929-30 to 1933-34. 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. There have been two occasions since the beginning of the century when it has been necessary to import wheat and flour to tide over lean seasons. For the season 1902-3 the wheat harvested was as low as 12,378,000 bushels and wheat and flour representing 12,468,000 bushels of wheat were imported. For the season 1914-15 slightly less than 25,000,000 bushels was produced, with the result that an equivalent of 7,279,000 bushels of wheat was imported. During the last five years the exports ranged between 62,745,891 bushels in 1929-30 and 156,722,189 bushels in 1931-32, the net exports for the period averaging 120,269,216 bushels :—

## WHEAT AND FLOUR.—EXPORTS, AUSTRALIA.

Year.	Exports.			Net Exports.
	Wheat.	Flour.	Total.	
	Bushels.	Eq. Bushels.(a)	Bushels.	Bushels.
1929-30 ..	40,390,707	22,355,184	62,745,891	62,743,071
1930-31 ..	119,223,290	25,163,664	144,386,954	144,384,366
1931-32 ..	127,401,005	29,321,184	156,722,189	156,720,746
1932-33 ..	119,555,938	30,310,032	149,865,970	149,862,751
1933-34 ..	61,598,528	26,039,616	87,638,144	87,635,144

(a) Equivalent in bushels of wheat.

(ii) *Destination.* The following table gives the exports of wheat to various countries for each of the six years ended 1933-34, together with averages for the pre-war period 1909-13 :—

## EXPORTS OF WHEAT.—AUSTRALIA.

Country to which Exported.	Average, 1909-13.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
United Kingdom ..	30,305,384	20,564,650	21,488,415	39,995,488	49,219,354	50,939,947	45,531,315
Italy ..	581,309	5,861,552	3,261,455	12,697,635	8,195,049	3,656,230	699,225
Japan ..	330,131	5,626,298	2,811,142	17,676,232	21,464,248	17,890,367	7,720,102
France ..	1,681,918	1,967,455	186,682	350,638	163,495	..	..
Union of South Africa ..	2,992,355	4,143,328	1,540,482	956,317	461,706	19,730	39,472
Belgium ..	1,218,131	994,923	408,990	2,016,602	1,892,016	826,517	37,180
Egypt ..	135,377	4,943,383	1,178,230	3,143,433	1,640,116	1,019,218	203,760
Germany ..	286,822	1,001,897	..	193,935	204,084	46,125	..
Netherlands ..	(a)	1,834,132	490,358	2,158,470	2,073,363	527,462	63,353
Other Countries ..	4,465,847	34,958,627	9,024,953	40,034,540	42,087,574	44,624,342	7,304,121
Total ..	41,997,274	81,896,245	40,390,707	119,223,290	127,401,005	119,555,938	61,598,528

(a) Included with other Countries.

Exports of flour from Australia for the periods mentioned are given in the next table :—

## EXPORTS OF FLOUR.—AUSTRALIA.

Country to which Exported.	Average, 1909-13.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Egypt .. ..	(a)	243,468	125,963	145,694	106,526	28,589	27,766
United Kingdom ..	27,699	57,945	85,364	134,547	191,963	121,995	136,677
Netherlands East Indies .. ..	26,099	79,040	82,595	74,765	85,570	73,179	80,623
Malaya (British) ..	15,492	52,176	51,160	41,841	43,664	43,965	50,834
Union of South Africa .. ..	30,714	24,558	18,256	9,051	1,230	228	436
Ceylon .. ..	3,389	21,705	21,252	21,630	19,441	19,239	18,893
New Zealand .. ..	3,221	3,556	3,823	5,168	4,833	2,716	1,246
Philippine Islands ..	13,680	8,436	8,707	8,949	11,762	11,484	10,993
Hong Kong .. ..	2,672	2,972	2,933	5,947	53,557	50,874	27,663
Mauritius .. ..	2,221	9,395	5,988	4,896	13,231	10,905	14,277
Portuguese East Africa .. ..	13,462	5,917	5,410	5,747	6,199	5,896	7,432
Other Countries ..	28,403	54,635	54,282	66,008	72,882	626,389	616,647
<b>Total .. ..</b>	<b>167,112</b>	<b>563,803</b>	<b>465,733</b>	<b>524,243</b>	<b>610,858</b>	<b>631,459</b>	<b>542,492</b>

(a) Included with other Countries.

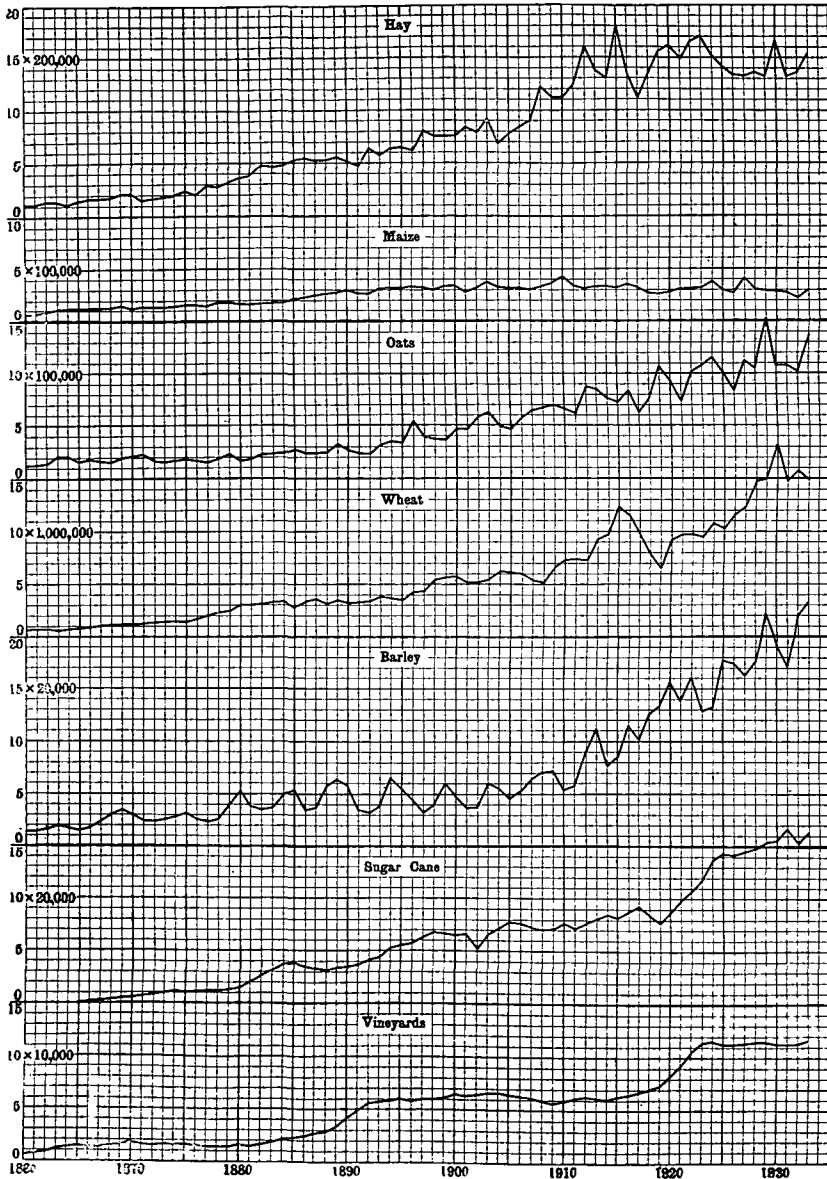
(b) Includes China 160,062 tons in 1932-33 and 79,261 tons in 1933-34.

7. Exports—Principal Countries.—The following table shows the net quantities of wheat exported from the chief exporting countries for each of the years 1929 to 1933, the average for that period and the average for the period 1909-13. The figures are based mainly on information supplied by the International Institute of Agriculture. Comparison between the periods 1929-33 and 1909-13 shows that the world's supply of wheat in the later years has been principally obtained from North America, Canada supplying 33 per cent., and the United States 13 per cent., as compared with 14 and 15 per cent. respectively for the pre-war period. Russia's exports, which amounted to about 24 per cent. of the total for the period 1909-13 fell to 6 per cent. for the years 1929-33. Under Government stimulus, however, the area sown to wheat in the Soviet Union is increasing rapidly. In 1933 the total amounted to 82 million acres, which produced 1,019 million bushels, an average of 12.42 bushels per acre. While Australian production was only 3½ per cent. of the world's total, the exports accounted for 17.2 per cent. of the quantities exported in the years 1929-33 :—

## WHEAT.(a)—NET EXPORTS, PRINCIPAL COUNTRIES.

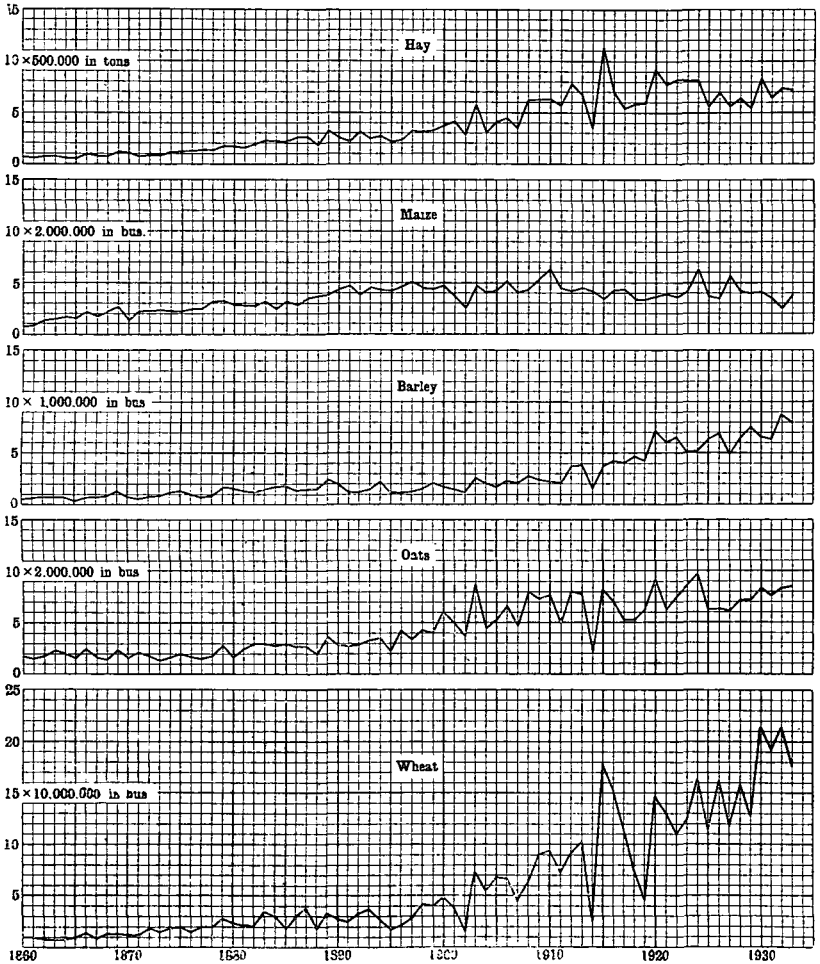
Country.	Average, 1909-13.		1929.	1930.
	Bushels.	Per cent.	Bushels.	Bushels.
Soviet Union (b) ..	157,109,000	23.71	..	93,500,338
Canada .. ..	89,919,000	13.57	250,485,790	240,076,983
United States of America ..	100,864,000	15.22	137,914,928	127,484,281
Argentina .. ..	95,041,000	14.34	249,708,054	86,434,936
British India .. ..	50,886,000	7.68	..	4,376,075
Australia .. ..	49,417,000	7.46	99,150,188	75,115,330
All other Countries ..	119,351,000	18.02	71,425,641	79,082,266
<b>Total .. ..</b>	<b>662,587,000</b>	<b>100.00</b>	<b>808,684,601</b>	<b>706,070,209</b>
<b>World's Production ..</b>	<b>3,779,479,000</b>		<b>4,305,627,000</b>	<b>4,882,135,000</b>
Percentage of Australian Net Exports on Total Net Exports ..	7.46		12.26	10.64
Percentage of Australian Production on World's Production ..	2.39		2.95	4.43

## AREA UNDER PRINCIPAL CROPS—AUSTRALIA, 1860 TO 1933-34.



EXPLANATION.—The base of each small square represents an interval of one year, while the vertical height represents a number of acres, varying with the nature of the crop in accordance with the scale given on the left of the graph. The height of each curve above its base line denotes, for the crop to which it relates, the total area under cultivation in Australia during the successive seasons.

## PRODUCTION OF PRINCIPAL CROPS—AUSTRALIA, 1860 TO 1933-34.



EXPLANATION.—A separate base line is provided for each of the crops dealt with. In each instance the base of a small square represents an interval of one year, the vertical height of such square representing in the case of wheat, 10,000,000 bushels; oats, 2,000,000 bushels; barley, 1,000,000 bushels; maize, 2,000,000 bushels; and hay, 500,000 tons. The height of each curve above its base line denotes the aggregate yield in Australia of the particular crop during the successive seasons.

WHEAT.(a)—NET EXPORTS, PRINCIPAL COUNTRIES—*continued.*

Country.	1931.	1932.	1933.	Average, 1929-33.	
	Bushels.	Bushels.	Bushels.	Bushels.	Per cent.
Soviet Union (b)	93,294,187	16,934,885	28,781,201	46,502,122	6.42
Canada ..	219,380,719	250,412,350	216,329,250	235,337,018	32.52
United States of America ..	109,348,836	74,044,725	18,480,189	93,454,592	12.91
Argentina ..	137,917,662	91,014,145	149,221,042	142,859,168	19.74
British India ..	..	1,500,921	..	1,175,399	0.16
Australia ..	156,306,844	151,065,123	142,424,357	124,812,368	17.24
All other Countries	102,583,269	97,612,626	47,926,935	79,726,148	11.01
<b>Total ..</b>	<b>818,831,517</b>	<b>682,584,775</b>	<b>603,162,974</b>	<b>723,866,814</b>	<b>100.00</b>
World's Production	4,623,460,000	4,587,451,000	4,816,364,000	4,643,007,400	
Percentage of Australian Net Exports on Total Net Exports ..	19.09	22.13	23.61	17.24	
Percentage of Australian Production on World's Production ..	4.12	4.66	3.68	3.43	

(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 under the Peace Treaty.

8. Imports—Principal Countries.—The quantities of wheat and flour (expressed in terms of wheat) imported into the principal countries, for the periods indicated, are shown in the following table. The United Kingdom is easily the leading importing country. Under the terms of the Agreement at the Imperial Economic Conference at Ottawa in August, 1932, the Government of the United Kingdom undertook to provide for a duty of 3d. per bushel on foreign wheat imported, and the concession has proved of considerable benefit to Canada and Australia. During recent years the imports of wheat by 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.		1929.	1930.
	Bushels.	Per cent.	Bushels.	Bushels.
Germany .. ..	89,731,507	12.44	79,779,402	45,076,168
Belgium .. ..	73,962,974	10.26	44,654,975	44,870,382
France .. ..	38,681,717	5.36	52,592,676	39,317,137
Great Britain ..	219,365,265	30.42	232,781,569	224,768,113
Italy .. ..	57,156,174	7.93	65,030,081	71,429,187
Netherlands ..	76,340,387	10.59	30,187,874	33,835,929
Brazil .. ..	20,774,307	2.88	35,397,705	39,271,111
China (c) .. ..	5,525,863	0.77	47,929,460	21,501,395
Japan .. ..	3,713,840	0.52	27,530,853	18,756,906
Egypt .. ..	7,914,626	1.10	12,656,077	10,228,090
Union of South Africa ..	6,519,097	0.90	7,634,672	2,798,084
All other Countries ..	121,409,356	16.83	280,693,876	215,629,206
<b>Total .. ..</b>	<b>721,095,113</b>	<b>100.00</b>	<b>916,869,220</b>	<b>767,487,708</b>

WHEAT.(a)—IMPORTS, PRINCIPAL COUNTRIES.(b)—*continued.*

Country Importing.	1931.	1932.	1933.	Average, 1929-33.	
	Bushels.	Bushels.	Bushels.	Bushels.	Per cent.
Germany ..	29,833,110	37,934,262	28,466,425	44,227,873	5.46
Belgium ..	54,100,075	49,925,317	42,474,389	46,606,228	5.76
France ..	87,744,709	78,789,358	32,275,295	58,143,835	7.18
Great Britain ..	249,672,560	218,416,777	234,263,567	231,980,517	28.66
Italy ..	55,225,990	39,449,749	17,953,567	49,817,715	6.15
Netherlands ..	34,050,398	29,407,321	29,251,108	31,346,526	3.87
Brazil ..	32,247,550	28,625,653	33,615,404	33,831,485	4.18
China (c) ..	65,067,217	65,270,480	73,725,587	54,698,828	6.76
Japan ..	26,846,094	28,158,858	19,538,407	24,166,224	2.99
Egypt ..	8,867,699	4,230,857	271,459	7,250,834	0.90
Union of South Africa ..	3,408,764	1,095,763	80,024	3,003,461	0.37
All other Countries	230,650,968	208,459,058	186,409,810	224,358,584	27.72
<b>Total ..</b>	<b>877,715,134</b>	<b>786,763,453</b>	<b>698,325,042</b>	<b>809,432,110</b>	<b>100.00</b>

(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.—(i) *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, 1929-30 TO 1933-34.

Flour Milled .. .. .	1,228,919 tons
Less Net exports of flour .. .. .	554,909 tons
Less Net exports of flour in Biscuits .. .. .	975 "
	555,884 "
Net quantity available for home consumption .. .. .	673,035 "
Equivalent in terms of wheat .. .. .	32,305,680 bushels
Net quantity available per head of population—	
As flour .. .. .	206 lb.
As wheat .. .. .	4.933 bushels

## AVERAGE USED FOR SEED, 1929-30 TO 1933-34.

Average area sown for grain, hay and green forage .. .. .	16,826,046 acres
Average quantity of seed used .. .. .	16,521,674 bushels
Average quantity of seed used per acre .. .. .	59 lb.
Average quantity per head of population .. .. .	2.523 bushels

In addition to the above, allowance must be made for wheat fed to poultry and other live stock. Hitherto the quantity so used has been estimated to range from one half to one bushel per head of population per annum. This amount is now considered to be too low. The revised figures give a total annual consumption of 8.6 million bushels, or 1.32 bushels per head of population. Almost the whole of this quantity is used in

the form of grain as feed for poultry, principally fowls, which numbered 15.2 million during the year 1933-34. The average quantity of flour consumed per annum for the five years under consideration was 206 lb. per head of population, which, expressed in terms of wheat, represents 4.933 bushels. The estimates of quantity of grain used for seed in Victoria, South Australia and Western Australia are based on data collected from growers. In the other States estimates supplied by the Agricultural Departments have been used. The average annual quantity used for the purposes indicated during the last five years was 2.523 bushels per head of population, or 59 lb. per acre sown. The consumption of wheat in Australia for all purposes during the period dealt with averaged, therefore, 57,427,000 bushels, or 8.77 bushels per head of population.

(ii) *Other Countries.* The following table gives the consumption of wheat in some of the principal countries of the world. The figures, which were obtained partly from the Food Research Institute of California, represent the *per capita* consumption of wheat exclusive of the quantity used for seed purposes :—

**PER CAPITA CONSUMPTION OF WHEAT, EXCLUDING SEED, FOR PERIOD 1922-1929.**

Country.	Used for human consumption.	Fed to Stock.	Total.
	Bushels.	Bushels.	Bushels.
Argentina (a) .. .. .	5.4	0.2	5.6
Australia (a) .. .. .	4.9	1.3	6.2
Canada .. .. .	4.5	3.3	7.8
New Zealand (b) .. .. .	4.8	1.1	5.9
United Kingdom .. .. .	4.8	1.0	5.8
United States .. .. .	4.2	0.6	4.8

(a) Average for five years ended 1933-34.

(b) Average for five years ended 1933.

10. *Value of the Wheat Crop.*—The estimated value of the wheat crop in each State and in Australia during the season 1933-34 is shown below :—

**WHEAT.—VALUE OF CROP(a), 1933-34.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value..	8,677,420	6,906,776	748,289	5,466,413	6,002,101	85,700	9,905	27,896,604
Value per acre ..	£1/17/10	£2/5/3	£3/4/6	£1/8/7	£1/17/9	£3/11/2	£3/4/2	£1/17/5

(a) Gross value of total crop, including seed used on farm, valued at metropolitan prices but exclusive of value of straw.

11. *Varieties of Wheat Sown.*—Particulars of the varieties of wheat sown and the area thereunder are collected from time to time. The following table shows particulars of the nine principal varieties sown in the four main producing States and the percentage each bears to the total area sown for the year 1933-34.

## PRINCIPAL VARIETIES OF WHEAT SOWN—STATES, 1933-34.

New South Wales. (a)		Victoria.		South Australia.		Western Australia.	
Variety.	Per-centage.	Variety.	Per-centage.	Variety.	Per-centage.	Variety.	Per-centage.
	%		%		%		%
Nabawa ..	27.5	Free Gallipoli ..	49.0	Nabawa ..	22.5	Nabawa ..	18.4
Ford ..	12.4	Ranee ..	19.9	Ranee ..	10.6	Gluyas Early ..	16.3
Bobin ..	10.9	Sepoy ..	5.5	Gallipoli ..	9.8	Merredin ..	12.1
Waratah ..	8.8	Ghurka ..	5.2	Gluyas ..	9.4	Glucub ..	9.0
Free Gallipoli ..	4.9	Nabawa ..	3.9	Ford ..	6.5	Bencubbin ..	7.1
Yandilla King ..	4.9	Federation ..	2.2	Waratah ..	6.2	Noongar ..	5.8
Ranee ..	4.0	Major ..	2.2	Late Gluyas ..	4.2	Waratah ..	5.3
Dundee ..	2.7	Rajah ..	2.0	Sword ..	2.6	Bena ..	4.1
Penny ..	2.0	Nazim ..	1.5	Currawa ..	2.4	Ford ..	3.5
All Other ..	21.9	All Other ..	8.6	All Other ..	25.8	All Other ..	18.4
Total ..	100.0	Total ..	100.0	Total ..	100.0	Total ..	100.0

(a) Refers to the year 1934.

It is interesting to note the changes that have taken place in the leading varieties during recent years. In New South Wales and South Australia Nabawa occupied a very minor place on the list in 1929, but by 1933-34 it had risen to the leading position. On the other hand this variety, while still occupying the leading position in Western Australia, declined from 47 per cent. of the total area in 1929 to 18 per cent. in 1933-34. Free Gallipoli, the leading variety in Victoria, increased its lead from 22 per cent. in 1929 to 49 per cent. in 1933-34. More than 1,000 different varieties of Australian wheat have been catalogued by the Council for Scientific and Industrial Research.

12. Stocks of Wheat and Flour.—Stocks of wheat and flour held by each State at 30th November, 1934, and the total held in Australia on the same date for the previous four years will be found in the following table. The figures have been compiled from information collected from millers, merchants, the Railway Departments and other sources, but are exclusive in certain instances of stocks held by farmers:—

## STOCKS OF WHEAT AND FLOUR.—AUSTRALIA, 30TH NOVEMBER, 1934.

State.		Wheat.	Flour.	Total in terms of wheat.(a)
		Bushels.	Tons.	Bushels.
New South Wales	.. ..	11,399,415	39,633	13,301,799
Victoria	.. ..	12,272,300	38,485	14,119,600
Queensland	.. ..	900,178	6,546	1,214,386
South Australia	.. ..	7,606,082	11,405	8,153,522
Western Australia	.. ..	1,592,616	14,580	2,292,456
Tasmania	.. ..	250,106	1,736	333,434
Total, 30th November, 1934	.. ..	34,020,697	112,385	39,415,197
" " 1933	.. ..	13,864,057	86,638	18,022,655
" " 1932	.. ..	6,647,325	85,658	10,758,925
" " 1931	.. ..	12,708,848	80,052	16,551,347
" " 1930	.. ..	10,106,694	77,066	13,805,879

(a) One ton of flour treated as equivalent to 48 bushels of wheat.



13. **Voluntary Wheat Pools.**—(i) *General.* Voluntary wheat pools operated in the States of Victoria, South Australia and Western Australia during the season 1934-35. In New South Wales the pool was inactive during the year. The system adopted in these States is somewhat similar, and is a co-operative one controlled by trustees, or committees appointed by the growers, the whole of the proceeds, less administrative expenses, being distributed amongst contributors of wheat to the pool. The trading names of these organizations in the various States are as follow :—

New South Wales.—The Wheat Growers' Pooling and Marketing Co. Ltd.

Victoria.—Victorian Wheat-growers' Corporation Ltd.

South Australia.—South Australian Co-operative Wheat Pools Ltd.

Western Australia.—The Trustees of the Wheat Pool of Western Australia.

The marketing of wheat in Queensland was conducted on the compulsory basis by the State Wheat Board, consisting of four elected representatives and the Deputy Director of Marketing who represents the Queensland Government. The tenure is from year to year.

(ii) *Delivery of Wheat to Pools, Costs, etc.* The quantities of wheat received and the estimated average costs per bushel of rail freight and of administrative and other expenses are given hereunder. As the season's operations are not yet complete, the costs shown are subject to revision.

#### WHEAT RECEIVED BY VOLUNTARY POOLS, 1934-35.

Particulars.	Unit.	Victoria.	Queensland. (b)	South Australia.	Western Australia.
Wheat received .. ..	Bushel	783,011	3,675,855	876,358	7,163,428
Percentage on Total Market- able Wheat .. ..	%	3.0	90.2	3.2	26.6
Estimated average cost of rail freight to seaboard, per bushel .. ..	d.	4.6	4.75	2.88	4.58
Estimated average cost per bushel of Administration and other expenses ..	d.	(a)	(c) 3.25	(c) 4.00	2.65

(a) Not yet available.

(b) Compulsory Pool.

(c) Approximate.

(iii) *Finance.* The requisite financial accommodation in Victoria and South Australia was furnished by the Commonwealth Bank. In Western Australia funds were made available by financial houses in London. Initial advances made available to growers on the delivery of their wheat at country stations are shown, together with subsequent payments, in the following table :—

#### WHEAT POOLS ADVANCES(a) PER BUSHEL MADE TO OCTOBER, 1935.

Particulars.	Victoria.	South Australia.	Western Australia.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1st Payment .. ..	1 6	1 9½	1 8
2nd Payment .. ..	0 10½	0 4	0 8½
3rd Payment .. ..	0 4	0 6½	0 3
Estimated Final Payment .. ..	(b)	(b)	(b)

(a) Less Rail Freight.

(b) Not yet available.

In Queensland the Commonwealth Bank provides the financial assistance necessary to make advances on wheat delivered, the State Government guaranteeing the Wheat

Board's accounts with the bank. All wheat not required for consumption on the farm is delivered to the Board, which is the sole marketing agency. The crop in 1934-35 amounted to 4,076,181 bushels, of which 3,675,855 bushels, or 90.2 per cent., was delivered into the pool. Advances were made on No. 1 quality wheat at the rate of 2s. per bushel; other grades bear the dockages assessed at the time of delivery according to quality. The dockages being a deduction from the first advance, subsequent advances are uniform on all grades. A second advance of 6d. per bushel and a third advance of 4d. per bushel have been made, while a final payment approximating 3½d. per bushel is contemplated.

### § 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 66.36 per cent., oats represented only 6.12 per cent. of the area under crop in 1933-34. The acreage and production of oats for the last five years is shown in the table hereunder, and more fully in the graphs herein:—

#### OATS.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
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#### AREA.

	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1929-30.. ..	181,354	630,234	2,003	277,923	385,134	39,061	162	1,515,871
1930-31.. ..	176,659	371,024	5,132	218,416	274,874	35,919	77	1,082,101
1931-32.. ..	151,600	439,626	1,364	206,470	267,894	18,412	123	1,085,489
1932-33.. ..	163,809	368,846	3,733	174,244	285,850	30,652	128	1,027,262
1933-34.. ..	203,693	525,976	5,207	265,074	342,042	31,199	130	1,373,921
Average 10 seasons, 1924-34 .. ..	144,694	447,047	2,614	201,187	294,984	36,707	276	1,127,509

#### PRODUCTION.

	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1929-30.. ..	2,528,610	5,058,541	38,494	1,564,287	4,058,160	1,175,041	1,053	14,424,186
1930-31.. ..	3,247,980	6,893,827	94,452	2,080,311	3,292,560	1,052,768	2,160	16,658,058
1931-32.. ..	2,526,450	6,450,281	20,352	2,287,844	3,549,636	356,847	3,270	15,194,680
1932-33.. ..	3,513,780	6,363,853	58,729	1,788,712	3,603,447	828,239	2,868	16,159,628
1933-34.. ..	3,178,470	6,778,754	69,534	2,087,772	3,949,905	854,239	3,357	16,922,031
Average 10 seasons, 1924-34 .. ..	2,482,695	6,128,456	41,922	1,838,908	3,482,807	993,673	4,352	14,972,813

The oat crop showed considerable variation during the past decennium, ranging from 12,084,265 bushels in 1927-28 to 19,393,737 bushels in 1924-25, with an average for the period of 14,972,813 bushels. The demand for the grain for oatmeal is limited to about 2,000,000 bushels annually. The cereal is mainly used as feed grain, and its value, particularly in good seasons, does not warrant an extension of area.

The principal oat-growing State is Victoria, which produces on the average more than one-third of the total quantity grown in Australia. South Australia, Western Australia and Tasmania also produce considerable quantities in excess of local requirements. Western Australia disposes of its surplus to the East, principally to Malaya (British), whilst the other States export chiefly to New South Wales and Queensland. For Australia as a whole the record yield of oats was obtained during 1924-25, when 19,393,737 bushels were harvested.

(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 1924 to 1934 are given in the table below :—

## OATS.—AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Aus-tralia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1929-30 .. ..	13.94	8.03	19.22	5.63	10.54	30.08	6.50	9.52
1930-31 .. ..	18.35	18.58	18.40	9.52	11.98	29.31	28.05	15.39
1931-32 .. ..	16.67	14.67	14.92	11.08	13.25	19.38	26.59	14.00
1932-33 .. ..	21.45	17.25	15.73	10.27	12.61	27.02	22.41	15.73
1933-34 .. ..	15.60	12.89	13.35	7.88	11.53	27.38	25.82	12.32
Average for 10 seasons 1924-34	17.16	13.71	16.04	9.14	11.81	27.07	15.79	13.28

The smallest average yield per acre ever recorded for Australia was that experienced in the abnormally dry season 1914-15, viz., 5.60 bushels, while the largest in the last ten years was that of the season 1924-25, amounting to 16.65 bushels per acre.

2. *World's Production.*—The world's production of oats for the year 1933, as computed by the International Institute of Agriculture, amounted to 3,364 million bushels. This quantity was harvested from 139 million acres, and represents an average yield of 24.20 bushels per acre. The following table shows the world's production and average yield for the last five years, together with the average for the quinquennium 1924-1928 :—

## OATS.—WORLD'S PRODUCTION.

Year.	Area.			Production.	Average Yield per Acre.
	Million Acres.	Million Bushels.	Bushels.	Bushels.	Bushels.
Average 1924-28 .. ..	145	3,677	25.36		
1929 .. ..	150	3,781	25.21		
1930 .. ..	148	3,788	25.59		
1931 .. ..	146	3,262	22.34		
1932 .. ..	141	3,548	25.17		
1933 .. ..	139	3,364	24.20		

3. *Prices of Oats.*—The average wholesale prices in the Metropolitan markets for the year 1933-34 are given in the following table :—

## OATS.—AVERAGE WHOLESALE PRICES, 1933-34.

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	2 10½	2 4	3 4	1 11½	2 0	2 4

4. *Imports and Exports.*—The production of oats in Australia has not yet reached sufficient proportions to admit of a regular export trade. During the year 1927-28 there

was a net import of 460,581 bushels. The quantities and values of oats imported into and exported from Australia during the years 1929-30 to 1933-34 are given hereunder :—

### OATS.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1929-30 ..	8,658	2,181	117,300	24,950	108,642	22,769
1930-31(a) ..	3,293	1,090	171,825	23,957	168,532	22,867
1931-32(a) ..	5,470	1,435	245,700	30,394	240,230	28,959
1932-33(a) ..	4,443	981	245,178	26,311	240,735	25,330
1933-34(a) ..	3,542	772	87,275	12,789	83,733	12,017

(a) Australian currency values.

Imports have been obtained chiefly from New Zealand, while the principal countries to which oats were exported during the years quoted were New Zealand, Malaya (British), Ceylon, India and Mauritius. In 1932-33, however, 95,420 bushels, valued at £7,831, were shipped to the United Kingdom.

5. *Oatmeal, etc.*—The production of oatmeal in Australia during 1933-34 amounted to 270,124 cwt., practically the whole of which is consumed locally, the quantity of oats used for oatmeal being 1,723,890 bushels, or 10 per cent. of the total production. Oversea trade in this and similar products is small; the imports of oatmeal, wheatmeal and rolled oats during 1933-34 amounted to 25 cwt., and exports to 14,307 cwt.

6. *Value of Oat Crop.*—The estimated value of the oat crop for the season 1933-34 was as follows :—

### OATS.—VALUE OF CROP,(a) 1933-34.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Aggregate value ..	384,050	748,488	11,372	223,770	378,190	106,800	495	1,853,075
Value per acre ..	£1/17/9	£1/8/5	£2/3/8	£0/16/11	£1/2/1	£3/8/6	£3/2/4	£1/7/0

(a) Exclusive of the value of straw.

## § 6. Maize.

1. *States Growing Maize.*—Maize is grown for grain chiefly in New South Wales and Queensland, the area so cropped in these States during the season 1933-34 being 284,179 acres, or 94 per cent. of the total for Australia. Of the balance, Victoria contributed 19,538 acres, Western Australia, 14 acres, and South Australia 18 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 less extent for green forage, particularly in connexion with the dairying industry.

2. *Progress of Cultivation.*—(i) *Area and Production.* Notwithstanding its pre-eminence as the world's most extensively grown cereal, the cultivation of maize has decreased in Australia during the past decennium. Compared with the previous year, the area in 1933-34 increased by 75,000 acres to 303,761 acres, an increase of 33 per cent. The greatest area grown was in 1910-11 when it amounted to 414,914 acres. The average for the decennium 1924-34 was 309,000 acres.

The area and production of maize for grain in each State for the last five years and the average for the decennium 1924-34 are given in the following table. The fluctuations from year to year are shown more fully on the graph herein :—

MAIZE.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Nor. Ter.	Fed. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1929-30.. ..	108,219	17,640	171,614	..	29	..	..	297,502
1930-31.. ..	105,024	16,227	172,176	..	10	..	13	293,450
1931-32.. ..	106,047	15,714	147,669	7	11	..	..	269,448
1932-33.. ..	113,333	16,425	98,487	5	8	..	2	228,260
1933-34.. ..	117,231	19,538	166,948	18	14	..	12	303,761
Average 10 seasons								
1924-34 .. ..	120,152	18,435	170,403	4	30	8	4	309,036
PRODUCTION.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1929-30.. ..	3,035,850	533,719	4,376,412	..	339	..	..	7,946,320
1930-31.. ..	2,766,660	692,896	4,565,850	..	87	..	126	8,025,619
1931-32.. ..	2,669,580	611,902	3,780,597	217	87	..	..	7,062,383
1932-33.. ..	2,935,140	477,145	1,653,853	135	42	..	6	5,066,321
1933-34.. ..	3,133,890	644,033	3,715,764	150	183	..	60	7,494,080
Average 10 seasons								
1924-34 .. ..	3,209,012	674,344	4,330,549	93	357	42	39	8,214,436

The greatest production of maize in Australia was recorded in 1910-11, when it amounted to over 13,000,000 bushels. This figure was considerably in excess of the yields for recent years, except in 1924, when a bountiful harvest in Queensland increased the Australian total to 12,400,000 bushels. The production in 1933-34 amounted to 7,494,080 bushels, and the average for the last decennium was 8,214,436 bushels.

(ii) *Average Yield.* The following table gives particulars of the average yield per acre of the maize crops of the States for the seasons 1929-30 to 1933-34 and for the decennium 1924-1934 :—

MAIZE.—AVERAGE YIELD PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	N. Ter.	Fed. Cap. Ter.	Australia.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1929-30 .. ..	28.05	30.26	25.50	..	11.69	..	..	26.71
1930-31 .. ..	26.34	42.70	26.52	..	8.70	..	9.69	27.34
1931-32 .. ..	25.17	38.94	25.60	31.00	7.91	..	..	26.21
1932-33 .. ..	25.90	29.05	16.79	27.00	5.25	..	3.00	22.20
1933-34 .. ..	26.73	32.96	22.26	8.33	13.07	..	5.00	24.67
Average for 10 seasons 1924-34	26.71	36.58	25.41	22.63	18.57	5.19	9.21	26.58

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 for Queensland.

(iii) *Production per Acre—Various Countries.* The average for Australia for the past 10 years was 26.6 bushels per acre. During the period 1925-29 the United States of America averaged 26.9 bushels, Argentina 31.9 bushels, Rumania 16.9 bushels, and the Soviet Union 16.3 bushels per acre.

3. **World's Production.**—The following table furnishes particulars of the world's acreage, production and average yield per acre of maize according to the data compiled by the International Institute of Agriculture :—

**MAIZE.—WORLD'S PRODUCTION.**

Year.				Area.	Production.	Average Yield per Acre.
				Million Acres.	Million Bushels.	Bushels.
Average 1924-28	..	..	..	194	4,362	22.48
1929	..	..	..	202	4,484	22.20
1930	..	..	..	203	4,027	19.84
1931	..	..	..	213	4,617	21.67
1932	..	..	..	215	4,936	22.96
1933	..	..	..	211	4,330	20.52

The United States is the most important maize-producing country in the world. Approximately 100,000,000 acres are planted there annually, and more than 2,600 million bushels are reaped, representing about 60 per cent. of the world's production. About 85 per cent. of the total is fed to live stock on farms, 10 per cent. is used for human food, and only a very small fraction, viz., less than one per cent., is exported.

4. **Price of Maize.**—The average wholesale price of maize in the Sydney market for each of the last five years is given in the following table :—

**MAIZE.—AVERAGE PRICE, SYDNEY.**

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Average price per bushel ..	6 0 $\frac{1}{4}$	4 1	3 9	4 11	3 6 $\frac{3}{4}$

5. **Overseas Imports and Exports.**—The decline in production has necessitated an average annual net import of more than 13,000 bushels during the last five years, the bulk of the supplies being furnished by the Union of South Africa. Details of imports and exports for the years 1929-30 to 1933-34 are as follow :—

**MAIZE.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Imports.		Exports.		Net Imports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1929-30..	66,968	13,899	2,339	824	64,629	13,075
1930-31(a)	3,945	769	1,498	377	2,447	392
1931-32(a)	229	307	2,586	554	—	247
1932-33(a)	5,064	878	1,370	377	3,694	501
1933-34(a)	23	26	3,120	731	—	705

NOTE.—The minus sign (—) denotes net exports.

(a) Australian currency values.

6. **Maize Products.**—A small quantity of corn-flour 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 were negligible. Exports from Australia are small, and in 1933-34 amounted to 15,674 lb., valued at £392.

7. Value of Crop.—The value of the crop for the season 1933-34 was as follows :—

MAIZE.—VALUE OF CROP, 1933-34.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	F.C.T.	Australia.
	£	£	£	£	£	£	£
Aggregate value	483,150	112,706	681,223	38	66	9	1,277,192
Value per acre	£4/2/5	£5/15/4	£4/1/7	£2/2/3	£4/14/3	£0/15/0	4/4/1

§ 7. Barley.

1. Progress of Cultivation.—(i) Area and Production. The area under barley has fluctuated considerably, but with a marked upward tendency during the past ten years. The average annual area sown for the decennium 1924-1934 amounted to 376,734 acres, as compared with an average of 251,509 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 66 per cent. of the Australian acreage in 1933-34. Victoria was next in importance with 23 per cent., leaving a small balance of about 11 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, while 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 1924-34 are shown in the following table, while the progress since 1860 is illustrated in the graphs herein :—

BARLEY.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AREA.							
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1929-30..	7,947	97,678	9,754	305,316	23,649	6,935	445,139
1930-31..	11,526	87,518	8,434	251,957	17,236	6,192	638,287
1931-32..	8,349	66,381	2,223	242,339	14,533	8,377	634,296
1932-33..	7,736	93,555	4,790	314,286	13,772	8,595	442,833
1933-34..	10,006	106,339	8,765	307,423	24,534	7,840	464,959
Average 10 seasons 1924-34 ..	7,507	85,974	6,104	255,046	15,903	6,155	376,734
PRODUCTION.							
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1929-30..	113,850	2,183,325	205,567	4,656,254	261,870	166,984	7,588,852
1930-31..	188,610	1,983,130	173,563	3,960,929	185,301	168,625	6,660,911
1931-32..	137,430	1,256,678	36,397	4,572,941	164,580	119,725	6,629,672
1932-33..	154,530	1,995,446	101,033	6,070,161	135,243	211,570	8,670,077
1933-34..	165,120	1,888,981	152,480	5,254,280	324,846	172,267	7,959,018
Average 10 seasons 1924-34 ..	122,997	1,755,629	111,459	4,396,829	185,221	137,081	7,671,037

(a) Including Federal Capital Territory, 60 acres, 1,002 bushels.  
 (b) " " " " " " 24 acres, 753 bushels.  
 (c) " " " " " " 194 acres, 2,921 bushels.  
 (d) " " " " " " 99 acres, 2,094 bushels.  
 (e) " " " " " " 52 acres, 1,044 bushels.  
 (f) " " " " " " 45 acres, 821 bushels.

The States in which the annual production of barley averaged over 1,000,000 bushels for the past decade were South Australia and Victoria, the yields being respectively 4,396,829 and 1,755,629 bushels, the higher return per acre in the latter State tending to diminish the advantage held by South Australia in regard to acreage.

(ii) *Malting and Other Barley.* (a) Year 1933-34. Particulars for the season 1933-34 are as follow :—

**BARLEY, MALTING AND OTHER.—AREA AND PRODUCTION, 1933-34.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Malting barley ..	4,881	84,732	5,728	290,152	17,583	7,402	410,478
Other Barley ..	5,125	21,607	3,037	17,271	6,951	438	54,481
<b>Total</b> ..	<b>10,006</b>	<b>106,339</b>	<b>8,765</b>	<b>307,423</b>	<b>24,534</b>	<b>7,840</b>	<b>464,959</b>
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Malting barley ..	84,570	1,418,613	99,786	4,999,568	249,432	161,800	7,013,769
Other barley ..	80,550	470,368	52,694	254,712	75,414	10,467	945,249
<b>Total</b> ..	<b>165,120</b>	<b>1,888,981</b>	<b>152,480</b>	<b>5,254,280</b>	<b>324,846</b>	<b>172,267</b>	<b>7,959,018</b>

(a) Including Federal Capital Territory, 52 acres, 1,044 bushels.

Taking Australia as a whole, about 88 per cent. of the area under barley in 1933-34 was sown with malting or English barley while the remainder consists of Cape and other varieties. The proportion, however, varies largely in the several States. The disposal of barley during the season 1933-34 was as follows : malt works, 2,282,940 bushels ; distilleries, 69,975 bushels ; exports, 2,701,908 bushels ; leaving a balance of approximately 2,900,000 bushels for feed, pearling and seed.

(b) *Progress of Cultivation.* The following table sets out the acreage and production of malting and other barley in Australia during the last five seasons :—

**BARLEY, MALTING AND OTHER.—AREA AND PRODUCTION, AUSTRALIA.**

Season.	Acres.			Bushels.			Average Yield per Acre.		
	Malting.	Other.	Total.	Malting.	Other.	Total.	Malting.	Other.	Total.
1929-30 ..	388,854	62,485	451,339	6,438,850	1,150,002	7,588,852	16.56	18.40	16.81
1930-31 ..	328,059	54,828	382,887	5,673,940	986,921	6,660,861	17.30	18.00	17.40
1931-32 ..	299,074	43,322	342,396	5,547,141	743,531	6,290,672	18.55	17.16	18.37
1932-33 ..	399,731	43,102	442,833	7,837,111	832,966	8,670,077	19.60	19.33	19.58
1933-34 ..	410,478	54,481	464,959	7,013,769	943,249	7,959,018	17.09	17.35	17.12
Average 10 seasons									
1924-34 ..	326,188	50,546	376,734	5,768,099	941,938	6,710,037	17.68	18.64	17.81

During the past ten seasons the area and production of malting barley have represented almost six times the corresponding figures for other barley. The average yield per acre differs very little in respect of the two classes, the results for the last ten-yearly period being slightly in favour of the Cape 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 1924-34, 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.
1929-30 .. .. .	14.33	22.35	21.08	15.25	11.07	24.08	16.81
1930-31 .. .. .	16.36	22.66	20.58	15.72	10.75	27.23	17.40
1931-32 .. .. .	16.46	18.93	16.37	18.87	11.32	14.29	18.37
1932-33 .. .. .	19.98	21.33	21.09	19.31	9.82	24.62	19.58
1933-34 .. .. .	16.50	17.76	17.40	17.09	13.34	21.97	17.12
Average for 10 seasons 1924-34	16.39	20.42	18.26	17.24	11.65	22.27	17.81

2. *Comparison with Other Countries.*—In comparison with the barley production of other countries, that of Australia appears extremely small. Particulars for some of the leading countries during 1933 are as follow :—Soviet Union, 346 million bushels ; China, 281 million bushels ; Germany, 153 million bushels ; United States, 150 million bushels ; India, 105 million bushels ; and Canada, 61 million bushels.

3. *World's Production.*—The following table shows the world's acreage under barley, 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 1924-28 .. .. .	83.8	1,602	19.12
1929 .. .. .	97.6	1,979	20.28
1930 .. .. .	93.4	1,894	20.29
1931 .. .. .	89.0	1,616	18.16
1932 .. .. .	90.4	1,802	19.91
1933 .. .. .	87.4	1,780	20.37

4. *Prices.*—The average price in the Melbourne market during each of the last five years is given in the following table :—

**BARLEY.—AVERAGE MELBOURNE PRICE PER BUSHEL.**

Particulars.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	s. d.	s. d.	s. d.	s. d.	s. d.
Malting barley .. .. .	4 1	2 11	2 11½	2 9	2 8
Cape barley .. .. .	3 3¼	2 2	2 3	2 4	2 3¼

5. Imports and Exports.—Australian exports of barley during the last five years averaged 2,608,870 bushels. The grain was consigned mainly to the United Kingdom and Belgium, South Australia being the principal exporting State. Particulars of the Australian overseas imports and exports for the last five years are contained in the following table:—

**BARLEY.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1929-30 ..	1,760	745	647,542	99,046	645,782	98,301
1930-31(a) ..	110	59	3,328,652	403,919	3,328,542	403,860
1931-32(a) ..	44	16	3,315,110	450,477	3,315,066	450,461
1932-33(a) ..	1,396	470	3,051,138	352,152	3,049,742	351,682
1933-34(a) ..	134	59	2,701,908	305,359	2,701,774	305,300

(a) Australian currency values.

In some years there is an export of Australian pearl and Scotch barley, the total for 1933-34 reaching 61,478 lb., valued at £393, consigned mainly to the Pacific Islands.

6. Imports and Exports of Malt.—In pre-war times the imports of malt into Australia were fairly extensive, the supply being obtained principally from the United Kingdom. Since 1914, however, imports have practically ceased, and in 1917-18 and 1920-21 fairly large quantities were exported to the Union of South Africa and Japan. Details of imports and exports for the five years ended 1933-34 are given in the next table:—

**MALT.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1929-30 ..	133	92	8,185	3,467	8,052	3,375
1930-31(a) ..	38	64	4,253	1,730	4,215	1,666
1931-32(a) ..	5	2	3,805	1,392	3,800	1,390
1932-33(a) ..	..	..	9,950	3,358	9,950	3,358
1933-34(a) ..	178	197	24,472	8,259	24,294	8,062

(a) Australian currency values.

7. Value of Barley Crop.—The estimated value of the barley crop for the season 1933-34 and the value per acre are shown in the following table:—

**BARLEY.—VALUE OF CROP(a), 1933-34.**

Value.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total ..	22,650	230,275	25,814	640,107	42,380	23,380	113	984,729
Per acre ..	£2/5/3	£2/3/4	£2/18/10	£2/0/2	£1/14/6	£2/19/7	£2/3/5	£2/2/4

(a) Exclusive of the value of straw.

§ 8. Rice.

Experimental rice cultivation was carried on at the Yanco Experimental Farm 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. During the past four years an annual average of 317,000 bushels of cleaned and uncleaned rice has been exported from Australia, mainly to the United Kingdom, New Zealand, Canada and the Pacific Islands.

Figures relating to area, production, etc., since 1929-30 will be found in the following table :—

RICE.—AREA, PRODUCTION, ETC., AUSTRALIA.

Year.	Area.	Production Paddy Rice.	Average Yield.	Imports.	Exports.	Retail Price.
	Acres.	Bushels.	Bushels.	Bushels.	Bushels.	Pence per lb.
1929-30 ..	19,789	1,829,297	92.44	282,489	30,866	3.65
1930-31 ..	19,860	1,427,524	71.88	117,624	200,760	3.58
1931-32 ..	19,589	1,349,869	68.91	96,101	292,453	3.48
1932-33 ..	22,034	1,901,476	86.30	104,846	260,245	3.24
1933-34 ..	20,226	2,171,544	107.36	98,495	516,437	3.24

The production from several small experimental plots in States other than New South Wales is included in the above figures, but the quantity is negligible.

§ 9. Other Grain and Pulse Crops.

In addition to the grain crops already specified, the principal other grain and pulse crops grown in Australia are beans, peas, and rye. The total area under the two first mentioned crops for the season 1933-34 was 70,597 acres, giving a yield of 1,056,857 bushels, or an average of 14.97 bushels per acre, which was less than the average yield for the decennium ended 1933-34, viz., 15.02 bushels per acre. Beans and peas are grown chiefly in Tasmania, South Australia and Victoria. Peas are exported in considerable quantities to the United Kingdom, the chief exporting State being Tasmania. The total area under rye in Australia during the season 1933-34 was 6,679 acres, yielding 92,444 bushels, giving an average of 13.84 bushels per acre, as compared with the average of 16.40 bushels for the last ten seasons. Nearly 63 per cent. of the rye grown during the season was produced in New South Wales, 17 per cent. in Victoria, and 11 per cent. in South Australia.

§ 10. Potatoes.

1. Progress of Cultivation.—(i) Area and Production. Victoria possesses peculiar advantages for the growth of potatoes, as the rainfall is generally satisfactory, and the climate is unfavourable to the spread of Irish blight, consequently the crop is grown in nearly every district except in the wheat belt. Tasmania comes next in order of importance, followed by New South Wales.

The area and production of potatoes in each State during the last five years and the average for the decennium 1924-34 are given hereunder :—

POTATOES.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
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AREA.

	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1929-30 ..	12,785	58,789	8,116	4,536	6,024	33,722	8	123,980
1930-31 ..	15,304	67,590	10,277	4,998	6,306	37,229	12	141,716
1931-32 ..	17,522	69,929	10,374	5,996	4,892	36,390	8	145,111
1932-33 ..	20,739	69,783	9,743	6,454	4,971	35,769	11	147,485
1933-34 ..	20,089	60,856	11,936	5,824	4,462	36,518	7	139,692
Average 10 seasons 1924-34..	19,086	66,386	9,725	4,637	5,128	36,463	14	141,443

PRODUCTION.

	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1929-30 ..	23,907	171,747	13,214	14,990	27,546	91,137	..	342,541
1930-31 ..	32,283	173,341	18,489	18,991	26,318	95,289	13	364,724
1931-32 ..	33,709	206,489	17,189	24,062	20,253	95,389	11	397,102
1932-33 ..	42,403	182,471	14,017	24,814	22,309	98,232	25	384,271
1933-34 ..	43,532	142,132	20,123	19,501	21,204	81,274	9	327,775
Average 10 seasons 1924-34	40,305	170,937	15,708	17,233	20,685	94,020	33	358,921

(a) Includes Northern Territory, 15 acres.

(b) " " " " 4 acres.

The acreages grown during the last ten years were fairly uniform, except in 1927-28, when the area was increased to 163,231, chiefly owing to larger plantings in Victoria and Tasmania. The production in 1933-34 amounted to 327,775 tons, as compared with an average of 358,921 tons for the last ten years and 348,640 tons for the previous decennial period. The record production of 507,153 tons was obtained in 1906-7.

(ii) *Average Production.* Particulars for each State for the five seasons ended 1933-34 and for the last decennium are given hereunder :—

POTATOES.—PRODUCTION YIELD PER ACRE.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1929-30 ..	1.87	2.92	1.63	3.30	4.57	2.70	1.13	2.76
1930-31 ..	2.11	2.56	1.80	3.80	4.17	2.56	1.08	2.57
1931-32 ..	1.92	2.95	1.66	4.01	4.14	2.62	1.37	2.74
1932-33 ..	2.04	2.61	1.44	3.84	4.49	2.77	2.27	2.61
1933-34 ..	2.17	2.34	1.69	3.35	4.75	2.23	1.29	2.35
Average for 10 seasons 1924-34	2.11	2.57	1.62	3.72	4.03	2.58	2.31	2.54

The comparatively low yield per acre compared with that of many other countries is due in large measure to the neglect of rotation, and the insufficient use of manures. The production in New Zealand, for example, in 1933-34 averaged 5.24 tons per acre from an area of 25,028 acres, as compared with 2.35 tons per acre from 139,692 acres in Australia.

(iii) *Relation to Population.* The average annual production of potatoes per head of the population of Australia for the last five seasons was approximately 122 lb. In Tasmania, where this crop is of far greater importance in relation to population than is the case in any other State, the production per head in 1906-7 was nearly a ton, while for the last five seasons it has averaged  $8\frac{1}{2}$  cwt. Details for each State for the five seasons ended 1933-34 are as follow :—

POTATOES.—PRODUCTION PER 1,000 OF POPULATION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1929-30 ..	10	97	14	26	66	416	..	53
1930-31 ..	13	97	20	33	63	432	2	56
1931-32 ..	13	115	18	41	48	427	1	61
1932-33 ..	16	101	15	43	51	431	3	58
1933-34 ..	17	78	21	34	48	355	1	49

(iv) *Consumption.* Oversea trade in potatoes is comparatively small, and the consumption in Australia during the last five years averaged about 55 tons per 1,000 of population, or about 122 lb. per head. From the figures shown above, therefore, it is apparent that New South Wales, Queensland and South Australia do not produce the quantities necessary for their requirements and must import from Tasmania and Victoria which have a surplus.

2. *Imports and Exports.*—Under normal conditions small quantities of potatoes are exported, principally to the Pacific Islands and Papua. In case of a shortage in Australia, supplies are usually obtained from New Zealand. Figures showing the trade for the last five years are given in the following table :—

POTATOES.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
1929-30 ..	52	736	1,173	16,974	1,121	16,238
1930-31(a) ..	7	144	1,917	13,948	1,910	13,804
1931-32(a) ..	33	418	1,612	13,662	1,579	13,244
1932-33(a) ..	47	753	1,859	12,484	1,812	11,731
1933-34(a) ..	29	348	1,940	12,639	1,911	12,291

(a) Australian currency values.

3. *Value of Potato Crop.*—The estimated value of the potato crop of each State for the season 1933-34 is given in the following table :—

POTATOES.—VALUE OF CROP, 1933-34.

Value.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total ..	209,860	753,300	125,769	137,738	131,833	546,500	43	1,905,043
Per acre ..	£10/8/11	£12/7/6	£10/10/8	£23/13/0	£29/10/11	£14/19/4	£6/2/10	£13/12/9

§ 11. Other Root and Tuber Crops.

1. *General.*—Root crops, other than potatoes, are not extensively grown in Australia, the total area under such crops for the season 1933-34 being only 24,957 acres. The most important were onions, mangolds, sugar beet, turnips, and sweet potatoes. Of these, onions, sugar beet and mangolds are most largely grown in Victoria, turnips in Tasmania, and sweet potatoes in Queensland. The total area under onions in Australia during the season 1933-34 was 8,255 acres, giving a yield of 52,421 tons, and averaging

6.35 tons per acre. The area in 1933-34 under root crops other than potatoes and onions was 16,702 acres, from which a production of 132,018 tons was obtained, or an average of 7.90 tons per acre. The areas and yields here given are exclusive of the production of "market gardens," reference to which is made in § 17.2.

2. Imports and Exports.—The only root crop, other than potatoes, in which any considerable oversea trade is carried on by Australia is that of onions. During the last five years 6,638 tons, valued at £4,998, were imported, principally from Japan, the United States of America, and New Zealand, while during the same period the exports which amounted to 14,143 tons, valued at £82,314, 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 1933-34 averaged nearly 14 per cent. of the total area cropped. In most European countries the hay consists almost entirely of meadow and other grasses, but in Australia a very large proportion consists of wheat, oats and lucerne. The area under hay of all kinds in the several States during the last five years is given hereunder. The progress from 1860 onwards may be traced from the graph accompanying this chapter.

#### HAY.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N. Ter.	Fed. Cap. Ter.	Australia.
AREA.									
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1929-30 ..	698,395	865,015	49,745	544,438	418,698	80,153	..	2,217	2,658,661
1930-31 ..	896,770	1,277,398	52,228	612,935	398,411	83,268	..	2,453	3,323,463
1931-32 ..	612,150	955,839	59,601	539,076	381,447	84,307	..	2,260	2,634,680
1932-33 ..	645,609	1,044,523	64,076	461,332	417,435	92,668	..	1,765	2,727,408
1933-34 ..	724,538	1,196,259	92,943	507,248	479,768	77,625	..	2,299	3,080,680
Average 10 seasons									
1924-34 ..	707,797	1,046,782	64,148	527,071	401,491	86,281	1	1,811	2,835,382
PRODUCTION.									
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1929-30 ..	686,962	963,089	79,583	445,579	428,328	119,800	..	1,933	2,725,274
1930-31 ..	1,191,696	1,605,900	87,146	641,273	491,595	128,957	..	3,094	4,149,661
1931-32 ..	811,243	1,069,276	91,275	647,058	453,353	92,595	..	2,659	3,167,459
1932-33 ..	908,931	1,386,028	82,104	565,589	485,368	141,138	..	1,889	3,571,047
1933-34 ..	920,480	1,353,796	144,250	539,846	512,439	109,397	..	2,540	3,582,748
Average 10 seasons									
1924-34 ..	895,718	1,245,640	94,929	571,950	443,693	122,347	3	2,127	3,376,407

Owing to various causes, the principal being the variation in the relative prices of grain and hay and the favourableness or otherwise of the season for a grain crop, the area under hay is liable to fluctuate considerably. The area under hay in Australia during the season 1915-16, 3,597,771 acres, was the largest on record, whilst the average during the last decennium amounted to 2,835,382 acres.

(ii) *Average Production.* During the last ten years Tasmania and Queensland show the highest average production per acre, although the area sown in these States is the smallest. 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 27 cwt. in 1924-25, followed

closely by 26 cwt. obtained in 1932-33. The average for the decennium was 24 cwt. Particulars for the several States for the seasons 1929-30 to 1933-34 and the average for the last ten years are given hereunder:—

## HAY.—PRODUCTION PER ACRE.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1929-30 .. ..	0.98	1.11	1.60	0.82	1.02	1.49	..	0.87	1.03
1930-31 .. ..	1.33	1.26	1.67	1.05	1.23	1.55	..	1.26	1.25
1931-32 .. ..	1.33	1.12	1.53	1.20	1.19	1.10	..	1.18	1.20
1932-33 .. ..	1.41	1.33	1.28	1.23	1.16	1.52	..	1.07	1.31
1933-34 .. ..	1.27	1.13	1.55	1.06	1.07	1.41	..	0.92	1.16
Average for 10 seasons 1924-1934 ..	1.27	1.19	1.48	1.09	1.11	1.42	3.00	1.17	1.19

(iii) *Varieties Grown.* Information in regard to the crops cut for hay is available for all States excepting Tasmania. It is known, however, that oaten hay constitutes the most important variety grown in the island State.

Details for the last five seasons are given in the following table:—

## HAY.—VARIETIES GROWN.

Varieties.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	Acres.	Acres.	Acres.	Acres.	Acres.
<b>NEW SOUTH WALES—</b>					
Wheaten .. ..	381,071	520,993	292,234	290,556	324,129
Oaten .. ..	226,025	278,865	222,212	248,222	275,493
Barley .. ..	1,294	1,081	740	955	933
Lucerne .. ..	89,385	95,181	96,396	105,246	123,280
Other .. ..	620	650	568	630	703
<b>Total .. ..</b>	<b>698,395</b>	<b>896,770</b>	<b>612,150</b>	<b>645,609</b>	<b>724,538</b>
<b>VICTORIA—</b>					
Wheaten .. ..	165,564	188,360	139,683	89,549	155,688
Oaten .. ..	675,256	1,049,019	781,932	860,854	945,855
Lucerne, etc. ..	24,195	40,019	34,224	94,120	94,716
<b>Total .. ..</b>	<b>865,015</b>	<b>1,277,398</b>	<b>955,839</b>	<b>1,044,523</b>	<b>1,196,259</b>
<b>QUEENSLAND—</b>					
Wheaten .. ..	3,811	10,645	5,282	5,498	6,058
Oaten .. ..	2,608	4,280	1,617	2,724	4,280
Lucerne .. ..	40,013	34,845	47,547	52,925	77,473
Other .. ..	3,313	2,458	5,155	2,929	5,132
<b>Total .. ..</b>	<b>49,745</b>	<b>52,228</b>	<b>59,601</b>	<b>64,076</b>	<b>92,943</b>
<b>SOUTH AUSTRALIA—</b>					
Wheaten .. ..	318,239	321,295	250,285	205,372	246,999
Oaten .. ..	212,956	275,526	273,375	243,015	247,879
Lucerne .. ..	5,447	6,390	5,660	3,704	3,572
Other .. ..	7,796	9,724	9,756	9,241	8,798
<b>Total .. ..</b>	<b>544,438</b>	<b>612,935</b>	<b>539,076</b>	<b>461,332</b>	<b>507,248</b>
<b>WESTERN AUSTRALIA—</b>					
Wheaten .. ..	209,893	192,345	197,982	173,327	216,688
Oaten .. ..	198,529	192,243	167,326	224,006	238,718
Lucerne .. ..	293	234	190	106	179
Other .. ..	9,983	13,589	15,949	19,996	24,183
<b>Total .. ..</b>	<b>418,698</b>	<b>398,411</b>	<b>381,447</b>	<b>417,435</b>	<b>479,786</b>

Wheat is most largely used for hay in New South Wales and South Australia, oats in Victoria, Western Australia and Tasmania, and lucerne in Queensland. For all States the proportions of the principal kinds of hay produced average about 58.0 per cent. for oaten, 30.8 per cent. for wheaten, 7.8 per cent. for lucerne, and 3.4 per cent. for other hay.

2. **Comparison with Other Countries.**—As already noted, the hay crops of most European countries consist of grasses of various kinds, amongst which clover, lucerne, sainfoin and rye grass occupy prominent places. The statistics of hay production in these countries are not prepared on a uniform basis, consequently any attempt to furnish extensive comparisons would be misleading. It may be noted, however, that in Great Britain the production of hay from clover, sainfoin, etc., for the year 1933 amounted to 2,175,000 tons from 1,653,000 acres, while from permanent grasses a yield of 4,407,000 tons of hay was obtained from 4,783,000 acres, giving a total of 6,582,000 tons from 6,436,000 acres, or an average of little more than 20 cwt. per acre.

3. **Imports and Exports.**—Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for oversea trade, and consequently does not in such circumstances figure largely amongst the imports and exports of Australia. During 1933-34, 155 tons were imported, while the exports amounted to 2,206 tons, valued at £12,511, the principal purchases being made by Malaya (British), India, Ceylon, and Hong Kong.

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 1933-34 :—

HAY.—VALUE OF CROP, 1933-34.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total Value ..	3,439,990	3,318,804	608,165	1,053,284	1,397,692	437,600	9,687	10,265,222
Value per acre ..	£4/14/11	£2/15/6	£6/10/10	£2/1/6	£2/18/3	£5/12/9	£4/4/3	£3/6/8

### § 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. The total area so cropped is considerably swollen in adverse seasons by the inclusion of wheat or other cereal crops deemed unsuitable for the production of either grain or hay. Under normal conditions, the principal crops cut for green forage are maize, wheat, sorghum, oats, barley, rye, rape, and lucerne, while small quantities of sugar-cane also are so used. Particulars concerning the area under green forage in the several States during each of the last five years are given in the following table :—

GREEN FORAGE.—AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1929-30	356,903	169,253	208,624	86,500	132,505	23,245	465	977,495
1930-31	310,341	126,347	217,282	59,956	107,384	23,438	662	845,410
1931-32	367,346	119,006	309,957	58,604	101,370	23,024	724	980,031
1932-33	405,206	107,732	392,762	46,232	115,785	18,522	953	1,087,192
1933-34	444,946	121,737	311,462	70,147	146,402	25,689	699	1,121,082



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 1933-34 may be taken approximately as £2,540,448, or about £2 5s. 4d. per acre.

### § 14. Sugar-cane and Sugar-beet.

1. **Sugar-cane.**—(i) *Area.* Sugar-cane for sugar-making purposes is grown only in Queensland and New South Wales, and much more extensively in the former than in the latter State. Thus, of a total area of 328,839 acres under sugar-cane in Australia for the season 1933-34, there were 311,910 acres, or about 95 per cent., in Queensland. Sugar-cane growing appears to have been started in Australia in or about 1862, as the earliest statistical record of sugar-cane as a crop is that which credits Queensland with an area of 20 acres for the season 1862-63. In the following season the New South Wales returns show an area of 2 acres under this crop. The area under cane in New South Wales reached its maximum in 1895-96 with a total of 32,927 acres. Thenceforward, with slight variations, it gradually fell to 10,490 acres in 1918-19, but from that year it expanded until 1924-25, when about 20,000 acres were planted. Later, however, the area declined, and in 1933-34 only 16,929 acres were under cultivation. In Queensland, although fluctuations in area are manifest, the general trend has been upwards, the acreage under cane for the season 1933-34 being the highest on record, viz., 311,910 acres. The area under sugar-cane in Australia from 1929-30 and the average for the past decennium are given in the following table, and particulars for earlier years may be seen from the accompanying graphs:—

#### SUGAR-CANE.—AREA.

Season.	New South Wales.		Queensland.		Australia.		
	Pro- ductive.	Unpro- ductive.	Pro- ductive.	Unpro- ductive.	Pro- ductive.	Unpro- ductive.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1929-30 .. ..	7,967	7,458	214,880	76,780	222,847	84,238	307,085
1930-31 .. ..	7,617	8,007	222,044	74,026	229,661	82,033	311,694
1931-32 .. ..	8,272	7,647	233,304	76,514	241,576	84,161	325,737
1932-33 .. ..	7,796	8,349	205,046	86,090	212,842	94,439	307,281
1933-34 .. ..	10,015	6,914	228,154	83,756	238,169	90,670	328,839
Average 10 seasons 1924-34 .. ..	8,358	8,642	206,949	77,897	215,307	86,539	301,846

(ii) *Productive and Unproductive Cane.* The areas given in the preceding table do not include the small acreage cut for green forage. 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. The season in which the highest acreage is recorded may not show the greatest area of productive cane cut for crushing, as was evidenced in 1933-34, when, although the total acreage was greater, the area cut was less than in the year 1931-32.

(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 4,898,040 tons in 1933-34. The average production of cane during the decennium ended 1933-34 was 3,958,493 tons. On two occasions the yield of sugar has exceeded 600,000 tons, viz., 1933-34 and 1931-32, when the production amounted to 666,145 tons and 603,735

tons respectively. The decennial average was 528,402 tons of sugar. Particulars relative to the total production of cane and sugar for the last five years are as follow. The averages for the past ten seasons are also included for comparison :—

**SUGAR-CANE.—PRODUCTION OF CANE AND SUGAR.**

Season.	New South Wales.		Queensland.		Australia.	
	Cane.	Sugar.	Cane.	Sugar.	Cane.	Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1929-30 .. ..	174,110	19,568	3,581,265	518,516	3,755,375	538,084
1930-31 .. ..	160,209	18,841	3,528,660	516,783	3,688,869	535,624
1931-32 .. ..	179,153	22,459	4,034,300	581,276	4,213,453	603,735
1932-33 .. ..	156,818	18,567	3,546,370	514,027	3,793,188	532,594
1933-34 .. ..	230,918	27,586	4,667,122	638,559	4,898,040	666,145
Average 10 seasons						
1924-34 .. ..	204,512	23,300	3,753,981	505,102	3,958,493	528,402

The production of raw sugar in Australia in 1933-34 amounted to 666,145 tons manufactured from 4,898,040 tons of cane, and is the greatest quantity produced in Australia in any year. This marked increase was due to unusually favourable weather conditions throughout the sugar districts during the growing season. In 1923-24 the area cultivated in Queensland was 219,965 acres and the number of farms growing cane was 6,233, whereas in 1933-34 311,910 acres were under cultivation and the number of growers had risen to 7,386, or an increase of 1,153 farms in ten years. Official data are not available regarding the total number engaged in the sugar industry in Queensland, other than the number of persons employed in sugar mills which in 1933-34 totalled 5,441. 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 1934-35 season are not yet complete, but it is believed that the production of raw sugar amounted to 640,000 tons from 4,557,398 tons of cane crushed. Early indications point to a slightly reduced crop in 1935-36, and it is anticipated that the production will amount to about 602,000 tons of raw sugar.

(iv) *Average Production of Cane and Sugar.* Owing to climatic variation, comparison between the average yield of cane per productive acre in Queensland and New South Wales cannot be accurately made except on an annual basis. In New South Wales between 20 and 24 months are required for the crop to mature, but in Queensland 12 to 14 months is sufficient. After making due allowance on this score, therefore, the average annual yield of cane per productive acre for the decennium ending 1933-34 was for New South Wales, 13.35 tons, and 16.74 tons for Queensland. Similarly, the production of sugar per acre for the same period is estimated at 1.52 tons and 2.25 tons respectively. Leaving aside the consideration mentioned above, the yield of cane and sugar per acre crushed for Australia for the ten years ended 1933-34 was 18.39 tons and 2.45 tons respectively, as compared with 17.28 tons and 2.10 tons for the decennium ended 1923-24.

(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, and for the decennium ended 1933-34 averaged 7.49 tons, the average production of sugar being 13.35 per cent. of the weight of cane crushed. 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 in recent years, and in 1930-31 only 6.83 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 1923-24 it required on the average 8.23 tons of cane to produce one ton of sugar in Australia, whereas the average figure for the last decennium was reduced to 7.49 tons.

## SUGAR-CANE AND SUGAR.—YIELD PER ACRE.

Season.	New South Wales.			Queensland.			Australia.		
	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1929-30 .. ..	21.85	2.46	8.90	16.67	2.41	6.91	16.85	2.41	6.98
1930-31 .. ..	21.03	2.47	8.50	15.89	2.33	6.83	16.06	2.33	6.89
1931-32 .. ..	21.60	2.72	7.98	17.29	2.49	6.94	17.44	2.50	6.98
1932-33 .. ..	20.12	2.38	8.45	17.30	2.51	6.90	17.40	2.50	6.95
1933-34 .. ..	23.06	2.75	8.37	20.46	2.80	7.31	20.57	2.80	7.35
Average 10 seasons									
1924-34 .. ..	24.47	2.79	8.77	18.14	2.44	7.43	18.39	2.45	7.49

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 197 lb. per head of population. Details for the period 1929-30 to 1933-34 are as follow :—

## RAW SUGAR.—PRODUCTION PER HEAD OF POPULATION.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
New South Wales .. ..	18	19	20	16	24
Queensland .. ..	1,248	1,221	1,351	1,221	1,505
Australia .. ..	188	185	207	181	224

(vii) *Consumption.* The average annual consumption of raw sugar during the three years ended 1933-34 is estimated at 339,215 tons, equal to 115 lb. of raw sugar or 110 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 last five years in factories is shown in the following table, the figures including, where necessary, estimates of consumption based on the sugar contents of the finished product. Particulars of sugar used in establishments not classified as factories are not available, and consequently the quantities shown below are deficient to that extent.

## SUGAR.—CONSUMPTION IN FACTORIES, AUSTRALIA.

Factories.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Aerated Waters and Cordials	8,958	6,316	5,665	5,639	5,779
Bacon Factories .. ..	113	102	96	50	60
Bakeries—including Cakes and Pastry .. ..	8,815	7,267	5,920	5,789	8,110
Biscuits .. ..	5,385	4,359	4,207	5,158	5,710
Breweries .. ..	13,836	10,939	9,170	9,117	10,023
Condensed and Concentrated Milk .. ..	7,503	6,133	6,731	6,796	6,620
Confectionery .. ..	23,166	16,940	16,277	18,101	17,685
Jams, Jellies and Preserved Fruit .. ..	29,186	22,786	26,329	28,667	26,108
Jelly Crystals .. ..	1,177	896	556	541	649
Total .. ..	98,139	75,738	74,951	79,858	80,744

2. **Sugar-beet.**—(i) *Area and Production.* Victoria is the only State at present growing beets for sugar, and particulars in regard to acreage and production for the last four years and for the decennium 1914-24 are incorporated in the table below :—

SUGAR-BEET.—AREA AND PRODUCTION, VICTORIA.

Particulars.		Average 10 seasons 1914-24.	1930-31.	1931-32.	1932-33.	1933-34.
Area harvested ..	acres	1,282	3,045	3,173	3,155	3,234
Production ..	tons	14,247	38,291	43,209	36,740	50,625
Average per acre ..	..	11.11	12.58	13.62	11.65	15.65
Sugar produced ..	..	1,714	5,095	5,428	5,701	5,303

Seasonal conditions being particularly favourable during 1933-34 the production amounted to 50,625 tons of beet, from which 5,303 tons of sugar were obtained. The quantity of beet required to produce one ton of sugar was 9.55 tons, as compared with 6.46 tons for the previous year. The average production of beets per acre was 15.65 tons, and the average for the ten years ended 1933-34 was 11.48 tons.

(ii) *Encouragement of Beet-growing.* The irrigation scheme on the Macalister River has provided an assured water supply for the district and thereby 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.**—An account of the various Acts in connexion with sugar bounties and sugar excise tariffs will be found on pages 394 to 396 of Year Book No. 6. In 1912 the *Sugar Excise Repeal Act* and the *Sugar Bounty Abolition Act* were passed by the Federal Parliament, conditionally on the Queensland Parliament approving of legislation prohibiting the employment of coloured labour in connexion with the industry. The *State Sugar Cultivation Act*, the *Sugar Growers Act*, and the *Sugar Growers' Employees Act* of 1913 having been approved, the 1912 Commonwealth Acts, which repeal all previous enactments in regard to excise on sugar and bounty on cane, came into force by proclamation in July, 1913.

4. **Sugar Purchase by Commonwealth Government.**—The steps taken by the Commonwealth Government in connexion with this matter were alluded to in previous issues of the Official Year Book. (See No. 18, p. 720.)

5. **Sugar Agreement—Embargo on Imports, etc.**—By agreement between the Commonwealth and Queensland Governments in 1925, it was arranged that the embargo on the importation of foreign sugar which was first introduced in September, 1915, should be extended for three years from 1st September, 1925. The price payable for the 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 present agreement follow largely on those previously in force, particularly as regards the embargo on imports and 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, has been announced. No alteration is proposed regarding the wholesale or retail price of sugar, but an increase of £16,000 has been granted to the fruit industry.

6. Net Return for Sugar Crop.—Final calculations by the Sugar Board regarding the disposal of the crop, net value of exports and the average price for the crop will be found in the following table :—

## SUGAR.—NET RETURN, ETC., FOR CROP, AUSTRALIA.

Year.	Percentage Exported.	Net Value of Exports per Ton.	Average Price per Ton for Whole Crop.	Estimated Value of Crop.
	(a)	(a)	(a)	
	Per cent.	£ s. d.	£ s. d.	£
1929-30 .. ..	37.71	9 17 0	20 8 2	11,359,760
1930-31 .. ..	39.23	8 5 0	19 12 11	10,458,998
1931-32 .. ..	49.84	9 7 0	18 2 11	11,909,407
1932-33 .. ..	36.80	8 5 9	18 17 9	10,394,925
1933-34 .. ..	47.89	8 0 6	16 6 3	10,640,318
1934-35 .. ..	50.56	7 11 3	15 13 9	10,791,092

(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. 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 following approximate proportions, viz., 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.

7. Imports and Exports of Sugar.—Owing to the embargo and the increased production of sugar in Australia the imports have practically ceased. Particulars concerning the imports and exports of cane sugar for the last five years are as follow :—

## SUGAR.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
1929-30 .. ..	12	192	181,745	2,217,176	181,733	2,216,984
1930-31(a) .. ..	..	1	199,161	1,805,897	199,161	1,805,896
1931-32(a) .. ..	..	6	287,920	2,514,724	287,920	2,514,718
1932-33(a) .. ..	13	265	187,061	1,490,036	187,048	1,489,771
1933-34(a) .. ..	3	48	307,980	2,295,203	307,977	2,295,155

(a) Australian currency values.

The export value quoted in the above table represents the value f.o.b. at which the sugar is sold overseas.

8. **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 quantity produced and the proportions used for distilling, fuel, manure and other purposes will be found in Chapter XXV.—**Manufacturing.** A distillation plant erected at the Plane Creek Central Sugar Mill, Mackay, was opened during 1927 and produces power alcohol of excellent quality.

A building material known as "megass board" can be made from the residuum of crushed fibre after the removal of the sugar content from the sugar cane, and the possibility of the manufacture of artificial silk from the same material has also been considered. Up to the present, however, there is no record of commercial production of these commodities.

9. **Sugar Prices.**—The prices of sugar in Australia from 1915 to 1936 are shown in the following table. During recent years the prices were fixed in accordance with the agreement referred to on page 736.

#### 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.	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

(a) The price of raw sugar for the years 1925 to 1935 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.; and in 1934-35, £15 13s. 9d.

### § 15. Vineyards.

1. **Progress of Cultivation.**—(i) *Area of Vineyards.* The date of introduction of the vine into Australia has been variously set down by different investigators, the years 1815 and 1828 being principally favoured. It would seem, however, that plants were brought out with the first fleet in 1788, consequently the Australian vine is as old as Australian settlement. As already mentioned, a report by Governor Hunter gives the area under vines in 1797 as 8 acres. From New South Wales the cultivation spread to Victoria and South Australia, and these States have now far outstripped the mother State in the area under this crop. In Queensland and Western Australia also, vine growing has been carried on for many years, but little progress has been made. In Tasmania the climate is not favourable to the growth of grapes. The purposes for which grapes are grown in Australia are three in number, viz. :—(a) for wine-making, (b) for table use, and (c) for drying. The total area under vines in the several States

during each of the last five years and the average for the past decennium are given in the following table, while particulars from 1860 onwards may be gathered from the graph accompanying this chapter :—

## VINEYARDS.—AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1929-30.. ..	15,589	40,594	1,749	52,329	4,964		115,225
1930-31.. ..	15,363	38,720	1,687	52,234	4,966		112,970
1931-32.. ..	15,360	38,215	1,749	52,498	5,139		112,961
1932-33.. ..	15,444	39,144	1,868	52,479	5,511		114,446
1933-34.. ..	15,243	40,485	1,963	52,880	5,700		116,271
Average 10 seasons 1924-34 .. ..	15,056	40,350	1,748	51,603	5,206	There are no vineyards in Tasmania.	113,963

The total area under vines in Australia has shown a substantial expansion since 1860. This development has been interrupted from time to time, decreases occurring in 1896, the years between 1904 and 1910, and in 1914. Since the last named year the area increased without interruption from about 61,000 acres to more than 114,000 acres in 1924-25, due largely to the planting of varieties suitable for drying. Subsequently the area fluctuated somewhat but increased again during the past two years to the record area of 116,271 acres in 1933-34.

(ii) *Report on the Wine Industry.* An investigation into conditions in the wine industry was undertaken by the Commonwealth Director of Development and the Senior Inspector of Excise, Department of Trade and Customs, and a comprehensive report was presented to Parliament on the 17th July, 1931.

(iii) *Wine Production, Bounties, etc.* The production of wine has not increased as rapidly as the suitability of soil and climate would appear to warrant, owing chiefly to two causes. In the first place Australians are not a wine-drinking people. It is estimated that they consume approximately 5 million gallons or 0.8 gallons per head per annum and consequently the local market is restricted. Secondly, the comparatively new and unknown wines of Australia must compete in the markets of the old world with the well-known and long-established brands from other countries. Continued efforts are made to bring the Australian wines under notice, and with the assistance of a Commonwealth bounty on the export of fortified wine of specified strength, the industry has been greatly stimulated. Particulars of the Wine Export Bounty are shown in § 18 hereafter. The *Wine Export Bounty Act 1930* which provided for payment at the rate of 1s. 9d. per gallon was replaced by a new Act in 1934 which fixed the rate at 1s. 3d. per gallon for the two years ending 28th February, 1937, and thereafter at a reduction of 1d. per gallon for each succeeding year until 1940, when will it be 1s. per gallon.

At the Imperial Economic Conference at Ottawa in 1932, the margin of preference granted by the Government of the United Kingdom was 2s. per gallon on Australian wines not exceeding 27 degrees of proof spirit. Hitherto the duties imposed were as follow :—Empire wines not exceeding 27 degrees, 2s. per gallon, foreign wines not exceeding 25 degrees, 3s. per gallon, a margin of preference of 1s. per gallon. The margin of 2 degrees in the strength of Empire wines is also considered a measure of preference. The bulk of the wine exported from Australia contains more than 27 degrees of proof spirit, and, under the duties in force in the United Kingdom in 1932, Australian wines of a strength exceeding 27 but under 42 degrees enjoy a preference of 4s. per gallon. New or additional preferences are also hoped for from certain Crown Colonies and Protectorates.

The quantity of wine produced in the several States during the last five seasons together with the average for the past decennium is given in the table hereunder :—

## WINE.—PRODUCTION.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	No production of wine in Tasmania.	Gallons.
1929-30 ..	1,933,709	1,363,575	48,174	12,406,017	317,637		16,069,112
1930-31 ..	1,335,882	1,254,615	48,899	10,131,034	307,788		13,078,218
1931-32 ..	1,589,707	1,530,061	41,456	10,664,546	364,752		14,190,522
1932-33 ..	2,075,737	1,610,649	35,301	12,260,971	435,003		16,417,661
1933-34 ..	1,813,034	1,691,391	31,796	10,032,012	427,458		13,995,691
Average 10 seasons 1924-34	1,656,261	1,648,490	38,688	12,288,113	332,532		15,964,084

2. Imports and Exports of Wine.—(i) *Imports.* The principal countries of origin of wine imported into Australia are France, Spain, Portugal, and Italy, the bulk of the sparkling wines coming from France. The imports for the last five years are given hereunder :—

## WINE.—IMPORTS, AUSTRALIA.

Year.	Quantity.			Value.(a)		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£	£	£
1929-30 ..	16,833	64,286	81,119	42,434	36,242	78,676
1930-31 ..	2,314	13,166	15,480	6,095	7,068	13,163
1931-32 ..	325	8,098	8,423	1,026	5,224	6,250
1932-33 ..	2,402	12,411	14,813	8,042	12,015	20,057
1933-34 ..	5,469	18,772	24,241	16,612	16,137	32,749

(a) Australian currency values.

(ii) *Exports.* Practically all of the wine exported from Australia is sent to the United Kingdom; less than 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 amendment to the liquor laws of the United States enabled Australia to export 61,917 gallons valued at £18,529 to that country in 1933-34. Exports for the last five years are given in the following table :—

## WINE.—EXPORTS, AUSTRALIA.

Year.	Quantity.			Value.(a)		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
	Gallons.	Gallons.	Gallons.	£	£	£
1929-30 ..	2,884	2,181,253	2,184,137	4,439	551,682	556,121
1930-31 ..	2,224	2,205,983	2,208,207	3,684	506,368	510,052
1931-32 ..	4,123	3,471,462	3,475,585	6,705	901,837	908,542
1932-33 ..	1,656	3,096,114	3,097,770	2,392	788,409	790,801
1933-34 ..	5,289	3,063,449	3,068,738	6,683	796,705	803,388

(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 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 follow :—

TABLE GRAPES.—PRODUCTION.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Australia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1929-30 .. ..	4,216	3,845	1,642	752	2,900	13,355
1930-31 .. ..	3,680	3,799	2,067	891	2,835	13,272
1931-32 .. ..	3,542	3,807	1,961	670	3,053	13,933
1932-33 .. ..	5,401	4,008	2,165	957	2,679	15,210
1933-34 .. ..	4,469	3,837	2,050	695	2,602	13,653

(ii) *Raisins and Currants.* The quantities of raisins (sultanas and lexias) and currants dried during each of the last five seasons are given in the following table :—

RAISINS(a) AND CURRANTS.—PRODUCTION.

Season.	N. S. Wales.		Victoria.		South Aust.		Western Aust.		Australia.	
	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
1929-30 .. ..	4,170	542	39,183	8,911	10,562	8,094	652	1,332	54,567	18,879
1930-31 .. ..	2,364	425	22,377	7,834	7,825	7,588	651	1,738	33,217	17,585
1931-32 .. ..	3,043	497	29,702	7,832	9,234	7,820	797	1,428	42,776	17,577
1932-33 .. ..	4,909	670	42,568	7,814	12,434	6,390	704	1,536	60,615	16,410
1933-34 .. ..	3,922	721	33,962	7,476	12,480	8,018	595	1,323	50,959	17,538
Average 10 seasons 1924-34	2,713	463	29,527	7,123	8,647	6,369	613	1,221	41,500	15,176

(a) Sultanas and Lexias.

4. Imports and Exports of Raisins and Currants.—The following table gives the oversea imports and exports of raisins and currants during each of the last five years :—

RAISINS AND CURRANTS.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.

## RAISINS.

	tons.	£	tons.	£	tons.	£
1929-30 .. ..	83	4,777	35,413	1,486,580	35,330	1,481,803
1930-31(b) ..	(a)	24	39,803	1,606,735	39,803	1,606,711
1931-32(b) ..	(a)	80	29,454	1,353,987	29,454	1,353,907
1932-33(b) ..	2	276	35,439	1,728,581	35,437	1,728,305
1933-34(b) ..	5	570	46,825	1,867,134	46,820	1,866,564

## CURRANTS.

	(a)					
1929-30 .. ..	(a)	17	14,867	621,192	14,867	621,175
1930-31(b) ..	(a)	1	14,381	578,037	14,381	578,036
1931-32(b) ..	(a)	30	13,505	597,698	13,505	597,668
1932-33(b) ..	(a)	35	11,134	450,502	11,134	450,467
1933-34(b) ..	..	..	15,659	632,978	15,659	632,978

(a) Quantity negligible.

(b) 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 1933-34 exceeded 56,600 tons, of which 13,500 tons satisfied local requirements, leaving a surplus averaging 43,100 tons available for export. The production has nearly reached 78,000 tons and under favourable conditions may exceed 80,000 tons from the existing acreages. The chief countries importing Australian raisins and currants are the United Kingdom, Canada and New Zealand, which took 72 per cent., 21 per cent. and 5 per cent. respectively of the average quantity exported during the last five years. Exports to Canada have increased from 4,600 tons in 1928-29 to 14,500 tons in 1933-34. Under the terms of the agreement reached at the Imperial Economic Conference at Ottawa in 1932, the tariff in the United Kingdom on dried fruits imported from foreign countries was increased from 7s. per cwt. to 10s. 6d. per cwt. As already stated, the United Kingdom absorbs 72 per cent. of Australia's exports, and the preference given will therefore prove of considerable benefit to the Australian grower. The existence of the Anglo-Grecian Trade Treaty, however, precludes any immediate prospect of an advance in the present rate of preference—2s. per cwt.—being secured on Australian currants imported into Great Britain.

5. **Marketing of Raisins and Currants.**—Particulars of the measures taken to ensure the orderly marketing of Australian raisins and currants will be found in Chapter XXVIII., § 11, par. 3.

6. **Prices of Australian Sultanas and Currants.**—The average prices of Australian sultanas and currants both locally and in Great Britain during the last five years will be found in the following table. Those for Great Britain are shown in British and Australian currency values and represent average prices realized on sales recorded each year by the London agency of the Commonwealth Dried Fruits Control Board :—

#### SULTANAS AND CURRANTS.—PRICES.

Year.	Average Wholesale Price per lb.—Australia.		Average Price per lb.—Great Britain.			
			In British Currency.		In Australian Currency.	
	Sultanas.	Currants.	Sultanas.	Currants.	Sultanas.	Currants.
	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
1929-30 ..	7	7½	4½	3½	4½	3½
1930-31 ..	7	7	6½	4½	7	5
1931-32 ..	7½	7	5½	4	7	5
1932-33 ..	8½	7½	3½	3½	4½	4½
1933-34 ..	8½	7	4	3½	5	4½

#### § 16. Orchards and Fruit Gardens.

1. **Progress of Cultivation.**— The greatest area under orchards and fruit gardens was attained in 1933-34 when 281,989 acres were planted. Since 1921-22, when the next highest figure of 281,149 acres was recorded, the area fluctuated

with the changing demand for fruit. The total area under orchards and fruit gardens in the several States is given in the following table :—

ORCHARDS AND FRUIT GARDENS.—AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1929-30 ..	77,532	80,820	38,412	30,073	18,855	32,159	53	277,904
1930-31 ..	78,176	79,490	37,102	29,630	19,333	32,561	55	276,347
1931-32 ..	79,890	76,834	34,974	29,077	19,530	32,403	48	272,756
1932-33 ..	83,909	77,173	30,578	29,109	20,026	32,774	58	273,627
1933-34 ..	90,227	76,945	31,511	28,899	20,658	33,679	70	281,989

2. Varieties of Crops.—(i) *General.* The varieties grown differ in various parts of the States, ranging from such fruits as the pineapple, paw-paw, mango, and guava of the tropics to the strawberry, the raspberry, and the currant of the colder parts of the temperate zone. The principal varieties grown in Victoria are the apple, peach, pear, orange, plum, and apricot. In New South Wales citrus fruits (oranges, lemons, etc.) occupy the leading position, although apples, peaches, plums, pears, cherries and bananas are extensively grown. In Queensland, the banana, the pineapple, the apple, the orange, the peach, the plum, and the coco-nut are the varieties most largely cultivated. In South Australia, in addition to the apple, orange, apricot, plum, peach, and pear, the almond and the olive are extensively grown. In Western Australia, the apple, orange, pear, plum, peach, apricot and fig are the chief varieties. In Tasmania, the apple occupies nearly four-fifths of the fruit-growing area, but small fruits, such as the currant, raspberry, and gooseberry are extensively grown, while the balance of the area is taken up with the pear, apricot, plum, and cherry. The following tables give the acreage—bearing and non-bearing—under the principal kinds of fruit, and the quantity and value of fruit produced. Although statistics of area are not collected annually in Victoria, the acreage under each class of fruit is based on the triennial collection of the number of trees, subject to annual variations in the total area under orchards and fruit gardens.

(ii) *Area.* The table hereunder shows the total acreage for 1933-34:—

ORCHARDS AND FRUIT GARDENS.—AREA, 1933-34.

Fruit.	New South Wales.	Victoria. (a)	Queens-land.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Apples ..	15,494	31,539	5,199	10,502	12,297	26,736	45	101,812
Apricots ..	1,777	4,081	151	3,043	679	1,476	3	11,210
Bananas ..	17,438	..	10,926	..	76	..	..	28,440
Cherries ..	3,734	1,322	4	763	..	84	2	5,909
Citrus—								
Oranges ..	22,372	5,814	3,424	4,896	2,970	..	..	46,342
Mandarins ..	6,696							
Lemons ..	2,807							
Other ..	523	..	..	59	36	..	..	5,764
Nectarines ..	..	..	..	..	..	..	..	618
Peaches ..	6,973	11,879	1,806	1,903	985	69	4	23,619
Nuts ..	651	529	..	1,317	241	..	..	2,742
Pineapples ..	156	..	5,889	..	12	..	..	6,057
Pears ..	3,763	10,654	270	1,910	1,021	2,129	4	19,751
Plums ..	5,844	4,643	1,364	2,730	985	638	6	16,210
Small fruits ..	15	861	147	368	78	2,478	..	3,947
Other fruits ..	1,984	3,739	2,185	977	612	69	2	9,568
<b>Total ..</b>	<b>90,227</b>	<b>76,945</b>	<b>31,511</b>	<b>28,899</b>	<b>20,658</b>	<b>33,679</b>	<b>70</b>	<b>281,989</b>

(a) Estimated.

(iii) *Production*—(a) *Quantities*. The production in 1933-34 is shown in the next table:—

**ORCHARDS AND FRUIT GARDENS.—PRODUCTION, 1933-34.**

Fruit.		New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Australia.						
Apples .. bushel		838,020	2,418,430	298,372	1,002,124	990,049	4,953,000	293	10,500,288						
Apricots .. "		171,633	368,676	7,145	396,993	50,533	120,000	158	1,115,158						
Bananas .. "		1,106,603	..	1,520,629	..	9,056	..	..	2,636,288						
Cherries .. "		95,114	42,347	241	40,031	..	6,000	14	183,747						
Citrus—															
Oranges .. "		2,198,127	636,839	} 294,396	582,602	{ 275,716	..	..	} 4,522,110						
Mandarins .. "		499,543	21,622												
Lemons .. "		260,262	208,104							13,932	49,028	58,162	..	..	589,488
Other .. "		40,089	442							..	5,275	2,120	..	..	47,926
Nectarines and Peaches .. "		505,178	985,031	108,413	178,753	67,333	4,300	31	1,849,039						
Nuts .. " lb.		224,840	194,180	..	704,624	93,194	..	80	1,276,918						
Pineapples .. dozen		41,500	..	1,355,300	..	..	..	..	1,366,800						
Pears .. bushel		358,479	1,005,775	21,542	211,458	94,500	222,300	64	1,914,118						
Plums .. "		322,750	267,036	80,391	150,539	67,307	55,000	79	943,102						
Small Fruits .. cwt.		210	23,723	2,174	6,458	649	106,108	..	139,322						

(b) *Values*. The value of production for the various classes of fruit for the year 1933-34 is given in the following table:—

**ORCHARDS AND FRUIT GARDENS.—VALUE OF PRODUCTION, 1933-34.**

Fruit.		New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Australia.						
		£	£	£	£	£	£	£	£						
Apples .. ..		290,370	423,225	96,814	186,728	376,769	875,100	101	2,249,108						
Apricots .. ..		76,080	69,127	4,771	105,815	24,223	19,500	7	299,586						
Bananas .. ..		538,900	..	470,776	..	4,136	..	..	1,013,812						
Cherries .. ..		62,460	31,760	156	24,019	..	3,000	..	121,404						
Citrus—															
Oranges .. ..		616,780	211,707	} 119,905	160,985	{ 110,031	..	..	} 1,333,333						
Mandarins .. ..		100,970	7,207												
Lemons .. ..		77,300	67,634							13,845	11,644	19,872	..	..	190,295
Other .. ..		15,050	110							..	1,055	924	..	..	17,139
Nectarines and Peaches .. ..		176,790	198,093	37,068	45,854	37,460	1,080	10	487,355						
Nuts .. ..		8,150	6,020	..	24,822	3,495	..	3	42,490						
Pineapples .. ..		9,250	..	203,743	..	136	..	..	213,179						
Pears .. ..		117,180	213,727	9,716	43,297	35,634	46,300	21	465,875						
Plums .. ..		112,150	39,764	26,546	27,535	29,275	8,250	29	243,549						
Small Fruits .. ..		930	37,310	9,484	10,520	3,099	125,300	..	186,643						
Other Fruits .. ..		62,050	74,802	47,990	14,035	18,337	1,270	10	218,494						
Total .. ..		2,255,410	1,380,486	1,040,814	656,309	669,189	1,079,800	254	7,082,262						

3. *Principal Fruit Crops*—(i) *Area*. The area in Australia under the principal fruit crops for the year 1913-14 and for each of the last five years is shown hereunder:—

**PRINCIPAL FRUIT CROPS.—AREA, BEARING AND NON-BEARING, AUSTRALIA.**

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1913-14 ..	56,577	7,778	24,840	13,645	9,057	8,410
1929-30 ..	97,488	22,705	55,013	23,247	20,934	17,412
1930-31 ..	97,898	22,999	54,222	22,694	20,668	17,113
1931-32 ..	99,150	21,941	53,052	22,760	20,042	16,443
1932-33 ..	100,309	21,893	52,407	22,321	19,922	16,418
1933-34 ..	101,812	28,440	52,724	22,392	19,751	16,210

(ii) *Production*—(a) *Quantities*. In the next table the total production for the principal varieties of fruit grown in Australia is shown for the same periods :—

**PRINCIPAL FRUIT CROPS.—PRODUCTION, AUSTRALIA.**

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1913-14 ..	5,000,178	835,868	1,638,961	930,144	951,277	621,525
1929-30 ..	9,505,312	2,382,877	4,034,717	1,998,632	2,065,048	937,110
1930-31 ..	7,678,103	2,627,317	4,688,848	1,725,039	1,549,233	959,213
1931-32 ..	9,227,736	2,728,982	5,220,772	1,191,166	1,641,228	579,293
1932-33 ..	10,798,538	2,256,520	4,920,419	2,090,584	2,152,887	1,183,700
1933-34 ..	10,500,288	2,636,288	5,159,524	1,762,923	1,914,118	943,102

(b) *Values*. The value of the principal fruit crops during the periods mentioned is given in the subjoined table :—

**PRINCIPAL FRUIT CROPS.—VALUE OF PRODUCTION, AUSTRALIA.**

Year.	Apples.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums.
	£	£	£	£	£	£
1913-14 ..	1,132,427	157,710	719,808	306,433	258,235	135,654
1929-30 ..	2,437,095	1,069,039	2,323,256	594,133	472,985	307,086
1930-31 ..	2,267,769	1,105,226	1,490,373	484,904	377,800	297,687
1931-32 ..	2,320,629	899,401	1,650,315	446,211	428,707	223,959
1932-33 ..	2,266,713	907,820	1,528,067	699,296	504,634	327,172
1933-34 ..	2,249,108	1,013,812	1,540,767	455,021	465,875	243,549

4. *Imports and Exports of Fruit*.—(i) *General*. A considerable export trade in both fresh and dried fruits is carried on by Australia with overseas countries. The import trade in fresh fruits declined heavily during recent years, owing to the imposition of a Customs duty of 1d. per lb. on imported bananas, which had previously been the chief variety of fresh fruit imported into Australia. Under the terms of the agreement reached at Ottawa in 1932, however, 40,000 centals of bananas may be admitted annually from Fiji at the rate of duty of 2s. 6d. per cental. The imports of dried fruits at present consist mainly of dates. The export trade in fresh and dried fruits has expanded greatly during recent years, the value of the shipments in 1933-34 amounting to £2,011,731 and £2,651,685 respectively. Apples constitute the bulk of the fresh fruit exported, although the exports of citrus fruits and pears are fairly considerable, and experiments are being conducted in regard to the dispatch of other fruits. Shipments of raisins and currants have increased greatly since 1914-15, and are mainly responsible for the growth in the dried fruits exports. Dried apricots also figure amongst the exports.

(ii) *Fresh Fruits*. Information with regard to the Australian overseas trade in fresh fruits is given hereunder :—

**FRESH FRUITS.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1929-30 ..	7,838,000	93,110	196,000,600	1,862,603	188,162,600	1,769,493
1930-31 (a)	4,015,400	26,930	168,035,900	1,588,128	164,020,500	1,561,198
1931-32 (a)	3,007,000	18,115	225,466,700	2,085,597	222,459,700	2,067,482
1932-33 (a)	5,186,400	34,462	275,080,400	2,417,982	269,894,000	2,383,520
1933-34 (a)	6,219,200	33,592	240,290,800	2,011,731	234,071,600	1,978,139

(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, AUSTRALIA.**

Year.	Apples.		Pears.		Citrus Fruits.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Cental.	£	Cental.	£	Cental.	£
1929-30 ..	1,737,872	1,576,275	127,897	136,353	39,271	58,481
1930-31 ..	1,329,563	1,235,583	160,684	150,069	117,000	110,414
1931-32 ..	1,879,653	1,701,569	127,708	130,744	181,450	170,573
1932-33 ..	2,273,724	1,951,994	283,397	262,134	136,183	123,809
1933-34 ..	2,058,965	1,654,241	171,753	163,585	132,666	132,363

(iv) *Dried Fruits.* The quantity and value of oversea imports and exports of dried fruits, other than raisins and currants, for the last five years are shown below ; about 93 per cent. of the total imports consisted of dates obtained chiefly from Iraq :—

**DRIED FRUITS(a).—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Imports.		Exports.		Net Imports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1929-30 ..	11,579,470	134,244	1,780,189	62,060	9,799,281	72,184
1930-31(b)	4,423,939	40,766	2,083,242	65,168	2,340,697	— 24,402
1931-32(b)	9,988,817	74,002	727,186	14,220	9,261,631	59,782
1932-33(b)	9,415,551	62,281	2,093,159	51,764	7,322,392	10,517
1933-34(b)	8,302,384	71,594	5,674,846	151,573	2,627,538	— 79,979

(a) Excluding raisins and currants referred to separately under Vineyards, § 15, 4. (b) Australian currency values.

NOTE.—The minus sign (—) signifies net exports.

(v) *Jams and Jellies.* Jams and jellies were exported in large quantities during the war years, and in 1918-19 the record shipment of 79,277,560 lb., valued at £1,847,970, was dispatched from Australia. Since that year, however, the trade has dwindled, the value of the exports in 1933-34 amounting to only £55,958. Particulars relative to imports and exports during each of the last five years are as follow :—

**JAMS AND JELLIES.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1929-30 ..	300,805	10,811	1,535,720	44,398	1,234,915	33,587
1930-31(a)	6,423	471	1,445,320	40,916	1,439,097	40,445
1931-32(a)	2,099	182	1,674,862	44,630	1,672,763	44,448
1932-33(a)	24,492	1,180	1,886,344	47,682	1,861,852	46,502
1933-34(a)	16,159	909	2,245,262	55,958	2,229,103	55,049

(a) Australian currency values.

(vi) *Preserved Fruit.* Details concerning the quantities and values of preserved fruit imported into Australia cannot readily be obtained, owing to the fact that in the Customs returns particulars concerning fruit and vegetables are in certain cases combined. The total value of fruit and vegetables preserved or partly preserved in liquid, or pulped, imported into Australia during 1933-34 was £22,138. Overseas exports in 1933-34 were as follow :—Apricots, 6,994,730 lb., £111,566; peaches, 29,937,073 lb., £437,042; pears, 16,711,677 lb., £282,233; pineapples, 4,493,298 lb., £83,673; and other 1,634,162 lb., £34,698; or a total shipment valued at £949,212.

## § 17. Minor Crops.

1. **General.**—In addition to the crops previously dealt with, there are many others which, owing either to their nature, or to the fact that their cultivation has advanced but little beyond the experimental stage, do not occupy so prominent a position. Some of the more important of these are included under the headings—Market Gardens, Pumpkins and Melons, Nurseries, Grass Seed, Tobacco, and Millet. Cotton growing has received considerable attention in the tropical portions of Queensland, and the prospects of establishing this industry are hopeful. The total area in Australia during the season 1933-34 devoted to crops not dealt with in previous sections was 219,403 acres, the major portion of which consisted of cotton, market gardens and tobacco.

2. **Market Gardens.**—Under this head are included all areas on which mixed vegetables are grown. Where considerable areas are devoted to the production of one vegetable, such for instance as the potato, the onion, the melon, the tomato, etc., the figures are usually not included with market gardens, but are shown either under some specific head, or under some general head as “Other Root Crops,” or “All Other Crops.” The area under market gardens during each of the last five seasons is given hereunder :—

### MARKET GARDENS.—AREA.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	A cres.	Acres.	Acres:
1929-30 .. ..	8,380	21,210	862	1,658	3,075	530	10	35,725
1930-31 .. ..	7,448	20,197	903	1,663	3,025	600	13	33,849
1931-32 .. ..	6,655	19,786	778	1,726	3,123	660	33	32,761
1932-33 .. ..	6,047	18,249	992	1,896	3,807	804	55	31,850
1933-34 .. ..	5,664	20,010	833	2,105	3,281	779	61	32,733

3. **Grass Seed.**—The area under this crop during 1933-34, exclusive of New South Wales and Western Australia, for which States complete figures as to area are not available, was 12,134 acres, of which 3,529 acres were in Victoria, 1,010 acres in Tasmania, 5,596 acres in Queensland, and 1,999 acres in South Australia. The production for 1933-34 for these States was 166,895 bushels. In addition to the areas planted above, 10,293 acres were sown to canary seed in Queensland and 61 acres in New South Wales during 1933-34, returning a total yield of 88,593 bushels, valued at £54,131.

4. **Tobacco.**—Tobacco growing some years ago promised to occupy an important place amongst the agricultural industries of Australia. Thus, as early as the season 1888-89, the area under this crop amounted to 6,641 acres, of which 4,833 were in New South Wales, 1,685 in Victoria, and 123 in Queensland. This promise was, however, not fulfilled, and after numerous fluctuations, in the course of which the Victorian area rose in 1895 to over 2,000 acres, and that in Queensland to over 1,000 acres, the total area declined considerably.

In all the States in which its cultivation has been tried, the soil and climate appear to be suitable for the growth of the plant, and the large import of tobacco in its various forms is an index of the market for a satisfactory product. The net imports of tobacco into Australia during the year 1933-34 were valued at £718,378, while the net quantity of unmanufactured tobacco imported was 11,619,961 lb. valued at £849,023. The area under this crop in 1933-34 amounted to 16,304 acres which produced more than 4.3 million lb. Victoria with 8,900 acres and Queensland with 5,359 acres were the chief producing States.

It has been proved that suitable leaf can be grown, and research is in progress with a view to improvement in the quality and aroma of the product and the combating of disease. The sowing of seed free from blue mould, together with improved methods of cultivation will, it is believed, materially reduce the loss occasioned by this parasitic disease. The extensive local demand, which amounts to approximately 18 million lb. annually, coupled with the protection afforded by the tariff has resulted in a large increase in the area planted. Under an agreement between the Commonwealth Government and the Australian Tobacco Manufacturers, the latter undertook to purchase 7.2 million lb. of suitable local leaf during the season 1931-32 at an average price of 2s. 3d. per lb. Actually, more than 10.5 million lb. was purchased at an average price of 2s. 1½d. per lb. No further agreement has been entered into since that year.

The following table furnishes details of the average area, production, etc., in quinquennial periods from 1901 to 1930, and annually from 1929-30 to 1933-34 :—

TOBACCO.—AREA, PRODUCTION, ETC., AUSTRALIA.

Period.	Area.	Production.	Value.	Number of Producers Registered.
	Acres.	lb.	£	No.
1901-05 .. .. .	1,412	1,172,976	(a)	387
1906-10 .. .. .	1,678	1,419,040	41,581	518
1911-15 .. .. .	2,496	2,106,160	65,615	479
1916-20 .. .. .	1,648	1,449,616	104,978	487
1921-25 .. .. .	2,677	1,962,576	158,748	925
1926-30 .. .. .	2,478	1,632,243	121,589	666
1929-30 .. .. .	2,470	1,702,400	92,055	647
1930-31 .. .. .	3,354	1,593,872	186,984	693
1931-32 .. .. .	17,738	10,160,192	1,114,737	2,774
1932-33 .. .. .	26,272	9,723,056	960,565	5,527
1933-34 .. .. .	16,304	4,348,964	339,663	3,565

(a) Not available.

In 1929 a Select Committee was appointed by the House of Representatives to report on the tobacco industry in Australia. The report of the Committee was submitted on 1st July, 1930, and among the recommendations made was one for the formation of a Tobacco Investigation Committee. This Committee was formed, and was financed jointly by the Commonwealth Government and the British Australian Tobacco Company, the Company undertaking to contribute up to £3,000 on the £ for £ basis. In 1933 another Committee was appointed. The recommendation of this Committee, which reported on 16th November, 1933, that the sum of £20,000 should be provided annually for five years to assist the States to continue economic and scientific investigations was adopted, and this amount has been included in the Budget for each year since 1933-34. £5,000 was allotted to the Council for Scientific and Industrial Research, and the balance was distributed among the States to provide additional services, £3,750 being allocated to each of the States of New South Wales, Victoria and Queensland, and £1,250 each to



South Australia, Western Australia and Tasmania. The Council for Scientific and Industrial Research is investigating diseases affecting the tobacco plant, including work on disease resisting varieties, and is making tests of smoking quality. The States are carrying out field investigations on disease resistance, selection, yield and quality improvement, and are conducting instructional, demonstrational and field experimental work.

5. **Pumpkins and Melons.**—The total area under this crop in Australia during 1933-34 was 18,993 acres, of which 3,228 acres were in New South Wales, 1,127 acres in Victoria, 13,779 acres in Queensland, 310 acres in South Australia, and 549 acres in Western Australia. The production for Australia amounted to 53,927 tons.

6. **Hops.**—Hop growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for the season 1933-34 being 1,039 acres, of which 873 acres were in Tasmania and 159 acres in Victoria. Small areas were also recorded in South Australia, 1 acre, and in Western Australia, 6 acres. The Tasmanian area, though still small, has increased during the past 32 years, the total for the season 1901-2 being only 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 159 in 1933-34. The cultivation of hops was much more extensive in Victoria some 50 years ago than at present, the area in 1883-84 being 1,758 acres. During the year 1933-34 the exports of hops exceeded the imports by 178,952 lb., valued at £11,201. The value of the production in Australia in 1933-34 amounted to £141,799.

7. **Flax.**—For many years flax was grown intermittently in the Gippsland district of Victoria, and attempts were made to introduce its cultivation into Tasmania and New South Wales, but without success. About the end of the year 1917 the shortage of flax fibre in the world had become 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 declined to 509 acres in 1932-33. The area expanded to 769 acres in 1933-34.

An investigation into the linseed-flax industry was conducted by the Development Branch of the Prime Minister's Department and a report was presented in 1933. From the evidence obtained in the course of the investigation it was concluded that, on account of the limited local demand and the inability to develop an export trade, any aggressive policy of expansion was to be avoided. It was found also that the growing of flax solely for seed was not likely to become an important industry.

Bounty was payable on flax and linseed grown in Australia for a period of five years ending 28th February, 1935. During this period the total amount disbursed as bounty was £2,777.

8. **Millet.**—Millet figures in the statistical returns of three of the States. The total area devoted thereto in 1933-34 was 4,770 acres, of which 3,182 acres were in New South Wales, 1,112 in Victoria, and 476 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, but figures in regard to acreages under flowers, fruit trees, etc., are available only for New South Wales, Victoria, South Australia, and Western Australia. During 1933-34 the areas in those States were 718, 1,229, 168, and 151 acres respectively.

10. **Cotton.**—The cultivation of cotton was begun in Queensland in 1860, and ten years later the area cropped had increased from 14 acres to over 14,000 acres. The reappearance of American cotton in the European market on the conclusion of the Civil War gave a severe setback to the new industry, and the area declined continuously till 1888, when only 37 acres were planted. Later on the industry was resuscitated,

and manufacturing on a small scale was undertaken on two separate occasions at Ipswich, but low prices over a term of years checked development. In 1913 the Queensland Government made an advance of 1½d. per lb. on seed cotton, and ginned it on owner's account, the final return being equal to about 1¾d. per lb. The rise in price enabled the Government to offer a guarantee of 5½d. per lb. for seeded cotton of good quality for the three years ended 31st July, 1923, and the area picked increased from 166 acres in 1920 to 50,186 acres in 1924. Guarantees were continued until 1926, when the Commonwealth Government granted a bounty of 1½d. per lb. on the better grades and ¾d. on the lower grades of seed cotton grown in Australia. In addition to this direct assistance to the growers the Government subsidized the cotton-manufacturing industry by granting a graduated bounty, varying from ¼d. to 1s. per lb., on all cotton yarn manufactured in Australia which contained 50 per cent. of home-grown cotton. This bounty, however, ceased to operate after 30th June, 1932. The Raw Cotton Bounty Act of 1934, which repealed the previous Acts, provided, *inter alia*, that a bounty of 5¼d. per lb., fluctuating according to variations in the Liverpool price, shall be payable on raw cotton produced in Australia from Australian grown seed. The amount of raw cotton for the purpose of the bounty was limited to the requirements of Australia plus 20 per cent. With the change over to the bounty system, a cotton pool was formed in Queensland under the *Primary Products Pools Act*, and a Cotton Board was elected to control the handling, financing, and marketing of all cotton grown in the State. The number of growers were :—1930, 1,461; 1931, 1,988; 1932, 1,989; and 1933, 3,857.

The area under cultivation and the production in Queensland since the year 1924 are shown hereunder :—

#### COTTON.—AREA AND PRODUCTION, QUEENSLAND.

Year.						Area(a).	Yield of Unginned Cotton.
						Acres.	lb.
1924	..	..	..	..	..	50,186	16,416,170
1925	..	..	..	..	..	40,062	19,537,274
1926	..	..	..	..	..	18,743	9,059,907
1927	..	..	..	..	..	14,975	7,060,756
1928	..	..	..	..	..	20,316	12,290,910
1929	..	..	..	..	..	15,003	8,024,502
1930	..	..	..	..	..	22,652	17,022,897
1931	..	..	..	..	..	22,452	15,244,644
1932	..	..	..	..	..	29,995	6,270,116
1933	..	..	..	..	..	68,203	17,718,306
1934	..	..	..	..	..	43,397	26,924,179

(a) Area picked.

11. *Coffee*.—Queensland is the only State in which coffee has been grown to any extent, and the results have not been satisfactory. The area under crop reached its highest point in the season 1901-2 with 547 acres. Thereafter the acreage fluctuated, but on the whole with a downward tendency, and in 1933-34 only 7 acres were recorded with a production of 5,580 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, 1935, amounted to £372,507. 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. For purposes of convenience particulars regarding bounties in operation in Australia on all commodities during the years 1930-31 to 1934-35 have been included in the following table:—

## BOUNTIES.—AUSTRALIA.

Articles on which Bounty was Paid.	Rate of Bounty Payable(a).	Date of Expiry of Bounty.	Amount Paid.				
			1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
<b>Iron and Steel Products</b> Bounty Act—			£	£	£	£	£
*Fencing Wire ..	£2 12s. per ton (d) ..	(e) 6th Nov., 1930	39,913	..	..	..	..
*Galvanized Sheets ..	£2 12s. per ton (b) ..	(e) 27th Mar., 1931	79,429	..	..	..	..
*Wire Netting ..	£3 8s. per ton (c) ..	..	22,696	6,334	8,947	9,838	10,644
Traction Engines ..	According to capacity, £40-£90 per tractor less 10 per cent. from 9th July, 1930, increased to 16 per cent. from 7th November, 1930, and to 40% from 11th July, 1931. Restored to original rate from 4th December, 1933	..	1,974	1,058	894	5,152	6,192
<b>Sulphur Bounty Act—</b> Sulphur from Australian Pyrites and other Sulphide Ores or Concentrates	£2 5s. per ton ..	..	48,520	30,962	46,245	47,955	50,831
<b>Flax and Linseed Bounties Act 1930</b>	Rates vary according to year	28th Feb., 1935	..	1,561	412	205	599
<b>Wine Export Bounty Act 1934-35—</b> Fortified Wine, containing not less than 34 per centum of proof spirit, exported from Australia from 1st March, 1935, to 29th February, 1940	1s. 3d. per gallon from 1st March, 1935, to 28th February, 1937, reduced by 1d. per annum from 1938 to 1s. per gallon in 1940.	29th Feb., 1940	165,009	201,268	178,491	183,981	184,330

(a) All bounties are subject to 20 per cent. reduction from 20th July, 1931, excepting that paid on gold, wine and wheat. (b) Amount of Bounty raised to £3 12s. per ton on 1st January, 1928; to £4 10s. per ton from 1st January, 1930; and reduced to £3 10s. on 21st June, 1930; and to £3 3s. on 10th July, 1930. Bounty ceased on 27th March, 1931, owing to increase in Customs duty. (c) Amount of Bounty reduced to £2 14s. per ton on 10th July, 1930; and to £2 5s. 6d. per ton on 7th November, 1930; and to 12s. per ton from 11th July, 1931. (d) Amount of Bounty reduced to £2 6s. on 10th July, 1930. Bounty ceased on 6th November, 1933 owing to increase in Customs duty. (e) Date Bounty ceased.

BOUNTIES.—AUSTRALIA—*continued.*

Articles on which Bounty was paid.	Rate of Bounty Payable. (c)	Date of Expiry of Bounty.	Amount Paid.				
			1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
			£	£	£	£	£
Cotton Bounty Act— Seed Cotton grown in Australia and delivered and graded as prescribed	Varies on Higher Grades from 1½d. per lb. up to 1932, to ¾d. per lb. in 1936 Varies on Lower Grades from ¾d. per lb. up to 1932, to ¼d. per lb. in 1936	30th Sept., 1936	100,848	64,206	56,182	87,268	21,729
Cotton Yarn manufactured in Australia	Varies according to count and year	(e) 30th June, 1932	57,085	94,395	36,985	2,287	..
Raw Cotton Bounty Act— Raw cotton produced in Australia and graded as prescribed	5½d. per lb. fluctuating according to variations in Liverpool price	30th Nov., 1939	..	..	..	..	96,752
Papua and New Guinea Bounties Act— Cocoa and Coffee Beans (a) produced in these Territories imported into Australia for home consumption	1½d. per lb.	31st Dec., 1936	(b) 946	(b) 830	(b) 632	(b) 844	1,430
Sisal Hemp	£6 per ton	.. ..	40	..	..	..	..
Gold Bounty Act— Gold produced in Australia as prescribed	Varies according to production (d).	(e) 30th Sept., 1932	..	80,904	96,112	1,216	..
Wheat Bounty Act—(g) Wheat harvested in Australia during the period 1st October, 1931, and 31st March, 1932, and sold or delivered for sale between 1st October, 1931, and 31st October, 1932, as prescribed	4½d. per bushel	31st Oct., 1932	..	3,296,464	132,807 (f)	(f)	..
Total .. ..	.. ..	.. ..	516,460	3,777,982	557,707	338,746	372,507

(a) Other goods are scheduled in the Act, see Note (b). (b) Including £1 9s. 3d., being amount of bounty paid on 234 lb. of spices in 1930-31; 12s. 7d. on 126 lb. in 1931-32; 17s. 2d. on 172 lb. in 1932-33; and £13 on 2,007 lb. of kapok in 1933-34. (c) All Bounties are subject to 20 per cent. reduction from 20th July, 1931, excepting that paid on gold, wine and wheat. (d) Rate of Bounty on gold produced for six months ending June, 1931, was 2. 623s. and for six months ending December, 1931, 3. 269s. per fine ounce; for the nine months ending September, 1932, the rate was 4. 056s. per fine ounce. (e) Date Bounty ceased. (f) For details of other financial assistance see next table. (g) Includes Administrative expenses amounting to £14,087.

2. **Other Financial Assistance.**—In addition to the payment of bounties, other than wheat, financial assistance has been granted by the Commonwealth Government for the relief of wheat-growers, fruit-growers and other primary producers. This assistance has been distributed as bounty, relief or subsidy in the following manner :—

**AMOUNTS PAID BY THE COMMONWEALTH GOVERNMENT TO ASSIST PRIMARY PRODUCERS.—AUSTRALIA.**

Amounts paid to—	Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Total.
		£	£	£	£	£	£	£	£
Wheat-growers as—									
Bounty (a) ..	1931-32	950,503	820,635	64,620	874,630	716,826	2,057	..	3,429,271
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	764,543	639,493	(e) 57,024	805	3,053,000
Bounty (a) (b) ..	1934-35	555,000	275,000	46,000	310,000	292,500	3,000	500	1,482,000
Special Relief ..	1934-35	100,000	192,000	12,000	127,000	137,000	5,250	..	573,250
Relief (b) ..	1934-35	612,000	391,550	45,000	503,500	432,100	(e) 26,057	600	2,010,807
<b>Total ..</b>	<b>..</b>	<b>3,699,499</b>	<b>2,725,192</b>	<b>284,819</b>	<b>3,086,811</b>	<b>2,654,064</b>	<b>95,730</b>	<b>2,213</b>	<b>12,548,328</b>
Fruit-growers as—									
Relief (c) ..	1933-34	8,225	36,321	478	5,258	10,918	63,800	..	125,000
Relief (c) ..	1934-35	4,023	22,083	1,168	12,990	14,505	70,231	..	125,000
Relief (d) ..	1934-35	8,515	216	935	126	208	..	..	10,000
<b>Total ..</b>	<b>..</b>	<b>20,763</b>	<b>58,620</b>	<b>2,581</b>	<b>18,374</b>	<b>25,631</b>	<b>134,031</b>	<b>..</b>	<b>260,000</b>
Primary Producers (other than wheat-growers)—									
Manure subsidy ..	1932-33	19,870	90,227	32,822	34,930	51,487	17,480	(f) 3,184	250,000
Manure subsidy (b)	1934-35	21,000	90,000	33,000	35,000	53,000	18,000	..	250,000
<b>Total ..</b>	<b>..</b>	<b>40,870</b>	<b>180,227</b>	<b>65,822</b>	<b>69,930</b>	<b>104,487</b>	<b>35,480</b>	<b>3,184</b>	<b>500,000</b>
<b>Grand Total..</b>	<b>..</b>	<b>3,761,132</b>	<b>2,964,039</b>	<b>353,222</b>	<b>3,175,115</b>	<b>2,784,182</b>	<b>265,241</b>	<b>5,397</b>	<b>13,308,328</b>

(a) Rate of Bounty 4d. per bushel in 1931-32 and 3d. per bushel in 1934-35. (b) Subject to revision  
 (c) Growers of apples or pears. (d) Mandarin Growers. (e) Includes special grant to Tasmania  
 (f) Includes £3,153 unallotted.

The moneys granted for the assistance of wheat-growers in 1932-33 and 1933-34 were paid through the Governments of the States on an acreage basis. In 1934-35, in accordance with the recommendations of the Royal Commission on the wheat industry, assistance took the form of a bounty of 3d. per bushel, supplemented by a further relief payment of 3s. per acre. Further special relief was given to those farmers who were adversely affected by the weather conditions of the season 1934-35. Altogether, the amount paid during 1934-35 for the benefit of wheat-growers exceeded £4 million. This also was paid through the State Governments. The relief granted to fruit-growers was paid to growers of apples, pears and mandarins. Payments were made to primary producers, other than wheat-growers, at the rate of 15s. for each ton of artificial manure used for the production of primary produce. In addition to the assistance outlined above the *Loan (Farmers' Debt Adjustment) Act 1935* made provision for grants totalling £12 million to be made available to the States for the adjustment of farmers' debts. Of this amount £10 million was allocated as follows :—New South Wales, £3,450,000; Victoria, £2,500,000; Queensland, £1,150,000; South Australia, £1,300,000; Western Australia, £1,300,000; and Tasmania, £300,000. The remaining £2 million is to be allocated in the same proportion, but is subject to review at a later date.

## § 19. Fertilizers.

1. **General.**—In the early days of settlement in Australia scientific cultivation was little understood. It was common, as in other new countries, for the land to be cropped continuously to a degree of exhaustion. The divergent character of the soils presented a difficulty in the proper use of fertilizers for different crops and the outstanding development of wheat-growing made a system of crop rotation impracticable. The importance of fallowing and the application of suitable fertilizers in adequate quantities is, however, now widely appreciated by farmers. The introduction of the modern seed-drill acting also as a fertilizer-distributor has greatly facilitated the use of artificial manures, and much land formerly regarded as useless for cultivation has now been made productive.

2. **Fertilizers Acts.**—In order to protect the users of artificial manures, legislation has been passed in each of the States regulating the sale and prohibiting the adulteration of fertilizers. A list of these Acts and their main features will be found in Official Year Book No. 12 (page 378).

3. **Imports.**—The Australian production of prepared fertilizers is sufficient for local requirements. Imports consist chiefly of rock phosphate, which is used in making superphosphate, a valuable fertilizer for cereals. During 1933-34 the value of rock phosphate imported represented more than 71 per cent. of the total imports of fertilizers. Nauru and Gilbert and Ellice Islands Colony supplied almost the whole of the shipments. Sodium nitrate is obtained chiefly from Chile.

The imports of manures during the last five years are given in the following table. Although considerable quantities of manufactured superphosphate were imported up to the year 1914-15, imports during recent years were very small :—

## FERTILIZERS.—IMPORTS, AUSTRALIA.

Fertilizer.		1929-30.	1930-31. (b)	1931-32. (b)	1932-33. (b)	1933-34. (b)
Bonedust ..	cwt.	(a)	(a)	(a)	(a)	(a)
„ ..	£	(a)	(a)	(a)	(a)	(a)
Guano ..	cwt.	1,000	..	..	130	11
„ ..	£	462	..	..	13	30
Superphosphate ..	cwt.	4,572	511	..	..	..
„ ..	£	3,331	398	..	..	..
Rock phosphate ..	cwt.	10,579,094	8,614,718	5,948,490	9,569,006	7,480,378
„ ..	£	1,126,531	642,006	463,496	731,454	593,971
Soda nitrate ..	cwt.	256,457	27,434	13,041	64,388	59,534
„ ..	£	123,635	14,782	8,052	40,604	30,899
Other ..	cwt.	402,188	341,023	203,892	467,664	551,214
„ ..	£	205,574	166,491	103,186	209,488	213,588
<b>Total</b> ..	cwt.	11,243,311	8,983,686	6,165,423	10,101,188	8,091,137
	£	1,459,533	823,677	574,734	981,559	838,488

(a) Now included with other fertilizers.

(b) Australian currency values.

4. Exports.—The subjoined table shows the exports of manures for the years 1929-30 to 1933-34. Practically all these fertilizers are manufactured locally, the quantities exported being consigned chiefly to New Zealand, Japan, Java, and the Pacific Islands :—

## FERTILIZERS.—EXPORTS, AUSTRALIA.

Fertilizer.			1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Bonedust	..	cwt.	6,426	6	1,140	5,470	25
"	..	£	2,756	4	162	770	10
Superphosphate	..	cwt.	168	144	66	294	633
"	..	£	54	52	28	89	155
Rock phosphate	..	cwt.	4	..	..	..	..
"	"	£	1	..	..	..	..
Soda nitrate	..	cwt.	34	7	88	65	6
"	"	£	27	14	69	49	7
Ammonia sulphate	..	cwt.	972	3,882	1,715	1,035	279
"	"	£	440	1,470	546	423	121
Other	..	cwt.	31,474	12,935	41,399	11,811	21,445
"	..	£	13,766	4,186	11,453	1,664	8,493
Total	..	cwt.	39,078	16,974	44,408	18,675	22,388
		£	17,044	5,726	12,258	2,995	8,786

5. Quantities Locally Used.—Information regarding quantities, etc., of manures used in each State during the year 1933-34 is given in the table hereunder :—

## FERTILIZERS USED, 1933-34.

State or Territory.	Total Area of Crops.	Area Manured.		Manure Used.	
		Aggregate.	Percentage on Total Area of Crops.	Natural (Stable Yard, etc.).	Artificial.
	Acres.	Acres.	%	Loads.	Tons.
New South Wales	6,283,951	3,301,538	52.54	175,810	95,048
Victoria	5,266,913	2,567,382	96.21	101,533	217,251
Queensland	1,313,438	156,380	11.91	126,364	42,517
South Australia	5,078,558	4,392,451	86.49	53,165	148,923
Western Australia	4,215,360	2,632,753	62.48	51,624	203,848
Tasmania	288,390	226,507	78.54	12,618	20,506
Northern Territory	1,250	..	..	..	..
Fed. Cap. Territory	6,467	4,090	63.24	..	120
Total	22,454,327	17,781,101	79.19	521,114	728,213

(a) Includes area under sown grasses and manure used thereon.

(b) 1923 figure.

Similar particulars in respect of Australia during the last five years are as shown below :—

### FERTILIZERS USED IN AUSTRALIA.

Year.	Total Area of Crops.	Area Manured.		Manure Used.		
		Aggregate.	Percentage on Total Area of Crops.	Natural (Stable Yard, etc.).	Artificial.	Average per Acre of Total Area (Artificial).
	Acres.	Acres.	%	Loads.	Tons.	lb.
1929-30 ..	21,929,721	19,925,988	90.86	405,812	852,925	87
930-31 ..	25,163,816	22,150,034	88.02	466,468	885,827	79
1931-32 ..	21,166,900	14,951,476	70.64	438,429	602,689	64
1932-33 ..	22,408,489	17,444,090	77.85	559,831	693,430	69
1933-34 ..	22,454,327	17,781,101	79.19	521,114	728,213	73

The quantity of chemical fertilizers used per acre of all crops increased from 75 lb., the average for the period 1910-13, to 87 lb. in 1929-30. Following that year the quantity dropped to 64 lb. in 1931-32, but subsequently rose to 73 lb. in 1933-34. The recent decline was principally due to the low prices of farm produce. In order to meet the altered conditions farmers sowed their crops with a lighter dressing of manure in an effort to reduce the cost of production. Seasonal conditions were favourable and prevented any serious decrease in the quantities produced. These circumstances caused the percentage of the area manured on the total area cultivated to decline from 90.86 to 79.19 during the last four years, while the use of artificial manures decreased by 124,000 tons during the same period. As a measure of relief to primary producers other than wheat-growers already referred to in § 18, the Commonwealth Government provided for the State Governments a sum of £250,000 which was distributed on the basis of 15s. od. per ton of artificial manure used during the year ended 30th November, 1933. A similar sum has been provided in the Budget for 1934-35 for distribution on the same basis.

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 1933-34 was 34, made up as follows :—New South Wales, 4 ; Victoria, 7 ; Queensland, 5 ; South Australia, 7 ; Western Australia, 5 ; and Tasmania, 6. The production of superphosphates in Australia during 1933-34 amounted to 597,059 tons, the largest producing States being Victoria and Western Australia.

## § 20. Ensilage.

1. **Government Assistance in Production.**—The various State Governments devote a considerable amount of attention to the education of the farming community in regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connexion with the design of the silos and the cutting and packing of the silage.



2. **Quantity Made.**—Information regarding the number of holdings on which ensilage was made and the quantity made during the seasons 1929-30 to 1933-34 is given in the following table.

**ENSILAGE MADE.**

State.	1929-30.		1930-31.		1931-32.		1932-33.		1933-34.	
	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.	Holdings.	Ensilage Made.
	(a)		(a)		(a)		(a)		(a)	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
New South Wales ..	338	28,155	669	60,172	628	54,885	738	62,435	892	70,835
Victoria ..	74	4,783	99	6,373	96	5,792	197	11,642	214	11,900
Queensland ..	43	2,933	60	4,880	79	5,819	112	6,305	134	8,515
South Australia ..	22	1,319	21	3,656	92	5,640	132	9,470	92	5,098
Western Australia ..	105	7,966	209	10,509	396	16,999	469	21,655	433	19,974
Tasmania ..	6	75	14	840	23	687	37	1,336	58	2,301
Australia ..	588	45,231	1,072	86,430	1,314	89,822	1,685	112,843	1,823	118,623

(a) No. of holdings on which ensilage was made.

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, the output in 1933-34 amounting to 118,623 tons.

**§ 21. Agricultural Colleges and Experimental Farms.**

1. **General.**—In most of the States agricultural colleges and experimental farms have been established with a view to the promotion of more scientific methods in agriculture, stock-breeding and dairying. In the colleges, and on some of the farms, provision is made for the accommodation of pupils to whom both practical and theoretical instruction is given by experts in various branches of agriculture. Analyses of soils and fertilizers are made, manures are tested, and elementary veterinary science, etc., are taught, while general experimental work is carried on with cereal and other crops, not merely for the purpose of showing that it is practicable to produce certain crops in a given place, but to show also how it is possible to make farming pay in the locality. Opportunities are afforded for practice in general agricultural work, and instruction is given in the conservation of fodder; in cheese and butter making; in the management, breeding, and preparation for the market of live stock; in the eradication of pests and weeds; and in carpentering, blacksmithing, and other trades.

Expert lecturers visit the various agricultural and dairying centres, and there is a wide distribution of periodical agricultural gazettes and bulletins.

2. **Agricultural Colleges and Experimental Farms.**—In previous issues of this volume detailed information was given regarding agricultural colleges, experimental farms, and agricultural education generally. See Year Book No. 11, pages, 393-5, and a summary in respect of the year 1933-34 will be found in the Production Bulletin No. 28 issued by this Bureau.

3. **Agricultural and Stock Departments.**—A synopsis of the activities and operations of the Agricultural and Stock Departments of the several States on 30th June, 1920, will be found in the Official Year Book No. 14, pages 1180 to 1191.

## § 22. Employment in Agriculture.

Information relating to the number of persons employed is furnished annually by landholders of one acre and upwards. The particulars furnished refer to the owner, occupier or manager, those members of his family and other employees who are permanently engaged throughout the year in the work of the farm. Casual labour, such as harvesters and fruitpickers, is excluded. In the collection of statistics of this nature difficulty is experienced in correctly determining whether the duties of female employees are more domestic than rural and on that account it is considered advisable to leave females out of the table.

## MALES EMPLOYED IN AGRICULTURE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
1913-14 ..	61,525	51,932	33,362	34,111	18,210	11,789	210,929
1923-24 ..	48,176	49,740	38,186	31,532	22,153	12,905	202,692
1929-30 ..	39,860	46,533	43,501	30,158	26,701	12,073	198,826
1930-31 ..	40,163	43,199	43,847	30,325	26,487	11,823	195,844
1931-32 ..	39,382	40,994	45,496	30,587	25,576	12,736	194,771
1932-33 ..	42,556	41,845	46,203	30,457	26,079	13,199	200,339
1933-34 ..	42,084	38,514	46,097	30,329	24,925	13,945	195,894

The above table reveals that there has been a decrease in the employment afforded in the agricultural branch of the rural industry in Australia. This has taken place despite the expansion in the area under crop during the past two decades. The increased employment of machinery in the cultivation of the soil and the harvesting of crops has largely contributed to this decline. Evidence of this is revealed by the fact that in 1913-14 the value of the machinery used mainly in general agriculture was £15.2 million, while the area under crop was 14.7 million acres. In 1923-24 the machinery values rose to £27.3 million and the area under crop increased to 16.5 million acres. Machinery values again increased to £31.2 million in 1933-34, while the area under crop also rose to 22.5 million acres, whereas the employment again decreased by nearly 7,000 to 195,894.

## CHAPTER XXII.

## FARMYARD, DAIRY, AND BEE PRODUCTS.

## § 1. Introductory.

1. **General.**—The introduction of cattle into Australia and the early history of the dairying industry are referred to in some detail in earlier issues of this work (see Official Year Book No. 6, p. 430). It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossings of strains have resulted in an increased and improved milk supply. In Australia, dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter, and rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the wider application of scientific methods in the treatment of animals and pasturages and in the processes of manufacture, coupled with herd testing and effective State supervision, the dairying industry has shown rapid expansion. An investigation into the problems of the dairying industry was decided upon by the Commonwealth Government in 1929, the task of making the necessary inquiries being referred to the Development and Migration Commission and the Council for Scientific and Industrial Research for joint action. The first report, which relates to farm production, was completed by the Federal Dairy Investigation Committee in 1930. It was proposed to issue additional reports, but the investigation was discontinued. Investigation by the British Medical Research Council into the vitamin content of Australian, New Zealand and British butter respectively showed high and uniform results for the Australian product, the figures being on a par with those for the United Kingdom and other European countries. It was demonstrated also that Australian production and marketing methods do not adversely affect the vitamin content of the butter and that the loss during cold storage even for as long as two years is insignificant.

2. **Official Supervision of Industry.**—Dairy experts of the various State Agricultural Departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce. A high standard of cleanliness, both of *personnel* and *materiel*, prevails. Financial assistance of a temporary nature is also given.

The export trade is regulated by the terms of the Commonwealth *Commerce Act* 1905 and regulations thereunder. The provisions of this Act are set out in detail in Official Year Book No. 6, pp. 431-2. It will be sufficient to state here that the true trade description, etc., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector. A reference to other Commonwealth legislation governing dairy produce will be found in Chapter XXVIII.—Miscellaneous.

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 has been superseded by a system of compulsory control of sales.

(ii) *Compulsory Plan.* Legislation known as the *Dairy Produce Act* was passed by the Commonwealth Parliament towards the end of 1933, and at the same time complementary legislation was passed by the States of New South Wales, Victoria, Queensland and Tasmania. In the Commonwealth Act power is given to regulate interstate trade\*, whilst the State Acts were designed to regulate trade within the

respective States. The authority set up by each State Act fixes the proportion of the State's production which may be sold within the State, whilst the Commonwealth Act protects this allocation by regulating the movement of butter and cheese from one State to another\*, and so ensures that the surplus production of butter and cheese is removed from the Australian market.

The Commonwealth *Dairy Produce Act* was brought into operation by Proclamation issued on the 2nd May, 1934, and it was provided that a poll of producers throughout the Commonwealth had to be taken within six months from that date to decide whether or not the Act should continue to operate. The Poll was held on the 11th October, 1934, and 50,747 producers voted in favour of continuance, and only 1,416 against continuance.

In order that the legislation might be effective in securing a reasonable return for butter and cheese notwithstanding any adverse conditions in overseas markets representatives of the industry formed themselves into a public company known as the Commonwealth Dairy Products Equalization Committee. This body has entered into agreements with manufacturers in the States of New South Wales, Victoria, Queensland and Tasmania, under which the manufacturers undertake not to sell butter or cheese on the local market at prices less than those fixed by the Committee.

The agreement also ensures to manufacturers equal rates of returns from sales made in Australia and overseas, and in the case of those manufacturers who either oversell or undersell (on a quantity basis) on the Australian Market, an equalization cash adjustment is made by the Committee representing the difference between the ruling Australian and overseas prices.

4. **Mixed Farming.**—Dairying is not now, as formerly, wholly confined to agriculturists, since many graziers in a large way of business have lately given it their attention. In non-coastal regions it is generally carried on in conjunction with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. Local wants are thus met, and in many places remote from the metropolis well-equipped factories have been established.

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 531 in 1933-34 as compared with 563 in 1927-28. The factories were distributed among the States as follow:—New South Wales, 138; Victoria, 175; Queensland, 116; South Australia, 42; Western Australia, 19; and Tasmania, 41. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXV.

7. **Ottawa Conference.**—The agreement reached at the Imperial Economic Conference at Ottawa in August, 1932, has materially assisted the dairying, bee, and poultry industry. Under the terms of this agreement free entry into the United Kingdom of eggs, poultry, butter, cheese and other milk products of Australian origin will be continued for three years from 15th November, 1932, while similar goods imported from foreign countries are to be subjected to customs duties. The rate to be imposed on the undermentioned items is as follows:—butter, 15s. per cwt.; cheese, 15 per cent. ad valorem; eggs in shell, 1s. od. to 1s. 9d. per great hundred; honey, 7s. per cwt.; milk powder, unsweetened, 6s. per cwt.; and condensed milk, 5s. and 6s. per cwt. The right to review the basis of preference of these items at the end of this period is reserved by the Government of the United Kingdom. The granting of new or additional

\* The power to regulate interstate trade has been challenged as being a contravention of Section 92 of the Constitution and the matter is now before the Privy Council.

preferences on some of these items by Crown Colonies and Protectorates should further benefit these industries. The Agreement at the Ottawa Conference regarding the regulation of imports of bacon has been superseded by the introduction of a Bacon Marketing Scheme by the British Government. Under this scheme foreign supplies will be adjusted according to the quantities furnished by British and Dominion producers. Details of imports into the United Kingdom are given in § 9 hereafter.

8. **Employment.**—The number of persons employed in the dairying industry is ascertained at the annual census of dairy production. The particulars collected are in respect of those persons who are permanently engaged in the actual work of the farm and include owner, occupier or manager, members of the family and other permanent employees. Casual hands are excluded. So are females whose duties are mainly domestic although they may assist in the outdoor work of the farm. In the earlier years, however, these females were in many cases included as farm workers.

EMPLOYMENT IN DAIRYING INDUSTRY.

Year and Sex.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
		No.	No.	No.	No.	No.	No.	No.
1913-14	Males	25,961	26,506	13,165	1,356	481	1,212	68,681
	Females	18,478	18,777	12,320	9,563	470	2,256	61,864
1923-24	Males	28,980	32,191	18,187	1,428	986	2,871	84,643
	Females	13,594	19,484	13,627	3,418	750	3,140	54,013
1929-30	Males	32,494	29,579	24,918	2,384	2,929	2,185	94,489
	Females	9,105	8,548	16,621	1,954	709	878	37,815
1930-31	Males	33,977	36,383	25,794	2,770	3,619	2,848	105,391
	Females	8,735	9,479	16,145	2,125	972	932	38,388
1931-32	Males	36,601	40,630	27,349	3,220	3,838	3,565	115,203
	Females	7,923	8,407	18,123	2,398	1,123	1,163	39,137
1932-33	Males	38,196	40,895	28,602	3,531	4,437	3,830	119,491
	Females	7,788	10,433	18,587	2,602	1,296	1,576	42,282
1933-34	Males	38,358	41,433	29,808	4,087	5,142	3,542	122,370
	Females	7,246	8,466	19,539	2,987	1,305	2,125	41,668

The employment of males shown in the above table gives some indication of the expansion of the dairying industry since 1913-14. This is further exemplified in the following table:—

DAIRYING INDUSTRY—AUSTRALIA.

Year.	Number of Dairy Cows.	Production of Butter.	Value of Machinery employed on Dairy Farms.	Number of Males employed.
	No.	lb.	£	No.
1913-14	2,035,717	198,758,238	1,678,600	68,681
1923-24	2,304,644	226,665,853	3,222,600	84,643
1933-34	3,265,932	450,936,428	3,987,000	122,370

§ 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 1933 there were 3.3 million, the number having doubled in the course of eighteen years. In New South Wales, Victoria, South Australia, and Tasmania the proportion of dairy cattle to all cattle is high. In Queensland, the Northern Territory, and Western Australia there is a greatly preponderating number of other cattle, the main object in these areas being the production of beef. Dairying, however, has developed greatly in Southern Queensland since 1914-15, and the largest contribution to the Australian increase previously mentioned has been made by this State. The number of dairy cows shown

in the following table includes heifers intended for milking and being within three months of calving. These heifers, however, are not collected in Tasmania, but in the other States they numbered 156,939.

## CATTLE AND DAIRY CATTLE.—NUMBER.

State.		1929.	1930.	1931.	1932.	1933.
New South Wales	All Cattle ..	2,686,132	2,840,473	2,993,586	3,141,174	3,361,771
	Dairy Cows ..	913,555	964,739	1,020,947	1,068,605	1,097,842
Victoria	All Cattle ..	1,335,442	1,429,920	1,637,530	1,900,922	2,002,235
	Dairy Cows ..	619,416	669,132	775,538	887,996	910,187
Queensland	All Cattle ..	5,208,588	5,463,724	5,550,399	5,535,065	5,781,170
	Dairy Cows ..	680,577	724,323	775,301	792,943	877,409
South Australia	All Cattle ..	204,516	218,985	265,324	312,932	352,728
	Dairy Cows ..	104,255	109,672	127,756	149,172	163,875
Western Australia	All Cattle ..	836,646	812,844	826,532	857,473	885,669
	Dairy Cows ..	74,223	85,725	99,287	114,022	121,818
Tasmania	All Cattle ..	214,643	230,254	232,444	250,807	262,256
	Dairy Cows ..	72,235	76,825	81,800	87,854	94,375
Northern Territory	All Cattle ..	711,607	720,476	749,745	780,121	859,867
	Dairy Cows ..	(a)	(a)	(a)	(a)	(a)
Federal Capital Territory	All Cattle ..	4,760	4,240	5,395	4,643	6,790
	Dairy Cows ..	679	788	643	411	426
Australia	All Cattle ..	11,202,134	11,720,916	12,260,955	12,783,137	13,512,486
	Dairy Cows ..	2,464,940	2,631,204	2,881,272	3,101,003	3,265,932

(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 of the last eight seasons, the yield of 392 gallons in 1931 constituting a record. The annual average 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.	Fed. Cap. Ter.	Australia. (b)
1929-30—								
Dairy Cows (a) .. No.	858,194	617,254	643,272	98,969	67,592	70,157	550	2,355,988
Production 1,000 gals.	283,947	274,172	188,520	34,774	21,366	25,466	276	828,521
Aver. per cow .. gal.	331	444	293	351	316	363	502	352
1930-31—								
Dairy Cows (a) .. No.	880,079	644,274	671,803	98,502	75,465	74,530	614	2,445,267
Production 1,000 gals.	298,111	313,815	224,085	39,035	24,329	31,165	238	930,778
Aver. per cow .. gal.	339	487	334	396	322	418	388	381
1931-32—								
Dairy Cows (a) .. No.	935,438	722,335	718,677	107,075	87,275	79,312	614	2,650,726
Production 1,000 gals.	332,293	362,868	231,688	50,001	29,890	31,306	280	1,038,326
Aver. per cow .. gal.	355	502	322	466	342	395	456	392
1932-33—								
Dairy Cows (a) .. No.	992,343	831,767	751,938	122,710	100,755	84,827	460	2,884,800
Production 1,000 gals.	320,659	396,716	237,130	58,499	33,634	33,847	255	1,080,740
Aver. per cow .. gal.	323	477	315	477	334	399	554	375
1933-34—								
Dairy Cows (a) .. No.	1,028,874	878,974	799,537	139,482	112,005	91,115	400	3,050,385
Production 1,000 gals.	368,691	368,866	289,065	54,400	34,904	29,160	277	1,145,303
Aver. per cow .. gal.	358	420	362	390	312	320	693	375

(a) Mean for the year.

(b) Exclusive of Northern Territory.

3. **Butter and Cheese.**—Although the quantity of dairy production is largely affected by the nature of the season, a large increase in the output of butter has taken place in recent years. The average annual production rose from 250,150,000 lb. for the quinquennium 1920-1924 to 382,000,000 lb. for the latest five years. The largest production of butter in Australia was recorded in 1933-34, when, as a result of a specially favourable season, 450,936,000 lb. were manufactured. The previous highest figure was in 1932-33 when the total amounted to 419,675,000 lb. It is anticipated that this record will be broken by the returns for the season 1934-35. Preliminary data indicate a total production of 470,000,000 lb.

The output of cheese is also largely dependent upon seasonal conditions. The production in 1933-34 was 38,476,493 lb. as compared with 36,933,306 lb. during the previous year and was the greatest quantity produced in any year.

The development in dairy production since 1896, and in the exports of butter from 1901 onwards are shown in the graphs hereinafter. The production of butter and cheese for the last five years was as follows :—

**BUTTER AND CHEESE PRODUCTION.**

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
<b>BUTTER.</b>					
	lb.	lb.	lb.	lb.	lb.
New South Wales .. ..	104,175,340	113,237,295	123,252,722	128,210,092	147,963,411
Victoria .. ..	90,639,652	110,006,619	132,131,812	144,564,666	134,942,177
Queensland .. ..	78,796,483	95,719,316	98,013,043	103,032,474	127,343,160
South Australia .. ..	10,789,706	12,961,231	17,663,029	21,310,006	19,755,685
Western Australia .. ..	6,179,489	8,666,399	10,109,795	11,469,661	11,911,912
Tasmania .. ..	8,488,932	9,802,261	9,462,866	11,071,631	9,003,800
Federal Capital Territory ..	10,943	11,983	20,803	16,273	16,283
<b>Australia .. ..</b>	<b>299,080,545</b>	<b>350,405,104</b>	<b>390,654,070</b>	<b>419,674,803</b>	<b>450,936,428</b>
<b>CHEESE.</b>					
	lb.	lb.	lb.	lb.	lb.
New South Wales .. ..	6,345,785	6,516,065	6,590,357	7,193,806	9,072,508
Victoria .. ..	6,953,949	8,064,463	7,723,328	9,189,018	8,363,233
Queensland .. ..	12,380,882	13,648,038	11,021,963	13,083,959	13,887,320
South Australia .. ..	3,536,943	3,901,159	5,096,731	6,093,170	5,316,971
Western Australia .. ..	998	528	909	138,051	285,461
Tasmania .. ..	954,463	969,528	989,685	1,235,302	1,551,000
<b>Australia .. ..</b>	<b>30,173,020</b>	<b>33,099,781</b>	<b>31,422,973</b>	<b>36,933,306</b>	<b>38,476,493</b>

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 1929-30 to 51,581,802 lb.; in 1930-31 to 45,665,474 lb.; in 1931-32 to 41,409,540 lb.; in 1932-33 to 44,186,979 lb.; and in 1933-34 to 41,899,267 lb. Production in New South Wales during 1933-34 was 9,335,914 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 not very large. Imports of milk into Australia consist almost entirely of malted or otherwise medicated milk.

5. Oversea Trade in Butter, Cheese, and Milk.—The following tables give the imports, exports, and net exports of butter, cheese, and milk. In each of the five years dealt with the exports of butter, cheese, and condensed milk exceeded the imports :—

**BUTTER, CHEESE, AND MILK, IMPORTS AND EXPORTS.—AUSTRALIA.**

Products.		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
<b>IMPORTS.</b>						
Butter	.. .. . lb.	3,016	1,525	2,359	2,471	2,090
	.. .. . £	(a) 201	(a) 110	(a) 150	(a) 199	(a) 113
Cheese	.. .. . lb.	30,356	13,695	86,892	58,453	74,791
	.. .. . £	(a) 2,729	(a) 1,482	(a) 8,205	(a) 5,283	(a) 5,949
Milk—concentrated and preserved	.. .. . lb.	524,865	393,953	312,730	260,311	60,289
"	.. .. . £	(a) 22,016	(a) 11,162	(a) 12,016	(a) 9,408	(a) 2,342
<b>EXPORTS.</b>						
Butter	.. .. . lb.	163,180,695	201,639,404	226,320,334	244,299,732	262,518,906
	.. .. . £	a 8,120,165	a 9,812,827	a 9,264,665	a 8,194,220	a 9,586,776
Cheese	.. .. . lb.	8,595,019	7,267,727	11,799,265	9,314,529	16,829,780
	.. .. . £	(a) 244,107	(a) 212,871	(a) 320,084	(a) 229,388	(a) 404,024
Milk—concentrated and preserved	.. .. . lb.	12,351,714	15,996,464	24,452,610	19,773,041	16,589,355
"	.. .. . £	(a) 610,705	(a) 642,036	(a) 927,558	(a) 739,031	(a) 710,923
<b>NET EXPORTS.</b>						
Butter	.. .. . lb.	163,177,679	201,637,879	226,326,975	244,297,261	262,516,810
	.. .. . £	a 8,119,964	a 9,812,717	a 9,264,515	a 8,194,021	a 9,586,663
Cheese	.. .. . lb.	8,564,663	7,254,032	11,712,373	9,256,076	16,754,989
	.. .. . £	(a) 241,378	(a) 211,389	(a) 311,879	(a) 224,105	(a) 398,075
Milk—concentrated and preserved	.. .. . lb.	11,826,849	15,602,511	24,139,880	19,512,730	16,529,066
"	.. .. . £	(a) 588,689	(a) 630,874	(a) 915,542	(a) 729,623	(a) 708,581

(a) Australian currency values.

6. Local Consumption of Butter and Cheese.—The local production of butter and cheese, with the subtraction therefrom or the addition thereto of the net export or import for the corresponding period, represents approximately the quantity available for consumption in Australia. The figures for the last five years are as follow :—

**BUTTER AND CHEESE.—LOCAL CONSUMPTION.**

Products.		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	.. .. . lb.	lb.	lb.	lb.	lb.	lb.
Butter	.. Total	191,421,228	187,227,425	189,016,191	193,347,828	206,639,167
	.. Per head of population	29.84	28.91	28.96	29.27	31.05
Cheese	.. Total	27,537,409	24,535,118	24,168,941	25,220,933	29,220,417
	.. Per head of population	4.29	3.79	3.70	3.82	4.39

Consumption in 1933-34 averaged 31 lb. of butter and 4½ lb. of cheese per head of population. The consumption of butter in the United Kingdom, Canada, and New Zealand is given at 25.2 lb., 31.0 lb., and 37.0 lb. per head per annum respectively, while that of cheese amounted to 9.5 lb., 3.6 lb., and 6.0 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. During the last five years the number of pigs has been maintained at slightly more than 1,000,000 which is still slightly below the record of 1,169,000 of 1917. The distribution of pigs among the States and Territories in 1933 was—New South Wales, 367,116; Victoria, 240,530; Queensland, 217,448; South Australia, 91,573; Western Australia, 91,213; Tasmania, 38,126; Northern Territory, 397; Federal Capital Territory, 464; Total, 1,046,867. The figures for New South Wales, Victoria and the Federal Capital Territory represent the number as on the 31st March, 1934.



2. **Bacon and Ham.**—The highest production of bacon and ham was reached in 1927-8 with an output of 75,000,000 lb. During the last three years the average was about 70,000,000 lb. The production in the several States in 1933-34 was as follows :— New South Wales, 21,081,586 lb.; Victoria, 17,735,453 lb.; Queensland, 18,881,267 lb.; South Australia, 7,251,509 lb.; Western Australia, 4,586,343 lb.; Tasmania, 1,951,651 lb.; Federal Capital Territory, 2,470 lb.; Total, 71,490,279 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 69,500,000 lb. per year, or 10.5 lb. per unit of population. The bacon and ham exported from Australia is consigned chiefly to the Pacific Islands and the East.

3. **Pork Consumption.**—Data available regarding the consumption of pork (excluding bacon and ham) indicate an average for Australia in 1933-34 of 8.21 lb. per head of population, as compared with 7 lb. per head in New Zealand, 66.36 lb. in Canada and 72 lb. in the United States of America.

4. **Oversea Trade in Pig Products.**—The oversea trade in pigs and pig products for the last five years is shown in the following table :—

**PIG PRODUCTS.—OVERSEA TRADE, AUSTRALIA.**

*Australian Currency Values.*

Particulars.		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
<b>PIGS.</b>						
Imports	No.	7	4	6	12	11
"	£	252	159	242	291	257
Exports	No.	280	274	28	201	239
"	£	1,186	1,074	192	809	799
Net Exports	No.	273	270	22	189	228
"	£	934	915	-50	518	542
<b>BACON AND HAM.</b>						
Imports	lb.	25,245	1,191	7,135	11,014	11,712
"	£	1,595	97	468	803	774
Exports	lb.	2,100,290	1,429,367	1,598,106	1,664,501	1,562,498
"	£	115,278	87,213	95,128	96,579	98,825
Net Exports	lb.	2,075,045	1,428,176	1,590,971	1,653,487	1,550,786
"	£	113,683	87,116	94,660	95,776	98,051
<b>LARD.</b>						
Imports	lb.	101,391	15,244	24,644	17,973	25,718
"	£	2,972	492	694	481	493
Exports	lb.	1,043,930	2,924,492	1,620,590	1,483,680	2,523,749
"	£	26,189	43,498	27,385	25,969	41,758
Net Exports	lb.	942,539	2,909,248	1,595,946	1,465,707	2,498,031
"	£	23,217	43,006	26,691	25,488	41,265
<b>FROZEN PORK.</b>						
Imports	lb.	46,695	706	180	..	150,032
"	£	1,684	32	10	..	6,703
Exports	lb.	8,629,901	7,383,355	6,703,234	8,663,864	15,636,132
"	£	235,999	173,373	154,163	210,793	401,306
Net Exports	lb.	8,583,206	7,382,649	6,703,054	8,663,864	15,486,100
"	£	234,315	173,341	154,153	210,793	394,603

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 1934-35, however, overseas exports of frozen pork showed a remarkable increase averaging

9.4 million lb. as compared with an average of 373,000 lb. for the five preceding years. The chief pig product consumed in the United Kingdom is bacon and ham, the imports of which during 1933 amounted to 8.3 million cwt., valued at £33,200,000, the supplies were obtained chiefly from Denmark.

The agreement at the Ottawa Conference regarding the regulation of supplies from foreign countries and the Dominions has been superseded by the institution of a Bacon Marketing scheme by the British Government. The scheme aims at creating a regular market for home producers of bacon pigs and necessitates adjustment of foreign supplies to conform with British bacon factories' requirements after estimated home and Dominion production is provided for. The estimated share of Australian production in this market for 1935 is 8,400,000 lb., which indicates a steady expansion of this trade in bacon pigs. In Victoria particularly the tendency toward export of bacon pigs as against porkers is in evidence.

### § 4. Total Dairy Production.

The total dairy production for each State in 1933-34 is shown below :—

#### PRINCIPAL DAIRY PRODUCTION.—1933-34.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Total.
<b>MILK.</b>								
Used for—	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
Butter	294,869,646	294,951,530	261,097,703	41,056,320	25,319,073	22,233,100	66,096	939,593,468
Cheese		8,296,373						
Condensing and concentrating	13,480,346	12,532,184	13,657,646	5,196,736	755,261	1,536,000	..	55,454,546
Other purposes	60,341,396	53,025,895	14,309,958	8,146,951	8,829,553	5,391,300	210,564	150,255,617
<b>Total</b>	<b>368,691,388</b>	<b>368,805,982</b>	<b>289,065,307</b>	<b>54,400,007</b>	<b>34,903,887</b>	<b>29,160,400</b>	<b>276,660</b>	<b>1,145,303,631</b>
<b>BUTTER.</b>								
In factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy and other Farms	142,303,307	130,379,436	123,918,257	15,329,297	9,825,284	6,373,600	..	428,129,181
<b>Total</b>	<b>147,963,411</b>	<b>134,942,177</b>	<b>127,343,160</b>	<b>19,755,685</b>	<b>11,911,912</b>	<b>9,003,800</b>	<b>16,283</b>	<b>450,936,428</b>
<b>CHEESE.</b>								
In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
On Dairy and other Farms	8,864,126	8,170,073	13,883,380	5,315,091	284,221	1,453,900	..	37,970,991
<b>Total</b>	<b>9,072,508</b>	<b>8,363,233</b>	<b>13,887,320</b>	<b>5,316,971</b>	<b>285,461</b>	<b>1,551,000</b>	<b>..</b>	<b>38,476,493</b>
<b>CONDENSED, CONCENTRATED, OR POWDERED MILK.</b>								
In Factories	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
	9,335,914	41,899,267	(a)	(a)	(a)	..	..	(b)53,658,683

(a) Figures not available for publication.

(b) Including States marked (a).

PRINCIPAL DAIRY PRODUCTION, 1933-34—*continued.*

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Total.
<b>BACON AND HAM.</b>								
In Factories On Dairy and other Farms ..	19,953,792	16,279,693	18,573,812	6,481,851	4,257,785	1,353,199	..	66,900,132
	1,127,794	1,455,760	307,455	769,658	328,558	598,452	2,470	4,590,147
Total ..	21,081,586	17,735,453	18,881,267	7,251,509	4,586,343	1,951,651	2,470	71,490,279

Particulars in regard to the production of other milk products are not available for all the States, but casein amounting to 2,572,816 lb., valued at £39,739, was manufactured in Victoria during 1933-34.

## § 5. Value of Dairy Production.

The values of dairy production on a gross, local and net basis are shown in the following table. The presentation of these values has become possible by the adoption in the several States of uniform principles in determining production and marketing costs. Production values for this and other industries are dealt with more fully in Chapter XXVIII.—Miscellaneous.

## GROSS, LOCAL AND NET VALUE OF DAIRY PRODUCTION, 1933-34.

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)
				Fodder fed to Farm Stock.	Value of Other Materials used in process of Production.	
	£	£	£	£	£	£
New South Wales ..	10,368,000	1,280,000	9,088,000	1,072,000	5,000	8,011,000
Victoria ..	7,905,988	368,908	7,537,080	1,219,690	84,997	6,232,393
Queensland ..	5,950,808	180,374	5,770,434	1,033,044	110,709	4,626,681
South Australia ..	1,554,071	51,922	1,502,149	338,110	25,111	1,138,928
Western Australia ..	1,027,412	42,593	984,819	615,769	..	369,050
Tasmania ..	623,870	38,220	585,650	188,530	12,920	384,200
Total ..	27,430,149	1,962,017	25,468,132	4,467,143	238,737	20,762,252

(a) No account has been taken of maintenance costs and depreciation.

## § 6. Poultry Farming.

1. *General.*—Poultry is kept in varying numbers by farmers, and production therefrom furnishes a considerable addition to the annual agricultural or dairying returns. For many years, however, poultry-keeping has been carried on as a separate industry, while it is also practised in conjunction with other rural industries. Special poultry farms have been instituted by the State Governments for scientific breeding, experts have been appointed to advise and instruct in the care and management of the various kinds of poultry, and exhibitions of leading breeds have been arranged, as well as egg-laying competitions. Co-operative egg-collecting circles have been formed in some districts; eggs are also delivered with milk and cream to the local butter factories, and thence forwarded to market.

2. Number of Principal Kinds.—A census of the number of principal kinds of poultry on holdings of one acre and upwards, with an estimate of those on smaller areas, was completed for all States, excepting Tasmania, in 1933-34. The previous year in which a complete census was taken was in 1913 and these data have been included for comparative purposes in the following table:—

## POULTRY.—NUMBER OF PRINCIPAL KINDS—AUSTRALIA.

State.	Fowls.	Ducks.	Geese.	Turkeys.
1913.				
	No.	No.	No.	No.
New South Wales .. ..	3,351,629	261,075	23,948	216,274
Victoria .. ..	3,855,538	288,413	59,851	(a) 100,000
Queensland .. ..	841,630	35,337	7,457	27,192
South Australia .. ..	1,449,385	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
1933-34.				
	No.	No.	No.	No.
New South Wales .. ..	4,841,606	188,805	27,383	225,185
Victoria .. ..	5,496,969	292,882	39,283	113,966
Queensland .. ..	1,041,819	37,230	4,594	10,033
South Australia .. ..	2,083,012	61,029	18,771	51,321
Western Australia .. ..	1,318,307	45,398	3,113	46,750
Tasmania (a) .. ..	450,000	35,000	10,000	10,000
Total .. ..	15,231,713	660,344	103,144	457,255

(a) Estimated.

3. Value of Poultry Products.—Difficulty is experienced in obtaining complete figures for the production of poultry products. Arising from a series of Conferences of Australian Statisticians uniform procedure has been established for the valuation of these products. The following table sets out the values accruing to the poultry industry for Australia on a gross, local and net basis, and has been compiled from data actually collected or carefully estimated by the State Statistical Bureaux:—

## GROSS, LOCAL AND NET VALUE OF POULTRY PRODUCTS, 1933-34.

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 .. ..	2,814,000	211,000	2,603,000	793,000	1,810,000
Victoria .. ..	3,510,942	263,319	3,247,623	1,004,579	2,243,044
Queensland .. ..	490,064	107,480	382,584	112,000	270,584
South Australia .. ..	735,274	78,650	656,624	406,587	250,037
Western Australia .. ..	620,415	113,364	507,051	199,866	307,185
Tasmania .. ..	371,580	27,870	343,710	45,200	298,510
Total .. ..	8,542,275	801,683	7,740,592	2,561,232	5,179,360

(a) No account has been taken of maintenance costs and depreciation.

4. Oversea Trade in Poultry Products.—The Australian oversea export of poultry products is confined chiefly to eggs, which are mainly consigned to the United Kingdom; New South Wales, Victoria, and South Australia are the largest exporters, the total exports in 1933-34 amounting to £1,066,648 and in 1934-35 to £1,151,733. The levying in accordance with the Ottawa Conference Agreement of a customs duty varying between 1s. and 1s. 9d. per 10 dozen by the Government of the United Kingdom on imported eggs of foreign origin has assisted Australia to obtain a larger share in this valuable market. Exports from Australia have risen from less than 3 million dozen valued at £219,000 in 1928-29 to 19.6 million dozen valued at £1,000,000 in 1933-34, while in 1934-35 21.7 million dozen valued at more than £1.1 million were exported. The exports of frozen poultry have increased considerably in recent years as the following table shows. The oversea trade during the last five years was as follows:—

## POULTRY PRODUCTS, TRADE.—AUSTRALIA.

Particulars.		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
<b>LIVE POULTRY.</b>						
Imports	.. .. No.	176	164	253	77	137
"	.. .. £	(b) 582	(b) 292	(b) 788	(b) 239	(b) 401
Exports	.. .. No.	1,526	2,067	1,742	2,047	1,233
"	.. .. £	(b) 1,147	(b) 1,039	(b) 896	(b) 986	(b) 799
Net Exports	.. .. No.	1,350	1,903	1,489	1,970	1,096
"	.. .. £	(b) 565	(b) 747	(b) 108	(b) 747	(b) 398
<b>FROZEN POULTRY.</b>						
Imports	.. .. lb.	1,695	49	20,486	13,290	3,129
"	.. .. £	(b) 121	(b) 2	(b) 809	(b) 919	(b) 147
Exports	.. .. pair	14,553	32,597	60,921	33,538	39,310
"	.. .. £	(b) 11,729	(b) 33,366	(b) 40,266	(b) 16,798	(b) 20,490
Net Exports	.. .. (a)	(a)	(a)	(a)	(a)	(a)
"	.. .. £	(b) 11,608	(b) 33,364	(b) 39,457	(b) 15,879	(b) 20,343
<b>Eggs.</b>						
Imports	.. .. doz.	10,828	8,513	6,722	6,003	7,002
"	.. .. £	(b) 458	(b) 443	(b) 397	(b) 333	(b) 408
Exports	.. .. doz.	5,970,696	9,921,829	16,844,288	19,617,032	21,718,740
"	.. .. £	(b) 321,627	(b) 494,032	(b) 958,065	61,058,164	61,148,254
Net Exports	.. .. doz.	5,959,868	9,913,316	16,837,566	19,611,029	21,711,738
"	.. .. £	(b) 321,169	(b) 493,589	(b) 957,668	61,057,831	61,147,846
<b>EGG-CONTENTS.</b>						
Imports	.. .. lb.	11,108	13,219	9,470	24,173	31,257
"	.. .. £	(b) 1,007	(b) 1,706	(b) 1,755	(b) 3,491	(b) 3,388
Exports	.. .. lb.	(a)	(a)	(a)	(a)	(a)
"	.. .. £	(b) 5,116	(b) 60,926	(b) 60,549	(b) 8,484	(b) 3,479
Net Exports	.. .. lb.	(a)	(a)	(a)	(a)	(a)
"	.. .. £	(b) 4,109	(b) 59,220	(b) 58,794	(b) 4,993	(b) 91

(a) Quantity not available.

(b) Australian currency values.

NOTE.—The 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 1933-34 gave an average of 43.7 lb. per hive, while the average quantity of wax was 0.63 lb. per hive.

2. **Production of Honey and Beeswax.**—The number of hives and the production of honey and beeswax during the year 1933-34 are given in the following table. As these details have been collected from holdings of one acre and upwards, any production from smaller areas is omitted and consequently the production to that extent is understated. In Victoria and South Australia, however, the compulsory registration of beekeepers enables the collection to cover all producers and the production for these States is complete.

## BEE-HIVES, HONEY, AND BEESWAX, 1933-34.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Gross Value.	Quantity.	Gross Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	36,552	19,204	55,756	1,397,426	23,345	27,069	1,655
Victoria ..	36,493	25,205	61,698	1,133,279	20,954	15,102	880
Queensland ..	10,955	3,394	14,349	610,330	10,181	8,727	522
South Australia ..	49,250	23,952	73,202	2,561,057	26,678	31,891	1,661
Western Australia ..	10,490	882	11,372	621,275	9,055	8,643	436
Tasmania ..	4,798	2,088	6,886	168,334	4,210	2,038	180
Fed. Cap. Territory ..	..	7	7	..	..	..	..
<b>Australia ..</b>	<b>148,538</b>	<b>74,732</b>	<b>223,270</b>	<b>6,491,701</b>	<b>94,423</b>	<b>93,470</b>	<b>5,334</b>

The table hereunder gives the production of honey and beeswax for the latest available five years :—

## HONEY AND BEESWAX PRODUCTION.

Season.	N.S.W.	Victor a.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
<b>HONEY.</b>								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1929-30	2,101,619	3,097,805	714,068	678,348	611,938	115,845	4,170	7,323,793
1930-31	2,643,871	2,804,186	555,244	1,717,442	641,969	102,540	10,600	8,475,852
1931-32	2,123,233	2,159,770	283,022	1,240,525	250,146	52,559	1,480	6,110,735
1932-33	2,921,242	3,543,103	531,075	4,791,526	438,209	127,896	2,976	12,356,027
1933-34	1,397,426	1,133,279	610,330	2,561,057	621,275	168,334	..	6,491,701
<b>BEESWAX.</b>								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1929-30	35,493	29,682	10,739	7,924	10,419	1,779	65	96,101
1930-31	36,460	30,478	8,579	16,832	9,911	2,008	139	104,407
1931-32	27,933	26,239	6,082	17,253	4,251	644	80	82,482
1932-33	38,715	41,827	9,948	52,273	7,343	2,741	50	152,897
1933-34	27,069	15,102	8,727	31,891	8,643	2,038	..	93,470

The production of honey and beeswax varies greatly from year to year according to the seasons. During the last five years New South Wales produced on the average 2,237,478 lb. of honey and 33,134 lb. of beeswax; Victoria produced 2,547,629 lb. of honey and 28,666 lb. of wax and South Australia 2,197,780 lb. of honey and 25,235 lb. of wax. These States together accounted for 85.66 per cent. of the total Australian production of honey, and 82.20 per cent. of the beeswax. Next in order of importance were Queensland, Western Australia and Tasmania.

3. *Value of Production.*—The following table shows the gross, local and net values of production which have been compiled by the Statisticians of the several States on uniform methods. These data are based upon actual records but as previously explained it is known that the production in some States is understated. No production costs are taken into account and consequently the gross production valued at the farm and net values are identical.

GROSS, LOCAL AND NET VALUE OF BEE PRODUCTS, 1933-34.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Net Value of Production.(a)
	£	£	£	£
New South Wales .. ..	25,000	3,000	22,000	22,000
Victoria .. ..	21,834	4,489	17,345	17,345
Queensland .. ..	10,703	1,963	8,740	8,740
South Australia .. ..	28,339	4,199	24,140	24,140
Western Australia .. ..	9,491	..	9,491	9,491
Tasmania .. ..	4,390	220	4,170	4,170
Total .. ..	99,757	13,871	85,886	85,886

(a) No account has been taken of maintenance costs and depreciation.

4. *Oversea Trade in Bee Products.*—In normal years the production of honey exceeds Australian requirements, and a small quantity is available for export. The imports into the United Kingdom average 80,000 cwt. annually, of which Australia supplies approximately 1,200 cwt. At the Imperial Economic Conference at Ottawa in 1932 the representatives of the United Kingdom, on behalf of their Government, agreed to the imposition of an import duty of 7s. per cwt. on foreign honey, which should assist Australia to procure a larger proportion of the trade. During the five years ended 1933-34 the value of the exports amounted to only £27,381, or an annual average of £5,476, owing to the decrease in production. 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 1933-34 the imports of honey amounted to 6,794 lb. and the exports to 351,674 lb. The imports of beeswax for the same year amounted to 30,272 lb. and the exports to 1,454 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 last five years are shown below:—

#### AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS.—EXPORTS.

Particulars.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
QUANTITY.					
Beeswax .. .. . lb.	1,020	2,888	2,081	1,451	957
Butter .. .. .	163,180,695	201,639,404	226,329,334	244,299,732	262,518,906
Cheese .. .. .	8,594,693	7,267,719	11,785,156	9,313,714	16,829,351
Egg albumen and yolk .. .. .	(a)	(a)	(a)	(a)	(a)
Eggs .. .. . doz.	5,970,696	9,921,829	16,844,288	19,617,032	21,718,740
Feathers, undressed .. .. .	(a)	(a)	(a)	(a)	(a)
Honey .. .. . lb.	138,491	251,857	406,851	351,674	388,761
Lard .. .. .	1,043,930	2,924,492	1,620,590	1,483,456	2,523,749
Meats—					
Bacon and Ham .. .. .	2,100,290	1,429,367	1,596,706	1,664,501	1,562,498
Frozen Poultry .. .. . pair	14,553	32,597	60,921	33,538	39,310
Frozen Pork .. .. . lb.	8,623,651	7,383,355	6,703,234	8,663,864	15,036,132
Milk, concentrated and preserved .. .. .	12,351,024	15,996,318	24,452,509	19,771,958	16,549,555
Pigs, living .. .. . No.	280	274	28	201	239
Poultry, living .. .. .	1,526	2,067	1,738	2,047	1,233
VALUE.					
	£	£	£	£	£
Beeswax .. .. .	77	178	143	94	76
Butter .. .. .	8,120,165	9,812,827	9,264,665	8,194,220	9,586,776
Cheese .. .. .	244,066	212,870	318,895	229,313	403,977
Egg albumen and yolk .. .. .	5,099	60,896	60,549	8,484	3,369
Eggs .. .. .	321,627	494,032	958,065	1,058,164	1,148,254
Feathers, undressed .. .. .	1,036	229	400	694	1,491
Honey .. .. .	3,632	5,642	8,014	6,458	6,828
Lard .. .. .	26,189	43,497	27,385	25,963	41,758
Meats—					
Bacon and Ham .. .. .	115,278	87,213	95,093	96,579	98,825
Frozen Poultry .. .. .	11,729	33,366	40,266	16,798	20,490
Frozen Pork .. .. .	235,857	173,373	154,163	210,793	401,306
Milk, concentrated and preserved .. .. .	610,653	642,016	927,546	739,000	709,847
Pigs, living .. .. .	1,186	1,074	192	809	899
Poultry, living .. .. .	1,147	1,039	846	986	799
Total .. .. .	9,697,741	11,568,252	11,856,222	10,588,355	12,424,695

(a) Quantity not available.

Butter figures most largely in the list of exports shown above, and is consigned mainly to the United Kingdom. During the latest year under review 245,668,141 lb. were shipped thereto, representing 93 per cent. of the total exports. Exports to the principal Eastern countries were approximately 13,000,000 lb., or 5 per cent. of the total.

### § 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 1930 to 1934:—

#### DAIRY PRODUCTS.—IMPORTS, UNITED KINGDOM.

Products.	1930.	1931.	1932.	1933.	1934.
Butter .. .. . cwt.	6,821,620	8,060,068	8,364,367	8,831,686	9,702,818
.. .. . £	46,869,697	46,297,585	41,055,142	34,340,921	33,291,616
Cheese .. .. . cwt.	3,112,316	2,885,794	3,003,113	3,039,450	2,988,567
.. .. . £	12,602,974	9,062,707	9,089,757	7,611,726	7,016,246
Milk, concentrated and preserved .. .. . cwt.	2,869,229	3,164,618	3,073,980	2,730,385	2,345,485
.. .. . £	5,033,570	5,093,616	4,252,202	3,549,210	3,269,950
Bacon and ham .. .. . cwt.	10,194,208	11,964,825	12,192,188	9,953,167	8,326,714
.. .. . £	46,112,307	36,346,943	32,913,045	32,993,984	33,176,499
Pork (a) .. .. . cwt.	436,739	432,513	375,259	643,777	1,104,720
.. .. . £	1,641,860	1,282,774	983,548	1,620,323	2,924,517

(a) Frozen, chilled, and salted.



2. **Butter.**—(i) *Imports.* Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity in 1933 amounted to 1,691,662 cwt., or 21 per cent. of the total importation. The Australian contribution was valued at £6,525,456 and was exceeded only by that received from Denmark and New Zealand. Preliminary figures for the year 1934 show that the total imports into the United Kingdom amounted to 9.7 million cwt., of which New Zealand supplied 2.7 million cwt. and for the first time supplanted Denmark with 2.5 million cwt. Australia followed next with 2.1 million cwt. or 22 per cent. These three countries combined supplied 75 per cent. of the total imports:—

**BUTTER IMPORTS.—UNITED KINGDOM, 1933.**

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	cwt.	£		cwt.	£
Denmark ..	2,519,126	10,696,219	Hungary ..	31,773	112,569
New Zealand ..	2,511,810	10,192,133	Union of South		
Australia ..	1,691,662	6,525,456	Africa ..	31,721	112,342
Soviet Union ..	562,718	1,618,077	Austria ..	8,237	29,133
Irish Free State ..	378,662	1,073,676	Germany ..	4,194	13,304
Sweden ..	226,777	860,446	Norway ..	3,294	14,482
Argentina ..	202,251	708,280	British Possessions,		
Latvia ..	146,121	487,282	n.e.i. ..	7,937	30,713
Netherlands ..	145,770	576,329	Foreign Countries,		
Finland ..	133,811	521,152	n.e.i. ..	5,849	20,391
Lithuania ..	104,259	331,552			
Estonia ..	83,361	266,236			
Canada ..	33,253	151,149	<b>Total ..</b>	<b>8,831,686</b>	<b>34,340,921</b>

(ii) *London Prices.* The average price of first quality Australian butter in London during the last twelve years is shown in the following table:—

**AUSTRALIAN BUTTER.—LONDON PRICES.**

Year.	Average Price, first quality, per cwt.	Year.	Average Price, first quality, per cwt.
	s. d.		s. d.
1922	183 0	1928	171 0
1923	184 6	1929	175 0
1924	189 6	1930	135 6
1925	184 0	1931	116 6
1926	169 6	1932	105 0
1927	169 6	1933	87 0

3. **Cheese.**—The value of cheese imported into the United Kingdom in 1934 was £7,016,000, of which £4,678,688 was received from New Zealand, and £1,290,331 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 1934 amounted to £249,959.

4. **Bacon and Ham.**—Of a total import of bacon and ham valued in 1934 at £33,176,499, the United Kingdom received imports to the value of £17,699,588 from Denmark, £1,853,560 from Poland, and £2,434,846 from the Netherlands. The import from Australia was small.

5. **Pork.**—The value of the United Kingdom imports of pork (frozen and chilled) was £2,924,517 in 1934. There was only a small importation from Australia, the bulk of the supplies being drawn from New Zealand, United States of America, and Argentina.

6. **Other Products.**—The imports to the United Kingdom from Australia of beeswax, poultry, game, lard, and honey in 1934 were unimportant, but frozen rabbits to the value of £511,827 and eggs in shell to the value of £1,187,131 representing 89 per cent. and 17 per cent. respectively of the total imports were imported during the year.

## CHAPTER XXIII. FORESTRY.\*

### § 1. General.

1. **Objects of Forestry.**—Scientific forestry aims at the preservation and development of existing forest areas by safeguarding them against fire, pests and destructive agencies generally by expert supervision of the removal of timber, by judicious thinning and by reforestation of denuded areas with suitable forest growths of local or exotic origin. It provides also for the continuance of this indispensable form of national wealth by the afforestation of available bare lands proved capable of producing various timbers. Only small areas of virgin forests still remain in Australia, as extensive inroads have been made by timber-getters, by agriculturalists, and by pastoralists—who have destroyed large areas by “ring-barking”—and it is not unlikely that climatological changes have resulted therefrom. It is recognized that beneficial consequences follow on the planting of trees on denuded lands, or along eroding coasts, and that a forest covering tends to regulate to the best advantage the effects of rainfall. The existing virgin forests consist of hardwood jungle, or brush, with very little softwood, and the need for extensive softwood planting is urgent.

Efficient forestry is of particular interest in connexion with the Murray River Basin, where a large expenditure from the public funds has been incurred in the provision of locks and weirs and in the formation of irrigation settlements in the lower course of the river. The stability of flow of this river in so far as it can be assured by forest plantation may be regarded as of national importance.

Successful planting of exotics in various parts of Australia has demonstrated that both climate and soil are suitable for the cultivation of a number of highly serviceable softwoods.

2. **Extent of Forests.**—(i) *Australia.* The bulk of the present local timber supply comes from the thickly forested areas in the 30-inch and over rainfall belt south of the tropics, and the 70-inch and over rainfall belt within the tropics. The total forest area included in the divisions specified is comparatively small, and is confined to the following regions :—(a) The coastal belt in the extreme south-west of Western Australia, from a little north of Perth to Albany; (b) the Otway country in the south of Victoria, and the whole of the south-eastern portion of that State; (c) the mountain forests of Victoria and New South Wales; (d) the coastal districts of New South Wales and Queensland; (e) the greater portion of Tasmania; (f) the forests on the Murray River near Echuca; and (g) the cypress pine belt from the Murray northward to Queensland and westward of the coastal belt.

Over 90 per cent. of the timber trees of Australia consists of hardwoods belonging to the genus *Eucalyptus* (Gum Trees). Including the mallees over 400 species are now recognized, but the chief commercial varieties are confined to about 50 species.

In addition to the hardwood forests and the cypress pine belt the coastal strip in Queensland and northern New South Wales provides “rain” or “brush” forests. These tropical forests furnish the serviceable hoop pine and furniture timbers such as black bean, Queensland walnut and maple, silkwood, etc.

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

\* A specially contributed article dealing with Forestry in Australia appeared as part of this Chapter in Official Year Book No. 19 (*vide pp. 701 to 712 therein*).

minor products such as sandalwood and tan barks, but do not produce timber. These open, park-like formations carry scattered trees of low habit only. Practically the whole of Papua and New Guinea carry or has carried dense forests, the exceptions being certain small dry belts where the rainfall is less than 70 inches. Norfolk Island was originally covered with a thick jungle.

Special articles relating to Australian Eucalyptus timbers and the chemical products of Eucalypts will be found in Official Year Book No. 10, pp. 85-98.

Scientific surveys of the forests of the various States have not yet been completed and there are, in consequence, conflicting reports regarding the total forest area of Australia. At the Interstate Conference on Forestry, held at Hobart in April, 1920, it was resolved that a forest area of 24,500,000 acres was necessary to provide for the future requirements of Australia. This area was subsequently adopted at the Premiers' Conference held in May of the same year. Expert foresters, however, consider that approximately 19,500,000 acres represent the possible limit for permanent reservation in Australia. The distribution of the latter area throughout the States was estimated as follows:—

## ESTIMATED FOREST AREA.

State.	Total Forest Area.	Percentage on Total Area.
New South Wales .. .. .	4,000,000	2.02
Victoria .. .. .	5,500,000	9.78
Queensland .. .. .	6,000,000	1.40
South Australia .. .. .	500,000	0.21
Western Australia .. .. .	3,000,000	0.48
Tasmania .. .. .	500,000	2.98
Australia .. .. .	19,500,000	1.02

(ii) *Comparison with Other Countries.* The table hereunder shows the absolute and relative forest areas of Australia and other countries, and the respective areas publicly and privately owned.

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.	Publicly Owned.	Privately Owned.
	sq. miles.	Per cent.	sq. miles.	sq. miles.
Soviet Union .. .. .	2,589,880	63.3	2,589,880	..
Canada .. .. .	1,151,402	32.8	1,040,867	110,535
United States of America .. .. .	733,539	24.7	(a)	(a)
India .. .. .	307,928	27.5	253,816	54,112
Nigeria .. .. .	234,990	63.8	8,486	226,504
Finland .. .. .	97,538	73.5	39,733	57,805
Sweden .. .. .	89,500	56.5	21,390	68,110
Japan .. .. .	87,678	59.5	51,332	36,346
Germany .. .. .	48,857	27.0	23,541	25,316

(a) Not available.

FORESTS.—AREA AND OWNERSHIP, VARIOUS COUNTRIES.—*continued.*

Country.	Forest Area.	Per cent. of Total Area.	Publicly Owned.	Privately Owned.
	sq. miles.	Per cent.	sq. miles.	sq. miles.
France .. ..	39,873	18.7	(a)	(a)
Poland .. ..	34,531	23.0	11,603	22,928
<b>Australia (b)</b> .. ..	<b>30,469</b>	<b>1.0</b>	(a)	(a)
Yugoslavia .. ..	29,289	30.5	19,545	9,744
Norway .. ..	28,955	24.2	5,646	23,309
Turkey .. ..	28,703	9.7	27,100	1,603
Rumania .. ..	27,544	24.2	7,929	19,615
Italy .. ..	21,309	17.8	(a)	(a)
New Zealand .. ..	20,778	20.2	15,033	5,745
Spain .. ..	18,965	9.7	(a)	(a)
Czechoslovakia .. ..	18,003	33.2	5,595	11,892
Union of South Africa .. ..	15,958	3.4	1,231	14,727
Algeria .. ..	12,257	10.7	9,195	3,062
Austria .. ..	12,112	37.4	2,925	9,187
Dutch East Indies .. ..	11,737	23.1	(a)	(a)
Bulgaria .. ..	11,143	28.0	3,043	8,100
Greece .. ..	9,291	18.5	6,442	2,849
Latvia .. ..	6,874	27.1	5,568	1,306
Great Britain .. ..	4,745	5.4	493	4,252

(a) Not available.

(b) Estimate of forest area possible for permanent reservation.

3. **Requisite Proportion of Forest Area.**—It is generally held that when the forest area in any country falls below 0.86 acres per head of population, that country will be obliged to import timber. Australia possesses 3.19 acres of forest per head of population, and normally the excess of imports of timber over exports amounts to approximately 28,000,000 cubic feet. There are two reasons for the excess. In the first place, the area of 19,500,000 acres given as the wooded area comprises all forest lands, reproductive or otherwise. The bulk of this area consists of cut-over forests swept by fire at frequent intervals, and the area of really productive forests has not been ascertained. Secondly, Australia does not possess a sufficient supply of softwoods, and must, therefore—with the exception of a small quantity produced in Queensland and New South Wales—import the bulk of its requirements from overseas. Provided that the area of 19,500,000 acres considered possible of permanent reservation by foresters were yielding under silvicultural treatment its maximum of hard and soft woods the timber supply of Australia would be sufficient for a population of 22½ millions.

## § 2. Forestry Activities of the Commonwealth Government.

Forestry was not included amongst the matters transferred from the States to the control of the Commonwealth, and federal supervision, therefore, is restricted to the forests in the Commonwealth Territories. These territories (including Papua, New Guinea and Norfolk Island) cover a large area, and, with the exception of the Northern Territory, are capable of sound forestry development. It is only within comparatively recent years, however, that any attempt has been made to take stock of the forestry position. The Commonwealth Forestry Bureau was instituted in 1925 to initiate silvicultural and other forest research work and to take charge of the education and training of the professional staffs required by the Commonwealth and the State services. The Bureau received statutory powers under an Act passed in 1930. In the meantime, the Australian Forestry School was established in 1926, and not only was the training of the State forest officers begun, but a nucleus of qualified officers was sent abroad to undergo special courses of instruction with the object of staffing the research side of the Bureau. The financial situation since 1930 has delayed progress on the research side, and the educational work of the Australian Forestry School is at present the Bureau's main activity.

The forest resources of the Territories of Papua, New Guinea, Norfolk Island, and the Federal Capital have been investigated, and reports in connexion therewith have been published. In the case of the Federal Capital area an active forest policy has been inaugurated.

The investigation of the dead product of the forests is entrusted to the Council for Scientific and Industrial Research, which has established a Forest Products Division. Research work is being carried out by this institution in regard to various matters, e.g., paper pulp, seasoning, preservation, tan barks, the chemistry of woods, and the utilization of forest products generally, including the substitution of local for imported woods for such purposes as butter boxes and fruit cases.

### § 3. State Forestry Departments.

1. **Functions.**—With the exception of Queensland, the powers and functions of State forest authorities are laid down under Forestry Acts and Regulations. In each State there is a Department or Commission specially charged with forestry work. The functions of these administrations are as follow :—(a) The securing of an adequate reservation of forest lands ; (b) The introduction of proper measures for scientific control and management of forest lands ; (c) The protection of forests ; (d) The conversion, marketing and economic utilization of forest produce ; and (e) The establishment and maintenance of coniferous forests to remedy existing deficiency in softwoods.

Annual reports are issued by each State forest authority.

In Victoria a forestry school has been established at which recruits are trained for the forestry service of the State.

2. **Forest Reservations.**—At the Interstate Forestry Conference held in Hobart in 1920, the State forestry authorities agreed in regard to the necessity of reserving an area of 24,500,000 acres of indigenous forest lands in order to meet the future requirements of Australia but, as previously mentioned, it is the considered opinion of expert foresters that 19.5 million acres only are possible for permanent reservation. This area was distributed among the States as set out in Section 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, 1934, is set out in the following table :—

AREA OF FOREST RESERVATIONS, 30th JUNE, 1934.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Dedicated State forests ..	5,115,080	3,956,952	2,287,010	(a)265,710	3,093,697	1,481,730	16,200,179
Timber and fuel reserves ..	1,387,537	735,848	3,474,529	..	1,873,134	950,000	8,421,048
Total ..	6,502,617	4,692,800	5,761,539	265,710	4,966,831	2,431,730	24,621,227

(a) Includes Timber and Fuel Reserves.

In addition to the work of permanently reserving their respective areas the State foresters are endeavouring to survey all timbered lands with a view to the cutting out of all those unsuitable for forestry. Considerable areas have been revoked in certain States, while dedications of new areas have resulted in gains to the permanent forest estate.

The area of State forests reserved in perpetuity amounted in June, 1934, to 16,200,179 acres, or 83 per cent. of the area considered possible for 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 8,421,048 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 the 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, 1933-34.**

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
Total area of indigenous forest improved or regenerated acres	1,103,292	678,812	109,361	8,255	244,340	..	2,144,060
Total area of Effective Plantations—							
Softwoods .. acres	38,683	39,353	10,505	60,673	8,257	1,150	158,621
Hardwoods .. acres	..	2,500	1,012	4,755	..	..	8,267
Number of persons employed in Forestry Departments—							
Office Staff .. No.	55	38	65	33	34	4	229
Field Staff .. No.	82	132	465	423	(a) 1,155	14	2,271

(a) Including casual hands.

4. **Revenue and Expenditure.**—The revenue and expenditure of State Forestry Departments from 1929-30 to 1933-34 are given below:—

**STATE FORESTRY DEPARTMENTS.—REVENUE AND EXPENDITURE.**

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
<b>REVENUE.</b>					
	£	£	£	£	£
New South Wales ..	128,795	88,548	104,674	139,211	166,014
Victoria ..	128,645	74,583	77,189	126,058	179,150
Queensland ..	336,762	174,106	162,246	235,440	293,991
South Australia ..	48,423	33,437	83,714	62,766	82,888
Western Australia ..	173,219	94,895	57,267	65,875	89,895
Tasmania ..	10,545	10,616	8,584	13,229	17,445
<b>Total ..</b>	<b>826,389</b>	<b>476,185</b>	<b>493,674</b>	<b>642,579</b>	<b>829,383</b>
<b>EXPENDITURE.</b>					
	£	£	£	£	£
New South Wales ..	183,720	121,009	(a) 114,151	(a) 132,814	(a) 213,067
Victoria ..	220,875	267,055	152,820	136,677	(a) 256,195
Queensland ..	209,170	140,800	(a) 160,311	(a) 175,073	(a) 232,930
South Australia ..	141,633	111,759	117,882	183,866	158,788
Western Australia ..	142,376	93,974	(a) 93,151	(a) 158,748	(a) 171,798
Tasmania ..	10,091	13,480	8,764	6,777	8,978
<b>Total ..</b>	<b>907,865</b>	<b>748,077</b>	<b>647,079</b>	<b>793,955</b>	<b>1,041,756</b>

(a) Including expenditure from Unemployment Relief Funds as follows:—1931-32—New South Wales, £7,782; Queensland, £22,650; and Western Australia, £45,454. 1932-33—New South Wales, £25,109; Queensland, £8,515; Western Australia, £134,097. 1933-34—New South Wales, £106,370; Victoria, £93,050; Queensland, £27; Western Australia, £141,520.

**§ 4. The Australian Forestry School.**

The Australian Forestry School situated at Canberra in the Federal Capital Territory was established in 1926 by the Commonwealth Government to meet the demand of the States for an institution which would give a professional training at least equal to that afforded by the recognized forestry schools abroad.

Under existing arrangements the head of the State forestry service may nominate candidates for enrolment at the school. According to the system in vogue in each State,

the nomination may be made either at school leaving age or after the candidate has successfully completed the specified university course. In the first case, the youth is helped throughout his university career and is given employment in practical work during the long vacations to test his suitability as a forestry officer; in the second case he is chosen later, and the practical tests are not made until the long vacation immediately preceding his entry to the school. The possession of a nomination by a State government service is not, however, essential for enrolment, since any candidate possessing the necessary qualifications will be accepted for the diploma course, and in special cases applicants desirous of studying a particular branch of forestry will be required to follow certain lectures only. Refresher or post graduate courses are arranged to meet the needs of senior foresters.

A candidate for enrolment in the diploma course must possess—(a) a degree of a University, or (b) a certificate that he has completed the special two years' preliminary course at a University.

The qualifications for enrolment may be waived to assist an applicant of exceptional ability with a record of long service in a State Forestry Department, who has been specially recommended by the head of that service. Such applicants must show proof of education equal to that required for a school leaving certificate.

The course of instruction extends over three years, the first two of which are spent at the school, and the third in one of the forestry services of Australia.

The Commonwealth diploma of forestry is awarded to students on the following conditions:—(a) Successful completion of theoretical course; (b) Satisfactory field work during the course; and (c) One year's satisfactory practical forestry work following the school course.

Students who have passed the approved two-year preliminary science course at the Universities of Adelaide, Melbourne, Western Australia or Queensland, and two years of Diploma course at the School, may be granted the degree B.Sc.F. by their Universities, subject to certain conditions laid down, particulars of which may be obtained from the Registrar of the University concerned.

### § 5. Forest Congresses.

Reference to the various Forestry Conferences held in Australia and elsewhere will be found in Official Year Book No. 22, p. 743, but owing to limitations of space, the information cannot be repeated herein. The Third British Empire Forestry Conference was held in Australia and New Zealand in 1928. Publications issued in connexion with this Conference are available on application to the various State and Commonwealth forestry authorities.

### § 6. Forestry Production.

1. Timber.—Particulars regarding the production of sawn timber from forest sawmills in each State for the year 1933-34 are shown in the following table:—

SAWMILL OUTPUT OF NATIVE TIMBER, 1933-34.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A. (a)	Tas.	Total.
LOGS MILLED.							
Hardwood—							
Quantity cub. ft.	7,293,765	(b)	4,896,673	400,859	16,385,493	(b)	(b)
Value.. £	255,230	(b)	295,403	6,374	212,893	(b)	(b)
Softwood—							
Quantity cub. ft.	4,849,652	(b)	4,919,209	1,213,543	(d)	(b)	(b)
Value.. £	170,310	(b)	380,408	11,243	(d)	(b)	(b)
Total—							
Quantity cub. ft.	12,143,417	(b)	9,815,882	1,614,402	16,385,493	(b)	(b)
Value.. £	425,540	(b)	675,811	17,617	212,893	(b)	(b)

(a) Excluding timber amounting to 31,335,186 sup. feet, valued at £156,528, produced elsewhere than in forest sawmills. (b) Not available. (c) Including logs unspecified.

(d) Included with hardwood.

SAWMILL OUTPUT OF NATIVE TIMBER, 1933-34—*continued.*

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
<b>SAWN TIMBER PRODUCED.</b>							
Hardwood—							
Quantity sup. ft.	55,398,329	76,063,081	24,286,291	2,147,967	65,047,317	42,035,372	264,978,357
Value.. £	521,089	480,524 <sup>1</sup>	329,736 <sup>1</sup>	22,431 <sup>1</sup>	526,142	244,441	2,124,363
Softwood—							
Quantity sup. ft.	35,634,191	..	42,945,528	7,770,692	45,065	1,034,907	87,430,383
Value.. £	335,729	..	628,907	83,974	721	18,106	1,067,437
Unspecified—							
Quantity sup. ft.	..	5,015,476	7,811,185	..	..	4,661,468	17,488,129
Value.. £	..	31,334 <sup>1</sup>	166,062 <sup>1</sup>	..	..	61,532 <sup>1</sup>	258,928
Total—							
Quantity sup. ft.	91,032,520	81,078,557	75,043,004	9,918,659	65,092,382	47,731,747	369,896,869
Value.. £	856,818	511,858	1,124,705	106,405	526,863	324,079	3,450,728

The next table gives the sawmill output of native timber in each State for 1923-24, 1928-29 and for the last three years :—

## SAWMILL OUTPUT OF NATIVE TIMBER.

State.	1923-24.	1928-29.	1931-32.	1932-33.	1933-34.
	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.
New South Wales .. .. .	167,493	136,051	52,102	71,912	91,032
Victoria .. .. .	134,639	79,018	49,413	68,957	81,079
Queensland .. .. .	141,672	106,862	52,405	67,060	75,043
South Australia .. .. .	1,350	3,219	5,782	6,758	9,919
Western Australia .. .. .	161,749	145,043	40,859	46,812	65,092
Tasmania .. .. .	63,120	46,195	36,146	45,576	47,732
Total .. .. .	670,023	516,388	236,707	307,075	369,897

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 two preceding tables. The quantities so produced in the last five years were as follow :—1929-30, 36,071,054 sup. feet ; 1930-31, 38,158,959 sup. feet ; 1931-32, 16,831,214 sup. feet ; 1932-33, 12,441,946 sup. feet ; and 1933-34, 31,335,186 sup. feet. The annual reports of the Forest Departments in each State contain particulars concerning the output of timber from areas under departmental control, but owing to lack of uniformity in measurements accurate determination of total production cannot be made. Efforts, however, are being made to obtain more comparable information. Moreover, there is a fair quantity of hewn timber produced from privately owned land, but information regarding output is not available.

2. *Other Forest Products.*—(i) *Eucalyptus Oil.* Oil may be distilled from the foliage of all varieties of eucalyptus, and several of them furnish a product widely known for its commercial and medicinal uses. Complete information regarding Australian production and consumption of eucalyptus oil is not available, but large quantities are manufactured, particularly in Victoria. Oversea exports amounted in 1929-30 to £63,388 ; in 1930-31 to £47,090 ; in 1931-32 to £40,977 ; in 1932-33 to £40,075 ; and in 1933-34 to £41,010,



the bulk of the product being shipped from Victoria to the United Kingdom, the United States, and Germany. Large quantities of the crude oil are used locally in flotation processes in connexion with the recovery of gold and other minerals.

(ii) *Sandalwood and Sandalwood Oil.* The distillation of oil from Western Australian sandalwood has been characterized by improvement both in quality and in quantity within recent years. It is claimed that the Western Australian oil is at least as valuable medicinally as the well-known Mysore oil, besides having an extensive use in the manufacture of perfumes. Exports of essential oils from Western Australia amounted in 1929-30 to £77,510; in 1930-31 to £56,170; in 1931-32 to £59,301; in 1932-33 to £26,331; and in 1933-34 to £26,720. The bulk of the product consisted of sandalwood oil which was shipped principally to the United Kingdom, Eastern States of Australia, and Japan. 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 also produces a small quantity. In 1933-34, 3,953 tons valued at £114,301 were exported, the whole of which was shipped to the East; Hong Kong 2,300 tons and China 1,200 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 average production in South Australia during the past five years amounted to 2,145 tons, whilst the exports from Australia averaged 2,116 tons valued at £14,166 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 is found in the bark 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*).

In pre-war days 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, averaging 3,447 tons valued at £33,987 during the five years ending 1933-34. The chief exporting States are South Australia and Western Australia. This matter is referred to in tables appearing in § 8 hereinafter. The other valuable tan bark, mallet (*Eucalyptus astringens*) of Western Australia, is not extensively used in Australian tanneries, but it is exported to Europe and other countries, where it is used for producing a tannin extract. A brief account of the work done by the Council for Scientific and Industrial Research in connexion with tanning materials will be found in Official Year Book No. 22, page 743. The production of extract from the bark of karri (*Eucalyptus diversicolor*), of which very large quantities are available at karri sawmills, has passed the experimental stage, and private enterprise has started production on a commercial scale. The experimental work in kino impregnated karri (*Eucalyptus calophylla*) bark is not yet complete. The production of tan bark in Australia is estimated at about 25,000 tons per annum.

3. *Value of Production.*—As the outcome of a series of conferences of Australian statisticians it is now possible to present the value of forestry production on a much more satisfactory basis than was possible hitherto. 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. It has not been possible within the time allowed to collect all of these items and consequently the values are understated in some of the States, but the deficiency is not serious.

## GROSS, LOCAL AND NET VALUE OF FORESTRY PRODUCTION, 1933-34.

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 ..	1,842,000	105,000	1,737,000	..	1,737,000
Victoria ..	836,616	247,779	588,837	..	588,837
Queensland ..	1,524,214	190,126	1,334,088	..	1,334,088
South Australia ..	505,241	17,172	488,069	..	488,069
Western Australia ..	823,941	94,145	729,796	..	729,796
Tasmania ..	321,850	62,490	259,360	..	259,360
Total ..	5,853,862	716,712	5,137,150	..	5,137,150

(a) No account has been taken of maintenance costs and depreciation.

NOTE.—The relative proportions of marketing costs to gross production suggest that complete uniformity in method has not yet been attained.

4. **Employment.**—The number of persons employed in forestry operations as revealed by the Census of the Commonwealth of Australia at the 30th June, 1933, is shown in the following table:—

## EMPLOYMENT IN FORESTRY, 30th JUNE, 1933.

Sex.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	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) Not including Northern Territory, 11, and Federal Capital Territory, 152.

## § 7. Commercial Uses of Principal Australian Timbers.

1. **General.**—The uses of the more important Australian timbers are many and various, and are indicated in previous issues of this work. (See Official Year Book No. 6, pp. 454-6; and Official Year Book No. 10, Section III, § 7 and 8.)

A list of Australian timbers best known on the local markets appeared in Official Year Book No. 20, p. 713. [Further references are made in "Timber and Forest Products of Queensland" (E. H. F. Swain), published in 1928.]

2. **Lack of Uniformity in Nomenclature.**—Unfortunately the vernacular names applied to the gums, ironbarks, etc., in the various States, and even in different parts of the same State, do not always refer to identical timbers. The resulting confusion has not only been productive of loss, but it has, to some extent, prejudicially affected the timber trade. This subject is referred to at some length in the special article "Australian Eucalyptus Timbers," in Section III., § 7 and 8, in 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 quantity and value of timber imported into Australia during the four years 1930-31 to 1933-34 inclusive are shown according to countries of origin in the following tables:—

## DRESSED TIMBER.—IMPORTS, AUSTRALIA.

Country of Origin.	Quantity.				Australian Currency Values.			
	1930-31.	1931-32.	1932-33.	1933-34.	1930-31.	1931-32.	1932-33.	1933-34.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ..	1,848	264	4,814	21,133	201	38	735	1,536
Canada ..	3,920,447	2,105,195	229,291	4,672,603	43,238	26,899	2,558	36,064
Other British Countries ..	92,498	25,116	35,454	10,246	982	248	370	94
Norway ..	3,200,306	1,712,394	5,457,889	4,510,936	34,836	15,936	44,446	42,499
Sweden ..	2,389,990	1,303,711	4,647,179	3,803,010	25,988	14,756	42,226	37,538
United States ..	3,952,219	53,001	763	1,105,408	34,978	1,359	41	8,334
Other Foreign Countries ..	285,008	165,327	709,255	1,019,977	5,902	3,524	9,203	13,733
Total ..	13,842,316	5,370,008	11,084,645	15,143,313	146,125	62,760	99,579	139,798

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 £57,437 in 1933-34 including plywood, veneered or otherwise, £9,501.

The bulk of the imports of dressed timber comes from Norway, Sweden, and Canada. 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 1929-30 to 1933-34 are given hereunder:—

## UNDRESSED TIMBER, INCLUDING LOGS.(a)—IMPORTS, AUSTRALIA.

Country of Origin.	Quantity.					Australian Currency Values.				
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	'000.	'000.	'000.	'000.	'000.	£	£	£	£	£
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	sup. ft.					
United Kingdom ..	97	1,635	72	131	218	9,591	13,283	8,211	13,931	19,567
Canada ..	43,716	21,300	75,835	135,016	184,869	305,569	95,504	352,720	569,313	610,096
India ..	62	30	38	42	17	2,647	2,124	1,695	2,124	863
Malaya (British) ..	169	101	93	131	99	1,452	878	849	1,128	779
New Zealand ..	37,173	15,918	23,177	25,653	26,784	459,095	215,809	296,538	314,909	326,102
Other British Countries ..	3,541	2,239	1,280	1,751	2,366	31,806	23,238	12,843	4,795	14,402
Japan ..	7,345	978	312	672	1,334	149,085	16,914	3,371	14,778	17,365
Netherlands East Indies ..	1,270	..	..	..	7	9,921	..	..	..	152
Norway ..	153	88	..	170	236	1,262	1,036	169	1,395	2,149
New Caledonia ..	1,182	912	140	..	..	11,622	11,710	1,557	..	..
Philippine Islands ..	5,780	433	93	716	2,702	79,219	6,620	670	6,432	21,384
Sweden ..	4,147	67	538	1,872	1,935	38,184	801	4,452	14,076	15,802
United States ..	233,538	61,562	18,586	20,841	21,390	1,811,759	312,623	110,034	159,233	212,520
Other Foreign Countries ..	288	1,235	1,408	1,668	1,730	4,407	9,596	9,161	5,611	14,895
Total ..	338,461	106,498	121,600	188,663	243,687	2,915,619	710,136	802,270	1,107,725	1,256,076

(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 the United States and Canada; kauri, rimu, and white pine from New Zealand; and red and white deals from Norway and Sweden. 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.—The quantity and value of undressed timber exported from 1929-30 to 1933-34 are given below, the countries of destination being also shown:—

UNDRESSED TIMBER, INCLUDING LOGS.(a)—EXPORTS, AUSTRALIA.

Country to which Exported.	Quantity.					Value(b).				
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	£	£	£	£	£
United Kingdom ..	11,722	12,399	13,173	8,020	8,298	127,469	141,746	153,315	110,640	101,727
Canada ..	212	125	40	33	156	5,087	2,498	682	560	2,539
Ceylon ..	12,013	10,328	6,700	2,454	1,184	120,873	104,668	65,952	21,930	12,311
Hong Kong ..	28	820	355	2,766	102	440	7,307	2,126	20,343	1,019
India ..	1,391	32	..	..	..	15,607	316	..	..	..
Malaya (British) ..	39	103	23	..	..	410	1,147	473	..	..
Mauritius ..	382	1,017	408	624	421	3,840	10,160	4,093	4,575	4,259
New Zealand ..	24,256	22,671	7,675	3,192	6,357	318,671	271,244	83,467	40,342	77,768
Pacific Islands—										
Fiji ..	1,297	813	510	494	455	21,834	12,987	7,408	6,913	6,424
Territory of New Guinea ..	356	92	420	109	139	6,269	1,293	4,772	1,237	1,916
Other Islands ..	840	624	316	400	445	14,496	9,284	4,848	5,811	5,058
Papua ..	149	80	105	190	105	3,197	1,223	1,932	2,312	1,541
Union of South Africa ..	17,447	5,843	8,646	3,403	2,914	188,678	65,972	83,187	38,092	33,285
Other British Countries ..	..	..	129	288	2	..	..	1,287	3,078	20
Africa—										
Portuguese East ..	..	..	193	1,096	1,294	..	..	2,343	11,844	14,372
Belgium ..	1,246	528	615	573	416	12,460	5,713	6,132	5,746	4,257
China ..	89	5,292	3,670	684	180	1,018	51,703	23,513	5,308	1,719
Egypt ..	1,039	..	..	138	28	10,385	..	..	1,378	322
Germany ..	..	..	176	142	165	..	..	1,869	1,462	1,767
Japan ..	50	..	38	..	..	768	..	801	..	..
Netherlands ..	..	..	1,036	716	375	..	..	10,491	6,942	3,894
Pacific Islands—										
New Caledonia ..	23	..	..	..	73	378	..	..	..	1,119
Other Islands ..	144	68	88	42	54	2,364	1,212	1,613	523	499
U.S. of America ..	5,737	1,332	3,039	406	916	85,860	22,897	42,453	6,464	18,875
Other Foreign Countries ..	3,901	1,000	54	1,125	49	42,569	11,581	421	11,320	631
Total ..	82,361	63,167	47,418	26,895	24,128	982,673	722,951	503,178	306,820	295,322

(a) Exclusive of timber not measured in sup. feet.

(b) Australian currency values.

The bulk of the exports of undressed timber was consigned to South Africa, New Zealand and the United Kingdom, 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.

3. Classification of Imports and Exports.—(i) *General.* The quantities of timber classified according to varieties imported and exported during the year 1933-34 are given in the next table:—

**TIMBER, VARIETIES IMPORTED AND EXPORTED.—QUANTITIES, AUSTRALIA, 1933-34.**

Description.	Unit of Quantity.	Imports.	Exports.	Excess of Imports over Exports.
Dressed .. .. .	sup. ft.	15,143,313	733,845	14,409,468
Undressed, including logs .. .. .	"	243,687,307	24,127,926	219,559,381
Architraves, mouldings, etc. .. .. .	lin. ft.	7,452	66,096	-58,644
Plywood, veneered or otherwise .. .. .	sq. ft.	1,263,882	(b)	(a)
Palings .. .. .	No.	..	102,720	-102,720
Shingles .. .. .	"	409,300	106	409,194
Staves—				
Dressed, etc. .. .. .	"	516,976	520	516,456
Undressed .. .. .	"	941,945	10,480	931,465
Laths—				
For blinds .. .. .	"	..	..	..
Other .. .. .	"	266,800	42,080	224,720
Doors .. .. .	"	31	(a)	(a)
Wood pulp .. .. .	ton	35,300	(b)	(a)
Veneers .. .. .	—	(a)	(b)	(a)
Spokes, rims, felloes, etc. .. .. .	—	(a)	(a)	(a)
Other .. .. .	—	(a)	..	(a)

(a) Quantity not available.

(b) Exports not recorded separately.

NOTE.—The minus sign (-) denotes an excess of exports.

Similar particulars relative to the values of imports and exports during the year 1933-34 are shown hereunder:—

**TIMBER, VARIETIES IMPORTED AND EXPORTED.—VALUES, (b) AUSTRALIA, 1933-34.**

Description.	Imports.	Exports.	Excess of Imports over Exports.
	£	£	£
Dressed .. .. .	139,798	8,944	130,854
Undressed, including logs .. .. .	1,256,076	295,322	960,754
Architraves, mouldings, etc. .. .. .	23	401	-378
Plywood, veneered or otherwise .. .. .	9,501	(a)	9,501
Palings .. .. .	..	1,001	-1,001
Shingles .. .. .	641	2	639
Staves—			
Dressed, etc. .. .. .	27,273	26	27,247
Undressed .. .. .	18,630	128	18,502
Laths—			
For blinds .. .. .	..	27	-27
Other .. .. .	333	54	279
Doors .. .. .	351	1,253	-902
Wood pulp .. .. .	427,309	(a)	427,309
Veneers .. .. .	18,113	(a)	18,113
Spokes, rims, felloes, etc. .. .. .	71	1,182	-1,111
Other .. .. .	1,976	..	1,976
<b>Total .. .. .</b>	<b>1,900,010</b>	<b>308,340</b>	<b>1,591,670</b>

(a) Exports not recorded separately.

(b) Australian currency values.

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 five years are as follow :—

## SANDALWOOD.—EXPORTS, AUSTRALIA.

Country to which Exported.	Quantity.					Value.(a)				
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	ton.	ton.	ton.	ton.	ton.	£	£	£	£	£
Hong Kong ..	2,482	2,510	1,286	3,481	2,309	57,688	62,741	38,068	95,575	64,735
India ..	288	81	209	144	203	9,437	2,585	6,270	4,311	6,216
Malaya (British) ..	63	26	115	99	168	1,716	770	3,370	2,623	5,115
Other British Countries ..	15	11	7	15	11	424	330	213	450	340
China ..	737	330	649	715	1,212	19,521	6,363	12,651	20,413	36,358
Other Foreign Countries ..	37	6	78	(b)400	(c) 50	641	180	2,342	(b)9,285	(c)1,537
Total ..	3,622	2,964	2,344	4,854	3,953	89,427	72,969	62,914	132,657	114,301

(a) Australian currency values. (b) Includes 386 tons £8,865 to Japan. (c) Includes 31 tons £953 to Japan.

(iii) *Tan Bark*. Tan bark figures both as an export and import in the Australian trade returns. The table hereunder refers to exports :—

## TAN BARK.—EXPORTS, AUSTRALIA.

Country to which Exported.	Quantity.					Value.(a)				
	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
United Kingdom ..	..	1,138	2,298	..	..	..	510	978	..	..
New Zealand ..	22,038	14,415	41,260	35,795	26,387	14,109	8,100	19,570	17,777	13,636
Other British Possessions ..	..	..	20	2	..	..	..	9	1	..
Germany ..	41,567	30,059	35,441	21,333	3,206	21,266	14,097	17,133	10,041	2,273
Other Foreign Countries ..	6,433	24,745	10,042	19,464	11,757	3,226	10,527	4,599	8,073	5,340
Total ..	70,040	70,357	89,061	76,594	41,350	38,604	33,234	42,289	35,892	21,249

(a) Australian currency values.

The exports of tan bark from Australia during recent years consisted largely of mallet bark from Western Australia. The shipments of this bark are not so large as in pre-war days owing to the cutting out of supplies. A vigorous policy of reforestation was put into operation and, as a result, a considerable improvement in exports has taken place concurrent with a diminution of imports of similar materials. For the twelve years prior to 1927-28, Australia had to import large quantities of tanning bark, but since then imports have dwindled to a negligible quantity. During the five years shown in the above table the chief exporting States were Western Australia, South Australia and Tasmania, these States providing 58 per cent., 25 per cent. and 11 per cent. respectively of the total quantities shipped.

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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	cwt.	cwt.	cwt.	cwt.	cwt.
<b>QUANTITIES—</b>					
Imports .. .. .	1,936	596	21	200	1
Exports .. .. .	70,040	70,357	89,061	76,594	41,350
Excess of exports over imports	68,104	69,761	89,040	76,394	41,349
	£	£	£	£	£
<b>VALUES (a)—</b>					
Imports .. .. .	950	266	13	101	1
Exports .. .. .	38,604	33,234	42,289	35,892	21,249
Excess of exports over imports	37,654	32,968	42,276	35,791	21,248

(a) Australian currency values.

The imports consist almost exclusively of wattle bark from the plantations in South Africa. One variety of Australian wattle is found to flourish in the sandy belts near the coast, but it is the *Acacia decurrens*, var. *mollis*, which is chiefly relied upon for the production of wattle bark in the South African plantations. Seed has been tried from New South Wales, Tasmania and Victoria, but it is stated that most of the seed is obtained from the best wattle bark areas in eastern Tasmania and western Victoria.

Two reasons are given to account for the success of the industry in the Union of South Africa :—(a) It is found that the treeless, grassy highlands of Natal are specially suitable for wattle culture, and the trees can therefore be grown in rows and economically attended to, while the necessary bark sheds and other appurtenances can be placed in the most advantageous positions ; and (b) there is an abundance of cheap and efficient native labour.

(iv) *Other Tanning Substances.* Considerable quantities of tanning substances other than bark are annually imported into Australia. The total value of the importations in 1933-34 was £40,240, and was composed as follows :—Wattle bark extract, £898 ; quebracho extract, £9,028 ; other extract, £7,600 ; and valonia, myrobalans, catch, etc., £22,714.

## CHAPTER XXIV.

## FISHERIES.\*

## § 1. General.

1. **Fish Stocks.**—Australia possesses an abundant and varied fish fauna, which embraces both tropical and temperate varieties and includes destructive as well as valuable species. In rivers and lakes both indigenous and imported varieties thrive. The latter have been introduced and acclimatized for industrial and sporting purposes by Governments and angling societies. Exploitation of the fishing areas is controlled by governmental authority. In some cases the minimum size of the fish to be taken is fixed, and in other cases the taking of some kinds is prohibited during periods prescribed according to the necessity.

2. **Progress of Industry.**—(i) *Transport and Marketing.* Despite the abundance of edible fish, the progress of the fishery industry in Australia has been slow, the difficulties of transport and marketing of the proved supplies presenting the chief obstacles.

In New South Wales, as shown in § 5 herein and § 6 of this Chapter in Official Year Book No. 17, the matter of exploiting trawlable fish was undertaken by the State Government, which also took steps to improve the conditions under which ordinary coastal fishing is carried on. In Queensland, State trawling was undertaken in 1919, and good trawling areas have been located and charted between Cape Moreton and Caloundra.

(ii) *Economic Investigations.* Although valuable work has been carried out by the State Governments in the way of experiment and culture, much yet remains to be done before the industry is at all commensurate in extent with the industrial progress or consuming capacities of Australia. All live fish imported into Australia are examined on shipboard in order to prevent the importation of undesirable fish. With the object of ascertaining the movements of oceanic fishes, and of estuarine fishes which make periodical oceanic migrations, reports are furnished regarding the various kinds of fishes, etc., and their movements along the coast. Details regarding the activities of the States in fish-culture were given in Official Year Book No. 6, pp. 471-2. By arrangement with the Commonwealth Fisheries Department some years ago members of the staff of the Australian Museum, Sydney, accompanied the F.I.S. *Endeavour* on various cruises. Specimens were collected, mounted for scientific purposes, and distributed to other Australian Museums, a considerable number being put aside for the Commonwealth Fishery Museum. As pointed out in § 4, however, this vessel was lost with all hands in 1914, and has not since been replaced.

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, canning and curing of fish, the production of fish by-products, factors of destruction in fisheries, the development of the oyster industry, etc. The reports prepared by these Committees were submitted to a further conference held in July, 1929, at which the Commonwealth Government and all State Governments were represented; it was then unanimously recommended that investigation work should be undertaken by the Commonwealth Government. The Commonwealth Government is taking steps to implement this recommendation by

\* A specially contributed article dealing with the Marine and Fresh Water Fisheries of Australia, cared as § 6 of this Chapter in Official Year Book No. 17 (*vide* pp. 752 to 767 therein).



(i) procuring an up-to-date vessel specially designed for exploratory work in connexion with pelagic or surface swimming fish ; (ii) carrying out experiments in conjunction with private enterprise in connexion with canning of Australian fish ; (iii) carrying out tests in conjunction with private enterprise to determine the best methods of curing and preserving fish, especially the more common varieties ; and (iv) co-operating with State authorities in the study of systems of distribution of fish in each State, with a view to the improvement of existing transport and marketing arrangements. A sum of £15,000 has been placed on the 1935-36 Estimates for the construction and equipment of an Australian built trawler which will probably be in commission about the middle of 1936. In addition a sum of £5,000 has been voted for the development of the industry in accordance with the recommendations mentioned above. The Commonwealth Government has agreed to provide for the development of fisheries during the four succeeding years a further £15,000 per annum including an amount to cover the running costs of the trawler. The establishment of by-products industries for the treatment of inedible fish and the production therefrom of fish meal and oil is also being considered. It is hoped that this will assist in the cheapening of fresh fish as well as in the economic development of the industry. The Council for Scientific and Industrial Research is entrusted with the carrying out of the programme.

3. *Consumption of Fish.*—It has been said that the Australians are not fish-eating people, seeing that the annual consumption of fish per head of population in Great Britain is set down at 42 lb., while in Australia it has been estimated at only 13 lb. There are frequent complaints that the distribution service does not give the public adequate opportunity to satisfy its appetite for a fish diet.

4. *Oyster Fisheries.*—Natural oyster beds exist on the foreshores in the shallow waters of inlets and estuaries in several parts of Australia. By husbanding the natural crop, and by judicious transplanting, the output has been very materially augmented. The areas are leased by the Government to private persons, lengths of foreshore being taken up under oyster leases. In New South Wales and Queensland the industry has thriven, and small yields are obtained in South Australia, Victoria, and Tasmania.

5. *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. Further details regarding pearl-shelling are given in Official Year Book No. 6, p. 463. Trochus-shell to the value of £44,515, £44,682, £32,532, £49,525 and £41,596 was exported from Australia during 1929-30, 1930-31, 1931-32, 1932-33 and 1933-34 respectively.

(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, 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.

## § 2. The Fishing Industry.

1. Boats and Men Engaged, and Take.—(i) *General Fisheries.* The returns have been compiled from particulars supplied by the State Departments, and while the data do not generally lend themselves to presentation on a uniform basis, the principal facts have been incorporated in the tables hereunder:—

### GENERAL FISHERIES, 1933.

State or Territory.	No. of Boats Engaged.	Value of Boats and Equip-ment.	No. of Men Em-ployed.	Total Take of—		Gross Value of Take.	
				Fish.	Spiny Lobster (Crayfish).	Fish.	Spiny Lobster (Crayfish).
	No.	£	No.	cwt.	doz.	£	£
New South Wales	1,291	106,864	(g) 2,891	195,552	10,116	538,580	(c) 71,770
Victoria ..	759	111,680	1,474	105,832	13,755	153,620	7,276
Queensland ..	818	69,337	1,630	80,000	(d) 9,384	139,801	(e) 6,651
South Australia ..	900	150,000	1,500	120,500	(a)	(b) 180,000	(f)
Western Australia	273	61,212	557	37,031	20,803	103,686	6,402
Tasmania ..	233	51,524	343	21,950	67,359	35,700	30,310
Northern Territory	4	820	10	170	..	425	..
Total ..	4,278	551,437	8,405	561,035	121,417	1,151,812	122,409

(a) Not available. (b) Estimate. (c) Including £53,520, the value of 13,248 cwt. of prawns and 1,121 dozen crabs. (d) Crabs. (e) Including 31 turtles valued at £31. (f) Included with fish. (g) Fishermen's licences issued.

Returns for Australia for the last five years are given in the table below:—

### GENERAL FISHERIES.—AUSTRALIA.

Particulars.	1929.	1930.	1931.	1932.	1933.	
No. of boats engaged ..	..	4,546	4,681	4,657	4,348	4,278
No. of men employed ..	..	8,979	9,293	9,076	8,656	8,405
Fish obtained—						
Quantity ..	cwt.	650,518	613,859	562,230	568,324	561,035
Gross value ..	£	1,439,355	1,269,735	1,166,338	1,183,081	1,151,812
Lobsters obtained—Gross value	£	115,208	113,950	118,129	118,183	122,409

(a) Exclusive of South Australia. *Vide* footnotes to previous table.

(ii) *Edible Oyster Fisheries.* Edible oyster fisheries are of small dimensions outside New South Wales and Queensland. During 1933 the available returns show the following takes:—New South Wales, 47,448 cwt., value £56,790; Queensland, 10,180 cwt., value £14,604. In Tasmania the scallop is far more important than the oyster. In 1933 the scallops taken in Tasmania were valued at £6,000.

Returns for Australia for the last five years are given in the appended table:—

### EDIBLE OYSTER FISHERIES.—(a) AUSTRALIA.

Particulars.	1929.	1930.	1931.	1932.	1933.	
No. of boats engaged ..	..	808	790	724	727	662
No. of men employed ..	..	804	741	681	716	666
Oysters obtained—						
Quantity ..	cwt.	70,773	55,214	50,350	63,825	57,824
Gross value (b) ..	£	134,223	106,422	76,108	94,641	77,590

(a) Exclusive of South Australia. (b) Including scallops in Tasmania valued at £5,625 in 1929; £5,750 in 1930; £4,530 in 1931; £5,495 in 1932; and £6,000 in 1933.

(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. As regards pearls, for obvious reasons no correct estimate can be obtained of the value of those found. 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 as returned for the year 1933 are as follow:—

## PEARL, PEARL-SHELL, AND BÊCHE-DE-MER FISHERIES, (a) 1933.

State or Territory.	Number of Boats Engaged.	Value of Boats and Equip-ment.	Number of Men Em-ployed.	Quantity of Pearl-shell obtained.	Gross Value of Pearl-shell obtained.	Gross Value of Pearls obtained. (b)	Gross Value of Bêche-de-mer obtained.	Gross Value of Tortoise-shell obtained.
	No.	£	No.	Tons.	£	£	£	£
Queensland (c) ..	93	80,530	1,439	607	76,582	1,187	18,362	80
Western Australia ..	123	57,426	774	799	85,373	6,574	..	..
Northern Territory	21	18,700	126	269	40,800	1,600	..	20
Australia ..	237	156,656	2,339	1,675	202,755	9,361	18,362	100

(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 £38,059 in Queensland.

The figures for tortoise-shell and trochus-shell as returned are defective, 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.	1929.	1930.	1931.	1932.	1933.
No. of boats engaged .. ..	289	258	241	231	237
No. of men employed .. ..	2,334	1,977	2,109	2,064	2,330
Pearl-shell obtained—					
Quantity .. .. tons	3,112	1,295	1,310	1,419	1,675
Value .. .. £	455,578	251,448	219,887	214,747	202,755
Pearls obtained (a)—					
Value .. .. £	23,017	8,672	7,415	8,171	9,361
Bêche-de-mer obtained—					
Quantity .. .. tons	(b)	(b)	(b)	(b)	(b)
Value .. .. £	24,706	14,784	48,291	19,265	18,362
Tortoise-shell exported—					
Value .. .. £	693	921	1,112	210	696
Trochus-shell exported—					
Value .. .. £	44,515	44,682	32,532	49,525	41,596

(a) Incomplete; as returned. (b) Not returned.

2. *Value of Production.*—As the outcome of a series of conferences by Australian Statisticians it is now possible to present the value of production of the fishing industry on a much 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 therefore the gross values in some States are not, perhaps, as exact as might be desired. 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, 1933.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Place of Production.
	£	£	£
New South Wales .. ..	667,000	131,000	536,000
Victoria .. ..	160,952	28,500	132,452
Queensland .. ..	295,326	46,951	248,375
South Australia .. ..	180,000	27,959	152,041
Western Australia .. ..	202,970	6,985	195,985
Tasmania .. ..	72,080	7,208	64,872
Total .. ..	(a) 1,578,328	248,603	1,329,725

(a) Not including production in the Northern Territory of a gross value of £42,915.

3. **Fish Preserving.**—To encourage the industry the Federal Parliament provided a bounty of  $\frac{1}{2}$ d. per lb. for fish preserved as prescribed during the ten years 1907–8 to 1916–17. This 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. Consideration of a further attempt to develop this branch of the fishing industry is now receiving the attention of the Commonwealth Government. Details of the proposals are shown in § 1 hereinbefore.

4. **State Revenue from Fisheries.**—The revenue from fisheries in each State during the year 1933 is given hereunder :—

### FISHERIES.—REVENUE, 1933.

State or Territory.	Licences.	Leases.	Fines and Forfeitures.	Other Sources.	Total.
	£	£	£	£	£
New South Wales .. ..	1,405	10,319	342	424	12,490
Victoria .. ..	1,116	102	412	120	1,750
Queensland .. ..	2,971	1,831	121	13	4,936
South Australia .. ..	1,495	..	..	..	1,495
Western Australia .. ..	1,485	66	82	140	1,773
Tasmania .. ..	836	..	..	154	990
Northern Territory .. ..	237	1	..	..	238
Total .. ..	9,545	12,319	957	851	23,672

Similar particulars for Australia for the last five years are given in the following table :—

### FISHERIES.—REVENUE, AUSTRALIA.

Particulars.	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
Licences .. ..	11,614	11,177	10,334	9,428	9,545
Leases .. ..	16,332	14,681	12,842	12,508	12,319
Fines and Forfeitures .. ..	1,105	877	648	960	957
Other Sources .. ..	942	557	537	558	851
Total .. ..	29,993	27,292	24,361	23,454	23,672

### § 3. Oversea Trade in Fishery Products.

1. Imports of Fish.—The development of the local fishing industry leaves much to be desired, as is evident from the large imports. For the last five years the imports were as follow :—

#### FISH.—IMPORTS, AUSTRALIA.

Classification.		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Fresh (oysters) ..	cwt.	508	3,793	140	956	3,367
	£	420	(c) 2,049	(c) 60	(c) 519	(c) 1,643
Fresh, or preserved by cold process	cwt.	67,503	43,370	33,277	35,843	57,346
	£	206,357	(c) 127,907	(c) 97,364	(c) 96,410	(c) 142,389
Potted ..	cwt.	(a)	4,515	4,448	3,380	4,900
	£	137,046	(c) 85,959	(c) 84,431	(c) 62,616	(c) 82,288
Preserved in tins ..	cwt.	250,306	117,198	129,275	141,326	174,982
	£	1,342,016	(c) 565,594	(c) 563,789	(c) 586,516	(c) 663,238
Smoked, dried, and n.e.i.	cwt.	13,280	9,702	5,345	6,922	8,449
	£	46,556	(c) 30,643	(c) 18,485	(c) 20,066	(c) 24,602
Total ..	cwt.	(b) 331,597	178,578	172,485	188,427	249,044
	£	1,732,395	(c) 812,152	(c) 764,129	(c) 766,127	(c) 914,160

(a) Not available.

(b) Exclusive of potted fish.

(c) Australian currency values.

Tinned fish constitutes by far the largest proportion of the imports, most of it consisting of salmon from Canada, the United States of America, Norway and the United Kingdom. The potted fish comes chiefly from the United Kingdom, which also supplied a considerable proportion of the fresh fish imported in 1933-4; 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.

2. Exports of Fish.—The exports of fish are comparatively insignificant. During the year 1933-34 they were as follow :—Fresh or preserved by cold process 161,438 lb., £7,807; oysters, fresh, 45 cwt., £149; potted or concentrated, £197; preserved in tins, 8,207 lb., £452; smoked or dried, 20,344 lb., £562; other including salted, 118 cwt., £17.

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 1929-30 to 1933-34 :—

#### PEARL, TORTOISE, AND TROCHUS-SHELL.—EXPORTS, AUSTRALIA.

Article.		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Pearl-shell ..	cwt.	58,503	48,353	26,779	32,975	33,721
	£	450,615	354,992	194,351	233,786	198,347
Tortoise-shell ..	lb.	1,541	2,160	1,949	519	1,292
	£	693	921	1,112	210	696
Trochus-shell ..	cwt.	11,184	14,056	10,228	13,421	9,175
	£	44,515	44,682	32,532	49,525	41,596

The bulk of the pearl-shell exported during 1933-34 was consigned to the United States of America and the United Kingdom, the respective values of the shipments amounting to £141,639 and £50,727, while trochus-shell to the value of £41,326 was dispatched to Japan.

#### § 4. The Development of Fisheries in Australia.

In 1907 the Commonwealth Government decided to demonstrate what might be attained commercially by the application of modern methods in fishery. A Federal Investigation Ship, the *Endeavour*, was constructed specially for the work, and a Director of Fisheries was appointed. Experimental cruises were undertaken, which showed that Australia possesses an asset of considerable value in her sea fisheries. The *Endeavour* was unfortunately lost at sea with all on board at the end of 1914. A description of the trawling grounds discovered, data regarding oceanography to the east of Australia, and a list of the publications of the Department will be found on pp. 333 to 335 of the Official Year Book No. 14.

In accordance with the recommendations of the Australian Fisheries Conference of 1927-29 the Commonwealth Government has decided to continue investigations, and as already stated, the Council for Scientific and Industrial Research has been entrusted with the carrying out of the fisheries programme, and the necessary financial provision has been made in the Estimates of 1935-36.

#### § 5. Trawling in Australian Waters.

The State Trawling Industry was established in New South Wales in 1915, and fishing operations were conducted with seven steel steam trawlers. The catches were landed at Sydney and Newcastle, and the fish distributed through retail shops, of which there were fourteen in the metropolitan area, one in Newcastle, and five in country towns. Early in the year 1923 the Government discontinued trawling operations, as the venture was not a commercial success. The operations of the trawlers, however, revealed some of the richest trawling areas in the world, and these localities are being successfully exploited by private enterprise.

## CHAPTER XXV.

## MANUFACTURING INDUSTRY.

NOTE.—In all tables relating to employees—except where specially mentioned—“Number of Employees” includes working proprietors.

· § 1. Number and Classification of Factories.

I. Number of Factories in each State.—The following table gives the number of factories in each State for the years specified :—

## FACTORIES.—NUMBER.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1929-30 ..	8,208	8,195	2,172	1,814	1,466	845	22,700
1930-31 ..	7,544	8,199	2,104	1,644	1,455	805	21,751
1931-32 ..	7,397	8,204	2,013	1,662	1,490	891	21,657
1932-33 ..	7,444	8,612	2,155	1,710	1,499	910	22,330
1933-34 ..	7,818	8,896	2,345	1,733	1,606	899	23,297

2. Classification of Factories, Australia.—The next table shows the number of factories in Australia for the years specified, classified in the industrial groups agreed upon by the Conference of Statisticians in 1930. This classification which was introduced during the year 1930-31 superseded the grouping which had been in use since 1902. The definition of a factory adopted at the Conference of Statisticians in 1902 is, however, still used, viz., “Any factory, workshop or mill where four or more persons are employed or power is used.” Details in regard to some of the principal industries included in the table will be found in § 9 hereinafter.

## FACTORIES.—CLASSIFICATION, AUSTRALIA.

Class of Industry.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
I. Treatment of Non-metalliferous Mine and Quarry Products .. .. .	374	361	349	374	404
II. Bricks, Pottery, Glass, &c. . . . .	520	368	313	362	409
III. Chemicals, Dyes, Explosives, Paint, Oils, and Grease .. .. .	493	515	544	547	589
IV. Industrial Metals, Machines, Implements, and Conveyances .. .. .	5,469	5,362	5,376	5,520	5,789
V. Precious Metals, Jewellery and Plate .. .. .	264	242	240	242	255
VI. Textiles and Textile Goods .. .. .	557	520	515	555	588
VII. Skins and Leather .. .. .	451	460	485	487	511
VIII. Clothing .. .. .	4,186	3,915	3,822	3,917	4,052
IX. Food, Drink and Tobacco .. .. .	4,274	4,251	4,344	4,421	4,583
X. Woodworking and Basketware .. .. .	2,444	2,144	2,077	2,198	2,243
XI. Furniture, Bedding, &c. .. .. .	1,071	954	910	947	995
XII. Paper, Stationery, Printing, Bookbinding, &c. .. .. .	1,592	1,601	1,611	1,624	1,712
XIII. Rubber .. .. .	245	267	279	304	305
XIV. Musical Instruments .. .. .	54	46	41	35	32
XV. Miscellaneous Products .. .. .	256	274	285	312	333
XVI. Heat, Light and Power .. .. .	450	471	466	476	497
Total .. .. .	22,700	21,751	21,657	22,330	23,297

The number of factories in operation declined each year from 1928-29 to 1931-32, but the figures for 1932-33 and 1933-34 show a recovery in every State except Tasmania in the last-named year and in all classes of industry except the manufacture of musical instruments. The number of factories in Australia during 1933-34, viz., 23,297 is the greatest number yet recorded. Although not a true index, this expansion following the economic depression must be regarded as an indication of confidence in the future. The number of persons employed, however, is still below that of more prosperous times as mentioned hereafter.

3. Classification of Factories, States, 1933-34.—The following table shows the number of factories in each State in 1933-34, classified according to the nature of the industry :—

FACTORIES.—CLASSIFICATION, 1933-34.

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 ..	130	161	34	32	30	17	404
II. Bricks, Pottery, Glass, &c. ..	183	104	33	39	38	12	409
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	235	223	39	43	27	22	589
IV. Industrial Metals, Machines, Implements and Conveyances ..	2,059	2,278	442	410	436	164	5,789
V. Precious Metals, Jewellery and Plate ..	67	131	21	17	13	6	255
VI. Textiles and Textile Goods ..	150	342	39	31	17	9	588
VII. Skins and Leather ..	188	228	38	26	23	8	511
VIII. Clothing ..	1,406	1,893	241	269	188	55	4,052
IX. Food, Drink and Tobacco ..	1,336	1,438	727	468	362	252	4,583
X. Woodworking and Basketware ..	748	643	319	127	147	259	2,243
XI. Furniture, Bedding, &c. ..	306	383	110	68	78	50	995
XII. Paper, Stationery, Printing, Book-binding, &c. ..	613	661	176	109	128	25	1,712
XIII. Rubber ..	104	120	17	30	24	10	305
XIV. Musical Instruments ..	10	13	3	3	3	..	32
XV. Miscellaneous Products ..	116	146	37	13	17	4	333
XVI. Heat, Light, and Power ..	167	132	69	48	75	6	497
Total .. ..	7,818	8,896	2,345	1,733	1,606	899	23,297

§ 2. Classification of Factories according to Number of Employees.

i. States, 1933-34.—The following table shows, for each State, the number of factories classified according to the number of hands employed in 1933-34 :—

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, 1933-34.

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF FACTORIES.							
Under 4 ..	2,789	3,471	695	480	816	318	8,569
4 ..	699	746	267	197	83	120	2,112
5 to 10 ..	1,941	2,188	672	551	376	289	6,017
11 to 20 ..	1,040	1,030	318	233	163	94	2,878
21 to 50 ..	799	877	223	176	115	52	2,242
51 to 100 ..	298	314	86	62	37	13	810
Over 100 ..	252	270	84	34	16	13	669
Total .. ..	7,818	8,896	2,345	1,733	1,606	899	23,297

A marked change has taken place, during the last decade, in the distribution of factories according to the number of employees. In 1923-24 of a total of 20,189 factories reported, 6,451 or 32.0 per cent. employed less than five persons whereas in 1933-34 the number of factories employing less than five persons had increased to 10,681 representing 46 per cent. of a total of 23,297 factories. The increase in the number of small factories is probably due mainly to the multiplication of small repair establishments (boots and shoes; cycles and motors; etc.) which are technically accounted as factories by the installation of some power machine. During the later years of the decade there has undoubtedly been a rapid change from larger to smaller factories—measured by the



CLASSIFICATION OF FACTORIES ACCORDING TO NUMBER OF EMPLOYEES. 797

number of employees—owing to dismissals because of business depression. The figures for 1933-34, however, show a gratifying recovery in the larger factories, the number of factories employing upwards of 100 hands having risen to 669 factories employing 181,634 hands from 606 factories employing 163,462 persons in 1932-33. A more extensive analysis on these lines is given in the following tables.

The relative importance of large and small factories is more conclusively illustrated by a classification of hands employed according to the size of factory in which they work :—

FACTORIES.—CLASSIFICATION OF EMPLOYEES, ACCORDING TO SIZE OF FACTORY, 1933-34.

No. of Persons Employed in Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AVERAGE NUMBER EMPLOYED DURING PERIOD WORKED.							
Under 4 ..	5,454	6,136	1,447	1,039	1,513	683	16,272
4 ..	2,796	2,984	1,068	788	332	480	8,448
5 to 10 ..	13,296	15,004	4,589	3,733	2,498	1,987	41,107
11 to 20 ..	15,263	15,280	4,681	3,362	2,352	1,360	42,298
21 to 50 ..	25,430	27,832	6,938	5,593	3,623	1,604	71,020
51 to 100 ..	20,557	21,736	6,017	4,290	2,606	842	56,048
Over 100 ..	74,995	69,864	17,461	11,481	3,829	4,004	181,634
Total ..	157,791	158,836	42,201	30,286	16,753	10,960	416,827
Av. per F'cty	20.18	17.85	18.00	17.48	10.43	12.19	17.89

2. Australia, 1929-30 to 1933-34.—The percentage of employees in factories with more than 100 hands on the total for all factories reached its maximum during the years 1926-27 and 1928-29 with 43.7 per cent. In 1930-31 it declined to 40.8 per cent. but during 1933-34 it had recovered to 43.6 per cent.

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, AUSTRALIA.

Year.	Establishments Employing on the Average—							
	20 hands and under.		21 to 100 hands.		101 hands and upwards.		Total.	
	Es-tablish-ments.	Em-ployees.	Es-tablish-ments.	Em-ployees.	Es-tablish-ments.	Em-ployees.	Es-tablish-ments.	Em-ployees.
1929-30—								
Number ..	18,688	110,704	3,338	136,457	674	183,386	22,700	430,547
Average per establishment ..	..	5.92	..	40.88	..	272.09	..	18.97
Percentage on total ..	82.33	25.71	14.70	31.69	2.97	42.60	100.00	100.00
1930-31—								
Number ..	18,562	103,077	2,645	106,678	544	144,271	21,751	354,026
Average per establishment ..	..	5.55	..	40.33	..	265.20	..	16.28
Percentage on total ..	85.34	29.12	12.16	30.13	2.50	40.75	100.00	100.00
1931-32—								
Number ..	18,507	98,685	2,603	105,641	547	145,886	21,657	350,212
Average per establishment ..	..	5.33	..	40.58	..	266.70	..	16.17
Percentage on total ..	85.45	28.18	12.02	30.16	2.53	41.66	100.00	100.00
1932-33—								
Number ..	18,883	102,477	2,841	117,021	606	163,462	22,330	382,960
Average per establishment ..	..	5.43	..	41.19	..	269.74	..	17.15
Percentage on total ..	84.57	26.76	12.72	30.56	2.71	42.68	100.00	100.00
1933-34—								
Number ..	19,576	108,125	3,052	127,068	669	181,634	23,297	416,827
Average per establishment ..	..	5.52	..	41.63	..	271.50	..	17.89
Percentage on total ..	84.03	25.94	13.10	30.48	2.87	43.58	100.00	100.00

## § 3. Power used in Factories.

1. States, 1933-34.—The following table shows the number of factories using steam, gas, oil, electricity, or water power, and the average horse-power used in 1933-34 :—

## FACTORIES.—AVERAGE HORSE-POWER USED, 1933-34.

State.	Number of Establishments.			Average Horse-power Used.					
	Using Power.	Others.	Total.	Steam.	Gas.	Oil.	Elec- tricity.	Water.	Total.
	No.	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
N.S.W. ..	7,467	351	7,818	486,945	9,786	43,407	312,721	16,150	869,009
Victoria ..	8,238	658	8,896	190,247	7,878	15,097	184,004	15,960	413,186
Queensland ..	2,038	267	2,345	112,040	11,214	14,417	46,243	125	184,039
S. Australia ..	1,576	157	1,733	131,541	5,930	10,849	47,893	..	196,213
W. Australia ..	1,491	115	1,606	58,215	4,048	15,520	30,194	..	107,977
Tasmania ..	846	53	899	5,714	41	1,535	60,498	78,903	146,691
Australia ..	21,696	1,601	23,297	984,702	38,897	100,825	681,553	111,138	1,917,115

Factories in Australia include electric light and power works. Most of the power in these works is, however, used in generating electric power and light, and the power so produced is counted again under the heading of electricity. The actual amount of duplication cannot be given for all States, but a fair measure of the amount of power used in factories (in the common sense) is given by deducting the total of Class XVI., Heat, Light and Power, from the gross total for all factories. This is done in the last column of the table below. It must not be inferred, however, that the whole of the deduction is a duplication, as portion of it represents the production of light for general purposes, while an appreciable amount of power is used on farms and in private houses.

2. Australia, 1929-30 to 1933-34.—The following table shows the average horse-power used in factories in Australia in each of the last five years :—

## FACTORIES.—AVERAGE HORSE-POWER USED, AUSTRALIA.

Year.	Number of Establishments.		Average Horse-power Used.						Total (a).	
	Using Power.	Others.	Steam.	Gas.	Oil.	Elec- tricity.	Water.	Gross.	Less Heat Light and Power Works.	
	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	
1929-30 ..	20,456	2,244	1,101,741	43,695	60,629	568,289	114,828	1,889,182	769,576	
1930-31 ..	19,976	1,775	1,003,382	41,415	69,774	597,984	115,862	1,828,417	745,689	
1931-32 ..	20,135	1,522	976,880	41,706	102,106	590,812	140,375	1,851,879	809,703	
1932-33 ..	20,826	1,504	877,164	38,970	102,236	608,883	126,465	1,753,718	824,021	
1933-34 ..	21,696	1,601	984,702	38,897	100,825	681,553	111,138	1,917,115	884,094	

(a) See preceding paragraph.

The last column of the above table, which may be called roughly the net power used in factories, shows an average increase of about 26,000 horse-power per annum or about 3.5 per cent. per annum during the last five years. The net horse-power per employee increased from 1.4 in 1924-25 to 1.6 in 1928-29, but the decline in persons employed in 1933-34 raised the proportion to 2.2 horse-power per employee in that year. The corresponding figure for the United States of America was 4.2 in 1929.

3. Classes of Industry.—The next table shows the average horse-power<sup>1</sup> used in factories, by classes, in each State during the year 1933-34:—

**FACTORIES.—HORSE-POWER USED IN EACH CLASS, 1933-34.**

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
I. Treatment of Non-metalliferous Mine and Quarry Products ..	24,044	15,521	3,881	2,646	2,229	8,977	57,298
II. Bricks, Pottery, Glass, &c. ..	13,122	11,264	1,386	2,693	1,695	483	30,643
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	11,754	12,233	1,770	4,929	2,410	436	33,532
IV. Industrial Metals, Machines, Implements and Conveyances ..	155,962	40,713	20,806	16,128	8,939	42,125	284,673
V. Precious Metals, Jewellery and Plate ..	650	1,143	72	168	41	22	2,096
VI. Textiles and Textile Goods ..	13,349	25,693	2,443	2,196	867	2,475	47,023
VII. Skins and Leather ..	6,504	7,025	951	415	457	172	15,524
VIII. Clothing ..	5,956	8,517	824	730	631	106	16,764
IX. Food, Drink and Tobacco ..	74,094	57,079	65,822	15,943	12,940	6,104	231,982
X. Woodworking and Basket-ware ..	23,950	18,133	12,031	4,989	6,595	5,691	71,389
XI. Furniture, Bedding, etc. ..	6,394	4,609	1,872	1,980	1,118	607	16,580
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	13,117	17,286	3,158	1,828	2,201	534	38,124
XIII. Rubber ..	17,197	15,657	665	152	68	72	33,811
XIV. Musical Instruments ..	490	124	12	99	2	..	727
XV. Miscellaneous Products ..	1,666	1,637	116	232	160	117	3,928
Total less Class XVI. ..	368,249	236,634	115,809	55,128	40,353	67,921	884,094
XVI. Heat, Light and Power ..	500,760	176,552	68,230	141,085	67,624	78,770	1,033,021
Grand Total. . .	869,009	413,186	184,039	196,213	107,977	146,691	1,917,115

**§ 4. Employment in Factories.**

1. Total Number Employed.—Each person employed in and about a factory excepting carters engaged entirely in the delivery of manufactured goods is counted as a factory employee, and the figures relating to employment include, therefore, proprietors who work in their own business as well as "outworkers" (see paragraph 5 (ii) hereinafter). 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 employed each week by the number of weeks worked. The figures, therefore, represented the average number employed 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 employed over a full year of fifty-two

weeks. The classification of factories according to the number of employees (*see* § 2 *ante*), however, is still based on the old method; but, for all other purposes the average number employed over the full year is used.

The following table shows, for each year from 1929-30 to 1933-34 inclusive, (a) the average number of persons (including both sexes of all ages) employed in manufacturing industries in each State; (b) the percentage of the number employed in each State on the total number employed in Australia; and (c) the number employed per ten thousand of the mean population in each State and Australia.

The number of persons employed in factories throughout Australia was at its highest in 1926-27 when it reached 452,184 employees. In the year 1928-29, which is the latest year before the depression became general, the number of employees was 450,482, and the lowest point subsequent to that year was 336,658 in 1931-32 or 74.7 per cent. of the 1928-29 figure. In 1932-33 the number of factory employees had recovered to 370,727 representing 82.3 per cent. of the number in 1928-29, followed by a further increase in 1933-34 to 405,909. Allowing for the increase in the population the relation of the factory employees in 1933-34 to the number in 1929-30 was:—New South Wales, 91.2 per cent.; Victoria, 100.9 per cent.; Queensland, 89.4 per cent.; South Australia, 90.0 per cent.; Western Australia, 79.6 per cent.; Tasmania, 86.6 per cent.; and Australia 93.6 per cent.:—

#### FACTORIES.—EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
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#### AVERAGE NUMBER EMPLOYED DURING FULL YEAR (52 WEEKS).

1929-30 ..	162,913	151,009	42,624	32,185	19,643	10,820	419,194
1930-31 ..	127,591	126,016	37,901	23,886	14,620	8,829	338,843
1931-32 ..	126,368	128,265	35,799	23,834	13,392	9,000	336,658
1932-33 ..	138,515	144,428	37,388	26,348	14,815	9,233	370,727
1933-34 ..	154,061	156,334	40,083	29,486	16,163	9,782	405,909

#### PERCENTAGE ON AUSTRALIAN TOTAL.

	%	%	%	%	%	%	%
1929-30 ..	38.86	36.02	10.17	7.68	4.69	2.58	100.00
1930-31 ..	37.65	37.19	11.19	7.05	4.31	2.61	100.00
1931-32 ..	37.54	38.10	10.63	7.08	3.98	2.67	100.00
1932-33 ..	37.36	38.96	10.09	7.10	4.00	2.49	100.00
1933-34 ..	37.96	38.52	9.87	7.26	3.98	2.41	100.00

#### PER 10,000 OF POPULATION.

1929-30 ..	647	849	472	562	461	493	652
1930-31 ..	501	703	413	416	339	396	521
1931-32 ..	492	711	385	413	309	398	514
1932-33 ..	535	796	397	455	339	405	561
1933-34 ..	590	857	422	506	367	427	610

2. Rates of Increase, 1929-30 to 1933-34.—The percentage of increase or decrease on the average number of persons employed in the preceding year is shown below for each State for each of the years specified :—

FACTORY EMPLOYEES.—ANNUAL INCREASE.—PER CENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	%	%	%	%	%	%	%
1929-30 .. ..	- 9.90	- 3.55	- 5.35	-12.56	- 5.58	3.38	- 6.95
1930-31 .. ..	-21.70	-16.56	-11.08	-25.76	-25.57	-18.40	-19.20
1931-32 .. ..	- 0.96	1.78	- 5.55	- 0.22	- 8.40	1.94	- 0.64
1932-33 .. ..	9.61	12.60	4.44	10.55	10.63	2.59	10.12
1933-34 .. ..	11.22	8.24	3.45	11.91	9.10	5.95	9.49

NOTE.—The minus sign (-) denotes decrease.

3. Employees in Classes of Industry, Australia, 1929-30 to 1933-34.—The table hereunder gives the average number of persons employed in factories under each industrial group in Australia in the years 1929-30 to 1933-34 inclusive :—

FACTORY EMPLOYEES.—CLASSES, AUSTRALIA.

Class of Industry.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
I. Treatment of non-metalliferous mine and quarry products ..	6,889	4,536	3,885	4,534	5,507
II. Bricks, pottery, glass, etc. ..	11,085	5,684	5,200	6,816	9,020
III. Chemicals, dyes, explosives, paint, oils and grease .. ..	13,364	11,784	12,058	12,655	13,310
IV. Industrial metals, machines, implements and conveyances ..	116,869	89,506	82,688	94,598	107,398
V. Precious metals, jewellery and plate ..	2,073	1,701	1,670	2,029	2,371
VI. Textiles and textile goods ..	29,383	26,228	30,553	34,974	36,790
VII. Skins and leather .. ..	7,663	6,588	7,846	8,865	9,513
VIII. Clothing .. ..	74,002	60,069	61,864	67,311	72,260
IX. Food, drink and tobacco .. ..	67,189	62,294	62,455	64,670	67,668
X. Woodworking and basketware ..	24,169	15,628	14,319	17,044	19,927
XI. Furniture, bedding, &c. .. ..	11,899	7,770	7,249	8,108	9,562
XII. Paper, stationery, printing, book-binding, etc. .. ..	33,095	29,441	29,052	29,955	31,937
XIII. Rubber .. ..	6,804	4,592	5,051	5,822	6,561
XIV. Musical instruments .. ..	1,658	1,067	800	749	572
XV. Miscellaneous products .. ..	3,172	3,388	3,827	4,488	5,122
XVI. Heat, light and power .. ..	9,880	8,567	8,141	8,109	8,391
Total .. ..	419,194	338,843	336,658	370,727	405,909

The number employed in factories, after being almost constant for the three years ended 1928-29, thereafter declined rapidly. In 1929-30, the decrease amounted to 31,288, or 7 per cent.; in 1930-31 there was a further decrease of 80,351 or 19 per cent.; in 1931-32 the decrease had slowed down to 2,185 or 0.6 per cent. In 1932-33 a considerable improvement was recorded, representing an increase of 34,000 persons compared with 1931-32. This improvement continued during 1933-34, when the number of persons employed increased by 35,000 or a total increase of 69,000 or 20 per cent. for the two years. The only other decline in numbers recorded prior to the present depression was in the war years, when there was a decrease of 6 per cent. spread over three years.

Detailed examination of the returns for the years 1933-34 and 1929-30 reveals that the industries connected with building, i.e., Class II. Bricks, etc., Class X. Woodworking, and Class XI. Furniture, Bedding etc., which were severely affected by the economic crisis, are now showing considerable improvement in the number of persons employed. Industries least affected were those connected with Food, Drink, etc., Chemicals, Dyes, etc., and Paper, Stationery, etc. Class VI. Textiles and Textile Goods, which showed a considerable improvement in 1931-32 and 1932-33, again improved in 1933-34, the increase in employment being 1,700. Class V. Precious Metals, etc., Class VII. Skins and Leather and Class XV. also show slight increases since 1929-30.

4. Employees in Classes of Industry, States, 1933-34.—The following table gives a classification of employees in manufacturing industries in each State in 1933-34 :—

FACTORY EMPLOYEES.—CLASSES, 1933-34.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
I. Treatment of non-metalliferous mine and quarry products ..	2,391	1,800	407	333	322	254	5,507
II. Bricks, pottery, glass, etc. ..	4,452	2,922	434	548	567	97	9,020
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,588	5,393	461	1,114	626	128	13,310
IV. Industrial metals, machines, implements and conveyances ..	49,810	32,174	7,488	11,275	4,378	2,273	107,398
V. Precious metals, jewellery and plate ..	615	1,445	104	134	49	24	2,371
VI. Textiles and textile goods ..	11,344	21,460	1,070	1,003	465	1,448	36,790
VII. Skins and leather ..	3,727	4,415	652	423	246	50	9,513
VIII. Clothing ..	23,788	36,432	5,491	3,748	2,248	553	72,260
IX. Food, drink, and tobacco ..	21,945	22,014	13,298	4,952	3,135	2,324	67,668
X. Woodworking and basketware ..	5,956	5,851	4,085	1,302	1,461	1,272	19,927
XI. Furniture, bedding, etc. ..	3,669	3,359	1,099	682	491	262	9,562
XII. Paper, stationery, printing, bookbinding, etc. ..	12,851	11,677	3,422	1,927	1,401	659	31,937
XIII. Rubber ..	2,246	3,427	629	144	72	43	6,561
XIV. Musical instruments ..	258	192	51	50	21	..	572
XV. Miscellaneous products ..	2,358	1,782	312	274	166	230	5,122
XVI. Heat, light and power ..	3,063	1,991	1,080	1,577	515	165	8,391
Total ..	154,061	156,334	40,083	29,486	16,163	9,782	405,909

5. Employees According to Nature of Employment.—(i) *General*. In the following table the average number of persons employed in each State in 1933-34 are classified according to the nature of their employment :—

FACTORY EMPLOYEES.—NATURE OF EMPLOYMENT, 1933-34.

State.	Average Number of Persons Employed.						Total.
	Working Proprietors.	Managers and Overseers.	Accountants and Clerks.	Engine-drivers and Firemen.	Workers, Skilled & Unskilled. (a)	Carters, Messengers and Others.	
New South Wales ..	6,277	5,818	9,572	2,211	128,233	1,950	154,061
Victoria ..	7,579	5,557	7,059	1,693	132,743	1,703	156,334
Queensland ..	1,820	1,715	2,645	1,744	30,151	2,008	40,083
South Australia ..	1,342	1,192	2,062	401	23,931	558	29,486
Western Australia	958	731	968	390	12,722	394	16,163
Tasmania ..	556	497	685	199	7,567	278	9,782
Australia ..	18,532	15,510	22,991	6,638	335,347	6,891	405,909

(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 in each of the last five years :—

FACTORIES.—OUTWORKERS.(a)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1929-30 ..	217	182	49	28	2	31	509
1930-31 ..	122	136	29	15	3	23	328
1931-32 ..	108	140	27	12	3	2	292
1932-33 ..	131	178	25	18	3	7	362
1933-34 ..	261	164	37	11	2	15	490

(a) In all tables relating to number of hands employed in factories, outworkers are included.

The Factories Acts in each State contain provisions regulating the employment of outworkers. Records of outwork, specifying the names and remuneration of workers, and stating the places where the work is done, must be kept by factory proprietors. Fuller information regarding the operation of the Factories Acts will be found in Official Year Book No. 16, pp. 540 to 566.

### § 5. Sex Distribution in Factories.

1. **Employment of Females.**—In all the States the employment of female labour in factories is regulated by Acts of Parliament. More extended reference to this matter will be found in Official Year Book No. 16, pp. 540 to 566.

2. **Distribution of Employees according to Sex.**—(i) *General.* In New South Wales the ratio of the number of females employed 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 at present more than half the factory employees are females. In the remaining States the ratio was roughly one female employed to every four males, while that for Australia was two to five. The employment of women is, however, mainly confined to a few trades.

The increased proportion of females in factories during the last five years is due to the fact that those factories in which females are employed in relatively large numbers have been affected less as regards the number of employees than other industries have been by the industrial depression. The industries which employ the largest proportions of females are Classes VI., VIII., IX. and XII., and the numbers engaged in these classes constitute 85.39 per cent. of the total number of female employees as shown in paragraph 5 hereinafter.

(ii) *Average Number of Males and Females Employed, 1929-30 to 1933-34.* The next table shows the average number of male and female employees in factories in each State for the five years ended 1933-34:—

#### FACTORIES.—MALES AND FEMALES EMPLOYED.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
MALES.					
New South Wales ..	122,006	93,868	90,682	99,721	111,653
Victoria .. .. .	100,135	82,949	81,618	91,899	100,959
Queensland .. ..	35,141	31,144	29,149	30,099	32,248
South Australia ..	26,485	19,332	18,932	20,901	23,743
Western Australia ..	15,921	11,729	10,535	11,748	12,930
Tasmania .. .. .	8,547	6,922	6,999	7,147	7,716
<b>Australia .. ..</b>	<b>308,235</b>	<b>245,944</b>	<b>237,915</b>	<b>261,515</b>	<b>289,249</b>
FEMALES.					
New South Wales ..	40,907	33,723	35,686	38,794	42,408
Victoria .. .. .	50,874	43,067	46,647	52,529	55,375
Queensland .. ..	7,483	6,757	6,650	7,289	7,835
South Australia ..	5,700	4,554	4,902	5,447	5,743
Western Australia ..	3,722	2,891	2,857	3,067	3,233
Tasmania .. .. .	2,273	1,907	2,001	2,086	2,066
<b>Australia .. ..</b>	<b>110,959</b>	<b>92,899</b>	<b>98,743</b>	<b>109,212</b>	<b>116,660</b>

The maximum number of employees in factories was reached in 1926-27 when 452,184 persons were employed, of whom 337,433 were males and 114,751 were females. The figures for 1933-34 represent 85.7 per cent. of the maximum for males and 89.8 per cent. for all persons. The number of females employed, however, exceeds that of

1926-27 by 1.67 per cent., though it is less than for the year 1928-29. In 1931-32 the male employees were as low as 70.5 per cent. of the maximum and in 1930-31 the females were only 79 per cent. of the maximum which was in 1928-29.

3. **Rate of Variation for each Sex.**—The percentages of annual increase or decrease in the years indicated on the average number of males and females employed in factories are shown below :—

**PERCENTAGES OF ANNUAL INCREASE, MALE AND FEMALE FACTORY EMPLOYEES.**

State.	1928-29— 1929-30.	1929-30— 1930-31.	1930-31— 1931-32.	1931-32— 1932-33.	1932-33— 1933-34.
<b>MALES.</b>					
	%	%	%	%	%
New South Wales .. .. .	-10.17	-23.06	- 3.42	9.97	11.97
Victoria .. .. .	- 4.31	-17.16	- 1.60	12.60	9.86
Queensland .. .. .	- 5.30	-11.37	- 6.41	3.26	7.14
South Australia .. .. .	-12.84	-27.01	- 2.07	10.40	13.60
Western Australia .. .. .	- 6.31	-26.33	-10.18	11.51	10.06
Tasmania .. .. .	4.69	-19.01	1.10	2.11	7.96
Total .. .. .	- 7.47	-20.21	- 3.26	9.92	10.61
<b>FEMALES.</b>					
New South Wales .. .. .	- 9.08	-17.56	5.82	8.71	9.32
Victoria .. .. .	- 2.01	-15.35	8.31	12.61	5.42
Queensland .. .. .	- 5.57	- 9.70	- 1.58	9.61	7.49
South Australia .. .. .	-11.24	-20.11	7.64	11.12	5.43
Western Australia .. .. .	- 2.36	-22.33	- 1.18	7.35	5.41
Tasmania .. .. .	- 1.26	-16.10	4.93	4.25	- 0.96
Total .. .. .	- 5.46	-16.28	6.29	10.60	6.82

NOTE.—The minus sign (-) indicates decrease.

4. **Masculinity of Employees in Factories.**—The extent to which females are employed in the factories of Australia may perhaps be more clearly shown by giving the masculinity of employees for each State for a series of years. The following table furnishes particulars for the years 1929-30 to 1933-34 :—

**MASCULINITY<sup>(a)</sup> OF FACTORY EMPLOYEES.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1929-30 .. .. .	298	197	470	465	428	376	278
1930-31 .. .. .	278	193	461	425	406	363	265
1931-32 .. .. .	254	175	438	386	369	350	241
1932-33 .. .. .	264	175	413	384	383	343	239
1933-34 .. .. .	263	182	412	413	400	373	248

(a) Number of males per 100 females.

During the five years covered by the table above there has been a decrease in masculinity in all the States. The decline was smallest in Victoria, where the greatest number of females is employed, and in Tasmania. A cause of the increasing proportion of women has been referred to in par. 2 *ante*.

5. **Employment of Females in Particular Industries.**—The greater number of females engaged in manufacturing industries is employed in four classes, viz. :—VI., Textiles ; VIII., Clothing ; IX., Food and Drink ; and XII., Paper, Stationery, etc. In 1933-34 these industries accounted for 85.39 per cent. of all females employed in factories. In two classes only did the number of females exceed the number of males, viz., in Class VI.,



Textiles, where there were 152 females to every 100 males and in Class VIII., Clothing, with 267 females per 100 males. The following tables show the average number of males and females employed in each of these classes in 1933-34 :-

**MALES AND FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, 1933-34.**

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>AVERAGE NUMBER EMPLOYED—MALES.</b>							
VI. Textiles and textile goods ..	4,401	8,174	595	656	238	549	14,613
VIII. Clothing ..	6,591	10,162	1,304	911	536	186	19,690
IX. Food and drink ..	14,978	16,430	12,051	4,125	2,580	1,810	51,974
XII. Paper, stationery, etc. ..	8,807	8,325	2,619	1,410	1,080	525	22,766
All other classes ..	76,876	57,868	15,679	16,641	8,496	4,646	180,206
Total ..	111,653	100,959	32,248	23,743	12,930	7,716	289,249
<b>AVERAGE NUMBER EMPLOYED—FEMALES.</b>							
VI. Textiles and textile goods ..	6,943	13,286	475	347	227	899	22,177
VIII. Clothing ..	17,197	26,270	4,187	2,837	1,712	367	52,570
IX. Food and Drink ..	6,967	5,584	1,247	827	555	514	15,694
XII. Paper, stationery, etc. ..	4,044	3,352	803	517	321	134	9,171
All other classes ..	7,257	6,883	1,123	1,215	418	152	17,048
Total ..	42,408	55,375	7,835	5,743	3,233	2,066	116,660

The classification of the employment of females in the several industries in Class VIII., Clothing, which is the most important group, and the relation of their number to that of the males so employed, are shown in the following table :-

**FEMALES EMPLOYED IN EACH INDUSTRY IN CLASS VIII., 1933-34.**

Industry.	New South Wales.			Victoria.			Other States.		
	Males.	Females.	Femini- nity. (a)	Males.	Females.	Femini- nity. (a)	Males.	Females.	Femini- nity. (a)
Tailoring and slop clothing ..	1,648	6,764	410	1,796	5,688	317	1,167	3,888	333
Waterproof and oil-skin clothing ..	15	8	53	71	175	246	5	10	200
Dressmaking ..	30	1,211	4,937	563	7,226	1,283	37	1,821	4,922
Millinery ..	73	848	1,162	118	1,547	1,311	36	702	1,950
Shirts, collars and underclothing ..	306	3,601	1,177	461	4,355	945	142	1,579	1,112
Stays and corsets ..	34	557	1,638	110	677	615	7	48	686
Handkerchiefs, ties and scarves ..	91	627	689	51	431	845	4	9	225
Hats and caps ..	553	992	179	599	676	113	41	51	124
Gloves ..	..	..	..	33	110	333	..	..	..
Boots and shoes ..	2,386	2,161	91	4,886	4,534	93	985	738	75
Boot repairing (in- cluding bespoke work) ..	921	35	4	609	7	1	334	17	5
Boot accessories ..	98	33	34	459	185	40	..	..	..
Umbrellas and walk- ing sticks ..	34	68	200	29	93	321	13	18	138
Dyeworks and clean- ing (including re- novating and repairing) ..	367	216	59	329	273	83	163	218	134
Other ..	35	76	217	48	293	610	3	4	133
Total ..	6,591	17,197	261	10,162	26,270	259	2,937	9,103	310

(a) Number of females per 100 males.

**§ 6. Child Labour in Factories.**

I. Conditions of Child Labour.—The employment of young persons in factories in the State is regulated by Acts of Parliament, as is the case with the employment of female labour. Reference to the legislation regarding the employment of child labour in factories will be found in Official Year Book No. 16, pp. 540 to 566. The object of

the restrictions imposed is to assure amongst other things that a proper period shall be devoted to primary education, and that the early years of toil shall not exhaust the worker before the attainment of full growth.

2. Average Number of Children Employed, 1929-30 to 1933-34.—In the returns for the various States, the term "child" denotes any person under sixteen years of age. The following table shows the average number of children of each sex employed in manufacturing industries in the years 1929-30 to 1933-34 :—

#### CHILDREN EMPLOYED IN FACTORIES.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
MALES.					
New South Wales .. .. .	3,322	1,851	1,924	2,366	3,040
Victoria.. .. .	3,748	2,543	2,615	3,441	4,248
Queensland .. .. .	1,212	950	920	903	1,135
South Australia .. .. .	654	411	509	611	799
Western Australia .. .. .	575	324	344	351	427
Tasmania .. .. .	261	203	185	263	219
Australia .. .. .	9,772	6,282	6,497	7,935	9,868
FEMALES.					
New South Wales .. .. .	4,196	2,757	3,263	3,561	4,422
Victoria.. .. .	4,019	3,361	4,089	4,643	5,634
Queensland .. .. .	906	619	631	849	981
South Australia .. .. .	529	399	453	523	644
Western Australia .. .. .	226	149	161	202	235
Tasmania .. .. .	252	205	169	209	202
Australia .. .. .	10,128	7,490	8,766	9,987	12,118
TOTAL.					
New South Wales .. .. .	7,518	4,608	5,187	5,927	7,462
Victoria.. .. .	7,767	5,904	6,704	8,084	9,882
Queensland .. .. .	2,118	1,569	1,551	1,752	2,116
South Australia .. .. .	1,183	810	962	1,134	1,443
Western Australia .. .. .	801	473	505	553	662
Tasmania .. .. .	513	408	354	472	421
Australia .. .. .	19,900	13,772	15,263	17,922	21,986

3. Percentage of Children on Total Number of Employees.—The number of juvenile workers in factories reached its maximum in 1926-27 when the number was 23,903 (12,582 males and 11,321 females), representing 5.29 per cent. of all factory employees. In 1933-34 the number of children employed was 21,986 or 5.42 per cent. of all employees. The latter figures show some increase both actually and relatively over the immediately preceding year. This increase was very largely among females in the textile and clothing industry :—

#### PERCENTAGE OF CHILDREN ON TOTAL NUMBER OF FACTORY EMPLOYEES.

State.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	%	%	%	%	%
New South Wales .. .. .	4.61	3.61	4.10	4.28	4.84
Victoria .. .. .	5.14	4.69	5.23	5.60	6.32
Queensland .. .. .	4.97	4.14	4.33	4.69	5.28
South Australia .. .. .	3.68	3.39	4.04	4.30	4.89
Western Australia .. .. .	4.08	3.24	3.77	3.73	4.10
Tasmania .. .. .	4.74	4.62	3.93	5.11	4.30
Australia .. .. .	4.75	4.06	4.53	4.83	5.42

4. Industries Employing Child Labour.—The employment of children is practically confined to a limited number of industries, the most important of which are specified in the next table, which shows the average number employed in 1933-34 :—

## CHILDREN EMPLOYED.—VARIOUS INDUSTRIES, 1933-34.

Class.	Industry.	N.S.W.		Victoria.		Q'land.		S. Aust.		W. Aust.		Tas.		Australia.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
II.	Earthenware, China, Porcelain, and Terra-Cotta .. ..	26	1	45	12	9	3	9	..	3	..	..	..	92	16
III.	Chemicals, Drugs and Medicines .. ..	38	66	17	37	1	25	7	15	4	4	1	..	68	147
IV.	Smelting, Converting, Refining and Rolling of Iron and Steel ..	161	6	235	29	42	..	62	9	..	..	..	..	500	44
"	Engineering (not Marine or Electrical) ..	144	1	157	8	30	2	57	6	21	..	3	..	412	17
"	Electrical Installations, Cables and Apparatus ..	101	41	148	61	5	..	14	1	1	..	1	..	270	103
"	Motor Vehicles and Cycles. (ii) Repairs ..	91	3	118	2	40	..	33	1	19	1	12	..	313	7
"	Galvanized Ironworking and Tinsmithing ..	143	35	204	53	19	..	31	..	33	..	1	..	431	88
VI.	Cotton .. ..	23	71	15	60	2	..	..	..	..	..	..	..	40	131
"	Wool, Worsted and Shoddy .. ..	98	315	451	906	8	31	53	31	3	10	45	59	658	1352
"	Hosiery and Other Knitted Goods ..	33	353	147	710	6	12	..	7	1	11	..	10	137	1103
"	Rope and Cordage ..	27	18	96	33	9	..	10	..	..	..	..	..	142	51
VII.	Tanning, Currying and Leather Dressing ..	55	2	121	200	30	..	1	..	1	..	1	..	209	202
"	Bags, Trucks and Other Leather Goods ..	26	43	32	33	12	16	5	21	6	..	..	..	81	113
VIII.	Tailoring and Slop Clothing .. ..	60	638	66	515	28	286	8	90	5	31	1	17	168	1577
"	Dressmaking .. ..	1	139	21	715	2	77	..	128	1	48	..	6	25	1113
"	Millinery .. ..	4	101	6	176	5	37	..	74	..	10	..	..	15	398
"	Shirts, Collars and Underclothing ..	21	682	15	336	12	120	..	64	1	20	..	12	49	1234
"	Hats and Caps .. ..	29	122	46	50	..	2	..	1	..	..	..	..	75	175
"	Boots and Shoes ..	185	257	175	411	31	68	22	32	28	7	3	2	444	777
"	Boot Repairing ..	18	..	4	..	16	..	4	1	4	..	1	..	47	1
IX.	Bakeries (including Cakes and Pastry) ..	37	12	54	13	26	18	18	3	8	1	34	86	177	133
"	Biscuits .. ..	51	151	85	49	4	5	11	19	9	13	..	..	160	237
"	Sugar Confectionery (including Chocolate) ..	44	210	32	115	15	52	14	38	1	10	..	..	106	425
"	Butter Factories, Creameries, etc. ..	13	1	29	23	15	3	3	..	5	1	2	..	67	28
"	Condiments, Coffee and Spices .. ..	22	54	12	12	2	1	33	6	8	..	..	..	77	73
"	Tobacco, Cigars, Cigarettes and Snuff ..	13	119	3	5	3	5	..	..	6	15	..	..	25	144
X.	Sawmills ('Town' and Forest) .. ..	33	2	15	..	83	..	11	..	..	..	11	..	153	2
XI.	Billiard Tables, Cabinet and Furniture making and Upholstery ..	81	15	176	14	41	7	36	6	25	4	8	..	367	46
XII.	Papermaking, etc. ..	53	270	5	..	..	..	..	..	..	..	..	..	58	270
"	Envelopes, Stationery, Paper Boxes, Bags, etc. .. ..	..	..	63	196	6	23	10	33	2	7	1	..	82	259
"	Newspapers and Periodicals .. ..	96	9	16	1	52	3	..	..	14	..	4	5	182	18
"	General Printing and Bookbinding (not including Government) ..	148	122	199	105	50	37	35	18	23	10	5	2	460	294
XIII.	Tyres, Motor and Cycle ..	16	1	13	17	2	..	7	1	4	..	1	..	43	19

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 1933-34 was £330,134,060 of which amount the sum of £189,827,264 represented the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £11,214,881 the value of the power, fuel and light used. The difference between the sum of the last two amounts and the value of the output, viz., £129,091,915 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 1933-34 was £64,444,660. This figure which is exclusive of amounts drawn by working proprietors shows an increase of £5,028,224 or 8.46 per cent., as compared with the total for the previous year.

2. *Salaries and Wages Paid.*—(i) *Total Amount, 1933-34.* The total amount of salaries and wages paid in the year 1933-34 in various classes of factories in each State is shown in the following table:—

#### SALARIES AND WAGES PAID IN FACTORIES, 1933-34.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	514,019	322,931	70,618	60,908	55,522	46,835	1,070,833
II. Bricks, Pottery, Glass, etc. ..	754,588	479,738	67,847	84,661	93,286	15,685	1,495,805
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,025,709	928,033	84,796	198,619	123,092	21,725	2,381,974
IV. Industrial Metals, Machines, Implements and Conveyances ..	9,416,439	5,428,710	1,425,116	1,929,992	803,126	430,835	19,434,218
V. Precious Metals, Jewellery and Plate ..	96,157	206,200	14,262	15,330	7,162	2,825	341,936
VI. Textiles and Textile Goods ..	1,479,575	2,471,321	156,901	116,091	61,421	172,515	4,457,824
VII. Skins and Leather ..	624,981	642,005	99,206	50,389	32,077	6,344	1,455,002
VIII. Clothing ..	2,485,340	3,831,897	502,901	332,279	215,714	48,813	7,416,944
IX. Food, Drink and Tobacco ..	3,967,686	3,900,097	2,803,341	795,946	583,032	342,266	12,392,368
X. Woodworking and Basketware ..	951,621	964,248	592,429	184,182	266,346	164,350	3,123,176
XI. Furniture, Bedding, etc. ..	534,280	412,290	164,874	87,165	76,380	29,606	1,304,595
XII. Paper, Stationery, Printing, Book-binding, etc. ..	2,358,812	2,020,747	613,796	320,602	275,166	131,390	5,720,513
XIII. Rubber ..	443,317	526,814	75,276	15,401	8,648	4,408	1,073,804
XIV. Musical Instruments ..	43,923	27,571	8,872	5,661	4,624	..	90,651
XV. Miscellaneous Products ..	311,242	246,010	37,252	34,628	22,716	23,983	675,831
XVI. Heat, Light and Power ..	740,858	443,037	277,853	383,227	124,228	39,923	2,009,126
Total ..	25,748,547	22,851,649	6,995,340	4,615,081	2,752,540	1,481,503	64,444,660

(ii) *Totals and Averages, 1929-30 to 1933-34.* The following statement shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for the years 1929-30 to 1933-34. The average wage paid is not comparable with that shown in similar tables in Official Year Books issued prior to No. 23, 1930, on account of the change in method of computing the average number of hands employed

SALARIES AND WAGES PAID AND VALUE OF PRODUCTION.

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as explained heretofore. The figures are exclusive of working proprietors and of the amounts drawn by them :—

SALARIES AND WAGES PAID IN FACTORIES.—TOTAL AND AVERAGE PER ANNUM PER EMPLOYEE.

Year.	Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		£	£	£	£	£	£	£
1929-30	Total amount paid ..	34,875,995	28,387,840	8,690,872	6,579,186	4,154,980	2,028,160	84,717,033
	Average per employee ..	222.67	197.07	211.80	213.62	222.32	193.80	210.97
1930-31	Total amount paid ..	25,200,290	21,359,491	7,098,106	4,368,868	2,886,884	1,541,220	62,454,859
	Average per employee ..	206.83	179.29	195.26	192.67	210.26	183.28	193.88
1931-32	Total amount paid ..	22,751,013	19,454,045	6,188,889	3,786,056	2,335,684	1,416,131	55,931,818
	Average per employee ..	188.67	160.15	180.57	167.95	186.23	166.76	174.84
1932-33	Total amount paid ..	23,782,848	21,218,271	6,321,021	4,136,857	2,541,428	1,416,011	59,416,436
	Average per employee ..	179.49	154.50	176.82	165.24	182.14	162.85	168.19
1933-34	Total amount paid ..	25,748,547	22,851,649	6,995,340	4,615,081	2,752,540	1,481,503	64,444,660
	Average per employee ..	174.23	153.62	182.82	163.98	181.03	160.58	166.36

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, there is a large number of hands employed in Class VIII., comprising a heavy percentage of women and children. The highest average wages per employee in 1933-34 were paid in Queensland, followed by Western Australia.

The average rate of salaries and wages reached its maximum in 1927-28 when it amounted to £212.12. Since that year there has been an almost continuous decline to 1933-34 when the average rate amounted to £166.36. This represents a decrease of £45.76 or 21.6 per cent. since the peak year abovementioned. The fall in the cost of living on which the rates of wage are chiefly based began in the last quarter of 1929-30, and has since continued, with consequent reductions in the rates of wage.

(iii) *Earnings of Males and Females, 1933-34.* The following table shows the approximate amount paid in salaries and wages to males and females in each class of industry in each State in the year 1933-34 :—

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES, 1933-34.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>MALES.</b>							
I. Treatment of Non-metalliferous Mine and Quarry Products ..	£	£	£	£	£	£	£
II. Bricks, Pottery, Glass, etc. ..	508,815	316,626	69,898	60,487	54,683	46,297	1,056,806
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	736,720	464,814	65,632	84,186	91,810	15,570	1,458,732
IV. Industrial Metals, Machines, Implements and Conveyances ..	855,081	760,669	72,382	182,683	115,537	20,072	2,006,424
V. Precious Metals, Jewellery and Plate ..	9,197,284	5,285,846	1,402,092	1,889,198	794,290	424,485	18,993,195
VI. Textiles and Textile Goods ..	88,027	189,014	13,672	14,698	6,923	2,776	315,110
VII. Skins and Leather ..	809,630	1,371,440	115,992	89,329	42,615	98,010	2,527,016
VIII. Clothing ..	578,694	579,734	92,837	35,285	26,384	6,117	1,319,051
IX. Food, Drink and Tobacco ..	1,036,048	1,558,944	197,958	119,011	73,577	23,907	3,009,445
X. Woodworking and Basketware ..	3,274,348	3,361,353	2,691,645	736,268	537,108	301,853	10,902,575
XI. Furniture, Bedding, etc. ..	932,923	952,148	582,329	179,644	265,326	162,270	3,074,640
XII. Paper, Stationery, Printing, Book-binding, etc. ..	469,647	358,690	153,820	81,051	70,975	28,815	1,162,998
XIII. Rubber ..	1,987,118	1,705,280	532,049	278,392	241,302	118,069	4,862,210
XIV. Musical Instruments ..	385,950	425,825	48,510	14,316	8,447	4,089	887,137
XV. Miscellaneous Products ..	35,060	26,943	8,872	5,322	4,624	..	80,821
XVI. Heat, Light and Power ..	252,888	210,234	33,705	29,419	18,460	23,344	568,050
	737,123	442,038	272,524	370,758	123,637	39,743	1,985,823
Total ..	21,885,356	18,009,598	6,353,917	4,170,047	2,475,698	1,315,417	54,210,033

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES,  
1933-34—continued.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>FEMALES.</b>							
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	5,204	6,305	720	421	839	538	14,027
II. Bricks, Pottery, Glass, etc. ..	17,868	14,924	2,215	475	1,476	115	37,073
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	170,628	167,364	12,414	15,936	7,555	1,653	375,550
IV. Industrial Metals, Machines, Implements and Conveyances ..	219,155	142,864	23,024	40,794	8,836	6,350	441,023
V. Precious Metals, Jewellery and Plate ..	8,130	17,186	590	632	239	49	26,826
VI. Textiles and Textile Goods ..	669,945	1,099,881	40,909	26,762	18,806	74,505	1,930,808
VII. Skins and Leather ..	46,287	62,271	6,369	15,104	5,693	227	135,951
VIII. Clothing ..	1,449,292	2,272,953	304,943	213,268	142,137	24,906	4,407,499
IX. Food, Drink and Tobacco ..	693,338	538,744	111,696	59,678	45,924	40,413	1,489,793
X. Woodworking and Basketware ..	18,698	12,100	10,100	4,538	1,020	2,080	48,536
XI. Furniture, Bedding, etc. ..	64,633	53,600	11,054	6,114	5,405	791	141,597
XII. Paper, Stationery, Printing, Book-binding, etc. ..	371,694	315,467	81,747	42,210	33,864	13,321	858,303
XIII. Rubber ..	57,367	100,989	26,766	1,085	201	319	186,727
XIV. Musical Instruments ..	8,863	628	..	339	..	..	9,830
XV. Miscellaneous Products ..	58,354	35,776	3,547	5,209	4,256	639	107,781
XVI. Heat, Light and Power ..	3,735	999	5,329	12,469	591	180	23,303
Total ..	3,863,191	4,842,051	641,423	445,034	276,842	166,086	10,234,627

(iv) Total and Average Earnings of Males and Females, 1929-30 to 1933-34. Particulars for the last five years are given in the table hereunder:—

## SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>MALES.</b>							
1929-30. Amount paid ..	£ 30,228,967	22,688,606	7,824,824	5,997,151	3,755,353	1,818,960	72,313,861
Per cent. on total ..	86.68	79.92	90.03	91.15	90.38	89.69	85.36
Average per employee ..	£ 260.41	241.87	232.69	238.47	250.17	224.65	247.85
1930-31. Amount paid ..	£ 21,605,432	16,998,124	6,487,633	3,951,404	2,601,295	1,379,849	53,023,797
Per cent. on total ..	85.73	79.58	91.40	90.45	90.11	89.53	84.90
Average per employee ..	£ 244.36	221.68	218.64	217.49	239.04	211.86	230.20
1931-32. Amount paid ..	£ 19,258,969	15,105,354	5,651,908	3,393,638	2,076,239	1,251,161	46,737,269
Per cent. on total ..	84.65	77.65	91.32	89.64	88.89	88.35	83.56
Average per employee ..	£ 225.99	200.27	204.08	191.61	213.43	192.28	210.26
1932-33. Amount paid ..	£ 20,092,456	16,597,017	5,736,126	3,709,236	2,270,903	1,253,095	49,665,833
Per cent. on total ..	84.51	78.19	90.75	89.66	89.36	88.49	83.59
Average per employee ..	£ 213.72	194.25	201.02	188.62	208.05	188.75	202.51
1933-34. Amount paid ..	£ 21,885,356	18,009,508	6,353,917	4,170,042	2,475,608	1,315,417	54,210,332
Per cent. on total ..	85.00	78.81	92.83	90.36	89.94	88.79	84.12
Average per employee ..	£ 206.98	191.45	208.03	185.58	206.27	182.05	199.32

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES—  
*continued.*

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
<b>FEMALES.</b>							
1929-30. Amount paid .. £	4,647,028	5,699,234	866,048	582,035	399,627	209,200	12,403,172
Per cent. on total ..	13.32	20.08	9.97	8.83	9.62	10.31	14.64
Average per employee .. £	114.61	113.44	116.92	103.02	108.65	92.53	112.98
1930-31. Amount paid .. £	3,594,858	4,361,367	610,473	417,404	285,589	161,371	9,431,062
Per cent. on total ..	14.27	20.42	8.60	9.55	9.89	10.47	15.10
Average per employee .. £	107.56	102.73	91.40	92.78	100.28	85.11	102.74
1931-32. Amount paid .. £	3,492,044	4,348,691	536,981	392,418	259,445	164,970	9,194,549
Per cent. on total ..	15.35	22.35	8.68	10.36	11.11	11.65	16.44
Average per employee .. £	98.74	94.43	81.61	81.21	92.20	83.11	94.18
1932-33. Amount paid .. £	3,683,392	4,621,254	584,895	427,621	270,525	162,916	9,750,603
Per cent. on total ..	15.49	21.81	9.25	10.34	10.64	11.51	16.41
Average per employee .. £	95.78	89.07	81.08	79.62	89.05	79.24	90.27
1933-34. Amount paid .. £	3,863,191	4,842,051	641,423	445,034	276,842	166,086	10,234,627
Per cent. on total ..	15.00	21.19	9.17	9.64	10.06	11.21	15.88
Average per employee .. £	91.88	88.54	82.77	78.43	86.43	81.41	86.69

(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, AND OTHER FACTORY EMPLOYEES, AUSTRALIA, 1933-34.

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 ..	181,700	9,889	875,106	4,138	1,056,806	14,027	1,070,833
II. Bricks, Pottery, Glass, etc. ..	225,686	17,131	1,233,046	19,942	1,458,732	37,073	1,495,805
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	543,083	99,050	1,463,341	276,500	2,006,424	375,550	2,381,974
IV. Industrial Metals, Machines, Implements and Conveyances ..	2,502,498	233,014	16,490,697	208,009	18,993,195	441,023	19,434,218
V. Precious Metals, Jewellery and Plate ..	38,009	7,727	277,101	19,099	315,110	26,826	341,936
VI. Textiles and Textile Goods ..	538,055	109,243	1,088,961	1,821,565	2,527,016	1,930,808	4,457,824
VII. Skins and Leather ..	161,805	18,509	1,157,246	17,442	1,319,051	135,951	1,455,002
VIII. Clothing ..	468,741	269,152	2,540,704	4,138,347	3,009,445	4,407,499	7,416,944
IX. Food, Drink and Tobacco ..	2,276,539	317,888	8,626,036	1,171,905	10,902,575	1,489,793	12,392,368
X. Woodworking and Basketware ..	393,669	39,390	2,680,971	9,146	3,074,640	48,536	3,123,176
XI. Furniture, Bedding, etc. ..	131,059	28,302	1,031,939	113,295	1,162,998	141,597	1,304,595
XII. Paper, Stationery, Printing, Book-binding, etc. ..	887,865	205,267	3,974,345	653,036	4,862,210	858,303	5,720,513
XIII. Rubber ..	173,113	28,362	714,024	158,365	887,137	186,727	1,073,864
XIV. Musical Instruments ..	18,750	4,879	62,071	4,951	80,821	9,830	90,651
XV. Miscellaneous Products ..	109,414	23,066	458,636	84,715	568,050	107,781	675,831
XVI. Heat, Light and Power ..	471,591	22,539	1,514,232	764	1,985,823	23,303	2,009,126
Total ..	9,121,577	1,433,408	45,088,456	8,801,219	54,210,033	10,234,627	64,444,660
Average paid per employee ..	334.80	127.35	184.24	84.43	199.32	88.69	166.36

3. Value of Power, Fuel and Light Used.—(i) *Total Amount, 1933-34.* The expenditure by factories on power, fuel and light is of considerable importance; in 1933-34 it amounted to £11,214,881, an increase of £768,709 as compared with the previous year. Though the value of power, fuel and light has actually fallen during the depression it represented 8.7 per cent. of the value of production in 1933-34 against 8.3 per cent. in 1928-29. The following table shows the value of power, fuel and light used in the different classes of industry in 1933-34 :—

VALUE OF POWER, FUEL AND LIGHT USED<sup>(a)</sup> IN FACTORIES, 1933-34.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	176,428	126,424	25,789	22,031	40,655	46,423	437,750
II. Bricks, Pottery, Glass, etc.	270,486	165,616	16,715	32,420	31,380	6,219	522,836
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	175,032	163,364	14,543	38,834	25,080	3,492	420,345
IV. Industrial Metals, Machines, Implements and Conveyances ..	1,789,513	412,946	161,852	305,297	55,273	282,515	3,007,396
V. Precious Metals, Jewellery and Plate	5,909	11,168	843	1,468	485	151	20,024
VI. Textiles and Textile Goods ..	166,522	297,248	22,780	21,784	11,853	41,382	561,569
VII. Skins and Leather ..	76,832	87,392	7,661	1,613	1,797	1,010	176,305
VIII. Clothing ..	84,446	124,688	14,571	12,063	5,972	1,679	243,419
IX. Food, Drink and Tobacco	749,172	713,320	371,349	168,174	120,578	54,919	2,177,512
X. Woodworking and Basketware ..	57,796	57,919	35,460	11,112	14,386	14,438	191,111
XI. Furniture, Bedding, etc.	26,509	22,774	7,998	5,924	2,789	1,774	67,768
XII. Paper, Stationery, Printing, Book-binding, etc. ..	126,000	155,857	30,032	13,798	14,174	6,284	346,145
XIII. Rubber ..	83,455	125,843	6,787	2,184	1,266	572	220,107
XIV. Musical Instruments	3,788	769	130	201	18	..	4,906
XV. Miscellaneous Products ..	22,263	24,980	1,343	1,601	1,160	518	51,865
XVI. Heat, Light and Power ..	1,425,265	579,441	253,827	188,545	314,458	4,287	2,765,823
<b>Total</b> ..	<b>5,239,416</b>	<b>3,069,749</b>	<b>971,680</b>	<b>827,049</b>	<b>641,324</b>	<b>465,663</b>	<b>11,214,881</b>

(a) Including lubricants and water.

(ii) *Total Amount, 1929-30 to 1933-34.* The next table gives the sums expended on power, fuel and light during the last five years :—

VALUE OF POWER, FUEL AND LIGHT USED IN FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
1929-30 ..	6,471,071	3,714,072	950,194	1,255,146	617,758	594,513	13,602,754
1930-31 ..	4,727,673	2,836,126	875,330	855,289	552,100	537,277	10,383,795
1931-32 ..	4,229,325	2,704,791	766,501	748,814	564,057	451,222	9,464,710
1932-33 ..	4,791,381	2,923,230	905,893	764,930	598,088	462,650	10,446,172
1933-34 ..	5,239,416	3,069,749	971,680	827,049	641,324	465,663	11,214,881

4. Value of Materials Used.—(i) *Total Amount, 1933-34.* 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 1933-34 was £189,827,264, representing 37.50 per cent. of the value of the final output. (See paragraph 5.) The table



hereunder shows the value of the materials used in various classes of industry in each State :—

## VALUE OF MATERIALS USED IN FACTORIES, 1933-34.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,226,306	643,092	139,404	78,664	111,532	78,868	2,277,866
II. Bricks, Pottery, Glass, etc. ..	509,864	251,569	28,618	63,850	63,545	9,785	927,231
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,945,113	3,594,867	422,785	913,008	995,176	122,697	10,993,646
IV. Industrial Metals, Machines, Implements and Conveyances ..	23,144,748	6,819,810	1,853,439	4,403,956	738,326	1,024,295	37,984,574
V. Precious Metals, Jewellery and Plate ..	81,494	250,758	7,121	13,436	4,484	427	357,720
VI. Textiles and Textile Goods ..	3,817,824	6,134,243	2,041,511	692,755	296,197	326,150	13,308,680
VII. Skins and Leather ..	4,208,575	3,771,266	478,319	111,874	90,284	18,205	8,678,523
VIII. Clothing ..	4,686,315	8,318,713	831,579	418,452	303,468	64,856	14,623,383
IX. Food, Drink and Tobacco ..	25,091,354	23,254,886	19,837,572	5,353,089	3,151,296	1,187,306	77,875,503
X. Woodworking and Basketware ..	2,511,466	1,491,885	1,075,190	597,334	494,788	253,256	6,423,919
XI. Furniture, Bedding, etc. ..	1,166,898	878,603	258,521	154,883	145,646	32,100	2,636,651
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,198,984	2,999,474	481,768	388,052	249,983	90,467	7,408,728
XIII. Rubber ..	1,155,453	1,468,893	118,018	35,309	16,760	3,909	2,798,342
XIV. Musical Instruments ..	45,198	32,055	4,152	6,506	349	..	88,260
XV. Miscellaneous Products ..	647,673	609,393	33,881	56,502	41,320	27,642	1,416,411
XVI. Heat, Light and Power ..	893,136	705,409	146,719	163,101	88,530	30,932	2,027,827
Total ..	77,330,401	61,224,916	27,758,597	13,450,771	6,791,684	3,270,895	189,827,264

(ii) *Total Amount, 1929-30 to 1933-34.* The following table gives the value of materials used in factories for the last five years :—

## VALUE OF MATERIALS USED IN FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1929-30 ..	93,931,937	67,837,659	28,005,241	18,080,989	8,685,647	4,403,714	220,945,187
1930-31 ..	64,232,090	51,175,701	26,018,866	11,387,054	6,520,142	2,770,793	162,104,646
1931-32 ..	63,556,701	52,864,198	24,015,316	11,581,708	6,017,750	3,163,572	161,199,245
1932-33 ..	70,084,956	58,081,097	24,772,613	12,321,268	6,667,618	3,220,996	175,148,548
1933-34 ..	77,330,401	61,224,916	27,758,597	13,450,771	6,791,684	3,270,895	189,827,264

5. *Total Value of Output.*—(i) *Total, 1933-34.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1933-34 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 value of the raw materials, and the power, fuel and light used. The difference between the sum of the values of the materials and the fuel and light used, and the total output (see paragraph 6) is the real value of factory production.

## TOTAL VALUE OF OUTPUT OF FACTORIES, 1933-34.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products .. ..	2,515,499	1,609,828	339,147	229,188	278,905	279,677	5,252,244
II. Bricks, Pottery, Glass, etc. .. ..	2,051,831	1,250,330	186,155	247,486	246,539	40,420	4,022,761
III. Chemicals, Dyes, Explosives, Paint, Oils, and Grease ..	9,268,192	6,584,564	702,632	1,439,518	1,322,035	179,918	19,496,859
IV. Industrial Metals, Machines, Implements and Conveyances .. ..	40,230,039	15,715,541	4,264,612	7,556,350	2,023,156	2,097,922	71,887,620
V. Precious Metals, Jewellery and Plate .. ..	243,535	600,207	34,895	41,926	18,528	4,646	943,737
VI. Textiles and Textile Goods .. ..	6,568,563	11,161,963	2,315,754	880,389	429,718	756,936	22,113,323
VII. Skins and Leather ..	5,389,756	5,188,915	659,605	178,906	147,332	28,368	11,592,882
VIII. Clothing .. ..	8,800,275	14,672,976	1,691,693	947,830	656,806	139,936	26,909,516
IX. Food, Drink and Tobacco .. ..	37,032,500	33,049,707	26,279,954	7,434,144	4,789,099	1,861,889	110,447,293
X. Woodworking and Basketware .. ..	4,122,168	3,070,356	2,032,853	958,057	944,604	539,909	11,667,947
XI. Furniture, Bedding, etc. .. ..	2,104,593	1,642,817	546,614	297,385	284,652	86,151	4,962,212
XII. Paper, Stationery, Printing, Book-binding, etc. .. ..	7,806,479	6,979,377	1,559,526	938,986	734,194	298,030	18,316,592
XIII. Rubber .. ..	2,009,058	2,807,433	234,883	70,017	39,171	13,048	5,173,610
XIV. Musical Instruments ..	106,417	68,787	25,103	14,022	6,766	..	221,095
XV. Miscellaneous Products .. ..	1,292,303	1,207,074	100,497	131,055	89,107	67,274	2,887,310
XVI. Heat, Light and Power .. ..	7,070,763	2,886,435	1,468,862	1,554,038	866,676	392,285	14,239,059
Total .. ..	136,611,971	108,496,310	42,442,785	22,919,297	12,877,288	6,786,409	330,134,060

(ii) Total 1929-30 to 1933-34. The following statement shows the value of output of factories in each State in the five years ended 1933-34:—

## TOTAL VALUE OF OUTPUT OF FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1929-30 ..	167,250,618	122,811,099	45,085,938	30,312,784	16,891,482	8,560,452	300,912,373
1930-31 ..	118,483,536	93,425,795	40,422,858	19,997,455	12,353,353	6,115,567	200,798,564
1931-32 ..	114,439,507	93,388,617	36,915,173	19,292,370	11,186,941	6,423,177	281,645,785
1932-33 ..	124,445,767	102,085,429	38,435,343	20,940,698	12,327,548	6,563,083	304,797,868
1933-34 ..	136,611,971	108,496,310	42,442,785	22,919,297	12,877,288	6,786,409	330,134,060

6. Value of Production.—(i) Total in Classes, 1933-34. 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, a rule was adopted for the valuation of factory production by deducting from the value of the output the cost of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation. All these, except depreciation, are included in the items "Value of materials used" and "Value of fuel used" as defined above. On account of the difficulty in obtaining accurate figures for depreciation, it was agreed that no deduction should be made on this account until more satisfactory data were available. 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 should probably be about 8 per cent. on the capital value, or approximately £18,200,000 in 1933-34. 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 value of production, the whole of the "surplus" is available for interest and profit.

The following table shows the value of production in 1933-34 in each State for the various classes of factories :—

VALUE OF PRODUCTION, 1933-34.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,112,765	840,312	173,954	128,493	126,718	154,386	2,536,628
II. Bricks, Pottery, Glass, etc. ..	1,271,481	833,145	140,822	151,216	151,614	24,416	2,572,694
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,148,047	2,826,333	265,304	487,676	301,779	53,729	8,082,868
IV. Industrial Metals, Machines, Implements and Conveyances ..	15,295,778	8,482,785	2,249,321	2,847,097	1,229,557	791,112	30,895,650
V. Precious Metals, Jewellery and Plate ..	156,132	338,281	26,931	27,022	13,559	4,068	565,993
VI. Textiles and Textile Goods ..	2,584,217	4,730,472	251,463	165,850	121,668	389,404	8,243,074
VII. Skins and Leather ..	1,104,349	1,330,257	173,625	65,419	55,251	9,153	2,738,054
VIII. Clothing ..	4,029,514	6,229,575	845,543	517,315	347,366	73,401	12,042,714
IX. Food, Drink and Tobacco ..	11,191,974	9,081,501	6,071,033	1,912,881	1,517,225	619,664	30,394,278
X. Woodworking and Basketware ..	1,552,906	1,520,552	922,203	349,611	435,430	272,215	5,052,917
XI. Furniture, Bedding, etc. ..	911,186	741,440	280,095	136,578	136,217	52,277	2,257,793
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,481,495	3,824,046	1,047,726	537,136	470,037	201,279	10,561,719
XIII. Rubber ..	770,150	1,212,697	110,078	32,524	21,145	8,567	2,155,161
XIV. Musical Instruments ..	57,431	35,963	20,821	7,315	6,399	..	127,929
XV. Miscellaneous Products ..	622,367	572,701	65,273	72,952	46,627	39,114	1,419,034
XVI. Heat, Light and Power ..	4,752,362	1,601,585	1,068,316	1,202,392	463,688	357,066	9,445,409
Total ..	54,042,154	44,201,645	13,712,508	8,641,477	5,444,280	3,049,851	129,091,915

(ii) Total and Averages, 1929-30 to 1933-34. The value of production and the amount per employee 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.							
	£	£	£	£	£	£	£
1929-30 ..	66,847,610	51,259,368	16,130,503	10,976,649	7,588,077	3,562,225	156,364,432
1930-31 ..	49,523,773	39,413,968	13,528,662	7,755,112	5,281,111	2,807,497	118,310,123
1931-32 ..	46,653,481	37,810,628	12,133,356	6,961,848	4,605,134	2,308,383	110,981,830
1932-33 ..	49,569,430	41,081,102	12,756,837	7,854,500	5,061,842	2,879,437	119,203,148
1933-34 ..	54,042,154	44,201,645	13,712,508	8,641,477	5,444,280	3,049,851	129,091,915
PER EMPLOYEE (a)							
	£	£	£	£	£	£	£
1929-30 ..	410	339	378	341	386	329	373
1930-31 ..	388	313	357	325	361	318	349
1931-32 ..	369	295	339	292	344	312	330
1932-33 ..	358	284	341	298	342	312	321
1933-34 ..	351	283	342	293	337	312	318
PER HEAD OF POPULATION.							
	£	£	£	£	£	£	£
1929-30 ..	26.54	28.82	17.85	19.17	17.82	16.25	24.31
1930-31 ..	19.46	21.98	14.74	13.50	12.25	12.60	18.21
1931-32 ..	18.17	20.96	13.04	12.07	10.62	12.42	16.94
1932-33 ..	19.13	22.64	13.56	13.55	11.59	12.63	18.05
1933-34 ..	20.68	24.22	14.43	14.84	12.36	13.32	19.40

(a) Including Working Proprietors.

7. Value of Output and Cost of Production.—As the total value of the output for Australia for 1933-34 was estimated at £330,134,060, there remained, after payment of £189,827,264, the value of the materials used, of £64,444,660 for salaries and wages, and of £11,214,881 for fuel, the sum of £64,647,255 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 1933-34 :—

FACTORIES.—VALUE OF OUTPUT AND COST OF PRODUCTION, 1933-34.

State.	Materials Used. (a)	Power, Fuel and Light. (b)	Salaries and Wages.	All other Expenditure, Interest, Profits, etc.	Total Value of Output.
VALUE AND COST, ETC.					
	£	£	£	£	£
New South Wales ..	77,330,401	5,239,416	25,748,547	28,293,607	136,611,971
Victoria ..	61,224,916	3,069,749	22,851,649	21,349,996	108,496,310
Queensland ..	27,758,597	971,680	6,995,340	6,717,168	42,442,785
South Australia ..	13,450,771	827,049	4,615,081	4,026,396	22,919,297
Western Australia ..	6,791,684	641,324	2,752,540	2,691,740	12,877,288
Tasmania ..	3,270,895	465,663	1,481,503	1,568,348	6,786,409
Australia ..	189,827,264	11,214,881	64,444,660	64,647,255	330,134,060

PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE.

	%	%	%	%	%
New South Wales ..	56.60	3.84	18.85	20.71	100.00
Victoria ..	56.43	2.83	21.06	19.68	100.00
Queensland ..	65.40	2.29	16.48	15.83	100.00
South Australia ..	58.69	3.61	20.14	17.56	100.00
Western Australia ..	52.74	4.98	21.38	20.90	100.00
Tasmania ..	48.20	6.86	21.83	23.11	100.00
Australia ..	57.50	3.40	19.52	19.58	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.—For some years prior to 1929-30 the capital value of land, buildings, plant and machinery had increased rapidly, but latterly these values have contracted from £245,695,920 in 1929-30 to £227,714,293 in 1933-34.

The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1933-34 :—

VALUE OF LAND, BUILDINGS, PLANT, AND MACHINERY, 1933-34.

Value of—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	46,279,284	35,563,879	9,461,870	7,989,314	5,581,057	2,630,761	107,506,165
Plant and machinery	49,083,921	33,270,400	16,891,339	9,161,672	5,678,638	6,122,158	120,208,128
Total ..	95,363,205	68,834,279	26,353,209	17,150,986	11,259,695	8,752,919	227,714,293

The values recorded in this section are generally the values apportioned in the books of the individual firms. Depreciation on a generous scale has been allowed for in most cases. 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, Australia, 1929-30 to 1933-34.* The appended table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries from 1929-30 to 1933-34 inclusive :—

VALUE OF LAND AND BUILDINGS.—AUSTRALIA.

Class of Industry.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	2,565,373	2,561,418	2,392,522	2,396,967	2,415,060
II. Bricks, Pottery, Glass, etc. ..	3,020,979	2,405,960	1,992,755	2,214,761	2,374,697
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	5,986,996	5,866,714	5,779,483	5,832,064	5,903,867
IV. Industrial Metals, Machines, Implements and Conveyances ..	28,957,846	27,679,331	25,582,740	25,632,777	25,846,318
V. Precious Metals, Jewellery and Plate ..	658,936	557,662	510,746	490,511	518,293
VI. Textiles and Textile Goods	5,065,228	4,884,218	4,739,366	4,993,710	5,106,496
VII. Skins and Leather ..	1,936,107	1,873,402	1,778,219	1,768,577	1,789,880
VIII. Clothing ..	12,539,163	10,697,755	9,334,049	8,894,673	9,059,219
IX. Food, Drink and Tobacco ..	26,996,483	26,760,444	26,676,269	26,645,408	27,008,648
X. Woodworking and Basketware ..	4,514,789	3,866,980	3,601,684	3,506,606	3,486,892
XI. Furniture, Bedding, etc.	2,733,336	2,283,528	1,978,384	1,869,195	1,963,269
XII. Paper, Stationery, Printing, Bookbinding, etc.	9,974,734	9,764,623	9,187,481	9,048,534	9,093,698
XIII. Rubber ..	2,250,302	2,213,432	2,078,335	1,853,590	1,893,051
XIV. Musical Instruments ..	444,875	391,144	313,313	212,112	144,215
XV. Miscellaneous Products ..	923,403	1,037,221	1,028,693	1,014,793	1,063,794
XVI. Heat, Light and Power ..	9,499,679	9,366,777	9,616,285	9,462,594	9,838,768
Total .. ..	118,068,229	112,210,609	106,590,324	105,836,872	107,506,165

(ii) *Value in each State, 1933-34.* The following table gives similar information for each State for 1933-34 :—

VALUE OF LAND AND BUILDINGS, 1933-34.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	1,086,499	798,830	125,546	155,811	59,015	189,359	2,415,060
II. Bricks, Pottery, Glass, etc. ..	1,317,126	670,035	101,937	155,740	114,660	15,199	2,374,697
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	2,184,299	2,346,146	163,632	486,626	631,416	91,748	5,903,867
IV. Industrial Metals, Machines, Implements and Conveyances ..	12,714,378	7,138,223	1,794,358	2,321,556	1,213,610	664,193	25,846,318
V. Precious Metals, Jewellery and Plate ..	173,221	252,312	26,820	31,815	19,410	14,715	518,293
VI. Textiles and Textile Goods ..	1,665,857	2,771,501	161,913	143,576	87,317	276,332	5,106,496
VII. Skins and Leather ..	633,739	916,295	78,196	54,647	93,292	13,711	1,789,880
VIII. Clothing ..	3,312,543	4,233,817	505,787	551,752	344,758	110,562	9,059,219
IX. Food, Drink and Tobacco ..	9,899,270	8,159,188	4,272,619	2,242,175	1,570,252	865,144	27,008,648
X. Woodworking and Basketware ..	1,427,328	936,389	431,897	264,328	286,411	140,539	3,486,892
XI. Furniture, Bedding, etc. ..	765,286	716,188	194,383	133,158	113,248	41,006	1,963,269
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,826,270	2,927,176	912,065	669,507	644,136	114,544	9,093,698
XIII. Rubber ..	872,444	805,771	91,294	64,715	38,852	19,975	1,893,051
XIV. Musical Instruments ..	60,655	56,577	7,318	12,985	6,680	..	144,215
XV. Miscellaneous Products ..	521,090	367,008	67,981	65,675	34,601	7,439	1,063,794
XVI. Heat, Light and Power ..	5,819,279	2,468,423	526,124	635,248	323,399	66,295	9,838,768
Total ..	46,279,284	35,563,879	9,461,870	7,989,314	5,581,057	2,630,761	107,506,165

(iii) *Value in each State, 1929-30 to 1933-34.* The total value of factory land and buildings for each year from 1929-30 to 1933-34 is given hereunder :—

VALUE OF LAND AND BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1929-30 ..	53,785,319	36,988,485	9,690,313	8,937,039	5,670,214	2,996,859	118,068,229
1930-31 ..	49,822,312	36,218,384	9,355,106	8,418,702	5,656,833	2,739,272	112,210,609
1931-32 ..	46,462,828	34,868,960	8,980,620	8,032,264	5,470,954	2,774,698	106,590,324
1932-33 ..	45,873,565	34,804,987	9,075,596	7,915,965	5,537,227	2,629,532	105,836,872
1933-34 ..	46,279,284	35,563,879	9,461,870	7,989,314	5,581,057	2,630,761	107,506,165

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, i.e., to £105.8 million but in 1933-34 an increase of £1.7 million, the first since 1929-30, was recorded.

3. Value of Plant and Machinery.—(i) *Total, Australia, 1929-30 to 1933-34.* The following table shows for Australia the approximate value of plant and machinery used in factories in each of the years specified :—

VALUE OF PLANT AND MACHINERY.—AUSTRALIA.

Class of Industry.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	4,926,370	5,959,537	5,773,446	5,517,010	5,373,802
II. Bricks, Pottery, Glass, etc. ..	3,093,832	2,331,332	1,974,507	2,291,788	2,414,175
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	5,814,275	5,738,555	5,729,195	5,537,025	5,386,426
IV. Industrial Metals, Machines, Implements and Conveyances ..	26,797,812	25,385,254	24,665,290	24,916,610	24,611,820
V. Precious Metals, Jewellery and Plate ..	150,733	139,827	139,441	141,446	148,402
VI. Textiles and Textile Goods ..	6,181,931	5,935,393	5,638,054	5,743,596	5,751,145
VII. Skins and Leather ..	902,344	862,012	916,685	905,709	913,723
VIII. Clothing ..	2,399,668	2,174,238	2,211,284	2,054,915	2,061,074
IX. Food, Drink and Tobacco ..	28,261,873	28,948,702	28,176,453	27,618,639	27,305,642
X. Woodworking and Basketware ..	4,384,656	3,762,029	3,498,591	3,318,657	3,326,466
XI. Furniture, Bedding, etc. ..	898,333	732,590	672,169	645,200	679,252
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	8,317,935	7,768,633	7,310,058	7,111,322	7,139,924
XIII. Rubber ..	2,275,808	2,175,851	2,029,401	1,749,634	1,710,597
XIV. Musical Instruments ..	210,365	189,854	162,496	93,230	33,582
XV. Miscellaneous Products ..	349,512	493,597	507,754	545,511	560,737
XVI. Heat, Light and Power ..	32,662,044	31,900,293	32,124,553	32,359,565	32,791,361
Total .. ..	127,627,691	124,497,697	121,529,377	120,549,857	120,208,128

Up to the year 1929-30 there had been a steady and substantial net increase amounting in all to £15 million for the previous four years, or an annual average of £3.8 million. Since that year, however, there has been a decrease for each successive period, although in 1933-34 the decrease amounted to only £340,000.

(ii) *Value in each State, 1929-30 to 1933-34.* The figures in the previous table refer to Australia. In the following table results are shown for each State, and until 1929-30 the increase was general throughout the States. During the last four years, however, as pointed out above a total decrease of £7.4 million was recorded, the chief losses being in New South Wales and Victoria :—

VALUE OF PLANT AND MACHINERY.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1929-30 ..	53,515,368	35,022,535	13,723,983	10,286,674	6,112,186	6,966,945	127,627,691
1930-31 ..	50,865,884	34,771,687	16,100,004	10,182,855	6,134,766	6,442,501	124,497,697
1931-32 ..	50,277,992	33,481,615	15,743,919	9,624,037	5,945,468	6,455,746	121,529,377
1932-33 ..	49,903,177	33,022,441	16,468,197	9,450,517	5,733,638	6,031,887	120,549,857
1933-34 ..	49,083,921	33,270,400	16,891,339	9,161,672	5,678,638	6,122,153	120,208,128

(iii) *Value according to Industry, 1933-34.* The following table shows the value of plant and machinery used in factories in each State during 1933-34, classified according to industry :—

VALUE OF PLANT AND MACHINERY.—1933-34.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	2,965,067	1,567,287	237,019	257,113	122,913	224,403	5,373,802
II. Bricks, Pottery, Glass, etc. ..	1,323,891	626,995	118,733	177,651	136,692	30,213	2,414,175
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,444,028	2,268,669	138,899	734,621	743,997	56,212	5,386,426
IV. Industrial Metals, Machines, Implements and Conveyances ..	14,150,313	4,732,727	1,694,403	2,064,023	734,603	1,235,751	24,611,820
V. Precious Metals, Jewellery and Plate ..	47,624	81,666	4,986	9,203	3,274	1,649	148,402
VI. Textiles and Textile Goods ..	1,784,499	3,178,540	196,538	179,120	101,804	310,644	5,751,145
VII. Skins and Leather ..	329,772	469,262	53,260	20,877	33,984	6,568	913,723
VIII. Clothing ..	708,463	1,065,368	121,400	97,657	56,172	12,014	2,061,074
IX. Food, Drink and Tobacco ..	8,141,889	6,239,428	9,350,615	1,648,821	1,494,364	430,525	27,305,642
X. Woodworking and Basketware ..	912,269	882,968	587,939	180,335	566,237	196,713	3,326,466
XI. Furniture, Bedding, etc. ..	269,425	200,148	81,948	70,020	38,307	19,404	679,252
XII. Paper, Stationery, Printing, Book-binding, etc. ..	2,936,945	2,590,587	607,006	538,193	370,485	96,708	7,139,924
XIII. Rubber ..	641,756	1,010,652	31,346	12,829	8,549	5,465	1,710,597
XIV. Musical Instruments ..	18,291	10,482	371	3,901	537	..	33,582
XV. Miscellaneous Products ..	227,286	280,136	16,495	16,556	13,663	6,601	560,737
XVI. Heat, Light and Power ..	13,182,403	8,065,485	3,650,381	3,150,752	1,253,057	3,489,283	32,791,361
Total ..	49,083,921	33,270,400	16,891,339	9,161,672	5,678,638	6,122,158	120,208,128

### § 9. Individual Industries.

1. *General.*—The preceding pages afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed account in respect of all industries, particular industries which are of special importance by reason of the employment which they provide for labour and capital, or other features of special interest, are dealt with hereunder. Where there are only one or two establishments of a particular class in any State, returns of output are not published but are combined with some other factory group so that the operations of individual concerns will not be disclosed.

The figures presented hereafter show, for nearly all the industries reviewed, some indication of recovery from the depression of the last few years.

2. *Tanning, Currying and Leather Dressing.*—(i) *Details for each State, 1933-34.* 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, 1933-34.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas. (a)	Australia.
Number of factories .. ..	67	53	15	9	6	3	153
Number of employees .. ..	1,370	2,139	323	92	81	34	4,039
Actual horse-power of engines used ..	3,370	4,615	673	362	395	168	9,583
Approx. value of land and buildings .. .. £	244,434	421,212	34,486	20,836	38,720	6,326	766,014
Approx. value of plant and machinery .. .. £	161,110	268,896	27,860	14,841	25,481	6,126	504,314
Wages paid .. .. £	246,203	331,803	51,179	13,087	12,819	4,779	659,870
Value of fuel used .. .. £	30,330	43,111	4,911	884	1,436	943	81,615
Value of materials used .. .. £	1,118,457	1,371,666	224,462	32,356	54,910	16,570	2,818,421
Total value of output .. .. £	1,639,332	2,029,007	289,570	48,040	79,968	24,139	4,110,056
Value of production .. .. £	490,545	614,230	60,197	14,800	23,622	6,626	1,210,020

(a) Includes Fellmongery.

(ii) Total for Australia, 1929-30 to 1933-34. The development of the tanning industry during the years stated is shown in the following table:—

TANNING, CURRYING AND LEATHER DRESSING.—AUSTRALIA.

Items.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Number of factories .. ..	143	148	146	147	153
Number of employees .. ..	3,572	2,885	3,336	3,766	4,039
Actual horse-power of engines used ..	8,224	7,948	8,312	8,945	9,583
Approx. value of land and buildings ..	£ 824,415	804,063	763,950	776,532	766,014
Approx. value of plant and machinery ..	£ 603,083	545,250	519,579	506,920	504,314
Wages paid .. .. £	812,772	595,155	609,305	652,574	659,870
Value of fuel used .. .. £	81,660	68,733	74,653	81,116	81,615
Value of materials used .. .. £	3,071,761	2,132,437	2,359,842	2,451,725	2,818,421
Total value of output .. .. £	4,467,175	3,183,138	3,509,078	3,688,550	4,110,056
Value of production .. .. £	1,313,754	981,968	1,074,583	1,155,709	1,210,020

The improvement recorded for the years 1931-32 and 1932-33 was continued during 1933-34. It should be noted, however, that in order to conceal confidential information particulars of one fellmongering establishment have been included in the figures for Tasmania.

(iii) Raw Material Used and Production, 1933-34. The quantities of raw material used and leather produced in tanneries in each State are shown in the following table:—

TANNERIES.—RAW MATERIAL USED AND PRODUCTION, 1933-34.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Hides .. No.	519,362	765,738	121,158	26,693	38,872	7,580	1,479,403
Skins—							
Calf .. ..	462,968	709,403	182,828	1,422	270	..	1,356,891
Goat .. ..	428,333	354,212	14,454	508	586	..	798,093
Sheep .. ..	2,646,375	531,492	216,704	145,007	4,668	..	3,544,246
Marsupial .. ..	..	100,318	60,831	3,663	8,703	..	173,515
Reptile .. ..	20,383	59,735	32	..	..	..	80,150
Other .. ..	2,127,128	380,114	4	..	4,000	..	2,511,246
Bark used—							
Wattle .. ton	9,412	8,465	1,867	496	186	198	20,624
Other .. ..	168	1,866	28	102	467	..	2,631
Tanning extract used .. lb.	1,466,534	952,006	(a)	47,725	503,311	(a)	b 2,969,576
Leather made—							
Sole .. ..	10,972,555	13,079,341	2,308,077	296,021	1,263,079	269,972	28,189,045
Harness .. ..	773,499	352,949	486,899	265,842	152,925	..	2,032,114
Upholstery .. sq. ft.	..	1,058,364	..	..	..	..	1,058,364
Patent and other ..	7,124,238	12,886,484	1,026,237	254,869	135,143	..	21,426,971
Waxed kip and other .. lb.	114,089	50,303	33,463	85,738	27,623	..	311,216
Dressed from skins—							
Calf .. sq. ft.	3,633,139	4,715,352	1,339,832	8,360	2,387	..	9,699,070
Goat .. ..	1,744,980	1,673,591	122,380	1,620	3,320	..	3,545,891
Sheep .. ..	12,332,505	3,153,398	608,976	1,015,049	15,978	..	17,125,906
Marsupial .. ..	..	302,112	299,549	3,560	45,389	..	710,610

(a) Not available.

(b) Incomplete.

3. Soap and Candle Factories.—(i) *Details for each State, 1933-34.* The manufacture of these products is frequently carried on in the same factory, so that separate returns cannot be obtained; the manufacture of soap is, however, the more important. The following table gives particulars of soap and candle factories in each State for the year 1933-34:—

**SOAP AND CANDLE FACTORIES, 1933-34.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. .. .	28	20	13	4	4	2	71
Number of employees .. .. .	925	661	168	143	60	28	1,985
Actual horse-power of engines used .. .. .	1,266	684	217	281	(a)	(a)	b 2,537
Approx. value of land and buildings £	314,725	197,436	43,280	59,087	(a)	(a)	b 640,603
Approx. value of plant and machinery £	225,577	232,283	26,132	62,381	(a)	(a)	b 573,905
Wages paid .. .. .	£ 161,949	£ 107,360	£ 32,494	£ 21,316	(a)	(a)	b 338,517
Value of fuel used .. .. .	£ 23,669	£ 27,086	£ 2,946	£ 2,526	(a)	(a)	b 58,741
Value of materials used .. .. .	£ 682,713	£ 435,784	£ 84,128	£ 84,649	(a)	(a)	b 1,365,699
Total value of output .. .. .	£ 1,326,134	£ 929,123	£ 161,862	£ 160,483	(a)	(a)	b 2,696,606
Value of production .. .. .	£ 619,752	£ 466,253	£ 74,788	£ 73,308	(a)	(a)	b 1,272,166

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Total for Australia, 1929-30 to 1933-34.* The next table gives similar particulars for the last five years for Australia:—

**SOAP AND CANDLE FACTORIES.—AUSTRALIA.**

Items.	1929-30. <sup>a</sup>	1930-31. <sup>b</sup>	1931-32.	1932-33.	1933-34.
Number of factories .. .. .	62	56	68	64	71
Number of employees .. .. .	2,148	1,985	2,106	2,010	1,985
Actual horse-power of engines used .. .. .	2,595	2,202	2,579	2,453	2,537
Approx. value of land and buildings £	681,818	650,000	667,948	656,181	640,603
Approx. value of plant and machinery £	654,647	604,767	617,932	618,337	573,905
Wages paid .. .. .	£ 426,608	£ 388,598	£ 384,410	£ 369,397	£ 338,517
Value of fuel used .. .. .	£ 82,239	£ 71,395	£ 72,349	£ 62,545	£ 58,741
Value of materials used .. .. .	£ 1,797,688	£ 1,448,411	£ 1,486,457	£ 1,408,015	£ 1,365,699
Total value of output .. .. .	£ 3,143,838	£ 2,768,214	£ 2,875,670	£ 2,664,778	£ 2,696,606
Value of production .. .. .	£ 1,263,911	£ 1,248,408	£ 1,316,774	£ 1,194,218	£ 1,272,166

(a) Including other small establishments in Western Australia.

(b) Excluding Western Australia.

(iii) *Raw Material Used and Production, 1929-30 to 1933-34.* 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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Tallow used .. .. . cwt.	491,603	467,446	503,501	499,188	492,624
Alkali used .. .. . "	219,648	187,408	249,858	236,937	264,576
Copra oil used .. .. . "	75,908	74,646	79,147	74,362	80,150
Soap made .. .. . "	1,026,373	976,771	964,476	924,403	891,832
Candles made .. .. . "	49,812	51,582	55,110	49,562	51,598

The output for the year 1933-34 comprised the following quantities of soap :— Household, 718,479 cwt. ; toilet, 85,989 cwt. ; sand, 66,381 cwt. ; soft, 13,848 cwt. ; and other 7,135 cwt.

4. **Saw-mills, etc.**—(i) *Details for States, 1933-34.* The most important industry in Class X. is that of saw-milling. As separate particulars of forest saw-mills are not available for some of the States, both forest and other saw-mills, as well as plywood and bark mills, have been combined in the following table :—

**SAW-MILLS, FOREST AND OTHER ; PLYWOOD AND BARK MILLS, 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	412	295	234	38	87	210	1,276
Number of employees ..	2,964	3,213	3,301	682	1,208	930	12,298
Actual horse-power of engines used ..	15,281	11,154	9,957	2,433	5,615	4,624	49,064
Approximate value of land and buildings ..	£ 696,112	£ 423,567	£ 319,749	£ 158,836	£ 225,995	£ 75,470	£ 1,899,729
Approximate value of plant and machinery ..	£ 570,803	£ 586,607	£ 497,502	£ 114,004	£ 537,183	£ 154,548	£ 2,460,647
Wages paid ..	£ 464,202	£ 540,297	£ 462,809	£ 108,028	£ 230,601	£ 120,463	£ 1,926,400
Value of fuel used ..	£ 32,139	£ 29,521	£ 26,897	£ 5,444	£ 11,807	£ 9,630	£ 115,438
Value of materials used ..	£ 1,463,906	£ 716,750	£ 863,669	£ 384,391	£ 406,154	£ 187,393	£ 4,022,263
Total value of output ..	£ 2,276,283	£ 1,568,635	£ 1,584,957	£ 603,338	£ 787,680	£ 390,680	£ 7,211,573
Value of production ..	£ 780,238	£ 822,364	£ 694,391	£ 213,503	£ 369,719	£ 193,657	£ 3,073,872

(ii) *Total for Australia, 1929-30 to 1933-34.* The development of forest and other saw-mills, etc., since 1929-30 is shown in the following table. Joinery works have been excluded for the last four years :—

**SAW-MILLS, FOREST AND OTHER; PLYWOOD AND BARK MILLS.—AUSTRALIA.**

Items.	1929-30. (a)	1930-31.	1931-32.	1932-33.	1933-34.
Number of establishments ..	2,109	1,160	1,161	1,229	1,276
Number of employees ..	20,957	9,079	8,338	10,102	12,298
Actual horse-power of engines used ..	69,301	44,024	42,557	45,100	49,064
Approx. value of land and buildings ..	£ 3,802,885	£ 1,989,580	£ 1,902,367	£ 1,897,933	£ 1,899,729
Approx. value of plant and machinery ..	£ 3,950,279	£ 2,821,431	£ 2,611,864	£ 2,449,908	£ 2,460,647
Wages paid ..	£ 4,477,491	£ 1,675,640	£ 1,358,351	£ 1,643,210	£ 1,926,400
Value of fuel used ..	£ 202,329	£ 99,321	£ 95,573	£ 103,361	£ 115,438
Value of materials used ..	£ 8,471,366	£ 2,955,028	£ 2,651,895	£ 3,285,202	£ 4,022,263
Total value of output ..	£ 15,605,706	£ 5,512,150	£ 4,820,557	£ 5,968,080	£ 7,211,573
Value of production ..	£ 6,932,011	£ 2,457,801	£ 2,073,089	£ 2,579,517	£ 3,073,872

(a) Including joinery works.

The table furnishes evidence of definite improvement during the past two years. The saw-mill output of native timber, which declined from 740 million super. feet in 1925-26 to the abnormally low figure of 237 million super. feet during the height of the depression, had recovered to 370 million super. feet in 1933-34. Indications point to further increases as a result of developments in the building industry. Further reference is made to the saw-milling industry in Chapter XXIII.—Forestry.

5. **Agricultural Implement Works.**—(i) *General.* The manufacture of agricultural implements is of particular interest owing to the extensive agricultural activities and to the fact that it was one of the first to which it was sought to apply the so-called "New Protection." The articles manufactured include stripper-harvesters, header harvesters or reaper threshers, strippers, reapers and binders, stump-jump and other ploughs, harrows, disc and other cultivators, winnowers, corn-shellers and baggers, drills, kerosene and petrol engines, and other implements employed in agriculture. The stripper harvester, which combines the stripper with a mechanism for winnowing and bagging grain, is an Australian invention, and is universally employed in the larger wheat-growing areas.

(ii) *Details for States, 1933-34.* The following table gives details respecting agricultural implement works in each State for the year 1933-34 :—

#### AGRICULTURAL IMPLEMENT WORKS, 1933-34.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	24	73	6	30	5	1	139
Number of employees .. ..	606	2,436	234	588	59	1	3,924
Actual horse-power of engines used ..	604	3,003	448	1,117	(a)	(a) b	5,257
Approx. value of land and buildings £	109,848	281,091	51,422	136,994	(a)	(a) b	607,370
Approx. value of plant and machinery £	57,000	282,827	43,794	175,967	(a)	(a) b	562,396
Wages paid .. ..	£ 115,357	430,683	42,778	71,326	(a)	(a) b	671,861
Value of fuel used .. ..	£ 5,379	37,335	3,861	6,567	(a)	(a) b	53,365
Value of materials used .. ..	£ 133,285	527,332	63,366	73,183	(a)	(a) b	799,197
Total value of output .. ..	£ 290,152	1,473,173	132,496	178,885	(a)	(a) b	1,766,707
Value of production .. ..	£ 151,488	582,227	65,269	99,135	(a)	(a) b	914,145

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(iii) *Total for Australia, 1929-30 to 1933-34.* This industry declined considerably during the war years, but great progress was made thereafter. The fall in world prices of agricultural products resulted, however, in a considerable slackening in employment and output during the three years ended 1931-32. Despite the continuance of the low prices the industry has made progress during the past two years. Details for the last five years are as follow :—

#### AGRICULTURAL IMPLEMENT WORKS.—AUSTRALIA.

Items.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Number of factories .. ..	148	148	139	142	139
Number of employees .. ..	4,463	3,043	2,634	3,770	3,924
Actual horse-power of engines used ..	4,737	4,349	4,094	4,792	5,257
Approx. value of land and buildings £	756,954	694,049	632,971	613,219	607,370
Approx. value of plant and machinery £	640,800	602,018	571,277	552,296	562,396
Wages paid .. ..	£ 985,369	607,421	441,102	626,214	671,861
Value of fuel used .. ..	£ 68,320	44,280	38,781	53,234	53,365
Value of materials used .. ..	£ 919,842	596,002	506,074	779,959	799,197
Total value of output .. ..	£ 2,397,562	1,473,173	1,146,849	1,699,523	1,766,707
Value of production .. ..	£ 1,409,400	832,891	601,994	866,330	914,145

6. *Engineering Works.*—Formerly, it was impossible to show separate details for the engineering industry owing to the different classifications among the States, but since 1926-27 substantial uniformity has been attained, and with one or two duplications of minor importance, the following figures may be accepted as reasonably accurate for the engineering industry, excluding the marine and electrical branches :—

#### ENGINEERING WORKS, (a) 1933-34.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	272	343	45	53	89	20	822
Number of employees .. ..	5,598	5,318	1,009	830	921	190	13,866
Actual horse-power of engines used ..	8,607	8,057	1,473	1,365	2,051	358	21,911
Approximate value of land and buildings £	1,242,895	1,232,772	193,958	115,171	186,863	57,346	3,029,005
Approximate value of plant and machinery £	1,129,326	1,242,619	236,759	124,284	152,049	34,614	2,919,651
Wages paid .. ..	£ 1,101,479	982,310	205,624	13,354	179,704	30,482	2,612,953
Value of fuel used .. ..	£ 62,249	66,291	12,658	10,091	21,805	4,509	177,603
Value of materials used .. ..	£ 1,136,169	1,242,723	225,353	139,427	206,032	25,939	2,975,843
Total value of output .. ..	£ 2,829,123	2,843,083	556,374	329,800	519,740	76,884	7,155,004
Value of production .. ..	£ 1,630,705	1,534,069	318,163	180,282	291,903	46,436	4,001,558

(a) Excluding marine and electrical.

In addition to engineering works which supply ordinary requirements, many establishments manufacture special classes of machinery and implements. The manufacture of mining, smelting, and textile machinery and apparatus forms an important section of this industry.

7. Smelting, Converting, Refining, and Rolling of Iron and Steel.—The extension of this classification noted in the preceding paragraph has made possible the separate publication of details for the group of industries comprised herein. This grouping includes ironworks, foundries, the making of iron safes and doors, steel castings, iron bedsteads, sash weights, steel window frames and sashes, nuts and bolts, springs, horse-shoes, screws, lifts, tools, brickmakers' implements, and oxy-acetylene welding. Particulars for the year 1933-34 are as follow :—

**SMELTING, CONVERTING, REFINING, AND ROLLING OF IRON AND STEEL, 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	156	202	38	31	..	..	427
Number of employes .. ..	7,771	3,803	547	820	..	..	12,941
Actual horse-power of engines used .. ..	85,982	9,906	816	1,778	..	..	98,482
Approximate value of land and buildings .. ..	£ 1,869,246	584,211	80,815	117,310	..	..	2,651,582
Approximate value of plant and machinery .. ..	£ 5,374,675	617,638	125,920	99,978	..	..	6,218,211
Wages paid .. ..	£ 1,715,315	631,697	89,350	120,857	..	..	2,557,219
Value of fuel used .. ..	£ 1,099,377	96,452	11,343	12,782	..	..	1,219,954
Value of materials used .. ..	£ 8,042,369	853,264	114,857	145,717	..	..	9,156,207
Total value of output .. ..	£ 12,493,510	1,963,378	269,939	311,235	..	..	15,038,062
Value of production .. ..	£ 3,351,764	1,013,662	143,739	152,736	..	..	4,661,901

8. Railway and Tramway Workshops.—(i) *Details for each State, 1933-34.* The railway and tramway workshops which form an important item in Class IV. are chiefly State-owned institutions. The following table giving details concerning them includes, in addition, municipal establishments for manufacturing and repairing rolling-stock. Private institutions to the number of 9 in 1933-34 have, however, been excluded :—

**TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC., (a) 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	37	21	12	14	20	5	109
Number of employes .. ..	11,279	5,243	2,791	2,533	1,776	289	23,911
Actual horse-power of engines used .. ..	13,184	5,401	3,139	3,545	4,534	375	30,178
Approximate value of land and buildings .. ..	£ 2,904,536	1,454,377	563,127	875,221	479,954	17,733	6,294,948
Approximate value of plant and machinery .. ..	£ 2,384,273	1,106,558	355,111	711,656	388,025	92,534	5,038,157
Wages paid .. ..	£ 2,255,765	1,079,041	588,131	492,782	358,976	60,749	4,835,444
Value of fuel used .. ..	£ 99,991	67,326	17,195	22,062	14,700	4,869	226,143
Value of materials used .. ..	£ 1,788,321	1,124,693	338,694	321,540	207,862	14,249	3,795,359
Total value of output .. ..	£ 4,561,504	2,611,719	1,040,992	920,022	684,338	87,853	9,906,428
Value of production .. ..	£ 2,673,192	1,419,700	685,103	576,420	461,776	68,735	5,884,926

(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, 1929-30 to 1933-34.* The following table shows the development of railway and tramway workshops in Australia since 1929-30 :—

**TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC.—  
AUSTRALIA.**

Items.	1929-30.	1930-31. (a)	1931-32. (a)	1932-33. (a)	1933-34. (a)
Number of factories .. ..	120	112	108	107	109
Number of employees .. ..	29,339	26,055	24,017	23,969	23,911
Actual horse-power of engines used .. ..	31,600	31,952	34,050	29,832	30,178
Approx. value of land and buildings .. ..	6,230,511	6,393,433	6,027,378	6,259,362	6,294,948
Approx. value of plant and machinery .. ..	5,872,138	5,329,473	4,939,144	5,024,051	5,038,157
Wages paid .. ..	7,599,005	6,035,954	5,095,173	4,802,944	4,835,444
Value of fuel used .. ..	295,415	239,782	218,795	222,452	226,143
Value of materials used .. ..	5,709,328	3,930,083	3,476,207	3,733,160	3,795,559
Total value of output .. ..	15,615,590	11,626,861	9,782,841	9,778,258	9,906,428
Value of production .. ..	9,610,847	7,456,996	6,087,339	5,822,646	5,884,926

(a) Government and Municipal only.

Up to recent years the growth of the railway and tramway systems resulted in corresponding activity in workshops engaged in the manufacture or repair of rolling-stock, etc. During the five years prior to 1929-30, the number of employees increased by more than 5,000, and the output rose from £12,384,177 to £17,072,699, but since that year there has been a decrease of over 5,000 employees, with a consequent heavy fall in output.

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 classification of these works is not uniform throughout the States, and the tabulation is, therefore, somewhat unsatisfactory. The returns do not include particulars of plants used on mines :—

**EXTRACTING AND REFINING OF NON-FERROUS METALS AND ALLOYS, 1933-34.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories .. ..	8	10	12	1	..	3	34
Number of employees .. ..	754	68	421	969	..	1,031	3,263
Actual horse-power of engines used .. ..	9,179	97	12,928	(b)	..	(b)	c 66,141
Approx. value of land and buildings .. ..	208,164	22,815	240,737	(b)	..	(b)	c 925,745
Approx. value of plant and machinery .. ..	544,016	9,643	639,183	(b)	..	(b)	c 2,780,938
Wages paid .. ..	195,499	9,354	109,681	(b)	..	(b)	c 842,396
Value of fuel used .. ..	152,067	1,674	97,572	(b)	..	(b)	c 727,204
Value of materials used .. ..	4,175,031	85,957	705,473	(b)	..	(b)	c 8,363,593
Total value of output .. ..	5,124,442	108,026	1,144,527	(b)	..	(b)	c 21,304,946
Value of production .. ..	797,349	20,395	341,482	(b)	..	(b)	c 2,414,149

(a) In Western Australia all the plants are worked on the mines, and are therefore not included. (b) Information not available for publication. (c) Including South Australia and Tasmania.

10. **Bacon-curing Factories.**—(i) *Details for each State, 1933-34.* The table hereunder gives particulars of factories engaged in bacon-curing in each State for the year 1933-34 :—

**BACON-CURING FACTORIES, 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
Number of factories .. ..	22	20	9	8	8	6	73
Number of employees .. ..	313	516	543	214	69	37	1,692
Actual horse-power of engines used .. ..	1,015	3,184	1,014	486	478	135	6,312
Approximate value of land and buildings .. ..	115,820	225,382	211,686	69,312	26,396	13,790	662,386
Approximate value of plant and machinery .. ..	40,986	120,304	120,418	28,501	12,102	5,185	327,496
Wages paid .. ..	81,342	108,762	119,171	43,166	14,468	6,455	373,364
Value of fuel used .. ..	13,262	21,073	17,929	4,389	2,865	1,273	60,791
Value of materials used .. ..	633,289	645,712	677,488	282,273	162,232	43,644	2,444,638
Total value of output .. ..	807,430	887,186	989,363	362,135	191,432	59,391	3,296,957
Value of production .. ..	160,879	220,401	293,946	75,473	26,355	14,474	791,528

(ii) *Quantity and Value of Production.* The number of pigs killed and the quantity and value of the production of bacon-curing factories in each State for the year 1933-34 are given hereafter:—

**BACON-CURING FACTORIES.—PIGS KILLED, AND PRODUCTION, 1933-34.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>PIGS KILLED.</b>							
Number .. .. .	224,849	187,092	255,121	72,778	50,902	15,888	806,630
<b>PRODUCTS.</b>							
Bacon and ham .. lb.	19,953,792	16,279,693	18,573,812	6,481,851	4,257,785	1,353,199	66,900,132
Lard .. .. .	682,132	929,976	1,174,738	201,199	247,633	78,821	3,314,499
<b>VALUE.</b>							
Bacon and ham .. £	684,951	663,505	676,129	249,022	145,215	49,839	2,468,661
Lard .. .. .	15,205	22,788	22,806	5,090	5,651	1,942	73,482
Other products .. £	81,348	120,563	248,712	108,023	19,777	7,391	585,814

Bacon and ham and other pig products are dealt with more fully in Chapter XXII.—*Farmyard, Dairy and Bee Products.*

**II. Butter, Cheese, and Condensed Milk Factories.**—(i) *Details for each State, 1933-34.* The subjoined table gives particulars of butter, cheese and condensed milk factories in each State during the year 1933-34:—

**BUTTER, CHEESE, AND CONDENSED MILK FACTORIES, 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. .. .	138	175	116	42	19	41	531
Number of employees .. .. .	1,494	2,509	1,174	396	178	216	5,967
Actual horse-power of engines used	11,069	8,247	7,885	1,153	886	671	29,911
Approximate value of land and buildings .. .. .	£ 664,245	1,053,189	552,179	169,932	80,322	59,271	2,579,138
Approximate value of plant and machinery .. .. .	£ 796,087	1,035,006	681,219	119,053	80,991	62,999	2,775,355
Wages paid .. .. .	£ 331,365	497,800	245,343	65,971	34,661	27,257	1,202,397
Value of fuel used .. .. .	£ 89,333	142,675	45,934	15,313	9,756	8,250	311,261
Value of materials used .. .. .	£ 5,687,716	5,418,857	4,858,739	746,704	422,496	253,471	17,387,974
Total value of output .. .. .	£ 6,447,824	6,745,845	5,816,108	918,455	551,575	329,871	20,809,678
Value of production .. .. .	£ 670,775	1,184,313	911,444	156,438	119,323	68,150	3,110,443

(ii) *Total for Australia, 1929-30 to 1933-34.* The progress of this industry during the last five years is set out hereunder:—

**BUTTER, CHEESE, AND CONDENSED MILK FACTORIES.—AUSTRALIA.**

Items.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Number of factories .. .. .	509	506	513	520	531
Number of employees .. .. .	5,276	5,129	5,488	5,703	5,967
Actual horse-power of engines used	25,223	26,843	29,131	29,028	29,911
Approx. value of land and buildings	£ 2,538,589	2,530,861	2,545,245	2,533,470	2,579,138
Approx. value of plant and machinery	£ 2,735,185	2,766,227	2,715,729	2,749,218	2,775,355
Wages paid .. .. .	£ 1,291,259	1,228,100	1,202,209	1,179,007	1,202,397
Value of fuel used .. .. .	£ 355,811	328,229	303,547	311,254	311,261
Value of materials used .. .. .	£ 21,791,835	19,925,013	19,920,816	17,996,224	17,387,974
Total value of output .. .. .	£ 25,153,846	23,200,709	22,743,620	21,035,968	20,809,678
Value of production .. .. .	£ 3,006,200	2,947,467	2,519,257	2,728,490	3,110,443

(iii) *Quantity and Value of Production.* The next table shows the quantity and value of butter, cheese, and condensed milk produced, and the quantity of milk used in butter, cheese, and condensed milk factories in each State for the year 1933-34 :—

**BUTTER, CHEESE, AND CONDENSED MILK FACTORIES.—PRODUCTION, 1933-34.**

Particulars	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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**MILK USED (,000 OMITTED).**

Butter factories .. gals.	280,257	284,977	253,685	29,394	19,762	15,739	883,814
Cheese factories .. "	9,497	8,104	13,631	5,084	289	1,440	38,045
Condensed milk factories .. "	(a)	12,532	(a)	(a)	(a)	..	(b)17,240

**PRODUCTS (,000 OMITTED).**

Butter .. .. lb.	142,303	130,379	123,919	15,329	9,825	6,374	428,129
Cheese .. .. "	8,864	8,170	13,884	5,315	284	1,454	37,971
Condensed and concentrated milk .. .. lb.	(a)	29,618	(a)	(a)	(a)	..	(b)41,378
Powdered milk .. "	..	12,281	..	..	..	..	12,281

**VALUE (,000 OMITTED).**

Butter .. .. £	5,875	5,324	5,478	746	500	286	18,209
Cheese .. .. "	252	317	335	138	9	34	1,085
Condensed and concentrated milk .. .. £	(a)	588	(a)	(a)	(a)	..	(b) 886
Powdered milk .. "	..	303	..	..	..	..	303

(a) Information not available for publication.

(b) Includes States marked (a).

The butter, cheese, and condensed milk industries are dealt with more fully in Chapter XXII.—Farmyard, Dairy, and Bee Products.

12. *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 frozen beef, lamb, and mutton for export, while insulated space for the carriage of frozen produce is provided by steamship companies trading between Australia and other parts of the world. The substitution of the export of chilled for frozen meat has already been referred to in Chapter XX.—Pastoral Production.

**MEAT AND FISH PRESERVING WORKS,(c) 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	7	24	9	(a) 1	(a) 4	..	45
Number of employees .. ..	238	1,405	1,699	(a)	(a)	..	b 3,586
Actual horse-power of engines used .. ..	283	5,747	5,419	(a)	(a)	..	b 12,100
Approximate value of land and buildings .. .. £	58,246	738,520	993,199	(a)	(a)	..	b2,169,455
Approximate value of plant and machinery .. .. £	19,857	388,030	593,774	(a)	(a)	..	b1,390,516
Wages paid .. .. £	43,078	283,583	539,709	(a)	(a)	..	b 927,796
Value of fuel used .. .. £	6,738	48,750	83,916	(a)	(a)	..	b 146,375
Value of materials used .. .. £	123,489	3,011,098	2,782,226	(a)	(a)	..	b6,005,472
Total value of output .. .. £	196,780	3,629,639	3,424,474	(a)	(a)	..	b7,439,848
Value of production .. .. £	66,553	569,791	558,332	(a)	(a)	..	b1,288,001

(a) Not available for publication.

(b) Including South Australia and Western Australia

(c) Including meat extracts.



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 XX.—Pastoral Production.

13. Bakeries.—Information regarding establishments in which the manufacture of bread, cakes, &c., was carried on in the year 1933-34 is given in the table below :—

**BAKERIES (INCLUDING CAKES AND PASTRY), 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories .. ..	461	535	225	109	94	66	1,490
Number of employees .. ..	3,106	2,942	1,394	711	402	967	9,522
Actual horse-power of engines used .. ..	3,224	1,994	849	707	467	720	7,961
Approximate value of land and buildings .. ..	£ 1,654,856	£ 1,117,561	£ 374,303	£ 244,411	£ 135,220	£ 330,984	£ 3,857,335
Approximate value of plant and machinery .. ..	£ 485,552	£ 366,329	£ 144,691	£ 82,631	£ 42,710	£ 59,186	£ 1,181,099
Wages paid .. ..	£ 540,158	£ 430,805	£ 205,865	£ 101,329	£ 58,057	£ 123,190	£ 1,459,404
Value of fuel used .. ..	£ 95,593	£ 82,360	£ 27,336	£ 15,598	£ 9,455	£ 16,723	£ 247,065
Value of materials used .. ..	£ 1,775,655	£ 1,514,926	£ 604,097	£ 344,683	£ 214,679	£ 302,950	£ 4,756,990
Total value of output .. ..	£ 2,958,653	£ 2,520,665	£ 1,195,116	£ 548,838	£ 377,704	£ 511,587	£ 8,112,563
Value of production .. ..	£ 1,087,405	£ 923,379	£ 563,683	£ 188,557	£ 153,570	£ 191,914	£ 3,108,508

(a) Includes Biscuits and Confectionery.

14. Jam and Fruit Preserving, Pickles, Sauces, and Vinegar Factories.—(i) *Details for each State, 1933-34.* The subjoined table gives particulars of factories included in this class for the year 1933-34. One establishment engaged in meat preserving has been included in the details shown for Tasmania in order that confidential information may not be disclosed.

**JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	29	46	13	14	9	9	120
Number of employees .. ..	1,184	2,280	483	376	70	552	4,893
Actual horse-power of engines used .. ..	1,368	2,763	215	335	70	1,242	5,493
Approximate value of land and buildings .. ..	£ 251,461	£ 517,129	£ 38,561	£ 112,053	£ 18,222	£ 94,963	£ 1,032,409
Approximate value of plant and machinery .. ..	£ 107,503	£ 297,402	£ 30,377	£ 54,431	£ 5,705	£ 29,781	£ 525,199
Wages paid .. ..	£ 172,906	£ 343,571	£ 50,928	£ 49,884	£ 8,389	£ 96,587	£ 722,265
Value of fuel used .. ..	£ 16,586	£ 32,110	£ 3,459	£ 4,773	£ 930	£ 7,866	£ 65,724
Value of materials used .. ..	£ 640,107	£ 1,377,110	£ 281,102	£ 184,631	£ 40,644	£ 308,008	£ 2,831,602
Total value of output .. ..	£ 1,278,473	£ 2,159,672	£ 411,190	£ 271,860	£ 59,250	£ 454,514	£ 4,634,959
Value of production .. ..	£ 621,780	£ 750,452	£ 126,629	£ 82,456	£ 17,676	£ 138,640	£ 1,737,633

(ii) *Total for Australia, 1929-30 to 1933-34.* 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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Number of factories .. ..	121	111	121	115	120
Number of employees .. ..	4,780	3,803	4,130	4,786	4,895
Actual horse-power of engines used .. ..	6,101	5,308	5,711	5,730	5,493
Approx. value of land and buildings .. ..	£ 1,064,661	£ 984,464	£ 1,037,911	£ 1,025,310	£ 1,032,409
Approx. value of plant and machinery .. ..	£ 567,833	£ 546,362	£ 548,062	£ 525,057	£ 525,199
Wages paid .. ..	£ 873,508	£ 627,209	£ 617,012	£ 709,572	£ 722,265
Value of fuel used .. ..	£ 83,634	£ 61,588	£ 61,322	£ 66,231	£ 65,724
Value of materials used .. ..	£ 3,290,268	£ 2,354,034	£ 2,785,669	£ 3,185,285	£ 2,831,602
Total value of output .. ..	£ 5,178,438	£ 3,686,333	£ 4,210,988	£ 4,919,037	£ 4,634,959
Value of production .. ..	£ 1,804,536	£ 1,270,711	£ 1,363,487	£ 1,667,521	£ 1,737,633

The progress of the jam-making industry was very marked during the war years, when large quantities were exported overseas for the supply of army requirements. With the termination of the war, production declined considerably, and in 1933-34 amounted to only 73,096,000 lb., compared with 142,290,204 lb. in 1918-19. The output of preserved fruit in 1933-34 amounted to 76,098,000 lb. This quantity was considerably less than the record production of 104 million lb. during 1932-33. The production of pickles and sauces showed a slight recovery after a period of low output.

(iii) *Production.* The following table shows the quantity and value of jams, pickles and sauces manufactured in each State in 1933-34 :—

### JAMS, PRESERVED FRUIT, PICKLES AND SAUCES.—OUTPUT, 1933-34.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Jams and Jellies .. lb.	13,080	35,171	6,696	5,446	677	12,026	73,096
Pulp .. .. .	2,476	18,836	889	4,911	(c)	5,046	32,158
Fruit, preserved ..	17,101	45,495	8,200	1,874	..	3,428	76,098
Pickles .. .. . pints	892	1,286	361	718	(a)	(a)	b 3,457,668
Sauces .. .. .	5,594	6,906	500	1,887	(a)	(a)	b 15,467
VALUE.							
Jams and Jellies .. £	431,818	652,035	144,915	119,160	12,953	266,079	1,626,960
Pulp .. .. .	13,101	121,200	5,235	23,341	2,326	63,553	233,756
Fruit, preserved ..	309,467	697,911	206,239	31,586	..	98,736	1,343,939
Pickles .. .. .	34,360	44,892	14,916	28,466	(a)	(a)	(b) 130,092
Sauces .. .. .	273,208	234,632	17,664	56,102	(a)	(a)	(b) 601,277

(a) Particulars not available for publication.  
(c) Not available.

(b) Including Western Australia and Tasmania.

15. *Confectionery Factories.*—(i) *Details for each State, 1933-34.* At the close of the year 1900 there were in New South Wales 16 establishments, with 706 employees, and in Victoria 16 establishments, employing 731 persons, the plant and machinery in the former State being valued at £2,815, and in the latter at £19,070. The figures for the year 1933-34 given hereunder show the remarkable development since 1900 :—

### SUGAR CONFECTIONERY FACTORIES,(b) 1933-34.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories ..	65	108	12	16	8	5	214
Number of employees ..	2,834	2,770	476	357	248	13	6,698
Actual horse-power of engines used .. .. .	4,542	5,730	883	585	293	40	12,073
Approximate value of land and buildings .. .. . £	955,692	430,145	155,019	92,058	55,842	5,850	1,694,606
Approximate value of plant and machinery .. .. . £	925,897	534,054	72,808	77,433	70,129	6,196	1,686,517
Wages paid .. .. . £	392,586	375,982	60,140	32,566	56,171	1,147	898,592
Value of fuel used .. .. . £	48,839	43,023	6,591	9,941	3,910	377	112,681
Value of materials used .. .. . £	1,219,518	1,012,731	101,556	107,717	74,719	2,515	2,518,756
Total value of output .. .. . £	2,385,387	1,737,631	249,987	167,293	187,618	6,189	4,734,103
Value of production .. .. . £	1,117,030	681,877	141,840	49,635	108,989	3,297	2,102,668

(a) Ice Cream factories—Other Confectionery included in Bakeries.  
and Ice Cream.

(b) Including Chocolate

(ii) *Total for Australia, 1929-30 to 1933-34.* Particulars of the confectionery industry during the last five years are shown in the following table :—

**SUGAR CONFECTIONERY FACTORIES.—AUSTRALIA.**

Items.	1929-30. (a)	1930-31. (a)	1931-32. (a)	1932-33. (a)	1933-34. (a)
Number of factories .. ..	254	220	223	221	214
Number of employees .. ..	7,260	6,241	6,270	6,375	6,698
Actual horse-power of engines used .. ..	12,432	11,014	12,574	11,691	12,073
Approx. value of land and buildings .. ..	2,007,492	1,788,358	1,797,490	1,737,550	1,694,606
Approx. value of plant and machinery .. ..	2,248,470	1,987,197	1,882,742	1,738,497	1,686,517
Wages paid .. ..	1,167,654	931,991	861,562	857,503	898,592
Value of fuel used .. ..	167,526	118,245	111,789	108,489	112,681
Value of materials used .. ..	3,549,673	2,590,032	2,276,592	2,409,145	2,518,756
Total value of output .. ..	6,567,759	4,832,952	4,398,656	4,473,075	4,734,105
Value of production .. ..	2,850,560	2,124,675	2,010,275	1,955,441	2,102,668

(a) See note (a) in previous table.

The confectionery industry expanded rapidly during the war years largely as a result of the stimulus afforded by the embargo placed on the importation of luxuries during that period. The industry, however, was seriously affected by the business depression so that notwithstanding some slight recovery in the last two years the number of persons employed in 1933-34 was less by 8 per cent. than in 1929-30. Confectionery establishments in Tasmania have been combined with bakeries in order to conceal confidential information. Production is sufficient to supply local requirements, and an export trade is being developed. Several large British manufacturers of confectionery have established branch works in Australia.

16. **Grain Milling.**—(i) *Details for States, 1933-34.* The following table shows the position of the flour-milling industry in each State in 1933-34 :—

**GRAIN MILLING, 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas. (a)	Australia.
Number of factories .. ..	53	39	10	36	22	10	170
Number of employees .. ..	1,259	1,018	331	412	409	99	3,528
Actual horse-power of engines used .. ..	8,141	6,238	1,655	3,146	3,506	558	23,244
Approximate value of land and buildings .. ..	£ 784,747	492,511	172,488	165,811	239,878	60,158	1,915,593
Approximate value of plant and machinery .. ..	£ 728,287	483,187	213,731	211,121	266,436	37,574	1,940,336
Wages paid .. ..	£ 288,818	217,934	75,704	75,318	82,771	23,195	763,740
Value of fuel used .. ..	£ 78,217	58,233	15,465	23,691	21,149	4,076	200,831
Value of materials used .. ..	£ 3,544,536	2,807,196	731,020	831,149	867,028	201,661	8,982,500
Total value of output .. ..	£ 4,536,425	3,530,866	930,753	1,021,673	1,121,830	250,275	11,391,822
Value of production .. ..	£ 913,672	665,437	184,268	166,333	233,653	44,538	2,208,401

(a) The manufacture of cornflour, oatmeal, etc., was also carried on in some of these establishments.

(ii) *Production of Flour and By-products, 1929-30 to 1933-34.* 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)
1929-30 ..	432,472	364,682	61,102	138,115	120,595	19,899	1,136,865
1930-31 ..	449,439	369,966	71,994	136,346	132,090	19,863	1,179,698
1931-32 ..	490,662	396,257	77,376	155,215	131,165	19,540	1,270,215
1932-33 ..	525,651	425,930	91,498	129,225	127,574	19,372	1,319,250
1933-34 ..	495,779	395,566	84,159	121,811	122,000	19,253	1,238,568

(a) Tons of 2,000 lb.

The production of flour in Australia for the last year, 1,238,568 tons, was valued at £8,713,474. In addition, 536,338 tons of bran and pollard, valued at £2,444,393, were made. The quantity of wheat ground was 60,168,830 bushels.

17. Sugar Mills.—(i) *Details for 1933-34.* The following table shows the position of the cane-crushing branch of the sugar-making industry in New South Wales and Queensland in 1933-34. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XXI.—Agricultural Production.

## SUGAR MILLS, 1933-34.

Items.	N.S.W.	Queensland.	Australia.
Number of factories .. .. .	3	33	36
Number of employees .. .. .	135	5,132	5,267
Actual horse-power of engines used .. .. .	2,879	39,633	42,512
Approximate value of land and buildings £	134,000	794,111	928,111
Approximate value of plant and machinery £	539,670	6,518,636	7,058,306
Wages paid .. .. .	£ 62,171	1,187,969	1,250,140
Value of fuel used .. .. .	£ 12,170	83,046	95,216
Value of materials used .. .. .	£ 364,382	7,976,137	8,340,519
Total value of output .. .. .	£ 558,457	10,281,640	10,840,097
Value of production .. .. .	£ 181,905	2,222,457	2,404,362

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. This latter quantity, however, is being reduced each year.

(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.	1930-31.	1931-32.	1932-33.	1933-34.
Number of factories .. .. .	4	3	3	3	3
Number of employees .. .. .	469	135	124	118	135
Cane crushed .. .. . tons	147,799	160,209	179,153	156,818	230,918
Sugar produced .. .. .	17,299	18,841	22,459	18,567	27,586
Molasses produced .. .. . gals.	796,440	918,800	940,600	899,100	1,163,700

The concentration of cane-crushing in establishments fitted with modern machinery has caused the closing of the small home mill and thereby reduced the number of mills operating. The Government assistance, referred to in the chapter dealing with Agriculture, has resulted in considerable progress in the cultivation of sugar-cane and increased activity in milling. Particulars regarding cane crushed and sugar produced embodied in these tables refer to the quantities treated during the twelve months ending 30th June in each year, irrespective of the season in which the cane was grown. The figures relating to cane crushed and sugar produced shown hereunder may differ slightly from those given in Chapter XXI.—Agriculture, which refer to harvest years.

(b) *Queensland.* Details for Queensland for 1911 and the last four years are given hereunder :—

**SUGAR MILLS.—QUEENSLAND, 1911 TO 1933-34.**

Items.	1911.	1930-31.	1931-32.	1932-33.	1933-34.
Number of factories ..	49	35	35	33	33
Number of employees ..	4,295	5,138	5,114	4,916	5,132
Cane crushed .. tons	1,534,451	3,539,475	4,033,889	3,546,373	4,667,122
Sugar produced .. "	173,296	514,296	579,222	512,781	638,559
Molasses—					
Sold to distillers and others .. gals.	2,393,669	4,529,352	3,282,351	2,904,242	4,448,494
Used as fodder .. "	789,564	2,342,609	2,940,551	2,988,905	2,902,188
Used as manure .. "	223,000	714,670	1,753,086	1,414,338	1,793,101
Run to waste .. "	1,847,333	1,311,453	910,418	1,402,483	1,747,365
Burnt as fuel .. "		4,354,350	7,075,965	6,182,769	7,348,015
In stock .. "	1,197,626	1,206,050	1,350,769	898,524	634,022
Total molasses .. "	6,451,192	14,458,484	17,313,140	15,791,261	18,873,185

18. *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 1933-34 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 317,537 tons, for a yield of 314,987 tons of refined sugar, valued at £10,031,724.

19. *Breweries.*—(i) *Details for each State, 1933-34.* The following table gives particulars concerning breweries in each State :—

**BREWERIES, 1933-34.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of breweries ..	6	10	8	6	8	4	42
Number of employees ..	786	1,123	363	235	406	82	2,995
Actual horse-power of engines used ..	5,572	4,034	1,744	1,361	2,068	758	15,537
Approximate value of land and buildings .. £	860,459	722,308	303,981	188,228	181,976	166,622	2,423,574
Approximate value of plant and machinery .. £	799,100	874,219	273,187	217,309	230,770	112,974	2,507,559
Wages paid .. £	218,348	356,670	100,618	71,856	117,671	20,934	886,597
Value of fuel used .. £	62,423	63,118	23,995	15,386	17,131	7,847	189,902
Value of materials used .. £	574,756	828,946	173,179	137,173	251,086	40,817	2,011,957
Total value of output .. £	2,107,235	1,909,253	483,871	370,179	620,772	134,566	5,625,876
Value of production .. £	1,470,954	1,017,189	286,697	217,620	352,555	79,902	3,424,017

(a) Includes Malt Works.

(ii) *Total for Australia, 1929-30 to 1933-34.* The next table shows the extent of this industry for the last five years :—

**BREWERIES.—AUSTRALIA.**

Items.	1929-30.	1930-31.	1931-32. (a)	1932-33. (a)	1933-34. (a)
Number of breweries ..	45	43	41	41	42
Number of employees ..	3,590	3,109	2,832	2,888	2,995
Actual horse-power of engines used ..	14,800	15,553	15,347	15,315	15,537
Approx. value of land and buildings .. £	2,457,428	2,447,642	2,400,715	2,378,417	2,423,574
Approx. value of plant and machinery .. £	2,956,907	2,865,987	2,639,383	2,535,431	2,507,559
Wages paid .. £	1,165,380	992,698	889,639	858,371	886,597
Value of fuel used .. £	276,109	230,958	187,452	183,428	189,902
Value of materials used .. £	2,887,251	2,146,331	1,880,923	1,905,147	2,011,957
Total value of output .. £	7,258,933	5,828,193	5,133,025	5,235,923	5,625,876
Value of production .. £	4,095,483	3,450,904	3,055,650	3,147,348	3,424,017

(a) Includes Malt Works in Tasmania.

The quantity of ale and stout brewed fell from 73.7 million gallons in 1928-29 to 49.8 million gallons in 1931-32. During the next two years the output had risen to 57.8 million gallons. The consumption of ale and stout per head of the population remained fairly steady for several years at about 11.25 gallons. In 1931-32 the average fell to 7.32 gallons, but in 1932-33 it increased to 7.43 gallons and in 1933-34 to 8.02 gallons.

(iii) *Materials Used and Production.* The table below shows the quantity of raw material used and the quantity and value of ale and stout brewed in each State as furnished by the Excise Branch of the Department of Trade and Customs during the year 1933-34.

**BREWERIES.—MATERIALS USED AND PRODUCTION, 1933-34.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>RAW MATERIAL USED.</b>							
Malt .. bushels	655,806	709,160	186,797	135,791	226,767	40,385	1,954,706
Hops .. lb.	598,267	626,857	161,791	135,002	163,125	27,533	1,712,575
Sugar .. cwt.	68,200	82,600	19,440	16,740	9,840	3,640	200,460
<b>RAW MATERIAL USED PER 1,000 GALLONS OF ALE AND STOUT PRODUCED.</b>							
Malt .. bushels	32.82	32.25	34.97	32.09	43.22	38.63	33.80
Hops .. lb.	29.94	28.51	30.29	31.90	31.09	26.34	29.61
Sugar .. cwt.	3.41	3.76	3.64	3.95	1.88	3.48	3.47
<b>ALE AND STOUT BREWED.</b>							
Quantity gallons	19,981,677	21,989,043	5,340,627	4,231,515	5,247,017	1,045,454	57,835,330
Value (£)	2,128,883	1,911,245	483,871	365,494	593,021	125,306	5,607,820

(a) Exclusive of Excise duty.

**20. Distilleries.**—Distilleries are located in all the States with the exception of Western Australia and Tasmania. The following information, which has been extracted from returns furnished by the Excise Branch of the Department of Trade and Customs, shows the materials used in distilleries in Australia and the quantity of spirits distilled therefrom for the year 1933-34:—Materials used: barley 69,975 bushels; barley malt 86,459 bushels; rye 851 bushels; molasses 772,168 cwt.; wine 9,230,327 gallons; raisins and currants 10,010 cwt. The quantities of spirits distilled from barley, malt and grain were 390,187 gallons; from molasses 4,065,928 gallons; and from wine 1,810,092 gallons; total 6,266,207 gallons. The quantity of spirits denatured during the year was 2,576,567 gallons.

**21. Tobacco, etc., Factories.**—(i) *Details for each State, 1933-34.* During the year 1933-34 there were thirty-one establishments in which the manufacture of tobacco, cigars, or cigarettes was carried on. There were no tobacco factories in Tasmania.

**TOBACCO, CIGAR, AND CIGARETTE FACTORIES, 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
Number of factories .. ..	8	14	7	1	1	31
Number of employees .. ..	2,405	1,752	69	14	155	4,395
Actual horse-power of engines used .. ..	1,240	923	(a)	(a)	(a)	b 2,234
Approx. value of land and buildings .. ..	£ 594,516	321,214	(a)	(a)	(a)	b 916,971
Approx. value of plant and machinery .. ..	£ 423,459	215,181	(a)	(a)	(a)	b 658,850
Wages paid .. ..	£ 478,957	332,785	(a)	(a)	(a)	b 838,608
Value of fuel used .. ..	£ 8,996	8,766	(a)	(a)	(a)	b 18,596
Value of materials used .. ..	£ 3,596,986	1,344,163	(a)	(a)	(a)	b 5,003,766
Total value of output .. ..	£ 4,681,683	2,076,784	(a)	(a)	(a)	b 6,894,327
Value of production .. ..	£ 1,075,701	723,855	(a)	(a)	(a)	b 1,871,965

(a) Not available for publication.

(b) Including Queensland, South Australia and Western Australia.

(ii) *Total for Australia.* This industry was among the first to be established in Australia. In 1861 New South Wales had 11 factories, producing 177,744 lb. of manufactured tobacco; in the same year there was one factory in Victoria, but the quantity of tobacco manufactured is not available. The Australian market has for many years been largely supplied with local manufactures from the imported leaf. Imports during 1933-34 comprised—manufactured tobacco 52,930 lb., cigars 9,010 lb., and cigarettes 40,660 lb., while the quantities manufactured in Australian factories were respectively 14,656,195 lb., 258,771 lb., and 4,576,617 lb. The following tables show the extent of the industry in Australia for the last five years:—

## TOBACCO, CIGAR AND CIGARETTE FACTORIES.—AUSTRALIA.

Items.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Number of factories .. .. .	23	22	24	30	31
Number of employees .. .. .	4,096	4,154	4,119	4,142	4,395
Actual horse-power of engines used .. .. .	1,986	2,009	2,133	2,145	2,234
Approx. value of land and buildings .. .. .	£ 857,787	857,540	912,541	916,547	916,971
Approx. value of plant and machinery .. .. .	£ 565,556	618,377	656,862	663,060	658,850
Wages paid .. .. .	£ 818,342	807,348	800,702	812,220	838,608
Value of fuel used .. .. .	£ 24,941	24,685	26,013	23,088	18,596
Value of materials used .. .. .	£ 5,111,443	4,831,775	5,448,396	4,823,564	5,003,766
Total value of output .. .. .	£ 7,523,114	6,842,394	7,299,324	6,591,780	6,894,327
Value of production .. .. .	£ 2,386,730	1,985,934	1,824,915	1,745,128	1,871,965

## LEAF USED AND PRODUCTION.

Leaf used {	Australian (Stemmed) 1,000 lb.	1,192	3,129	2,349	2,722	3,397
Imported ( " ) .. .. .	"	17,983	13,327	14,076	14,103	13,718
Tobacco made .. .. .	"	16,064	14,242	14,084	14,788	14,656
Cigars made .. .. .	"	307	224	225	254	259
Cigarettes made .. .. .	"	5,371	4,225	4,191	4,362	4,577

The production of locally-grown leaf for many years 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, with a resultant decrease in the amount of imported leaf used. In 1932-33 the quantity of local leaf used fell to 2.7 million lb. but rose again to 3.3 million lb. in 1933-34. In this connexion, see item "Tobacco" in Chapter XXI.—Agricultural Production. The respective quantities of Australian and imported leaf used during 1933-34 were 3,306,790 lb., and 13,718,454 lb.

22. *Woolen and Tweed Mills.*—(i) *Details for each State, 1933-34.* The manufacture of woollens and tweeds was established at an early period in Australian history and was under Government control, the first record in New South Wales dating back to 1801, when a few blankets were made by convicts, while manufacture in Victoria dates from 1867. The following table gives particulars for the year 1933-34:—

## WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1933-34.

Items.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. .. .	19	41	18	8	6	6	98
Number of employees .. .. .	5,213	9,231	755	770	185	1,392	17,546
Actual horse-power of engines used .. .. .	8,363	16,778	1,372	1,836	629	2,445	31,423
Approx. value of land and buildings .. .. .	£ 687,895	1,196,546	72,497	90,069	52,104	260,886	2,359,997
Approx. value of plant and machinery .. .. .	£ 1,048,108	1,585,677	138,977	149,930	84,052	299,720	3,306,464
Wages paid .. .. .	£ 687,862	1,144,211	113,152	91,612	30,043	166,144	2,233,024
Value of fuel used .. .. .	£ 110,825	196,087	20,621	19,995	9,876	40,788	398,192
Value of materials used .. .. .	£ 1,894,764	2,764,403	1,726,229	522,775	179,178	313,897	7,401,246
Total value of output .. .. .	£ 3,109,963	4,950,498	1,924,305	662,950	253,037	735,161	11,635,920
Value of production .. .. .	£ 1,104,374	1,990,008	177,455	120,186	63,893	380,476	3,386,484

(a) *Woolscouring not included.*

(ii) *Total for Australia, 1929-30 to 1933-34.* The extent of the woollen and tweed milling industry in Australia during the last five years is shown in the following table :—

**WOOLLEN AND TWEED MILLS (INCLUDING WOOLSCOURING).—AUSTRALIA.**

Items.	1929-30. (a)	1930-31. (b)	1931-32. (b)	1932-33. (b)	1933-34. (b)
Number of factories .. ..	58	92	81	89	98
Number of employees .. ..	11,843	11,551	13,607	16,206	17,546
Actual horse-power of engines used .. ..	26,407	27,453	30,298	31,586	31,423
Approx. value of land and buildings .. ..	£ 2,124,486	2,305,858	2,232,015	2,273,954	2,359,997
Approx. value of plant and machinery .. ..	£ 3,553,493	3,567,670	3,381,308	3,354,724	3,306,464
Wages paid .. ..	£ 1,780,514	1,633,432	1,945,879	2,196,162	2,233,024
Value of fuel used .. ..	£ 298,212	301,428	322,532	426,331	398,192
Value of materials used .. ..	£ 3,758,577	3,756,418	4,893,757	6,084,638	7,401,246
Total value of output .. ..	£ 6,964,160	6,758,788	8,452,029	10,307,925	11,635,920
Value of production .. ..	£ 2,907,371	2,700,942	3,235,740	3,796,956	3,836,482

(a) Excluding Woolscouring. (b) Excluding Woolscouring in New South Wales.

(iii) *Quantity and Value of Production.* The production consists chiefly of tweed cloths, flannels, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability. Detailed particulars for the several States are not available for publication. The total length of tweed and cloth manufactured in Australia in 1933-34 was 23,279,903 square yards. In New South Wales 7,896,208 square yards, and in Victoria 14,100,111 square yards of tweed and cloth were manufactured. The production of flannel amounted to 9,851,097 yards, while blankets, shawls, and rugs to the number of 1,388,296 were made. The output of yarn reported was 9,567,303 lb., most of which was produced in Victoria.

In addition to the woollen and tweed factories, there were 320 hosiery and knitting mills operating in Australia in 1933-34. These establishments provided employment for 13,950 persons, of whom 10,060 were females, and the value of their output amounted to £6,651,293.

Cotton ginning has been carried on intermittently in the Northern States, and the recent development in cotton growing has led to the establishment of modern ginning plants at convenient centres in Queensland. In New South Wales the first establishment for the manufacture of cotton goods was erected in 1923-24. There were twenty-six establishments treating cotton in Australia in 1933-34, and these employed 2,012 hands while the value of the output was £1,327,479.

23. *Boot Factories.*—(i) *Boot and Shoe Factories, 1933-34.* The boot and shoe industry holds an important place 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 avoided 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, 1933-34.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	93	169	21	15	8	3	309
Number of employees .. ..	4,547	9,420	878	464	306	75	15,690
Actual horse-power of engines used .. ..	1,809	2,799	265	265	213	40	5,391
Approximate value of land and buildings .. ..	£ 372,198	710,558	59,344	79,201	32,815	8,280	1,262,396
Approximate value of plant and machinery .. ..	£ 231,898	376,327	41,761	27,536	19,072	3,347	699,941
Wages paid .. ..	£ 594,040	1,203,844	104,756	56,667	35,264	7,328	2,001,899
Value of fuel used .. ..	£ 19,249	32,633	2,219	1,824	875	277	57,077
Value of materials used .. ..	£ 1,094,031	2,156,926	158,044	87,962	71,951	12,103	3,581,017
Total value of output .. ..	£ 1,920,487	3,856,500	315,326	162,909	119,717	20,920	6,395,859
Value of production .. ..	£ 807,207	1,666,941	155,063	73,123	46,891	8,540	2,757,765



(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 1933-34 the number amounted to 1,249, in which 1,923 hands were employed. The sum of £99,841 was distributed in salaries and wages, and the output was valued at £585,636.

(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, 1933-34.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Boots and shoes	4,258	8,052	631	443	328	43	13,755
Slippers	2,180	3,431	8	54	42	1	5,716
Uppers (a)	25	11	161	6	..	..	203
VALUE.							
Boots and shoes	£ 1,648,038	£ 3,403,758	£ 296,439	£ 155,351	£ 110,927	£ 19,524	£ 5,634,037
Slippers	£ 238,425	£ 363,657	£ 1,657	£ 4,492	£ 6,174	£ 553	£ 614,958
Uppers (a)	£ 4,626	£ 5,814	£ 17,199	£ 2,587	£ 229	£ 85	£ 30,540

(a) Made for other than factory use.

24. *Tailoring, and Slop Clothing Factories.*—(i) *Details for each State, 1933-34.* The importance of this industry in the several States is shown in the following table :—

**TAILORING AND SLOP CLOTHING FACTORIES, 1933-34.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	344	398	104	103	69	22	1,040
Number of employees	8,412	7,484	2,416	1,499	842	298	20,951
Actual horse-power of engines used	766	729	131	105	88	19	1,838
Approximate value of land and buildings	£ 1,094,239	£ 763,209	£ 228,231	£ 219,928	£ 144,160	£ 66,725	£ 2,516,492
Approximate value of plant and machinery	£ 100,673	£ 115,888	£ 24,479	£ 17,006	£ 10,804	£ 4,150	£ 273,000
Wages paid	£ 861,551	£ 785,631	£ 221,585	£ 136,196	£ 92,117	£ 29,746	£ 2,126,826
Value of fuel used	£ 17,820	£ 21,296	£ 5,751	£ 4,134	£ 2,006	£ 790	£ 51,887
Value of materials used	£ 1,497,092	£ 1,947,524	£ 361,532	£ 152,753	£ 117,158	£ 36,648	£ 4,112,707
Total value of output	£ 2,802,659	£ 3,329,281	£ 777,031	£ 369,623	£ 268,236	£ 79,637	£ 7,627,067
Value of production	£ 1,287,747	£ 1,360,461	£ 410,348	£ 212,736	£ 148,982	£ 42,199	£ 3,462,473

(ii) *Total for Australia, 1929-30 to 1933-34.* Details for the last five years are as follow :—

**TAILORING AND SLOP CLOTHING FACTORIES.—AUSTRALIA.**

Items.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Number of factories	1,327	1,112	1,006	1,019	1,040
Number of employees	23,016	17,664	17,470	18,681	20,951
Actual horse-power of engines used	2,062	1,683	1,647	1,847	1,838
Approx. value of land and buildings	£ 4,151,355	£ 3,272,248	£ 2,654,382	£ 2,493,182	£ 2,516,492
Approx. value of plant and machinery	£ 328,676	£ 278,696	£ 256,976	£ 257,146	£ 273,000
Wages paid	£ 3,190,686	£ 2,058,597	£ 1,859,268	£ 1,895,349	£ 2,126,826
Value of fuel used	£ 63,011	£ 50,717	£ 47,798	£ 48,831	£ 51,887
Value of materials used	£ 4,473,949	£ 3,119,083	£ 3,255,800	£ 3,635,773	£ 4,112,707
Total value of output	£ 9,222,505	£ 6,307,261	£ 6,158,633	£ 6,653,256	£ 7,627,067
Value of production	£ 4,683,545	£ 3,137,461	£ 2,852,035	£ 2,968,652	£ 3,462,473

25. Dressmaking and Millinery Establishments.—(i) *Details for each State, 1933-34.* Particulars of dressmaking and millinery establishments are given separately in the following tables :—

## DRESSMAKING ESTABLISHMENTS, 1933-34.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories .. ..	91	457	32	45	32	13	670
Number of employees .. ..	1,241	7,789	572	721	484	81	10,888
Actual horse-power of engines used .. ..	68	699	34	47	56	8	912
Approximate value of land and buildings .. .. £	197,467	1,081,440	41,918	65,162	53,969	11,940	1,451,896
Approximate value of plant and machinery .. .. £	10,370	93,278	9,908	8,249	5,216	715	127,736
Wages paid .. .. £	110,180	703,105	40,632	53,265	35,750	5,281	948,213
Value of fuel used .. .. £	1,851	14,601	1,050	1,265	744	138	19,649
Value of materials used .. .. £	104,440	1,597,984	53,213	63,254	42,926	3,105	1,864,922
Total value of output .. .. £	272,542	2,703,857	111,721	142,988	103,507	11,396	3,346,011
Value of production .. .. £	166,251	1,091,272	57,458	78,469	59,837	8,153	1,461,440

(a) Includes Millinery.

## MILLINERY ESTABLISHMENTS, 1933-34.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	41	70	13	10	8	(a)	142
Number of employees .. ..	921	1,665	335	344	59	(a)	3,324
Actual horse-power of engines used .. ..	56	172	26	23	7	(a)	284
Approximate value of land and buildings .. .. £	116,868	174,610	20,946	23,815	7,130	(a)	343,369
Approximate value of plant and machinery .. .. £	8,664	22,095	6,425	11,500	425	(a)	49,109
Wages paid .. .. £	85,645	147,301	28,362	22,573	5,487	(a)	289,368
Value of fuel used .. .. £	2,162	3,895	630	765	104	(a)	7,556
Value of materials used .. .. £	149,608	228,225	38,494	38,970	6,922	(a)	462,219
Total value of output .. .. £	311,282	474,077	72,492	79,555	15,582	(a)	952,588
Value of production .. .. £	159,512	241,957	33,368	39,820	8,556	(a)	483,213

(a) Included in Dressmaking.

(ii) *Total for Australia, 1929-30 to 1933-34.* 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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Number of factories .. ..	816	724	731	764	812
Number of employees .. ..	12,709	10,396	11,347	13,455	14,212
Actual horse-power of engines used .. ..	971	907	1,049	1,139	1,196
Approx. value of land and buildings .. .. £	2,310,358	1,904,825	1,667,555	1,710,482	1,795,265
Approx. value of plant and machinery .. .. £	157,051	151,460	163,200	171,217	176,845
Wages paid .. .. £	1,399,256	1,066,438	1,045,554	1,187,875	1,237,581
Value of fuel used .. .. £	23,842	20,657	22,508	24,717	27,205
Value of materials used .. .. £	2,501,600	1,993,968	2,061,912	2,354,141	2,327,141
Total value of output .. .. £	4,753,906	3,680,918	3,770,217	4,238,509	4,298,999
Value of production .. .. £	2,228,464	1,666,293	1,685,797	1,859,651	1,944,653

26. Printing and Book Binding Works.—(i) *Details for each State, 1933-34.* Printing and bookbinding works rank high in importance among the industries of Australia, and in 1933-34 afforded employment for about 22,500 employees, and paid more than £4,389,000 in salaries and wages, while the value of output amounted to £12,536,000.

The following table gives particulars of establishments engaged in general printing and bookbinding in each State for the year 1933-34. Government printing works are included, but establishments producing newspapers and periodicals are shown separately in the next table:—

## GENERAL PRINTING AND BOOKBINDING ESTABLISHMENTS, 1933-34.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Australia.
Number of factories .. ..	268	387	86	89	84	17	931
Number of employees .. ..	5,338	5,284	1,622	1,442	696	279	14,661
Actual horse-power of engines used .. ..	4,007	4,132	787	1,466	695	188	11,275
Approximate value of land and buildings .. ..	£ 1,202,522	£ 1,308,614	£ 336,651	£ 542,126	£ 213,805	£ 40,302	£ 3,644,020
Approximate value of plant and machinery .. ..	£ 1,053,737	£ 943,268	£ 188,964	£ 421,281	£ 153,248	£ 34,259	£ 2,794,757
Wages paid .. ..	£ 871,388	£ 828,128	£ 258,065	£ 246,154	£ 110,966	£ 46,011	£ 2,360,712
Value of fuel used .. ..	£ 30,957	£ 31,075	£ 8,694	£ 9,829	£ 3,822	£ 1,775	£ 86,152
Value of materials used .. ..	£ 999,220	£ 1,026,089	£ 196,344	£ 288,420	£ 116,120	£ 24,820	£ 2,651,013
Total value of output .. ..	£ 2,589,293	£ 2,582,149	£ 636,853	£ 693,217	£ 313,495	£ 96,676	£ 6,911,683
Value of production .. ..	£ 1,559,116	£ 1,524,985	£ 431,815	£ 394,968	£ 193,553	£ 70,081	£ 4,174,518

(a) Includes Newspapers and Periodicals.

## ESTABLISHMENTS PRODUCING NEWSPAPERS AND PERIODICALS, 1933-34.

Items.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Australia.
Number of establishments .. ..	212	120	70	..	32	7	441
Number of employees .. ..	3,440	2,270	1,457	..	540	373	8,080
Actual horse-power of engines used .. ..	5,843	3,468	2,140	..	1,418	336	13,205
Approximate value of land and buildings .. ..	£ 1,609,874	£ 759,680	£ 492,973	..	£ 396,015	£ 72,667	£ 3,331,209
Approximate value of plant and machinery .. ..	£ 1,179,038	£ 765,154	£ 375,469	..	£ 203,336	£ 61,949	£ 2,584,946
Wages paid .. ..	£ 894,277	£ 604,776	£ 306,059	..	£ 139,113	£ 84,544	£ 2,028,769
Value of fuel used .. ..	£ 43,559	£ 26,245	£ 18,139	..	£ 9,634	£ 4,423	£ 102,000
Value of materials used .. ..	£ 882,451	£ 755,692	£ 227,328	..	£ 117,649	£ 56,098	£ 2,039,218
Total value of output .. ..	£ 2,544,580	£ 1,765,847	£ 768,345	..	£ 361,871	£ 183,900	£ 5,624,543
Value of production .. ..	£ 1,618,570	£ 983,910	£ 522,878	..	£ 234,588	£ 123,379	£ 3,483,325

(a) Included in General Printing and Bookbinding.

27. Motor Vehicles and Cycles.—The industries catering for the motor trade are included in Class IV.—Industrial Metals, Machines, Implements and Conveyances. Returns in regard to assembling and repairing are shown hereunder for the year 1933-34:—

## ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1933-34.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	916	862	155	121	203	89	2,346
Number of employees .. ..	4,109	4,101	882	826	632	410	10,960
Actual horse-power of engines used .. ..	3,476	2,758	611	664	700	264	8,473
Approximate value of land and buildings .. ..	£ 1,598,019	£ 1,327,834	£ 378,044	£ 290,523	£ 271,089	£ 187,432	£ 4,052,941
Approximate value of plant and machinery .. ..	£ 348,656	£ 284,514	£ 71,208	£ 61,507	£ 61,349	£ 23,256	£ 850,490
Wages paid .. ..	£ 574,769	£ 614,165	£ 146,179	£ 105,142	£ 91,208	£ 45,525	£ 1,576,988
Value of fuel used .. ..	£ 34,776	£ 37,939	£ 7,589	£ 7,135	£ 6,258	£ 3,832	£ 97,529
Value of materials used .. ..	£ 658,728	£ 99,949	£ 34,363	£ 116,661	£ 83,027	£ 42,524	£ 1,035,252
Total value of output .. ..	£ 1,666,559	£ 1,078,812	£ 310,068	£ 296,568	£ 272,221	£ 126,089	£ 3,750,317
Value of production .. ..	£ 973,055	£ 940,924	£ 268,116	£ 172,772	£ 182,936	£ 79,733	£ 2,617,536

Particulars in regard to motor body building for the year 1933-34 are as follow :—

### MOTOR BODY BUILDING, 1933-34.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	46	65	20	11	28	..	170
Number of employees .. ..	757	1,710	267	3,328	152	..	6,214
Actual horse-power of engines used .. ..	741	1,471	201	3,076	181	..	5,670
Approximate value of land and buildings .. ..	£ 273,407	440,277	40,296	422,943	55,568	..	1,232,491
Approximate value of plant and machinery .. ..	£ 32,699	175,594	7,071	216,228	13,427	..	445,019
Wages paid .. ..	£ 124,770	326,717	41,430	584,909	23,649	..	1,101,475
Value of fuel used .. ..	£ 3,860	9,828	1,123	25,034	1,365	..	41,210
Value of materials used .. ..	£ 132,402	387,857	38,756	776,403	28,639	..	1,364,117
Total value of output .. ..	£ 334,401	941,731	93,273	1,476,784	71,545	..	2,917,734
Value of production .. ..	£ 198,139	544,046	53,394	675,287	41,541	..	1,512,407

The output of motor bodies for Australia is shown in the next table :—

### MOTOR BODIES PRODUCED IN AUSTRALIA.

Items.	1928-29. (a)	1929-30. (a)	1930-31. (a)	1931-32.	1932-33.	1933-34.
Motor Bodies—						
Number .. ..	72,193	46,409	10,417	6,323	13,532	26,302
Value .. ..	£ 4,357,841	3,118,987	864,209	450,310	1,100,504	2,112,439

(a) Excluding Queensland.

28. Furniture, Cabinet Making and Upholstery.—These industries constitute the principal manufactures in Class XI. The following table gives particulars for each State :—

### FURNITURE, CABINET MAKING AND UPHOLSTERY FACTORIES, 1933-34.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	228	303	83	52	70	40	776
Number of employees .. ..	2,658	2,409	894	576	421	232	7,190
Actual horse-power of engines used .. ..	5,595	3,262	1,553	1,726	977	513	13,626
Approximate value of land and buildings .. ..	£ 543,380	519,009	152,963	103,182	100,708	34,842	1,454,084
Approximate value of plant and machinery .. ..	£ 227,609	147,751	67,390	64,455	32,977	15,771	555,953
Wages paid .. ..	£ 405,831	303,353	143,372	77,536	65,621	26,934	1,022,647
Value of fuel used .. ..	£ 22,012	15,543	6,434	4,897	2,290	1,488	52,664
Value of materials used .. ..	£ 770,497	522,649	211,194	130,623	112,864	26,244	1,774,071
Total value of output .. ..	£ 1,468,296	1,066,046	453,200	254,267	229,793	74,658	3,546,260
Value of production .. ..	£ 675,787	527,854	235,572	118,747	114,639	46,926	1,719,525

29. Electric Light and Power Works.—The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. Since 1929-30 the production of electric light and power has increased from 2,436,000,000 to 2,910,000,000 British units, or by more than 19 per cent. The value of land and buildings and plant and machinery remained practically the same

as for the year 1929-30, indicating that no new works of importance were completed during 1933-34. Particulars for the year 1933-34 are as follow :—

## ELECTRIC LIGHT AND POWER WORKS, 1933-34.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	122	93	53	43	71	4	386
Number of employees .. ..	1,881	1,281	794	1,049	405	93	5,593
Actual horse-power of engines used .. ..	495,666	172,816	67,328	139,180	67,411	78,663	1,021,064
Approximate value of land and buildings .. ..	£ 4,927,000	2,117,974	380,902	592,977	239,485	26,367	8,284,705
Approximate value of plant and machinery .. ..	£ 10,095,366	6,494,657	3,166,785	1,984,393	1,084,666	3,334,196	26,160,063
Wages paid .. ..	£ 488,528	283,723	206,822	255,127	99,031	21,591	1,354,822
Value of fuel used .. ..	£ 1,195,413	453,887	238,954	153,889	301,604	59	2,343,806
Total value of output .. ..	£ 5,022,325	1,506,903	946,974	1,031,477	734,210	318,840	9,560,729

30. Gas Works.—(i) *Details for each State, 1933-34.* Gas works are in operation in the majority of important towns in Australia. New South Wales returned seven coke factories and Queensland one, working as separate industries, but under the new classification these are included in Class I., Treatment of Non-metalliferous Mine and Quarry Products. The subjoined table gives particulars of gas works in each State for the year 1933-34 :—

## GAS WORKS, 1933-34.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	45	37	16	5	4	2	109
Number of employees .. ..	1,182	705	286	528	110	72	2,883
Actual horse-power of engines used .. ..	5,094	2,575	902	1,905	213	107	10,796
Approximate value of land and buildings .. ..	£ 892,279	346,949	145,222	42,271	83,914	39,928	1,550,563
Approximate value of plant and machinery .. ..	£ 3,087,037	1,559,697	483,596	1,166,359	168,391	155,087	6,620,167
Wages paid .. ..	£ 252,330	158,115	71,031	128,100	25,197	18,332	653,105
Value of fuel used .. ..	£ 229,852	120,633	14,873	34,656	12,854	4,228	417,096
Value of materials used .. ..	£ 709,284	633,092	115,274	119,935	52,140	20,757	1,650,482
Total value of output .. ..	£ 2,048,438	1,367,662	521,888	522,561	132,466	73,445	4,666,460
Value of production .. ..	£ 1,109,302	613,937	391,741	367,970	67,472	48,460	2,598,882

(ii) *Coal Used and Production, 1933-34.* The following table gives details for the year 1933-34 :—

## GAS WORKS.—COAL USED AND PRODUCTION, 1933-34.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
COAL USED.							
Coal .. .. tons	508,926	305,945	78,734	70,073	19,806	10,662	994,146
PRODUCTS.							
Gas .. 1,000 cubic feet	9,414,103	5,539,553	1,230,620	1,066,471	407,539	154,962	17,813,248
Coke .. .. tons	330,705	184,671	44,747	44,029	10,902	2,980	618,034
VALUE.							
Gas .. .. £	1,352,621	1,028,061	472,612	411,030	111,668	63,177	3,439,169
Coke .. .. £	370,725	277,826	33,765	71,912	16,622	6,158	777,008

The production of gas declined from 20,929,569,000 cubic feet in 1929-30 to an annual average of 17,800,000,000 cubic feet during the past three years.

## CHAPTER XXVI.

## 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 IV.—Local Government.

Interstate Conferences on the subject of artesian water were held in 1912, 1914, 1921, 1924, and 1928, when combined Governmental action was agreed upon with reference to delimitation of the artesian basins, hydrographic surveys, reason for decrease in flow, analyses and utilization of artesian water, etc. A map showing the extent of the known artesian basins will be found on pages 845-6.

2. **The Great Australian Artesian Basin.**—The area known as the "Great Australian Artesian Basin," includes (a) considerably more than one-half of Queensland, taking in practically all that State lying west of the Great Dividing Range, with the exception of an area in the north-west contiguous to the Northern Territory; (b) a considerable strip of New South Wales along its northern boundary and west of the Great Dividing Range; and (c) the north-eastern part of South Australia proper, together with the extreme south-eastern corner of the Northern Territory. This basin (shown approximately by the map on pages 845-6) is said to be the largest yet discovered, and measures about 600,000 square miles, of which 376,000 square miles are in Queensland, 118,000 square miles in South Australia, 80,000 square miles in New South Wales, and 25,000 square miles in the Northern Territory. The area of the intake beds is estimated at 60,010 square miles, viz., 50,000 square miles in Queensland and 10,010 square miles in New South Wales. A description of the basin and its geological formation will be found in previous issues of the Official Year Book (see No. 6, p. 569).

3. **The Western Australian Basins.**—The Western Australian Basins fall naturally within five distinct groups, viz., 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, 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 variations in the thickness of the beds, their relative porosity, and the unevenness of the floor upon which they rest, which, so far, have not been examined with sufficient thoroughness to enable many particulars to be given in regard to this basin.

In the Coastal Plain Basin to the west of the Darling Ranges, artesian boring has, on the other hand, been carried on successfully for many years.

4. **The Murray River Basin.**—The Murray River Basin extends over south-western New South Wales, north-western Victoria, and south-eastern South Australia. It is bounded on the west by the 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. It is of interest to note that the waters of the Murray River are partly supplied by influx from the water-bearing beds of this basin; this is proved by the fact that, at low water, springs are observed at certain places flowing into the river bed from beneath the limestone cliffs from Pyap Bend downwards. Similar springs exist along the courses of other branches of the River Murray system, where they cut through the tertiary formation. On the Victorian side, bores have been put down, and water has been struck at various levels.

5. *Plutonic or Meteoric Waters.*—In previous Year Books will be found a statement of the theory of Professor Gregory\* as to the origin of the water in the Australian artesian basins, together with the objections held thereto by a former Government Geologist of New South Wales.† (See Official Year Book No. 6, p. 570).

6. *Artesian and Sub-Artesian Bores.*—(i) *General.* The following table gives particulars regarding artesian and sub-artesian bores in each State and in the Northern Territory:—

ARTESIAN AND SUB-ARTESIAN BORES, 1933-34.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (c)	W. Aust.	N. Ter.	Total.
Bores existing .. No.	575	380	4,808	207	255	191	6,416
Total depth of existing bores .. feet	940,484	104,000	4,203,744	122,657	232,348	62,375	5,665,608.
Daily flow .. 1,000 gals.	75,795	715	267,782	12,971	75,351	7,723	440,338
Depth at which artesian water was struck—							
Maximum .. feet	4,338	2,750	6,000	4,851	4,006	1,760	6,000.
Minimum .. feet	100	22	10	233	30	42	10.
Temperature of flow—							
Maximum .. °Fahr.	142	147	212	208	(b)	(b)	212
Minimum .. °Fahr.	74	70	78	82	(b)	(b)	70

(a) Flowing bores only. (b) Not available. (c) Government bores only. (d) Total depth of all bores. (e) Incomplete.

(ii) *Details for States.*—Considerations of space preclude the insertion of separate particulars of operations in the States during the year 1933-34. Details for earlier years will, however, be found in issues of the Official Year Book prior to No. 24, 1931.

## § 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 payment. It is in connexion with this Closer Settlement policy that the special value of irrigation is recognized. Information regarding the various irrigation schemes in operation was given in some detail in preceding issues of the Official Year Book (see No. 23, pages 637 to 661).

\* See J. W. Gregory, F.R.S., D.Sc.: "The Dead Heart of Australia," London, John Murray, 1906; and "The Flowing Wells of Central Australia," Geogr. Journ., 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 area irrigated in each State in the years 1924-25 to 1933-34. Victoria shows the largest irrigated acreage, the area so returned in 1933-34 amounting to 435,324 acres, or 66.3 per cent. of the total for Australia. New South Wales for the same year returned an area of 131,772 acres, or 20 per cent. of the total. The areas under irrigation in the remaining States are relatively very small :—

## IRRIGATION.—AREAS IRRIGATED.

Season.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1924-25 ..	73,432	375,503	18,235	35,313	3,126	7,267	512,876
1925-26 ..	83,795	343,685	21,669	36,409	3,551	7,361	496,470
1926-27 ..	89,528	406,532	38,044	35,443	3,756	7,882	581,185
1927-28 ..	102,533	477,500	21,411	38,379	4,292	7,016	651,131
1928-29 ..	123,129	471,695	25,344	39,236	4,907	7,054	(a)671,475
1929-30 ..	126,321	566,577	26,282	40,002	4,943	6,693	770,818
1930-31 ..	135,121	463,098	26,947	43,538	5,661	6,488	680,853
1931-32 ..	114,777	418,415	28,414	42,813	6,104	7,768	618,291
1932-33 ..	130,977	474,716	31,109	42,556	6,434	7,605	693,697
1933-34 ..	131,772	435,324	29,363	42,898	7,640	9,194	656,191

(a) Including 100 acres Northern Territory and 10 acres Federal Capital Territory.

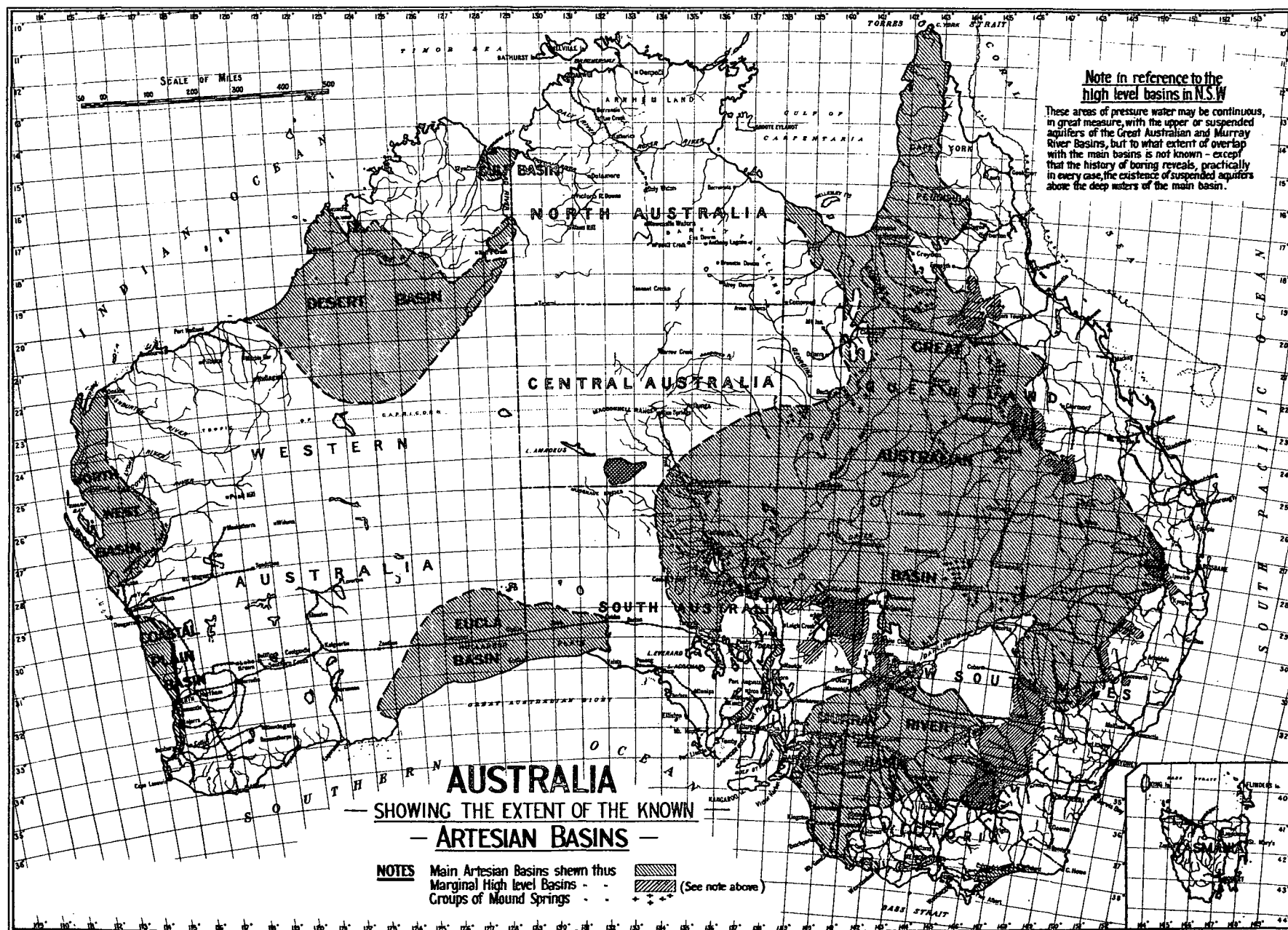
3. Crops on Irrigated Areas.—A classification of the crops grown on the irrigated areas in each State during the year 1933-34, together with the averages for Australia during the quinquennium 1927-28 to 1931-32, will be found in the table hereunder. Lucerne, grasses and green forage accounted for 57 per cent., cereals for 17 per cent., orchards and vineyards for 19 per cent., and root crops, market gardens, &c., for about 7 per cent. of the total area under irrigation in 1933-34 :—

## IRRIGATION.—CROPS ON IRRIGATED AREAS, 1933-34, AND 1927-28 TO 1931-32.

Crop.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.	Average 1927-28 to 1931-32.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Cereals ..	71,845	(a)38,639	..	..	..	..	110,484	142,205
Lucerne, Grasses and Green Forage ..	26,855	323,434	1,079	11,962	3,810	6,579	373,719	364,686
Orchards and Vineyards ..	25,680	64,669	2,683	27,268	2,551	1,409	124,260	126,882
Root Crops, Market Gardens and other Crops	7,392	8,582	(b)25,601	3,668	1,279	(c) 1,206	47,728	44,740
Total ..	131,772	435,324	29,363	42,898	7,640	9,194	656,191	678,513

(a) Including Fallow, 5,096 acres. (b) Including Sugar Cane, 21,998 acres; Cotton, 483 acres; and Tobacco, 1,023 acres. (c) Including Hops, 840 acres.





This map was published in the Report of the Fifth Interstate Conference on Artesian Water, Sydney, 1928, and is reproduced with the permission of the Water Conservation and Irrigation Commission of New South Wales.

## CHAPTER XXVII.

## THE TERRITORIES OF THE COMMONWEALTH.

## GENERAL.

The Territories under the control of the Commonwealth are :—The Northern Territory; the Federal Capital Territory; Papua (formerly British New Guinea); Norfolk Island; the Territory of New Guinea (by Mandate of the League of Nations); Nauru (under joint Mandate of the Commonwealth, Great Britain and New Zealand); the Territory of Ashmore and Cartier Islands; and the Australian Antarctic Territory.

The results of the census of the Territories at the 30th June, 1933, may be found in the separate bulletins (see list at back of this volume).

## THE NORTHERN TERRITORY.

## § 1. Area and Population.

1. *Introductory.*—Upon the extension of New South Wales westward to the 129th meridian in 1827, the Northern Territory was incorporated in that colony, but in 1863 was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands it was transferred to the Commonwealth on 1st January, 1911. The total area is 523,620 square miles, or 335,116,800 acres.

2. *Population.*—(i) *Europeans.* At the census taken in 1881 there were only 670 Europeans in the Territory. The number increased slowly, reaching its maximum in 1918 with 3,767 persons. At the census of 1933 the white population had decreased to 3,306. This number, however, was 34.5 per cent. greater than the figure at the census of 1921.

(ii) *Non-Europeans.* The number of full-blood non-Europeans, excluding Australian aboriginals, in the Northern Territory on the 30th June, 1933, was 744, of whom 462 were Chinese, the remainder being, mainly, Filipinos (69), Japanese (91), and Malays (59). There were at one time over 4,000 Chinese in the Territory.

The half-caste population recorded at the census of 1933 numbered 800 of whom 743 were half-caste Australian aboriginals.

(iii) *Total Population.* The highest recorded population of all races, except aboriginals, was 7,533 in 1888. The estimated population at 31st December for the last five years is given in the following table :—

## NORTHERN TERRITORY.—POPULATION (EXCLUSIVE OF ABORIGINALS).

Year.		Males.	Females.	Total.
1930	.. ..	3,599	1,365	4,964
1931	.. ..	3,462	1,384	4,846
1932	.. ..	3,353	1,433	4,786
1933	.. ..	3,370	1,448	4,818
1934	.. ..	3,440	1,504	4,944

The Census population (30th June, 1933) was 3,378 males, 1,472 females, total 4,850.

(iv) *Movement of Population.* The following is a summary of movement of population in 1934 (excluding overland migration):—

NORTHERN TERRITORY.—MOVEMENT OF POPULATION, 1934.

Immigration .. ..	680	Emigration .. ..	582	Excess of immigration over emigration ..	98
Births .. ..	88	Deaths .. ..	60	Excess of births over deaths ..	28
Increase .. ..	768	Decrease .. ..	642	Net Increase ..	126

The immigration and emigration figures for the Territory during the five years ending 1934 are shown in the following table:—

NORTHERN TERRITORY.—IMMIGRATION AND EMIGRATION.

Year.	Immigration.	Emigration.
1930 .. ..	807	617
1931 .. ..	573	693
1932 .. ..	479	545
1933 .. ..	516	497
1934 .. ..	680	582

(v) *The Aborigines.* A special article contributed by Dr. W. Ramsay-Smith on the subject of the Australian aborigines was incorporated in Year Book No. 3 (pp. 158-176). The Chapter "Population," in Year Book No. 17, contained information regarding the number and distribution of aborigines and the measures taken by the States (in the case of the Northern Territory, by the Commonwealth) to protect them and to conserve their interests. Large numbers of the aborigines in the Territory are still outside the influence of Europeans. The total number of full-blood and half-caste aborigines at 30th June, 1934, was estimated at 18,008, of whom 2,711 were in regular employment. There are fifteen aboriginal reserves, comprising an area of 67,124 square miles. (See also Chapter on Population hereinbefore.)

## § 2. Legislation and Administration.

On 1st January, 1911, the Territory was transferred by South Australia to the Commonwealth. The terms were outlined in Year Book No. 15, p. 940. By the *Northern Australia Act* 1926, the Territory was divided into two parts, Central Australia and North Australia, separated by the 20th parallel of south latitude, each administered by a Government Resident. In addition, Advisory Councils and a Development Commission were provided for. The Act of 1926 was superseded by the *Northern Territory (Administration) Act* 1910-1933. By this Act the provision made for Advisory Councils was cancelled, and the Development Commission abolished. The administration of the Territory was placed in the hands of an Administrator, residing in Darwin, assisted by a Deputy Administrator, residing in Stuart (Alice Springs). The Territory elects a member to the House of Representatives, who may take part in the debates, but may not vote.

## § 3. Physiography.

1. *Tropical Nature of the Country.*—The Territory is within the torrid zone, with the exception of a strip 2½ degrees wide which lies south of the Tropic of Capricorn.

2. **Contour and Physical Characteristics.**—The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and ironstone form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries.

The principal features of the coast line are enumerated in Year Book No. 1, p. 66; the rivers in Year Book No. 2, p. 76; the mountains in Year Book No. 3, p. 67; the lakes in Year Book No. 4, pp. 77, 78; the islands in Year Book No. 5, pp. 71, 72; and the mineral springs in Year Book No. 6, p. 65.

Inland, the country generally is destitute of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the 17th or 18th parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply of the interior systems. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

#### § 4. Climate, Fauna and Flora.

1. **The Seasons.**—There are two main climatic divisions—the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Fuller particulars will be found in Year Book No. 6, p. 1116.

2. **Fauna.**—The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of freshwater fish and littoral mollusca. Butterflies and beetles are strongly represented. The white ant is a pest, anthills in the Territory sometimes attaining great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Native fauna are in some cases protected. Buffalo formerly existed in large herds, but, as pointed out later, their number has been greatly reduced by indiscriminate shooting.

3. **Flora.**—The vegetation is North Australian in type, but a number of the forms belongs to the Malayan and Oceanic regions. The timber trees are not of great commercial value, but in the coastal regions tropical vegetation grows luxuriantly to the water's edge. On the wide expanses of plain country in the interior there is little vegetation, the principal orders represented being:—*Euphorbiaceæ*, *Compositæ*, *Convolvulacæ*, *Rubiaceæ*, *Goodenoviaceæ*, *Leguminosæ*, *Urticæ*.

Fuller particulars regarding fauna and flora are given in Year Book No. 6, pp. 1116–7.

#### § 5. Production.

1. **Holdings.**—There were on the 30th June, 1934, 841 holdings in the Northern Territory, covering an area of 221,155 square miles. Of these, 447 were held on pastoral lease or permit, 98 on agricultural lease, the remainder being held on leases for various other purposes.

2. **Agriculture.**—Up to the present agriculture has made little progress in the Territory, although it has been proved that rice, tobacco, coconuts, mangoes, bananas, cotton, various fodder plants, and peanuts can be successfully grown. Expense of harvesting is, at present, an obstacle to the economic production of rice, and until labour-saving machinery is procured it cannot be produced with profit. There is a large stretch of first-class coconut land on the coast, but hitherto planting has not been attempted on a commercial scale. For the encouragement of primary production a Primary Producers' Board was established in 1931. Peanuts have become the principal crop. The yield for the season 1932–33 was 9,908 bags, or 250 tons, which realized from 4½d. to 6½d. per lb. in southern markets. The total value of the crop was more than £10,000, and the area planted was approximately 1,200 acres. For the 1933–34 season the yield was estimated at 400 tons from 1,162 acres.

3. *Pastoral Industry.*—The pastoral possibilities of certain parts of the Northern Territory were recognized at an early date, and in 1866 stock was brought into the Macdonnell Range country from South Australia. Six years later cattle were moved from Queensland to the northern parts of the Territory, and in 1879 Mr. Giles reached the Katherine River with 2,000 head of cattle and 12,000 sheep from South Australia. For various reasons sheep-raising did not succeed. The cattle industry progressed and became the mainstay of the Territory, a great impetus being given to it in 1917 by the opening of extensive meat works at Darwin. Unfortunately the works closed down in 1920, and are still idle. The number of cattle exported by land from the Northern Territory during the year 1933-34 was about 75,000, and the number imported about 4,100. The cattle industry has been retarded by the ravages of ticks and by the difficulty of travelling stock through waterless country. These difficulties are, however, gradually being overcome, the former by "dipping," and the latter by adding to the number of wells on the various stock-routes and the creation of stock reserves. Buffaloes thrive in the coastal districts, but their number has been greatly reduced by indiscriminate shooting to obtain the hides.

The estimated number of live stock in the Territory in the last five years is given in the table hereunder:—

**NORTHERN TERRITORY.—LIVE STOCK.**

Year.	Horses.	Cattle.	Sheep.	Pigs.	Goats.	Camels.	Donkeys.	Mules.
1929 ..	33,703	711,607	12,203	359	9,247	707	779	492
1930 ..	33,363	720,476	15,838	327	16,757	562	831	523
1931 ..	33,442	749,745	18,867	665	19,011	501	909	668
1932 ..	33,072	780,121	18,250	449	20,622	438	776	479
1933 ..	33,590	859,867	18,076	397	17,356	344	992	438

4. *Mining.*—(i) *General.* Alluvial gold-digging in the Northern Territory commenced in 1869, and up to the end of 1880 gold to the value of £79,022 had been produced. In 1881 the gold production reached its maximum, the value for that year being £111,945. During the following years it fluctuated considerably, but as long as the alluvial deposits lasted the output was satisfactory. In the transition period from alluvial to reef mining the industry declined considerably. The production of metals other than gold has suffered on account of the vagaries of prices, and the high cost of transport and of white labour. Owing to the exceptionally high price of gold the search for the precious metal has been stimulated in recent years. One or two new finds have been discovered, and the production has increased during each of the last four years. Rising prices were also responsible for the material improvement in the output of tin during 1933-34.

(ii) *Mineral Production.* The following table shows the value of the total mineral production for the last five years:—

**NORTHERN TERRITORY.—MINERAL PRODUCTION.**

Year.	Gold.	Tin Ore.	Silver-lead Ore.	Copper Ore.	Mica.	Wolfram.	Tantalite.	Total Value all Minerals.
	£	£	£	£	£	£	£	£
1929-30 ..	57	3,345	1,684	589	6,099	3,867	1,013	16,656
1930-31 ..	2,535	2,331	160	25	5,531	384	450	11,416
1931-32 ..	4,196	2,322	..	137	5,547	1,369	240	13,811
1932-33 ..	4,449	2,519	410	..	10,772	..	..	18,150
1933-34 ..	8,124	9,566	11	..	7,926	3,114	65	28,806

(a) Including Bismuth, £2.

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 on page 664, Chapter XIX.—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. During the first half of the financial year 1930-31, 32 boats were operating, employing 248 indentured workmen. By Ordinance, gazetted in March, 1931, a limit was set to the output of shell, and the pearling fleet was, consequently, reduced to eighteen boats with 164 employees, but the Federal Government removed the restriction on the quantity to be taken during the 1933-34 season. With unrestricted operations the production of shell for the year 1933-34 was 269 tons valued at approximately £40,800 as compared with 270 tons valued at £48,000 in the preceding year, but should the demand for pearlshell increase, the master pearl-ers are in a position to commission a further fifteen vessels. The territorial waters teem with fish; it was hoped to establish a salt and dried fish trade but this has not materialized. In the procuring of bêche-de-mer four boats were engaged. The production of raw salt from the tidal salt pans at Fannie Bay during 1933-34 was 250 tons, valued at £7 per ton. The salt is comparatively free of foreign matter, an analysis revealing an actual sodium chloride content of 98.05 per cent.

## § 6. Land Tenure.

A description of the system of land tenure in force in the Territory will be found in Chapter V.—Land Tenure and Settlement, Official Year Book No. 22.

## § 7. Commerce, Shipping and Air Services.

1. Trade.—No record is kept of the trade between the Commonwealth States and Territories. The value of the direct oversea trade for 1901 and for each of the years 1929-30 to 1933-34 is given hereunder:—

### NORTHERN TERRITORY.—VALUE OF DIRECT OVERSEA TRADE.

Items.	1901.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£	£
Imports (a) ..	37,539	37,902	19,251	9,884	4,225	28,320
Exports (b) ..	29,191	58,471	14,956	20,624	10,427	6,303
Total .. ..	66,730	96,373	34,207	30,508	14,652	34,623

(a) British currency values.

(b) Australian currency values.

The sharp decline in the export figures of 1930-31 was due mainly to the cessation of the trade in live cattle with the Philippines, which amounted in 1929-30 to £22,209, and a fall in the value of pearl-shell exported to £10,685 as compared with £27,837 in the previous year. Residual oil to the value of £19,284 was imported during 1933-34 and this item was mainly responsible for the increase in imports in that year.

2. **Shipping.**—The Territory is dependent for its shipping facilities chiefly on the services of vessels trading between Melbourne and Singapore. Other vessels make occasional visits, while a sixty-days' service between Fremantle and Darwin is carried out by the "Koolinda," belonging to the West Australian State Shipping Service.

#### NORTHERN TERRITORY.—SHIPPING.

Period.	Arrivals.		Departures.	
	No. of Vessels.	Tonnage.	No. of Vessels.	Tonnage.
1929-30 .. .. .	52	126,004	47	125,925
1930-31 .. .. .	39	111,144	39	111,453
1931-32 .. .. .	39	95,560	39	96,632
1932-33 .. .. .	38	95,834	38	97,011
1933-34 .. .. .	39	98,986	37	94,624

The foregoing figures are exclusive of particulars of coastwise shipping. During 1933-34 eight vessels of 168 tons net were entered at Darwin as coastwise.

3. **Air Services.**—Darwin is the first port of arrival in Australia of aircraft from Europe, Singapore, and from Netherlands East Indies. Qantas Empire Airways Ltd. maintains a regular weekly service in each direction over the Brisbane-Darwin-Singapore route.

### § 8. Internal Communication.

1. **Railways.**—Under the agreement made between the Commonwealth and the State of South Australia for the surrender and acceptance of the Northern Territory, which was ratified by the Northern Territory Acceptance Act 1910, the Commonwealth is to construct the Northern Territory portion of the transcontinental railway line (connecting Adelaide and Darwin, via Port Augusta).

The Northern line from Adelaide terminated at Oodnadatta, about 100 miles south of the southern boundary of the Territory, but has been extended to Alice Springs, an addition of 292 miles. The line from Darwin to Katherine River, about 200 miles, has been extended as far as Birdum, 316 miles from Darwin. The completion of the remainder of the gap would give access to broad belts of pastoral and mineral country towards the centre of Australia. The Commonwealth Government acquired on 1st January, 1911, the property in the line from Port Augusta to Oodnadatta (478 miles), and on 1st January, 1926, the control thereof was transferred to the Commonwealth Railways Commissioner. (See under Federal Railways.)

2. **Posts.**—Postal communication is maintained by vessels belonging to Burns, Philp and Co., which carry on a monthly service between the Territory and the Eastern States. In addition, the vessels belonging to the State Steamship Service of Western Australia give a service once every 60 days between Fremantle and Darwin. Mail is also carried between Brisbane and Darwin by the Qantas Empire Airways Ltd. Inland, the northern part of the Territory receives its mail via Darwin, while the southern districts are served via Adelaide.

3. **Telegraphs.**—The transcontinental telegraph line, covering a length of 2,230 miles, was completed on the 22nd August, 1872, at a cost of nearly £500,000. The line runs in a northerly direction from Adelaide to Darwin, whence telegraphic communication is provided with Asia and Europe, via Banjoewangie (Java), Singapore, and Madras. Between Darwin and Banjoewangie the submarine cable is duplicated.

High-power wireless stations have been constructed by the Federal Government at Wave Hill in the Territory, and at Camooweal, just over the eastern boundary, in Queensland.

## § 9. Finance.

1. Revenue and Expenditure, 1933-34.—In the Commonwealth finance statements separate accounts are given for Northern Territory administration. Revenue and expenditure for 1933-34 are given below:—

## REVENUE AND EXPENDITURE.—NORTHERN TERRITORY, 1933-34.

REVENUE.	£	EXPENDITURE.	£
Customs and Excise .. .. .	5,512	Northern Territory Administration .. .. .	102,824
Postal, Telegraph, and Telephone .. .. .	11,396	Other Departments .. .. .	4,980
Railways—		New Works .. .. .	13,020
North Australia .. .. .	27,714	Repairs, Maintenance, &c. .. .. .	15,491
Central Australia .. .. .	94,444	Unemployment Relief .. .. .	7,968
Territorial .. .. .	24,890	Railways—	
Land and Income Tax .. .. .	4,436	Working Expenses .. .. .	151,664
Sales Tax .. .. .	790	New Works .. .. .	3,977
Miscellaneous .. .. .	22,479	Interest .. .. .	344,319
Deficiency on year's transactions .. .. .	547,917	Sinking Fund .. .. .	47,889
		Post, Telegraph and Telephone Interest .. .. .	17,187
		Sinking Fund .. .. .	26,738
			3,521
<b>Total .. .. .</b>	<b>739,578</b>	<b>Total .. .. .</b>	<b>739,578</b>

2. Debt.—On the first January, 1911, the Commonwealth Government took over from the South Australian Government the outstanding debt in respect of the Northern Territory (£3,931,086) and the Port Augusta-Oodnadatta Railway (£2,284,486). The following table shows the debts and interest payable at the 1st January, 1911, and at the 30th June, 1934.

## NORTHERN TERRITORY DEBT.

Location.	1st January, 1911.		30th June, 1934.	
	Principal.	Interest Payable.	Principal.	Interest Payable.

## NORTHERN TERRITORY DEBT.

	£	£	£	£
London .. .. .	1,588,400	63,401	329,100	12,418
Australia .. .. .	2,342,686	88,019	32,924	982
<b>Total .. .. .</b>	<b>3,931,086</b>	<b>151,420</b>	<b>362,024</b>	<b>13,400</b>

## PORT AUGUSTA-OODNADATTA RAILWAY DEBT.

	£	£	£	£
London .. .. .	2,227,101	84,933	859,934	32,450
Australia .. .. .	(a) 57,385	419	22,625	678
<b>Total .. .. .</b>	<b>2,284,486</b>	<b>85,352</b>	<b>881,659</b>	<b>33,128</b>

(a) Includes £34,475 Revenue capitalized.



### THE FEDERAL CAPITAL TERRITORY.

1. **Introductory.**—In Year Books Nos. 4 and 5, information was given in Section XXXI., in regard to the events leading to the selection of the Federal Capital Territory and the necessary legislation and the progress of operations in connexion with the establishment of the capital city. The physiography of the Territory was dealt with extensively and topographical and contour maps accompanied the letterpress, as well as reproductions of the premiated designs for the laying out of the city. Considerations of space, however, preclude the repetition of this information. On the 12th March, 1913, the official ceremony to mark the initiation of operations in connexion with the establishment of the Seat of Government was carried out. At this ceremony the selection of "Canberra" as the name of the capital city was announced. (A special article contributed by Dr. F. Watson, entitled "Canberra Past and Present", appeared on page 454 of Year Book No. 24.)

2. **Transfer of Parliament.**—On 9th May, 1927, Parliament House at Canberra was officially opened by His Royal Highness Albert, Duke of York, the occasion being the 26th anniversary of the opening of the first Parliament of the Commonwealth at Melbourne by His Royal Highness George, Duke of Cornwall and York—now His Majesty the King—on the 9th May, 1901. (For particulars of the opening ceremony see Year Book No. 21, page 604.)

3. **Administration.**—In Year Book No. 18, a summary was given of the development of the administration prior to the taking over of the control of the Territory by the Federal Capital Commission, and in Year Book No. 22, a summary was given of the administrative activities of the Federal Capital Commission.

The administration of the Territory by the Federal Capital Commission was continued until the 30th April, 1930, when the Seat of Government (Administration) Act 1924–1929 was repealed, and the powers and functions of the Commission reverted to the Government. The new Administration provided for the general control of the Territory by the Minister for Home Affairs, with the assistance of the Department of Public Health in health matters, the Department of Works in the operation of the engineering services and in the construction of works, and the Attorney-General's Department in the administration of the Courts, Police and Probate, and the Registration of Titles.

An Advisory Council to advise the Minister on matters of local concern was established on the 1st May, 1930, by Ordinance under the Act, and a Civic Administrator was appointed under the Ordinance as Chairman of the Advisory Council and to carry on the general administration of the Territory under the Minister and subject to the specific services being undertaken by the other Commonwealth Departments mentioned.

The Advisory Council consisted of the Secretary, Department of Home Affairs; the Director-General of Health; the Secretary, Department of Works; the Civic Administrator; and three residents elected for two years under a system of adult franchise.

On the 12th April, 1932, the Departments of Home Affairs and Works were abolished and the Department of the Interior was established in lieu thereof. The office of Civic Administrator was abolished, and the constitution of the Advisory Council was altered to provide that the nominated members of the Council should consist of the Director-General of Health, and three officers of the Department of the Interior, namely, the Assistant Secretary (Works and Services); the Assistant Secretary (Property and Survey); and the Assistant Secretary (Civic Representative).

Under the new administration, the general control of the Territory is exercised by the Minister for the Interior, but the specific services undertaken by the Department of Health and the Attorney-General's Department are being continued by those Departments.

4. **Progress of Work.**—The general progress of the work of construction up to the time the Territory was taken over by the Commission was outlined in Year Book No. 18. Later progress made under the Commission was described in Year Book No. 22.

Structures completed after the commencement of the Departmental form of administration comprised the Australian Institute of Anatomy with laboratories and

accommodation for a museum of Australian fauna; laboratories of the divisions of Economic Entomology and Plant Industry of the Institute of Scientific and Industrial Research; and a public swimming pool equipped with a modern filtration chlorination plant.

During the year 1934-35 considerable progress was made with the first section of the Australian War Memorial and the first section of the National Library building was completed. Fifty-four cottages were erected.

The following works were commenced or completed:—Deviation of Royalla-road; construction of new road to Kingston round site of the Church of England; reconstruction of Canberra to Yass road to Federal Capital Territory boundary; bituminous surfacing of road from the Prime Minister's Lodge to Government House; tourist road to top of Mount Russell; construction of new road Lee Springs to Mount Franklyn; asphaltting of footpaths; seal coating of residential streets; concrete and timber culverts and improvements to country roads; bridge over River Murrumbidgee on road to Uriarra; cement lining of city water mains; Black Mountain reservoir; duplication of water main Red Hill reservoir to town of Queanbeyan; construction of five additional sludge beds at sewerage treatment works, Western Creek; stormwater drainage, Reid; extensions to electric mains to new buildings and sub-divisions.

The preparation and planting of London Circuit were proceeded with and general planting of avenues, parks, gardens and shelter belts was continued throughout the year.

5. **Forestry.**—A considerable amount of reforestation work has been undertaken, and plantations have been established at Uriarra, Mount Stromlo, Pierce's Creek and Kowen. Experimental plots have also been established at Coree and Pierce's Creek, and silvicultural work is being carried out at Black Mountain.

The total area of plantations to 30th June, 1935, was 9,525 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.

The Forestry Section of the Federal Capital Commission was established in 1926 and a comprehensive review was undertaken of the Territory's potentialities in regard to forest development. A system of forestry management was instituted in the existing forest areas, and a considerable amount of survey and assessment work has been completed.

In the initial stages *pinus insignis* was most extensively planted, but, as a result of experimental work, plots of better quality pines on a longer rotation, such as *pinus ponderosa*, *Jeffreyi* and *laricio* were planted during recent years.

6. **Lands.**—(i) *In the Federal Capital Territory.* Reference has been made in previous issues of the Official Year Book to the general conditions of land tenure in the Territory for the Seat of Government 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 315,141 acres comprising 407 leases are at present held under lease for periods varying from quarterly tenure to 25 years.

Auction sales of city leaseholds are described in Year Book No. 22, p. 599.

Seven leases for church purposes have been granted under the *Church Lands Leases Ordinance* 1924-1932, which requires the lessees to submit a definite building programme within a specified period, and a further nine leases have been granted for church and scholastic purposes under the *Leases (Special Purposes) Ordinance* 1925-1932.

The total number of leases granted under the *City Area Leases Ordinance*, not including surrendered leases, at the end of the financial year 1934-35 was 303, representing a capital value of £168,860. During the year seventeen 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 239.

Under the terms of the *City Area Leases Ordinance 1924-1935* each block is leased for a period of 99 years at a rental of £5 per centum per annum of the unimproved capital value as assessed by the Commonwealth or bid at auction. In conformity with the general reduction of interest in consequence of the financial crisis rentals under this Ordinance have been reduced to 4 per centum of the unimproved capital value until 30th June, 1936.

(ii) *Land at Jervis Bay.* The Commonwealth has acquired from the State of New South Wales sovereign rights over the area comprising about 28 square miles of land and water at Jervis Bay for possible use as a port in connexion with the Federal 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. Nearly all of the remaining lands have been leased.

A scheme for the use by tourists of the residences and other buildings at Jervis Bay has been put into operation, and it has proved a considerable attraction, affording a seaside resort for residents of the Territory as well as for visitors from other places.

7. *Railways.*—Canberra is connected with the railway system of New South Wales by a line  $4\frac{1}{2}$  miles long to Queanbeyan. This line was opened for goods traffic on the 25th May, 1914, and for passenger traffic on the 15th October, 1923. The railway terminus is situated in the area known as Kingston.

A direct passenger service is in operation connecting Canberra with Sydney and Melbourne, and trains leave both cities for Canberra daily except Saturdays. Improved facilities for goods traffic have also been provided.

A trial survey of a line between Canberra and Jervis Bay has been made, and plans prepared to enable an estimate of the cost of the line to be obtained, but no action in regard to this project is contemplated at present.

Under the provisions of the *Seat of Government Surrender Act 1909* of New South Wales and the *Seat of Government (Acceptance) Act 1909* of the Commonwealth an agreement exists between the Commonwealth and the State of New South Wales in relation to the construction of a railway from Canberra to Yass—a distance of, approximately, 43 miles, of which about 32 miles extend through New South Wales. The State is required to construct its portion of the line as soon as the Commonwealth builds a line to the boundary of the Territory.

8. *Population.*—The census return of population on the 30th June, 1933, was 8,766 in the Federal Capital Territory and 181 in Jervis Bay Territory, or a total of 8,947 persons. The estimated population at 31st December, 1934, was 9,192.

9. *Live Stock.*—The live stock, according to the latest return, comprised:—Horses, 950, Cattle, 6,790, and sheep, 231,742.

10. *Educational Facilities.*—Arrangements have been made with the New South Wales Education Department to continue for the time being the administration of education in the Territory, the expenditure involved being refunded annually to the State. There are twelve schools in the Territory, including one at Jervis Bay. The largest of these is Telopea Park Intermediate High School, which is situated on the south side of the city area. It has accommodation for 1,000 scholars, and its curriculum provides a standard of education comparable in range of subjects with that provided at the best of the Government High Schools in New South Wales, thus permitting scholars to qualify for entrance to the Universities.

The School also provides for Junior Technical, Commercial, and Trades School Branches, as well as Evening Commercial and Matriculation Classes.

The Trades School, which is excellently equipped, supplies the necessary training for apprentices and journeymen who are desirous of improving their respective trade qualifications. Provision at the School has also been made for Domestic Science and Dressmaking Sections.

An Infants' School with accommodation for 450 children has been erected on the north side of the city, where for the present scholars of the primary standard on the north side of the river are being catered for. Apart from two other smaller schools in the temporary section of the city settlement, the balance are small rural schools serving the needs of leaseholders settled in the Territory.

Reference to the establishment of a University College at Canberra will be found in Chapter VIII., Education, herein.

There are at present three private schools in the Territory. The Canberra Grammar School for Boys, Canberra Church of England Grammar School for Girls, and St. Christopher's Convent—all of which provide for primary and secondary education.

11. Finance.—(i) *Financial Year 1934-35.* Receipts and Expenditure for the financial year 1934-35 are given in the table hereunder.

FEDERAL CAPITAL TERRITORY.—RECEIPTS AND EXPENDITURE, 1934-35.

Receipts.		Expenditure.				
Items.	Amount.	Items.	Capital.	Maintenance.	Other.	Total.
	£		£	£	£	£
Rent and Rates ..	121,331	Architectural Services ..	101,589	26,598	..	128,187
Electricity ..	34,039	Engineering Services ..	76,118	69,544	..	145,662
Motor Registration and Fees ..	8,943	Forestry ..	15,496	..	..	15,496
Hospital Tax ..	4,150	Loans for Housing ..	18,727	..	..	18,727
Hotels ..	92,673	Sundry Works and Services	7,071	31,419	..	38,490
Transport and City Bus Service ..	45,703	Buildings and Engineering Services for Health Department ..	..	..	..	..
Sales of Goods, Manufactured Products, etc. ..	157,739	Unemployment Relief Works ..	252	..	..	252
Miscellaneous ..	31,997	Education ..	14,062	..	..	14,062
		Hospital—Working Expenses ..	..	..	19,755	19,755
		Interest and Sinking Fund ..	..	..	8,835	8,835
		Administrative ..	..	..	294,294	294,294
		Hotels—Working Expenses ..	..	..	45,000	45,000
		Transport and City Bus Service—Expenses ..	..	..	90,911	90,911
		Factory Stores, etc.—Working Expenses ..	..	..	44,798	44,798
		Miscellaneous—Police, Fire Brigade, etc. ..	..	..	146,512	146,512
			..	..	42,253	42,253
<b>Total Receipts ..</b>	<b>496,575</b>	<b>Total Expenditure ..</b>	<b>233,315</b>	<b>127,561</b>	<b>693,258</b>	<b>1,054,134</b>

(ii) *From Date of Selection of Site to 30th June, 1935.*—The total receipts and expenditure from the date of selection of site to the 30th June, 1935, were as follow:—

FEDERAL CAPITAL TERRITORY.—RECEIPTS AND EXPENDITURE TO 30th JUNE, 1935.

Receipts.		Expenditure.	
Items.	Amount.	Items.	Amount.
	£		£
Commonwealth Treasury—Initial Liability at 30th June, 1924 ..	2,966,600	Lands ..	901,133
Loans and Advances, Federal Capital Commission, 1st January, 1925 to 30th April, 1930 ..	6,220,299	Engineering Works ..	3,943,782
Net Expenditure, 1st May, 1930 to 30th June, 1935	917,165	Architectural Works ..	3,803,835
		Other Capital Expenditure ..	301,608
			£
		Maintenance and Administration ..	5,797,018
		Less—	
		Rents ..	1,460,642
		Hotel and Liquor Receipts ..	960,682
		Revenue from Local Government Services, Electricity, Motor Registration, etc. ..	766,381
		Sale of Goods, Transport and Sundry Services ..	1,468,195
			4,655,900
		Other ..	1,141,118*
<b>Total Receipts ..</b>	<b>10,104,064</b>	<b>Net Expenditure ..</b>	<b>10,104,064</b>

\* Does not include accumulated interest.

## NORFOLK ISLAND.

1. **Area, Location, etc.**—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 3' 45" south, longitude 167° 58' 6" east. Its total area is 8,528 acres, the island being about 5 miles long and 3 miles wide. From Sydney it is distant 930 miles, and from Auckland, 630 miles. The coast line is 20 miles, and its form that of an irregular ellipse. Except on the south-west, inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 56° and 82°, with a mean of 68°. The average annual rainfall is 55 inches. It has been said that the salubrious climate, coupled with the beauty of its land and sea scapes, should combine to render Norfolk Island "the Madeira of the Pacific." The island is visited annually by a number of tourists, and with improved shipping facilities this traffic is likely to increase. A tourist bureau has been established on the island.

2. **Settlement.**—The first colonization, in 1788, was by Lieutenant King, who in H.M.S. *Supply* established a small penal station as a branch settlement of that at Port Jackson. The settlement was abandoned in 1813, and for 13 years thereafter its chief use was as a whaling station and place of call for British warships.

From 1826 to 1855 it was again made a penal station. In 1844 it was annexed to Van Diemen's Land (Tasmania).

The descendants of the *Bounty* mutineers, having become too numerous to subsist on Pitcairn Island, were removed thence to Norfolk Island in 1856. The new community numbered 94 males and 100 females—and were the descendants of British sailors and Tahitian women. Two of these were still alive at the 78th anniversary of the transfer celebrated in June, 1934.

3. **Administration.**—In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later in 1896 it was made a dependency under the Governor of that Colony, and finally by the passage of the *Norfolk Island Act* 1913 it was accepted by the Federal Parliament as a territory of the Commonwealth. From July, 1914, until 1st January, 1929, Norfolk Island was administered by the Department of Home and Territories, through an Administrator and Chief Magistrate, but it is now administered by the Territories Branch of the Prime Minister's Department. An amending measure, the *Norfolk Island Act* 1935, provides for the establishment of an Advisory Council of eight elected members to advise the Administrator on any matter affecting the island.

4. **Population.**—The population at the 30th June, 1934, was 1,198, consisting of 647 males and 551 females. In the year 1933-34, 20 births, 12 deaths, and 6 marriages were recorded. The average age of the persons who died was 66 years.

5. **Live Stock.**—The latest returns of live stock show that in 1934 there were on the island 1,636 cattle, 718 horses, 292 sheep, and 158 pigs. In addition, there were 5,581 head of poultry. The quality of the live stock, generally speaking, is poor, but efforts are being made to improve it.

6. **Production, Trade, etc.**—The soil throughout is rich, and is specially suitable for the cultivation of citrus fruits, bananas, and (in parts) coffee. Eighteen thousand two hundred and eighty-five cases of bananas were shipped in 1933-34 and 5,437 cases in 1934-35. Various other sub-tropical fruits thrive. During 1934-35 the export of oranges was 89 cases; passion fruit and pulp, 91 cases, and 1,139 gallons; mixed fruit, 151 cases; potatoes, 20 cases. There are many thousands of lemon trees and guavas growing wild throughout the island.

Large numbers of whales pass the island throughout the season, but whaling has now practically ceased. The preserved fish industry which was established some years ago has been abandoned; although such fish as trevalla, kingfish, schnapper, and many others, are plentiful.

Imports and exports for the last five years are given hereunder :—

**NORFOLK ISLAND.—IMPORTS AND EXPORTS.**

Heading.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	£	£	£	£	£
Imports .. ..	43,370	40,278	30,921	28,660	26,519
Exports .. ..	21,908	20,555	21,792	15,893	8,318
<b>Total .. ..</b>	<b>65,278</b>	<b>60,833</b>	<b>52,713</b>	<b>44,553</b>	<b>34,837</b>

The following goods imported into the Island are subject to Customs duty :—Spirits, ale, beer, wine, tobacco, oils, sugar, molasses, biscuits, candles, confectionery, dried fruits, jams, jellies and preserves. Preference is given in the Tariff to Australian wines, tobacco and dried fruits. No duties are chargeable on goods imported into Australia from Norfolk Island if the goods—(a) are the produce or manufacture of Norfolk Island; and (b) are shipped direct to Australia; and (c) are not goods which if manufactured or produced in Australia would be subject to any duty of excise.

7. **Communication.**—The “all-red” cable from Great Britain via Vancouver, Fanning Island, and Fiji, bifurcates at Norfolk Island, one line connecting with New Zealand, the other with Brisbane.

An alternate 12 and 30 days’ shipping service to the Territory is maintained by the vessels of Burns, Philp & Co. Ltd., Sydney, under the terms of the contract with the Commonwealth Government for the maintenance of shipping services to the Pacific Islands.

On one voyage the SS. *Morinda* leaves Sydney, calls at Lord Howe Island and Norfolk Island and then proceeds to the New Hebrides, returning to Sydney by the same route. The same vessel then makes a short trip to Norfolk Island and returns to Sydney calling at Lord Howe Island on both the outward and inward voyages.

The journey from Sydney to Norfolk Island occupies four days.

8. **Social Condition.**—Education is free and compulsory up to the age of fourteen years. The school conforms to the Australian standard of public education, ranging from kindergarten to the intermediate certificate, with a two years’ superprimary course for the purpose of attending classes of instruction in agriculture, woodwork and metalwork. The headmaster and two assistant teachers are lent by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled in 1934 was 159.

The Magistrates’ Court has criminal jurisdiction in all crimes except capital offences, civil jurisdiction in all matters, and authority to grant probate and letters of administration.

9. **Finances.**—The receipts and expenditure for the year 1933-34 were as follow :—

**NORFOLK ISLAND.—RECEIPTS AND EXPENDITURE, 1933-1934.**

Items.	Receipts.	Items.	Expenditure.
	£		£
Brought forward .. ..	10,615	Salaries .. ..	5,249
Commonwealth Subsidy .. ..	3,000	Miscellaneous .. ..	4,379
Customs Duties .. ..	2,646	Purchase of Liquor .. ..	1,977
Sale of Liquor .. ..	2,598	Balance carried forward .. ..	9,253
Miscellaneous .. ..	1,999		
<b>Total .. ..</b>	<b>20,858</b>	<b>Total .. ..</b>	<b>20,858</b>

## PAPUA.

## § 1. General Description.

1. **Early Administration.**—Particulars of the early administration of Papua were given in Official Year Book No. 19, p. 576.

2. **Administration by Commonwealth of Australia.**—The Territory was placed under the authority of the Commonwealth on 1st September, 1906, by proclamation issued in pursuance of Letters Patent of the 18th March, 1902, and was accepted by the Commonwealth by the Papua Act 1905, which came into force by virtue of the proclamation aforesaid. The transfer was made under the authority of section 122 of the Constitution. The Territory is now under the administration of the Commonwealth, but not included within it, and is divided into magisterial districts.

3. **Area, etc.**—Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude; its southernmost portion, comprising Sudest and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 800 miles; towards either end the breadth from north to south is about 200 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland, and 1,936 on the islands. The total area is about 90,540 square miles, of which 87,786 are on the mainland, and 2,754 on the islands. A reference to the physical characteristics of the Territory appears in previous issues of the Official Year Book (see No. 18, p. 633).

## § 2. Population.

The white population of Papua at the census of the 30th June, 1935, was 1,229, made up of 754 males and 475 females. The following table gives the white population in each of the last five years :—

WHITE POPULATION OF PAPUA.  
YEAR ENDED 30TH JUNE.

1931.	1932.	1933.	1934.	1935.
1,128	1,152	1,148	1,107	1,229

It is not possible to give exact data regarding the number of natives, because a large area of the interior is not yet under Government control. The official estimate is 275,000. Such censuses of the native population as have been taken during recent years point to a slight increase. The coloured population, other than Papuans, on 30th June, 1933, was 786, and included many mission teachers from Samoa, Fiji, and other Pacific Islands. On the same date, half-castes, with one of the parents a European, were 227. An Immigration Restriction Ordinance prohibits the immigration of persons who fail to pass the dictation test, or who are of bad character, or likely to become a charge upon the public. Exemptions may, however, be granted by the Lieutenant-Governor to persons of special skill required for employment as overseers or foremen.

## § 3. Native Labour, Taxation, Health, etc.

1. **Native Labour.**—Information regarding the conditions connected with the employment of native labour will be found in Official Year Book No. 22, p. 607.

Owing to the economic depression, the number of indentured native labourers declined from 3,716 in 1933 to 3,627 in 1934, while the number of unindentured labourers also fell from 2,242 to 2,109. The demand for native labour increased during 1935 and the total number employed rose to 12,558.

2. **Native Taxes.**—Under the Native Taxes Ordinance, 1917-1932, a tax not exceeding £1 per annum may be imposed on natives, excepting native constables, mission teachers, natives unfit for work, and those who have four living children. The proceeds of the tax must be expended on native education, or devoted to purposes directly benefiting the natives, as may be prescribed.

The taxes collected in 1934-35 amounted to £13,329, of which £3,418 was transferred to the Native Education Fund, and £7,539 to the Native Benefits Fund. The Native Education Fund during the year 1934-35 disbursed to primary and technical education £4,395, and to agricultural education £692, leaving a credit balance of £17,215. From the Benefits Fund the expenditure included:—Anthropology, £769; health, £6,763; village improvements, £176; family bonus, £1,133; and games in villages, £9.

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. During the past three years parties of natives have received a six months course of instruction in first aid and in elementary physics, chemistry, anatomy, physiology, and pathology at the School of Public Health and Tropical Medicine, University of Sydney. On their return to the Territory the natives are employed as travelling native medical assistants. The chief complaints treated are yaws, ulcers, lung affections, hookworm, venereal and skin diseases. In 1933-34 there were sporadic occurrences of influenza, acute anterior poliomyelitis, typhoid fever and dysentery, but nothing in the nature of an epidemic was reported. The death rate amongst native labourers was 1.06 per cent. in 1934-1935. Excluding deaths from snakebite, drowning and murder the percentage fell to .82 per cent.

§ 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. **Holdings.**—On the 30th June, 1932, the lands of the Territory were held as follow:—

PAPUA.—HOLDINGS, 1932.

Description.	Area.
	Acres.
Land held by the natives .. ..	56,899,084
Crown land .. ..	831,835
Freehold land .. ..	22,932
Leasehold land .. ..	191,749
Area of Territory .. ..	57,945,600



Private sales of land in the Territory have now practically ceased. The Government buys from the natives, and then leases to planters, who are forbidden to have direct dealings in land with Papuans.

Of the total area of 191,749 acres shown above, agricultural leases accounted for 176,915, pastoral leases for 13,787, special leases for 190 and mission leases for 561.

The area of land acquired by the Crown in 1933-34 was 15,888 acres, while 32,157 acres were leased and 15,383 acres surveyed.

### § 5. Production.

1. *General.*—The products of the Territory are obtained from its agricultural, forestal, fishing, mining and manufacturing industries. For many years gold-mining yielded the largest returns, but the production has dwindled considerably owing to the exhaustion of the alluvial deposits. There is a possibility of obtaining petroleum in marketable quantities. Amongst plantation products, copra occupies the foremost place, but little coconut planting has been done in recent years. Portions of the Territory appear well suited for cotton cultivation.

2. *Agriculture.*—(i) *Soil and Rainfall.* Rich soils at varying elevations and heavy and evenly distributed rainfall favour the cultivation of a variety of tropical products including sugar cane, coconuts, sago palm, bread fruit, dyewoods, spices, ginger, nutmegs, bananas and other fruits. There are large areas of rich alluvial and volcanic soils along the coast, and fertile land is found at elevations up to 6,000 feet. Heavy rainfalls occur, except over a belt of country which runs back from the coast to the hills, and which has its dry season from May to November. This "dry" area is admirably suited for the production of tobacco, fibres, cotton, etc. There are 20 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, and the acreage under cultivation in 1934 was 59,446, as against 58,307 in 1933. The principal plantation crops are coconuts, rubber, and sisal hemp. There is also some cultivation of kapok, coffee, tobacco, cocoa, rice and maize. The natives are compelled by an ordinance to plant coconuts for food supply. In addition to the coconuts in these plantations, many more are planted over small and widely scattered areas by the older natives in accordance with custom. The Native Plantations Ordinance provides for the establishment of plantations in which half of the proceeds is paid to the natives entitled thereto, and the remaining half paid into the Native Education Fund. The following table shows the areas under the different crops at 31st December, 1934 :—

PAPUA.—AREA OF PLANTATIONS, 1934.

Description.	Area.
	Acres.
Coconuts .. .. .	49,933
Rubber .. .. .	8,933
Hemp .. .. .	362
Kapok .. .. .	86
Coffee .. .. .	398
Rice .. .. .	21
Sugar .. .. .	54
Mauritius Beans .. .. .	80
Other crops (including fruit trees) .. .. .	479
	59,446

The quantities of copra and rubber exported during the year ended 30th June, 1935, were 8,570 tons and 1,069 tons respectively.

(iii) *Government Plantations.* There are two Government plantations, the Orangerie Bay coconut plantation and the Kemp Welch rubber plantation. The profits during 1934-35 were £1,470, as against £362 in 1933-34.

3. *Forestry.*—According to the Commonwealth Inspector-General of Forests the principal softwood timber is known as “ilimo,” while among satisfactory timbers of the lowlands are “nara,” “medobi,” and “melila.” There is 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, 1933, the live stock in the Territory consisted of 552 horses, 6,409 head of cattle, 102 mules, 11 donkeys, 2,287 goats, 862 pigs, 50 sheep and 7,628 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.

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.

1930-31.		1931-32.		1932-33.		1933-34.		1934-35.	
Quantity. (a)	Value.	Quantity. (a)	Value.	Quantity. (a)	Value.	Quantity. (a)	Value.	Quantity. (a)	Value.
fine ozs. 5,283	£A. 26,097	fine ozs. 8,014	£A. 54,241	fine ozs. 9,387	£A. 70,337	fine ozs. 10,814	£A. 87,893	fine ozs. 16,136	£A. 140,692

(a) Estimated.

NOTE.—The values in the above table are expressed in Australian currency.

Most of the rivers, with the exception of those flowing into the Gulf of Papua, have been declared open to gold-dredging, and good yields have been obtained. The total value of gold won to 30th June, 1935, was £1,938,980.

(iii) *Copper.* Owing to the very low prices ruling for copper in the world's market the copper mines in Papua have suspended operations. The total value of the copper exported to the 30th June, 1934, was £366,817.

(iv) *Osmiridium.* The existence of osmiridium had been known for several years, but for some time no serious attempt was made to collect it. The alluvial gold miner formerly picked out the larger slugs of the metal from his gold parcel and discarded them. Eight and a half ounces valued at £112 were exported during 1934-35.

(v) *Other Minerals.* Some good samples of galena (sulphide of lead) have been obtained, while cinnabar (sulphur of mercury), graphite (or plumbago), zinc-blende, native sulphur, and other minerals are known to exist. In 1924 a deposit of lignite was discovered on Smoky Creek, a tributary of the Era River.

A mineral laboratory and museum have been fitted up, and are available to prospectors and others interested.

7. *Water Power.*—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there are at least 10,000,000 h.p. available for this purpose.

### § 6. Finance, Trade, Postal and Shipping.

1. *Finance.*—The principal sources of revenue for the year 1934-35 were as follow :—Commonwealth Grant; £42,500; Commonwealth Grant in aid of rubber producers, £19,022; Customs and Excise, £43,428; Government Plantations, £6,216; Fees of Office, £6,200; Land Revenue, £5,319; Post Office, £6,283; Port and Wharfage Dues, £3,012; and Miscellaneous, £20,631.

Returns of revenue, exclusive of Commonwealth grants, and expenditure for the last five years are given hereunder :—

#### PAPUA.—LOCAL REVENUE AND EXPENDITURE.

Item.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	£	£	£	£	£
Revenue .. ..	89,918	90,116	93,043	81,148	91,089
Expenditure .. ..	135,325	128,682	128,421	121,199	133,451

2. *Trade.*—Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1934 for the free entry into Australia of certain goods produced and imported direct from Papua (*see* Chapter VII., page 239). In addition, the Commonwealth Government returns for distribution among producers the custom duty of 2d. per lb. collected on rubber imported from Papua. In the Papuan Custom Tariff 1934 preference is given to Australian wines and timber. The value of the trade of Papua for the last five years is shown in the following table :—

#### PAPUA.—IMPORTS AND EXPORTS.

Particulars.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	£	£	£	° £	£
Imports .. ..	240,074	221,843	218,016	220,605	269,299
Exports .. ..	274,354	269,254	275,866	249,135	294,743
Total Trade .. ..	514,428	491,097	493,882	469,740	564,042

As in all new countries the imports consist chiefly of articles necessary for the primal needs of the community, such as agricultural products and groceries, drapery, machinery, tobacco, oils, paints, beverages, wood, wicker and cane, drugs, etc. The chief items of exports during the last five years are as follow :—

## PAPUA.—PRINCIPAL EXPORTS.

Article.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	£	£	£	£	£
Bêche-de-Mer .. .. .	5,549	4,380	6,482	1,643	4,455
Copra .. .. .	93,710	100,454	89,512	42,990	57,597
Desiccated Coco-nut .. .. .	79,264	59,826	49,514	48,000	37,895
Gold .. .. .	22,440	34,338	45,383	45,933	68,922
Pearls .. .. .	123	..	1,480	2,505	5,742
Rubber .. .. .	47,036	49,262	56,929	61,324	79,031
Trochus Shell .. .. .	7,606	8,510	9,619	16,922	11,750

The improvement in price coupled with the Australian preference was responsible for the increased exports of rubber during the past two years. The production of gold is increasing, and last year's output was the largest for several years. Other industries are languishing owing to low prices. This applies to the bêche-de-mer industry, copra, cotton growing and copper mining.

3. Shipping.—The following table shows the number and tonnage of oversea vessels entered and cleared at ports during the years 1929-30 to 1934-35. All the vessels recorded in 1934-35 except 26 were of British nationality.

## PAPUA.—OVERSEA SHIPPING.

Year.	Vessels.	Tonnage.
1929-30 .. .. .	180	228,391
1930-31 .. .. .	171	220,399
1931-32 .. .. .	185	333,304
1932-33 .. .. .	170	398,451
1933-34 .. .. .	168	373,695
1934-35 .. .. .	177	341,537

Throughout, the figures are exclusive of ships of war and Government vessels.

## § 7. Progress of Papua.

As already stated (§ 1, *supra*) the Territory was placed under the Commonwealth control on 1st September, 1906. The following table indicates the progress that has been made since that date :—

## PAPUA.—STATISTICAL SUMMARY.

Items.	Year ended 30th June—		
	1907.	1934.	1935.
White population .. .. .	690	1,107	1,229
Native labourers employed .. .. .	2,000	5,736	12,558
Territorial revenue .. .. .	£21,813	£81,148	£91,089
„ expenditure .. .. .	£45,335	£121,199	£133,451
Value of imports .. .. .	£87,776	£220,605	£269,299
„ exports .. .. .	£63,756	£249,135	£294,743
Area of plantations .. .. . acres	(a)1,467	(a)58,307	(a)59,446
Meteorological stations established .. .. .	3	20	20
Gold yield .. .. . fine ounces	12,439	10,814	16,136

(a) 31st December, previous year.

## MANDATED TERRITORY OF NEW GUINEA.

## § 1. General Description.

The land area of the Territory of New Guinea is about 93,000 square miles and the area including the sea within the lines drawn through its extreme outer points is more than 1,000,000 square miles. The coast of the Territory not having been completely surveyed, the areas of the various islands are known only approximately.

The approximate areas of the principal islands together with the small islands adjacent thereto are as follow :—

## AREA OF TERRITORY OF NEW GUINEA.

Particulars.		Approximate Area.
		Square Miles.
North East New Guinea (also called "The Mainland") .. ..		69,700
Bismarck Archipelago—		
New Britain .. .. .	14,600	
New Ireland .. .. .	3,340	
Lavongai .. .. .	460	
Admiralty Islands .. .. .	800	
		19,200
Solomon Islands—		
Bougainville .. .. .	3,880	
Buka .. .. .	220	
		4,100
Total .. .. .		93,000

Information regarding physiography and climate will be found in Official Year Book, No. 22, p. 613, and in the Official Handbook of the Territory.

## § 2. Government.

1. **The Military Occupation.**—On the 17th September, 1914, the Acting Governor of German New Guinea signed terms of capitulation with the officer commanding a Naval and Military Expedition sent from Australia, and thereafter the Territory was under military administration until the establishment of Civil Government in May, 1921.

2. **Mandate.**—The Mandate from the Allied and Associated Powers in accordance with which the Territory of New Guinea is administered by the Commonwealth was issued by the League of Nations in December, 1920. The terms of the Mandate appear in Official Year Book No. 16, pp. 662-3.

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 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 1920-1932*. The Acts of the Commonwealth Parliament do not (unless expressly so stated) extend to the Territory, but the *Laws Repeal and Adopting Ordinance 1921-1934* 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, Mines, Surveys, Forests and Titles; 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.**—Fourteen 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, 1934.

### § 3. Population.

1. **White Population.**—The number of the white population at various intervals since 1885 is shown in the following table. At the census of 1933, the white population was 3,191, of whom 2,847 were British subjects.

TERRITORY OF NEW GUINEA.—WHITE POPULATION.

Year.	Number.	Year.	Number.
1885	64	1931	2,900
1929	2,600	1932	3,100
1930	2,850	1933	3,191

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. The number of Chinese in the Mandated Territory reached its maximum in 1933 with 1,449.

The Japanese at the date of the Census numbered 73. The total Asiatic population, which in 1914 was 1,681, had increased in 1933 to 1,830. 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, 1934 :—  
**TERRITORY OF NEW GUINEA.—NATIVE POPULATION, ENUMERATED 30th JUNE, 1934 (INCLUSIVE OF INDENTURED LABOURERS).**

District.	Children.			Adults.			Totals.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Kieta ..	8,094	6,931	15,025	13,976	12,518	26,494	22,070	19,449	41,519
Madang ..	10,447	8,639	19,086	20,006	15,669	35,675	30,453	24,308	54,761
Manus ..	2,823	2,487	5,310	5,210	4,424	9,634	8,033	6,911	14,944
Morobe ..	23,369	20,321	44,190	33,531	28,968	62,499	56,900	49,739	106,639
New Britain ..	20,196	17,530	37,726	33,335	25,303	58,638	53,531	42,833	96,364
New Ireland ..	7,027	6,007	13,034	17,333	12,357	29,690	24,360	18,364	42,724
Sepik ..	22,446	18,469	40,915	29,940	29,335	59,275	52,386	47,804	100,190
Total ..	94,402	80,884	175,286	153,331	128,574	281,905	247,733	209,458	456,924

(a) Deduction of 267 made for double recordings.

The total native population of New Guinea is estimated roughly at about 666,000. Whether the number is increasing or decreasing cannot be ascertained with certainty. The number of natives indentured as labourers, mostly for plantation work, on 30th June, 1934, was 30,862, compared with 28,242 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 Negritoes 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 follow—The ownership and use of the land are generally individual, although, in some rare cases, particularly in North Bougainville, the communal system exists. In districts where a great many coconut palms are growing on native lands it is often found that the land is the property of a chief or of one of the old men of the tribe, and that the coconut palms growing thereon are divided into small groves, and are the property of several members of the tribe. Customs with regard to the use of unoccupied forest lands vary. Right of inheritance to land is almost invariably through the maternal branch. (See Official Year Book No. 17, p. 634 and Official Handbook of the Territory.)

3. **Research Work.**—During the German occupation of the Territory a certain amount of research work was carried out, partly by scientific expeditions, and partly by missionaries and by a local resident. An anthropologist is 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 1922-1933" 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 1933-34 was £5,379. 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, 1934, the following schools were maintained by the Administration :—Native elementary schools and native day

schools, Malaguna and Nodup, near Rabaul, and Kavieng; native technical school, Malaguna; native agricultural school, Keravat. In addition there are schools for Europeans at Rabaul, Kavieng and Wau.

A considerable amount of educational work is carried out by the missions, the schools maintained being of three classes—(a) elementary schools in villages; (b) intermediate boarding schools at headquarters; and (c) high schools and technical schools. At the end of June, 1934, the various missions maintained 49 training centres, 54 high and technical schools, 108 elementary schools, and 1,645 village schools. The pupils numbered 54,972.

The missions also conduct schools for Chinese children in Rabaul and Kavieng.

The granting of assistance to mission schools is provided for by the Education Ordinance, but no grants have hitherto been made.

5. **Health of Natives.**—In a report dealing with the health of the natives in New Britain submitted before the war, it was stated that “the natives in the districts examined are not degenerate; but they are sick.” The same qualification undoubtedly applies to the native population throughout the Territory.

The diseases taking the greatest toll of native life directly or through lowering vitality are:—Malaria, respiratory diseases, dysentery, frambæsia, yaws, tropical ulcer, hookworm, filariasis and beriberi.

The Health Department in Rabaul 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; (vi) two leper-stations; and undertakes the general oversight of sanitary conditions. The first Infant Welfare Centre in the Territory was opened in Malabunga in August, 1931.

6. **Missions.**—Several mission societies are operating in the Territory. The Society of the Sacred Heart of Jesus works in the Bismarck Archipelago, the Society of the Holy Ghost along the coast of North-East New Guinea from Sek to the Dutch border, the Marists in Buka and Bougainville. These are Roman Catholic Missions. The Protestant Missions are the Australian Methodist Mission in New Britain and New Ireland, the New Zealand Methodist Mission in Bougainville, the Liebenzell Mission in the Admiralty Group, the Lutheran Mission (supported and staffed by the Lutheran Churches in Australia and America), which works along the coast of North-East New Guinea from Sek to the Papuan border, the Melanesian Mission (Anglican) in New Britain, and the Seventh Day Adventist Mission in Bougainville and New Britain. All these societies combine teaching and planting with their missionary work.

## § 5. Land Policy.

1. **Acquisition of Land.**—A short account of the modes of acquiring land appears in Official Year Book No. 19, p. 590, but considerations of space preclude its repetition.

2. **Land Policy of the Present Administration.**—The *Land Ordinance 1922-1935* 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 disposing by sale of the freehold properties taken over from Germans, and which until 1927 were controlled by the Expropriation Board. The general land policy of the Administration is based on the leasehold principle. All Administration grants or leases contain a reservation to the Administration of all minerals, including mineral oil. Leases are for a term of 99 years except where a shorter period is provided. Administration lands, except in towns, are classified by a Land Board into land suitable for agriculture (Class A) and land not so suitable (Class B), and the unimproved value of the land is assessed. In the case of agricultural leases for more than 30 years the rent is 5 per cent. of the unimproved value, with power to remit during the first ten years, and subject to



reappraisal every 20 years. The maximum area of land which may be held by any person under an agricultural lease may not exceed 2,000 hectares, and the unimproved value may not exceed £5,000. Pastoral leases of lands of Class B may be granted for terms not exceeding 30 years, at a rental of 2½ per cent. of the unimproved value, subject to reappraisal every 10 years.

Agricultural leases are subject to improvement conditions and pastoral leases to stocking conditions. Leases of town allotments may be granted for terms not exceeding 99 years, at a rent to be fixed at such percentage of the unimproved value as is prescribed.

A total area of 282,408 hectares (about 706,020 acres) had been alienated up to the 30th June, 1934. The area alienated in 1933-34 was 5,273 hectares (about 13,182 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" 1924-1933.

## § 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.

2. **Agriculture.**—(i) *General.* Under the supervision of the Director of Agriculture soil analysis has been undertaken in different parts of the Territory. A demonstration plantation has been established at Keravat where natives are being trained in tropical agriculture. A laboratory and a herbarium have been established, an entomologist and economic botanist engaged, and travelling inspectors appointed for the purpose of combating plant pests. Experiments are being carried on with a variety of crops. The foregoing measures, in conjunction with the *Papua and New Guinea Bounties Act* 1926 and the preference given by the Commonwealth Tariff to certain produce grown in the Territories, have greatly stimulated tropical agriculture.

(a) *Coconuts.* Coconut-growing is by far the most important industry in the Territory, but the low price of copra has temporarily checked expansion.

(b) *Tobacco.* This crop has been cultivated with success at Astrolabe Bay in North-East New Guinea, and in the Bismarck Archipelago. Tobacco of high quality, rivalling the best Sumatra leaf, has been produced.

(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) *Sisal Hemp.* There was a steady although small export of sisal hemp in German times. The quantity exported in 1913 was 10 tons, this being the latest export.

(e) *Cocoa.* Cocoa has been successfully grown, principally at Vitu (French Islands); in 1913, 137 tons were exported. The export in 1933-34 amounted to 98 tons.

(f) *Desiccated Coconut.* Three desiccated coconut factories are established in the Territory. The quantity exported during 1933-34 was 1,463 tons, being 128 tons in excess of the previous year.

(g) *Coffee.* No new areas under coffee were planted during 1933-34, but the plantations already established looked well and bore heavily.

(h) *Other Crops.* The climate and soil of New Guinea are suitable for the cultivation of rice, Manila hemp, cinchona, nutmeg, vanilla, peanuts, kapok and maize, but hitherto their cultivation has either not advanced beyond the experimental stage or has been attempted on a small scale only. Sugar-cane of many varieties flourishes, and the natives cultivate extensive areas for their own use; other indigenous food-producing plants include the sago palm and the cassava.

(i) *Plants Yielding Power Alcohol.* It seems probable that alcohol for power purposes will be obtainable economically from the Territory. The sago palm and nipa palm yield as much as 60 gallons a ton, and in places are abundant.

(ii) *Area of Plantations.* The area of plantations and the principal crops grown thereon are shown in the table hereunder for the year ended 30th June, 1934. The figures are exclusive of native plantations. (One hectare equals 2.4711 acres.)

## TERRITORY OF NEW GUINEA.—PLANTATIONS, 30th JUNE, 1934.

Areas.	Government Plantations.	Privately owned Plantations.	Total.
Area of Holdings .. .. . hectares	1,058	195,779	196,837
Area Cleared .. .. . "	716	93,473	94,189
Area Cleared and Planted .. .. . "	627	87,855	88,482
Coconuts—			
Area Planted .. .. . hectares	574	84,752	85,326
Area Bearing .. .. . "	566	65,725	66,291
Cocoa—			
Area Planted .. .. . hectares	3	1,001	1,004
Area Bearing .. .. . "	..	352	352
Coffee—			
Area Planted .. .. . hectares	14	265	279
Area Bearing .. .. . "	12	13	25
Kapok—			
Area Planted .. .. . hectares	2	388	390
Area Bearing .. .. . "	1	..	1
Native Food (a) .. .. . hectares	16	794	810
Other Crops .. .. . "	34	639	673

(a) Native food of all kinds is mostly grown between young coconut palms not yet in bearing.

The area of plantations at various periods from 1885 to 1934 is shown hereunder. As in the case of the previous table, the figures are exclusive of native plantations :—

## TERRITORY OF NEW GUINEA.—PLANTATIONS.

Year.	Total Area.	Area under Coconuts (including Area not in Bearing).
	Acres.	Acres.
1885 .. .. .	148	(a)
1895 .. .. .	2,152	(a)
1911 .. .. .	58,837	51,510
1914 .. .. .	84,488	76,847
1924 .. .. .	411,275	172,373
1931 .. .. .	446,865	206,470
1932 .. .. .	460,942	211,882
1933 .. .. .	514,250	214,290
1934 .. .. .	486,404	210,849

(a) Not recorded.

3. *Live Stock.*—The coconut plantations are now of a sufficient area to maintain numerous live stock, the stock being depastured on the indigenous grasses growing between the rows of palms. In 1934 there were 1,013 horses, 18,211 cattle, 1,394 sheep, 8,950 goats, and 6,470 pigs (exclusive of the large number of pigs kept by the natives).

4. *Timber.*—An investigation of the timber resources has been made by the Commonwealth Inspector-General of Forests, and a report in connexion therewith was published in 1926. According to this report, while offering no prospects of immediate gain to large saw-milling interests, the Territory possesses forest potentialities of a high order. The timber required for house and shipbuilding and for other purposes is mostly

obtained locally. In North-East New Guinea the Lutheran Mission and the Holy Ghost Mission both possess up-to-date saw-milling plants, while most of the timber required in the Archipelago is supplied by the Sacred Heart Mission's saw-mill and three privately owned mills in New Britain. Approximately 2,300,000 super. feet of timber were sawn in 1933-34. The timber required for the gold-fields is produced locally.

The *Timber Ordinance* 1922-1931 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 paid on all timber exported. Seven timber permits were issued during the year 1933-34.

5. **Fisheries.**—The wealth of the waters of the Territory has so far been little exploited. Fish is caught at many places along the coast to supply the small local demand of the natives and of the few resident Europeans. Pearl-shell is exported in fair quantities, while bêche-de-mer, trochus-shell and tortoise-shell also figure amongst the exports. The value of marine products exported in 1933-34 was £24,884, compared with £21,533 in the previous year.

6. **Mining.**—Except for gold there has been little mining in New Guinea, and knowledge of the mineral resources is as yet but scanty. Gold has been discovered on the Waria, the Ramu, the Francisco, and the Markham Rivers, etc. 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* 1928-1935. 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.
					Fine oz.	£A
1930-31	..	..	..	..	29,858	144,455
1931-32	..	..	..	..	63,485	429,686
1932-33	..	..	..	..	121,913	913,492
1933-34	..	..	..	..	216,326	1,758,226
1934-35	..	..	..	..	250,374	2,183,043

The increased production in the last few years is due to greater activity on the fields coupled with the high price realized for gold.

By the *Mineral Oil and Coal Ordinance* 1928-1929, private companies incorporated or registered in the Territory, two-thirds of whose shares are held by British subjects, are eligible to engage in prospecting and mining for mineral oil and coal. On the 30th June, 1934, two licences to search for mineral oil were in force.

### § 7. Trade.

1. **Customs Tariff.**—The *Customs Ordinance* 1921-1932 of the Territory of New Guinea stipulates that all duties of Customs shall be paid in Australian currency. Where the genuine invoice shows the value of imports in any currency other than Australian the equivalent value of the goods in Australian currency shall be ascertained according

to a fair rate of exchange to be declared in case of doubt by the Chief Collector. The Tariff is generally upon a 10 per cent. ad valorem basis, and certain exports of the Territory such as copra, shell, feathers and sulphur are subject to duty. No preferential tariff rates are provided in the Tariff Schedule.

Provision is made in the Australian Customs Tariff for the free entry into Australia of certain goods produced and imported direct from the Territory of New Guinea (see Chapter VII., p. 239.)

2. Total Trade.—The value of the imports, exports and total trade at various periods since 1887, and during each of the last five years, is given in the table hereunder:—

TERRITORY OF NEW GUINEA—TRADE.

Year.	Imports.	Exports.	Total.
	£	£	£
1887 .. .. .	17,133	19,580	36,713
1897 .. .. .	36,713	31,352	68,065
1907 .. .. .	166,585	97,563	264,148
1929-30 .. .. .	878,450	997,335	1,875,785
1930-31 .. .. .	782,765	919,431	1,702,196
1931-32 .. .. .	779,397	1,108,619	1,888,016
1932-33 .. .. .	912,365	1,581,272	2,493,637
1933-34 .. .. .	924,316	1,766,198	2,690,514

The import values are exclusive of money and Government stores. In 1933-34 the imports were distributed as follow:—From Australia, £375,353; United Kingdom, £110,711; America, £196,557; China, £43,213; Germany, £55,784; Japan, £25,369; Dutch East Indies, £5,470; other countries, £111,859.

3. Principal Items of Imports.—From Australia the principal items of imports are foodstuffs and beverages, tobacco, apparel and textiles, machinery, hardware, building material, coal, drugs, etc.; from the United Kingdom, apparel and textiles, machinery and hardware, whisky; from America, mining machinery, petrol, kerosene, motor vehicles and lubricating oil, tobacco; from India, rice and sacks; from Burma, rice; from China, rice and textiles; from Germany, textiles, aeroplanes, machinery and hardware, and fancy goods; from Japan, textiles, fish and cement.

4. Principal Items of Exports.—Values of the principal items of exports for the last five years are shown hereunder:—

TERRITORY OF NEW GUINEA.—VALUE OF PRINCIPAL EXPORTS.

Commodity.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Copra .. .. .	864,358	716,543	618,298	543,906	283,329
Cocoa .. .. .	3,074	3,200	3,060	2,292	3,479
Stone and Ivory Nuts .. .. .	77	75	280	131	566
Bêche-de-mer .. .. .	6,360	7,530	4,960	3,900	4,400
Pearl Shell .. .. .	18,410	22,075	15,170	17,585	20,482
Tortoise Shell .. .. .	78	114	89	48	88
Gold .. .. .	96,338	154,046	398,939	933,940	1,367,616
Desiccated Coco-nut .. .. .	8,640	37,640	64,100	73,452	81,562
Miscellaneous .. .. .	..	15	3,723	6,018	4,676
Total .. .. .	997,335	941,238	1,108,619	1,581,272	1,766,198

5. Exports of Copra and Cocoa.—The next table shows the respective quantities of copra and cocoa exported during the last five years :—

**TERRITORY OF NEW GUINEA.—EXPORTS OF COPRA AND COCOA.**

Commodity.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	Tons. 63,832	Tons. 62,303	Tons. 59,452	Tons. 59,040	Tons. 62,270
Copra .. .. .	58	64	102	65	98
Cocoa .. .. .					

Most of the copra is shipped direct to European or American ports.

**§ 8. Shipping and Communication.**

1. *General.*—A subsidized mail service between New Guinea and Australia is maintained by Burns, Philp and Co. Ltd. The vessels of the Eastern and Australian Steamship Co., which maintains a regular monthly service between Australia, China and Japan, have included Rabaul as a port of call. The Dutch Royal Packet Navigation Co.'s vessels, which maintain a service between Singapore and Australia, also call at Rabaul, and the "Norddeutscher Lloyd" has established a regular service between Hong Kong and Rabaul. Shipping within the Territory is regulated by the *Shipping, Ports, and Harbours Regulations*.

2. *Oversea Tonnage in 1933-34.*—The number and net tonnage of oversea vessels which entered and cleared the Territory during the year 1933-34 are shown hereunder :—

**TERRITORY OF NEW GUINEA.—SHIPPING, 1933-34.**

Country from which Entered or for which Cleared.	Vessels Entered.		Vessels Cleared.		Total.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Australia .. .. .	52	170,973	45	142,412	97	313,385
British Solomon Islands .. .. .	13	6,084	13	6,574	26	12,658
China .. .. .	12	14,366	11	12,896	23	27,262
Europe .. .. .	2	6,053	17	51,094	19	57,747
French Indo-China .. .. .	9	19,656	..	..	9	19,656
Japan .. .. .	12	51,755	12	51,583	24	103,338
Other Countries .. .. .	7	11,887	7	13,366	14	25,253
<b>Total .. .. .</b>	<b>107</b>	<b>280,774</b>	<b>105</b>	<b>278,525</b>	<b>212</b>	<b>559,299</b>

Among the 107 vessels which entered from external ports during 1933-34 there were 70 vessels representing 216,946 tons, British nationality; 18 vessels of 19,912 tons were German; 2 vessels of 7,559 tons were Norwegian; 6 vessels of 11,076 tons were Dutch; the remainder were of Swedish, American, Danish, Japanese and French nationalities.

3. *Local Shipping.*—A service between Rabaul and the various outports not visited by the mail steamers is maintained by small steamers and motor craft.

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 170 miles long in New Ireland. Elsewhere there are few roads outside plantations and the stations of the District Officers. The large rivers of the mainland are as yet but little used.

There is a high power wireless station at Bita Paka near 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.

### § 9. Revenue and Expenditure.

1. **Revenue.**—Details of the revenue collected from various sources during each of the last two years are given hereunder:—

#### TERRITORY OF NEW GUINEA.—REVENUE.

Item.	1932-33.	1933-34.
	£	£
Revenue from Taxation (direct and indirect) ..	230,082	273,147
Revenue from Public Services and undertakings ..	29,988	23,446
Other receipts .. .. .	61,847	53,764
	321,917	350,357

2. **Expenditure.**—The expenditure for the financial year 1933-34 was distributed as follows:—

#### TERRITORY OF NEW GUINEA.—EXPENDITURE, 1933-34.

	£		£
Secretary and Central Administration .. .. .	11,806	Trade and Customs .. .. .	8,002
Justice .. .. .	2,909	Agriculture .. .. .	11,862
Treasury .. .. .	38,965	Public Health .. .. .	61,526
Audit .. .. .	4,294	District Services .. .. .	108,850
Lands and Survey .. .. .	31,560	Miscellaneous .. .. .	7,693
Police and Prisons .. .. .	14,770		
Public Works .. .. .	46,580	Total .. .. .	348,817

#### NAURU (Mandate).

1. **General.**—Nauru is an oval-shaped atoll about 12 miles in circumference having an area of about 5,400 acres, of which approximately four-fifths is phosphate-bearing. It is situated in long. 166° E., and is 26 miles south of the Equator. Portion of the island between the sandy beach and the coral cliffs is fertile, and it is there that the Nauruans reside. With the exception of a small fringe round 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 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. In 1934 the rainfall was only 35.28 inches.

2. **History.**—The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea.

In November, 1914, Nauru was occupied by a detachment from the Australian Naval and Military Expedition at Rabaul, and it was included in the cession of colonies made by Germany in 1919 to the Allied and Associated Powers, whose representatives agreed that a mandate for its administration should be conferred upon His Britannic Majesty. The mandate, which is in similar terms to that for the Territory of New Guinea, was confirmed by the Council of the League of Nations on the 17th December, 1920. On 2nd July, 1919, the British, Australian, and New Zealand Governments agreed that the administration of the island (which, since 1915, had been in charge of an official appointed by the British Colonial Office) should be vested in an Administrator who entered on duty in June, 1921. The first Administrator was appointed for a term of five years by the Australian Government; his term of service having expired, it was extended for another five years, but he resigned in 1927. The second Administrator was appointed in June, 1927. The third Administrator was appointed by the Commonwealth of Australia in January, 1933. The Agreement between the three Governments was approved by the Commonwealth Parliament in the *Nauru Island Agreement Act 1919*, and is printed in the Schedule to that Act. A supplementary agreement concerning Nauru was drafted in May, 1923, and ratified by the Commonwealth Parliament by the *Nauru Island Agreement Act 1932*.

3. **Administration.**—The Administrator has all the powers of government—administrative, legislative, and judicial—in the island. All expenses of administration are met from local revenue. Native industries such as canoe-building, fishing, mat-making, etc., are encouraged by the provision of prizes at annual competitions. An agency of the Commonwealth Savings Bank has been established. There is a co-operative store managed to a large extent by the natives. The books however, are audited by Government officers. Natives are not allowed to carry or be in possession of firearms, and the use by them of intoxicating liquors and deleterious drugs is prohibited.

4. **Population.**—Figures for population on 1st April in each of the years from 1931 to 1935 are given hereunder :—

#### NAURU.—POPULATION.

Population.	1931.	1932.	1933. (b)	1934.	1935.
Europeans .. ..	147	141	165	163	158
Chinese .. ..	1,105	696	936	933	931
Nauruans (a) .. ..	1,426	1,475	1,527	1,567	1,603
Other Pacific Islanders ..	14	4	13	14	4
<b>Total ..</b>	<b>2,692</b>	<b>2,316</b>	<b>2,641</b>	<b>2,677</b>	<b>2,696</b>

(a) The natives of Nauru are Micronesians. (b) Census, 30th June, 1933.

Births in 1934 numbered 59 (58 Nauruans). There were 15 marriages (13 Nauruan), and 35 deaths (33 Nauruans, 1 Chinese, 1 other Pacific Islander).

5. **Health.**—Cases of the usual diseases known in the Pacific occur. Venereal disease is rare, but filariasis is common, and elephantiasis is occasionally met with. An area has been set apart for the segregation of lepers, and the latest methods of treatment are applied. In 1934, there were 64 lepers in segregation. The treatment and control of leprosy have been very successful. Two hospitals are maintained on the island, one by the Administration for Nauruans, and one by the British Phosphate Commission for its employees. In common with other natives, the Nauruans are very susceptible to tuberculosis and influenza, and in 1921 an influenza epidemic caused the deaths of

230 Islanders. Dysentery, both amoebic and bacillary, is endemic. A regular anti-mosquito campaign is conducted. The usual steps have been taken by the authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo a medical examination once a month. Baby clinics have been established to give help and advice to Nauruan mothers in regard to infant nurture.

6. **Education.**—On the 1st October, 1923, the Administration took over the education of the Nauruans and other native children, and native schools were established in five districts, and at the leper station. Previously education had been looked after by the Missions subsidized by the Government. A school for European children is presided over by a teacher on loan from the Education Department of Victoria who also supervises educational matters generally. The curriculum is similar to that of corresponding schools in Australia, and the teaching is, as far as possible, wholly in English. Education is compulsory between the ages of six and sixteen. After the termination of ordinary school attendance, twelve months are devoted to technical training. The children in attendance at school in 1934 numbered 24 Europeans and 432 Nauruans. The schools are closed on two afternoons a week in order that the children may attend the classes in religious instruction conducted at the Mission churches. Educational classes for adults have been inaugurated. Units of the Boy Scouts and Girl Guides (Nauruan) have been established on the island.

7. **Judiciary.**—The judicial power is vested in the Administrator in a Central Court and a District Court. The right of appeal is provided.

8. **Religion.**—The London Missionary Society (Protestant) and the Sacred Heart of Jesus Mission (Roman Catholic) operate in Nauru.

9. **Phosphate Deposits.**—(i) *General.* From 1906 to 1919 the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony administered by the Colonial Office). The quantity on Nauru has been estimated at not less than 50,000,000 tons, and the exports average 85 per cent. to 88 per cent. of tricalcium phosphate.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it has 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.* In an agreement entered into between the British Phosphate Commissioners and the Nauruan landowners in 1927 provision was made, *inter alia*, for the payment of a royalty of 7½d. per ton of phosphate exported, of which—

(a) 4d. per ton is paid to the Nauruan landowner concerned;

(b) 1½d. per ton to the Administrator for the benefit of the Nauruan people;

(c) 2d. per ton to the Administrator to be held in trust for the Nauruan landowner concerned and invested at compound interest for a period of 20 years. The capital will then remain invested and the interest thereon will be paid to the landowner.

The rates specified above are to have effect for a period not exceeding 20 years on and from 1st July, 1927, but the royalty of 4d. per ton to the Nauruan landowners is subject to adjustment for the second, third and fourth five-yearly period by increasing or decreasing it pro-rata to any increase or decrease of the export price of phosphate. The royalty for the second five-yearly period was increased to 4¾d. per ton.



(iii) *Nauru and Ocean Island Phosphate Industry.*—The following table gives particulars regarding exports of phosphate during the last five years :—

## NAURU AND OCEAN ISLAND.—EXPORTS OF PHOSPHATE.

Year.			Total.	To Australia.	To New Zealand.
			Tons.	Per cent.	Per cent.
1929-30	..	..	499,456	74.74	25.26
1930-31	..	..	392,939	68.19	31.81
1931-32	..	..	434,858	63.30	33.90
1932-33	..	..	664,550	66.30	27.09
1933-34	..	..	556,802	63.83	26.97

From Nauru alone during the calendar year 1934 the export was 418,950 tons, of which 270,850 tons went to Australia and 148,100 tons to New Zealand.

(iv) *Accounts of Commission.* A statement for the five years ended June, 1934, is given hereunder.

## NAURU AND OCEAN ISLAND.—SALES OF PHOSPHATE.

Heading.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Receipts from Sales, etc. . .	648,165	584,738	599,727	882,277	684,409
F.o.b. cost, including interest on capital, sinking fund, etc.	645,987	584,244	599,209	876,898	610,239

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, 1934, this had been reduced to £3,275,883. The contribution to the sinking fund paid by the Commission provides for interest at 6 per cent. and extinction of the capital sum in 50 years from 1st July, 1920.

(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.*—In the Schedule to the Customs Tariff of Nauru the principal items of imports subject to duty are beer, spirits, tobacco and vehicles. The Schedule contains a fairly extensive free list, and all other goods not included in the free list are dutiable at 10 per cent. ad valorem. An export duty of 10s. per ton is levied on copra.

The British Phosphate Commissioners enjoy freedom from Customs duty for the materials and appliances serving for the exploitation of the phosphate, as well as for the provisions imported by the Commissioners for the feeding of the employees and workmen engaged therein. The Tariff rates apply to all countries alike. Information regarding imports and exports for the years 1930 to 1934 is appended :—

## NAURU.—IMPORTS AND EXPORTS.

Heading.	Year ended 31st December—				
	1930.	1931.	1932.	1933.	1934.
Imports	£	£	£	£	£
.. ..	143,416	108,729	95,739	97,684	98,085
Exports—	tons.	tons.	tons.	tons.	tons.
Phosphate	271,255	245,165	418,180	363,680	418,950

11. Revenue and Expenditure.—The revenue and expenditure of the Administration during the years 1930 to 1934 were as follow :—

## NAURU.—REVENUE AND EXPENDITURE.

Heading.	Year ended 31st December—				
	1930.	1931.	1932.	1933.	1934.
Revenue .. ..	£ 18,742	£ 16,206	£ 20,235	£ 19,779	£ 19,798
Expenditure .. ..	£ 15,532	£ 16,904	£ 15,435	£ 18,748	£ 19,738

Of the revenue in 1934, £10,449 was royalty on phosphate, £4,097 consisted of customs receipts, £1,277 of capitation taxes, and £203 of harbour dues and shipping fees. The total credit balance on the 31st December, 1934, amounted to £26,739.

## CHAPTER XXVIII.

## MISCELLANEOUS.

## § 1. Patents, Trade Marks, and Designs.

1. **Patents.**—(i) *General.* The granting of patents is regulated by the Commonwealth *Patents Act* 1903–1935, which, in regard to principle and practice, has the same general foundation as the Imperial Statutes, modified to suit Australian conditions. The Act is administered by a Commissioner of Patents. Fees totalling £10 are sufficient to obtain letters patent for the Commonwealth of Australia and the Territories of Papua, New Guinea and Norfolk Island. A renewal fee of £5 is payable before the expiration of the seventh year of the patent on all patents granted on applications lodged prior to 2nd February, 1931. On patents granted on applications made on or after the 2nd February, 1931, renewal fees are payable as follow:—£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 1930 to 1934 is given in the following table, which also shows the number of letters patent sealed in each year:—

## PATENTS, AUSTRALIA.—SUMMARY.

Particulars.	1930.	1931.	1932.	1933.	1934.
No. of applications .. .. .	6,524	5,576	5,148	5,040	4,984
No. of applications accompanied by provisional specifications .. .. .	4,062	3,798	3,783	3,511	3,286
Letters patent sealed during each year	3,330	3,041	2,344	1,701	2,063

(iii) *Revenue.* The revenue of the Commonwealth Patent Office during the years 1930 to 1934 is shown hereunder:—

## PATENTS, AUSTRALIA.—REVENUE.

Particulars.	1930.	1931.	1932.	1933.	1934.
	£	£	£	£	£
Fees collected under Patents Acts 1903–1934 .. .. .	38,045	37,136	32,015	30,121	33,488
Receipts from publications	1,486	1,593	1,381	1,311	1,359
Total .. .. .	39,531	38,729	33,396	31,432	34,847

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 1934. 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, the *Designs Act* 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 1930 to 1934:—

#### TRADE MARKS AND DESIGNS, AUSTRALIA.—SUMMARY.

Applications.	1930.	1931.	1932.	1933.	1934.
RECEIVED.					
Trade Marks .. ..	2,362	1,876	1,976	1,905	2,087
Designs .. ..	736	661	409	646	1,670
REGISTERED.					
Trade Marks .. ..	1,940	1,546	1,273	1,316	1,268
Designs .. ..	648	538	470	497	1,465

(iv) *Revenue.* The revenue of the Trade Marks and Designs Office during the years 1930 to 1934 is given hereunder:—

#### TRADE MARKS AND DESIGNS, AUSTRALIA.—REVENUE.

Particulars.	1930.			1931.			1932.			1933.			1934.		
	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 ..	£ 15,056	£ 903	£ 199	£ 12,241	£ 789	£ 120	£ 11,596	£ 750	£ 21	£ 12,720	£ 814	£ 13	£ 20,469	£ 1,052	£ 17

No fees in respect of Trade Marks have been collected under State Acts since the year 1922.

## § 2. Copyright.

1. *Legislation.*—Copyright is regulated by the Commonwealth *Copyright Act* of 1912-1933, wherein subject to modifications relating to procedure and remedies, the *British Copyright Act* of 1911 has been adopted and scheduled to the Australian law.

Reciprocal protection of unpublished works was extended in 1918 to citizens of Australia and of the United States of America under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The

Commonwealth Government promulgated a further Order in Council which came into operation on the 1st February, 1923, and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

2. **Applications and Registrations.**—The following table shows under the various headings the number of applications for copyright received and registered, and the total revenue obtained for the years 1930 to 1934 :—

**COPYRIGHT, AUSTRALIA.—SUMMARY.**

Particulars.	1930.	1931.	1932.	1933.	1934.
Applications received—					
Literary .. .. . No.	1,334	1,258	1,469	1,463	1,611
Artistic .. .. . ”	176	143	91	90	108
International .. .. . ”	16	..	1	2	3
Applications registered—					
Literary .. .. . ”	1,267	1,213	1,381	1,350	1,514
Artistic .. .. . ”	165	122	74	72	91
International .. .. . ”	16	..	..	..	..
Revenue .. .. . £	406	398	405	382	433

**§ 3. Local Option and Reduction of Licences.**

Local option concerning the sale of fermented and spirituous liquors is in force in all the States (excepting New South Wales, where the taking of polls has been suspended, and Victoria, where “State Option” is in operation), the States being divided into areas generally conterminous with electoral districts, and a poll of the electors is taken from time to time in each district regarding the continuance of the existing number of licensed premises, the reduction in number, or the closing of all such premises. Provision is made for giving effect to the results of the poll in each district in which the vote is in favour of a change.

In earlier issues of the Year Book (see No. 22, pp. 1005–1008), details, by States, were published of polls taken and of the operations of the Licences Reduction Boards.

**§ 4. Lord Howe Island.**

1. **Area, Location, etc.**—Lord Howe Island is situated between Norfolk Island and the Australian coast in latitude 31° 30' south, longitude 159° 5' east. It was discovered in 1788. The total area is 3,220 acres, the island being 7 miles in length and from  $\frac{1}{2}$  to 1 $\frac{1}{2}$  miles in width. It is distant 436 miles from Sydney, and in communication therewith by monthly steam service. The flora is varied and the vegetation luxuriant, the forest growth consisting principally of palms and banyans. The highest point is Mount Gower, 2,840 feet. The climate is mild and the rainfall abundant, but on account of the rocky formation only about a tenth of the surface is suitable for cultivation.

2. **Settlement.**—The first settlement was by a small Maori party 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 referred to hereafter.

3. **Population.**—The population at the Census of 30th June, 1933, was 88 males, 73 females.—total 161.

4. **Production, Trade, etc.**—The principal product is the seed of the native or Kentia palm. The lands belong to the Crown. The occupants pay no rent, and are tenants on sufferance.

## § 5. Commonwealth Council for Scientific and Industrial Research.

1. **General.**—By the *Science and Industry Research Act 1926*, 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 1926.**—This Act provides for a Council, consisting of—

- (a) Three members nominated by the Commonwealth Government.
- (b) The Chairman of each State Committee constituted under the Act.
- (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 follow:—(a) To initiate and carry out scientific researches in connexion with primary or secondary industries in the Commonwealth. (b) to train research workers and to establish industrial research studentships and fellowships; (c) to make grants in aid of pure scientific research; (d) to establish industrial research associations in any industries; (e) to test and standardize scientific apparatus and instruments; (f) to establish a Bureau of information; and (g) to act as a means of liaison between the Commonwealth and other countries in matters of scientific research.

State Committees, whose main function is to advise the Council as to matters that may affect their respective States, have been constituted in accordance with prescribed regulations.

3. **Science and Industry Endowment Act 1926.**—Under this Act, the Government has established a fund of £100,000, the income from which is to be used to provide assistance (a) to persons engaged in scientific research, and (b) in the training of students in scientific research. Provision is made for gifts or bequests to be made to the fund, which is controlled by a trust consisting of the three Commonwealth nominees on the Council. In accordance with the Act, arrangements have been made to send a number of qualified graduates abroad for training in special fields of work.

4. **Work of the Council.**—The full Council held its first meeting in June, 1926, since which time it has held meetings 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 nutrition, (v) animal diseases, (vi) forest products, (vii) food preservation and transport, (viii) radio research, and (ix) ore-dressing (gold) and mineragraphic investigations. Successful results have been obtained in a number of directions, particularly in regard to bitter pit in apples, spotted wilt in tomatoes, water blister of pineapples, blue mould of tobacco, the cultivation and drying of vine fruits, the cultivation of citrus fruits, the feeding of sheep for increased wool production, black disease, infectious entero-toxæmia, pulpy kidney and caseous lymphadenitis of sheep, internal parasites, problems affecting cattle in Northern Australia, 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. More detailed information concerning the work of the Council may be found in Year Book No. 22, pp. 1009 and 1010.

### § 6. Australian Institute of Anatomy.

1. **Foundation of Institute.**—The Australian Institute of Anatomy, situated in Canberra, occupies a monumental building erected by the Federal Government under the *Zoological Museum Agreement Act* of 1924. Prior to the passing of this Act, the Federal Government had expressed regret that the Australian Nation possessed neither a collection of specimens of the unique and fast disappearing fauna of Australia, nor a Museum in which such specimens could be preserved for future generations. Comparative anatomy is the basis of medical science, and while the importance of a study of Australian animals in the solution of various medical problems had for years been recognized by other countries and steps taken by them to procure specimens for their museums, national effort in this direction was neglected in Australia. Sir Colin MacKenzie, the present Director of the Institute of Anatomy, however, very kindly presented to the Federal Government his entire private collection, and this magnificent gift was acquired and provision was made for its proper housing under special legislation by the Federal Government.

2. **Additions to Original Collection.**—In addition to the original collection, which has been greatly augmented, the following free gifts have been made to the Australian Nation, and are on view in the Institute :—

- (1) *Horne-Bowie Collection.*—Dealing with the life of Central Australian aborigines, and throwing valuable light on the psychology of this Stone Age people.
- (2) *Burrell Collection.*—This deals with the life history of the platypus, and is unique in the world. The platypus is the most primitive mammal known to science, and is the link between the bird, the reptile and the mammal.
- (3) *Milne Collection.*—This is an anthropological and ethnological collection dealing with the aborigines of New South Wales, and contains many valuable and now unobtainable native weapons and implements.
- (4) *Murray Black Collection* of anatomical material representative of the aborigines of Southern Victoria and the River Murray.
- (5) *Nankivell Collection*, illustrating the anatomy of the aborigines of the Murray Valley.
- (6) *Harvard University Collection.*—This includes a collection of specimens from the Harvard University, U.S.A., representing a carefully worked out epitome of archaeology of the United States, and, together with two rare skeletons of primitive North American Indians, was a goodwill gift from the University to the Institute of Anatomy.
- (7) *The Sir Hubert Murray Collection.*—The ethnological and osteological collection of Sir Hubert Murray, Lieutenant-Governor of Papua. This deals especially with the anthropology of Papua.
- (8) *The Rabaul Ethnological Collection.*—This concerns chiefly the Ethnology of the Mandated Territory of New Guinea.
- (9) *The Basedow Collection.*—This collection has been recently purchased by the Commonwealth Government. It deals especially with the anthropology of Central and Northern Australia and was assembled, after many years of research, by the late Dr. Herbert Basedow of Adelaide who was formerly Protector of Aborigines.
- (10) Many hundreds of specimens and books received from numerous interested scientists, the most outstanding being those from Mr. E. Hill, of Nagambie, Victoria; Mrs. Harry Burrell, New South Wales; and medical books for the Library from the estates of the late Drs. Molloy, David Grant and Robert Stirling.

3. **Endowments for Orations and Lectures.**—In addition to the aforementioned donations of material, there have been several endowments for Orations and Lectures as follow :—

- (1) *The Halford Oration.*—Endowed with a gift of £1,000 by the family of the late Professor G. B. Halford, founder of the first medical school in the Southern Hemisphere. The interest on this amount is given to a prominent scientist to deliver an oration on a subject suggested by the life and work of the late G. B. Halford.
- (2) *The Anne MacKenzie Oration.*—Founded with a gift of £1,000 by 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 Dr. W. T. Kendall in his honour, he being 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. **Ultimate Scope of the Institute.**—The Institute of Anatomy may be regarded as the first unit of a National University of Australia, and has already become the most important centre in the Southern Hemisphere for the study of comparative anatomy and of its application to human health and disease. Research work in many branches of this subject is being carried out, and an extensive collection of material for the use of future generations is being catalogued. The microscopic specimens of Australian fauna number many thousands, and are unique in the world. They represent normal mammalian tissues unaffected by disease or domestication, and with these, human tissues such as those affected with cancer can be compared. The building is used to a large extent for educational purposes. From 1931 to 1935 all the University College lectures were given there, and all public lectures of an educational nature are delivered in the lecture theatre attached to the Institute. The general public is admitted to the two great Museums of Osteology and Applied Anatomy, and large numbers take advantage of this concession.

## § 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. Its situation is such that it will fill a gap in the chain of existing astrophysical observatories : with its completion there will be stations separated by 90 degrees of longitude round the globe. In addition to advancing the knowledge of the universe and the mode of its development, it is hoped that the eventual discovery of the true relation between solar and terrestrial phenomena may lead to results which will prove of direct value to the country.

2. **History of Inauguration.**—A short account of the steps leading up to the establishment of the Observatory will be found in Official Year Book No. 19, p. 979.



3. **Site of the Observatory.**—The site selected for the Observatory is on Mount Stromlo, a ridge of hills about 7 miles west of Canberra. The highest point is 2,560 feet above sea level, or about 700 feet above the general level of the Federal 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. The equipment also includes spectroscopes for the examination of spectra in the infra-red, violet and ultra-violet regions. Donations amounting to over £2,500 have been received, and form the nucleus of a Foundation and Endowment Fund.

5. **Observational Work.**—The observational work embraces the following:—(a) solar research; (b) stellar research; (c) spectroscopic researches; (d) atmospheric electricity; (e) cosmic radiation; (f) radio research; (g) ozone content of the atmosphere; (h) luminosity of the night sky; and (i) meteorological observations. A more detailed account of the observational work cannot, owing to limits of space, be published in this issue, but may be found in earlier issues (see No. 22, p. 1011).

### § 8. Standards Association of Australia.

This Association was established under the aegis of the Commonwealth and State Governments for the promotion of standardization and simplified practice.

In addition to the Council and Standing and Organization Committees, the following Sectional Committees have been appointed to formulate Australian standard specifications and codes:—A.—*Safety Codes Group*—(1) Boiler Regulations (including Gas Cylinders); (2) Concrete and Reinforced Concrete Structures; (3) Cranes and Hoists; (4) Electrical Wiring Rules; (5) Lift Installations; (6) Pump Tests; (7) Refrigeration; (8) Steel Frame Structures; (9) Welding; (10) Fireproof Construction; (11) Building By-laws; (12) Electrical Service Rules; (13) Handling and Use of Explosives; (14) Air-lock Operation. B.—*General Technical Standards Group*—(1) Bore Casing; (2) Building Materials; (3) Calcium Carbide; (4) Cement; (5) Coal—Purchase, Sampling and Analysis; (6) Colliery Equipment; (7) Containers for Inflammable Liquids; (8) Electrical; (9) Firebricks; (10) Locomotives; (11) Lubricants; (12) Machine Belting; (13) Machine Parts; (14) Non-ferrous Metals; (15) Paint and Varnish; (16) Pipes and Plumbing; (17) Railway Permanent Way Materials; (18) Roadmaking Materials; (19) Structural Steel; (20) Testing, Weighing and Gauging; (21) Timber; (22) Tramway Rails; (23) Typography; (24) Galvanizing and Galvanized Products; (25) Roadmaking Machinery; (26) Sugar Mill Machinery. C.—*Co-ordinating Committees*—(1) Concrete Products; (2) Ferrous Metals; (3) Non-Ferrous Metals; (4) Methods of Physical Testing, Sampling and Chemical Analysis—Co-ordination of. D.—*Commercial Standards Division Committees*—(1) Building Materials Classification; (2) Three-ply Wood Panels for Use in Stock Door Manufacture; (3) Institutional Supplies and Co-ordinated Purchasing (Hospitals, Asylums and other Public Institutions); (4) General Conditions of Contract; (5) Purified Feathers; (6) Commercial Paper Sizes; (7) Road Gully Gratings; (8) Street Name Plates, Building Number Plates and Road Signs; (9) Sheet Metal Gutting, Ridging and Downpiping; (10) Laminated Steel Springs for Motor Cars; (11) Shellgrit for Poultry.

A Power Survey Committee to deal with the collection of data and the framing of recommendations for assistance in the development and co-ordination of power schemes has also been appointed.

The objects of the Association include the following:—To prepare and promote the general adoption of standards in connexion with structures, materials, etc.; to co-ordinate the efforts of producers and users for the improvement of materials, processes, and methods; and to procure the recognition of the Association in any foreign country.

The sole executive authority of the Association is vested in the Council, which undertakes the whole of the organization of the movement, the raising of the necessary funds, the controlling of the expenditure, the arranging of the subjects to be dealt with by the various sectional and sub-committees, and the authority for the issue of all the reports and specifications.

The Association was established in July, 1929, by amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice.

## § 9. Valuation of Australian Production.

1. **Value of Production.**—(i) *Net Values.* The annual value of production was defined by the Conference of Statisticians in 1924 as the sum available each year for distribution among those concerned in industry, i.e., workers, proprietors (including landlords) and providers of capital. In the past the want of complete uniformity in the methods of compilation and presentation of statistics of recorded production rendered it very difficult to make a satisfactory valuation of the various elements of production in accordance with the above definition. At the conference of 1924 and those subsequently held a uniform method of determining the gross value, marketing costs and production costs was laid down. This arrangement enabled the State Statisticians to compile the various elements of costs on a uniform basis which permitted the aggregation of the figures for each State to obtain a total for Australia.

The figures shown in the following table have been compiled by the Statisticians of the several States and, to a large extent, are based upon actual records. Where this has not been possible careful estimates have been made from the best available data. Absolute uniformity has not been attained in every detail but the variations do not seriously impair comparability. This matter is referred to in the note at the head of the table.

Attention is directed to the fact that the value shown in the table refers only to recorded production and excludes the building and construction industry, those industrial establishments not classified as factories, and agricultural and farmyard produce grown on 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 taken to be the principal markets.)
- (b) *Local value* is the gross production valued at the place of production and is ascertained by deducting marketing costs from the gross value. (Marketing costs include freight, cost of containers, commission and other charges incidental thereto.)
- (c) *Net value* represents the net return to the producer after deducting from the gross value costs of marketing and of materials used in the process of production. Materials used in the process of production include seed, fodder consumed by farm stock, manures, dips, sprays and other costs. No account has been taken of depreciation and maintenance costs. This matter is more fully dealt with in the Production Bulletin, No. 28, issued by this Bureau.

Attention is directed to the following points in the table hereunder :—Depreciation and maintenance costs have not been deducted and therefore the net value as stated in the table is greater than it should be. The value of materials used in the process of primary production for New South Wales does not include the cost of power used nor the value of dips. The costs for the pastoral industry in Queensland are not as exact as might be desired but these defects will be eliminated in due course. In Tasmania the value shown for Mines and Quarries is understated owing to the omission of Quarries. As

explained in the Note (a) production costs are not available for all States in respect of Fisheries and Mines and Quarries and Local Values have been used for these industries with consequent overstatement.

**GROSS, LOCAL AND NET VALUE OF RECORDED PRODUCTION—AUSTRALIA, 1933-34.**

Industry.	Gross Production valued at Principal Markets.	Local Value—Gross Production valued at place of Production.	Net Value of Production, not deducting Depreciation.
	£	£	£
Agriculture .. ..	70,670,428	57,063,853	43,692,270
Pastoral .. .. .	84,495,489	76,781,180	74,269,591
Dairying .. .. .	27,430,149	25,468,132	20,762,252
Poultry and Bees .. ..	8,642,032	7,826,478	5,265,246
Total Rural (c) .. ..	191,238,098	167,139,643	143,989,359
Trapping .. .. .	2,205,775	1,837,210	1,837,210
Forestry .. .. .	5,853,802	5,137,150	5,137,150
Fisheries .. .. .	1,578,328	1,329,725	(a) 1,329,725
Mines and Quarries .. ..	16,967,589	16,788,853	(a) 16,788,853
Total Non-rural .. ..	26,605,554	25,092,938	25,092,938
Total All Primary .. ..	217,843,652	192,232,581	169,082,297
Factories .. .. .	(b) 129,091,761	(b) 129,091,761	129,091,761
Total All Industries .. ..	346,935,413	321,324,342	298,174,058

(a) Local value. Production costs not available for all States. (b) Net value. (c) The term "Rural" is used to cover those industries ordinarily considered to be farm industries.

The net value of production in each State is shown hereunder:—

**NET (a) VALUE OF RECORDED PRODUCTION IN STATES, 1933-34.**

Industry.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
Agriculture .. ..	11,724,000	10,077,018	9,703,968	5,909,760	4,598,144	1,679,380	43,692,270
Pastoral .. .. .	34,422,000	15,903,468	12,133,102	4,560,947	5,642,524	1,607,550	74,269,591
Dairying .. .. .	8,011,000	6,232,393	4,626,681	1,138,928	369,050	384,200	20,762,252
Poultry and Bees .. ..	1,832,000	2,260,389	279,324	274,177	316,676	302,680	5,265,246
Total Rural (net) .. ..	55,989,000	34,473,268	26,743,075	11,883,812	10,926,394	3,973,810	143,989,359
Trapping .. .. .	1,108,000	416,990	33,262	82,142	40,136	156,680	1,837,210
Forestry .. .. .	1,737,000	588,837	1,334,088	488,069	729,796	259,360	5,137,150
Fisheries (local) .. ..	536,000	132,452	248,375	152,041	195,985	64,872	1,329,725
Mines and Quarries (local) .. ..	5,849,000	1,380,918	2,198,709	1,228,151	5,293,445	838,630	16,788,853
Total Non-rural (local and net) .. ..	9,230,000	2,519,197	3,814,434	1,950,403	6,259,362	1,319,542	25,092,938
Total All Primary .. ..	65,219,000	36,992,465	30,557,509	13,834,215	17,185,756	5,293,352	169,082,297
Factories .. .. .	54,042,000	44,201,645	13,712,508	8,641,477	5,444,280	3,049,851	129,091,761
Total All Industries .. ..	119,261,000	81,194,110	44,270,017	22,475,692	22,630,036	8,343,203	298,174,058

(a) See letterpress at head of previous Table.

## NET (a) VALUE OF RECORDED PRODUCTION PER HEAD OF MEAN POPULATION.

Industry.	New South Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Agriculture .. ..	4 9 9	5 10 5	10 4 2	10 2 10	10 8 9	7 6 7	6 11 7
Pastoral .. ..	13 3 5	8 14 3	12 15 3	7 16 7	12 16 3	7 0 4	11 3 8
Dairying .. ..	3 1 4	3 8 4	4 17 4	1 19 2	0 16 9	1 13 6	3 2 6
Poultry and Bees ..	0 14 0	1 4 8	0 5 10	0 9 5	0 14 4	1 6 5	0 15 10
<b>Total Rural (net) ..</b>	<b>21 8 6</b>	<b>18 17 8</b>	<b>28 2 7</b>	<b>20 8 0</b>	<b>24 16 1</b>	<b>17 6 10</b>	<b>21 13 7</b>
Trapping .. ..	0 8 6	0 4 6	0 0 8	0 2 9	0 1 10	0 13 8	0 5 6
Forestry .. ..	0 13 4	0 6 6	1 8 1	0 16 9	1 13 2	1 2 8	0 15 6
Fisheries (local) ..	0 4 2	0 1 6	0 5 3	0 5 3	0 8 10	0 5 7	0 4 0
Mining (local) .. ..	2 4 9	0 15 2	2 0 3	2 2 2	12 0 4	3 13 3	2 10 6
<b>Total Non-rural (local and net) ..</b>	<b>3 10 9</b>	<b>1 7 8</b>	<b>4 0 3</b>	<b>3 6 11</b>	<b>14 4 2</b>	<b>5 15 2</b>	<b>3 15 6</b>
<b>Total All Primary (local and net) ..</b>	<b>24 19 3</b>	<b>20 5 4</b>	<b>32 2 10</b>	<b>23 14 11</b>	<b>39 0 3</b>	<b>23 2 0</b>	<b>25 9 1</b>
Factories .. ..	20 13 7	24 4 4	14 8 6	14 16 9	12 7 2	13 6 4	19 8 9
<b>Total All Industries</b>	<b>45 12 10</b>	<b>44 9 8</b>	<b>46 11 4</b>	<b>38 11 8</b>	<b>51 7 5</b>	<b>36 8 4</b>	<b>44 17 10</b>

(a) See letterpress at head of previous Table.

(ii) *Gross Values.* The estimated gross value of production shown in the following table is a continuation of the method previously used by this Bureau. It cannot be compared with the gross values shown in the table above on account of the difference in the methods used and the change in the computing authority. It is proposed to discontinue the publication of this table once the net values have been satisfactorily established.

## ESTIMATED GROSS VALUE OF PRODUCTION.—AUSTRALIA.

Year.	Agriculture.	Pastoral.	Dairy, Poultry, and Bee-farming.	Forestry.	Fisheries.	Mining.	Manufacturing. (a)	Total.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1923-24 ..	81,166	110,216	42,112	10,292	1,574	22,184	132,732	400,276
1924-25 ..	107,163	127,301	45,190	10,577	1,780	24,592	137,977	454,580
1925-26 ..	89,267	113,556	48,278	10,964	1,820	24,529	143,256	431,670
1926-27 ..	98,295	111,716	46,980	11,046	1,744	23,939	153,634	447,354
1927-28 ..	84,328	124,554	50,261	10,339	1,842	23,015	158,562	452,901
1928-29 ..	89,440	116,733	50,717	9,449	2,168	19,539	159,759	447,805
1929-30 ..	77,109	84,563	49,398	9,103	2,268	17,912	149,184	389,537
1930-31 ..	70,500	69,499	43,067	6,488	1,825	15,356	112,966	319,701
1931-32 ..	74,489	61,540	41,478	6,033	1,670	13,352	106,456	305,018
1932-33 ..	75,562	64,851	39,622	6,791	1,679	15,583	114,136	318,224
1933-34 ..	70,732	94,924	(b) 40,306	7,985	1,620	17,668	121,757	354,932

(a) Net Values. These amounts differ from those given in the two previous tables and in Chapter XXV., Manufacturing Industry, which include certain products included under Dairy Farming and Forestry in this table.

(b) Poultry, £8,547,000; Bee-farming, £100,000.

2. **Productive Activity.**—In previous issues an attempt was made to measure the quantity of material production by means of production price index-numbers. It was found, however, that these were not satisfactory in their application to factory production.

In the absence of a satisfactory measure of the "quantity" of production, the retail price index-numbers ("A" Series) have been applied to the value of production in the same manner as 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. For convenience these results will hereafter be called "real" production. Two tables are given. The first shows "real" production per head of population. This table must be used with caution, as 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 material production. For example, the present 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 individual 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 ever since 1906. Whatever gain had been made in individual productive efficiency had been off-set by the gradual transfer of labour from production of goods to production of services. With unemployment becoming intense the index fell from its normal figure of about 100 to 76 in 1930-31. This would imply a fall of about 24 per cent. from the normal level, taking unemployment into account. In the next three years the index rose steadily to 95. This figure indicates a rise in "real" production per head of population of 25 per cent. over that of the lowest point of the depression.

The index 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, as might have been expected, fell somewhat after the war, and recovered again. For 1929-30 it fell to 105, owing to the lag in the fall of retail prices, increased to 107 for 1930-31, to 112 in 1931-32, to 117 in 1932-33, and to 124 in 1933-34, as contrasted with about 95 for "real" production per head. This high figure for "real" production per person engaged implies a high "real" wage for those in employment and is consistent with available information concerning rates of effective or "real" wages which more than maintained in recent years the high level reached in the years 1927 to 1929.

The data for the second table are not complete. The numbers engaged in timber-getting are not accurately known, so that the value of production on this account and the corresponding persons engaged are both left out of account. Further, the information concerning women engaged in primary production is unsatisfactory, and only males are counted in primary industries. In manufacturing, the numbers are converted into equivalent male workers on the basis of relation of wages for male and female workers. The column headed "numbers engaged" is, therefore, rather an index than the absolute number of individuals occupied in material production, but, as an index, it should be accurate enough to give a satisfactory measure of production per person engaged.

## PRODUCTION PER HEAD OF POPULATION.—AUSTRALIA.

Year.	Gross Value of Material Production.			Retail Prices. Index Number. (a) 1911 = 1,000.	"Real" produc- tion per head of population (measured in retail purchas- ing power). 1911 = 100.
	Total.	Per head of population.			
		Actual.	Index Number. 1911 = 100.		
	£1,000.	£			
1901 .. ..	114,585	30.0	73	880	83
1906 .. ..	147,043	35.9	87	902	97
1907 .. ..	166,948	40.1	97	897	109
1908 .. ..	162,861	38.5	93	951	98
1909 .. ..	174,273	40.3	98	948	103
1910 .. ..	185,399	41.9	102	970	105
1911 .. ..	188,359	41.2	100	1,000	100
1912 .. ..	209,236	44.1	107	1,101	97
1913 .. ..	220,884	45.1	110	1,104	99
1914 .. ..	213,552	43.0	104	1,140	92
1915 .. ..	255,571	51.4	125	1,278	98
1916 .. ..	261,996	53.3	129	1,324	98
1917 .. ..	279,418	56.1	136	1,318	103
1918 .. ..	291,875	57.5	140	1,362	102
1919-20 ..	343,697	64.9	158	1,624	97
1920-21 ..	390,644	72.2	175	1,821	96
1921-22 ..	344,426	62.5	152	1,600	95
1922-23 ..	379,445	67.4	163	1,642	100
1923-24 ..	400,276	69.6	169	1,714	99
1924-25 ..	454,580	77.3	188	1,690	111
1925-26 ..	431,670	72.0	175	1,766	99
1926-27 ..	447,354	73.1	178	1,763	101
1927-28 ..	452,901	72.5	176	1,776	99
1928-29 ..	447,805	70.5	171	1,785	96
1929-30 ..	389,537	60.6	147	1,783	83
1930-31 ..	319,701	49.2	120	1,574	76
1931-32 ..	305,018	46.5	113	1,432	79
1932-33 ..	318,224	48.2	117	1,358	86
1933-34 ..	354,932	53.3	130	1,365	95

(a) Retail prices of Food, Groceries, and Housing (all Houses) for six capital cities;

## 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 (measured in retail purchasing power). 1911 = 100.
		Actual.	Index Number. 1911 = 100.	
	(1,000)	£		
1906 .. ..	659	223	87	96
1907 .. ..	678	244	95	106
1908 .. ..	677	239	93	98
1909 .. ..	684	252	98	104
1910 .. ..	704	262	102	105
1911 .. ..	728	257	100	100
1912 .. ..	744	279	109	99
1913 .. ..	756	290	113	102
1914 .. ..	733	289	113	99
1915 .. ..	704	361	141	110
1916 .. ..	685	381	148	112
1917 .. ..	683	408	159	120
1918 .. ..	685	424	165	121
1919-20 ..	743	460	179	110
1920-21 ..	760	510	199	109
1921-22 ..	775	441	172	107
1922-23 ..	793	475	185	113
1923-24 ..	810	491	191	111
1924-25 ..	826	547	213	126
1925-26 ..	831	515	201	114
1926-27 ..	841	527	205	116
1927-28 ..	838	536	209	118
1928-29 ..	830	536	209	117
1929-30 ..	803	482	187	105
1930-31 ..	728	431	168	107
1931-32 ..	741	411	160	112
1932-33 ..	781	407	158	117
1933-34 ..	815	434	169	124

(a) See explanatory remarks above tables.

## § 10. 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 proclamations have been issued prohibiting the importation of films and relative advertising matter except under certain conditions and with the consent of the Minister. The conditions governing importation are contained in regulations issued under the Act and 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 Censor 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 headquarters being in Sydney. Importers also have the 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 1934 were as follow:—1,219 films of 2,744,609 feet passed without eliminations, 256 films of 1,365,659 feet passed after eliminations, and 39 films of 246,242 feet rejected in first instance, making a total of 1,514 films of 4,356,510 feet (one copy). The countries of origin were as follow:—United States of America, 975 films of 3,072,605 feet; United Kingdom, 450 films of 1,190,012 feet; and 89 films of 93,893 feet from other countries.

The above figures relate to standard size films (35 millimeters). There were also imported during 1934, 445 miniature films (16 millimeters and 9.5 millimeters) of 175,190 feet.

3. **Exports of Films.**—The number of films exported for the year 1934 was 1,049 of 1,340,959 feet (one copy), of which 874 films of 1,185,763 feet were sent to places in the British Empire including Mandated Territories.

## § 11. Marketing of Australian Commodities.

1. **Introduction.**—Particulars in respect of 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.

2. **Dairy Produce.**—(i) *Dairy Produce Export Control Act 1924.* This Act, which was introduced at the request of the dairying industry, was passed by the Commonwealth Parliament with the object of organizing the marketing overseas of Australian dairy produce. A poll of producers was taken before the Act operated, and resulted in 17,970 votes in favour of, and 5,527 against, the operation of the Act. The Dairy Produce Control Board, consisting of thirteen members—nine of whom represent co-operative factories, two proprietary factories, one of persons engaged as sellers out of the Commonwealth, and one Government nominee—was appointed under the Act to supervise the export, and the sale and distribution after export, of Australian dairy produce. In the course of its functions the Board has regulated shipments to ensure regularity in supply on the London market, controlled forward selling, obtained reductions in overseas freights and insurance rates, and participated in an advertising campaign in the United Kingdom. The Board has a London representative who advises on marketing conditions there. Provision is made under the Act for the issue, under certain conditions, of licences to exporters before butter and cheese may be exported from Australia. The provisions of the Act do not apply to butter shipped to destinations east of 180° E. longitude.

(ii) *Dairy Produce Export Charges Acts 1924 and 1929.* The Act of 1924 provided for the imposition of a levy on all butter and cheese exported from the Commonwealth to cover the administrative expenses of the Board, and for advertising and other purposes. Regulations were issued fixing the rate of levy upon the export of butter and cheese. The Act of 1929 provided for the exemption of butter and cheese from the levy upon recommendation by the Board. This power has been used to avoid the payment of very small sums.

(iii) *Dairy Produce Act 1933.* This Act was passed in 1933 and became operative, by proclamation, as from 2nd May, 1934. Under its provisions butter and cheese may not be transferred from one State to another except in accordance with the terms of a licence issued by a prescribed authority appointed by the Commonwealth. The principal condition attached to a licence is that a percentage ("quota") of butter or cheese produced shall be exported overseas. Complementary State legislation in New South Wales, Victoria, Queensland and Tasmania provides that only a prescribed "quota" of the butter and cheese produced may be sold within the State. Under this legislation the dairy industry is able to operate its plan for the stabilization of prices and equalization of returns to factories.

\* Power to regulate Interstate trade has been challenged as being a contravention of Section 92 of the Commonwealth Constitution and the matter is now before the Privy Council.



The States of South Australia and Western Australia have passed legislation governing the marketing of butter and cheese, but, in view of the different conditions existing in these States, they have not joined in the scheme operating in the Eastern States.

3. *Dried Fruits.*—(i) *Dried Fruits Export Control Act 1924-1935.* The Act was passed by the Commonwealth Parliament at the request of the dried fruits industry to organize the overseas marketing of Australian dried vine fruits. A poll of dried fruit growers was taken before the Act operated, the voting being 2,287 in favour of, and 147 against, the operation of the Act. The Dried Fruits Control Board, consisting of eight members—including five growers' representatives, two members with commercial experience, and one Government nominee—was appointed to control the export, and the sale and distribution after export, of Australian sultanas, currants and lexias. In conjunction with its London Agency, the Board has improved the marketing of Australian dried fruits overseas, and has increased the demand for the product. Its system of appraisalment has resulted in more satisfactory realizations, and its methods of ensuring continuity of supply and regulating shipments, its participation in an advertising campaign, and the securing of reductions in freight and insurance rates have benefited the industry considerably. No dried fruits may be exported excepting by means of a licence, which is issued subject to conditions recommended by the Board.

(ii) *Dried Fruits Export Charges Acts 1924 and 1927.* The Act of 1924 provided for the imposition of a levy on all sultanas, currants and lexias exported from the Commonwealth for the purpose of defraying the administrative expenses of the Board and the cost of advertising, etc. Regulations were issued fixing the rate of levy. Under the 1927 Act provision was made for the exemption of sultanas, currants and lexias from the levy imposed, upon recommendation by the Board.

(iii) *Dried Fruits Act 1928-1933.* By the 1928 Act the transfer of any sultanas, currants or lexias from one State to another is prohibited except in accordance with the terms of a licence issued by a prescribed authority appointed by the Commonwealth. The principal condition attached to such licence is that there shall be exported a prescribed percentage of these fruits. The States of New South Wales, Victoria, South Australia and Western Australia have passed complementary legislation restricting the proportion of the production of these fruits which may be sold within each State.

The 1933 Act was passed to bring dried tree fruits, viz., prunes, apricots, peaches, pears and nectarines within the provisions of the 1928 Act. The operation of the 1933 Act was subject to the approval of growers, and the voting at a poll resulted in 554 votes being cast in favour and 225 votes against. It might be mentioned that, although subject to the *Dried Fruits Act 1928-1933*, dried tree fruits are not subject to the *Dried Fruits Export Control Act 1924-1935*, and therefore do not come within the purview of the Dried Fruits Control Board.

4. *Canned Fruits.*—(i) *Canned Fruits Export Control Act 1926-1935.* This legislation was introduced at the request of canners and representative organizations of fruit growers with the object of organizing the overseas marketing of canned fruits. The 1926 Act came into operation only after a poll of canners was taken to determine whether a majority favoured the system of control provided under the Act. A substantial majority of votes was cast in favour of the Act. The original Act included canned apricots, peaches and pears only, but by amendments introduced in 1933 and 1935 respectively, canned pineapples and canned fruit salad consisting of not less than 75 per cent. of specified fruits were brought within the scope of the Board's operations. The personnel of the Board when first constituted consisted of one representative of proprietary and privately owned canneries, one representative of co-operative and State controlled canneries, and one representative nominated by the Commonwealth Government. In 1930 the Act was amended to enable State controlled canneries to have a separate representative on the Board, and by a further amendment in 1933 canned pineapple interests were permitted a representative. Thus the Board now consists of five members. 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. No control of interstate trade is exercised in respect of canned fruits, as is the case with dried fruits and dairy produce. 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 overseas 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.

(i) *Canned Fruits Export Charges Acts* 1926 and 1929. The Act of 1926 provided for the imposition of a levy on the export of canned fruits subject to the Act to meet the administrative and other commitments of the Board. The rate of levy is fixed by regulation from time to time. The amendment in 1929 provided for certain exemptions from payment of the levy when recommended accordingly by the Board.

5. *Wine*.—(i) *Wine Overseas Marketing Act* 1929. This Act was introduced at the request of the viticultural interests in Australia, and was passed by the Commonwealth Parliament with the object of placing the overseas marketing of Australia's surplus wine on an organized basis. The Act came into operation after a poll of owners of wineries and distilleries had shown that a majority of producers was in favour of the legislation. The voting at this poll was 94 in favour and 37 against. The Wine Overseas Marketing Board, comprising eight members, viz., two representatives of the co-operative wineries and distilleries, five representatives of the proprietary and privately owned wineries and distilleries, and one representative of the Commonwealth Government, was appointed to supervise the export, and sale and distribution after export, of Australian wine. No wine may be exported except by means of a licence, which is issued under conditions recommended by the Board. Important conditions attached to such licences are the disposal of the wine at prices not less than those fixed by the Board, and the withholding of shipments as directed by the Board. No control is exercised over interstate trade in wine. The Board has a London representative who advises on marketing conditions. The methods of marketing adopted by the Board, including the engaging in trade publicity, have resulted in the widening of the distribution of Australian wines overseas.

(ii) *Wine Grapes Charges Act* 1929. This Act provides for the imposition of a levy on all grapes used in the Commonwealth for the manufacture of wines or spirit. 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. *Export Guarantee Act*.—For a considerable time this Act has not been invoked to directly provide for assistance in the marketing of primary products. The Dried Fruits Advances Act, disbursements under which were made from 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 since its operation to the 30th June, 1934, 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.

7. *Australian Agricultural Council*.—Particulars of the formation, personnel and functions of the Australian Agricultural Council are given in Chapter XXI., § 2. (4).

## § 12. 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 the States of New South Wales, Victoria, Queensland, South Australia and Tasmania, it issues by courtesy of the Traffic Authorities a thirty-two page 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 "Freedom from Accidents" competition is also conducted 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 31,000 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 thirty-two page booklet "Air Sense" for distribution with "A" pilots' licences through the Civil Aviation Branch of the Defence Department.

The Council is supported by public subscription and sales of service. Numerous lectures are given throughout the year on the work of the Council, and on various aspects of safety, and lecturers are always available for any organization which makes application to the Secretary.

### § 13. League of Nations.

Australia was one of the original signatories of the Treaty of Versailles of 28th June, 1919, under which the League of Nations was established, and thus became a Member of the League and its kindred organizations—the international Labour Organization and later the Permanent Court of International Justice. On 2nd October, 1933, Australia was elected a non-permanent member of the Council of the League of Nations, and will now be called upon to participate in greater measure in the work of the organization. There are now four permanent members of the Council (Great Britain, France, Italy, and the Union of Soviet Socialist Republics) and ten non-permanent members, viz., Argentina, Australia, Chile, Denmark, Ecuador, Poland, Portugal, Roumania, Spain, and Turkey. The term of the non-permanent members is three years.

Australia has been represented at each Assembly of the League from its inauguration in 1920, and at nearly all of the conferences of the International Labour Organization. The contribution of Australia towards defraying the expenditure of the League of Nations and its kindred organizations is on the basis of 27 of 1,011 units, and for the year 1935 amounts to 817,955 gold francs, or, in Australian currency at the present rate of exchange, approximately £66,000, out of a total budget of 30,639,664 gold francs. Australia holds a mandate, issued through the League of Nations, for the former German territory of New Guinea, and, by agreement with Great Britain and New Zealand, administers the Mandated Territory of Nauru, for which a mandate was issued to the British Empire.

### § 14. War Service Homes.

The operations of the War Service Homes Commission at 28th February, 1935, may be briefly set out as follow:—Total applications approved, 42,048; expenditure on provision of homes, purchase of land for future use, etc., £28,890,655; 21,220 houses had been completed; and 34 homes had been enlarged.

In addition, the Commission had purchased on behalf of eligible applicants 12,925 already existing properties, and had taken over mortgages existing on 2,603 dwelling houses. Dual assistance had been approved in respect of 50 applications, making the total number of homes provided under the War Service Homes Act, 36,832. Homes are insured under a comprehensive policy, the total insurances in force including cover notes amounting to £21,254,658. The total receipts of the Commission to 28th February, 1935, were £20,929,213, of which £7,462,550 was paid to the National Debt Sinking Fund. The percentage of arrears of instalments due was 5.5, while the total instalments due amounted to £18,061,264, and arrears to £997,653.

Pursuant to legislation passed by the Commonwealth Government and the State Parliament of South Australia, the control of homes under the State Bank of South Australia was transferred to the Commission as at 1st January, 1935, and the figures quoted cover the activities in respect of homes so transferred.

## CHAPTER XXIX.

## STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

## § 1. General.

**Development of Australian Statistics.**—(i) *General.* An outline of the history and development of statistics in Australia was published in Year Book No. 19 (see p. 988) and previous issues, particular reference being made to the Crown Colony Blue Books, Statistical Registers, Prominent State Statisticians, Statistical Conferences, the Foundation of the Federal Bureau, and Uniformity of Statistical Control. It is now proposed to repeat this information in this issue.

(ii) *Present Organization.* The organization in respect of the collection, tabulation, etc., of statistical data as between the State and Federal Statistical Bureaux, and State and Federal Government Departments, was described in Official Year Book No. 19, p. 990. Limits of space preclude its repetition in this issue.

## § 2. Statistical Publications of Australia.

1. **General.**—The official statistical publications of Australia may be divided bibliographically into two main divisions, viz. :—(1) Commonwealth publications dealing both individually and collectively with the several States of the Commonwealth; and (2) State publications dealing with individual States only. Besides these there are many other reports, etc., issued regularly, which though not wholly statistical, necessarily contain a considerable amount of statistical information.

2. **Commonwealth Publications.**—Commonwealth publications may be grouped under two heads, viz. :—(i) Publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers.

(i) *Publications issued by the Commonwealth Statistician.* The following is a list of the principal statistical publications issued from the Commonwealth Bureau of Census and Statistics since its inauguration to December, 1935 :—

*Australian Life Tables, 1901–1910. Australian Joint Life Tables, 1901–1910.*

*Australian Life Tables, 1920–1922.*

*Census (1911) Bulletins.*

*Census (1911) Results.*—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 23. For details see back page.

*Finance.*—Bulletins, 1907 to 1916–17 annually; 1917–18 and 1918–19 (one vol.); 1919–20 and 1920–21 (one vol.); 1922–23 to 1933–34 annually.

*Labour and Industrial Statistics.*—Memoranda and Reports, various, to 1913.

*Labour Report, annually, 1913 to 1934.*

*Local Government in Australia.*—July, 1919.

*Official Year Book of the Commonwealth of Australia.*—Annually, 1907 to present issue (1935).

*Oversea Trade, annually, 1906 to 1934–35.*

*Pocket Compendium of Australian Statistics (formerly Statistical Digest), 1913, 1914, 1916, and 1918 to 1935 annually.*

*Population and Vital Statistics Bulletins.*—Reports, various. Commonwealth Demography, 1911 to 1934 annually.

*Production.*—Bulletins, annually, 1906 to 1933–34.

*Professional Papers.*—Various. A full list will be found in Official Year Book No. 13, p. 3.

- Quarterly Summary of Australian Statistics*—first issue, No. 70, December, 1917, replacing *Monthly Summary of Australian Statistics* (Bulletins 1 to 69).  
*Social Insurance*—Report to the Hon. the Minister of Trade and Customs, 1910.  
*Social Statistics*—Bulletins, 1907 to 1915 annually, and 1918.  
*Superannuation for the Commonwealth Public Service*—Report to the Hon. the Minister for Home Affairs, 1910.  
*Transport and Communication*—Bulletins, 1906, 1908 to 1916 annually; 1919 to 1930 annually, and 1932 to 1934 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.

(ii) *Commonwealth Parliamentary and Departmental Reports and Papers*. Lists of the principal official reports and other documents containing statistical information issued from the inauguration of the Commonwealth were given in the Official Year Books up to No. 15, but limits of space preclude the incorporation of this information in the present volume.

3. **State Publications.**—The chief statistical publications of each State are set out hereunder. Limits of space preclude a further enumeration of the various Departmental Reports, statements of accounts, etc., issued by officials, boards, local government bodies, etc., in each State.

- (a) New South Wales—Statistical Register (annual); Official Year Book of New South Wales (annual); Statesman's 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).  
 (d) South Australia—Statistical Register (annual); Official Year Book, 1912 and 1913; Statesman's Pocket Year Book (annual).  
 (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 more important works which are still in print. This is followed by a list of selected works published during 1935, including a few books which, though published in 1934, did not reach the Library until after the compilation of the last issue of this list. A selection of official publications covering the same period is included at the end.

Technical works on Law, Medicine and the pure sciences are excluded.

The retail price in the country of publication is shown.

A copy of each of the works mentioned is preserved in the Library and access thereto may be had by any Commonwealth official or other authorized person.

The Library also publishes a bi-monthly list of accessions, which includes a complete list of Australian publications received under the Copyright Act.

#### GENERAL AND DESCRIPTIVE.

- AUSTRALIAN ENCYCLOPEDIA, THE: *editors*, A. W. Jose, H. J. Carter and T. G. Tucker. 2 vols. (Angus & Robertson, 55s.) 3rd edition, Sydney, 1926-27.  
 BROWNE, G. S. Australia: A General Account; History, Resources, Production, Social Conditions. (Nelson, 2s. 6d.). London, 1929.  
 HANCOCK, W. K. Australia. (Benn, 15s.). London, 1930.  
 JOSE, A. W. Australia: Human and Economic. (Harrap, 10s. 6d.). London, 1932.  
 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 Travel Association, 12s. per annum). Melbourne, 1934 to date.

GENERAL AND DESCRIPTIVE—*continued.*

WOOD, T. Cobbers: A Personal Record of a Journey from Essex, in England, to Australia. (Oxford University Press, 7s. 6d.). London, 1934.

DAVIDSON, F. D., and NICHOLLS, B. Blue coast caravan. (Angus & Robertson, 6s.) Sydney, 1935.  
FINLAYSON, H. H. The Red Centre: man and beast in the heart of Australia. (Angus & Robertson, 7s. 6d.). Sydney, 1935.

IDRISS, L. L. Man tracks: with the mounted police in Australian wilds. (Angus & Robertson, 6s.) Sydney, 1935.

MCIVER, G. A driver's Odyssey. (Angus & Robertson, 6s.) Sydney, 1935.

PLOWMAN, R. B. The Boundary Rider. (Angus & Robertson, 6s.) Sydney, 1935.

## TERRITORIES OUTSIDE AUSTRALIA.

EGGLESTON, F. W., *editor*. The Australian Mandate for New Guinea. (Melbourne University Press, 5s.). Melbourne, 1928.

CHRISTENSEN, L. Such is the Antarctic. (Hodder & Stoughton, 16s.). London, 1935.

ELLIS, A. F. Ocean Island and Nauru: their story. (Angus & Robertson, 7s. 6d.). Sydney, 1935.

LETT, L. Knights Errant of Papua. (Blackwood, 12s. 6d.). London, 1935.

## HISTORY.

CAMBRIDGE HISTORY OF THE BRITISH EMPIRE, vol. 7, pt. 1.: Australia. (Cambridge University Press, 30s.). Cambridge, 1933.

DAKIN, W. J. Whalersmen Adventurers: The Story of Whaling in Australian Waters . . . from the Days of Sail to Modern Times. (Angus & Robertson, 15s.). Sydney, 1934.

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.)

JOSE, A. W. A History of Australia. (Angus & Robertson, 4s. 6d.). 15th edition, Sydney, 1930.

MILLS, R. C. The Colonization of Australia, 1829-41. (Sidgwick & Jackson, 10s. 6d.). London, 1915.

ROBERTS, S. H. History of Australian Land Settlement, 1788-1920. (Melbourne University Press, 21s.). Melbourne, 1924.

SCOTT, E., *editor*. Australian Discovery: by Sea and by Land. 2 vols. (Dent, 21s.). London, 1929.

WOOD, G. A. The Discovery of Australia. (Macmillan, 25s.). London, 1922.

BOYS, R. D. First years at Port Phillip: preceded by a summary of historical events from 1768. (Robertson & Mullens, 7s. 6d.). Melbourne, 1935.

DUNBABIN, T. Slavers of the South Seas. (Angus & Robertson, 6s.) Sydney, 1935.

FORSYTH, W. D. Governor Arthur's convict system: Van Dieman's Land, 1824-36: a study in colonization. (Longmans, 7s. 6d.). London, 1935.

MILFORD, G. D. Governor Phillip and the early settlement of New South Wales. 2nd edition. (Harbour Newspaper Co., 4s.) Sydney, 1935.

ROBERTS, S. H. The squatting age in Australia, 1835-1847. (Melbourne University Press, 21s.) Melbourne, 1935.

RUSSELL, G. The narrative of George Russell of Golf Hill: with *Russellania* and selected papers: P. L. Brown, *editor*. (Oxford University Press, 17s. 6d.). London, 1935.

## EUROPEAN WAR, 1914-18.

OFFICIAL HISTORY OF AUSTRALIA IN THE WAR OF 1914-18: C. E. W. Bean, *editor* (in progress). (Angus & Robertson, 21s. *per vol.*). Sydney, 1921 to date.

(Vols. 1-4, 7-10, and 12 have so far appeared.)

MONASH, SIR J. The Australian victories in France in 1918; 2nd edition. (Angus & Robertson, 6s.). Sydney, 1936.

BURTON, O. E. The Silent Division: New Zealanders at the Front, 1914-1919. (Angus & Robertson, 6s.) Sydney, 1935.

JONES, T. M. Watchdogs of the Deep: Life in a Submarine during the Great War. (Angus & Robertson, 6s.) Sydney, 1935.

PATERSON, A. T. *lieut.-col., editor*. The Thirty-ninth: The History of the 39th Battalion, Australian Imperial Force. (G. W. Green & Sons, 15s.). Melbourne, 1934.

SUTHERLAND, L. W. Aces and Kings. (Angus & Robertson, 6s.) Sydney, 1935.

WILLIAMS, H. R. Comrades of the Great Adventure. (Angus & Robertson, 6s.) Sydney, 1935.

WREN, E. Randwick to Hargicourt: History of the 3rd Battalion, A.I.F. (Ronald G. McDonald, 10s.) Sydney, 1935.

WRIGLEY, H. N. *Wing-Commander*. The Battle Below: Being the History of No. 3 Squadron, Australian Flying Corps. (Errol G. Knox, 10s. 6d.). Sydney, 1935.

See also General and Descriptive and Biography.

## BIOGRAPHY.

BIOGRAPHICAL HANDBOOK AND RECORD OF ELECTIONS FOR THE PARLIAMENT OF THE COMMONWEALTH (Commonwealth Parliament Library Committee, 10s. 6d.). Canberra, 1932.

(A new issue is produced for each Federal Parliament.)

JOHNS, F. An Australian Biographical Dictionary. (Macmillan, 21s.). Melbourne, 1934.

WHO'S WHO IN AUSTRALIA: compiled by Errol G. Knox. (Herald Press, 10s. 6d.). 9th edition, Melbourne, 1934.

BIOGRAPHY—*continued*.

- GOULD, R. T., *Lieutenant-Commander*. Captain Cook. (Duckworth, 2s.). London, 1935.  
 M'URRAE, H. My Father, and my Father's Friends. (Angus & Robertson, 7s. 6d.). Sydney, 1935.  
 SCHOLEFIELD, G. H. Captain William Hobson, First Governor of New Zealand. (Oxford University Press, 12s. 6d.). London, 1934.

## CONSTITUTION AND ADMINISTRATION.\*

- AUSTRALIA.—*Royal Commission on the Constitution of the Commonwealth*. Report. (Government Printer, 16s. 9d.). Canberra, 1929.  
 Report of proceedings and minutes of evidence, 2 vols. (Government Printer, £3 12s.). Canberra, 1929.  
 AUSTRALIAN DIGEST, THE, 1825-1933: Being a Digest of the Reported Decisions of the Australian Courts and of Australian Appeals to the Privy Council; *editors*, B. Sugerman and others; vols. 1-6. (Law Book Co., 55s. *per vol.*). Sydney, 1934-35. (To be completed in about 17 vols.)  
 KERR, D. The Law of the Australian Constitution. (Law Book Co., £2). Sydney, 1925.  
 LATHAM, J. G. Australia and the British Commonwealth. (Macmillan, 7s. 6d.). London, 1929.  
 LAWS OF THE COMMONWEALTH OF AUSTRALIA, 1901-1931, THE: *editors*, B. J. McGrath, G. J. O'Sullivan and W. J. Dignam. 4 vols. (Law Book Co., £11 11s.). Sydney, 1932-3.  
 QUICK, Sir J. and GARRAN, Sir R. R. The Annotated Constitution of the Australian Commonwealth (Angus & Robertson, 21s.). Sydney, 1901.  
 WOOD, F. L. The Constitutional Development of Australia. (Harrap, 10s. 6d.). Sydney, 1933.

- AUSTRALIAN AND NEW ZEALAND SOCIETY FOR INTERNATIONAL LAW. Proceedings, v. 1. (Melbourne University Press, 10s. 6d.). Melbourne, 1935.  
 BRENNAN, T. C. Interpreting the Constitution: A Politico-Legal Essay. (Melbourne University Press, 21s.). Melbourne, 1935.  
 HALL, H. L. Australia and England: A Study in Imperial Relations. (Longmans, 12s. 6d.). London, 1934.  
 MELBOURNE, A. C. V. Early Constitutional Development in Australia: [vol. 1], New South Wales, 1788-1856. (Oxford University Press, 25s.). London, 1934.

*See also* Official Publications.

## POLITICAL HISTORY AND INTERNATIONAL RELATIONS.

- AUSTRALIAN QUARTERLY, THE: A Quarterly Review of Australian Affairs. (2s. *per issue*). Sydney, 1929 to date.  
 LYNG, J. S. Non-Britishers in Australia, 2nd edition. (Melbourne University Press, 6s.). Melbourne, 1935.  
 SMITH, A. N. Thirty Years: The Commonwealth of Australia, 1901-1931. (Brown, Prior, 12s. 6d.). Melbourne, 1933.  
 WILLARD, M. History of the White Australia Policy. (Melbourne University Press, 10s. 6d.). Melbourne, 1923.

- AUSTRALIAN INSTITUTE OF INTERNATIONAL AFFAIRS. Australian Foreign Policy, 1934. (Melbourne University Press, 1s. 6d.). Melbourne, 1935.  
 DUNCAN, W. G. K., *editor*. Trends in Australian Politics. (Angus & Robertson, 6s.). Sydney, 1935.  
 HUGHES, W. M. Australia and War To-day: The Price of Peace. (Angus & Robertson, 6s.). Sydney, 1935.  
 ROSS, I. Clunies, *editor*. Australia and the Far East: Diplomatic and Trade Relations. (Angus & Robertson, 7s. 6d.). Sydney, 1935.

*See also* Economic Conditions, Industrial Organization and Official Publications.

## ECONOMIC CONDITIONS.

- BRIGDEN, J. B. and others. The Australian Tariff: An Economic Inquiry. (Melbourne University Press, 3s. 6d.). Melbourne, 1929.  
 COPLAND, D. B. Australia in the World Crisis, 1929-1933. (Cambridge University Press, 9s.). Cambridge, 1934.  
 ECONOMIC RECORD, THE: The Journal of the Economic Society of Australia and New Zealand. (Melbourne University Press, 10s. *per annum*). Melbourne, 1925 to date.  
 MILLS, S. Taxation in Australia. (Macmillan, 12s.). London, 1925.  
 SHANN, F. O. G. An Economic History of Australia. (Cambridge University Press, 18s.). Cambridge, 1930.  
 SMITH, N. S. The Structure and Working of the Australian Tariff: With Special Reference to Empire Marketing. (P. S. King, 2s. 6d.). London, 1929.  
 WILSON, R. Capital Imports and Terms of Trade Examined in the Light of Sixty Years of Australian Borrowing. (Melbourne University Press, 6s. 6d.). Melbourne, 1931.  
 WINDETT, N. Australia as Producer and Trader, 1920-1932. (Oxford University Press, 15s.). London, 1933.  
 COPLAND, D. B. W. E. Hearn: First Australian Economist. (Melbourne University Press, 3s. 6d.). Melbourne, 1935.  
 ECONOMIC SOCIETY OF AUSTRALIA AND NEW ZEALAND. Recovery measures in Australia and New Zealand: A critical review. (Melbourne University Press, 5s.). Melbourne, 1935. (Supplement to *The Economic Record*.)  
 MILLS, R. C., and WALKER, E. R. Money. [Contains Chapters on the Australian Monetary System and Australian Monetary Policy from 1929.] (Angus & Robertson, 5s.). Sydney, 1935.

*See also* Industries and Resources and Official Publications.

\* It should be noted that several important books on this subject are out of print, and have therefore not been included.

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 COCHRAN, Sir T. H. Labour and Industry in Australia: From the First Settlement in 1788 to the Establishment of the Commonwealth in 1901. 4 vols. (Oxford University Press, 73s. 6d.). London, 1918.  
 SUTCLIFFE, J. T. History of Trade Unionism in Australia. (Macmillan, 7s.). Melbourne, 1921.

## INDUSTRIES AND RESOURCES.

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- BROKEN HILL PROPRIETARY CO. LTD. Fifty Years of Industry and Enterprise, 1885 to 1935. (B.H.P. Co.). Melbourne, 1935.  
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See also Official Publications.

## NATURAL HISTORY.

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- BLAKELY, W. F. A Key to the Eucalypts: With Descriptions of 500 Species and 138 Varieties: and a Companion to J. H. Maiden's Critical Revision of the Genus Eucalyptus. (Author, 10s.). Sydney, 1934.  
 FROGGATT, W. W. Australian Spiders and their Allies. (Royal Zoological Society of New South Wales, 2s. 6d.). Sydney, 1935.  
 MCKEOWN, K. C. Insect Wonders of Australia. (Angus & Robertson, 6s.). Sydney, 1935.  
 RAYMENT, T. A Cluster of Bees: Sixty Essays on the Life-histories of Australian Bees, with Specific Descriptions of over 100 New Species. (Endeavour Press, 21s.). Sydney, 1935.

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- BASEDOW, H. The Australian Aboriginal. (F. W. Preece & Son, 21s.). Adelaide, 1925.  
 BROWN, A. R. The Social Organization of Australian Tribes. (Australian National Research Council, 5s.). Sydney, 1931.  
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 SPENCER, Sir W. B. Wanderings in Wild Australia. 2 vols. (Macmillan, 42s.). London, 1928.  
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- BASEDOW, H. Knights of the Boomerang: Episodes from a life spent among the Native Tribes of Australia. (Endeavour Press, 5s.). Sydney, 1935.  
 DURACK, M. and E. All about the Story of a black Community on Argyle Station, Kimberley. (The Bulletin, 3s. 6d.). Sydney, 1935.  
 JONES, F. Wood. Tasmania's Vanished Race: National Talks Delivered from 3AR Melbourne. (Australian Broadcasting Commission, 1s.). Sydney, 1935.  
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- BROWNE, G. S. Education in Australia: A Comparative Study of the Educational Systems of the Six Australian States. (Macmillan, 21s.). London, 1927.

- COLE, P. R., editor. The Education of the Adolescent in Australia. (Melbourne University Press, 10s.). Melbourne, 1935.  
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 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.  
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 For records of specialized research, see the various publications of the Australian Council for Educational Research, Melbourne.



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## CRITICAL AND ANTHOLOGIES.

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 MURDOCH, W. L. F. *compiler*. A Book of Australasian Verse. (Clarendon Press, 3s. 6d.). Oxford, 1924.  
 PALMER, N., *compiler*. An Australian Story Book. (Angus & Robertson, 2s. 6d.). Sydney, 1928.  
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 COWLING, S. H., and MAURICE, F. (i.e. F. L. T. WILMOT), *compilers*. Australian essays. (Melbourne University Press, 4s. 6d.). Melbourne, 1935.  
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## FICTION.

- BIRKETT, W. Earth's Quality. (Angus & Robertson, 6s.). Sydney, 1935.  
 CAMPBELL, J. Greek Key Pattern. (Hutchinson, 7s. 6d.). London, 1935.  
 KEFAHER, M. The Great Years. (Nelson, 7s. 6d.). London, 1935.  
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 MOORE, T. T. The Half Way Sun: A Tale of the Philippine Islands. (Angus & Robertson, 6s.). Sydney, 1935.  
 PRATT, A. Lift Up Your Eyes. (Robertson & Mullens, 7s. 6d.). Melbourne, 1935.  
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 CROLL, R. H. Tom Roberts: Father of Australian Landscape Painting. (Robertson & Mullens, 21s.). Melbourne, 1935.  
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## Select List of Official Publications.

This list is intended to cover only special reports and papers, and does not include those issued as annual reports of Departments, etc., or which appear in regular established series. This will explain the absence of entries for any particular State.

## COMMONWEALTH.

- AUSTRALIA:—*Commonwealth Forestry Bureau*. Timber Supply, Consumption and Marketing . . . a Statement prepared for the Fourth British Empire Conference . . . by H. R. Gray. (Government Printer). Canberra, 1935.  
*Commonwealth Grants Commission*. Second Report (1935). Report on the Applications made by the States of South Australia, Western Australia and Tasmania for Financial Assistance in 1935-36 from the Commonwealth under Section 96 of the Constitution. (Government Printer, 2s. 6d.). Canberra, 1935. No. 148 of 1934-35.  
*External Affairs Department*. List of International Agreements (Treaties, Conventions, &c.) to which Australia is a party, or which affect Australia, together with prefatory note. 15th August, 1935. (Government Printer, 2s. 6d.). Canberra, 1935. No. 149 of 1934-35.  
*Royal Commission on Mineral Oils and Petrol and other products of Mineral Oils*. Reports: (1) Majority Report of Hon. John Gunn and Arthur Justin Hancock; (2) Minority Report of S. Ernest Lamb, Chairman. (Government Printer, 13s. 6d.). Canberra, 1935. No. 115 of 1934-35.  
*Royal Commission on the Wheat, Flour and Bread Industries*. Second Report. (Government Printer, 11s.). Canberra, 1935. No. 83 of 1934-35.  
*Same*. Allocation of Relief Moneys to Farmers Adversely Affected by Farming Conditions, Season 1934-35. Recommendation, dated 20th March, 1935. (Government Printer, 3d.). Canberra, 1935. No. 85 of 1934-35.  
 CONFERENCE of Commonwealth and State Ministers on Agricultural and Marketing Matters, held at Parliament House, Canberra, on the 3rd and 4th December, 1934. Summary of Proceedings. (Government Printer, 9d.). Canberra, 1934. No. 69 of 1934-35.

\* 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.

† Books on the work of particular artists have been excluded from the first part of this list, though many of these, e.g., those published by Art in Australia, are indispensable for the study of Australian Art.

## COMMONWEALTH—continued.

REPORT by the Joint Committee of the House of Lords and the House of Commons appointed to consider the Petition of the State of Western Australia in Relation to Secession. (Government Printer, 3d.). Canberra, 1935. No. 153 of 1934-35.

Note.—This is a reprint by the Commonwealth of the British Parliamentary Paper H.L. 75, H.C. 88, of 1935. The British Parliament afterwards reprinted it " . . . together with the Proceedings of the Committee and the Minutes of Speeches delivered by Council " as Paper H.L. 52, 75, H.C. 88 of 1935.

WHEAT Conference. Report of Proceedings of Conference Convened by the Right Honorable Dr. Earle Page, Minister for Commerce, held at Canberra, 4th to 7th October, 1935. (Government Printer, 2s.). Canberra, 1935. No. 156 of 1934-35.

## NEW SOUTH WALES.

MACQUARIE-STREET Replanning Committee. Interim Report, together with plan. (Government Printer, 7d.). Sydney, 1935. No. 18A of 1935, Second Session.

MARITIME Services Co-ordination Board. Report on the co-ordination of the Maritime Services of New South Wales. (Government Printer, 3s. 6d.). Sydney, 1935. No. 20A of 1935, Second Session.

NEW SOUTH WALES:—*Parliament: Legislative Assembly*. Statement by Professor Harvey Sutton on Malnutrition and its Effect on School Retardation, together with departmental report thereon. (Government Printer, 7d.). Sydney, 1935. No. 48A of 1935, Second Session.

*Royal Commission of Inquiry respecting Areas in . . . New South Wales suitable for Self-government as States in the Commonwealth of Australia . . . together with maps*. Report. (Government Printer, 4s. 9d.). Sydney, 1935. No. 235A of 1934-35.

Same. Evidence: Vol. 1: Sydney and Newcastle. (Government Printer). Sydney, 1934.

*Royal Commission of Inquiry (Sir Herbert William Gepp, Kt.) into Bread Prices in the State of New South Wales*. Report: metropolitan area. (Government Printer, 3s.). Sydney, 1935. No. 272A of 1934-35.

Same. District of Broken Hill and Certain Industrial and Mining Areas of the Country of Northumberland. (Government Printer, 4d.) Sydney, 1935. No. 3 of 1935, Second Session.

*Royal Commission of Matters concerning the Promotion and Operations of Certain Companies in New South Wales*. Report. (Government Printer, 2s.). Sydney, 1935. No. 23 of 1935.

REPORTS of Conference, convened by the Lord Mayor of Sydney, to consider certain statements attributed by the Press to Professor Harvey Sutton in reference to alleged Malnutrition and Rickets in children, together with list of Doctors invited to confer. (Government Printer, 4d.). Sydney, 1936. No. 91 of 1935. Second Session.

SHARK Menace Advisory Committee. Report on Suggested Methods of Protecting Bathers from Shark Attack. (Government Printer, 3s.). Sydney, 1935. No. 244A of 1934-35.

TECHNICAL Education Commission. Report . . . on the Technical Education System of New South Wales, together with Appendices.

WATER Conservation and Irrigation Advisory Committee. Report: together with Appendices. (Government Printer, 4s. 3d.). Sydney, 1935. No. 195 of 1934.

## VICTORIA.

BAILEY, Kenneth Hamilton. The Statute of Westminster, 1931: Opinion with documents appended. (Government Printer). Melbourne, 1935.

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VICTORIA:—*Parliament: Legislative Assembly*. Progress Report of the Select Committee on the Working Week, Unemployment Insurance, and other Industrial matters, (Shorter Working Week) together with the minutes of evidence. (Government Printer, 9d.). Melbourne, 1935.

## SOUTH AUSTRALIA.

HONORARY Committee on Subordinate Legislation. Report. (Government Printer). Adelaide, 1935. No. 52 of 1935.

SOUTH AUSTRALIA:—*Local Government Commission*. Fifth and final Report. (Government Printer). Adelaide, 1935. No. 71 of 1935.

Same. Special Report on garden Suburb. (Government Printer). Adelaide, 1935. No. 72 of 1935.

*Royal Commission on Matters concerning the Promotion and Operations of certain Companies in South Australia*. Report, together with Minutes of Evidence. (Government Printer). Adelaide, 1935. No. 61 of 1935.

*Royal Commission on the Fishing Industry*. Second Progress Report. (Government Printer). Adelaide, 1935. No. 20 of 1935.

Same. Final Report. (Government Printer). Adelaide, 1935. No. 20A of 1935.

## WESTERN AUSTRALIA.

WESTERN AUSTRALIA:—*Royal Commissioner Appointed to Investigate, Report, and Advise upon Matters in Relation to the Condition and Treatment of Aborigines*. Report: [illustrated]. (Government Printer). Perth, 1935. No. 2 of 1935, Fourth Session of the Fifteenth Parliament.

*Royal Commission on the Bulk Handling of Wheat*. Report. (Government Printer). Perth, 1935. No. 5 of 1935, Fourth Session of Fifteenth Parliament.

*Royal Commission on the Electoral Act 1907-1921, and other Relative Matters*. Report. (Government Printer). Perth, 1935.

## TASMANIA.

CONFERENCE of Commonwealth and State Attorneys-General on the Proposed Alteration of Section 92 of the Constitution in Relation to Marketing. Statement by the Attorney-General of Tasmania, Hon. E. J. Ogilvie: and Report to Governments by Thomas C. Brennan, Chairman. (Government Printer). Hobart, 1935. No. 14 of 1935.

Ogilvie, A. G., GAHA, J. F., Frost, C. W., and ADAMS, S. R. Report on the Fruit Export Industry of Tasmania. (Government Printer). Hobart, 1935. No. 16 of 1935.

TASMANIA :—*Board Appointed to Inquire into and Report upon Vehicular Traffic in Cities.* Report. (Government Printer). Hobart, 1935. No. 18 of 1935.

*Economic Case for Tasmania Committee.* Report on the Financial Relations of the Commonwealth and States of Australia. (Government Printer). Hobart, 1935. No. 4 of 1935.

*Same.* Statement presented to the Commonwealth Grants Commission on behalf of the Government of Tasmania: By Hon. E. Dwyer-Gray. (Government Printer). Hobart, 1935. No. 30 of 1935.

*Parliament: Select Committee Appointed . . . to Inquire into the Provisions of the Traffic Bill, 1934 (No. 77) and 1935 (No. 39).* Report, with Minutes of Proceedings and Appendix, and Bill as amended by the Committee. (Government Printer). Hobart, 1935. No. 23 of 1935.

*Parliament: Select Committee on the Monetary System.* Report, with Minutes of Proceedings. (Government Printer). Hobart, 1935. No. 25 of 1935.

## 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. 73.

(c) LYONS GOVERNMENT, FROM 6TH JANUARY, 1932.

The Rt. Hon. W. M. Hughes, K.C., Vice-President of the Executive Council, Minister for Health and Minister for Repatriation, resigned his appointments on 6th November, 1935, and the Rt. Hon. J. A. Lyons, Prime Minister, was on the 8th November, 1935, appointed to these offices.

## CHAPTER VI.—TRANSPORT AND COMMUNICATION.

## A. SHIPPING.

## § 2. Oversea Shipping.

2. Shipping Communication with various Countries, p. 142.—The following table gives the tonnages of oversea vessels entered and cleared from Australian ports during 1934-35 according to direction:—

## OVERSEA SHIPPING, AUSTRALIA.—DIRECTION, 1934-35.

Country.	Tonnage Entered.	Tonnage Cleared.
United Kingdom and European Countries ..	2,074,904	2,537,490
New Zealand .. .. .	647,105	541,350
Asiatic Countries and Islands in the Pacific	1,997,726	2,075,984
Africa .. .. .	166,003	35,573
North and Central America .. .. .	1,105,873	698,999
South America .. .. .	2,639	5,398
Total .. .. .	5,994,250	5,894,794

3. Nationality of Oversea Shipping, p. 144.—Particulars of the nationality of oversea shipping during 1934-35 are as follow:—

## OVERSEA SHIPPING, AUSTRALIA.—NATIONALITY OF VESSELS ENTERED, 1934-35.

Nationality.	Tonnage.
<b>British—</b>	
Australian .. .. .	310,186
United Kingdom .. .. .	3,137,192
Canadian .. .. .	76,101
New Zealand .. .. .	321,481
Other British .. .. .	215,597
Total .. .. .	4,060,557
<b>Foreign—</b>	
Danish .. .. .	48,613
Dutch .. .. .	176,424
French .. .. .	137,142
German .. .. .	134,231
Italian .. .. .	62,205
Japanese .. .. .	461,400
Norwegian .. .. .	426,539
Swedish .. .. .	141,265
United States .. .. .	240,474
Other .. .. .	105,400
Total .. .. .	1,933,693
Grand Total .. .. .	5,994,250

### § 5. Interstate Shipping.

2. Vessels and Tonnage Entered, p. 148.—(*Interstate Direct.*)—Particulars of the tonnage of vessels recorded as having entered each State from any other State during 1934-35 are as follow :—

#### INTERSTATE SHIPPING.—TONNAGE OF VESSELS ENTERED, 1934-35.

State or Territory.	Tonnage.
New South Wales .. .. .	5,334,778
Victoria .. .. .	4,062,750
Queensland .. .. .	1,410,487
South Australia .. .. .	2,761,195
Western Australia .. .. .	1,855,563
Tasmania .. .. .	1,101,544
Northern Territory .. .. .	59,011
<b>Total .. .. .</b>	<b>16,585,328</b>

### § 6. Tonnage of Cargo.

1. Oversea and Interstate Cargo.—(ii) *Principal Ports*, p. 151.—The following table shows the tonnage of oversea and interstate cargo discharged and shipped during 1934-35 :—

#### TONNAGE OF CARGO DISCHARGED AND SHIPPED, STATES, 1934-35.

State.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
New South Wales .. .. .	1,771,402	2,552,834	4,324,236	1,817,905	2,767,276	4,585,181
Victoria .. .. .	1,553,217	2,078,455	3,631,672	1,047,680	890,710	1,938,390
Queensland .. .. .	371,806	554,856	926,662	589,463	384,624	974,087
South Australia .. .. .	435,336	807,286	1,242,622	1,521,076	1,801,355	3,322,431
Western Australia .. .. .	478,971	293,146	772,117	953,984	78,838	1,032,822
Tasmania .. .. .	65,211	428,492	493,703	148,263	665,914	814,177
Northern Territory .. .. .	16,456	11,066	27,522	362	2,091	2,453
<b>Total, Australia .. .. .</b>	<b>4,692,399</b>	<b>6,726,135</b>	<b>11,418,534</b>	<b>6,078,733</b>	<b>6,590,808</b>	<b>12,669,541</b>

**B. RAILWAYS.****§ 1. General.**

8. Summary of Operations, 1934-35, p. 157.—A summary of the working of all Government railways open for general traffic during 1934-35 is given hereunder :—

**GOVERNMENT RAILWAYS, AUSTRALIA, 1934-35.**

Particulars.	Federal.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Miles Open .. ..	2,145	6,164	4,721	6,497	2,529	4,358	645	27,059
Revenue—								
(a) Coaching £	135	6,687	4,088	2,128	658	733	133	14,562
(a) Goods .. £	135	8,612	4,556	4,940	1,859	2,405	255	22,762
(a) Miscellaneous £	76	704	777	(c)	152	174	13	1,896
(a) Total Revenue £	346	16,003	9,421	7,068	2,669	3,312	401	39,220
(a) Expenditure .. £	380	11,565	6,183	4,999	2,250	2,383	418	28,178
(a) Train Miles Run ..	536	26,276	15,536	12,870	5,080	6,025	1,233	67,556
Earnings per train mile ..	12s. 11d.	12s. 2d.	12s. 2d.	11s. od.	10s. 6d.	11s. od.	6s. 6d.	11s. 7d.
Expenditure per train mile ..	14s. 2d.	8s. 10d.	8s. od.	7s. 9d.	8s. 10d.	7s. 11d.	6s. 9d.	8s. 4d.
Expenditure per cent. on Earnings .. ..	109.83	72.27	65.63	70.73	84.28	71.95	104.22	71.85
(a) Passenger Journeys ..	98	160,212	143,688	24,250	16,660	12,876	2,134	359,918
(a) Coal and Coke carried tons	5	6,222	251	604	121	575	369	8,147
(a) Other Minerals ..	1	1,263	(b)	593	676	428	(d)	2,961
(a) Live Stock ..	22	695	608	423	118	100	22	1,988
(a) Other Goods ..	60	4,838	5,151	3,220	1,432	2,355	315	17,371
(a) Total Freight ..	88	13,018	6,010	4,840	2,347	3,458	706	30,467

(a) ,000 omitted. (b) Included with Other Goods. (c) Included with Coaching and Goods.

(d) Included with Coal and Coke.

[NOTE.—The figures in the above table are taken from quarterly statements, and do not entirely agree with the particulars in the Annual Railways Reports of the several States.]

**D. AIRCRAFT.**

13. Statistical Summary, p. 199.—The subjoined table gives a summary of operations in 1934-35 :—

**CIVIL AIRCRAFT.—AUSTRALIA, 1934-35.**

Registered Aircraft Owners. (a)	Registered Aircraft. (a)	Licensed Pilots. (a)		Flights Carried Out.	Hours Flown.	Approx. Mileage.	Passengers Carried.	Weight of Goods Carried.	Weight of Mails Carried.
		Private.	Commercial.						
No. 123	No. 208	No. 569	No. 210	No. 114,567	No. 43,876	Miles. 3,662,308	No. 56,841	lb. 245,801	lb. (b)43,080

(a) At 30th June, 1935.

(b) Exclusive of 24,828 lb. Overseas Mail.

**E. MOTOR VEHICLES.**

5. Motor Vehicles Registered, p. 201.—Motor vehicles registered at 30th June, 1935, were as follow :—

**MOTOR VEHICLES REGISTERED AT 30th JUNE, 1935.**

State or Territory.	Motor Cars.	Commercial Vehicles.	Motor Cycles.	All Vehicles.	
				No.	Per 1,000 of Population.
New South Wales (a) ..	164,483	56,055	22,777	243,315	92.00
Victoria .. ..	140,483	37,487	24,968	202,938	110.41
Queensland .. ..	65,261	27,985	7,807	101,053	104.40
South Australia .. ..	42,815	14,450	8,903	66,168	113.14
Western Australia .. ..	30,341	16,279	6,597	53,217	119.40
Tasmania .. ..	12,900	3,010	3,881	19,791	86.53
Northern Territory .. ..	303	182	31	516	100.96
Federal Capital Territory ..	1,098	273	81	1,452	156.36
Australia .. ..	457,684	155,721	75,045	688,450	102.38

(a) Number of Vehicles on the road.

## CHAPTER VII.—TRADE.

## § 8. Classified Summary of Australian Oversea Trade.

1. and 2. Imports and Exports, p. 266.—The following table shows the value of imports into and exports from Australia in 1934-35 :—

## IMPORTS AND EXPORTS, AUSTRALIA.—CLASSES, 1934-35.

Class.	Classes of Goods.	Total Imports (British Currency Values).	Total Exports (Australian Currency Values).		
			Australian Produce.	Other Produce.	Total.
		£ stg.	£A.	£A.	£A.
I.	Foodstuffs of Animal Origin, excluding living animals	1,247,745	20,715,328	11,442	20,726,770
II.	Foodstuffs of Vegetable Origin, Non-alcoholic Beverages, and substances used in making	3,166,140	25,044,405	69,706	25,114,111
III.	Spiritous and Alcoholic Liquors	637,003	950,242	21,989	972,231
IV.	Tobacco, and Preparations thereof	1,342,796	117,975	54,464	172,439
V.	Live Animals	163,058	181,564	12,355	194,419
VI.	Animal Substances (mainly unmanufactured) not foodstuffs	1,069,893	43,163,366	16,628	43,179,994
VII.	Vegetable Substances and Fibres	1,961,807	320,181	6,204	326,385
VIII.	Apparel, Textiles, and Manufactured Fibres—				
	(a) Apparel	1,503,726	154,959	26,918	181,877
	(b) Textiles	13,206,957	165,126	96,366	261,492
	(c) Yarns and Manufactured Fibres	3,025,181	61,667	71,905	133,572
	Total	17,735,864	381,752	195,189	576,941
IX.	Oils, Fats, and Waxes	5,334,763	1,012,958	37,371	1,050,329
X.	Paints and Varnishes	445,261	98,298	2,830	101,128
XI.	Stones and Minerals, including Ores and Concentrates	507,785	1,401,899	878	1,402,777
XII.	Metals, Metal Manufactures and Machinery—				
	(a) Machines and Machinery	6,567,671	426,700	172,568	599,268
	(b) Metals and Metal Manufactures, other than Machinery	12,733,761	4,315,887	204,965	4,520,852
	Total	19,301,432	4,742,587	377,533	5,120,120
XIII.	Rubber and Leather, and Manufactures thereof, and substitutes therefor—				
	(a) Rubber and Rubber Manufactures	896,692	69,290	3,814	73,104
	(b) Leather and Leather Manufactures, and substitutes therefor	103,865	512,954	1,713	514,667
	Total	1,000,557	582,244	5,527	587,771
XIV.	Wood and Wicker, raw and manufactured	1,847,866	883,796	29,249	913,045
XV.	Earthenware, Cements, China, Glass, and Stoneware	1,380,865	137,303	8,554	145,857
XVI.	Paper and Stationery—				
	(a) Paper	3,155,101	48,955	7,971	56,926
	(b) Stationery and Paper Manufactures	1,609,087	126,708	29,268	155,976
	Total	4,764,188	175,663	37,239	212,902
XVII.	Jewellery, Timepieces, and Fancy Goods	1,008,450	90,021	39,124	129,145
XVIII.	Optical, Surgical, and Scientific Instruments	1,074,590	123,912	167,770	291,682
XIX.	Drugs, Chemicals, and Fertilizers	3,537,218	546,971	39,478	586,449
XX.	Miscellaneous	4,893,726	548,052	177,049	725,101
XXI.	Gold and Silver, and Bronze Specie	1,698,489	8,694,612	1,761,829	10,456,441
	<b>Total</b>	<b>74,119,496</b>	<b>109,913,129</b>	<b>3,072,908</b>	<b>112,986,037</b>
				(a)	

(a) The estimated British Currency Value is £ stg. 90,225,168.

**CHAPTER XIV.**  
**LABOUR, WAGES, AND PRICES.**  
**A.—PRICES.**

**§ 2. Retail Prices and House Rents, p. 352.**

Retail Price Index-Numbers—Food, Groceries and Rent (all Houses) 1911 Base.—The index numbers in the following table are computed for the Commonwealth Court of Conciliation and Arbitration on a different basis to those given in § 2. The rent constituent is based upon the weighted average of all houses. The index numbers are directly comparable with those published in Labour Report, No. 15, and in Quarterly Summaries of Australian Statistics previous to No. 99.

**RETAIL PRICE INDEX-NUMBERS—FOOD, GROCERIES AND RENT—ALL HOUSES.**

*Weighted Average—Six Capitals in 1911 = 1,000.*

Town.	1930.				1931.				1932.				1933.				1934.			
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
<b>NEW SOUTH WALES.</b>																				
Sydney .. .. .	1,851	1,836	1,776	1,704	1,661	1,621	1,571	1,530	1,534	1,522	1,502	1,474	1,436	1,436	1,448	1,434	1,456	1,465	1,470	1,482
Newcastle .. .. .	1,713	1,692	1,641	1,572	1,550	1,513	1,451	1,385	1,397	1,385	1,382	1,346	1,316	1,321	1,341	1,342	1,355	1,376	1,381	1,394
Broken Hill .. .. .	1,719	1,710	1,634	1,581	1,537	1,511	1,435	1,379	1,393	1,377	1,385	1,322	1,290	1,296	1,288	1,295	1,311	1,342	1,356	1,364
Goulburn .. .. .	1,852	1,813	1,750	1,617	1,571	1,540	1,481	1,433	1,438	1,458	1,451	1,422	1,388	1,390	1,390	1,407	1,424	1,426	1,428	
Bathurst .. .. .	1,593	1,584	1,543	1,492	1,465	1,450	1,402	1,343	1,339	1,335	1,313	1,279	1,252	1,204	1,289	1,282	1,299	1,306	1,283	1,302
Weighted Average— New South Wales .. .. .	1,834	1,819	1,759	1,687	1,646	1,607	1,555	1,512	1,516	1,504	1,487	1,457	1,420	1,421	1,433	1,421	1,442	1,454	1,460	1,471
<b>VICTORIA.</b>																				
Melbourne .. .. .	1,733	1,723	1,667	1,565	1,519	1,457	1,411	1,405	1,417	1,392	1,369	1,332	1,294	1,307	1,332	1,343	1,335	1,364	1,375	1,392
Ballarat .. .. .	1,579	1,576	1,542	1,455	1,420	1,371	1,339	1,327	1,350	1,322	1,304	1,279	1,256	1,268	1,291	1,292	1,305	1,333	1,326	1,338
Bendigo .. .. .	1,577	1,576	1,525	1,428	1,389	1,330	1,297	1,294	1,286	1,274	1,259	1,226	1,196	1,200	1,225	1,224	1,245	1,282	1,291	1,293
Geelong .. .. .	1,635	1,624	1,577	1,505	1,459	1,420	1,399	1,407	1,410	1,400	1,383	1,342	1,312	1,323	1,348	1,342	1,342	1,369	1,360	1,373
Warrnambool .. .. .	1,618	1,623	1,588	1,547	1,484	1,435	1,424	1,438	1,447	1,437	1,424	1,393	1,334	1,346	1,374	1,369	1,374	1,411	1,405	1,420
Weighted Average— Victoria .. .. .	1,717	1,707	1,653	1,554	1,507	1,448	1,404	1,398	1,409	1,385	1,363	1,327	1,290	1,303	1,327	1,337	1,331	1,362	1,370	1,387
<b>QUEENSLAND.</b>																				
Brisbane .. .. .	1,554	1,461	1,406	1,342	1,343	1,333	1,293	1,289	1,289	1,269	1,246	1,229	1,199	1,215	1,214	1,228	1,245	1,250	1,254	1,260
Toowoomba .. .. .	1,453	1,427	1,396	1,337	1,324	1,286	1,246	1,251	1,251	1,260	1,239	1,219	1,195	1,188	1,199	1,202	1,204	1,226	1,222	1,250
Rockhampton .. .. .	1,536	1,484	1,455	1,397	1,392	1,350	1,310	1,327	1,318	1,290	1,263	1,244	1,204	1,210	1,207	1,195	1,214	1,243	1,228	1,235
Charters Towers .. .. .	1,485	1,465	1,362	1,321	1,318	1,318	1,277	1,265	1,276	1,257	1,230	1,213	1,164	1,148	1,128	1,130	1,145	1,153	1,139	1,155
Warwick .. .. .	1,431	1,406	1,375	1,314	1,311	1,288	1,261	1,267	1,249	1,247	1,226	1,210	1,175	1,186	1,184	1,187	1,189	1,199	1,225	1,228
Weighted Average— Queensland .. .. .	1,539	1,459	1,407	1,345	1,345	1,330	1,289	1,288	1,288	1,269	1,246	1,228	1,197	1,210	1,209	1,219	1,234	1,250	1,247	1,255



RETAIL PRICE INDEX—NUMBERS—FOOD, GROCERIES AND RENT—ALL HOUSES—continued.

Weighted Average—Six Capitals in 1911 = 1,000.

Town.	1930.				1931.				1932.				1933.				1934.			
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
SOUTH AUSTRALIA.																				
Adelaide .. .. .	1,689	1,655	1,563	1,466	1,427	1,370	1,286	1,280	1,299	1,289	1,258	1,218	1,210	1,234	1,249	1,245	1,268	1,297	1,258	1,275
Kadina, etc. . . . .	1,423	1,406	1,350	1,261	1,237	1,192	1,115	1,126	1,166	1,157	1,146	1,103	1,086	1,096	1,094	1,105	1,130	1,157	1,132	1,145
Port Pirie . . . . .	1,559	1,559	1,494	1,429	1,396	1,341	1,276	1,272	1,299	1,280	1,250	1,199	1,171	1,178	1,179	1,172	1,200	1,241	1,222	1,239
Mount Gambier . . . . .	1,401	1,353	1,333	1,274	1,202	1,181	1,167	1,174	1,208	1,201	1,182	1,164	1,153	1,152	1,154	1,154	1,157	1,170	1,153	1,176
Peterborough . . . . .	1,668	1,660	1,608	1,501	1,438	1,393	1,322	1,334	1,343	1,319	1,296	1,262	1,254	1,260	1,267	1,270	1,287	1,305	1,278	1,293
Weighted Average— South Australia .. .	1,669	1,637	1,549	1,453	1,414	1,359	1,277	1,272	1,292	1,282	1,252	1,212	1,203	1,225	1,239	1,235	1,258	1,289	1,251	1,268
WESTERN AUSTRALIA.																				
Perth, etc. . . . .	1,660	1,651	1,581	1,470	1,484	1,461	1,379	1,339	1,361	1,363	1,316	1,277	1,250	1,293	1,273	1,268	1,299	1,346	1,331	1,326
Kalgoorlie, etc. . . . .	1,525	1,554	1,530	1,391	1,376	1,390	1,386	1,403	1,435	1,469	1,450	1,431	1,412	1,431	1,437	1,436	1,459	1,535	1,536	1,533
Northam . . . . .	1,599	1,609	1,557	1,446	1,401	1,369	1,328	1,319	1,317	1,343	1,319	1,274	1,246	1,278	1,263	1,268	1,300	1,345	1,330	1,319
Bunbury . . . . .	1,575	1,574	1,510	1,384	1,360	1,352	1,301	1,261	1,245	1,270	1,254	1,239	1,192	1,229	1,232	1,223	1,255	1,299	1,281	1,276
Geraldton . . . . .	1,621	1,630	1,615	1,488	1,484	1,481	1,458	1,424	1,421	1,427	1,372	1,300	1,250	1,271	1,278	1,277	1,282	1,344	1,350	1,351
Weighted Average— Western Australia .. .	1,642	1,638	1,575	1,460	1,469	1,450	1,379	1,345	1,367	1,373	1,330	1,292	1,265	1,305	1,289	1,284	1,314	1,359	1,345	1,340
TASMANIA.																				
Hobart . . . . .	1,687	1,685	1,651	1,564	1,534	1,491	1,431	1,433	1,453	1,456	1,427	1,410	1,367	1,381	1,411	1,395	1,375	1,417	1,430	1,450
Launceston . . . . .	1,602	1,590	1,558	1,495	1,465	1,428	1,391	1,378	1,387	1,377	1,352	1,334	1,307	1,319	1,332	1,317	1,311	1,357	1,354	1,371
Burnie . . . . .	1,589	1,606	1,563	1,466	1,389	1,365	1,337	1,340	1,347	1,347	1,320	1,297	1,259	1,265	1,255	1,242	1,229	1,294	1,299	1,319
Devonport . . . . .	1,539	1,532	1,519	1,441	1,423	1,374	1,342	1,357	1,395	1,382	1,335	1,328	1,294	1,302	1,295	1,298	1,282	1,332	1,345	1,365
Queenstown . . . . .	1,494	1,469	1,458	1,405	1,374	1,327	1,300	1,315	1,331	1,329	1,321	1,317	1,291	1,307	1,303	1,300	1,303	1,337	1,341	1,344
Weighted Average— Tasmania .. .	1,644	1,640	1,608	1,529	1,498	1,457	1,407	1,406	1,424	1,422	1,394	1,377	1,340	1,352	1,374	1,359	1,345	1,388	1,395	1,413
Weighted Average— Thirty Towns .. .	1,731	1,711	1,651	1,566	1,531	1,487	1,435	1,414	1,423	1,409	1,386	1,354	1,321	1,332	1,345	1,344	1,355	1,380	1,380	1,392
Weighted Average— Six Capital Cities .. .	1,752	1,730	1,668	1,582	1,546	1,501	1,447	1,442	1,435	1,419	1,395	1,363	1,330	1,342	1,355	1,354	1,365	1,387	1,387	1,400

*Retail Price Index-Numbers—Capital Cities—Annual Figures—1901 to 1934.*— The index-numbers given in the separate parts of the table cannot be compared with each other in order to show the relative cost of housing and of food and groceries, since the weighted average cost for the six capital cities taken together in 1911 in each group or combination is made equal to 1,000.

*Weighted Average—Six Capitals in 1911 = 1,000.*

FOOD AND GROCERIES ONLY.

City.	1901.	1907.	1911.	1914.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.
Sydney .. .. .	917	936	989	1,156	1,783	2,148	1,898	1,703	1,820	1,732	1,785	1,867	1,846	1,826	1,948	1,750	1,567	1,524	1,430	1,475
Melbourne .. .. .	965	925	935	1,091	1,620	2,056	1,901	1,644	1,802	1,684	1,748	1,774	1,732	1,684	1,795	1,632	1,414	1,355	1,273	1,337
Brisbane .. .. .	965	947	1,018	1,078	1,762	2,052	1,812	1,608	1,693	1,690	1,734	1,788	1,680	1,671	1,701	1,508	1,392	1,320	1,250	1,300
Adelaide .. .. .	1,028	951	1,020	1,215	1,719	2,132	1,906	1,723	1,823	1,791	1,840	1,869	1,841	1,775	1,887	1,674	1,411	1,361	1,308	1,370
Perth .. .. .	1,184	1,197	1,346	1,302	1,772	2,050	1,995	1,776	1,828	1,891	1,938	1,866	1,796	1,882	1,938	1,719	1,494	1,438	1,352	1,442
Hobart .. .. .	1,011	1,010	1,058	1,212	1,748	2,162	2,025	1,794	1,863	1,849	1,810	1,868	1,788	1,727	1,833	1,702	1,459	1,425	1,354	1,405
Weighted Average— Six Capitals .. .. .	972	955	1,000	1,144	1,716	2,101	1,902	1,684	1,805	1,732	1,785	1,829	1,789	1,761	1,866	1,682	1,477	1,425	1,342	1,400

HOUSING—ALL HOUSES.

Sydney .. .. .	858	911	1,090	1,279	1,289	1,415	1,474	1,535	1,617	1,687	1,729	1,813	1,808	1,857	1,870	1,839	1,637	1,486	1,457	1,460
Melbourne .. .. .	733	804	970	1,126	1,283	1,405	1,502	1,597	1,672	1,729	1,742	1,839	1,850	1,835	1,836	1,729	1,497	1,412	1,394	1,411
Brisbane .. .. .	488	575	767	882	983	1,061	1,079	1,206	1,247	1,242	1,251	1,459	1,480	1,487	1,505	1,344	1,204	1,171	1,170	1,190
Adelaide .. .. .	629	812	1,112	1,040	1,108	1,216	1,289	1,360	1,450	1,551	1,565	1,553	1,601	1,665	1,607	1,477	1,240	1,134	1,137	1,140
Perth .. .. .	801	684	810	914	916	996	1,055	1,092	1,124	1,134	1,154	1,316	1,331	1,382	1,395	1,407	1,304	1,177	1,166	1,159
Hobart .. .. .	667	708	805	914	1,134	1,373	1,440	1,445	1,602	1,665	1,634	1,650	1,603	1,565	1,580	1,568	1,492	1,455	1,447	1,440
Weighted Average— Six Capitals .. .. .	751	816	1,000	1,135	1,215	1,333	1,404	1,480	1,551	1,609	1,632	1,725	1,734	1,758	1,760	1,685	1,483	1,374	1,356	1,365

FOOD, GROCERIES AND HOUSING—ALL HOUSES—COMBINED.

Sydney .. .. .	893	926	1,031	1,206	1,580	1,847	1,724	1,634	1,737	1,714	1,762	1,844	1,830	1,839	1,916	1,792	1,596	1,508	1,439	1,468
Melbourne .. .. .	870	875	950	1,105	1,481	1,788	1,737	1,625	1,749	1,703	1,745	1,801	1,781	1,746	1,812	1,672	1,448	1,378	1,319	1,367
Brisbane .. .. .	769	794	915	997	1,442	1,645	1,511	1,442	1,510	1,506	1,535	1,653	1,598	1,595	1,620	1,441	1,315	1,258	1,214	1,254
Adelaide .. .. .	864	894	1,058	1,143	1,468	1,756	1,653	1,574	1,670	1,727	1,739	1,742	1,730	1,772	1,593	1,341	1,266	1,235	1,275	
Perth .. .. .	1,027	986	1,126	1,143	1,420	1,617	1,609	1,495	1,538	1,580	1,616	1,640	1,605	1,677	1,715	1,591	1,416	1,329	1,271	1,326
Hobart .. .. .	869	886	954	1,090	1,496	1,837	1,785	1,651	1,756	1,773	1,738	1,778	1,712	1,661	1,729	1,647	1,472	1,437	1,389	1,418
Weighted Average— Six Capitals .. .. .	880	897	1,000	1,140	1,510	1,785	1,697	1,600	1,700	1,682	1,722	1,786	1,766	1,760	1,822	1,683	1,479	1,403	1,345	1,385

## B.—WAGES.

## § 3. The Basic Wage and Child Endowment in Australia.

2. Basic Wage Inquiry, 1934, p. 375.—The basic rates of wage ruling in the various Capital Cities on 1st December, 1935, under awards of the Commonwealth Arbitration Court are as follow :—

## BASIC WEEKLY WAGE RATES FIXED BY COMMONWEALTH COURT OF CONCILIATION AND ARBITRATION FOR EACH CAPITAL CITY.(a)

Capital.				1st December, 1935.	
				s.	d.
Sydney .. .. .	..	..	..	70	0
Melbourne .. .. .	..	..	..	66	0
Brisbane .. .. .	..	..	..	64	0
Adelaide .. .. .	..	..	..	67	0
Perth .. .. .	..	..	..	68	0
Hobart .. .. .	..	..	..	69	0
Six Capitals .. .. .	..	..	..	68	0

(a) "C" Series Index Numbers.

## C.—EMPLOYMENT.

## § 2. Fluctuations in Employment.

2. Unemployment, p. 394.—The following are the percentages of unemployment in each State for the first three quarters of 1935 :—

## UNEMPLOYMENT.—PERCENTAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	%	%	%	%	%	%	%
1935—1st Quarter. .	23.6	15.0	9.8	25.7	15.4	16.7	18.6
2nd "	22.7	15.0	8.8	18.9	13.9	16.4	17.8
3rd "	19.1	14.8	8.5	16.3	12.5	16.7	15.9
4th "	17.0	11.3	7.7	14.7	11.8	13.7	13.7

## CHAPTER XV.

## PRIVATE FINANCE.

## B.—BANKING, p. 406.

## ALL CHEQUE-PAYING BANKS—AVERAGE LIABILITIES AND ASSETS IN AUSTRALIA, QUARTER ENDED 30th SEPTEMBER, 1935.

Average Liabilities. (Page 412.)		Average Assets. (Page 413.)	
		£	£
Notes in circulation ..	168,435	Coin .. .. .	2,283,401
Bills in circulation ..	2,732,710	Bullion .. .. .	492,873
Balances due to other Banks	21,738,955	Australian Notes and Cash with Commonwealth Bank .. .. .	38,627,708
Deposits—		Government and Municipal securities .. .. .	95,093,278
Not bearing interest ..	113,664,036	Landed and House property	9,726,530
Bearing interest ..	218,131,998	Balances due from other Banks .. .. .	3,044,762
		Notes and Bills of other Banks .. .. .	1,896,779
		Discounts, Overdrafts, and all other Assets ..	285,471,068
Total Liabilities (a) ..	356,436,134	Total Assets (a) ..	436,636,399

(a) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted.

## § 2. Savings Banks, p. 419.

## SAVINGS BANK DEPOSITS, 1935 (page 422).

State or Territory.	30th June (Revised).	31st July.	31st August.	30th Sep- tember.	31st Octo- ber.
	£'000.	£'000.	£'000.	£'000.	£'000.
New South Wales ..	77,906	78,111	78,317	78,533	78,800
Victoria .. ..	72,019	71,858	72,124	72,159	72,464
Queensland .. ..	26,197	26,447	26,596	26,767	27,036
South Australia ..	24,208	24,227	24,351	24,476	24,595
Western Australia ..	10,929	11,009	11,128	11,170	11,232
Tasmania .. ..	6,430	6,486	6,609	6,625	6,637
Federal Capital Territory	230	230	232	230	232
Northern Territory ..	53	55	59	60	62
<b>Total .. ..</b>	<b>217,972</b>	<b>218,423</b>	<b>219,416</b>	<b>220,020</b>	<b>221,058</b>

## CHAPTER XVI.

## PUBLIC FINANCE.

(See pp. 408, 416, 421, 455.)

## THE FINANCIAL CRISIS.

1. **General.**—It is not within the functions of the Official Year Book to attempt a full record of the financial and economic crisis which began to develop in Australia towards the end of 1929, and space does not permit of a presentation of the whole of the statistical and financial data relevant to the subject. The principal documents relating to the crisis, however, up to November, 1932, have been conveniently put together, with some brief comment, by Professors E. G. Shann and D. B. Copland in the three compact volumes entitled *The Crisis in Australian Finance*, *The Battle of the Plans*, and *The Australian Price Structure*, 1932. These may be supplemented by the official reports of the Premiers' Conferences, especially those dealing with the Conferences of 25th May to 11th June, 1931 (P.P. No. 236), 28th January to 5th February, 1932 (P.P. No. 12), 14th to 21st April, 1932 (C.3847), 28th June to 8th July, 1932 (F.1969), and 8th to 14th June, 1933 (F.2184). Particular reference may be made to the Treasury Officers' Report on the Budgets of 1931-32 and 1932-33 (F.1969); and to the Report of the Committee appointed to make a "Preliminary Survey of the Economic Problem" (C.3847). Discussions of the economic and financial issues will be found in the "Economic Survey of Australia" published in the *Annals of the American Academy of Political and Social Science* (Philadelphia) for November, 1931; in *Australia in the World Depression*, by Dr. E. R. Walker (1933); in the Circulars of the Bank of New South Wales (Sydney); in Nos. 11 to 17 of the *Economic Record* (Melbourne), and in its Special Supplement (October, 1932) containing the "Papers on World Economic Influences" read before Section G of the A.N.Z.A.A.S. (Sydney Congress, August, 1932).

2. **Elements of the Situation.**—The elements of the situation before the depression began were:—

- (1) A national income of about £100 per head in 1928-29.
- (2) Oversea interest obligations, fixed for the most part in sterling, of about £5 per head.
- (3) Imports of about £27 per head in 1926-27, falling to £23 per head in 1928-29.
- (4) Exports of commodities, which for some years had failed to pay for imports, amounting in 1928-29 to £22 per head.

- (5) A standing net debit of interest obligations and balance of visible trade, which had been met by oversea long-term loans averaging about £5 per head for some years, helped by some investment of private capital from overseas.
- (6) Deficits in Government finance for the Commonwealth and all States, which for 1929-30 amounted to about £1 15s. per head.

On this situation impinged :—

- (1) A world fall in commodity prices, with consequent general depression and increase in the burden of fixed money claims which were estimated for Australia at about £20 per head in 1928-29.
- (2) A rapid fall in Australian export prices, which, in gold, had declined by the end of 1931 to about 32 per cent. of the 1927-28 level, and to 58 per cent. even in Australian currency ; while, at the same time, interest obligations remained fixed in sterling for the most part, and import prices fell very much less than export prices.
- (3) A total cessation of oversea long-term loans, which had in recent years roughly balanced interest obligations overseas.
- (4) Government deficits, which had been about £1 15s. per head in 1929-30 rose to over £4 per head in 1930-31, and threatened to be £7 per head in 1931-32, with consequent further loss of business confidence and intensification of the depression.

3. Attempts to meet the Situation.—A brief diary of the attempts to meet this situation may be set out as follows :—

*April, 1930.*—Special customs surcharges of 50 per cent. of the amount of duty already imposed were placed on certain items of import ; and the importation of 78 items was prohibited by proclamation.

*July-August.*—Sir Otto Niemeyer, representing the Bank of England, visited Australia at the invitation of the Commonwealth Government, and made a statement on severely deflationary lines to a Conference of Premiers in Melbourne (see *The Crisis in Australian Finance*, p. 18). The Premiers resolved to balance budgets in 1930-31.

*22nd January, 1931.*—The Commonwealth Court of Arbitration after a protracted hearing made a comprehensive survey of the economic position (see *The Crisis*, pp. 102-145), and awarded a 10 per cent. reduction in all railway wages which were the subject of the case, operative from the 1st February, 1931. This judgment was followed by others, making the same reduction in practically all wages and salaries which were determined by Federal award. This reduction of 10 per cent. was in addition to the "automatic" adjustment to falling prices, and made the total reduction over 20 per cent. on the wage rates of 1929. Wages under State jurisdiction were gradually brought into line, except in New South Wales where no adjustment was made in State awards for some time.

*January to February.*—Premiers' Conference, Canberra and Melbourne.—A committee of Treasury officers presented a report analysing the financial and economic position. The report preserved much of the deflationary tone of Sir Otto Niemeyer's statement, and commented adversely on the high exchange rate. Curtailment of Government expenditure was strongly urged, but no definite reductions were proposed. This report was signed by four of the State Under-Treasurers only.

Mr. Lang (Premier of New South Wales) proposed as an alternative the reduction of internal interest on Government bonds to 3 per cent., the cessation of oversea interest payments pending agreement for a similar reduction, and the substitution for the gold standard of "currency based on the wealth of Australia".

The Conference rejected Mr. Lang's motion and resolved to aim at budget equilibrium in three years, reducing salaries and wages on a cost of living basis, taxing interest on Government bonds at the source and putting on the banks the responsibility of reducing interest rates.

*January.*—*The Unpegging of the Exchange.*—Australian exchange with sterling had been held by the banks at 8½ per cent. discount since 9th October, 1930. On 5th January, 1931, on the initiative of the Bank of New South Wales, the rate was allowed to move up until it reached 30 per cent. on 29th January, 1931, and it was held at that figure notwithstanding some competition at higher rates by "outside" dealers.

*2nd April.*—Letter from the Commonwealth Bank to the Chairman of the Loan Council, stating that it was unable to finance Governments beyond the outstanding £25,000,000 in London, and a limit of £25,000,000 in Australia. This limit in Australia was bound to be, and was, in fact, reached within three months.

*25th May to 11th June.*—*Premiers' Conference, Melbourne.*—The Conference had before it a report of a Committee of economists and Treasury officers, of which Professor D. B. Copland was Chairman. This report proposed a definite scheme of reduction of expenditure of all kinds, including wages, salaries, pensions, and interest. The reduction aimed at was from 20 to 25 per cent. below the 1928–29 level, based on the actual reduction in wage rates in Federal awards of something over 20 per cent. The aim of the proposals was to reduce total Government deficits in 1931–32 from a prospective £40,000,000, to some figure not much above £10,000,000. This report, which is printed in full at the end of this section, formed the basis of the "Premiers' Plan," adopted on the 10th June, 1931.

*19th June.*—*Gold Position.*—The minimum proportion of gold to be held against notes was reduced from 25 per cent. to 15 per cent., with provision for gradual restoration over a term not exceeding five years to 25 per cent. This amendment of the Commonwealth Bank Act was put through by general consent to permit further shipments of gold to meet short-term debt in London.

*26th June.*—*Reduction of Bank Deposit and Advance Rates.*—The Commonwealth Bank and the trading banks reduced by 1 per cent. the rates on new fixed deposits or renewals.

*1st July.*—The Commonwealth Bank reduced rates for advances by 1 per cent. The other trading banks by successive small steps fell into line.

The Commonwealth and State Savings Banks reduced interest rates by 1 per cent., except in Victoria where successive reductions of one-half, one quarter, and again one-quarter of 1 per cent. were made by the State Savings Bank.

*July–August.*—*Conversion Loan.*—A conversion loan was launched to reduce the rate of interest on all internal Government debt by approximately 22½ per cent.

The results of the conversion plan will be best understood by consideration of the following figures :—

	£
Total Internal public debt at 31st July, 1931 .. .. .	557,998,904
Conversion applications notified .. .. .	510,331,153
Dissents notified .. .. .	16,655,769
Conversion effected automatically (in absence of notification of either conversion or dissent) .. .. .	31,011,982
	<hr/> 557,998,904

The amount held by dissentients was thus a little less than 3 per cent. of the total outstanding public debts.

The annual savings in interest to all the Governments for a full year in consequence of the conversions effected were calculated to be about £6,500,000, but some part of this relief was to be passed on to settlers and other debtors to the State Governments.

*31st July.*—A reduction in the rate of interest on Treasury Bills from 6 per cent. to 4 per cent. was announced.

*10th to 14th August, and 1st to 12th September.*—*Premiers' Conference, Melbourne.* The several Governments reported their attempts to adjust their budgets to the "Premiers' Plan." After some allowance had been made for unforeseen contingencies, the new budgets appeared on the whole to be in fair conformity with the "Plan," though for

some of the State Governments there was an appreciable gap. Measures were agreed upon for applying compulsion to the small amount of Debt which had not been converted, and provision was made for the redemption from the National Debt Sinking Fund of securities held by persons in necessitous circumstances.

*21st September.*—Great Britain ceased payment in gold, and sterling depreciated over 20 per cent. in terms thereof, thus making a corresponding reduction in the real burden of interest payments by Australian Governments, which are for the most part fixed in sterling. Australian exchange was kept for the time at the old discount of 30 per cent. with sterling, so that no direct relief to Australian budgets ensued.

*30th October.*—The Commonwealth Government made provision for the payment of a bounty of 4½d. per bushel on wheat produced in the 1931-32 season.

*27th November.*—Further reduction in bank deposit rates of one-half and one-quarter of one per cent. on short and long-term deposits respectively.

*3rd December.*—*Exchange.*—Commonwealth Bank Board resolved to take responsibility for the regulation of sterling exchange and to announce rates for the coming week every Friday. The rate was fixed at £125 for £100 sterling, in place of £130, which had been the official bank rate since 29th January. It may be noted that sterling in the preceding week had depreciated from about 20 per cent. discount on gold to about 30 per cent. For some weeks the banks had been rationing their purchases of exchange, with the result that the "open market" rate had fallen considerably below the "carded" rates.

*January, 1932.*—Letter from the Commonwealth Bank to the Chairman of the Loan Council calling attention to the growth of the floating debt, and suggesting that "national finance" might be refused.

*28th January to 5th February.*—*Premiers' Conference, Melbourne.*—A serious drift in State finances was revealed. After receiving assurances that further economies would be sought, the Commonwealth Bank agreed to provide further assistance for the small States. During the meetings, New South Wales announced its default on interest payments due in London, New York and Australia. The payments were met, after a short delay, by the Commonwealth Government.

*February.*—A beginning was made in the revision of the tariff and the removal of prohibitions on imports.

*8th March.*—Further reductions in bank deposit rates of one-half per cent. on 3 months' deposits and one-quarter of one per cent. on 6 and 12 months' deposits.

*12th March.*—The Financial Agreements (Commonwealth Liability) Act resolved all doubts as to the liability of the Commonwealth for debts taken over in pursuance of the Financial Agreement.

*March to May.*—The Financial Agreements Enforcement legislation was enacted, giving the Commonwealth drastic powers to attach State revenues and other moneys in the event of failure by a State to pay to the Commonwealth moneys due under the Financial Agreement. The High Court decided in favour of the Commonwealth on a writ for recovery of interest paid on behalf of New South Wales. The New South Wales Government then contested the validity of the Enforcement Acts, which were upheld by the High Court, leave to appeal being refused.

*13th April.*—A Committee of Experts appointed by the Commonwealth Government to make a "Preliminary Survey of the Economic Problem" issued its report, recommending the restoration of economic balance by a combination of reduced costs and a high exchange rate, the former to be secured in part by the general application by State wage-fixing authorities of the 10 per cent. "cut" in real wages. The chief measures of more immediate alleviation recommended were (i) systematic revision of the customs tariff; (ii) construction of public works when the reductions in costs of construction made it possible for such works to earn interest; (iii) advances on debentures to large-scale enterprises for which three-quarters of the needed capital had been privately subscribed; and (iv) the settlement of married recipients of sustenance as cottagers on established farms.

*14th to 21st April.*—*Premiers' Conference, Melbourne.*—It was decided to raise a loan of £2,400,000 for expenditure on unemployment relief works.

*May.*—The trade union unemployment percentage reached the peak of 30 per cent. Mr. Lang was dismissed by the Governor of New South Wales, and the Victorian Labour Government was defeated at the elections. A widespread agitation for a higher exchange rate commenced, and lasted for some months.

*11th June.*—The State Labour Party was defeated in the New South Wales elections, while in Queensland the Labour Party was victorious.

*16th and 17th June.*—The New South Wales Industrial Commission was reconstituted. The Commonwealth Court of Arbitration refused an application for restoration of the special 10 per cent. reduction in wages.

*21st June.*—The Commonwealth Bank Act was amended to allow part of the note reserve to be held in English sterling. Subsequently, £G10,000,528 of gold was shipped overseas from the gold reserve of the Australian Notes Fund.

*May–June.*—Further reductions in bank deposit rates of one-quarter and one-half of one per cent. on 12 and 24 months' deposits, respectively.

*30th June.*—*Balance of Payments.*—The balance on current account, excluding the movement of monetary gold, was estimated to be in Australia's favour by approximately £7,392,000 sterling in 1931–32, as against a debit balance in 1930–31 of approximately £14,953,000 sterling. (See Chapter VII.—Trade, p. 254.)

*28th June to 8th July.*—*Premiers' Conference, Canberra and Sydney.*—The Conference unanimously affirmed its adherence to the "Premiers' Plan" of 1931. The estimated deficits for 1931–32 were reported to the Conference, and, with the notable exceptions of New South Wales and Queensland, they disclosed a satisfactory conformity with the "planned" deficits. The Conference agreed to reduce the total deficits in 1932–33 to £9,000,000 (inclusive of £6.45 millions for sinking funds), and arranged for a three-year unemployment relief works plan involving the ultimate expenditure of £15,000,000. Of this amount, £7,000,000 was to be spent in 1932–33, in addition to the ordinary works programme of £6,000,000.

*1st July.*—The Commonwealth Bank reduced its rate for advances by a further one-half of one per cent., bringing the rate to 5 per cent. The average reduction by the trading banks, since 1st October, 1931, was stated to be 1 per cent. Further reductions were anticipated by prominent bankers.

*21st July to 19th August.*—Imperial Economic Conference at Ottawa.

*26th August.*—The New South Wales Industrial Commission reduced the basic wage for adult males from £4 2s. 6d. to £3 10s., and for adult females from £2 4s. 6d. to £1 18s.

*1st September.*—The Commonwealth Budget provided *inter alia* for a further reduction of pensions and salaries, decreased customs duties, the final removal of import prohibitions, exemptions from Sales Tax and primage, and suspension of the gold bounty, which had been introduced on 1st January, 1931.

*September to November.*—Wool prices showed some improvement; share prices advanced substantially; the value of imports and Commonwealth customs revenues increased steadily. Early in October all the 4 per cent. Commonwealth bonds reached par, after allowing for accrued interest.

*4th October.*—A conversion loan was issued in London at 3½ per cent., issue price £97½, maturing 1936–37, to replace £12,360,000 of 5½ per cent. N.S.W. stock maturing in October, 1932.

*14th October.*—Revision of the Customs Tariff to validate the Ottawa Agreement. The margin of preference under the British Preferential Tariff was considerably widened, mainly by means of increased duties on a wide range of foreign manufactures.

*24th to 29th October.*—*Premiers' Conference, Melbourne.*—It was decided to place on the Australian market a loan of £8,000,000 at 3½ per cent., maturing in 1942, for Unemployment Relief and the funding of Treasury Bills. A reduction in the rate of interest on Treasury Bills from 4 per cent. to 3½ per cent. was announced.

*1st November.*—Further reductions in bank deposit rates of one-quarter of one per cent. for all terms, bringing the rates down to 2½, 2¾, 3 and 3½ per cent. on 3, 6, 12 and 24 months' deposits respectively.

*5th December.*—In view of the improved revenue position, the Commonwealth Government made substantial reductions in land and income (property) taxes, further



exemptions from sales tax, increased the payments to certain Invalid and Old-age pensioners, and provided from revenue £2,000,000 for assistance to wheat-growers and £250,000 for assistance to other primary producers.

*January, 1933.*—Considerable improvement in the unemployment situation was shown in the trade union percentages for the last quarter of 1932. This improvement has continued.

*20th January.*—A reduction in the rate of interest on Treasury Bills from  $3\frac{1}{2}$  per cent. to  $3\frac{1}{4}$  per cent. was announced.

*4th February.*—The Loan Council agreed with the Commonwealth Bank that future requirements for loan programmes should be raised on the open market.

*7th February.*—Further reductions in bank deposit rates of one-quarter of 1 per cent. for all terms, bringing the rates down to 2,  $2\frac{1}{2}$ ,  $2\frac{3}{4}$ , and 3 per cent. on 3, 6, 12 and 24 months' deposits respectively.

*17th February.*—Further reduction in the Treasury Bill rate from  $3\frac{1}{4}$  per cent. to  $2\frac{3}{4}$  per cent.

*23rd February.*—A conversion loan was issued in London at 4 per cent., issue price par, maturing 1955-70, to replace £9,621,000 of 4 per cent. stock maturing in July, 1933.

*30th May.*—Appointment of Commonwealth Grants Commission to inquire into matters relating to grants of financial assistance to the States.

A conversion loan was issued in London at  $3\frac{1}{2}$  per cent., issue price £99, maturing in 1937-38, to replace £11,400,000 of  $6\frac{1}{2}$  per cent. stock with optional rights of redemption.

*31st May.*—Lists closed for internal loan of £5,000,000 for State public works, issued at  $3\frac{1}{2}$  per cent. at par, maturing in 1942, with subscriptions amounting to £8.4 millions.

*1st June.*—A further reduction in the Treasury Bill rate from  $2\frac{3}{4}$  per cent. to  $2\frac{1}{4}$  per cent. was announced.

*8th to 14th June.*—*Premiers' Conference, Melbourne.*—By arrangement with the Loan Council, the Commonwealth Bank agreed to finance revenue deficits in 1933-34 by short-term loans to the amount of £8.5 millions, subject to reduction to the extent of any relief obtained by the States from conversion of oversea loans.

*12th June to 27th July.*—World Monetary and Economic Conference in London.

*30th June.*—The Commonwealth Court of Arbitration ordered the restitution of the 10 per cent. reduction in real wages in the Glass Industry; subsequently extending the restitution to the Paper and Pulp, Jam and Fruit Preserving, and certain other industries.

*13th July.*—A conversion loan was issued in London at 4 per cent., issue price £99, maturing in 1943-48, to replace £17,221,000 of 6 per cent. stock with optional rights of redemption.

*14th September.*—A conversion loan was issued in London at  $3\frac{1}{2}$  per cent., issue price £98, maturing in 1948-53, to replace £20,951,000 of 6 per cent. and  $5\frac{1}{4}$  per cent. stock with optional rights of redemption.

*4th October.*—The Commonwealth Budget provided *inter alia* for substantial remissions of direct and indirect taxation, including further exemptions from Sales Tax and reduction of the rate of tax from 6 to 5 per cent., reduction of special tax on income from property from 10 to 5 per cent., reductions in the income taxation on Life Assurance and other companies, and partial restoration of Financial Emergency reductions in Invalid, Old-age and War Pensions, Public Service salaries and contributions to the Public Service Superannuation Fund. The total relief of taxation was estimated to be at the rate of £7.5 millions annually. At the same time the Government signified its intention of giving effect to that part of the report of the Tariff Board on the protective incidence of primage and exchange which applied to protected goods entitled to admission under the British Preferential Tariff.

*16th November.*—An internal loan of £10,000,000 was issued at  $3\frac{1}{2}$  per cent., issue price £99, maturing in 1943, half for State public works and half for the purpose of retiring Treasury Bills.

*30th November.*—The price of wool, which had been advancing rapidly for some months, reached nearly 15d. per lb. (greasy merino, standard average). Wheat prices

continued to fluctuate at very low levels. Export prices as a whole, in Australian currency, had recovered to 72 per cent. of their 1927-28 level.

*4th December.*—Flour Tax of £4 5s. per ton imposed to provide portion of revenue necessary to assist necessitous farmers.

*5th December.*—A conversion loan was issued in London at 3½ per cent., issue price £99, maturing in 1946-49, to replace £16,647,000 of 5½ per cent. and 5 per cent. stock with optional rights of redemption.

The Commonwealth Government provided £3,000,000 for assistance to wheat-growers to be financed partly from a temporary sales tax on flour of £4 5s. a ton, and in part from other sources. The special tax on incomes from property was raised from 5 to 6 per cent. and the customs duty on imported tobacco raised by 6d. a lb.

*January, 1934.*—During 1933, Unemployment statistics disclosed by Trade Union returns showed steady progressive improvement. Percentage unemployed in December quarter, 23 per cent., lowest level since August, 1930.

*2nd January.*—Wool realized increased prices at first of 1934 sales. The average prices realized were the highest since September, 1928.

*16th to 28th February.*—Premier's Conference on Constitutional matters.

*22nd February.*—Conversion in London of £21,636,550, 5½ and 5 per cent. loans. New issue 3½ per cent. at £97, maturing 1954-59.

*1st April.*—Treasury Bill rate reduced from 2½ per cent. to 2¼ per cent.

*12th April.*—Bank deposit rates further reduced to 2¼, 2½ and 2¾ per cent. for 6, 12, and 24 months respectively.

*31st May.*—Provisions of 1933 Flour Tax Act ceased to operate.

*5th June.*—Internal Loan of £12,234,000, 3¼ per cent. at £98 10s., repayable at par in fourteen years, raised for Commonwealth and State public works and funding of Treasury Bills. The terms of this flotation were the lowest ever offered for a Commonwealth loan.

*19th June.*—Commonwealth Bank Board agreed to finance Revenue Deficits for 1934-35 to a limit of £5,880,000, subject to the funding of an equivalent amount of Treasury Bills during the year. This amount was subject to reduction by any additional special grants from the Commonwealth over the 1933-34 basis.

*25th June.*—The Commonwealth Bank Board announced its withdrawal of the guarantee of payment and the undertaking that treasury bills would be rediscounted before maturity at the fixed rate in regard to new issues and re-issues after 30th June. Rediscounting will still be possible but at the rate fixed by the Commonwealth Bank at the time of the transaction.

*1st July.*—Commonwealth accounts for 1933-34 showed a surplus of £1,302,000. State accounts showed deficits aggregating £6,787,000.

*24th July.*—Commonwealth Budget for 1934-35 provided *inter alia* for further remissions in indirect taxation including additional exemptions from Sales Tax and reductions in primage, concessions in wireless licence fees and telephone charges; further restoration in part of public service salaries; more liberal war pensions, repatriation, old-age and invalid pensions, and maternity allowance benefits; assistance to primary producers in the form of a fertilizer subsidy; assistance to fruit-growers and other primary producers; and a special non-recurring grant of £2,000,000 to the States.

*1st August.*—New tariff schedule giving wider protection to cotton-growers and manufacturers came into force.

*8th August.*—Bank deposit rates for three months terms reduced from 2 per cent to 1½ per cent.

*11th October.*—Further reduction in Bank deposit rates of one-quarter of 1 per cent. to 2, 2¼ and 2½ per cent. respectively for 6, 12, and 24 months terms.

*15th October.*—Treasury Bill rate reduced from 2¼ to 2 per cent.

*8th November.*—Conversion loan of £14,601,806 issued in London at £99, maturing in 1964-74, interest at 3¼ per cent.

*20th November.*—An internal loan of £15,000,000 raised for Public Works and funding of Treasury Bills issued at 3 per cent. at £99 15s., maturing in fourteen years.

*8th December.*—Commonwealth 5 per cent. stocks in New York reached par.

13th December.—Flour tax re-imposed. Rate of tax £2 12s. 6d. per ton.

17th December.—Further reduction of Bank Deposit rates—three and six months terms reduced to 1 and 1½ per cent. respectively. Treasury Bill rate on new issues and re-issues to be reduced to 1½ per cent. from 1st January, 1935.

January, 1935.—Evidence of improved financial conditions was given in the increase in bank clearings and the decrease in unemployment during 1934. The total of bank clearings (including Treasury Bills) amounted to £2,095,000,000, and was 8.4 per cent. higher than the corresponding figure for 1933. Unemployment statistics disclosed by the Trade Union returns continued to show progressive improvement. Percentage unemployed in December quarter, 18.8 per cent., lowest level since May, 1930.

7th January.—Flour Tax commenced to operate. Rate of tax £2 12s. 6d. per ton.

18th January.—Conversion loan of £22,384,000 issued in London at par, interest at 3½ per cent., repayable 1956-61. Largest single conversion operation.

2nd February.—Commonwealth Government announced £12,000,000 grant to States over three years for the purpose of adjusting farmers' debts by means of composition arrangements.

21st February.—Sugar Agreement renewed for five years from August, 1936. Guaranteed retail price of 4d. per lb.

6th March.—The price of gold in Australian currency reached the new high level of £9 4s. 4d. per fine ounce.

13th March.—The Wheat Commission reported that production should be adjusted to find a new economic equilibrium at the existing world parity, as no permanent rise in price could logically be expected. The Commission further recommended that the wheat industry should be assisted through the application of a home consumption price, that a Commonwealth Board should be appointed to supervise overseas sales, and that a plan of debt adjustment should be undertaken over a period of seven years.

30th March.—New tariff schedule announced. Reduction in duties on apparel and stockings, farm and engineering machinery, and certain classes of motor body panels made in Great Britain.

20th May.—The Commonwealth Bank Board agreed to finance Revenue Deficits in 1935-36 to the limit of £4,730,000, subject to the funding of an equivalent amount of Treasury Bills during the year.

11th June.—Internal loan of £12,500,000, 3½ per cent. at £99 10s. repayable at par in 1949. Raised for Commonwealth and State public works and funding of Treasury Bills.

30th June.—Public Debt of Commonwealth and States (including short-term debt) totalled £1,242,115,000—Commonwealth, £394,151,000, and States, £847,964,000. Net increase in 1934-35, £19,556,000, or 1.6 per cent.

1st July.—Commonwealth accounts for 1934-35 showed a surplus of £711,000. State accounts showed preliminary deficits aggregating £3,831,000, compared with £6,787,000 for the previous financial year. South Australia showed a surplus of £36,000, her first since 1925-26.

24th July.—Conversion loan of £13,470,000 issued in London at 3 per cent. at par, repayable 1939-41. Annual saving in interest and exchange of £26,000 per annum.

23rd September.—Commonwealth Budget for 1935-36 provided *inter alia* for reduction from 6 per cent. to 5 per cent. of super tax on property income; extension of the list of commodities exempted from Sales Tax; some remission of primage duty and a reduction in excise on tobacco of local origin; further restoration in part of public service salaries; extension of eligibility for war pensions and repatriation benefits; some expansion of the Defence programme; a contribution to interest and sinking fund payments on Municipal loans; and the provision of a bounty on oranges exported during the 1935 season.

24th September.—Report of Commonwealth Grants Commission recommended increased special grants for 1935-36, viz., South Australia, £1,500,000; Western Australia, £800,000; Tasmania, £450,000.

4th to 7th October.—Conference of Federal and State Ministers and Experts on the Wheat Industry. The conference approved in theory the application of a home consumption price for wheat, the scheme to be superintended by the Commonwealth.

15th November.—Commonwealth Government appointed Royal Commission to inquire into and report upon the banking and monetary systems of the Commonwealth.

26th November.—Internal loan of £7,500,000, 3½ per cent. at £99 15s., repayable at par in 1949, raised for Commonwealth and State public works and the funding of Treasury Bills. The optional privilege of tendering the Bonds at their par value for Commonwealth Probate purposes was withdrawn.

November.—Financial crisis in France. Flight of capital from the franc engendered by fear of currency devaluation. Bank rate raised to 10 per cent.

5th December.—An Act was passed to continue the operation of the Flour Tax in 1936 to contribute towards a bounty on the 1935-36 harvest.

4. Effects on Government Finance.—The aggregate deficit for the year 1930-31 of the Commonwealth (£10,760,000) and the States (£14,610,000) amounted to £25,370,000.

The aggregate deficit originally estimated for 1931-32 was £41,080,000. As a result of the conference proposals and subsequent revisions, this was reduced to £12,660,000. The aggregate deficit ultimately realized, however, was £19,490,000, though the Commonwealth itself had a surplus of £1,314,000.

For 1932-33 the States budgeted for a deficit of £8,766,000 and the Commonwealth for a small surplus. At the end of the year the actual deficits of the States amounted to £8,082,000. The Commonwealth's receipts exceeded the ordinary expenditure by £3,547,000, which was appropriated for the payment of Invalid and Old-age Pensions in 1933-34.

For 1933-34, the Budget deficits of the States aggregated £8,082,000 and the deficits realized totalled £6,787,000. The Commonwealth budgeted for a deficit of £1,176,000 and realized a surplus of £1,302,000. Of the accumulated surplus since 1931-32, viz., £6,162,000:—£4,160,000 was allocated for Defence equipment and £2,000,000 for assistance to the States in 1934-35.

The aggregate of actual State deficits for 1934-35 (£3.3 millions) was £2.2 millions less than that budgeted for. South Australia showed a surplus of £36,000 as compared with an estimated deficit of £518,000. The actual surplus of the Commonwealth Government (£711,000) largely exceeded the Budget estimate of £14,000.

The results outlined above are shown in greater detail in the following table:—

DEFICITS BEFORE AND AFTER THE "PLAN", COMMONWEALTH AND STATES.  
(£'000.)

States, etc.	1930-31.	1931-32.		1932-33.	1933-34.	1934-35.	1935-36.
	Deficit Realized for Year.	Estimated Deficit (Prior to Melbourne Conference.)	Deficit Realized for Year.	Deficit Realized for Year.	Deficit Realized for Year.	Deficit Realized for Year. (a)	Estimated Deficit.
New South Wales (b) ..	7,850	11,510	(c)14,228	3,758	3,208	2,299	1,750
Victoria ..	2,450	3,060	1,608	842	769	170	435
Queensland ..	840	1,630	2,075	1,554	1,129	565	1,162
South Australia ..	1,810	2,400	1,063	1,009	844	(+) 36	..
Western Australia ..	1,420	1,860	1,558	864	789	167	256
Tasmania ..	240	220	272	55	48	119	277
Six States ..	14,610	20,680	20,804	8,082	6,787	3,284	3,880
Commonwealth ..	10,760	20,400	(+)1,314	(+)3,547	(+)1,302	(+) 711	(+) 17
Grand Total ..	(c)25,370	(d)41,080	19,490	4,535	5,485	2,573	3,863

(a) Preliminary figures.

(b) Exclusive of Metropolitan Board of Water Supply and Sewerage.

(c) Excluding interest, etc., £3,834,149 paid by the Commonwealth on behalf of New South Wales and not recovered at 30th June, 1931. Of this amount £1,672,722 would normally have been brought to account as expenditure by New South Wales during 1930-31 and the remainder in 1931-32.

(d) This figure was finally reduced to £12,660,000 after the Melbourne Conference adjustments and later revisions.

(e) Excludes surplus of £890,000 Main Roads Board, and includes £1,673,000 Interest and Exchange properly attributable to 1930-31.

5. **Present Position of Government Finance.**—The following summaries have been compiled from information published in the monthly statements prepared by the Commonwealth and State Treasuries.

The aggregate deficits of all States amounted to £5.17 millions for the quarter ended 30th September, 1932. The Commonwealth surplus of £2.62 millions reduced the aggregate deficit to £2.55 millions, which represents a very marked improvement on the results for the corresponding quarter of the previous year, when the deficits aggregated £13.07 millions. Revenue increased by £6.4 millions, and expenditure decreased by £4.1 millions, giving a net improvement of £10.5 millions. For the quarter ended 30th September, 1933, the improvement was even more marked. The deficit of Commonwealth and States combined was £1,756,000—Receipts were £904,000 less, but expenditure fell by £1,702,000—an improvement on 1932 of £800,000 and on 1931 of no less than £11,315,000. Receipts for the September quarter of 1934 were £840,000 less and expenditure £206,000 greater than for the corresponding quarter of 1933.

COMMONWEALTH AND STATES FINANCES.—SUMMARY.

Quarter ended 30th September.				Receipts.	Expenditure.	Deficit.
				£1,000.	£1,000.	£1,000.
1931	..	..	..	32,504	45,575	13,071
1932	..	..	..	38,944	41,498	2,554
1933	..	..	..	38,040	39,796	1,756
1934	..	..	..	37,200	40,002	2,802
1935	..	..	..	39,370	41,668	2,298

Comparing results for the September quarter of the past five years, taxation receipts increased by £4.06 millions in 1932, fell in 1933 by £1,672,000 and in 1934 by £1,690,000, but increased in 1935 by £1,701,000. Expenditure on administrative and social services was reduced by £0.76 million in 1932 and by a further £1.63 millions in 1933, but showed increases of £555,000 in 1934 and £1,092,000 in 1935.

In regard to Business Undertakings, the trading results, excluding provision for interest, etc., can be summarized as follow :—

BUSINESS UNDERTAKINGS—COMMONWEALTH AND STATES.—SUMMARY.

Quarter ended 30th September.				Receipts.	Expenditure.(a)	Excess Receipts.
				£1,000.	£1,000.	£1,000.
1931	..	..	..	13,789	10,395	3,394
1932	..	..	..	14,129	10,090	4,039
1933	..	..	..	14,208	9,833	4,375
1934	..	..	..	14,775	10,222	4,553
1935	..	..	..	15,836	11,329	4,507

(a) Excludes Interest, etc., charges.

6. **The Adopted Plan.**—The full text of the Report prepared by the representatives of the various Australian Governments in connexion with the national financial position is as follows :—

#### CONFERENCE REPORT.

The Governments of Australia have met in Conference to consider what measures are possible to restore solvency and avoid default. The national income was £650,000,000 in 1927-28. It fell to £564,000,000 in 1929-30, and a further fall to £450,000,000 in 1931-32 is estimated.

This has reacted on Government finance.

The total deficit of the seven Australian Governments will be £31,000,000 for the present financial year. The Governments are now going behind at the rate of £40,000,000 a year, in spite of reduction of expenditure amounting to £11,000,000 per annum since 1929-30. The deficits have been met hitherto by bank overdraft. The Commonwealth Bank has notified the Governments that the limit to that process has been reached. Early in July, Governments will have insufficient means to meet their obligations. Unless the drift be stopped, Public Service salaries and wages, pensions and interest could not be paid in full. Public default would be followed by a partial breakdown in public utilities such as railways, and in private industry and trade. Revenue would come toppling down, and even half-payment might become impossible. With this prospect, everything that can be got from Government economy, from taxation and from reduction of interest, must be called on to bring the debit balance within manageable limits that can safely and practicably be covered for a time by borrowing.

#### THE PLAN.

The Conference has, therefore, adopted a plan which combines all possible remedies in such a way that the burden falls as equally as possible on every one, and no considerable section of the people is left in a privileged position. This sharing of the burden is necessary to make the load more tolerable; it is still more necessary, because only on this condition will it be possible to get the combined effort required.

The plan has been adopted by the Conference as a whole, each part of which is accepted on the understanding that all the other parts are equally and simultaneously put into operation. It embraces the following measures :—

- (a) A reduction of 20 per cent. in all adjustable Government expenditure, as compared with the year ending 30th June, 1930, including all emoluments, wages, salaries, and pensions paid by the Governments, whether fixed by statute or otherwise, such reduction to be equitably effected;
- (b) Conversion of the internal debts of the Governments on the basis of a 22½ per cent. reduction of interest;
- (c) The securing of additional revenue by taxation, both Commonwealth and State;
- (d) A reduction of bank and Savings Bank rates of interest on deposits and advances;
- (e) Relief in respect of private mortgages.

These proposals require the greatest effort in economy and taxation which the Conference considers it safe to attempt. The effect will be still to have a gap of from £13,000,000 to £15,000,000 to be covered for a time by borrowing.

#### REDUCTION OF EXPENDITURE.

The plan provides for Government economy on the basis of an immediate cut, averaging 20 per cent., for all Government wages and salaries below the level of 1929-30. To this will be added all saving that can be made from a strict scrutiny into the necessity of every item of Government expenditure.

The same general principle is extended to all pensions provided out of Government funds—old-age and invalid pensions, war pensions, superannuation pensions, and the maternity allowance. Over the whole field of this expenditure, the cut will amount to

16 per cent. The result will be, for each Government, savings as shown in the following table :—

FURTHER REDUCTIONS IN EXPENDITURE BEYOND THOSE PROVIDED FOR IN THE PRESENT ESTIMATES FOR 1931-32.—ADMINISTRATION AND PENSIONS.

					£
Commonwealth	..	..	..	..	6,050,000
New South Wales	..	..	..	..	3,300,000
Victoria	..	..	..	..	880,000
Queensland	..	..	..	..	620,000
South Australia	..	..	..	..	400,000
Western Australia	..	..	..	..	560,000
Tasmania	..	..	..	..	110,000
					11,920,000

The further savings to be made in accordance with the plan are, therefore, £11.92 millions for all Governments. The total reduction of expenditure (excluding Commonwealth pensions) compared with 1929-30 will be £21.4 millions.

TAXATION.

Taxation equally must make a maximum contribution. Ordinary direct taxation has nearly reached the limit in some States. The Commonwealth will raise an additional £1.5 millions by income tax, and what capacity for direct taxation remains will be left for a last reserve as the option of the several State Governments. The only possible substantial contribution must, therefore, be by taxes on consumption so designed as to add as little as possible to the costs of industry. It has been agreed that the sales tax and primage should be increased to give £6.4 millions of additional revenue. By the agreed economies and taxation, the position estimated for 1931-32 will be improved by £20,000,000, exclusive of savings on interest and additional State taxation.

REDUCTION OF INTEREST.

The reduction in the rate of interest is of urgent importance, for two reasons :—

1. With the fall in prices since 1929, interest payments have become an intolerable load on all industry, and immediate relief is necessary for the restoration of industry and employment. Government budgets are subject to the same strain, because revenue falls with falling prices, and thus interest relatively becomes a heavier burden. A reduction of interest will substantially reduce the deficit which remains when economy and taxation have made their maximum contribution.

2. Income from interest, particularly from Government bonds and bank interest, has hitherto suffered little loss. A reduction of interest will ensure that it will contribute equitably to the common effort to restore solvency. Unless the contribution is made, it is not to be expected that the wage-earner and the pensioner will acquiesce in the very real hardships imposed on them by this plan.

The second of these objects could be obtained by taxation, but taxation would give no relief to industry and no stimulus to employment. The Conference has, therefore, resolved on an appeal to all bond-holders to accept a reduction of 22½ per cent. in the effective rate of interest. This is to be done by a conversion loan, and the new securities will be exempt from the present super-tax of 7½ per cent. and from any additional taxation imposed on income from interest, in order to spread as evenly as possible the sacrifices required to restore solvency.

Concurrently with the reduction of bond interest must go a reduction in private interest. This is mainly a matter for the banks, who are co-operating to that end. Reductions of interest are being arranged between the Commonwealth Bank, the trading banks, and the Savings Banks which will result in the rapid reduction in the interest on money required for trade and industry. This reduction of interest will be supplemented by legislation giving relief to mortgagors. This legislation forms part of the plan.

The lower rates of interest will greatly stimulate the general demand for credit, and the conference has the assurance of the Commonwealth Bank and the trading banks that, as a result of the operation of the plan, money will be readily available. With

falling costs and ample supplies of credit, industry should then recover. This recovery will be stimulated by the maintenance of a free external exchange rate and the avoidance of any measures that will cause a sudden further fall in prices. A reduction of existing exchange rates will best be achieved on rising markets for Australian exports. If premature attempts are made to force the rates down earlier, they may bring about a further crisis by reducing export values once more.

#### SUMMARY.

The total effects of the plan on the budgets of 1931-32 may now be summarized. The total deficit as estimated for 1931-32 was £39,000,000. The extra economies agreed upon take £12,000,000 off this total. New Federal taxation embodied in the plan will contribute a net £7.5 millions, in addition to any increases which may be obtained by the States. The saving of interest by conversion will reduce the internal interest burden by £6.5 millions. As Governments will pass on this relief to their own borrowers—public bodies, public utilities, and private individuals—the net benefit to the budgets will be £5.5 millions. The combined effect will be a reduction of the deficit from £40,000,000 to £15,000,000. A further reduction of the deficit by £2,000,000 could be secured by levelling up the income tax in at least two States.

These very substantial reductions will go far to restore confidence both at home and abroad. This restoration of confidence, with the indirect effects of the fall in interest, may be expected to restore revenue, even to some extent in 1931-32, and substantially in the years following. A rise in world's price for our exports would accelerate the upward movement, and this rise may reasonably be expected within the next two years. With any improvement in industry, the expenditure on unemployment sustenance will decline, with further relief to budgets.

With this prospect, and confidence restored, there would be no difficulty in borrowing temporarily to meet the deficits as substantially reduced.

The deficit includes £10.6 millions additional charge on overseas interest and external payments on account of exchange. If the exchange rate falls, there will be a corresponding decline in the deficit. On the other hand, if the present exchange rate is maintained, its full effect in keeping up local prices and incomes will have a beneficial effect on Government revenues.

#### A UNITED EFFORT.

Before the details of the plan were settled, and in order to make it effective, the Leaders of the Opposition in the Commonwealth Parliament were invited to attend the Conference. After full discussion of the whole plan, the following resolution was passed:—

“The Conference, including the Leaders of the Opposition in the Federal Parliament, having most carefully considered the financial position of the Commonwealth and the States, and recognizing the national inability to meet existing Government charges, is unanimously of the opinion that to prevent national default in the immediate future, and a general failure to meet Government payments, all expenditure, including interest on Government securities and other interest, and expenditure upon governmental salaries and wages, pensions, and other social services must be substantially reduced.

These measures, drastic as they may appear, are the first essentials to the restoration of prosperity and the re-employment of our workless people.

The necessary sacrifice is due to national inability to pay, and it must, therefore, be shared by all.

The Conference has accordingly provided a conversion plan under which bond-holders may make their contribution to the general sacrifice by themselves accepting the lower rate of interest which the existing position makes unavoidable.

The Conference therefore appeals to all sections of the people to recognize the position, and, in the interests of the nation, to accept the sacrifices which are involved.

A National Appeal Executive, consisting of the Prime Minister, the Leader of the Opposition, and the Chairman of the Commonwealth Bank Board, is appointed by this Conference to direct the conversion campaign.”



## CONCLUSION.

1. The plan agreed upon is an indivisible whole and the carrying out of any one part is dependent upon the carrying out of all parts.

2. It involves sacrifices by every member of the community, and the Conference appeals to all sections of the people to recognize the position, and to accept these sacrifices as a national duty.

3. To the bond-holder the plan involves a reduction of interest by  $22\frac{1}{2}$  per cent., but it safeguards the capital of the investor.

4. To the Government employec the plan involves a reduction, which with reductions already effected represents an average of 20 per cent., but it makes his position, and future emoluments, much more secure.

5. To the war pensioner, the plan involves a reduction of 20 per cent. (in some cases less), but it removes the danger of any sudden stoppage, and provides security for future payments.

6. To the invalid and old-age pensioner the plan involves a reduction in most cases of  $12\frac{1}{2}$  per cent., but it removes the danger of any sudden stoppage, and provides security for future payments.

7. To all of these a large part of the reduction is counterbalanced by the fall in prices, and in the cost of living.

8. To the unemployed, the plan provides for a restoration of employment, and in the meantime makes more secure the continuation of sustenance relief.

9. With the sacrifice distributed over the whole community in this manner, with the lead of Governments followed by all citizens, with the revival of business confidence and activity, a sure foundation will have been laid for the restoration of general prosperity in Australia.

## EFFECT OF THE PLAN ON DEFICITS.

	1929-30 Actual.	1930-31 Estimate.	1931-32.	
			Original Estimate.	After making the Agreed Adjustments.
	£ millions.	£ millions.	£ millions.	£ millions.
Commonwealth ..	1.50	13.40	20.40	4.38
New South Wales ..	5.57	10.48	11.51	5.41
Victoria ..	1.17	2.60	3.06	1.31
Queensland ..	.72	.74	1.63	.76
South Australia ..	1.63	2.20	2.40	1.50
Western Australia ..	.52	1.52	1.86	1.20
Tasmania ..	.02	.21	.22	.09
Total States ..	9.63	17.75	20.68	10.27
Total ..	11.13	31.15	41.08	14.65*

\* Further adjustments reduce this amount to £12.66 millions. See page 921.

## FINAL RESOLUTION.

Just prior to concluding its business, the Conference unanimously passed the following resolution, on the motion of Mr. Hill (Premier of South Australia):—

The representatives of each Government present at this Conference bind themselves to give effect promptly to the whole of the resolutions agreed to at this Conference.

**B.—COMMONWEALTH FINANCE, p. 443.**  
**CONSOLIDATED REVENUE FUND, 1934-35.**

Receipts.		Expenditure.	
Particulars.	£	Particulars.	£
Taxation—		Departments .. ..	12,434,474
Customs .. ..	25,289,719	Territories .. ..	780,905
Excise .. ..	12,579,767	Invalid and Old-age Pensions .. ..	11,762,030
Sales Tax .. ..	8,554,076	Maternity Allowances .. ..	329,321
Flour Tax .. ..	798,354	Relief to Primary Producers .. ..	4,322,856
Land Tax .. ..	1,281,424	New Works .. ..	1,052,133
Probate .. ..	1,507,827	War and Repatriation—	
Income Tax .. ..	8,761,619	Interest, etc., Charges .. ..	10,692,753
Other .. ..	Dr. 18,262	War Pensions .. ..	7,369,516
Total .. ..	58,754,524	Other .. ..	955,592
		Total .. ..	49,699,580
Business Undertakings—		Payments to or for States—	
Post Office .. ..	13,944,930	Interest on States' Debts .. ..	7,584,912
Railways .. ..	334,432	Sinking Fund States Debts .. ..	1,330,910
Total .. ..	14,279,362	Special Grants .. ..	2,400,000
		Federal Aid Roads Grants .. ..	2,465,980
Other Receipts—		Total .. ..	13,781,802
Interest .. ..	2,547,397	Business Undertakings—	
Net Profit Note Issue .. ..	797,344	Post Office .. ..	12,015,696
Territories .. ..	250,087	Railways .. ..	1,160,822
Other .. ..	740,391	Total .. ..	13,176,518
Total .. ..	4,335,219	Grand Total .. ..	76,657,900
Grand Total .. ..	77,369,105		
Per Head of Population	£11 10s. 10d.		

**LOAN FUND, 1934-35.**

Particulars.	Expenditure.	
	1934-35.	Total to 30th June, 1935.
	£	£
Works—		
Ship Construction .. ..	.. ..	7,571,681
Federal Capital Territory .. ..	.. ..	8,260,414
Defence—Naval, Military and Air Services .. ..	105,109	4,767,874
Telegraphs and Telephones .. ..	151,039	31,187,383
Post Office Buildings and Land .. ..	1,162,415	3,476,607
Railways .. ..	78,225	15,331,766
War Service Homes .. ..	1,301	7,318,909
Unemployment Relief .. ..	4,386	1,882,614
Other Works .. ..	272,883	5,236,517
Total Works .. ..	159,275	85,033,765
Other Purposes—		
Wheat Bounty .. ..	.. ..	3,429,528
Other .. ..	.. ..	3,029,339
Grand Total .. ..	1,934,633	91,492,632

## PUBLIC DEBT, 30th SEPTEMBER, 1935.

Particulars.	Amount.	Per Head of Population.	
		£	s. d.
Commonwealth—(a)	£	£	s. d.
War .. .. .	278,412,873	41	6 8
Works and other purposes .. .. .	115,317,352	17	2 4
Total (a) .. .. .	393,730,225	58	9 0
States (a) .. .. .	850,321,643	(c) 126	10 0
Grand Total (a) .. .. .	1,244,051,868	184	13 9
Place of Maturity—			
Australia (£ Aust.) .. .. .	652,296,052	96	16 9
London (£ Stg.) .. .. .	546,206,961	81	1 9
New York (b) .. .. .	45,548,855	6	15 3
Total (a) .. .. .	1,244,051,868	184	13 9

(a) Total "Face" or "Book" value of the Public Debt leaving out of account currency changes since the loans were floated. (b) Payable in terms of dollars. For the purposes of this table dollars have been arbitrarily converted to £s at the rate of \$4.8665 to £1. (c) Based on aggregate estimated population of the six States.

## C.—STATE FINANCE, p. 486.

## STATE FINANCE, 1934-35.

State.	Revenue. (a)		Expenditure. (a)		Net Loan Expenditure. (a)	
	Amount.	Per Head.	Amount.	Per Head.	Amount.	Per Head.
	£'000.	£ s. d.	£'000.	£ s. d.	£'000.	£ s. d.
New South Wales(b)	48,425	18 7 8	51,271	19 9 3	9,724	3 13 10
Victoria ..	25,328	13 15 10	25,498	13 17 8	1,958	1 1 4
Queensland ..	15,280	15 18 1	15,845	16 9 10	3,259	3 7 10
South Australia ..	11,002	18 16 8	10,966	18 15 5	(c) 619	1 1 2
Western Australia	9,331	21 1 1	9,498	21 8 8	2,538	5 14 6
Tasmania ..	2,872	12 10 8	2,991	13 1 1	361	1 11 6
All States ..	112,238	16 15 8	116,069	17 7 1	18,459	2 15 2

(a) Figures are compiled from information published in the monthly statements issued by each State Treasury and are subject to revision. (b) Excludes Metropolitan Board of Water Supply and Sewerage. (c) From Finance Statement. Excludes Revenue deficits and amount written off Public Debt on account of Soldier Land Settlement Agreement. Credits arising from cancellation of securities redeemed from Sinking Fund have been allowed for.

**CHAPTER XIX.**  
**MINERAL INDUSTRY.**

**§ 1. The Mineral Wealth of Australia.**

3. Value of Production, p. 630.—The following table gives the value of Australian mineral production for the year 1934 :—

**MINERAL PRODUCTION.—VALUE, 1934.**

Mineral.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
	£	£	£	£	£	£	£	£
Gold ..	307,662	597,040	982,636	58,582	5,534,491	48,139	8,124	7,536,674
Silver and Lead	2,199,823	370	671,255	..	7,199	43,850	11	2,922,508
Copper ..	25,398	..	95,903	8,475	..	267,342	..	397,118
Ironstone ..	2,304	..	2,996	1,430,877	..	12,030	..	1,448,207
Tin ..	328,130	3,886	179,404	..	6,765	219,246	9,566	746,997
Zinc ..	208,511	..	..	..	..	..	..	208,511
Coal (Black)..	4,541,923	215,413	752,303	..	278,704	81,262	..	5,869,605
Other ..	152,753	275,320	33,783	215,603	57,271	78,520	11,105	824,355
<b>Total ..</b>	<b>7,766,504</b>	<b>1,092,029</b>	<b>2,718,280</b>	<b>1,713,537</b>	<b>5,884,430</b>	<b>750,389</b>	<b>28,806</b>	<b>19,953,975</b>

## 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.

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