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COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,  
CANBERRA.

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OFFICIAL

# YEAR BOOK

OF THE

# COMMONWEALTH OF AUSTRALIA

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No. 27.—1934.

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Prepared under Instructions from  
The Honorable the Treasurer,

BY

E. T. MCPHEE,  
COMMONWEALTH STATISTICIAN.



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## PREFACE.

J. O. YOUNG

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

The synopsis on pp. ix to xxii 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 VII. Trade—Balance of Payments (Appendix).
- Chapter XIII. Repatriation—Previously shown under Chapter on Defence (p. 340).
- Chapter XV. Public Finance—Financial provisions of the Constitution in regard to the distribution of revenues received by the Commonwealth (p. 396).
- Chapter XXV. Labour, Wages, etc.—Basic Wage Inquiry, 1934 (p. 719).
- Chapter XXVI. Population—Incorporation of available details of 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. 871 to 905).

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.

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.

I wish to express my keen appreciation of the valuable work performed by Mr. J. Stonham, M.A., who has edited this Year Book since its inception and I also would place on record his departure from the Bureau on the 31st August, 1934, on the eve of his retirement from the Commonwealth Public Service. I have to thank the officers of the Bureau whose duty it has been to prepare or revise the chapters of the Year Book and especially Mr. H. J. Petrie and Mr. J. P. Dwyer for their work in editing the latter part of the present volume and seeing it through the press.

E. T. MCPHEE,  
Commonwealth Statistician.

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,  
*Canberra, March, 1935.*

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STATISTICAL SUMMARY, AUSTRALIA.

Heading.	Years.							
	1871.	1881.	1891.	1901.	1911.	1921.	1933.	
Population(a)	Males	928,918	1,247,059	1,736,617	2,004,836	2,382,232	2,798,727	3,379,483
	Females	771,970	1,059,677	1,504,368	1,820,077	2,191,554	2,710,346	3,277,429
	Total	1,700,888	2,306,736	3,240,985	3,824,913	4,573,786	5,509,073	6,656,912
Births ..	No.	63,625	80,004	110,187	102,945	122,193	136,198	111,269
	Rate	38.00	35.26	34.47	27.16	27.21	24.95	16.78
Deaths ..	No.	22,175	33,327	47,430	46,330	47,869	54,076	59,117
	Rate	13.24	14.69	14.84	12.22	10.66	9.91	8.92
Marriages ..	No.	11,623	17,244	23,862	27,753	39,482	46,869	46,595
	Rate	6.94	7.60	7.47	7.32	8.79	8.59	7.03
Years.								
	1871-72.	1881-82.	1891-92.	1901-02.	1911-12.	1921-22.	1932-33.	
Agriculture—								
Wheat ..	Area, acs.	1,279,778	3,002,064	3,335,528	5,115,955	7,427,834	9,719,042	15,765,504
	Yld., bshl.	11,917,741	21,443,862	25,675,265	38,561,619	71,636,347	129,088,806	213,926,981
Oats ..	Area, acs.	225,492	194,816	246,129	461,430	616,794	733,406	1,027,262
	Yld., bshl.	4,251,630	4,795,897	5,726,256	9,789,854	9,561,833	12,147,433	16,159,628
Barley ..	Area, acs.	48,164	75,864	68,068	74,511	116,466	298,910	442,833
	Yld., bshl.	726,158	1,353,380	1,178,560	1,519,819	2,056,836	6,085,685	8,770,077
Malze ..	Area, acs.	142,078	165,777	284,428	294,849	340,065	395,186	228,260
	Yld., bshl.	4,576,635	5,726,266	9,261,922	7,034,786	8,939,855	7,840,438	5,066,321
Hay ..	Area, acs.	303,274	768,388	942,166	1,688,402	2,518,351	2,994,519	2,727,408
	Yld., tons	375,871	767,194	1,067,255	2,024,608	2,867,973	3,602,189	3,571,047
Potatoes(b)..	Area, acs.	67,911	76,265	112,884	109,685	130,463	149,144	147,485
	Yld., tons	212,896	243,216	380,477	322,524	301,489	388,091	384,271
Sugar Cane(c)	Area, acs.	3.13	3.19	3.37	2.94	2.21	2.60	2.61
	Yld., tons	11,576	19,708	45,444	86,950	101,010	128,350	212,842
Vineyards ..	Area, acs.	176,632	349,627	737,573	1,367,802	1,682,250	2,436,890	3,703,188
	Wine, gal.	15,253	17,741	16,233	15,733	16,655	18,991	17,400
Total value all agricultural production	£	2,104,000	1,488,000	3,438,000	5,816,087	4,975,147	8,542,573	16,417,661
Pastoral, dairying, etc.—	£	8,941,000	15,519,000	16,988,000	23,835,000	38,774,000	81,890,000	75,562,000
Live Stock ..	Sheep No.	40,072,955	65,092,719	106,421,068	72,040,211	96,886,234	86,119,068	112,926,931
	Cattle ..	4,277,288	8,010,991	11,112,112	8,491,428	11,828,954	14,441,309	12,783,137
	Horses ..	701,530	1,088,029	1,584,737	1,620,420	2,278,226	2,438,182	1,765,437
(a) Pigs ..	586,017	703,188	845,888	931,309	1,110,721	960,385	1,162,407	
Wool prod., lb. (greasy)	£	179,000,000	322,759,000	631,587,000	543,131,661	721,298,288	721,678,346	1,061,672,628
Butter production .. lb.	(d)	(d)	42,314,585	103,747,295	212,073,745	267,071,340	419,674,803	
Cheese .. (e) ..	(d)	(d)	10,130,945	11,845,153	15,886,712	32,653,003	36,933,306	
Bacon and ham ..	(d)	(d)	16,771,886	34,020,629	53,335,092	58,626,469	68,365,534	
Total estimated value of pastoral and dairying production	£	20,736,000	29,538,000	39,256,000	36,890,000	72,883,000	119,399,000	104,473,000
Years.								
	1871.	1881.	1891.	1901.	1911.	1921.	1933.	
Mineral production—								
Gold ..	£	7,916,627	5,194,390	5,281,861	14,017,538	10,551,624	4,018,685	6,406,069
Silver and lead ..	£	36,046	45,622	3,736,352	2,248,598	3,022,177	1,539,992	2,570,262
Copper ..	£	830,242	714,003	367,373	2,215,431	2,564,278	803,987	531,153
Tin ..	£	24,020	1,145,889	560,502	448,234	1,209,973	418,148	540,331
Zinc ..	£	369	200	2,079	4,067	1,415,169	283,455	283,845
Coal (Black) ..	£	330,510	637,865	1,912,353	2,602,733	3,927,300	10,983,757	5,975,900
Total value all mineral production	£	9,190,330	7,820,290	12,074,106	21,816,772	23,302,878	19,977,384	17,651,202
Forestry production—								
Quantity of local timber sawn or hewn						1921-22.	1932-33.	
1,000 sup. ft.	(d)	(d)	(d)	452,131	604,794	590,495	307,075	

(a) At 31st December  
(d) Information not available.  
ended June.

(b) Partly estimated 1871 and 1881.

(c) Area of productive cane.

(e) Years ended December, except for last column which refers to year

J. O. YOUNG

## STATISTICAL SUMMARY, AUSTRALIA—continued.

Heading.	Years.							
	1871.	1881.	1891.	1901.	1911.	1921-22.	1932-33.	
<b>Manufactories—</b>								
No. of factories					14,455	18,023	22,330	
Hands employed	No.				311,710	378,540	370,727	
Wages paid	£	(a)	(a)	(a)	27,528,377	68,050,861	59,416,436	
Value of production	£				51,259,004	121,674,119	119,072,247	
Total value of output	£				133,022,090	320,331,765	304,697,868	
<b>Shipping—</b>								
Oversea vessels ent. & cleared	{ No. ton.	2,748 1,312,642	3,284 2,549,364	3,778 4,726,307	4,028 6,541,991	4,174 9,884,801	3,111 9,081,278	3,114 11,841,640
<b>Commerce—</b>								
Imports oversea	£	17,017,700	29,067,000	37,711,000	42,434,000	66,967,488	103,066,436 (b)	
" per head	£	10/3/3	12/16/2	11/16/0	11/3/11	14/18/2	18/14/1	
Exports oversea	£	21,725,000	27,528,000	36,043,000	49,696,000	79,482,258	127,846,535 (b)	
" per head	£	12/19/6	12/2/8	11/5/6	13/2/2	17/13/10	23/4/1	
Total oversea trade	£	38,742,000	56,595,000	73,754,000	92,130,000	146,449,746	230,912,971 (b)	
" per head	£	23/2/9	24/18/10	23/1/6	24/6/1	32/12/0	41/18/2	
Customs and excise duties	£	(c)	4,809,326	7,440,869	8,656,530	13,515,005	27,565,199	
" per head	£	(c)	2/2/5	2/6/7	2/5/8	2/19/2	5/0/1	
Principal Oversea Ex- ports (d)—								
Wool	{ lb. (greasy) cental	176,635,800 9,459,629	328,369,200 13,173,026	619,259,800 19,940,029	518,018,100 15,237,454	720,364,900 26,071,193	927,833,700 47,977,044	
Wheat	£	479,954	3,218,792	5,876,875	12,156,035	33,088,704	59,068,334	
Flour	£	193,732	1,189,762	1,938,864	2,774,643	9,641,668	28,644,155	
" tons	£	12,988	49,549	33,363	96,814	175,891	359,734	
Butter	£	170,415	519,035	328,423	589,604	1,391,529	5,519,881	
" lb.	£	1,812,700	1,298,800	4,239,500	34,607,400	101,722,100	127,347,400	
Skins and hides	£	45,813	39,833	206,868	1,451,168	4,637,362	7,968,078	
Tallow	£	100,123	316,878	873,695	1,250,938	3,227,239	3,136,810	
Meats	£	914,278	644,149	571,069	677,745	1,935,836	1,441,795	
Timber (undressed)	£	566,780	362,965	460,894	2,611,244	4,003,159	5,542,102	
Gold	£	42,586	118,117	38,448	731,301	1,023,960	1,158,166	
Silver and lead	£	7,184,833	6,445,365	5,703,532	14,315,741	12,045,766	3,483,239	
Copper	£	37,891	57,954	1,932,278	2,250,253	3,212,584	2,697,130	
Coal	£	598,538	676,515	477,687	1,619,145	2,345,961	705,358	
Govt. Railways—								
Lgh. of line open, mls.		970	3,332	9,541	12,579	16,078	23,502	
Capital cost	£	19,269,786	42,741,350	99,764,090	123,223,779	152,194,603	244,353,233	
Gross revenue	£	1,102,050	3,910,122	8,654,085	11,938,668	17,847,837	38,194,630	
Working expenses	£	608,332	2,141,735	5,630,182	7,133,617	10,945,727	29,817,970	
Per cent. of working expenses on earn- ings	%	55.17	54.77	65.06	64.63	61.33	78.07	
<b>Postal—</b>								
Letters and postcards dealt with	No.	24,382,000	67,640,000	157,297,000	220,853,000	453,063,000	561,973,105 (e)	
" per head	No.	14.54	29.61	49.07	58.26	100.90	102.01	
Newspapers dealt with	No.	3,336,000	38,063,000	85,280,000	102,727,000	141,638,000	140,477,184	
" per head	No.	7.95	16.66	26.61	27.10	31.54	25.50	
<b>Cheque-paying Banks (f)—</b>								
Note circulation	£	2,456,487	3,978,711	4,417,269	3,399,462	3,718,458 (g)	213,868	
Coin & bullion held	£	6,168,869	9,108,243	16,712,923	19,780,528	33,470,770	21,626,832	
Advances	£	26,039,573	57,732,824	129,741,583	86,352,832	108,578,774	193,435,760	
Deposits	£	21,856,959	53,849,455	98,345,338	91,487,148	143,446,910	273,866,737 (i)	
<b>Savings Banks (j)—</b>								
Total deposits	£	3,193,285	7,854,480	15,536,592	30,882,645	59,393,682	154,396,051	
Aver. per head of population	£	1/18/9	3/10/5	4/18/7	8/3/0	13/8/5	28/0/4	
<b>State Schools—</b>						1921.	1932.	
Number of schools	No.	2,502	4,494	6,231	7,012	8,060	9,445	
Teachers	No.	4,641	9,028	12,564	14,500	16,971	26,120	
Enrolment	No.	236,710	432,320	561,153	638,478	638,850	819,042	
Aver. attendance	No.	137,767	255,143	350,773	450,246	463,799	666,498	

(a) Owing to variation in classification and lack of information effective comparison is impossible.  
 (b) British currency values. The corresponding recorded values were Imports £58,013,860, and Exports £121,267,974. (c) Not available. (d) Australian produce, except gold, which includes re-exports.  
 (e) Includes packets. (f) Figures for the first three years are averages for the December quarter; the remainder for the June quarter. (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. S.A.—Discovery of Spencer's and St. Vincent Gulfs by Flinders. Q'land.—Discovery of Port Curtis and Port Bowen by Flinders.
- 1803 N.S.W.—First Australian wool taken to England by Capt. Macarthur. Issue of "The Sydney Gazette," first Australian newspaper. Vic.—Attempted settlement at Port Phillip by Collins. Discovery of Yarra by Grimes. Tas.—First settlement formed at Risdon by Lieut. Bowen.
- 1804 N.S.W.—Insurrection of convicts at Castle Hill. Vic.—Abandonment of settlement at Port Phillip. Tas.—Foundation of settlement at Hobart by Collins, and at Yorktown by Colonel Paterson.
- 1805 N.S.W.—First extensive sheep farm established at Camden by Capt. Macarthur. Portion of settlers from Norfolk Island transferred to Tasmania.
- 1806 N.S.W.—Shortage of provisions. Tas.—Settlement at Launceston.
- 1807 N.S.W.—Final transfer of convicts from Norfolk Island. First shipment of merchantable wool (245 lb.) to England.
- 1808 N.S.W.—Deposition of Governor Bligh.
- 1809 N.S.W.—Isaac Nichols appointed to supervise delivery of overseas letters.
- 1810 N.S.W.—Post-office officially established at Sydney, Isaac Nichols first postmaster. First race meeting in Australia at Hyde Park, Sydney. Tas.—First Tasmanian newspaper printed.
- 1813 N.S.W.—Passage across Blue Mountains discovered by Wentworth, Lawson, and Blaxland. Macquarie River discovered by Evans.
- 1814 N.S.W.—Flinders suggested the name "Australia," instead of "New Holland." Creation of Civil Courts.
- 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.
- 1834 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 S.A.—Sturt's last expedition inland. Qld.—Leichhardt's expedition from Condamine River to Port Essington.
- 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. 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. Sydney University founded.
- 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 transcontinental telegraph.
- 1871 N.S.W.—Permanent military force raised. W.A.—Passage of Elementary Education Act. Forrest's explorations. Tas.—Discovery of tin at Mount Bischoff. Launceston-Western railway opened for traffic.
- 1872 N.S.W.—International Exhibition at Sydney. Vic.—Mint opened. S.A.—Cable from Java to Port Darwin. Completion of transcontinental telegraph line.
- 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 freetrade 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 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.  
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* was 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.**

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- 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, P.C., 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 £25,500,000, 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. Governmental economy and wage reductions in New South Wales. 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).
- 1934** Visit of H.R.H. the Duke of Gloucester. 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.

# OFFICIAL YEAR BOOK

OF THE

## COMMONWEALTH OF AUSTRALIA, 1933,

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. See Official Year Book No. 22, page 3.)

##### § 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.

### § 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, were 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.

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.

\* 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.

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 ..	..	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 ..	..	Western Australia ..	..	5
Queensland ..	9	Tasmania ..	..	5

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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.

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

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.

\* 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.

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 insurances extending beyond the limits of the State concerned :
- (xv) Weights and measures :
- (xvi) Bills of exchange and promissory notes :
- (xvii) Bankruptcy and insolvency :
- (xviii) Copyrights, patents of inventions and designs, and trade marks :
- (xix) Naturalization and aliens :
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth :
- (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 :

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

- (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.

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## CHAPTER II.—THE EXECUTIVE GOVERNMENT.

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

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

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

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

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



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

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

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

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

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

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

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

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

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

### 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.

\* By the Ministers of State Acts 1915 and 1917, the Ministers of State may exceed seven, but shall not exceed nine. £13,300 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. 0d. 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.

† See note\* on page 16.

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

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

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

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

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

75. In all matters—

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

the High Court shall have original jurisdiction.

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

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

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

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

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

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

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

## CHAPTER IV.—FINANCE AND TRADE.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

89. Until the imposition of uniform duties of customs—

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

103. The members of the Inter-State Commission—

(i) Shall be appointed by the Governor-General in Council :

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\* 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.

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

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

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

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

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

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

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

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

(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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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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.

#### 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.

4. **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.

##### 1. 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° 9' E. and 153° 39' E., while its northern and southern limits are the parallels of latitude 10° 41' S. and 39° 8' S., or, including Tasmania, 43° 39' S. On its north are the Timor and Arafura Seas and Torres Strait—on its south the Southern Ocean and Bass Strait. The extreme points are “Steep Point” on the west, “Cape Byron” on the east, “Cape York” on the north, “Wilson’s Promontory” on the south, or, if Tasmania be included, “South-East Cape.”

(ii) *Tropical and Temperate Regions.* Of the total area of Australia nearly 40 per cent. lies within the tropics. Assuming, as is usual, that the latitude of the Tropic of Capricorn is 23° 30' S. (its mean value for 1933 was 23° 26' 52.57"), 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 nearly as great as that of the United States of America, that it is four-fifths of that of Canada, that it is nearly one-fifth of the area of the whole of the British Empire, that it is more than three-fourths of the whole area of Europe, and that it is about 25 times as large as Great Britain and Ireland or Italy.

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 .. .. .	3,858,307	Belgian Congo .. .. .	918,000
Asia .. .. .	16,945,830	Algeria .. .. .	847,500
Africa .. .. .	11,583,442	Angola .. .. .	486,079
North and Central America and West Indies .. .. .	8,554,273	Union of South Africa .. .. .	472,347
South America .. .. .	7,155,018	Egypt .. .. .	383,000
Australasia and Polynesia	3,467,076	Tanganyika Territory .. .. .	374,000
		Nigeria and Protectorate..	372,674
		Abyssinia .. .. .	350,000
Total, exclusive of Arctic and Antarctic Conts...	51,263,946	Tripolitania .. .. .	347,500
		South-west Africa .. .. .	322,768
<b>Europe—</b>		Portuguese East Africa .. .. .	297,657
Russia .. .. .	1,769,282	Northern Rhodesia .. .. .	287,950
France .. .. .	212,659	Cyrenaica .. .. .	285,000
Spain (inc. possessions) .. .. .	196,607	Bechuanaland Protectorate	275,000
Germany .. .. .	181,723	Madagascar .. .. .	241,094
Sweden .. .. .	173,356	Kenya Colony and Protec- torate .. .. .	224,960
Poland .. .. .	149,960	<b>North and Central America—</b>	
Finland .. .. .	132,589	Canada .. .. .	3,690,043
Norway .. .. .	124,588	United States of America..	3,026,789
Rumania .. .. .	122,282	Mexico .. .. .	767,198
Italy .. .. .	119,713	Alaska .. .. .	586,400
Yugoslavia .. .. .	96,012	Newfoundland and Labra- dor .. .. .	162,734
Great Britain and Northern Ireland .. .. .	94,633	Nicaragua .. .. .	51,660
<b>Asia—</b>		<b>South America—</b>	
Russia .. .. .	6,475,318	Brazil .. .. .	3,275,510
China and Dependencies .. .. .	4,278,352	Argentine Republic .. .. .	1,079,965
British India and Adminis- tered Territories .. .. .	1,318,346	Peru .. .. .	532,047
Arabia and Autonomous States .. .. .	1,000,000	Bolivia .. .. .	514,155
Persia .. .. .	628,000	Colombia (exc. of Panama)	447,536
Dutch East Indies .. .. .	572,604	Venezuela .. .. .	393,874
Feudatory Indian States .. .. .	490,333	Chile .. .. .	285,133
Turkey .. .. .	285,334	Ecuador .. .. .	275,936
Japan and Dependencies .. .. .	260,644	<b>Australasia and Polynesia—</b>	
Afghanistan .. .. .	245,000	Commonwealth of Australia	2,974,581
Siam .. .. .	200,234	Dutch New Guinea .. .. .	160,692
<b>Africa—</b>		New Zealand and Depen- dencies .. .. .	103,862
French West Africa .. .. .	1,779,039	Territory of New Guinea .. .. .	93,000
Anglo-Egyptian Sudan .. .. .	1,008,100	Papua .. .. .	90,540
French Equatorial Africa	912,049	<b>British Empire .. .. .</b>	13,391,538

The figures quoted in the table have, in most cases, been extracted from the Statesman's Year Book for 1933.

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
<b>Total .. .. .</b>	<b>2,974,581</b>	<b>100.00</b>

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-thirteenths of the whole, or the "temperate" region is half as large again as the "tropical" (more accurately 1.588). By reason of its insular geographical position, and the absence of striking physical features, Australia is, on the whole, less subject to extremes of weather than are regions of similar area in other parts of the globe, and latitude for latitude Australia is, on the whole, more temperate.

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

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. S.	Longitude. E.	Locality.	Height above Sea Level.	Latitude. S.	Longitude. E.
	Feet.	deg. min.	deg. min.		Feet.	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 8.4°, 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, Brisbane, Melbourne, Adelaide, Hobart, Perth 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 32 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 47 years.

Harvey Creek, in the shorter period of 27 years, has three 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 fourteen 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 146.75 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 47.66 inches, occupies the chief place; Brisbane, Perth, Melbourne, Hobart, Canberra, and Adelaide following in that order, Adelaide with 21.15 inches being the driest. The extreme range from the wettest to the driest year is greatest at Brisbane (72.09 inches) and least at Adelaide (19.48 inches).

In order to show how the rainfall is distributed throughout the year in various parts of the continent, the figures for representative towns have been selected. (See map.) The figures for Darwin, typical of the Northern Territory, show that nearly the whole of the rainfall occurs there in the summer months, while little or none falls in the middle of the year. The figures for Perth, as representing the south-western part of the continent, are the reverse, for while the summer months are dry, the winter ones are very wet. In Melbourne and Hobart the rain is fairly well distributed throughout the twelve months, with a maximum in October for the former, and in November for the latter. The records at Alice Springs and Daly Waters indicate that in the central parts of Australia 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 1933.* 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.	CANNBERRA(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.
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	139
4 ..	..	..	34.35	125	20.31	117	33.23	124	45.93	158	29.72	128	22.41	139
5 ..	..	..	34.61	116	22.28	131	36.76	108	5.03	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	103	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	19.39	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	95	39.58	138	17.41	107	24.95	121	42.99	149	27.13	160	26.04	179
19 ..	16.31	85	30.66	120	17.21	108	19.36	96	58.71	152	24.89	141	22.48	153
20 ..	29.30	107	40.35	124	26.70	119	39.72	122	43.42	159	28.27	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	39.35	136	25.02	151	28.27	189
23 ..	..	..	44.47	134	29.79	139	23.27	93	37.01	123	22.64	158	32.93	198
24 ..	25.95	68	33.79	119	23.44	143	41.08	114	37.01	136	36.48	171	28.76	197
25 ..	33.71	59	31.41	126	21.91	118	53.10	139	50.35	145	17.57	144	22.40	171
26 ..	20.53	97	49.22	167	22.20	116	30.82	111	37.07	127	20.81	149	25.79	187
27 ..	21.40	83	36.59	133	16.92	101	62.08	130	48.56	138	17.98	135	20.02	203
28 ..	17.82	96	44.88	149	19.43	107	52.64	145	40.07	130	24.09	151	30.23	205
29 ..	22.34	88	36.77	172	17.51	119	39.78	118	57.90	129	28.81	168	26.55	194
30 ..	16.52	86	39.80	129	18.65	116	41.22	144	44.47	141	25.41	145	19.38	152
31 ..	24.25	105	39.18	118	22.26	146	66.72	136	49.22	153	28.63	164	27.17	179
32 ..	19.13	107	36.24	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
Average	22.28	92	34.82	121	21.15	123	45.17	128	47.66	152	26.08	139	23.98	152
No. of Years	19	19	58	58	95	95	84	74	94	94	90	78	91	90

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 53, which are for a less number of years. Annual totals from 1860 to 1900 inclusive will be found in Official Year Book No. 15, page 53.

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

(b) *Ten Years' Means*, 1908 to 1928. The mean rainfall for the decennia ended 1908, 1918 and 1928, respectively, are 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 63 and No. 22, pp. 46 to 48 :—

**HEAVY RAINFALLS—NEW SOUTH WALES, UP TO 1933, INCLUSIVE.**

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

**HEAVY RAINFALLS—QUEENSLAND, UP TO 1933, INCLUSIVE.**

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Babinda (Cairns) ..	1 Feb., 1913	20.51	Mackay ..	21 Jan., 1918 <sup>a</sup>	24.70
" " ..	24 Jan., 1916	22.30	Maenade Mill ..	6 " , 1901	23.33
Buderim Mountain	11 " , 1898	26.20	" " ..	4 Mar., 1915	22.00
Cairns ..	2 Apr., 1911	20.16	Mooloolah ..	13 " , 1892	21.53
Carbrook ..	23 Jan., 1918	22.66	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			Tully ..	12 Feb., 1927	23.86
Geraldton) ..	29 Dec., 1903	21.22	" " ..	19 Jan., 1932	27.20
" " ..	7 Apr., 1912	20.50	Woodlands (Yepp'n)	31 Jan., 1893	23.07
" " ..	31 Jan., 1913	20.91	Yandina ..	1 Feb., 1893	20.08
Kamerunga (Cairns)	2 Apr., 1911	21.00	Yarrabah ..	2 Apr., 1911	30.65
Koumala ..	23 Jan., 1918	22.31	" " ..	24 Jan., 1916	27.20
" " ..	24 " , "	20.65	Yeppoon ..	31 " , 1893	20.05
Kuranda (Cairns) ..	1 Apr., 1911	24.30	" " ..	8 Oct., 1914	21.70
" " ..	2 Apr., 1911	28.80			

(a) 37½ hours.

## HEAVY RAINFALLS—WESTERN AUSTRALIA, UP TO 1933, 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	10.66
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	Wynndham ..	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 1933, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Bathurst Island			Cosmopolitan Gold		
Mission ..	7 Apr., 1925	11.85	Mine ..	24 Dec., 1915	10.60
Bonrook ..	24 Dec., 1915	10.60	Darwin ..	7 " "	11.67
Borroloola ..	14 Mar., 1899	14.00	Groote Eylandt ..	30-31 Mar., '23	12.00a
Brock's Creek ..	4 Jan., 1914	10.68	Koolpinyah ..	6 Mar., 1930	10.35
" ..	24 Dec., 1915	14.33	Lake Nash ..	21 Mar., 1901	10.25
Burrundie ..	4 Jan., 1914	11.61	Pine Creek ..	8 Jan., 1897	10.35

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

## HEAVY RAINFALLS—SOUTH AUSTRALIA, UP TO 1933, INCLUSIVE.

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



## HEAVY RAINFALLS—VICTORIA, UP TO 1933, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		ins.			ins.
Apollo Bay ..	28 Mar., 1932	11.08	Murrungowar ..	10 July, 1932	14.65
Balook ..	27 Sept., 1916	7.23	" ..	24 June, 1933	13.91
Blackwarry ..	12 May, 1925	7.65	Omeo Valley ..	22 Mar., 1926	7.90
Bruthen ..	28 Jan., 1920	7.00	Raymond ..	19 Nov., 1933	7.03
Buchan ..	17 July, 1925	8.45	Reedy Flat ..	28 Jan., 1920	7.08
Cann River ..	27 Feb., 1919	9.56	Sarsfield ..	13 July, 1925	7.05
Hotham Heights ..	8 Jan., 1926	8.40	Shoreham ..	1 Dec., 1933	7.04
Mallacoota ..	14 Mar., 1911	7.95	Tambo Crossing ..	13 July, 1923	8.89
Mt. Buffalo ..	6 June, 1917	8.53	" ..	29 Jan., 1920	7.80
" ..	5 Apr., 1929	7.47	Tonghi Creek ..	27 Feb., 1919	9.90
Murrungowar ..	7 Sept., 1908	8.81	Wroxham ..	27 Aug., 1919	7.65

## HEAVY RAINFALLS—TASMANIA, UP TO 1933, 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

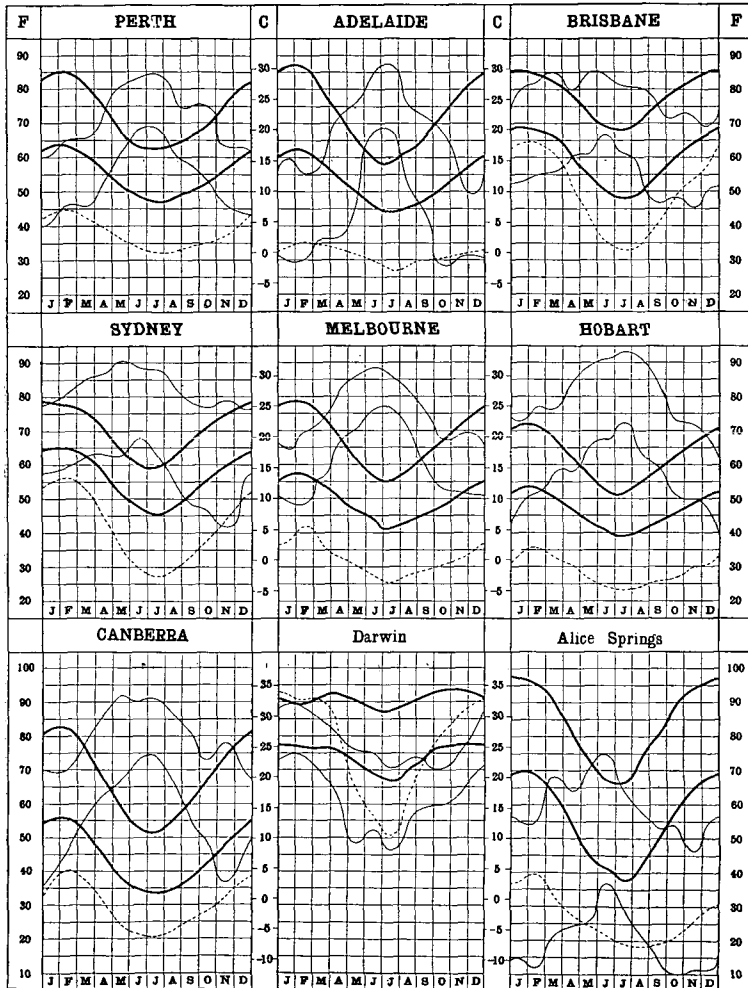
## HEAVY RAINFALLS—FEDERAL CAPITAL TERRITORY, UP TO 1933, INCLUSIVE.

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.

ANNUAL FLUCTUATIONS OF NORMAL MAXIMUM AND MINIMUM TEMPERATURE AND HUMIDITY.



EXPLANATION—The upper and lower heavy lines in each graph represent the maximum and 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.

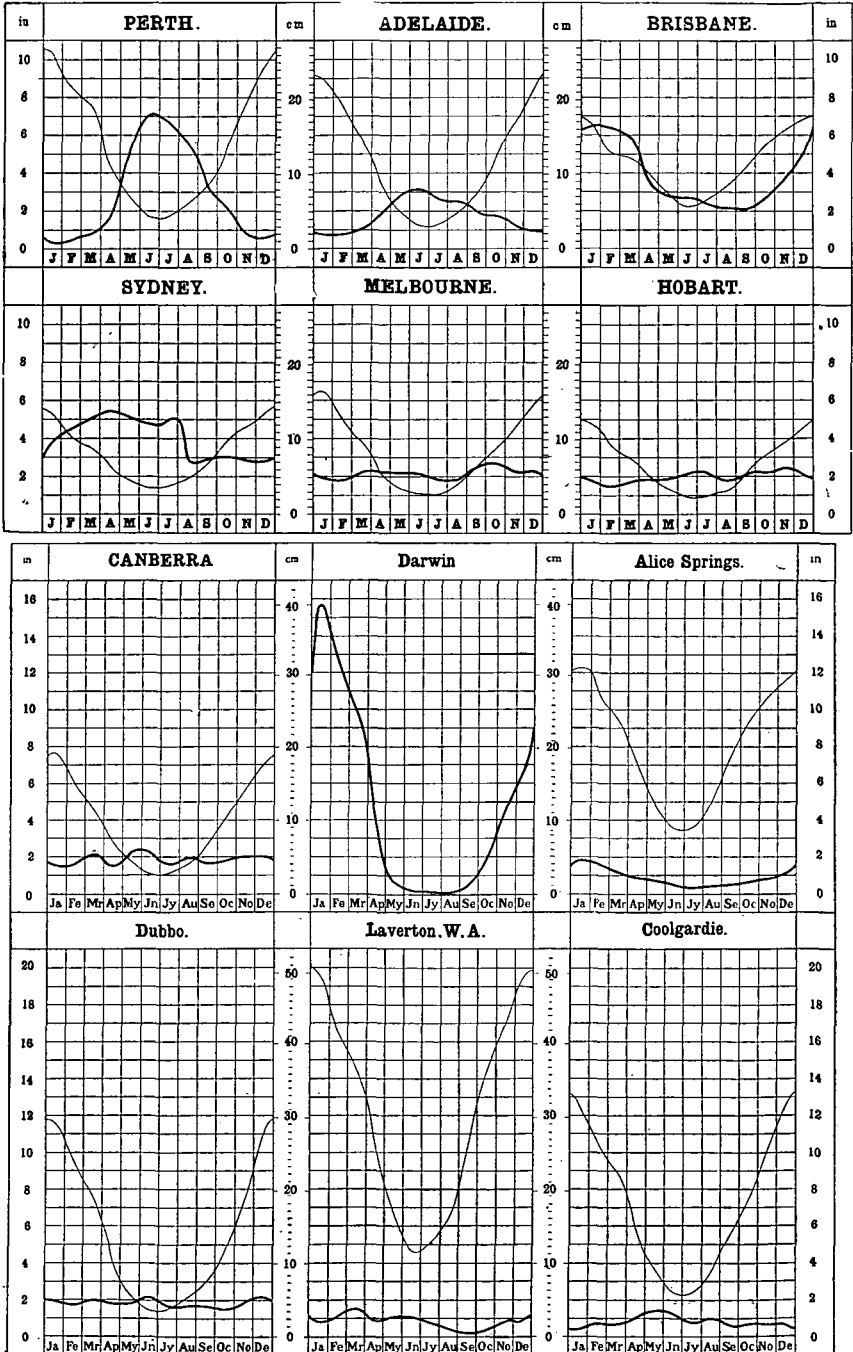
The upper and lower fine lines join the greatest and the least monthly means of relative humidity respectively, the figures under the outer columns "F" indicating percentage values.

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 June 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 *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 jacketed evaporation dish of 8 inches in diameter.

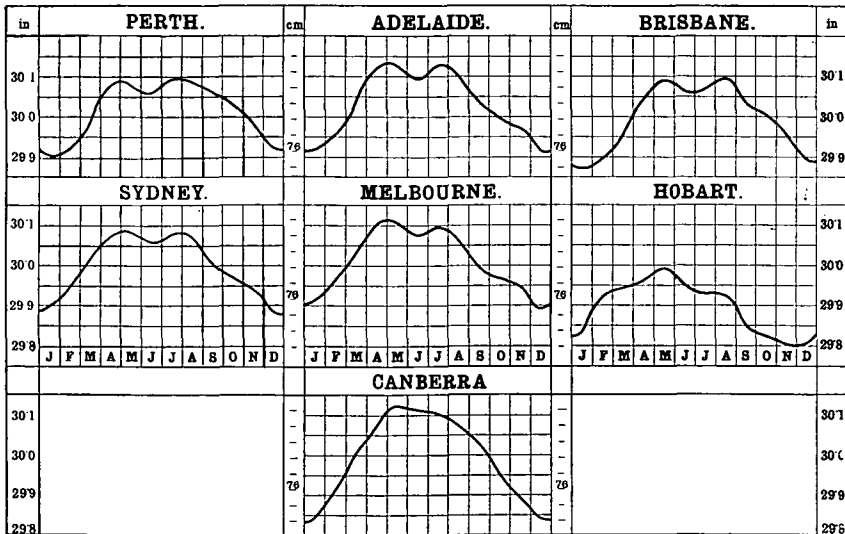
The distance for any date from the zero line to the curve represents the average number of inches, reckoned as per month, of rainfall at that date. Thus, taking the curves for Adelaide in the middle of January, the rain falls on the average at the rate of about three-fourths of an inch per month or, 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.	Evaporation.	Place.	Rainfall.	Evaporation.
	In.	In.		In.	In.
Perth ..	34.82	66.23	Canberra ..	22.28	46.40
Adelaide ..	21.15	55.02	Darwin ..	60.16	—
Brisbane ..	45.17	55.96	Alice Springs ..	10.68	96.20
Sydney ..	47.66	39.20	Dubbo ..	22.04	66.37
Melbourne ..	26.08	39.11	Laverton, W.A.	9.58	145.52
Hobart ..	23.98	31.24	Coolgardie ..	10.17	84.99

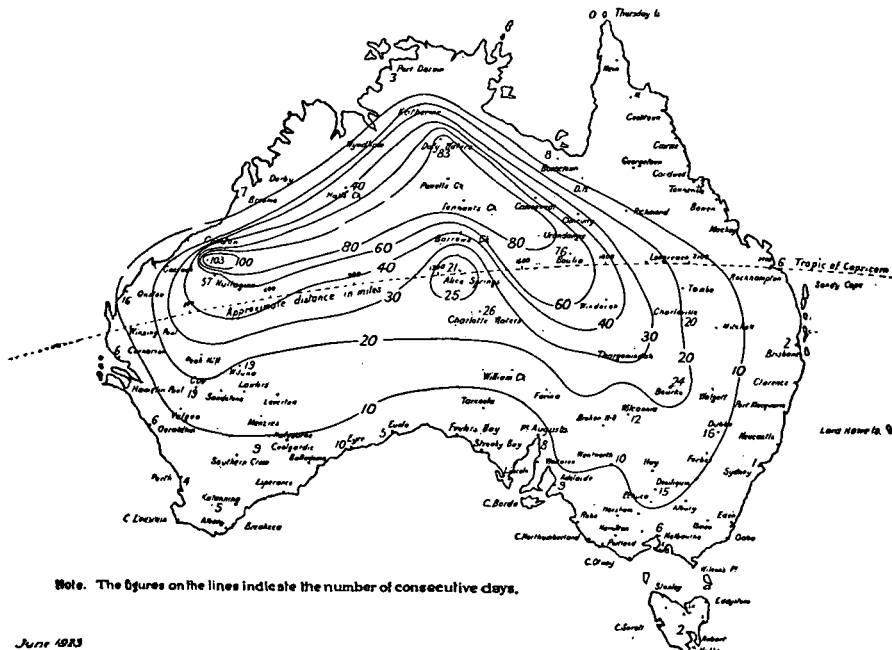
MEAN BAROMETRIC PRESSURE.—CAPITAL CITIES



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.

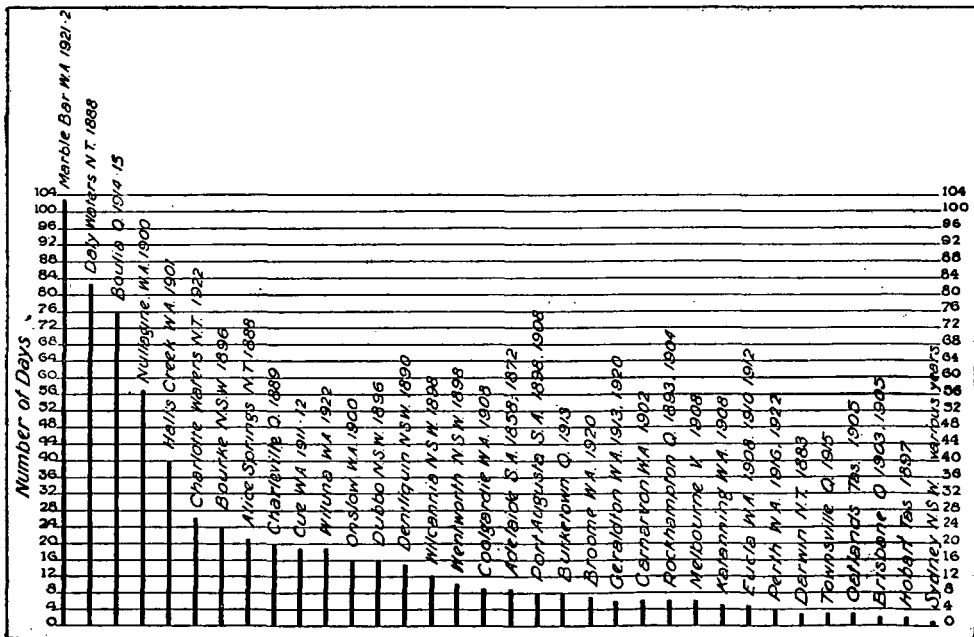
INTERPRETATION.—Taking the Brisbane graph for purposes of illustration, it will be seen that the mean pressure in the middle of January is about 29.87 inches, and there are maxima in the middle of May and August of about 30.99 inches.

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 1933

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

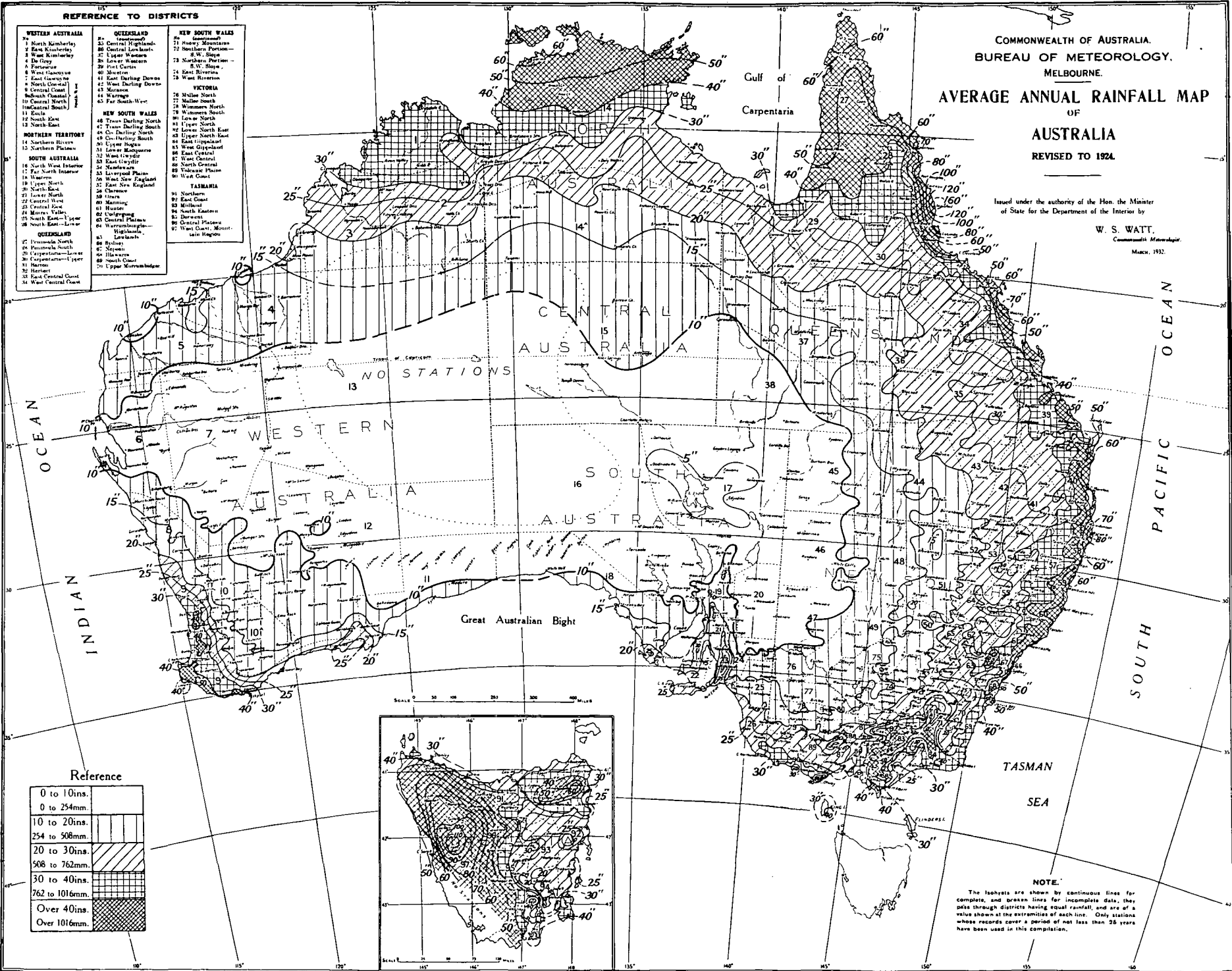


REFERENCE TO DISTRICTS

<b>WESTERN AUSTRALIA</b>	<b>QUEENSLAND</b>	<b>NEW SOUTH WALES</b>
1 North Kimberley	31 Queensland	21 Queensland
2 East Kimberley	32 Central Highlands	22 Northern Portion
3 West Kimberley	33 Central Lowlands	23 Northern Portion - N. W. Slope
4 De Grey	34 Upper Warrumbarr	24 Northern Portion - E. W. Slope
5 Fortescue	35 Lower Warrumbarr	25 West Riverina
6 West Gascoyne	36 East Darling Downs	26 Mallee North
7 East Gascoyne	37 Trans Darling Downs	27 Mallee South
8 North Central	38 Maroon	28 Wimmera North
9 Central Coast	39 Warrego	29 Wimmera South
10 South Coast	40 Far South-West	30 Mallee North
11 Eucla	<b>NEW SOUTH WALES</b>	31 Mallee South
12 North East	41 Trans Darling North	32 Mallee North
13 North West	42 Trans Darling South	33 Upper North
<b>NORTHERN TERRITORY</b>	43 Darling North	34 Lower North East
14 Northern Rivers	44 Darling South	35 Upper North East
15 Northern Plateau	45 Upper Darling	36 West Gippsland
<b>SOUTH AUSTRALIA</b>	46 Lower Darling	37 East Gippsland
16 North West Interior	47 Upper Murrumbidgee	38 West Gippsland
17 Far North Interior	48 Lower Murrumbidgee	39 East Central
18 Western	49 Liverpool Plains	40 North Central
19 Upper South	50 East New England	41 West Central
20 North-East	51 Clarence	42 Victoria Plains
21 Lower North	52 Murrumbidgee	43 Murrumbidgee
22 Central West	53 Murrumbidgee	44 Murrumbidgee
23 Central East	54 Murrumbidgee	45 Murrumbidgee
24 Murray Valley	55 Murrumbidgee	46 Murrumbidgee
25 South East-Lower	56 Murrumbidgee	47 Murrumbidgee
26 South East-Upper	57 Murrumbidgee	48 Murrumbidgee
27 Heriot	58 Murrumbidgee	49 Murrumbidgee
28 East Central Coast	59 Murrumbidgee	50 Murrumbidgee
29 West Central Coast	60 Murrumbidgee	51 Murrumbidgee
	61 Murrumbidgee	52 Murrumbidgee
	62 Murrumbidgee	53 Murrumbidgee
	63 Murrumbidgee	54 Murrumbidgee
	64 Murrumbidgee	55 Murrumbidgee
	65 Murrumbidgee	56 Murrumbidgee
	66 Murrumbidgee	57 Murrumbidgee
	67 Murrumbidgee	58 Murrumbidgee
	68 Murrumbidgee	59 Murrumbidgee
	69 Murrumbidgee	60 Murrumbidgee
	70 Murrumbidgee	61 Murrumbidgee
	71 Murrumbidgee	62 Murrumbidgee
	72 Murrumbidgee	63 Murrumbidgee
	73 Murrumbidgee	64 Murrumbidgee
	74 Murrumbidgee	65 Murrumbidgee
	75 Murrumbidgee	66 Murrumbidgee
	76 Murrumbidgee	67 Murrumbidgee
	77 Murrumbidgee	68 Murrumbidgee
	78 Murrumbidgee	69 Murrumbidgee
	79 Murrumbidgee	70 Murrumbidgee

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,**  
Commander Meteorology,  
March, 1925.



Reference

0 to 10ins.	[Blank]
0 to 254mm.	[Blank]
10 to 20ins.	[Vertical lines]
254 to 508mm.	[Horizontal lines]
20 to 30ins.	[Diagonal lines /]
508 to 762mm.	[Diagonal lines \]
30 to 40ins.	[Cross-hatch]
762 to 1016mm.	[Dense cross-hatch]
Over 40ins.	[Dense cross-hatch]
Over 1016mm.	[Dense cross-hatch]

**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.

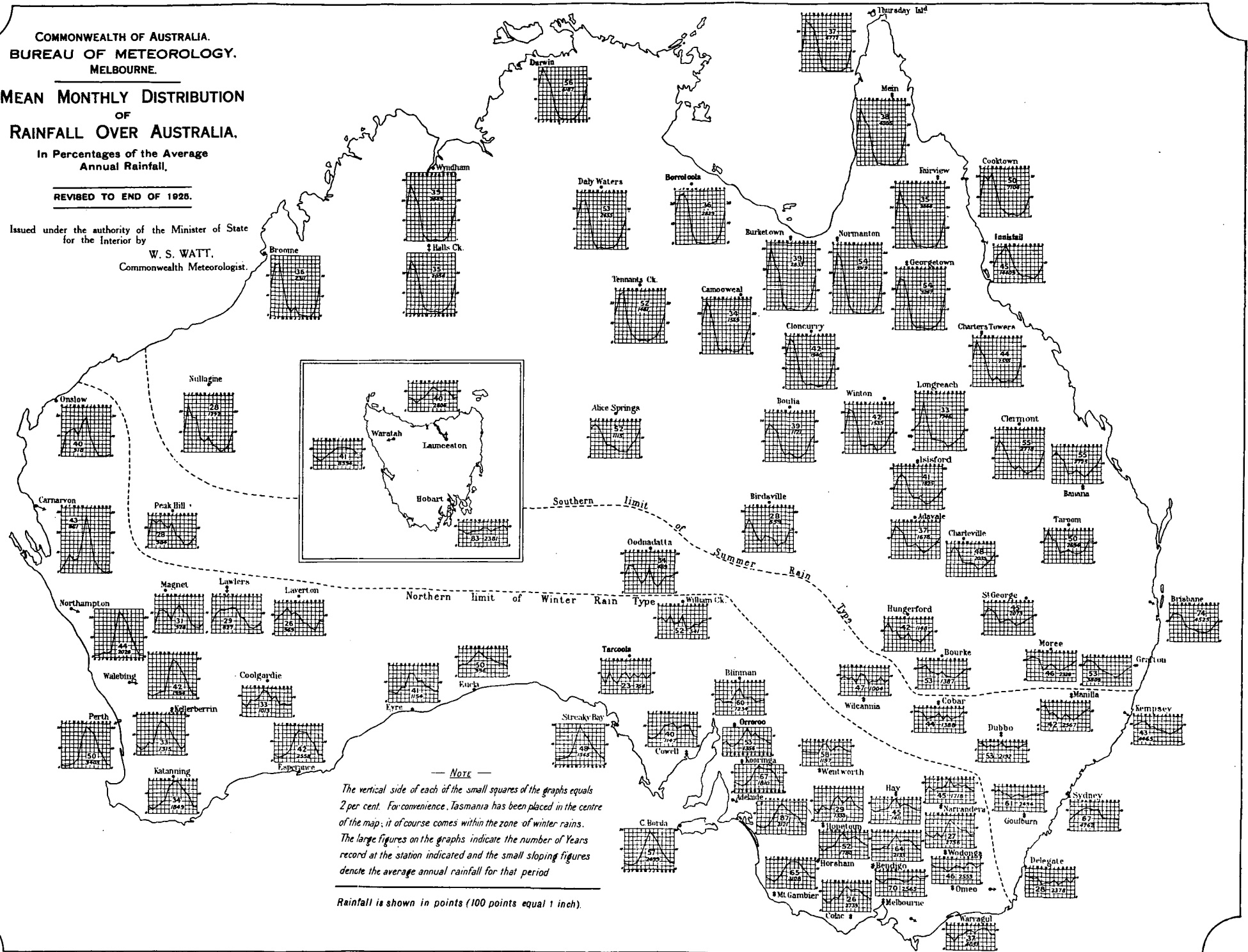
COMMONWEALTH OF AUSTRALIA.  
BUREAU OF METEOROLOGY.  
MELBOURNE.

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

REVISED TO END OF 1928.

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

W. S. WATT,  
Commonwealth Meteorologist.



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 hailstorms 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 recurring in their path to the east of New Caledonia.

Very severe cyclones, locally known as "willy willies," are peculiar to the north-west coast of Western Australia from the months of November to April inclusive. They apparently originate in the ocean in the vicinity of Cambridge Gulf, and travel in a south-westerly direction with continually increasing force, displaying their greatest energy near Cossack and Onslow, between latitudes 20° and 22° South. The winds in these storms, like those from the north-east tropics, are very violent and destructive, and cause great havoc amongst the pearl-fishers. The greatest velocities are usually to be found in the south-eastern quadrant of the cyclones, with north-east to east winds. After leaving the north-west coast, these storms either travel southwards, following the 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 alternate 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. Ft.	Annual Rainfall.			Temperature.					
		Average.	Highest.	Lowest.	(a) Mean Summer.	(b) Mean Winter.	Highest on Record.	Lowest on Record.	Average Hottest Month.	Average Coldest Month.
		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	100.9	-13.5	65.8	31.8
Genoa ..	157	51.29	108.22	28.21	73.8	46.8	84.5	16.7	75.4	45.5
Glasgow ..	139	38.49	56.18	29.05	57.0	39.5	94.9	6.6	58.3	39.3
Greenwich ..	149	23.50	35.54	16.38	61.7	40.4	100.0	4.0	63.3	40.1
Hong Kong ..	109	85.61	119.72	45.84	81.5	60.5	97.0	32.0	82.0	58.8
Johannesburg ..	5,750	31.63	50.00	21.66	65.4	54.4	93.6	20.8	68.2	48.0
Leipzig ..	394	24.69	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 ..	313	26.97	52.82	16.34	70.0	52.9	102.9	29.3	71.1	51.8
London (Kew) ..	18	23.80	38.18	12.16	60.8	39.9	94.0	9.0	62.3	39.1
Madras ..	22	40.85	78.92	21.74	89.0	76.8	113.0	57.5	89.9	76.1
Madrid ..	2,149	16.23	27.48	9.13	73.0	41.2	107.1	10.5	75.7	39.7
Marselles ..	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	57.59	12.72	74.3	46.0	103.0	21.4	76.1	44.6
San Francisco ..	155	22.27	38.82	9.00	58.8	50.5	101.0	29.0	59.3	49.5
Shanghai ..	21	45.00	62.52	27.92	78.0	41.1	102.9	10.2	80.4	37.8
Singapore ..	8	91.99	158.68	32.71	81.2	78.6	94.2	63.4	81.5	78.3
Stockholm ..	146	21.60	28.47	11.77	62.2	26.4	91.8	-22.0	59.7	27.3
Tokio ..	65	61.45	86.37	45.72	74.8	39.2	91.0	29.7	77.7	37.5
Trieste ..	85	42.94	63.14	26.57	73.9	41.3	99.5	14.0	76.3	39.9
Vienna ..	664	25.51	35.55	16.54	65.3	31.3	97.2	-14.4	66.7	29.5
Vladivostok (Mt.) ..	420	29.23	38.48	21.17	65.5	9.7	92.3	-22.2	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	22.28	33.71	16.31	(a) 68.0	(b) 43.8	104.2	14.0	68.8	42.7
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STATE CAPITALS.

Perth ..	197	34.82	49.22	20.21	(a) 73.0	(b) 56.0	112.2	34.2	74.0	55.3
Adelaide ..	140	21.15	30.87	11.39	72.9	53.1	116.3	32.0	74.0	51.8
Brisbane ..	137	45.34	88.26	16.17	76.7	59.8	108.9	36.1	77.3	58.6
Sydney ..	138	47.30	82.76	21.49	71.0	54.3	108.5	35.7	71.6	52.9
Melbourne ..	115	25.56	38.04	15.61	66.6	50.0	111.2	27.0	67.6	48.7
Hobart ..	177	23.98	43.39	13.43	61.5	46.9	105.2	27.0	62.3	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 1933. 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 35° 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.	16	(a) 5	5	5	17	17	12	6	15	8
January ..	29.834	358 23/33	0.13	4,806	S E	W	7.75	3	3.8	11
February ..	29.898	366 24/33	0.08	3,695	E S E	W	6.09	4	4.2	9
March ..	29.996	351 22/31	0.07	3,486	S E	E	4.59	5	4.4	9
April ..	30.070	326 29/29	0.07	3,257	S E	W & N W	2.73	2	4.5	7
May ..	30.128	302 3/30	0.05	3,024	E	N	1.75	1	5.0	8
June ..	30.112	386 2/30	0.08	3,485	N	N	1.03	1	5.3	6
July ..	30.102	562 7/31	0.06	3,404	N W	W	1.18	1	5.2	7
August ..	30.083	325 12/31	0.07	3,585	N	N W	1.68	1	4.9	8
September ..	30.035	416 10/30	0.11	4,265	S E	N	2.80	2	4.2	10
October ..	29.948	253 30/30	0.09	3,971	W	N W	4.20	2	4.5	8
November ..	29.902	402 14/30	0.09	3,998	W	N W	5.69	4	4.5	8
December ..	29.844	380 6/29	0.10	4,367	E	W	6.92	7	4.7	6
Year { Totals ..	—	—	—	—	—	—	46.41	33	—	97
Year { Averages ..	29.996	—	0.08	3,779	S E	W	—	—	4.6	—
Year { Extremes ..	—	562 7/31	—	—	—	—	—	—	—	—

(a) Earlier records discarded.

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.	
January ..	82.3	55.1	68.7	104.2 28/32	38.8 25/28	65.4	—	33.2 17/33	235.9
February ..	82.5	55.1	68.8	102.6 16/19	33.0 21/33	69.6	—	29.8 21/33	198.6
March ..	76.0	51.2	63.6	97.0 18/27	32.2 22/20	64.8	—	25.5 24/17	215.4
April ..	66.9	44.0	55.4	83.0 17/25	26.5 29/17	56.5	—	17.5 29/17	197.3
May ..	59.0	37.8	48.4	74.7 9/19	19.0 30/24	55.7	—	12.0 28/20	150.7
June ..	53.4	34.7	44.0	66.2 5/17	18.2 (d)	48.0	—	12.1 15/29	127.6
July ..	51.8	33.5	42.7	65.0 8/19	14.0 19/24	51.0	—	10.0 19/24	142.5
August ..	55.3	34.4	44.8	73.0 (b)	18.0 5/19	55.0	—	11.8 5/10	173.7
September ..	61.2	38.4	49.8	83.2 27/19	25.0 1/18	58.2	—	18.5 25/27	198.4
October ..	67.7	42.9	55.3	93.8 31/19	27.0 2/18	66.8	—	20.0 (e)	230.2
November ..	74.7	48.2	61.4	96.6 1/19	28.1 24/15	68.5	—	25.8 2/18	223.4
December ..	79.6	53.2	66.4	98.0 (c)	32.0 3/24	66.0	—	31.0 (f)	238.9
Year { Averages ..	67.5	44.0	55.8	—	—	—	—	—	(g) 2,332.6
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 and 15 and 16/1931. (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.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest In One Day.		
										15	
January ..	0.364	54	69	39	1.40	6	4.30 1927	0.07 1910-1932	2.92 6/27	0	
February ..	0.390	59	70	47	1.48	6	3.73 1924	0.00 1933	2.75 23/16	0	
March ..	0.374	67	79	56	2.25	7	5.31 1914	0.21 1924	1.86 7/20	1	
April ..	0.312	75	86	63	1.54	6	2.87 1916	0.20 1925	1.94 8/21	2	
May ..	0.245	81	92	67	2.22	8	13.37 1925	0.20 1912	6.84 27/25	7	
June ..	0.218	84	93	73	2.12	8	5.86 1931	0.45 1927	3.95 22/25	12	
July ..	0.206	84	91	74	1.80	9	3.77 1912	0.25 1913	2.40 13/33	7	
August ..	0.218	80	87	67	1.93	9	3.23 1929	0.01 1914	1.90 18/25	5	
September ..	0.251	72	81	55	1.69	8	5.26 1915	0.36 1928	2.18 20/15	5	
October ..	0.280	63	73	48	1.84	9	4.59 1917	0.64 1914	1.50 7/30	14	
November ..	0.327	58	78	37	1.97	8	6.95 1924	0.09 1918	2.38 5/23	16	
December ..	0.369	57	70	45	2.04	8	4.49 1919	0.11 1925	2.10 28/29	0	
Year { Totals ..	—	—	—	—	22.28	92	—	—	—	69	
Year { Averages ..	0.296	70	—	—	—	—	—	—	—	—	
Year { Extremes ..	—	—	93	37	—	—	13.37 5/25	0.00 2/1933	6.84 27/5/25	—	

CLIMATOLOGICAL DATA—PERTH, WESTERN AUSTRALIA.

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

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

Month.	Bar. corrected to 32° F. M.S. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.				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. to 3 a.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.	49	36	36	36	36	36	35	36	26	37	
January ..	29.908	797 27/98	0.66	11,071	E S E	S S W	10.45	1.6	2.8	14.5	
February ..	29.926	650 6/08	0.60	9,600	E S E	S S W	8.59	1.4	3.1	12.1	
March ..	29.986	651 6/13	0.52	9,830	E	S S W	7.61	1.3	3.5	12.2	
April ..	30.069	955 25/00	0.38	8,158	E N E	S S W	4.74	1.4	4.4	8.3	
May ..	30.068	825 29/32	0.35	8,119	N E	S W	2.75	2.2	5.5	5.3	
June ..	30.056	914 19/27	0.36	7,966	N N E	W	1.77	2.3	5.9	3.8	
July ..	30.087	1,015 20/26	0.39	8,569	N N E	W	1.76	2.2	5.7	5.0	
August ..	30.087	966 15/03	0.41	8,723	N N E	W S W	2.35	1.5	5.6	5.4	
September ..	30.062	864 11/05	0.44	8,807	N N E	W S W	3.37	1.3	4.9	6.2	
October ..	30.029	809 6/16	0.51	9,779	S S E	S W	5.29	1.0	4.8	6.3	
November ..	29.993	777 18/97	0.57	9,997	S E	S W	7.69	1.3	3.9	8.6	
December ..	29.925	776 6/22	0.63	10,812	S E	S S W	9.86	1.8	3.1	12.6	
Year { Totals ..	—	—	—	—	—	—	—	—	—	—	
Year { Averages ..	30.016	—	0.48	9,296	E	S W	66.23	19.3	—	100.5	
Year { Extremes ..	—	1,015 20/7/26	—	—	—	—	—	—	4.4	—	

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (Fahr.).			Extreme Shade Temperature (Fahr.).		Extreme Range.	Extreme Temperature (Fahr.).		Mean Hours of Sunshine.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
January ..	84.6	63.2	73.9	108.4 28/21	48.6 20/25	59.8	177.3 22/14	40.4 1/21	322.6
February ..	84.8	63.3	74.0	112.2 8/33	47.7 1/02	64.5	169.0 4/99	39.8 1/21	272.2
March ..	81.3	61.3	71.3	106.4 14/22	45.8 8/03	60.6	167.0 18/18	36.7 8/03	269.2
April ..	76.2	57.4	66.7	99.7 9/10	39.3 20/14	60.4	157.0 8/16	31.0 20/14	217.5
May ..	68.8	52.6	60.7	90.4 2/07	34.3 11/14	56.4	146.0 4/25	25.3 11/14	175.7
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	143.4
July ..	62.7	47.9	55.3	76.4 11/21	34.2 7/16	42.2	145.1 29/21	25.1 30/20	164.4
August ..	63.7	48.2	55.9	81.0 12/14	35.3 31/08	45.7	145.1 29/21	27.9 10/11	184.5
September ..	66.4	50.3	58.3	90.9 30/18	38.8 18/00	52.1	153.6 29/21	29.2 21/16	207.2
October ..	69.1	52.6	60.8	95.3 30/22	40.0 16/31	55.3	154.0 29/14	29.8 16/31	239.8
November ..	75.7	56.8	66.2	104.6 24/13	42.0 1/04	62.6	167.0 39/25	35.5 (a)	288.6
December ..	81.3	60.9	71.1	107.9 20/04	48.0 2/10	59.9	168.8 11/27	39.0 (b)	325.2
Year { Averages ..	73.2	55.4	64.3	—	—	—	—	—	2810.3
Year { Extremes ..	—	—	—	112.2 8/2/33	34.2 7/7/16	78.0	177.3 22/1/14	25.1 30/7/20	(c)

(a) Various years. (b) 2/1910 and 12/1920. (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 Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
January ..	0.439	52	61	41	0.34	3	2.17 1879	0.00 (a)	1.74 27/79	2.7
February ..	0.446	53	65	46	0.41	3	2.98 1915	0.00 (a)	1.63 26/15	3.9
March ..	0.430	57	66	46	0.77	5	4.50 1896	0.00 (a)	2.06 26/23	6.4
April ..	0.397	62	73	51	1.69	7	5.85 1926	0.00 1920	2.62 30/04	10.0
May ..	0.374	74	81	61	5.11	14	12.13 1879	0.98 1903	2.80 20/79	12.8
June ..	0.339	78	83	68	7.01	17	12.80 1923	2.16 1877	3.90 10/20	12.8
July ..	0.326	78	84	69	6.74	17	12.28 1926	2.42 1876	3.00 4/91	13.2
August ..	0.323	74	79	62	5.74	18	12.21 1928	0.46 1902	2.79 7/03	11.8
September ..	0.341	68	75	58	3.44	15	7.84 1923	0.34 1916	1.82 4/31	10.5
October ..	0.350	62	75	54	2.24	12	7.87 1890	0.49 1892	1.73 3/33	6.5
November ..	0.382	55	63	46	0.77	6	2.78 1916	0.00 1891	1.11 30/03	3.8
December ..	0.411	50	63	44	0.56	4	3.05 1888	0.00 { 1886 1924	1.72 1/88	2.8
Year { Totals ..	—	—	—	—	—	—	—	—	—	—
Year { Averages ..	0.374	62	—	—	34.82	121	—	—	—	97.2
Year { 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. M. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.					Mean Amount of Evaporation (Inches).	No. of Days Lightning.	Mean Amount of Clouds, 9 a.m. 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.	77	56	56	56	56	64	62	66	52	
January ..	29.917	758 19/99	0.33	7,850	S W	S W	9.04	2.4	3.5	8.6
February ..	29.952	691 22/96	0.28	6,628	N E	S W	7.37	2.0	3.5	7.6
March ..	30.038	628 9/12	0.23	6,595	S	S W	5.00	2.2	4.0	7.1
April ..	30.119	773 10/06	0.21	6,079	N E	S W	3.50	1.6	5.0	4.5
May ..	30.123	760 9/80	0.21	6,257	N E	N W	2.04	1.7	5.8	2.3
June ..	30.100	750 12/78	0.24	6,406	N E	N	1.25	2.0	6.2	1.8
July ..	30.124	674 25/82	0.24	6,683	N E	N W	1.29	1.6	5.9	1.8
August ..	30.098	773 31/97	0.27	7,128	N E	S W	1.88	2.1	5.6	2.6
September ..	30.041	720 2/87	0.30	7,210	N N E	S W	2.86	2.3	5.2	3.4
October ..	29.996	768 28/98	0.33	7,827	N N E	S W	4.78	3.3	5.0	4.0
November ..	29.978	677 2/04	0.32	7,487	S W	S W	6.62	3.3	4.6	5.4
December ..	29.920	675 12/91	0.33	7,843	S W	S W	5.49	2.6	3.9	7.4
Year { Totals ..	—	—	—	—	—	—	—	—	—	—
Year { Averages ..	30.034	—	0.27	7,007	N E	S W	55.02	27.1	—	56.5
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 Temperature (Fahr.).			Mean Hours of unshin.
	Mean Max.	Mean Min.	Mean.	Highest.	Lowest.	Extreme Range.	Highest in Sun.	Lowest on Grass.		
									77	
No. of yrs. over which observation extends.	77	77	77	77	77	77	56	73	52	
January ..	86.0	61.5	73.7	116.3 26/58	45.1 21/84	71.2	180.0 18/82	36.5 14/79	309.6	
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	263.8	
March ..	80.7	58.8	69.8	108.0 12/61	43.9 21/33	64.1	174.0 17/83	32.1 21/33	239.4	
April ..	73.3	54.6	63.9	98.0 10/66	39.6 15/59	58.4	155.0 1/83	30.2 16/17	181.5	
May ..	65.7	50.3	58.0	89.5 4/21	36.9 (a)	52.6	148.2 12/79	25.6 19/28	148.4	
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	51.8	74.0 11/06	32.0 24/08	42.0	134.5 26/90	22.1 30/29	137.2	
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	164.0	
September ..	66.3	48.0	57.1	90.7 23/82	32.7 4/58	58.0	160.5 23/82	25.0 25/27	134.6	
October ..	72.4	51.4	61.9	102.9 21/22	36.0 —/57	66.9	162.0 30/21	27.8 (c)	227.3	
November ..	79.6	55.4	67.0	113.3 21/65	40.8 2/09	72.7	166.9 20/78	31.5 2/09	263.9	
December ..	83.3	58.9	71.1	114.6 29/31	43.0 (b)	71.6	175.7 7/99	32.5 4/84	302.9	
Year { Averages ..	72.8	53.2	63.0	—	—	—	—	—	2546.2	
Year { Extremes ..	—	—	—	116.3 26/1/58	32.0 24/7/08	84.3	180.0 18/1/82	22.1 30/7/29	(d)	

(a) 26/1895 and 24/1904.

(b) 16/1861 and 4/1906.

(c) 2/1918 and 4/1931.

(d) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (Inches).	Rel. Hum. (%).				Rainfall (Inches).				Dew. Mean No. 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.		
											95
No. of yrs. over which observation extends.	66	66	66	66	95	95	95	95	62		
January ..	0.339	38	59	30	0.72	4	4.00	1850	Nil (a)	2.30 2/89	3.7
February ..	0.354	40	56	30	0.73	4	6.09	1925	Nil (a)	5.57 7/25	5.6
March ..	0.345	46	58	36	1.02	6	4.60	1878	Nil (a)	3.50 5/78	10.5
April ..	0.334	55	72	37	1.73	9	6.78	1853	0.03 1923	3.15 5/60	13.8
May ..	0.316	67	76	49	2.76	14	7.75	1875	0.20 1891	2.75 1/53	15.8
June ..	0.297	76	84	67	3.11	16	8.58	1916	0.42 1886	2.11 1/20	16.0
July ..	0.276	76	87	68	2.65	16	5.38	1865	0.37 1899	1.75 10/65	17.2
August ..	0.285	69	77	54	2.53	16	6.24	1852	0.35 1914	2.23 19/51	16.6
September ..	0.297	61	72	44	2.07	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	12.8
November ..	0.307	42	57	31	1.11	7	3.55	1851	0.04 1885	1.88 28/58	6.7
December ..	0.320	39	50	31	1.00	6	3.98	1861	Nil 1904	2.42 23/13	4.4
Year { Totals ..	—	—	—	—	21.15	123	—	—	—	—	138.7
Year { Averages ..	0.309	53	—	—	—	—	—	—	—	—	—
Year { Extremes ..	—	—	87	29	—	—	8.58 6/16	—	Nil (b)	5.57 7/2/25	—

(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. to 3 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.		Mean Amount of Evaporation (inches).				
					9 a.m.	3 p.m.					
No. of yrs. over which observation extends.	47	23	23	23	47	47	25	47	42	25	
January ..	29.868	361 1/22	0.13	4,986	S E	E & N E	6.687	7.3	5.7	3.4	
February ..	29.903	503 5/31	0.15	4,763	S & S E	N E & E	5.490	5.6	5.7	2.4	
March ..	29.963	488 1/29	0.11	4,600	S	S E & E	5.064	4.6	5.3	4.0	
April ..	30.044	400 3/25	0.10	4,201	S	S E & E	3.961	3.8	4.5	7.9	
May ..	30.084	363 7/16	0.09	4,042	S	S E	3.073	3.3	4.3	8.8	
June ..	30.071	455 14/28	0.10	4,098	S W & S	S & W	2.361	2.5	4.3	8.7	
July ..	30.071	359 2/23	0.09	4,025	S & S W	S W	2.689	2.6	3.7	12.9	
August ..	30.099	331 6/23	0.10	4,208	S & S W	S W & N E	3.433	3.8	3.4	12.5	
September ..	30.043	329 4/31	0.10	4,123	S & S W	N E & E	4.329	6.0	3.5	12.2	
October ..	30.003	325 25/18	0.11	4,555	S	N E	5.643	6.9	4.1	8.9	
November ..	29.961	371 10/28	0.13	4,757	S E & N E	N E	6.266	8.8	4.8	5.9	
December ..	29.889	467 15/26	0.14	5,136	S E	N E	6.959	9.3	5.3	3.8	
Year { Totals ..	—	—	—	—	—	—	55.960	64.5	—	92.3	
Year { Averages ..	30.000	—	0.11	4,458	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.	
No. of yrs. over which observation extends.	47	47	47	47	47	47	41	47	25	
January ..	85.5	69.0	77.3	108.9 14/02	58.8 4/93	50.1	166.4 10/17	49.9 4/93	229.4	
February ..	84.5	68.6	76.6	105.7 21/25	58.5 23/31	47.2	165.2 6/10	49.1 22/31	207.7	
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	214.2	
April ..	79.0	61.6	70.3	95.2 (a)	44.4 25/25	50.8	153.8 11/16	36.7 24/25	210.6	
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	203.7	
June ..	69.3	51.1	60.2	88.9 19/18	36.3 29/08	52.6	136.0 3/18	25.4 23/88	179.9	
July ..	68.3	48.6	58.6	83.4 28/98	36.1 (b)	47.3	146.1 20/15	23.9 11/90	212.1	
August ..	71.2	49.9	60.6	88.5 25/28	37.4 6/87	51.1	141.9 20/17	27.1 9/99	236.1	
September ..	75.6	54.8	65.2	95.2 16/12	40.7 1/96	54.5	155.5 26/03	30.4 1/89	238.3	
October ..	79.6	60.0	69.8	101.4 18/93	43.3 3/99	57.1	157.4 31/18	34.9 8/89	255.7	
November ..	82.6	64.2	73.4	106.1 18/13	48.5 2/05	57.6	162.3 7/89	38.8 1/05	243.8	
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	247.2	
Year { Averages ..	78.1	59.8	68.9	—	—	—	—	—	2678.7	
Year { Extremes ..	—	—	—	108.9 14/1/02	36.1 (c)	72.8	166.4 10/1/17	23.9 11/7/90	(d)	

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

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (inches).	Rel. Hum. (%).				Rainfall (inches).					Dew. Mean No. Days Dow.
		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.	
No. of yrs. over which observation extends.	47	47	47	47	82	74	82	82	64	47	
January ..	0.640	66	79	53	6.49	14	27.72 1895	0.32 1919	18.31 21/87	8.5	
February ..	0.646	69	82	55	6.30	14	40.39 1893	0.58 1849	10.61 6/31	8.7	
March ..	0.615	72	85	56	5.71	15	34.04 1870	Nil 1849	11.18 14/08	12.1	
April ..	0.523	72	80	60	3.83	12	15.28 1867	0.05 1897	4.97 19/28	14.6	
May ..	0.424	73	85	61	2.78	10	13.85 1876	Nil 1846	5.02 9/79	15.7	
June ..	0.360	74	84	67	2.77	9	14.03 1873	Nil 1847	6.01 9/93	13.7	
July ..	0.328	72	81	61	2.21	8	8.46 1889	Nil 1841	3.54 (c)	15.2	
August ..	0.349	69	80	56	2.00	7	14.67 1879	Nil (a)	4.89 12/87	14.0	
September ..	0.410	64	76	47	2.03	8	5.43 1886	0.10 1907	2.46 2/94	13.2	
October ..	0.473	60	72	48	2.55	9	9.99 1882	0.14 1900	3.75 3/27	12.3	
November ..	0.536	60	72	45	3.78	10	12.41 1917	Nil 1842	4.46 16/86	8.4	
December ..	0.595	61	69	51	4.89	12	13.99 1910	0.35 1865	6.60 28/71	8.1	
Year { Totals ..	—	—	—	—	45.34	128	—	—	—	144.5	
Year { Averages ..	0.492	68	—	—	—	—	—	—	—	—	
Year { Extremes ..	—	—	85	45	—	—	40.39 2/93	Nil (b)	18.31 21/1/87	—	

(a) 1862, 1869, 1880. (b) March, May, June, July, August, and November, various years. (c) 15/76 and 16/89.

CLIMATOLOGICAL DATA—SYDNEY, NEW SOUTH WALES.

LAT. 33° 52' S., LONG. 151° 12' E. HEIGHT ABOVE M.S.L. 138 FT.

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

Month.	Bar. corrected to 32° F. M.S.L. 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.					
					9 a.m.	3 p.m.				
No. of yrs. over which observation extends.	75	67	67	67	67	67	54	74	72	23
January ..	29.895	627 3/93	0.27	7,032	NE	ENE	5.382	5.0	5.8	5.0
February ..	29.942	697 12/69	0.24	6,042	NE	ENE	4.239	4.3	5.9	5.4
March ..	30.012	754 20/70	0.19	5,866	W	ENE	3.628	4.1	5.0	5.5
April ..	30.071	642 6/82	0.17	5,338	W	ENE	2.602	3.8	5.0	5.5
May ..	30.081	682 6/98	0.17	5,499	W	NE	1.822	3.0	4.9	7.8
June ..	30.063	642 13/08	0.20	3,902	W	W	1.436	2.0	4.6	8.8
July ..	30.060	744 17/79	0.20	6,094	W	W	1.530	2.3	4.4	10.2
August ..	30.070	649 22/72	0.19	5,908	W	NE	1.592	3.1	4.0	11.2
September ..	30.009	771 6/74	0.22	6,166	W	NE	2.708	3.9	4.4	9.7
October ..	29.967	741 4/72	0.24	6,697	W	ENE	3.894	4.8	4.9	7.7
November ..	29.941	583 12/87	0.25	6,571	ENE	ENE	4.620	5.4	5.5	5.8
December ..	29.882	750 3/84	0.26	6,959	ENE	ENE	5.409	5.7	5.6	5.3
Year { Totals ..	—	—	—	—	—	—	39.202	47.4	—	90.3
Year { Averages ..	30.000	—	0.22	6,173	—	ENE	—	—	5.1	—
Year { 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.	75
January ..	78.4	64.9	71.6	108.5	13/96	57.3	164.3	26/15	43.7	6/25	229.8
February ..	77.7	65.0	71.3	107.8	8/26	58.5	161.2	8/26	42.8	22/33	205.4
March ..	75.7	62.9	69.3	102.6	3/69	53.8	158.3	10/26	39.9	17/13	196.5
April ..	71.3	58.0	64.6	91.0	20/22	46.4	144.1	10/77	33.3	24/09	178.8
May ..	65.5	52.2	58.8	86.0	1/19	45.8	129.7	1/96	29.3	25/17	172.0
June ..	61.2	48.3	54.7	80.4	11/31	44.7	125.5	2/23	28.0	22/32	157.2
July ..	59.8	46.0	52.9	78.3	22/26	42.4	124.7	19/77	24.1	4/93	186.3
August ..	62.8	47.5	55.2	82.0	31/84	45.2	149.0	30/78	26.0	4/09	222.9
September ..	67.0	51.4	59.2	92.3	27/19	51.5	142.2	12/78	30.1	17/05	217.1
October ..	71.3	55.8	63.6	98.9	19/98	56.7	152.2	20/33	32.7	9/05	237.8
November ..	74.4	59.6	67.0	102.7	21/78	56.9	158.5	28/99	36.0	6/06	232.9
December ..	77.1	62.9	70.0	107.5	31/04	59.1	164.5	27/89	41.4	3/24	229.8
Year { Averages ..	70.2	56.2	63.2	—	—	—	—	—	—	—	2,466.5
Year { Extremes ..	—	—	—	108.5	13/1/96	35.7	164.5	27/12/89	24.0	4/7/93	—

(a) Total for year.

HUMIDITY, RAINFALL, AND DEW.

Month.	Vapour Pressure (Inches).	Rel. Hum. (%).				Rainfall (Inches).					Dew. Mean No. Days Dew.		
		Mean 9 a.m.	Mean 9 a.m.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.			
												No. of yrs. over which observation extends.	75
January ..	0.546	67	78	58	3.60	14	15.26	1911	0.25	1932	7.08	13/11	1.3
February ..	0.561	70	81	59	4.21	13	18.56	1873	0.23	1933	8.90	25/73	2.4
March ..	0.529	72	85	62	4.93	15	18.70	1870	0.42	1876	6.52	9/13	4.3
April ..	0.448	76	87	63	5.53	13	24.49	1861	0.06	1868	7.52	29/60	6.9
May ..	0.359	78	90	63	5.16	15	23.03	1919	0.18	1860	8.36	28/89	7.7
June ..	0.301	78	89	68	4.73	13	16.30	1885	0.19	1904	5.17	16/84	6.5
July ..	0.277	76	88	63	4.84	12	13.21	1900	0.12	1862	7.80	7/31	7.1
August ..	0.290	71	84	56	2.86	11	14.89	1899	0.04	1885	5.33	2/60	6.6
September ..	0.333	66	79	49	2.86	12	14.05	1879	0.08	1882	5.69	10/79	4.5
October ..	0.382	63	77	46	2.87	12	11.14	1916	0.21	1867	6.37	13/02	3.2
November ..	0.444	63	79	42	2.83	12	9.88	1865	0.07	1915	4.23	19/00	2.2
December ..	0.505	65	77	52	2.88	13	15.82	1920	0.23	1913	4.75	13/10	1.6
Year { Totals ..	—	—	—	—	47.30	155	—	—	—	—	—	—	34.3
Year { Averages ..	0.403	70	—	—	—	—	24.49	4/1861	0.04	8/1885	8.90	25/2/73	—
Year { Extremes ..	—	—	90	42	—	—	—	—	—	—	—	—	—

\* Early records revised during 1929. Values for period 1867—September, 1885, reduced 20 per cent.; for period September, 1885—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. Mh. 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. to 3 p.m. and 9 p.m. to 5 a.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.	76	60	60	60	60	60	61	26	76	26	
January ..	29.910	583	10/97	0.26	6,981	W	S E	6.454	1.9	5.0	7.1
February ..	29.959	566	8/68	0.24	6,034	W	S E	5.061	2.3	4.9	6.8
March ..	30.033	677	9/81	0.20	6,023	W	S E	3.991	1.8	5.8	5.3
April ..	30.102	597	7/68	0.17	5,435	W	N W	2.409	1.1	5.0	4.7
May ..	30.105	693	12/65	0.17	5,586	W	N E	1.486	0.6	6.5	2.9
June ..	30.080	761	13/76	0.21	5,984	W	N E	1.122	0.5	6.6	2.4
July ..	30.087	755	8/74	0.20	6,048	W	N E	1.083	0.4	6.3	2.0
August ..	30.064	637	14/75	0.23	6,475	W	N E	1.493	1.0	6.3	2.8
September ..	29.998	617	11/72	0.25	6,621	W	S W	2.321	1.2	6.1	3.2
October ..	29.965	899	5/66	0.26	6,940	W	N W	3.374	1.9	6.0	3.7
November ..	29.952	734	13/66	0.26	6,680	W	S E	4.553	2.5	5.9	3.9
December ..	29.899	655	1/75	0.27	7,109	W	S E	5.766	2.1	5.5	4.6
Year { Totals ..	—	—	—	—	—	—	—	—	—	—	—
Year { Averages ..	30.013	—	—	0.23	6,326	S W	N W	39.113	17.3	—	50.3
Year { Extremes ..	—	899	5/10/66	—	—	—	—	—	—	5.9	—

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
No. of yrs. over which observation extends.	78	78	78	78	78	78	73	74	52		
January ..	78.0	56.7	67.4	111.2	14/62	69.2	178.5	14/62	30.2	28/85	260.1
February ..	78.0	57.1	67.6	109.5	7/01	69.3	167.5	15/70	30.9	6/91	238.7
March ..	74.4	54.7	64.5	105.5	2/93	68.4	164.5	1/68	28.9	(b)	205.2
April ..	68.2	50.7	59.4	94.0	(a)	59.2	152.0	8/61	25.0	23/97	162.9
May ..	61.5	46.8	54.1	83.7	7/05	53.8	142.6	2/59	21.1	26/16	136.9
June ..	56.8	44.0	50.4	72.2	1/07	44.2	129.0	11/61	19.9	30/29	110.6
July ..	55.6	41.9	48.7	69.3	22/26	42.3	125.8	27/80	20.5	12/03	130.9
August ..	58.6	43.3	51.0	77.0	20/85	48.7	137.4	29/69	21.3	14/02	153.3
September ..	62.7	45.6	54.1	88.6	28/28	57.5	142.1	20/67	22.8	8/18	171.4
October ..	67.1	48.3	57.7	98.4	24/14	66.3	154.3	28/68	24.8	22/18	202.0
November ..	71.4	51.3	61.3	105.7	27/94	69.2	159.6	29/65	24.6	2/96	234.3
December ..	75.3	54.4	64.8	110.7	15/76	70.7	170.3	20/69	33.2	1/04	248.6
Year { Averages ..	67.3	49.6	58.4	—	—	—	—	—	—	—	62,254.9
Year { Extremes ..	—	—	—	111.2	14/1/62	27.0	178.5	14/1/62	19.9	30/6/29	—

(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. 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.			
											78	78
No. of yrs. over which observation extends.	26	26	26	26	78	78	78	78	75	26		
January ..	0.382	58	65	50	1.86	8	5.68	1904	0.01	1932	2.97	9/97
February ..	0.414	62	69	48	1.75	7	6.24	1904	0.03	1870	3.37	18/19
March ..	0.382	64	73	57	2.26	10	7.50	1911	0.18	1859	3.55	5/19
April ..	0.343	72	82	66	2.20	11	6.71	1901	Nil	1923	2.83	22/01
May ..	0.310	79	86	71	2.15	13	4.31	1862	0.45	1901	1.85	7/91
June ..	0.280	83	89	76	2.06	14	4.51	1859	0.73	1877	1.73	21/04
July ..	0.264	82	86	76	1.86	14	7.02	1891	0.57	1902	2.71	12/91
August ..	0.271	76	82	70	1.90	15	4.04	1924	0.48	1903	1.04	26/24
September ..	0.290	69	76	60	2.34	14	7.93	1916	0.52	1907	2.62	12/80
October ..	0.305	62	67	53	2.62	13	7.61	1860	0.29	1914	3.00	17/69
November ..	0.335	60	69	52	2.23	11	6.71	1916	0.25	1895	2.57	16/76
December ..	0.367	59	69	51	2.33	9	7.18	1863	0.11	1904	2.62	48/07
Year { Totals ..	—	—	—	—	25.56	139	—	—	—	—	—	—
Year { Averages ..	0.324	69	—	—	—	—	—	—	—	—	—	75.1
Year { Extremes ..	—	—	80	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. M. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind.					Mean Amount of Evaporation (Inches).	No of Days Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., and 9 p.m.	No. of Clear Days.
		Greatest Number of Miles in One Day.	Mean Hourly Pressure. (lb.)	Total Miles.	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of yrs. over which observation extends.	49	23	23	23	27	27	23	26	71	27
January .. ..	29.825	500 30/16	0.20	6,025	N N W & N	S E	4.866	0.9	6.0	2.4
February .. ..	29.914	605 4/27	0.15	4,789	N & N W	S E	3.723	1.1	6.0	2.4
March .. ..	29.944	443 19/27	0.13	4,931	N N W	S E	2.943	1.4	5.9	2.4
April .. ..	29.970	533 27/26	0.13	4,823	N & N W	N W & S E	1.963	0.7	6.1	1.6
May .. ..	29.990	423 15/27	0.12	4,724	N W to N	N to N W	1.380	0.5	6.1	2.2
June .. ..	29.958	569 27/20	0.12	4,528	N W & N	N & N N W	0.904	0.5	6.1	2.2
July .. ..	29.929	489 22/29	0.13	4,865	N N W & N W	N to N W	0.932	0.5	5.8	2.2
August .. ..	29.922	612 19/26	0.13	5,009	N & N N W	N & N W	1.279	0.5	6.0	2.1
September ..	29.849	516 26/15	0.18	5,617	N & N N W	N W & S E	1.948	0.7	6.1	1.5
October .. ..	29.826	461 8/12	0.20	6,090	N to N W	S E & N W	3.025	0.6	6.4	1.8
November ..	29.812	508 18/15	0.19	5,760	N to N W	S E	3.819	0.8	6.4	1.5
December ..	29.812	486 30/20	0.18	5,694	N to N W	S E	4.453	0.8	6.3	1.3
Year { Totals .. ..	—	—	—	—	—	—	31.235	9.0	—	23.0
Year { Averages .. ..	29.896	—	0.16	5,238	N to N W	S E & N W	—	—	6.1	—
Year { 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.	63	63	63	87	87	87	46	66	13°
January .. ..	71.0	52.8	61.9	105.0 (a)	40.0 3/72	55.0	160.0 (b)	30.6 19/97	242.5
February .. ..	71.3	53.3	62.3	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 -/87	199.4
March .. ..	67.9	50.8	59.4	99.0 -/61	35.2 31/26	63.8	150.0 3/05	27.5 30/02	201.7
April .. ..	62.6	47.7	55.1	90.0 1/50	30.0 25/56	60.0	142.0 18/93	25.0 -/86	147.5
May .. ..	57.4	43.8	50.6	77.8 5/21	29.2 20/02	48.6	128.0 (c)	20.0 19/02	140.0
June .. ..	52.8	41.1	46.9	75.0 7/74	28.0 22/79	47.0	122.0 12/94	21.0 6/87	118.6
July .. ..	52.0	39.5	45.8	72.0 22/77	27.0 18/66	45.0	121.0 12/93	18.7 16/86	128.7
August .. ..	55.0	41.0	48.0	77.0 3/76	30.0 10/73	47.0	129.0 -/87	20.1 7/09	161.7
September ..	58.7	43.2	51.0	81.7 23/26	30.0 12/41	51.7	138.0 23/93	18.3 16/26	169.4
October .. ..	62.6	45.5	54.0	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (d)	188.8
November ..	66.0	48.2	57.1	98.0 23/88	35.2 5/13	62.8	154.0 19/92	26.0 1/08	225.4
December ..	69.2	51.2	60.2	105.2 30/97	38.0 13/06	67.2	157.0 30/18	27.2 -/86	230.1
Year { Averages .. ..	62.2	46.5	54.4	—	—	—	—	—	2,152.8
Year { Extremes .. ..	—	—	—	105.2 30/12/97	27.0 18/7/66	78.2	165.0 24/2/98	18.3 16/9/26	(e)

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

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 Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	
No. of yrs. over which observation extends.	47	47	47	47	91	90	91	91	67	24
January ..	0.334	59	72	46	1.85	10	5.91 1893	0.03 1841	2.96 30/16	0.6
February ..	0.355	63	77	52	1.48	9	9.15 1854	0.07 1847	4.50 27/54d	1.4
March ..	0.329	66	77	58	1.76	10	7.60 1854	0.02 1843	3.27 11/32	5.3
April ..	0.299	72	84	58	1.92	12	6.50 1909	0.07 1904	5.02 20/09	9.7
May ..	0.265	78	89	65	1.87	13	6.37 1905	0.10 1843	3.22 14/58	12.8
June ..	0.241	80	91	68	2.22	14	8.15 1889	0.22 1852	4.11 13/89	8.6
July ..	0.230	80	94	72	2.16	14	6.02 1922	0.30 1850	2.51 18/22	9.0
August ..	0.238	75	92	64	1.83	14	10.16 1858	0.23 1854	4.35 12/58	8.4
September ..	0.255	67	85	59	2.09	15	7.14 1844	0.39 1847	2.75 18/44	5.1
October ..	0.273	64	73	51	2.33	15	6.67 1906	0.26 1850	2.58 4/06	2.8
November ..	0.292	59	72	50	2.46	14	8.94 1849	0.16 1868	3.97 7/49	1.2
December ..	0.317	57	67	45	2.01	12	9.00 1875	0.11 1842	2.82 21/29	0.9
Year {										
Totals ..	—	—	—	—	23.98	152	—	—	—	65.8
Averages ..	0.281	67	—	—	—	—	—	—	—	—
Extremes ..	—	—	94	45	—	—	10.16 8/1858	0.02 3/1843	5.02 20/4/09	—

(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 ISAAC ALFRED ISAACS, P.C., 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 ..	Air Vice-Marshal SIR PHILIP WOOLCOTT GAME, G.B.E., K.C.B., D.S.O.
Victoria ..	Captain the Rt. Hon. WILLIAM CHARLES ARCEDECKNE BARON HUNTINGFIELD, K.C.M.G.
Queensland ..	Lieut.-Colonel the Rt. Hon. SIR LESLIE ORME WILSON, P.C., 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, 1934.

AUSTRALIAN PARLIAMENTS—MINISTERS IN UPPER OR LOWER HOUSES,  
1934.

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	12	8	10	4	7	6	58
Total ..	14	15	12	10	6	9	8	74

(a) Council 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 bent 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, 1934, 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, 1934 :—

MEMBERS OF COMMONWEALTH AND STATE PARLIAMENTS, AND ANNUAL SALARIES, 1934.

Members in—	C'wealth.	N.S.W.	Vict.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
MEMBERS.								
Upper House ..	36	60	34	(a)	20	30	18	198
Lower House ..	75	90	65	62	46	50	30	418
Total ..	111	150	99	62	66	80	48	616
ANNUAL SALARY.								
Upper House ..	£ 825	£ ..	£ 177	£ (a)	£ 360	£ 480	£ (b)278-375	..
Lower House ..	£ 825	£ 670	£ 402	£ 500	£ 360	£ 480	£ (b)300-375	..

(a) Council abolished in 1922. (b) According to area of electorate and distance from the Capital.

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

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

## § 2. Parliaments and Elections.

1. Qualifications for Membership and for Franchise.—The conspectus in § 4 of "General Government" in Year Book No. 13 contains particulars, as in 1920, relating to the legislative chambers in the Commonwealth and State Parliaments, and shows concisely the qualifications necessary for membership and for the franchise in each House. (These are, in the main, applicable in 1934, 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, 1934 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 thirteenth Parliament opened on the 17th February, 1932, and was dissolved on the 7th August, 1934. Particulars regarding Commonwealth elections since 1917 may be found in the following table.

For details of the Commonwealth elections held on the 15th September, 1934, see Appendix.

FEDERAL ELECTIONS.

Date.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Fem.	Total.	Males.	Fem.	Total.	Males.	Fem.	Total.
<b>THE SENATE.</b>									
5th May, 1917	1,444,133	1,391,194	2,835,327	1,184,663	1,018,138	2,202,801	82.03	73.18	77.69
13th December, 1919	1,439,818	1,410,044	2,849,862	1,094,534	938,403	2,032,937	76.02	65.55	71.33
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

\* No election.

THE HOUSE OF REPRESENTATIVES.  
(CONTESTED ELECTORATES.)

5th May, 1917	1,262,527	1,207,938	2,470,465	1,041,552	892,926	1,934,478	82.50	73.92	78.30
13th December, 1919	1,395,165	1,367,468	2,762,633	1,063,029	914,816	1,977,845	76.19	66.90	71.59
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	1,463,951	2,914,153	1,362,675	1,366,137	2,728,812	93.96	93.32	93.64
12th October, 1929	1,557,525	1,560,505	3,118,030	1,479,100	1,478,447	2,957,547	94.96	94.74	94.85
19th December, 1931	1,724,730	1,733,343	3,458,073	1,643,604	1,642,870	3,286,474	95.30	94.78	95.04

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, moreover, the percentage has increased, and at the last election in 1931 reached 95 per cent.

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. The result was in favour of the proposed reforms the voting being 716,938 in favour and 676,034 against. 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 present Council 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 twenty-nine complete Parliaments, the first of which opened on the 22nd May, 1856, and was dissolved on the 19th December, 1857, while the twenty-ninth was dissolved on the 18th May, 1932. The thirtieth Parliament opened on the 23rd June, 1932. 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 1920 to 1932 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.
1920	593,244	561,193	1,154,437	363,115	285,594	648,709	61.21	50.89	56.19
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

The principle of one elector one vote was adopted in 1894, and that of compulsory enrolment in 1922. Compulsory voting was introduced in 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 that for which he desires to record his vote. A preferential system of voting (see Year Book No. 6, page 1182) was for the first time adopted 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 complete Parliaments, the first of which opened on the 21st November, 1856, and closed on the 9th August, 1859, while the thirtieth was dissolved on the 22nd April, 1932. The thirty-first Parliament was opened on the 14th June, 1932. 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 6th June, 1931, only nine of the seventeen seats were contested. Particulars of voting at elections during the years 1919 to 1932 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	40,393	30.35
1922	353,440	161,731	47,008	29.07
1925	399,510	172,875	56,033	32.41
1928	444,278	268,164	85,372	31.84
1931	470,349	239,975	93,244	38.86



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.
1920	418,085	450,763	868,848	232,604	235,621	468,225	66.23	61.38	63.70
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	335,362	351,349	686,711	94.56	93.77	94.16

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 modified 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-five complete Parliaments, the first of which opened on the 29th May, 1860, and was dissolved on the 20th May, 1863, while the twenty-fifth Parliament was dissolved on the 19th April, 1932. At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. Of the total number of electors enrolled at the 1932 elections, 92.86 per cent. went to the polls. Statistics regarding elections during the years 1918 to 1932 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.
1918	233,342	191,074	424,416	176,768	163,901	340,669	75.75	85.78	80.27
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

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 (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
<b>HOUSE OF ASSEMBLY.</b>									
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)	71.36
1933	(a)	(a)	338,576	(a)	(a)	182,693	(a)	(a)	59.45

(a) Not available.

It is interesting to note that 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 bi-ennially. At each bi-ennial 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 fourteenth Parliament was elected on 7th May, 1932, and 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 Assembly and Council elections for which information is available 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.
<b>LEGISLATIVE COUNCIL.</b>									
1922	40,360	14,838	55,198	17,524	4,763	22,287	46.16	33.81	42.82
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

## 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) *Particulars of 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, 79,706. 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 the imposing of a 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	37,937	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, 46,882 ; number of votes recorded, male 23,606, female, 7,487, total 31,093 ; percentage of persons who voted to the number on the roll, 66.32.

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, P.C., 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

(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), P.C., K.T., G.C.M.G., G.C.V.O. From 1st January, 1901, to 9th January, 1903.  
 Rt. Hon. HALLAM BARON TENNYSON, P.C., G.C.M.G. From 17th July, 1902, to 9th January, 1903 (Acting).  
 Rt. Hon. HALLAM BARON TENNYSON, P.C., G.C.M.G. From 9th January, 1903, to 21st January, 1904.  
 Rt. Hon. HENRY STAFFORD BARON NORTHCOLE, P.C., 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, P.C., 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, P.C., G.C.M.G., K.C.V.O. From 31st July, 1911, to 18th May, 1914.  
 Rt. Hon. SIR RONALD CRAUFURD MCNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), P.C., G.C.M.G. From 18th May, 1914, to 6th October, 1920.  
 Rt. Hon. HENRY WILLIAM BARON FORSTER OF LEPE, P.C., G.C.M.G. From 6th October, 1920, to 8th October, 1925.  
 Rt. Hon. JOHN LAWRENCE BARON STONEHAVEN, P.C., 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, P.C., G.C.M.G. From 22nd January, 1931.

(b) **MINISTRIES.**

- (i) BARTON GOVERNMENT, 1st January, 1901, to 23rd September, 1903.  
 (ii) FIRST DEAKIN GOVERNMENT, 23rd September, 1903, to 26th April, 1904.  
 (iii) WATSON GOVERNMENT (Labour), 26th April to 17th August, 1904.  
 (iv) REID-McLEAN GOVERNMENT, 17th August, 1904, to 4th July, 1905.  
 (v) SECOND DEAKIN GOVERNMENT, 4th July, 1905, to 12th November, 1908.  
 (vi) FIRST FISHER GOVERNMENT (Labour), 12th November, 1908, to 2nd June, 1909.  
 (vii) THIRD DEAKIN GOVERNMENT, 2nd June, 1909, to 29th April, 1910.  
 (viii) SECOND FISHER GOVERNMENT (Labour), 29th April, 1910, to 24th June, 1913.  
 (ix) COOK GOVERNMENT, 24th JUNE, 1913, to 17th September, 1914.  
 (x) THIRD FISHER GOVERNMENT (Labour), 17th September, 1914, to 27th October, 1915.  
 (xi) FIRST HUGHES GOVERNMENT (Labour), 27th October, 1915, to 14th November, 1916.  
 (xii) SECOND HUGHES GOVERNMENT (Labour), 14th November, 1916, to 17th February, 1917.  
 (xiii) AUSTRALIAN NATIONAL WAR GOVERNMENT, 17th February, 1917, to 10th January, 1918.  
 (xiv) AUSTRALIAN NATIONAL WAR GOVERNMENT, 10th January, 1918, to 9th February, 1923.  
 (xv) BRUCE-PAGE GOVERNMENT, 9th February, 1923, to 22nd October, 1929.  
 (xvi) SCULLIN GOVERNMENT (Labour), 22nd October, 1929, to 6th January, 1932.  
 (xvii) LYONS GOVERNMENT, 6th January, 1932, to 12th October, 1934.

(c) **LYONS GOVERNMENT, from 12th October, 1934.**

DEPARTMENTS.

MINISTERS (October, 1934).

Prime Minister and Treasurer .. .. .	The Rt. Hon. JOSEPH ALOYSIUS LYONS.
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.
Postmaster-General and Minister in Control of Development .. .. .	Senator the Hon. ALEXANDER JOHN MCLACHLAN.
Minister for Commerce .. .. .	The Hon. FREDERICK HAROLD STEWART.
Minister for Trade and Customs .. .. .	The Hon. THOMAS WALTER WHITE, D.F.C., V.D.
Minister for the Interior .. .. .	The Hon. ERIC JOHN HARRISON.
Assistant Treasurer .. .. .	The Hon. RICHARD GARDINER CASEY, D.S.O., M.C.
Ministers without Portfolios .. .. .	<div style="border-left: 1px solid black; border-right: 1px solid black; padding-left: 5px;">           The Hon. SIR HENRY SOMERS GULLETT, K.C.M.G.            The Hon. JOSIAH FRANCIS.            Senator the Hon. THOMAS CORNELIUS BRENNAN.            The Hon. CHARLES WILLIAM CLANAN MARR, D.S.O., M.C., V.D.         </div>

3. **State Ministries.**—The names of the members of the Ministries in each State in October, 1934, are shown in the following statement. The date on which each Ministry was sworn in is stated in parentheses :—

**STATE MINISTRIES, 1934.**

**NEW SOUTH WALES (16th May, 1932).**

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

(a) Sworn in on the 18th June, 1932. (b) Sworn in as Minister for Local Government, also, on the 15th February, 1933. (c) Sworn in as Honorary Minister assisting the Colonial Secretary on the 5th January, 1933. (d) Sworn in on the 15th February, 1933.

**VICTORIA (19th May, 1932).**

<i>Premier, Treasurer, and Minister of Public Health—</i> HON. SIR STANLEY S. ARGYLE, K.B.E., M.R.C.S.	<i>Commissioner of Public Works, Minister of Mines, Minister in Charge of Immigration, and a Vice-President of the Board of Land and Works—</i> HON. J. P. JONES, M.L.C.
<i>Chief Secretary, Attorney-General, and Solicitor-General,—</i> HON. I. MACFARLAN.	<i>Minister of Water Supply and Minister in Charge of Electrical Undertakings—</i> HON. G. L. GOUDIE, M.L.C.
<i>Minister of Agriculture, and a Vice-President of the Board of Land and Works—</i> HON. J. ALLAN.	<i>Minister of Railways, Minister of Labour, and a Vice-President of the Board of Land and Works—</i> HON. W. S. KENT-HUGHES.
<i>President of the Board of Land and Works, Commissioner of Crown Lands and Survey, and Minister of Forests—</i> HON. A. A. DUNSTAN.	<i>Ministers without Portfolio—</i> COL. THE HON. H. E. COHEN, C.M.G., C.B.E., D.S.O., V.D., M.L.C. HON. A. E. CHANDLER, M.L.C. HON. C. SHIELDS, M.B.(a) HON. T. K. MALTBY.(b)
<i>Minister of Public Instruction—</i> HON. J. W. PENNINGTON, C.B.E. (a) Sworn in on the 24th November, 1933.	(b) Sworn in on the 25th July, 1934.

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

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

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

<p><i>Premier, Treasurer, and Minister of Immigration—</i> HON. R. L. BUTLER.</p> <p><i>Chief Secretary, Minister of Mines, and Minister of Afforestation—</i> HON. G. RITCHIE, M.L.C.</p> <p><i>Attorney-General, Minister of Education, and Minister of Industry and Employment—</i> HON. S. W. JEFFRIES.</p>	<p><i>Commissioner of Crown Lands, Minister of Repatriation, and Minister of Irrigation—</i> HON. M. McINTOSH.</p> <p><i>Commissioner of Public Works, Minister of Railways, and Minister of Marine—</i> HON. H. S. HUDD, M.C.</p> <p><i>Minister of Agriculture and Minister of Local Government—</i> HON. A. P. BLESING, M.L.C.</p>
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## WESTERN AUSTRALIA (26th April, 1933). (Labour.)

<p><i>Premier, Treasurer and Minister for Forests—</i> HON. P. COLLIER.</p> <p><i>Minister for Public Works, Labour and Water Supplies—</i> HON. A. MCCALLUM.</p> <p><i>Minister for Justice, Railways and Education—</i> HON. J. C. WILLCOCK.</p> <p><i>Chief Secretary—</i> HON. J. M. DREW, M.L.C.</p> <p><i>Minister for Mines and Health—</i> HON. S. W. MUNSIE.</p>	<p><i>Minister for Lands and Immigration—</i> HON. M. F. TROY.</p> <p><i>Minister for Agriculture and the Northwest—</i> HON. H. MILLINGTON.</p> <p><i>Minister for Employment and Industrial Development—</i> HON. J. J. KENNEALLY.</p> <p><i>Minister without Portfolio—</i> HON. W. H. KITSON, M.L.C.</p>
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## TASMANIA (22nd JUNE, 1934). (Labour.)

<p><i>Premier, (Without Portfolio)—</i> HON. A. G. OGILVIE, K.C., LL.B.</p> <p><i>Treasurer—</i> HON. E. DWYER-GRAY.</p> <p><i>Minister for Lands, Works and Mines—</i> HON. T. H. DAVIES, D.S.O., M.C., R.E.</p> <p><i>Chief Secretary and Minister for Transport—</i> HON. T. D'ALTON.</p>	<p><i>Attorney-General and Minister for Education—</i> HON. E. J. OGILVIE.</p> <p><i>Minister for Agriculture and Forestry—</i> HON. R. COSGROVE.</p> <p><i>Honorary Ministers—</i> HON. J. F. GAHA, M.R.C.S., D.P.H., M.L.C., (Minister for Health). HON. J. McDONALD, M.L.C.</p>
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4. *The Course of Legislation.*—The actual legislation by the Commonwealth Parliament up to the end of the 1933 session is indicated in alphabetical order in "Vol. XXXI. of the Acts of the Parliament of the Commonwealth of Australia, passed during the year 1933, with Tables, Appendix, and Indexes." A "Chronological Table of Acts passed from 1901 to 1933, showing how they are affected by subsequent legislation or lapse of time" is also given, and further "A Table of Commonwealth Legislation," for the same period, "in relation to the several provisions of the Constitution," is furnished. Reference should be made to these for complete information. In previous issues of the Official Year Book an analytic table was included showing the nature of Commonwealth legislation in force at the end of the latest year available. A classified analysis up to the end of the year 1928 will be found in No. 22, pp. 76 to 84.

5. *Legislation during the Current Year.*—In issues of the Official Year Book prior to No. 23, the plan was adopted of giving a summary of the more important legislative enactments of the Commonwealth and State Parliaments during the year.

§ 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, 1933. 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, 1932-33.

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	(n) 5,000	..	2,700	(k) 3,743	..	..	20,343
Lieut.-Governor's salary ..	..	..	4,000	..	1,257	(o) 750	..	6,007
Official Secretary's salary ..	..	635	(c) 310	80	280	..	..	1,305
Clerks, etc. ..	302	..	155	1,405	326	128	..	3,487
Orderlies ..	..	358	536	..	327	277	..	519
Other messengers ..	..	192	..	..	..	..	..	..
Wages—Housemaids, stewards, gamekeepers, etc. ..	(l) 2,469	1,045	613	966	..	930	438	6,461
Wages—Country residence..	..	722	233	..	250	..	..	1,205
Furniture, stores, and stationery ..	434	145	64	..	705	13	..	..
Postal, cables, etc. ..	622	117	30	1,998	41	18	..	..
Travelling expenses and conveyance of officers ..	1,097	..	(f) 30	..	..	355	792	17,846
Incidental expenses (country residence) ..	..	439	41	..	67	..	..	..
Other expenses ..	(i) 7,998	..	535	389	1,706	242	..	..
<b>Total ..</b>	<b>21,822</b>	<b>8,653</b>	<b>6,207</b>	<b>7,768</b>	<b>8,502</b>	<b>2,243</b>	<b>1,980</b>	<b>57,175</b>
<b>2. Executive Council—</b>								
Salaries of Officers ..	(a)	583	364	25	..	97	(g)	1,069
Other expenses ..	(a)	20	49	60	..	..	(g)	129
<b>Total ..</b>	<b>(a)</b>	<b>603</b>	<b>413</b>	<b>85</b>	<b>..</b>	<b>97</b>	<b>(g)</b>	<b>1,198</b>
<b>3. Ministry—</b>								
Salaries of Ministers ..	10,997	17,030	7,768	10,300	6,033	5,717	3,937	61,782
Ministerial functions ..	(b)	691	(b)	..	..	3,950	186	4,827
Special Reports for Cabinet ..	(b)	41	(b)	..	..	..	..	41
Premiers' Conference ..	461	24	(b)	..	(b)	462	..	947
Travelling expenses ..	1,836	..	(b)	..	(b)	2,446	649	4,931
<b>Total ..</b>	<b>13,294</b>	<b>17,786</b>	<b>7,768</b>	<b>10,300</b>	<b>6,033</b>	<b>12,575</b>	<b>4,772</b>	<b>72,528</b>
<b>4. Parliament—</b>								
<b>A. Upper House :</b>								
President and Chairman of Committees ..	1,518	1,473	919	..	668	1,440	300	6,318
Allowance to members ..	27,115	..	5,306	..	6,184	13,293	5,839	57,737
Railway passes ..	5,710	23,104	(d) 9,000	..	1,212	4,416	984	44,426
Postage for members ..	1,500	60	(e)	..	31	110	(b)	1,701
<b>B. Lower House :</b>								
Speaker and Chairman of Committees ..	1,518	1,775	1,678	1,565	849	1,440	350	9,175
Allowance to members ..	56,863	53,672	24,327	27,435	14,614	22,424	9,155	208,490
Railway passes ..	11,912	19,016	(f)	12,704	2,788	8,736	1,718	56,874
Postage for members ..	3,700	2,703	(d) 700	1,249	213	300	(b)	8,865
<b>Carried forward, Parliament</b>	<b>109,836</b>	<b>101,803</b>	<b>41,930</b>	<b>42,953</b>	<b>26,559</b>	<b>52,159</b>	<b>18,346</b>	<b>393,586</b>



COST OF PARLIAMENTARY GOVERNMENT—*continued.*

Particulars.	C'with.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£	£	£	£	£	£	£	£
4. <i>Parliament—continued.</i>								
Brought forward ..	109,836	101,803	41,930	42,953	26,559	52,159	18,346	393,586
C. <i>Both Houses:</i>								
Standing Committee on Public Works—								
Remuneration of members ..	..	..	..	..	1,595	..	125	1,720
Salaries of Staff and contingencies ..	..	1,261	616	..	1,506	..	50	3,433
Printing—								
<i>Hansard</i> .. ..	11,873	4,530	4,700	3,854	2,109	2,027	..	29,093
Other .. ..	10,531	7,994	1,914	1,538	6,537	995	3,234	32,740
Parliamentary reporting staff—								
Salaries .. ..	10,123	6,633	4,746	2,475	4,726	3,840	..	32,543
Contingencies ..	148	99	29	..	426	68	..	770
Library—								
Salaries .. ..	4,708	2,395	1,794	863	700	40	(h)	10,500
Contingencies ..	1,733	1,111	425	619	306	225	(h)	4,419
Salaries of other officers and staff .. ..	26,563	22,982	10,529	7,028	5,645	5,745	2,207	80,699
Travelling expenses of officers and staff .. ..	624	..	..	..	..	..	(h)	624
Other .. ..	10,443	..	..	..	220	230	(h)	10,893
D. <i>Miscellaneous—</i>								
Fuel, light, heat, power, water .. ..	2,196	861	1,254	842	1,070	..	..	..
Posts, telegraphs, telephones .. ..	769	2,909	..	767	649	..	..	..
Furniture, stores, and stationery .. ..	2,118	1,054	794	439	1,288	1,868	788	72,504
Other .. ..	44,909	2,162	107	4,042	1,618	..	..	..
(j)								
Total .. ..	236,574	155,794	68,838	65,420	54,954	67,197	24,747	673,524
5. <i>Electoral—</i>								
Salaries .. ..	68,702	2,016	972	2,937	2,644	2,564	(g)	79,835
Cost of elections, contingencies, etc. .. ..	21,947	43,584	5,636	7,226	8,422	11,502	1,145	99,462
Total .. ..	90,649	45,600	6,608	10,163	11,066	14,066	1,145	179,297
6. <i>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.</i> .. ..	4,463	5,953	183	1,366	1,804	2,045	84	15,898
Total .. ..	4,463	5,953	183	1,366	1,804	2,045	84	15,898
GRAND TOTAL .. ..	366,802	234,389	90,917	95,102	82,359	98,223	32,728	999,620
(m)								
<i>Cost per head of population</i> .. ..	1s. 1d.	1s. 10d.	1s. 0d.	2s. 0d.	2s. 10d.	4s. 6d.	2s. 10d.	3s. 0d.

(a) Included under Governor-General. (b) Not available separately. (c) Included under Executive Council. (d) Both Houses. (e) Included under Lower House. (f) Included under Upper House. (g) Duties performed by Chief Secretary's Department. (h) Included under Miscellaneous, etc. (i) Includes rent of buildings, Melbourne, £5,277. (j) Includes interest and sinking fund, Parliament House, Canberra, £32,683. (k) £749 was repaid to revenue by His Excellency the Governor, and £251 by His Excellency the Lieutenant-Governor. (l) Maintenance of house and grounds. (m) Includes the following items, charged to the Prime Minister's Department, which are excluded from the table dealing with Expenditure—Commonwealth Parliament in Chapter XV.—Public Finance:—Premiers' Conferences, £461; travelling expenses of Commonwealth Ministers, £1,836; 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, £2,232, and Salaries of Secretary to the Representatives of the Government in the Senate and Assistant, £741. (n) £1,250 was repaid to revenue by His Excellency the Governor. (o) Chief Justice, received no additional salary.

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.								
1928-29 ..	£ 614,841	£ 282,762	£ 132,766	£ 134,125	£ 85,621	£ 111,609	£ 46,017	£ 1,407,741
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	116,352	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	999,620

## PER HEAD OF POPULATION.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1928-29 ..	1 11	2 3	1 6	3 0	3 0	5 5	4 3	4 5
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

## § 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, 1932-33.

State, etc.	Railways and Tramways (a).		Police.		Teachers.		Other Departments.		Total Persons.
	M.	F.	M.	F.	M.	F.	M.	F.	
Commonwealth ..	1,279		13	..	..	..	23,821	3,209	28,322
New South Wales ..	47,319		3,582	8	5,561	7,036	6,347	1,767	71,620
Victoria ..	26,501		2,113	8	3,940	5,263	3,027	823	41,675
Queensland ..	15,677		1,229	2	2,071	2,146	3,792	1,157	26,074
South Australia ..	6,932		726	14	1,372	1,894	1,539	148	12,625
Western Australia ..	8,009		545	5	718	1,446	1,242	248	12,213
Tasmania ..	1,299		263	1	367	899	538	165	3,532
Northern Territory ..	(b)		40	..	4	8	(b)	(b)	52
<b>Australia</b> ..	(c)	(c)	8,511	38	14,033	18,602	40,306	7,517	196,113
	107,016		8,549		32,725		47,823		

(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 1934 :—

#### CONSULAR REPRESENTATIVES IN AUSTRALIA, 1934.

Country.	Number of Consular Representatives in—						Total, Aust.
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	
Argentine Republic .. ..	1	2	..	1	..	1	5
Austria .. ..	1	1	..	..	..	..	2
Belgium .. ..	3	1	1	1	1	1	8
Bolivia .. ..	..	..	1	..	..	..	1
Brazil .. ..	2	1	..	..	..	1	4
Chile .. ..	1	1	..	1	..	..	3
China .. ..	2	..	..	..	..	..	2
Colombia .. ..	1	1	..	..	..	..	2
Costa Rica .. ..	2	..	..	..	..	..	2
Czechoslovakia .. ..	2	1	1	1	1	..	6
Denmark .. ..	3	2	3	2	2	1	13
Dominican Republic .. ..	..	2	..	..	..	..	2
Ecuador .. ..	1	..	..	..	..	..	1
Estonia .. ..	1	..	..	..	..	..	1
Finland .. ..	2	1	1	1	1	..	6
France .. ..	2	2	1	1	1	1	8
Germany .. ..	3	..	1	..	1	..	5
Greece .. ..	3	2	1	2	2	..	10
Guatemala .. ..	..	1	..	..	..	..	1
Honduras .. ..	1	1	..	..	..	..	2
Italy .. ..	1	2	3	1	1	1	9
Japan .. ..	2	2	1	1	1	..	7
Latvia .. ..	1	1	1	1	..	..	4
Liberia .. ..	..	..	..	1	..	..	1
Mexico .. ..	1	..	..	..	..	..	1
Netherlands .. ..	3	1	4	1	1	1	11
Nicaragua .. ..	..	1	..	..	..	..	1
Norway .. ..	3	2	3	3	3	2	16
Panama .. ..	1	1	1	..	..	..	3
Paraguay .. ..	1	..	..	..	1	..	2
Peru .. ..	1	1	..	1	..	..	3
Poland .. ..	1	1	..	..	..	..	2
Portugal .. ..	1	1	1	..	..	..	3
Rumania .. ..	1	..	..	..	..	..	1
Salvador .. ..	..	1	..	..	..	..	1
Siam .. ..	1	..	..	..	..	..	1
Spain .. ..	1	1	1	1	1	..	5
Sweden .. ..	3	2	3	3	1	1	13
Switzerland .. ..	1	1	..	..	..	..	2
United States of America .. ..	4	4	2	2	..	..	12
Uruguay .. ..	1	1	..	..	..	..	2
Venezuela .. ..	1	..	..	..	..	..	1
Yugoslavia .. ..	1	..	..	..	1	..	2
<b>Total .. ..</b>	<b>61</b>	<b>42</b>	<b>30</b>	<b>25</b>	<b>19</b>	<b>10</b>	<b>1874</b>

(a) In addition, Northern Territory has Consuls for China and the Netherlands, and New Guinea Consuls for China and Sweden.

Countries having Consuls-General in Sydney are Belgium, Chile, China, Costa Rica, Denmark, Ecuador, France, Germany, Greece, Italy, Japan, Netherlands, Norway, Paraguay, Poland, Siam, Spain, Sweden, Switzerland, and United States. Those having Consuls-General in Melbourne are Argentine Republic, Colombia, Honduras 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 one-half of the cost.

(ii) *Roads, Bridges and Ferries.* At the 30th June, 1932, the "National" works consisted of 97 bridges with a total length of 33,840 feet, and 5 ferries, while in the unincorporated areas of the Western Division, under the control of the Public Works Department, there were 6,181 miles of roads (of which 301 miles were metalled or ballasted, 662 formed only, and 2,503 cleared only), 149 bridges of a total length of 19,647 feet, 736 culverts, 1,130 causeways and 5 hand punts.

(iii) *Expenditure on Roads, Bridges and Ferries.* The total expenditure by the Government during 1932-33 was £2,462,275, comprising expenditure from votes of the Public Works Department £199,614, from funds of the Main Roads Board £1,907,277 and endowments and grants to Councils from votes of the Local Government Department £355,384.

The Government expenditure in connexion with the Sydney Harbour Bridge, £354,180 in 1932-33 and £10,057,170 to the 30th June, 1933, is not included in the above figures. Of the total sum expended on the bridge to date, £8,381,058 was provided by General Loan Account, £1,665,443 from proceeds of municipal and shire rates and £10,669 from the Unemployment Relief Fund. Interest and exchange accounted for £1,494,988, and resumptions for £1,339,027. Surplus lands included in resumptions are to be sold, thus reducing the total cost of the bridge.

2. *Victoria.*—(i) *General.* A small sum is expended annually by the State Government on roads and bridges, and a considerable amount of loan money is advanced in each year to the Country Roads Board for the purpose of constructing and maintaining main and developmental roads. The amount expended from loan and on account of loan funds, during the year ending 30th June, 1931, was £211,603, in 1931-32, £85,582, and in 1932-33, £118,119. An annual payment temporarily reduced from £50,000 to £40,000 is also made out of Consolidated Revenue to the Board for maintenance works.

(ii) *Direct Expenditure by Government.* The amount of money expended directly by the Government through the Public Works Department on roads and bridges during the year 1932-33 was £37,534.

(iii) *Country Roads Board.* (a) *Duties.* The duties of this Board were given in some detail in Year Book No. 15, p. 526.

(b) *Finance.* The funds established under the Country Roads Act are the Country Roads Board Fund, the Loan Account, and the Developmental Roads Loan Account.

(1) *Country Roads Board Fund.* All fees (other than fees for licences to drive motor cars), and fines under the Motor Car Act, all licence fees and fines under the Motor Omnibus Act, and all registration fees and fines for traction-engines are credited to this fund. The total receipts for the year 1932-33 were £1,664,924, made up as follows:—Motor registration and licence fees £1,085,865; contributions by municipalities for permanent works £137,661, and for maintenance works £105,846; sale of stores and material £168,075; and other sources £167,477. The expenditure for the year was £1,686,004, comprising maintenance and reconditioning of main roads and State highways £823,391; interest, stores, administration, etc., £748,191; road construction £108,808; and other expenses £5,614.

(2) *Country Roads Board Loan Account.* Loans to the amount of £4,822,000 have been authorized from time to time for permanent works under the Country Roads Acts. One half of the amount expended on permanent works and one-third of the amount expended on maintenance 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, 1933, was £35,052, and the total to that date £4,665,418.

(3) *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 work is carried out under the supervision of the Country Roads Board, and the State provides the whole of the money and makes provision out of State funds for liquidating the liability; the municipalities, however, 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, 1933, was £80,715, and the total expenditure to that date was £6,227,671.

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. Subsequently the Board was abolished and its powers conferred upon a single Commissioner.

The duties of the Commissioner, as defined by “The Main Roads Acts, 1920 to 1929,” are to carry out such surveys and investigations as are deemed necessary or expedient to determine what roads shall be main, developmental or tourist roads or State highways, and, under certain circumstances, to undertake the construction and maintenance of such roads. Before any road can be proclaimed a main, developmental or tourist road the Local Authorities through whose areas such road passes have the right to lodge objections thereto, and the Commissioner must consider such objections and, if necessary, vary his decision. No such action is necessary in the case of State highways.

Local Authorities are not liable for the return of any expenditure for construction on State Highways 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.

At 30th June, 1933, there were 9,597 miles of roads gazetted in the State, comprising 7,073 miles of main, 340 miles of developmental, 150 miles of tourist roads, and 2,034 miles of State highways; 2,428 miles of roadway and 40,851 lineal feet of bridges had been completed at that date, and 253 miles of road and 3,413 lineal feet of bridges were in course of construction, including 29 miles of roads in course of construction under the State Unemployment Relief Scheme.

During the year ended 30th June, 1933, the receipts of the Commission amounted to £2,359,607, including £220,000 from the Treasury Loan Fund, £474,427 from motor fees, £341,006 from the Commonwealth for works under the Federal Aid Roads Scheme and £648,403 from the State Unemployment Relief Scheme. Disbursements amounted to £2,270,947, including £996,220 on permanent works, £117,671 on the maintenance of roads and £645,367 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 Motor Vehicles Acts 1921 to 1929; (b) licence fees under the Vehicles (Licensing) Act 1925; (c) fines, penalties, and forfeitures in respect of convictions for offences against the Motor Vehicles Acts (exclusive of any sum received for costs), or the Width of Tires Acts; (d) fees for hawkers' licences issued by the Treasurer; (e) contributions from Councils; (f) all sums appropriated by Parliament for main roads; (g) all loans raised and appropriated for main roads. In accordance with legislation passed in 1930, 1932 and 1933 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, 1933, was £403,138, including £143,766 for interest on loans; the amount received from the Commonwealth Government for expenditure on Federal Aid Roads was £211,693; the amount allocated for roads in newly settled areas, etc., was £12,018; and grants in aid of rates collected paid to Councils amounted to £26,749. In the sparsely-settled districts

outside the incorporated areas, the roads and bridges are constructed and maintained by the Public Works Department under arrangement with the Commissioner of Highways. The amount expended during the same period was £4,782.

5. Western Australia.—In Western Australia the construction, maintenance, and management of main and development 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, 1933, the loan expenditure on these works was £5,066,780 (roads, £4,175,723; tracks, £232,930; bridges, £658,127). 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 £687,646 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 1932-33 on the construction of roads and bridges was £51,336, and expenditure from the Crown Lands Fund £1,512. In addition, the sum of £73,582 provided by the Commonwealth Government was expended on roads: the conditional expenditure by the State Government is included in the above figures. The amount of new-road mileage for the year was 47 miles metalled and gravelled, under State votes. The length of new construction under the Federal Aid Roads Scheme was 15 miles, and 34 miles were reconstructed under the same Scheme.

(ii) *Maintenance.* The maintenance of roads, other than "State highways," is undertaken by the municipalities out of their own revenues. All bridges which cost 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 to be paid from Consolidated Revenue and credited annually in each financial year for the purposes of the Act 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 1,101 miles and the expenditure thereon for 1932-33 was £72,506.

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, 1933.

**ROADS AND BRIDGES.—GOVERNMENT NET LOAN EXPENDITURE TO THE  
30th JUNE, 1933.**

Expenditure.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
Total to 30/6/33	16,436,863	11,851,827	4,081,983	3,140,603	2,058,801	5,066,780	42,636,857

The following table shows the annual net loan expenditure on roads and bridges by the central Governments in each State during the years 1928-29 to 1932-33:—

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

Year ended 30th June—	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1929 ..	3,120,075	820,778	342,152	10,856	384,685	204,546	4,883,092
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	188,709	Cr. 36,472	..	27,040	1,555,637
1933 ..	233,504	123,951	270,321	Cr. 8,933	83,004	51,336	753,183

(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 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 1932 being 184,005 square miles, of which 2,421 square miles are included in the former and 181,584 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.

(ii) *Municipalities*.—(a) *Summary*. The following table gives the number, area and population of municipalities, together with the length of roads and the number of bridges and ferries therein for the year 1932 :—

#### MUNICIPALITIES, NEW SOUTH WALES.—SUMMARY, 1932.

Year.	No. of Municipalities.	Sydney and Suburbs.(c)		Country.		Length of Roads.	Bridges.	Ferries.
		Area.	Population. Census 30/6/33.	Area.	Population. Census 30/6/33.			
1932	181	Acres. 115,896	No. 1,117,834	Acres. 1,433,822	No. 682,964	Miles. 10,858(a)	No. 645(b)	No. 38(a)

(a) Year 1930. (b) Year 1927—latest available. (c) Population of Metropolitan Area at the census of 30.6.1933 was 1,235,367.

Of the 10,858 miles of roads, 5,780 were blocked, metalled, ballasted or gravelled, 1,973 formed only, and 1,812 cleared only, while 1,293 miles were natural surface.

(b) *Unimproved and Improved Values*. The table hereunder gives a comparison of the unimproved and improved values for the year 1932 :—

#### MUNICIPALITIES, NEW SOUTH WALES.—CAPITAL VALUES, 1932.

Year.	Sydney.	Suburbs.	Total Metropolis.	Country.	Grand Total.
UNIMPROVED VALUE.					
1932	£ 48,910,429(a)	£ 92,651,644	£ 141,562,073	£ 42,699,609	£ 184,261,682
IMPROVED VALUE.					
1932	£ 154,595,200a	£ 270,718,945	£ 425,314,145	£ 138,816,759	£ 564,130,904

(a) Exclusive of Federal Government and other non-rateable properties for which valuation was not made.



(c) *Revenue and Expenditure.* Particulars of the revenue and expenditure of municipalities for the year ending 31st December, 1932, under various headings, are given below :—

**MUNICIPALITIES, NEW SOUTH WALES.—REVENUE AND EXPENDITURE, 1932.**

Particulars.	Sydney.	Suburbs.	Country. (c)	Total.
<b>REVENUE.</b>				
	£	£	£	£
Rates and charges .. .. .	(a) 1,054,538	1,987,004	1,024,285	4,065,827
Public works .. .. .	35,178	280,339	232,672	548,189
Health administration .. .. .	34,947	169,555	284,235	488,737
Public services .. .. .	122,285	33,307	36,480	192,072
Municipal property .. .. .	17,829	23,628	52,397	93,854
Other .. .. .	221,146	31,094	26,259	278,499
Total ordinary services .. .. .	1,485,923	2,524,927	1,656,328	5,667,178
Trading accounts .. .. .	(b) 2,418,143	51,234	1,087,620	3,556,997
Water and sewerage accounts .. .. .	..	..	410,538	410,538
Gross Revenue .. .. .	3,904,066	2,576,161	3,154,486	9,634,713
<b>EXPENDITURE.</b>				
Administration .. .. .	90,958	142,710	150,068	383,736
Public works .. .. .	127,445	909,208	605,697	1,642,350
Health administration .. .. .	147,890	388,311	331,391	867,592
Public services .. .. .	147,727	245,610	187,007	580,344
Municipal property .. .. .	26,635	36,676	35,171	98,482
Interest .. .. .	503,713	278,357	104,445	886,515
Other .. .. .	348,734	33,951	37,346	419,131
Harbour Bridge and Main Roads Board Contributions .. .. .	(a) 147,910	236,313	24,818	409,041
Total ordinary services .. .. .	1,541,012	2,270,236	1,475,943	5,287,191
Trading accounts .. .. .	(b) 2,374,796	42,972	950,394	3,368,162
Water and sewerage accounts .. .. .	..	..	377,577	377,577
Gross Expenditure .. .. .	3,915,808	2,313,208	2,803,914	9,032,930

(a) Includes Harbour Bridge Rate, £48,990, and Main Roads Board Rate, £48,920. (b) Electricity works. (c) Including extra metropolitan.

The above figures for revenue are exclusive of loan receipts, particulars of which are not available. Loans raised during the year, however, were as follow :—City of Sydney, £524,802; suburbs of Sydney, £77,673; country municipalities, £65,729; a total of £668,204. The figures for expenditure for the City of Sydney are exclusive of £170,695 expenditure from loans. The expenditure shown for other municipalities includes loan moneys expended on road construction and other works not resulting in realizable assets or expended on assets to be used over a period of time in fulfilling ordinary services. The amount of "capital expenditure" from both revenue and loans is not available.

(d) *Assets and Liabilities.* The financial position of the municipalities as at the 31st December, 1932, is shown by the following statement of assets and liabilities.

## MUNICIPALITIES, NEW SOUTH WALES.—ASSETS AND LIABILITIES, 1932.

Particulars.	Sydney.	Suburbs.	Extra Metropolitan.	Country.	Total.
<b>ASSETS.</b>					
	£	£	£	£	£
Bank balances and cash .. .. .	} 29,793,279 (a)	223,045	32,988	618,644	874,677 (b)
Outstanding rates .. .. .		809,609	172,374	650,894	1,632,877 (b)
Sundry debtors .. .. .		245,563	58,593	464,366	768,522 (b)
Stores and materials .. .. .		37,724	7,506	120,500	165,730 (b)
Land, buildings, furniture, etc. .. .. .		1,893,162	236,376	8,516,967	10,646,505 (b)
Other .. .. .		12,980	5,657	69,231	87,868 (b)
<b>Total .. .. .</b>	<b>29,793,279</b>	<b>3,222,083</b>	<b>513,494</b>	<b>10,440,602</b>	<b>43,969,458</b>

(a) Comprises the following:—Land, buildings, machinery, plant and stores, £23,311,590; sundry debtors, £752,999; bank balances and cash, £1,194,611; investments, £4,534,079.  
(b) Exclusive of Sydney.

## LIABILITIES.

Loans, outstanding interest and sundry creditors .. .. .	} 28,011,257 (a)	} 5,482,052	470,548	2,897,267	8,849,867 (b)
Debts due to Government and interest thereon .. .. .					
Bank overdrafts .. .. .					
Other .. .. .					
<b>Total .. .. .</b>					

(a) Comprises the following:—Debentures, £25,087,559; sundry creditors, £1,831,301; bank overdrafts, £1,092,397. (b) Exclusive of Sydney.

(iii) *Shires.*—(a) *Summary.* The following table gives the number, area, population, and unimproved capital value of shires, together with the length of the roads, and the number of bridges and ferries therein. It is not possible to give the improved capital value or the assessed annual value, as shires are not compelled to make these valuations.

## SHIRES, NEW SOUTH WALES.—SUMMARY.

Year.	No. of Shires.	Area.	Population, Census 30.6.33.	Occupied Dwellings 30.6.33.	Unimproved Capital Value.	Length of Roads.	Bridges.	Ferries.
	No.	sq. miles.	No.	No.	£	miles.	No.	No.
1932 ..	138	181,584	776,409	180,754	148,848,974	101,737	3,943(a)	173(a)

(a) Year 1927—latest available.

Of the 101,737 miles of roads, 21,464 were metalled or ballasted, 17,928 formed only, and 30,616 cleared only, the balance being natural surface.

(b) *Revenue and Expenditure.* The revenue and expenditure of shires for the year 1932 are shown in the following table. Included in the receipts are Government grants amounting to £694,458, which together with Government endowment, £147,095 make a total for Government assistance of £841,553.

## SHIRES, NEW SOUTH WALES.—REVENUE AND EXPENDITURE, 1932.

Items.	Revenue.	Items.	Expenditure.
	£		£
Rates (including interest) ..	1,290,317	Administrative expenses ..	203,775
Government endowment ..	147,095	Public works ..	1,619,908
Public works ..	744,577	Health administration ..	133,735
Health administration ..	132,502	Public services ..	87,958
Public services ..	15,497	Shire property ..	18,539
Shire property ..	25,205	Interest ..	84,743
Miscellaneous ..	14,142	Contributions to Main Roads	
Trading accounts ..	237,177	Board and Harbour Bridge	35,072
Water accounts ..	30,038	Other ..	51,034
		Trading accounts ..	204,919
		Water accounts ..	23,906
Total Revenue ..	2,636,550	Total Expenditure ..	2,463,589

The figures for revenue in the above table are exclusive of loan receipts, particulars of which are not available. Loans raised during the year, however, amounted to £28,462. As in the case of municipalities the expenditure shown for shires relates to "revenue expenditure".

(c) *Assets and Liabilities.* The finances of the shires at the end of the year 1932 showed an excess of assets of £813,199. The following table gives particulars of assets and liabilities as at the 31st December, 1932 :—

## SHIRES, NEW SOUTH WALES.—ASSETS AND LIABILITIES, 1932.

Assets.	Amount.	Liabilities.	Amount.
	£		£
Bank balances and cash ..	282,641	Loans outstanding, interest	
Outstanding rates and interest	745,606	and sundry creditors ..	1,546,521
Sundry debtors ..	192,066	Bank overdrafts ..	404,027
Stores and materials ..	57,518	Debts due to the Govern-	
Land, buildings, furniture,		ment and interest thereon	481,850
plant, machinery, etc. ..	2,013,928	Other ..	96,599
Other ..	50,437		
Total ..	3,342,196	Total ..	2,528,997

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 1932 :—

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 BOROUGHES.</b>						
1932 .. ..	No. 56	No. 1,137,520	No. 341,078	No. 273,396	£ 336,119,812	£ 18,231,285
<b>SHIRES.</b>						
1932 .. ..	140	681,058	265,802	165,341	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 1932 :—

MUNICIPALITIES, VICTORIA.—REVENUE AND EXPENDITURE, 1932.

Items.	Revenue.	Items.	Expenditure from Revenue.
	£		£
Taxation { Rates .. ..	3,402,648	Salaries, etc. .. ..	386,477
{ Licences .. ..	106,303	Sanitary work, street cleaning, etc. .. ..	385,985
{ Dog fees .. ..	27,232	Health .. ..	114,134
Government grants .. ..	154,882	Lighting .. ..	181,451
Licensing fund payments .. ..	61,087	Contributions to Fire Brigades .. ..	61,262
Contributions for streets, etc. .. ..	249,955	Public Works { Construction .. ..	196,630
Market and weighbridge dues .. ..	125,446	{ Maintenance .. ..	1,537,875
Sanitary charges .. ..	157,907	Formation of private streets, etc. .. ..	52,860
Rents .. ..	132,454	Electric light and gas works .. ..	877,189
Electric light and gas works .. ..	1,252,960	Redemption of loans .. ..	511,867
Interest .. ..	103,985	Interest on loans .. ..	684,733
Other sources .. ..	361,805	Interest on bank overdrafts .. ..	67,594
		Charities .. ..	38,449
		Other expenditure .. ..	727,266
<b>Total Revenue .. ..</b>	<b>6,136,664</b>	<b>Total from Revenue .. ..</b>	<b>5,823,772</b>

## MUNICIPALITIES, VICTORIA.—LOANS—RECEIPTS AND EXPENDITURE, 1932.

Items.	Receipts.	Items.	Expenditure.
	£		£
Receipts from loans ..	256,787	Roads and bridges ..	92,749
		Water and irrigation ..	10,572
		Sewerage and drainage ..	8,044
		Electric light and gas ..	6,085
		Public buildings ..	8,267
		Other purposes ..	143,652
Total Receipts ..	256,787	Total Expenditure ..	269,369

(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 1932:—

## MUNICIPALITIES, VICTORIA.—ASSETS AND LIABILITIES, 1932.

Items.	Assets.	Items.	Liabilities.
MUNICIPAL FUND—	£	MUNICIPAL FUND—	£
Uncollected rates ..	1,038,727	Due on current contracts	44,356
Streets formed, etc., payments outstanding ..	1,360,708	Arrears due sinking funds	125
Rents and interest outstanding ..	54,078	Overdue interest ..	20,664
Cash in hand or in bank ..	742,466	Bank overdrafts ..	977,111
Other assets ..	367,720	Other liabilities ..	1,014,794
LOAN FUND—		LOAN FUND—	
(a) Sinking funds—		Loans outstanding ..	13,465,826
Amount at credit ..	623,380	Due on loan contracts ..	2,552
Arrears due ..	125		
(b) Unexpended balances ..	421,516		
PROPERTY—			
Buildings, markets, tramways, etc. ..	5,518,160		
Waterworks ..	384,970		
Gasworks ..	244,840		
Electric light works ..	2,452,740		
Plant and machinery ..	656,010		
Other assets ..	198,460		
Total ..	14,063,900	Total ..	15,525,428

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 1932 :—

## MUNICIPALITIES, QUEENSLAND.—SUMMARY.

Year.	No.	Area.	Popula- tion, Census 30.6.1933.	Occupied Dwellings. 30.6.1933.	Rateable Value.	Assets.	Liabilities.	
							Government Loans.	Total.

## CITIES AND TOWNS.

		sq. miles.	No.	No.	£	£	£	£
1932(a) ..	23	779	498,947	114,981	30,269,249	21,434,466	6,713,659	24,746,150

## SHIRES.

1932(a) ..	121	669,062	443,226	102,292	45,435,698	2,019,167	1,983,240	2,806,955
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(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 1932 are given hereunder :—

## MUNICIPALITIES, QUEENSLAND.—REVENUE AND EXPENDITURE.

Year.	Revenue.			Expenditure.			
	Rate.	Government Loans and Subsidies. (a)	Total.	Public Works and Services. (b)	Government Loan Redemp- tion.	Office Expenses and Salaries.	Total.

## CITIES AND TOWNS.

1932 ..	£ 1,484,743	£ 711,922	£ 5,026,322	£ 2,300,861	£ 113,587	£ 227,702	£ 4,866,156
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## SHIRES.

1932 ..	903,124	579,766	1,770,441	1,222,356	71,009	120,366	1,778,857
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(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 1932, from 196 to 172, of which 11 corporations and 10 district councils are in the metropolitan area, and 21 corporations and 130 district councils in outside areas. According to the latest available information there are about 1,060 miles of roads in use

for general traffic under the control of corporations, and about 49,070 miles under the control of district councils, and of these totals, 19 miles are wood-blocked, 176 miles are bitumen and concrete and 14,363 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 1932 :—

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

Year.	Area.	Population, Census 30.6.1933.	Occupied Dwellings. 30.6.1933.	Capital Value.	Assessment Value.	Outstanding Loans.
<b>MUNICIPAL CORPORATIONS.</b>						
1932	Acres. 64,064	No. 232,073	No. 57,180	£ 69,707,373	£ 3,478,717	£ 766,292
<b>DISTRICT COUNCILS.</b>						
1932	33,564,245	336,604	80,304	105,722,783	5,334,127	(a) 407,995

(a) Includes advances through District Councils to settlers for vermin-proof fencing, etc., amounting to £260,352.

(b) *Revenue and Expenditure.* The next table gives the revenue and expenditure of corporations and district councils for the year 1932, 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>								
1932	£ 424,357	£ 13,362	£ 597,837	£ 186,353	£ 397,503	£ 583,856	£ 15,768	£ 15,735
<b>DISTRICT COUNCILS.</b>								
1932	367,695	27,514	495,246	234,492	215,290	449,782	217,381	219,857

5. *Western Australia.*—(i) *General.* In this State there are three forms of local authorities, namely :—(a) municipalities, (b) district road boards, and (c) local boards of health, the two former covering the whole of the State. Local boards of health are of three descriptions, (a) municipal, the members being the same as those of the municipal council of the municipality in which each is situated; (b) those under the control of road

boards; and (c) those not under the control of road boards or municipalities. Several of the latter two are inactive. 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. 188,402	No. 42,999	£ 42,824,383	£ 2,313,757	Miles. (b) 870

(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 247,351, and the number of dwellings was 65,451, of which 62,400 were occupied.



## 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	22,697,499a	22,601b	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.	Adminis-tration.	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.* On the 31st October, 1933, there were 21 local boards of health within municipalities, and on the 30th June, 1933, 94 under control of road boards, and 12 extra-municipal boards. Of the extra-municipal boards 6 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, with the exception of the cities of Hobart and Launceston, which were incorporated under separate Acts, is divided into municipal districts.

(ii) *Municipalities.* (a) *Summary.* The following table gives the number of municipalities, valuations, outstanding loans and length of roads for the year 1932-33. The number of occupied dwellings in Tasmania at the census of 30th June, 1933, was 52,693.

## MUNICIPALITIES, TASMANIA.—SUMMARY.

Year ended 30th June—	Number of Municipali- ties.	Valuations.			Outstanding Loans.	Length of Roads.
		Annual Value.	Unimproved Value.	Total Capital Value.		
HOBART AND LAUNCESTON.						
1933 .. ..	No. 2	£ 1,169,630	£ 6,972,995	£ 18,933,368	£ 2,599,478	Miles. 189
COUNTRY MUNICIPALITIES.						
1933 .. ..	47	1,517,213	15,344,069	31,953,507	568,210	12,454

(b) *Revenue and Expenditure.* The next table gives the revenue and expenditure of all municipalities for the year 1932-33:—

## 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.
HOBART AND LAUNCESTON.							
1933 ..	£ 270,962	£ 480	£ 581,739 <sup>a</sup>	£ 45,265	£ 328,559 <sup>a</sup>	£ 193,892	£ 568,210 <sup>a</sup>
COUNTRY MUNICIPALITIES.							
1933 ..	177,629	11,398	278,066 <sup>a</sup>	35,238	179,313 <sup>a</sup>	36,991	271,439 <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, 1932. Victoria: 30th September, 1932, except Melbourne, 31st December, and Geelong, 31st August, 1932. Queensland: 31st December, 1932. South Australia: Corporations, 30th November, and district councils, 30th June, 1932. Western Australia: Municipalities, 31st October, 1933, district road boards, 30th June, 1933. Tasmania: 30th June, 1933.

2. Number, Revenue, Expenditure, and Valuation of Local Authorities.—The sub-joined 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 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, 1932.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.(b)	Tasmania.	Total.
No. of local authorities(a)	319	196	144	172	147	49	1,027

RECEIPTS.

	£	£	£	£	£	£	£
Rates—							
General ..	4,283,676	3,332,407	1,794,372	792,052	{	311,191	156,838
Other ..	1,359,954	70,241	593,495			201,117	291,753
Government grants, etc. ..	1,321,340	154,882	962,312	251,354	163,424	11,878	2,865,190
Loans and other sources ..	(c) 5,306,293	2,835,921	3,446,584	270,339	1,135,549	514,807	(e)13,509,493
Total ..	(c) 12,271,263	6,393,451	6,796,763	1,313,745	1,811,281	975,276	(e)29,561,779

EXPENDITURE.

Works, services, etc.	8,896,451	3,676,755	3,523,217	962,766	609,599	546,426	18,215,214
Interest on loans and overdrafts	971,258	752,327	1,260,216	60,041	171,199	230,883	4,694,860
Redemptions, sinking funds, etc.	(h)	511,867	505,537	47,414	184,118		
Administration	587,511	386,477	348,068	118,255	131,949	80,503	1,652,763
Other ..	1,041,299	765,715	1,007,975	80,645	676,133	76,327	3,648,094
Total ..	(d) 11,496,519	6,093,141	6,645,013	1,269,121	1,772,998	934,139	(e)28,210,931

VALUATIONS.

Capital value of property ..	{f}333,110,656	604,791,333	175,704,947	175,430,156	(j)42,824,383	50,886,875	(h)
Annual value of property ..	(g) 37,274,155	31,722,965	(h)	8,812,845	(j) 2,313,757	2,686,843	(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) Exclusive of loan receipts, particulars of which are not available. Loans raised during the year amounted to £696,666.

(d) Exclusive of the total loan expenditure of the City of Sydney. The expenditure included for other local authorities relates to "revenue expenditure" and includes loan moneys expended on road construction and other works not resulting in realizable assets or expended on assets to be used over a period of time in fulfilling ordinary services. The amount of "capital expenditure" from both revenue and loans is not available. The addition of the following amount to the above total of £11,496,519 should, however, give a closer approximation of total expenditure comparable with the other States:—For City of Sydney, £170,695 (expenditure from loans), but for the other local authorities particulars are not available.

(e) See footnotes (c) and (d) relating to New South Wales.

(f) Unimproved capital value. The improved value for shires is not available; for municipalities it is £564,130,904.

(g) Assessed annual value, excluding Shires.

(h) Not available.

(i) Rateable value.

(j) 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.

3. Local Government Loans, 1932.—The following table shows the amount of loans raised by local authorities during the year 1932, of loans current at the end of that year, the liability on account of interest and sinking fund, and the loans redeemed during 1932 :—

LOCAL AUTHORITIES.—LOANS, 1932.

Particulars.	N S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
Loans from General Government—							
Raised during year ..	..	17,432	329,376	3,719	..	7,700	358,227
Current at end of year ..	..	814,843	8,696,899	372,663	..	450,351	10,334,756
Loans from other Sources—							
Raised during year ..	696,666	302,175	160,742	5,977	89,500	111,936	1,366,996
Current at end of year ..	34,649,663	12,650,983	14,797,173	801,624	3,200,484	2,717,337	68,817,264
Total—							
Raised during year ..	696,666	319,607	490,118	9,696	89,500	119,636	1,725,223
Current at end of year ..	34,649,663	13,465,826	23,494,072	1,174,287	3,200,484	3,167,688	79,152,020
Current Loans, exclusive of those obtained from General Government, raised within Australia ..	25,346,266	12,650,983	9,384,466	801,624	2,648,684	1,532,337	52,364,360
Annual Liability on account of Interest ..	1,649,498	684,733	1,204,229	57,622	176,403	165,935	3,938,420
Total Sinking Fund at end of year ..	3,502,128	623,505	1,814,537	43,719	648,485	527,022	7,159,396
Amount of Loans redeemed during year ..	(a)	(a)	356,899	42,649	158,301	94,691	(a)

(a) Not available.

§ 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 municipalities affected, by which the cost must be repaid.

(ii) *Metropolitan Waterworks*. (a) *General*. Financial conditions necessitated a stoppage of all loan works in March, 1931, but prior to that date good progress had been made on the construction of the two additional storage reservoirs on the Nepean and Woronora Rivers. Work on the Nepean Dam was resumed on the 13th June, 1933. During the year ended 30th June, 1933, very little construction work was done, although £814,012 was expended on Unemployment Relief Works, such as water supply and sewerage works, but mainly on maintenance. The maximum day's consumption in the metropolitan area during the year was 142,141,000 gallons. The length of mains in operation is now 4,256 miles.

(b) *Water Supplied, etc.* The following table gives the number of houses, the estimated population supplied, and other details for the year ended 30th June, 1933 :—

WATERWORKS, SYDNEY.—WATER SUPPLIED.

Year ended 30th June—	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.
1933 ..	315,097	1,575,485	88,595	32,337,000	281	56.23	134

(c) *Finances.* The following statement shows the revenue and expenditure on account of the services of waterworks, sewerage and drainage during the year 1932-33 :—  
**WATERWORKS, SEWERAGE, AND DRAINAGE, SYDNEY.**

Item.	Revenue.	Working Expenses, Sinking Fund Contribution, Renewals, and Exchange. (a) (b)	Interest.	Surplus or Deficit.	Percentage of Working Expenses and Sinking Fund Contribution, etc. on Revenue.	Capital Debt.	Percentage of Revenue on Capital Debt.
	£	£	£	£	%	£	%
Water ..	1,728,397	640,070	1,013,808	+ 74,519	37.03	23,283,154	7.42
Sewerage	1,031,771	370,593	617,205	+ 43,973	35.92	14,669,392	7.03
Drainage	46,576	19,000	30,432	- 2,856	40.79	658,942	7.07
<b>Total</b>	<b>2,806,744</b>	<b>1,029,663</b>	<b>1,661,445</b>	<b>+ 115,636</b>	<b>36.69</b>	<b>38,611,488</b>	<b>7.27</b>

(a) Includes payments to State Debt Commissioners in reduction of capital debt as follows :— Water, £64,553; Sewerage, £43,229; and Drainage, £2,051.

(b) Includes exchange as follows :— Water, £162,313; Sewerage, £115,180; and Drainage, £6,110.

(iii) *Metropolitan Sewerage and Drainage Systems.* (a) *General.* In addition to the usual progress made in connecting additional houses, 53 miles of new sewers were laid, the total length at 30th June, 1933, being 1,936 miles. The quantity of sewage pumped was 5,998 million gallons.

(b) *Houses Drained, Population Served, Length of Sewers, etc.* Particulars as at 30th June, 1933, are given hereunder :—

**SEWERAGE AND DRAINAGE SYSTEMS, SYDNEY.—PARTICULARS OF SERVICES.**

Year ended 30th June—		Number of Houses Drained.	Estimated Population Served.	Total Length of Sewers.	Total Length of Stormwater Drains.
		No.	No.	Miles.	Miles.
1933	.. ..	210,777	1,053,885	1,936.40	76.00

(iv) *Newcastle Water Supply.* (a) *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 the Cessnock coalmining field, as well as 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 1 mile, bringing the total length of mains to 863 miles.

(b) *Particulars of Services.* The following table supplies details for the year ended 30th June, 1933 :—

**NEWCASTLE WATER SUPPLY.—SUMMARY.**

Year ended 30th June—	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Supply.	Total Quantity Supplied 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.	Mile.
1933	42,968	214,840	8,114	2,961,547	189	37.76	1

(c) *Finances.* The following table gives the revenue, working expenses, net profit, and capital debt for the year ended 30th June, 1933 :—

NEWCASTLE WATER SUPPLY.—FINANCES.

Year ended 30th June—	Revenue.	Management, Working Expenses, and Sinking Fund.	Interest on Capital Debt.	Deficiency.	Percentage of Management, Working Expenses, and Sinking Fund on Revenue.	Capital Debt.	Percentage of Revenue on Capital Debt.
					%		%
1933 ..	£ 208,251	£ 76,321	(a) £ 146,821	£ 14,891	36.65	£ 2,870,223	7.25

(a) Includes exchange £22,719.

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

The amplification, extension, and improvement of such sewerage works was 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 completed at a cost of £248,275 to 30th June, 1933. 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 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, estimated to cost £200,000, and the works in the Throsby Creek Stormwater Area, estimated to cost £660,000. The capital expenditure on the Cottage Creek stormwater drainage works and the Throsby Creek stormwater drainage works to 30th June, 1933, amounted to £272,153 and £593,148 respectively. The former works have been transferred to the Board, but a drainage rate has not yet been struck. The latter works are still under construction.

(b) *Sewerage Connexions and Length of Sewers.* During the year ended 30th June, 1933, the number of properties connected with sewers was 275, making a total of 21,801. New sewers of a length of 1 mile were constructed by the Board, bringing the total length of sewers under the Board's control to 203 miles.

(c) *Finances.* Particulars in regard to chief items for the year 1932-33 are given hereunder :—

NEWCASTLE SEWERAGE.—FINANCES.

Year ended 30th June—	Revenue.	Management, Working Expenses and Sinking Fund.	Interest on Capital Debt.	Surplus.	Percentage of Management, Working Expenses and Sinking Fund on Revenue.	Capital Debt.	Percentage of Revenue on Capital Debt.
					%		%
1933 ..	£ 73,238	£ 36,527	(a) £ 35,420	£ 1,291	49.87	(b) £ 2,523,399	2.90

(a) Includes exchange £5,481. (b) Includes £909,455 expenditure on stormwater drainage works.

(vi) *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.

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

(b) *Waterworks, Sewerage, and Stormwater Drainage Works.* At the 30th June, 1933, public water supplies constructed at a capital cost of £4,242,334, were in operation in 87 towns outside the Metropolitan and Hunter River districts. Fifteen towns were seweraged and 16 towns had stormwater channels constructed by the Public Works Department. The capital cost of the sewerage schemes and stormwater channels was £1,262,939.

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, 1932, to £478,384 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 City of Mordialloc and the Shire of 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 1933 embraced 25 cities, 1 shire, and parts of 12 other 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, 1933, for loans raised was £24,944,984. The Board is still empowered to borrow £194,950 before reaching the limit of its borrowing powers.

(b) *Revenue and Expenditure.* The ordinary receipts and expenditure for the year 1932-33 were £1,832,161 and £1,740,217 respectively, and the loan receipts and expenditure, £339,526 and £543,147 (including Loan Redemption £205,000,) respectively.

*B. Melbourne Water Supply.* (a) *Number of Houses, Population, and Quantity of Water Supplied.* The following table gives particulars of services for the year 1932-33. 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.
1933 ..	256,631	1,136,875	62,916	23,014,446	245.16	55.34	2,784

(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, 1933, are given below. The total capital cost to that date was £11,128,877.

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

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
	£	£	£	%	£	£
1933 .. ..	102,219	737,365	121,313	16.45	543,478	72,574

(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 1932-33 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.
1933 ..	241,352	1,069,189	42,771	15,611,510	177.2	40.0	2,439

(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, 1933, are given below. The total capital cost to that date was £12,889,006.

SEWERAGE, MELBOURNE.—FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
	£	£	£	%	£	£
1933 ..	157,522	879,396	137,422	15.63	677,480	64,494

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

(c) *Metropolitan Sewage Farm.* The total area of the farm at the 30th June, 1933, was 22,634 acres. The following table gives details in connexion therewith for the year 1932-33. The total capital cost to the 30th June, 1933, was £1,153,346.

METROPOLITAN SEWAGE FARM.—FINANCES.

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses. (a)	Interest.	Net Cost of Sewage Purification.	Trading Profit.
	£	£	£	£	£	£
1933 ..	12,132	39,946	32,642	56,446	49,142	31,367

(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 830,212, for the year 1932-33.



*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, 1933. The total capital cost to that date was £1,069,918.

**DRAINAGE AND RIVERS, MELBOURNE.—FINANCES.**

Year ended 30th June—	Capital Cost.	Revenue.	Working Expenses.	Percentage of Working Expenses on Revenue.	Interest. (a)	Surplus.
1933 .. ..	£ 6,850	£ 80,655	£ 17,284	% 21.43	£ 58,676	£ 4,695

(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 45,387.

(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 500 million gallons of water per annum from the upper reaches of the river Barwon. There are 276 miles of reticulation mains within the city of Geelong and its suburbs. The total expenditure on waterworks to the 30th June, 1933, was £703,169, and the revenue for the year 1932-33 was £53,474; the sinking fund for redemption of loans amounted to £54,406.

(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 11,110, while 11,085 buildings have been connected with the sewers. The total expenditure to 30th June, 1933 on sewerage works was £644,116, and on the cost of sewerage installations under deferred payment conditions £256,326, of which £29,233 is outstanding. The revenue amounted to £38,277. The sinking fund for redemption of loans amounted to £52,762.

(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 £659,094. The liabilities are loans due to the Government amounting to £297,179 as at 31st December, 1933. The revenue for the year 1933 was £31,490.

(c) *Sewerage.* The scheme as designed provides for a population of 90,000 persons. The capital cost of construction to 31st December, 1933, was £359,957. The method of sewage disposal is by sedimentation, oxidation, and sludge digestion. Sixty-four sewered areas have been declared as at 1st January, 1934, comprising 7,620 tenements.

The scheme is being financed by debenture issue loans from various financial institutions, £403,196 having been provided up to 31st December, 1933, of which £42,724 has been redeemed, leaving a loan liability of £361,192 for constructional works, and £155,000 for house connexions, of which £97,785 has been redeemed, leaving a balance outstanding of £57,215.

(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 cost £326,667. Expenditure to 31st December, 1933, was £326,667 for sewerage scheme and approximately £280,000 for house connexions, including those tenements connected privately. The number of tenements connected to sewers is 5,600.

(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 1933:—

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.	£	£	£
1933 ..	105	1,760,088	1,348,701	1,517	28	875,770	567,755	594

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, 1933:—

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.
1933 .. ..	828	64,939	275,990	4,397,908	12,049,063	39.31

(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, 1933, 14,965 premises were connected to the Council's sewerage system, the estimated population served being 74,825 persons. The total length of sewers in operation is 391½ miles, consisting of 225½ miles of sewers within premises, and 166½ 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, 1933.

#### WATER AND SEWERAGE WORKS, BRISBANE.—FINANCE.

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.
	£	£	£	£	£
1933 .. ..	8,153,517	626,423	137,924	117,644	(a) 564,671

(a) Exclusive of the sum of £63,473 paid as exchange.

(ii) *Country Towns Water Supply.* In addition to the city of Brisbane, there were at the end of the year 1932, forty-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 1932 :—

#### COUNTRY WATER SUPPLY SYSTEMS.—QUEENSLAND.

Cost of Construction to 31st December, 1932—£2,415,401.					
<i>Receipts.</i>			<i>Expenditure.</i>		
		£			£
Rates and sales of water ..		227,493	Office and salaries ..		17,859
Government and other loans ..		45,885	Construction ..		66,710
Other .. ..		28,186	Maintenance ..		107,413
			Interest and redemption ..		105,610
			Other expenses ..		14,324
<b>Total .. ..</b>		<b>301,564</b>	<b>Total .. ..</b>		<b>311,916</b>
<b>Assets .. ..</b>		<b>1,959,415</b>	<b>Liabilities .. ..</b>		<b>1,628,011</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 1932-33, the figures for consumption being recorded by gaugings taken at the reservoirs and including evaporation and absorption. There are 54,247 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.
1933 .. ..	129,825	4,985,686	115,939	7,774	1,298	7,517

(b) *Finances.* Particulars for the year 1932-33 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.	
1933 ..	£ 3,919,975	£ 351,657	£ 414,592	£ 80,753	£ 10,896	£ 91,649	% 8.24

(iii) *Adelaide Sewerage.* Particulars for the year 1932-33 are given hereunder :—

**ADELAIDE SEWERAGE.—SUMMARY.**

Year ended 30th June—	Length of Sewers.	Number of Con-nexions.	Capital Cost of Revenue-Producing Works.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates, etc.	Total.	Mainten-ance, etc.	Total.	
1933 ..	Miles. 554	No. 56,709	£ 1,623,417	£ 189,067	£ 193,574	£ 29,494	£ 37,099	% 9.63

(iv) *Country Water Supply.* (a) *Summary.* The chief items of information regarding these undertakings are set forth in the table below for the year 1932-33. There are 32,165 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.
1933 ..	No. 49,721	Acres. 11,836,819	Million Gallons. 9,146	Miles. 4,771	Million Gallons. 4,277

(b) *Finances.* The next table gives financial information for the year 1932-33 :—

**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.	
1933 ..	£ 9,271,175	£ 183,816	£ 217,216	£ 123,891	£ 7,905	£ 131,796	% 0.92

(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 1932-33 :—

**SUBURBAN SEWERAGE SYSTEMS, SOUTH AUSTRALIA.—SUMMARY.**

Year ended 30th June—	Length of Sewers.	Number of Con-nexions.	Capital Cost.	Revenue.		Working Expenses.		Percentage of Net Revenue on Capital Cost.
				Rates.	Total.	Mainten-ance.	Total.	
	Miles.	No.	£	£	£	£	£	%
1933 ..	231	12,287	1,178,959	43,095	44,482	19,873	20,851	2.00

5. *Western Australia.*—(i) *General.* The water supply and sewerage systems of Western Australia are all 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 ; (e) Other Mines Water Supply ; and (f) 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. 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, 1933, the number of premises connected with sewers was 24,120.

(b) *Summary.* The following table gives particulars regarding water supply for the year 1932-33 :—

**METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA.—SUMMARY.**

Year ended 30th June—	Estimated Population Supplied.	Number of Houses Supplied.	Water Supplied.	Average Daily Supply.		Number of Meters.	Length of Mains.
				Per Head, Per House.			
				Gallons.	Gallons.		
	No.	No.	1,000 Gallons.	Gallons.	Gallons.	No.	Miles.
1933 ..	238,000	52,478	4,236,777	48.77	221.19	35,157	857

(c) *Finances.* The table hereunder gives separate information for the water supply and sewerage and drainage branches for the year 1932-33 :—

**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.
	£	£	£	£	£	£
1933 ..	3,372,856	247,522	225,015	1,722,244	101,825	105,399

(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 1932–33 the railways consumed 6 per cent., the mines 28 per cent., and domestic, etc., 66 per cent. of the supply. The following table gives details for the year 1932–33 :—

**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.
1933 ..	1,000 gallons, 1,203,000	No. 11,127	Miles. 1,531	£ 3,931,123	£ 183,582	£ 172,538

(iv) *Water Supply of Other Towns.* During the year 1932–33 water supplied to other towns and districts amounted to 249,257,460 gallons distributed as follows :— Railways, 21,055,472 gallons; mines, 35,463,100 gallons; and 192,738,888 gallons to domestic and other consumers.

(v) *Agricultural Water Supply.* During the year 1932–33, no wells were sunk but three tanks were excavated. During the twenty-three years from the 1st July, 1910, to the 30th June, 1933, 494 tanks were built, 368 wells sunk, and 3,453 bores put down to a total depth of 152,671 feet. Of the bores mentioned, 518 yielded fresh and 287 stock water.

(vi) *Artesian and Sub-artesian Waters.* Up to the 30th June, 1933, the total number of bores put down in search of artesian or sub-artesian water was 254, 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, 1933, was £463,822, 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, 1933, amounted to £352,580. At the same date the number of tenements supplied in the city and suburbs was 10,784 and the length of reticulation mains was 132½ miles. The revenue for the year 1932–33 was £38,084.

(ii) *Hobart Sewerage System.* The revenue for the year ended 30th June, 1933, was £35,112. Up to that date 80½ miles of sewers had been laid in connexion with the original city system at a cost of £215,270 and 8,485 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 27½ miles of sewers, connecting with 1,519 tenements, have been constructed at a cost of £127,382. In New Town a total of 37½ miles of sewers has been laid, and 1,490 properties connected. The cost to 30th June, 1933, including surveys and sewerage outfall, was £112,257.

## § 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 188 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 1932-33 6,315 vessels entered the port as compared with 5,840 the previous year. The gross tonnage amounted to 16,303,678 and 14,481,862 in the years 1932-33 and 1931-32, respectively.

Since its inception, the Trust has incurred capital expenditure of £7,838,293 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, 1933, 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 1932-33, 143,015 tons of material were dredged at a cost of £6,274.

(b) *Finances.* The subjoined table gives particulars concerning the finances of the Trust for the year 1932-33 :—

**SYDNEY HARBOUR TRUST.—FINANCES.**

Year ended 30th June—	Revenue.				Working Expenditure.	Interest.	Deficiency.	Total Capital Debt.
	Wharfage and Harbour Rates.	Tonnage Rates and Berthing Charges.	Other Sources.	Total.				
	£	£	£	£	£	£	£	£
1933 ..	556,851	39,511	283,650	880,012	6321,902	4569,200	11,091	11,596,315

(a) Includes £41,657 sinking fund contributions.

(b) Includes £99,409 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, 1933, 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 1933 the quantity of material raised by dredging and excavation in the river and bay amounted to 2,221,284 barge yards at a cost of £68,658. The Trust has expended £343,480 in reclaiming land within its jurisdiction by depositing 16,277,731 barge yards of material thereon.

(b) *Finances.* During the year ended 31st December, 1933, the revenue (excluding refunds) of the Trust amounted to £579,583, and expenditure to £571,140 (including the amount of £111,089 paid to Consolidated Revenue). There was a net surplus on revenue account of £8,443. Appropriation for sinking fund and charges for depreciation, renewals and insurance against revenue account for the year amounted to £55,893. The capital expenditure for the year was £107,812. Up to the 31st December, 1933, the total capital expenditure amounted to £8,881,890. The loan indebtedness at the 31st December, 1933, was £4,494,812.

(ii) *Geelong Harbour Trust.* The Geelong Harbour Trust was constituted in 1905, and is under the control of three Commissioners appointed by the Governor in Council. Revenue for the year 1933 was £57,328. Expenditure from revenue was £56,472 and from loans £5,428, while loans outstanding at the end of that year amounted to £614,169.

(iii) *Harbour Boards.* The Harbour Boards Act of 1928 provides for the constitution of Harbour Boards for the following ports :—Gippsland Lakes; Welshpool; Warrnambool; Port Fairy; Portland. These ports have, hitherto, been under the

control of the Department of Ports and Harbours of Victoria. The first board to be constituted under this Act was the Warrnambool Harbour Board. The total income of this Board for the year ended 30th September, 1933, was £1,803, and the total expenditure was £1,190. The loans outstanding on 30th September, 1933, amounted to £5,291.

3. *Queensland.*—(i) *Bowen Harbour Board.* (a) *General.* 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.

(b) *Finances.* The capital expenditure for the year 1933 was £1,895, while for the same period the revenue was £13,033 and the expenditure £12,953.

(ii) *Bundaberg Harbour Board.* (a) *General.* 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.

(b) *Finances.* Revenue for the year 1933 amounted to £5,191 as compared with £3,481 in 1932, while expenditure for corresponding periods totalled £5,434 and £3,875 respectively, with interest and redemption on loans for the half-year ended 31st December, 1933 not yet paid.

(iii) *Cairns Harbour Board.* (a) *General.* 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 cold stores and mechanical sugar handling equipment. The total tonnage of outward cargo from the port for 1933 was 220,871 tons, of which sugar comprised approximately 75 per cent.

(b) *Finances.* The revenue of the Board, derived from harbour, berthage, and miscellaneous dues, etc., for the year 1933, was £51,588, and expenditure £56,521. The capital expenditure for the year 1933 was £1,031, and the total to the end of 1933 was £440,051.

(iv) *Gladstone Harbour Board.* (a) *General.* 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.

(b) *Finances.* The capital expenditure for the year 1933 was £311 and the total to the end of 1933 amounted to £92,109. The revenue for 1933 was £10,222, and the expenditure £10,081.

(v) *Mackay Harbour Board.* (a) *General.* 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.

(b) *Finances.* Capital expenditure for the year 1933 was £258 and the total expenditure £23,744; receipts were £16,659.

(vi) *Rockhampton Harbour Board.* (a) *General.* 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.



(b) *Finances.* The revenue for the year 1933 was £48,352; and the expenditure was £56,774. The capital expenditure for the year 1933 was £8,802, and the total to the end of 1933 was £759,536.

(vii) *Townsville Harbour Board.* (a) *General.* 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.

(b) *Finances.* The capital expenditure for the year 1933 was £520; the receipts for the year 1933 were £59,884, and the expenditure £56,185.

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) *Finances.* The following table gives financial data for the year 1932-33 :—

FREMANTLE HARBOUR TRUST.—FINANCES.

Year ended 30th June—	Revenue.	Expenditure.	Gross Amount Paid to the Treasury.				
			Interest.	Sinking Fund.	Renewals Fund.	Surplus Revenue.	Total.
	£	£	£	£	£	£	£
1933 .. ..	401,574	398,104	115,942	10,274	2,000	104,879	233,095

(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 1932-33 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 Expenditure.	Revenue.	Expenditure.	Paid to Consolidated Revenue Fund.
	£	£	£	£
1933 .. ..	445,074	19,737	(a)31,353	3,000

(a) Includes Interest on Capital Account (£20,628) paid from Consolidated Revenue and not from 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, 1933 :—  
**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.
1933 ..	£ 29,402	£ 37,338	£ 39,673	£ 1,907	£ 38,577	£ 40,484

(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, 1933 :—  
**MARINE BOARD OF LAUNCESTON.—FINANCES.**

Year ended 30th June—	Total Capital Debt.	Revenue.	Expenditure.
1933 .. .. .	£ 307,082	£ 49,257	£ 43,609

(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, 1933, were £20,136, and the expenditure £18,994, including £14,047 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 ¼d. 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, 1933, the Board had under its control 76 fire stations in the Sydney fire district and 138 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 1933 was £380,345, made up as follows :—From the Government, £93,188, municipalities and shires, £93,188; fire insurance companies, £185,693; firms, £683; and from other sources, £7,593. The disbursements for the year were £379,856.

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, 1933, the Board had under its control 43 stations. The total receipts for the year 1932-33 were £192,092, comprising contributions £156,416, receipts for services £21,106, and interest and sundries £14,570. The expenditure was £190,689, made up as follows:—Salaries (permanent staff) £101,498, interest and repayments of principal £18,530, and other expenditure £70,661. There was no loan expenditure during the year—the loan indebtedness at the end of the year being £212,826.

(iii) *Country Fire Brigades Board.* At 30th June, 1933, there were 120 municipal councils and 105 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 38 of the larger provincial cities and townships. There were 146 registered brigades at the end of June, 1933. For the year 1932-33 the revenue was £27,343 and the expenditure £27,576. The loan expenditure for the year amounted to £511, and at the close of the year the loan indebtedness was £33,285.

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, 1933, there were fire brigades in 29 towns. The total revenue for the year 1932-33 was £67,941, received mainly from the following sources:—Government £18,136, local authorities £17,787, and insurance companies £27,018. The total expenditure for the year was £67,135, the chief items being salaries and wages £45,102, buildings, repairs, etc., £4,122, and plant, stores, etc., £2,949.

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 1933 there were altogether 27 fire brigade stations. The total revenue for the year 1933 was £40,778.

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, 1933, were £48,423 and £48,703 respectively. The estimated value of land and buildings was £68,000 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 1933 amounted to £5,469.

## 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 2 hereunder for a conspectus of legislation at present in force.) Special paragraphs are devoted to the settlement of returned soldiers on the land, the tenure of land by aliens, 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 1913-1932: Western Lands Act 1901-1932. Prickly Pear Act 1924-1930.	Land Act 1928, 1932, 1933.	Land Acts 1910-1932. Upper Burnett and Callide Land Settlement Act 1923-1932. Prickly Pear Land Acts 1923-1932. Sugar Workers' Selections Act 1923-1932.
<b>CLOSER SETTLEMENT ACTS.</b>		
Closer Settlement Act 1904-1919. Closer Settlement and Returned Soldiers' Settlement (Amendment) Act 1927-1932.	Closer Settlement Act 1928-1929, 1930, 1931, 1932, 1933.	Closer Settlement Acts 1906-1932.
<b>MINING ACTS.</b>		
Mining Act 1906-1924: 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 1916-1928.	Closer Settlement Act (Part II.) 1928-1929, 1930, 1931, 1932, 1933.	Discharged Soldiers' Settlement Act 1917-1932.
<b>ADVANCES TO SETTLERS ACTS.</b>		
Government Savings Bank Act 1906-1932: Returned Soldiers' Settlement Act 1916-1928.	State Savings Bank Act 1915-1922: Primary Products Advances Act 1919-1922: Closer Settlement Act 1928-1929, 1930, 1931, 1932: Fruit Act 1915-1920: Cultivation Advances Act 1931, 1932, 1933.	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.
CROWN LANDS ACTS.		
Crown Lands Act 1929-1933 : Pastoral Act 1904-1929.	Land Act 1933.	Crown Lands Act 1911-1924- 1931.
CLOSER SETTLEMENT ACTS.		
Crown Lands Act 1929-1933.	Closer Settlement Act 1927.	Closer Settlement Act 1913-1924, 1929.
MINING ACTS.		
Mining Act 1930-1931.	Mining Act 1904-1933 : Sluicing and Dredging for Gold Act 1899.	Mining Act 1917-1929 : Aid to Mining Act 1924.
RETURNED SOLDIERS' SETTLEMENT ACTS.		
Discharged Soldiers' Settlement Act 1917-1931.	Discharged Soldiers' Settlement Act 1918-1919.	Returned Soldiers' Settlement Act 1916-1923.
AGRICULTURAL GRADUATES SETTLEMENT ACTS.		
Agricultural Graduates Act 1922.	..	..
ADVANCES TO SETTLERS ACTS.		
Irrigation Act 1930 to 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 1906-1931.	State Advances Act 1907-1927 : Advances to Fruit-growers Act 1918-1921 : Closer Settlement Act 1913-1929 : Returned Sol- diers' Settlement Act 1916- 1923. Advances to Farmers to Relieve Unemployment.

3. **Northern Territory Land Legislation.**—In the Northern Territory of Australia the legislation relating to Crown lands is embodied in the Crown Lands Ordinance 1931-1933, 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 Wire and Wire Netting Act 1927, and 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 1924-1929, 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 Lands 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 auxiliary 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 only leases are issued.

STATE CROWN LANDS—TENURES.

New South Wales.	Victoria.	Queensland.
FREE GRANTS AND RESERVATIONS.		
Free Grants : Reservations.	Free Grants : Reservations.	Free Grants : Reservations.
UNCONDITIONAL PURCHASES OF FREEHOLD.		
Auction Sales : After-auction Purchases : Special Purchases : Improvement Purchases.	Auction Sales.	
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.	

STATE CROWN LANDS—TENURES—*continued.*

New South Wales.	Victoria.	Queensland.
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LEASES AND LICENCES UNDER LAND ACTS.

<p>Conditional Leases : Conditional Purchase Leases : Special Conditional Purchase Leases : Homestead Selections : Homestead Farms : Settlement Leases : Special Leases : Annual Leases : Scrub Leases : Snow Leases : Inferior Lands Leases : Crown Leases : Improvement Leases and Leases under Improvement Conditions : Occupation Licences : Leases of Town Lands : Suburban Holdings : Weekend Leases : Residential Leases : Leases in Irrigation Areas : Western Lands Leases : Forest Leases : Forest Permits.</p>	<p>Perpetual Leases : Auriferous Lands Licences : Leases of Swamp or Reclaimed Lands : Perpetual Leases of Swamp or Reclaimed Lands : Grazing Licences : Perpetual Leases (Mallee) : Miscellaneous Leases and Licences : Bee Farm Licences : Bee Range Area Licences : Eucalyptus Oil Licences : Forest Leases : Forest Licences : Forest Townships.</p>	<p>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.</p>
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CLOSER SETTLEMENT.

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

<p>Holdings under Miners' Rights : Gold Mining Leases : Mineral Leases : Coal and Oil Mining Leases : Business Licences : Residence Areas.</p>	<p>Holdings under Miners' Rights : Gold Mining Leases : Mineral Leases : Business Areas : Residence Areas.</p>	<p>Holdings under Miners' Rights : Permits to Prospect for Petroleum : Petroleum Leases : Licences to Prospect for Coal and Mineral Oil : Gold Mining Leases : Mineral Leases : Coal Mining Leases : Business Areas : Residence Areas : Miners' Homestead Leases and Miners' Homestead Perpetual Leases.</p>
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SETTLEMENT OF DISCHARGED SOLDIERS AND SAILORS.

<p>Soldiers' Group Purchases : Returned Soldiers' Special Holding Leases : Returned Soldiers' Special Holding Purchases : also Purchases and Leases under Crown Lands Act of lands set apart for application by discharged soldiers exclusively.</p>	<p>(Same Tenures as under the Land and Closer Settlement Acts.)</p>	<p>Perpetual Lease Selections : Perpetual Town and Suburban Leases.</p>
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STATE CROWN LANDS—TENURES—*continued.*

South Australia.	Western Australia.	Tasmania.
<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 Residence : Conditional Purchases without Residence : Conditional Purchases by Direct Payment : Conditional Purchases of Land for Vineyards, etc. : Conditional Purchases of Inferior Lands : Conditional Purchases by Pastoral Lessees : Conditional Purchases of Grazing Lands : Homestead Farms : Village Allotments : Workingmen's Blocks : Special Settlement Leases.	Selections for Purchase : Additional 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 Perpetual Leases (Free Period) : Perpetual Leases of Homestead Blocks : Miscellaneous Leases : Licences : Pastoral Leases : Irrigation Blocks : Town Allotments in Irrigation Areas : Forest Leases.	Pastoral Leases : Special Leases : Leases of Town and Suburban Lands.	Grazing Leases : Pastoral Leases : Leases of Land covered with Button Grass, etc. : Leases of Mountainous Land : Miscellaneous Leases : Temporary Licences : Occupation Licences : Residence Licences : Business Licences : Forest Leases, Licences and Permits.
<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 Purchase : 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 1932–33 the total area for which free grants were prepared was 1,189 acres, including grants of 1,162 acres of land resumed under the 12th clause of the Public Roads Act 1902. During the same period 433 acres were dedicated and permanently reserved the number, of separate dedications being 49.

On the 30th June, 1933, the total area reserved, including temporary reserves, was 16,663,337 acres, of which 5,245,188 acres were for travelling stock, 2,154,653 acres for forest reserves, 992,282 acres for water and camping, 1,149,612 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 1932, 432 acres were granted without purchase, and reservations of both a permanent and temporary nature, comprising a net area of 18,450 acres, were made. At the end of 1932, the total area reserved was 7,998,300 acres, consisting of roads, 1,794,218 acres; water reserves, 311,450 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, 371,027 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 1933 free grants were issued for a total area of 50 acres. During the same year reserves comprising 3,264 acres were proclaimed. At the 30th June, 1933, the total area reserved was 16,441,800 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, 1933, a few small areas of land were granted in fee-simple, and approximately 92,155 acres were reserved for various purposes. At the 30th June, 1933, the total area reserved was 40,428,777 acres, comprising State forests, 2,971,012 acres, timber reserves, 1,430,542 acres, and other reserves, 36,027,223 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, 1933, was 71,279 square miles, comprising aboriginal native, 67,124 square miles, prospecting for mineral oil and coal, 1,000 square miles, mission station, 1,225 square miles, and other reserves, 1,930 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, at prices determined by the local land board, to recognized religious bodies and public authorities.

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

(v) *Areas Sold.* During the year ended 30th June, 1933, the total area sold was 450 acres, of which 163 acres were sold by auction and 125 acres as after-auction purchases, while 8 acres were sold as improvement purchases and 154 acres as special purchases. The amount realized for the sale of the whole area was £3,020.

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 1932, a total of 985 acres was disposed of under this tenure, 601 acres being country lands, while 384 acres of town and suburban lands were sold by auction.

3. *Queensland.*—(i) *General.* During the years 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. By amended legislation passed in 1929, power was given to make land available under freeholding tenures. The provision in the 1929 Act conferring this power was, however, 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 freeholding basis.

(iii) *Areas Sold, etc.* During the year 1932, 3,376 acres were sold at auction, and 72 unconditional selections comprising an area of 16,321 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 for 6 years without the consent of the Commissioner.

(ii) *Areas Sold, etc.* During the year ended 30th June, 1933, the area of town lands and special blocks sold by auction was 64 acres. In addition, 11,390 acres were sold at fixed prices, and the purchases of 10,193 acres on credit were completed, making a total of 21,647 acres.

5. **Western Australia.**—(i) *Sales by Auction.* Town, suburban, and village lands, after being surveyed into lots and notified in the *Gazette*, must be sold by auction. 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, until that is effected, no Crown grant may be issued.

(ii) *Areas Sold.* During the year ended 30th June, 1933, the area of town and suburban allotments sold was 841 acres in 274 allotments.

6. **Tasmania.**—(i) *Sales by Auction.* Town lands may be sold by auction for cash or on credit, no conditions being imposed beyond the payment of the purchase money. 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 town land in a mining area may be sold by auction for cash, provided that any person, being the holder of a residence licence or business licence in lawful occupation of a residence area or business area and the owner of permanent improvements of a value equal to or greater than the upset price, is entitled to purchase such area at the upset price, prior to the sale by auction. The upset price of the unimproved value must not be less than £10, and the area must not exceed  $\frac{1}{2}$  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, 1933, the total number of conditional purchases in existence was 62,177, covering an area of 20,073,559 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, 1933, together with the total area for which deeds had been issued up to 30th June, 1933 :—

#### CONDITIONAL PURCHASES, NEW SOUTH WALES.

Year ended 30th June—	Applications Received. (a)		Applications Confirmed.(a)		Areas for which Deeds have been Issued.	
	Number.	Area.	Number.	Area.	During the Year.	To end of Year.
		Acres.		Acres.	Acres.	Acres.
1933.. ..	161	32,592	120	19,464	313,323	24,660,987

(a) Exclusive of conversions from other tenures.

3. **Victoria.**—Exclusive of selection in the Mallee country, the total area purchased conditionally in 1932 was 44,255 acres, comprising 43,827 acres with residence and 428 acres without residence. The number of selectors was 257.

The total area of Mallee country purchased conditionally in the same year was 43,416 acres, all with residence, the number of selectors being 91.

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 any class of selection which gave the selector the right to acquire the freehold title. The 1929 measure, however, amended the law in this respect. A further amendment of the law which took effect on the 1st December, 1932, precludes land being made available under any tenure where a freeholding title is obtainable.

(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 1932-33 was 51,382 acres, comprising Eyre's Peninsula Railway Lands 32,651 acres, Murray Railway Lands 6,038 acres, Pinnaroo Railway Lands 1,405 acres, Closer Settlement Lands 2,342 acres, Buckleboo Railway Lands 651 acres, Soldier Settlement Lands 1,877 acres, repurchased for Homestead Blocks 34 acres, and other Crown lands 6,384 acres.

6. **Western Australia.**—During the year ended the 30th June, 1933, the number of holdings for which Crown grants were issued was 1,540, covering free homestead farms 24,485 acres and conditional purchases 454,021 acres. The number of holdings conditionally alienated for the year was 841, the total area affected being 462,412 acres, comprising conditional purchases by deferred payments with residence and without residence of 421,936 and 12,205 acres respectively, conditional purchases by direct payments (without residence) 873 acres, and free homestead farms 27,398 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). A summary respecting land held under leases and licences will be found at the end of this chapter.

2. **New South Wales.**—On the 30th June, 1933, 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 108,756,359 acres of Crown lands, compared with 109,137,569 acres at the close of the previous year.

The following table shows the areas which were granted under lease or licence during the year 1932-33, 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, 1932-33.(a)

Particulars.	Area taken up during the year.	Area occupied at end of year.
<i>Areas taken up under Crown Lands Act.</i>		
	Acres.	Acres.
Outgoing pastoral leases .. .. .	..	87,590
Occupation licences—ordinary .. .. .	..	1,000,696
preferential .. .. .	..	584,892
Conditional leases .. .. .	42,806	11,697,095
Conditional purchase leases .. .. .	57	164,180
Settlement leases .. .. .	3,612	2,770,371
Improvement leases .. .. .	12,000	375,875
Annual leases .. .. .	60,574	757,096
Scrub leases .. .. .	1,320	147,216
Snow leases .. .. .	58,605	330,958
Special leases .. .. .	100,794	794,537
Inferior land leases .. .. .	..	51,992
Residential leases (on gold and mineral fields) .. .. .	239	8,008
Church and school lands .. .. .	..	11
Permissive occupancies .. .. .	418,138	1,220,532
Prickly-pear leases .. .. .	24,052	95,696
Crown leases .. .. .	282,702	5,965,049
Homestead farms .. .. .	48,378	4,225,936
Homestead selections and grants .. .. .	3,386	1,522,901
Suburban holdings .. .. .	2,072	51,420
Week-end leases .. .. .	8	195
Leases of town lands .. .. .	..	70
Returned soldiers' special holdings .. .. .	..	16,391
Irrigation farms and blocks .. .. .	18,646	358,076
<i>Areas taken up under Western Lands Act.</i>		
Leases .. .. .	94,626	76,094,463
Permissive occupancies .. .. .	50,704	435,113
<b>Total .. .. .</b>	<b>1,222,719</b>	<b>108,756,359</b>

(a) See also § 7 (1) hereinafter.

3. Victoria.—During 1932 the area of Crown lands taken up under leases and licences was 87,671 acres, comprising Mallee lands, 43,416 acres, and other lands, 44,255 acres. The area of Crown lands occupied under leases and licences in 1932 was 5,189,973 acres (a decrease of 123,714 acres compared with the previous year), comprising grazing licences (exclusive of Mallee) 3,362,423 acres, Mallee lands 1,706,168 acres, auriferous lands (licences) 32,713 acres, swamp lands (leases) 2,092 acres, perpetual leases (other than Mallee) 4,977 acres, and perpetual leases (Mallee) under Land Act 1928, 81,600 acres.

4. Queensland.—(i) *General.* In preceding issues of the Official Year Book reference was made to the methods of obtaining leases and licences of Crown lands (see No. 22, pp. 155-7). The Land Acts Amendment Act of 1929, however, amended the law considerably. Further amendments of the law as made in the 1932 Act, taking effect from the 1st December of that year, nullify the provisions in the Act of 1929 relating to freeholding tenures.

(ii) *Areas taken up under Lease or Licence.* The total area taken up under lease or licence during the year 1932 was 24,516,106 acres, made up as follows:—Pastoral leases 19,263,640 acres; occupation licences 805,320 acres; grazing farms (all classes), 1,995,889 acres; grazing homesteads (all classes), 639,633 acres; perpetual lease selections 124,858 acres; perpetual lease prickly-pear selections 61,487 acres; agricultural farms 56,984 acres; agricultural homesteads 27,406 acres; prickly-pear selections 40,862 acres; prickly-pear development selections 908,651 acres; perpetual lease prickly-pear development selections 453,458 acres; auction perpetual leases—town 53 acres, suburban 89 acres, and country 1,512 acres; special leases 48,367 acres; leases of reserves 54,477 acres, and prickly-pear leases 33,400 acres.

The following particulars are available respecting selections taken up in 1933:—

Grazing farms .. .. .	439,470 acres.
Grazing homesteads .. .. .	819,591 "
Perpetual lease selections .. .. .	122,321 "
Perpetual lease prickly-pear selections .. .. .	34,960 "
Agricultural farms .. .. .	2,503 "
Prickly-pear selections .. .. .	2,708 "
Agricultural homesteads .. .. .	183 "
Prickly-pear development grazing farms .. .. .	2,011,838 "
Prickly-pear development grazing homesteads .. .. .	1,053,391 "
Prickly-pear development selections .. .. .	71,868 "
Perpetual lease prickly-pear development selections .. .. .	692,990 "

The gross area held at the end of the year 1932 under pastoral tenure was 377,682 square miles.

Fifteen non-competitive perpetual leases were issued during 1932, the total area being 240 acres.

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 1932-33 under the different forms of lease tenure was 3,558,494 acres, made up as follows:—Perpetual leases—irrigation and reclaimed lands 708 acres, non-irrigable land in irrigation areas 21,238 acres, and other Crown lands 50,143 acres; pastoral leases 3,402,880 acres; and miscellaneous leases—grazing and cultivation 82,900 acres, and forest lands 625 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, 1933, was 582, and the total area of leases issued 3,281,533 acres, comprising pastoral leases 3,206,777 acres, special leases 3,258 acres, and leases of reserves 71,498 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 of the 30th June, 1933, was 221,120 square miles, comprising pastoral leases 197,759 square miles, pastoral permits 1,429 square miles, grazing licences 21,398 square miles, agricultural leases 135 square miles and miscellaneous leases, including water leases, 399 square miles.

9. *Federal Capital Territory.*—At the 30th June, 1933 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, 292,480 acres; and unoccupied (including Cotter River catchment area, roads, reserves, etc.), 184,002 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 1924-1929 to the 30th June, 1934 (excluding leases surrendered and determined) was 300, representing a capital value of £162,130.

Eight 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.

Eight 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, 1933, 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 opened up to the 30th June, 1933 :—

#### 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.	£	£	£
1933.. ..	4,028,694	204,823	4,233,517	14,568,595	352,597	14,921,192

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

The total area is now embraced in 9,156 holdings, comprising 4,128,480 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, 1933 :—

#### 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.	£	£
1933 .. ..	8,967	4,128,406	15,987,871	8,353,838



3. **Victoria.**—The following statement shows the operations under the provisions of the Closer Settlement Acts to the 30th June, 1933 :—

**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.	No.	£	£	Acres.	
1933	1,182,729	8,735,795	1,004,466	796	3,498	53,140	7,806	8,090	10,371,885	4,025,180	31,341

(a) Includes all land sold other than under Conditional Purchase Lease.

4. **Queensland.**—The total area acquired to 30th June, 1933, was 970,778 acres, costing £2,292,881. The following are the particulars of transactions under the Closer Settlement Act up to 30th June, 1933 :—Total area selected 914,100 acres ; number of selections 3,046 ; agricultural farms 2,155 ; unconditional selections 257 ; perpetual lease selections 542 ; prickly-pear selections 9 ; perpetual lease prickly-pear selections 6 ; area sold by auction 13,038 acres ; and number of settlement farm leases 77.

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, 1933 :—

**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.				
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1933 ..	786,625	512,664	321	1,240	31,772	80	206,566	33,982

The total area repurchased at 30th June, 1933, was 786,625 acres. The purchase money was £2,532,440. Of the total area, 752,643 acres have been allotted to 2,730 persons, the average area to each being 276 acres.

6. **Western Australia.**—The total area acquired for closer settlement up to the 30th June, 1933, 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, 1933, are as follow :—Area selected during the year 4,200 acres ; number of farms, etc., allotted to date 1,470 ; total area occupied to date 676,962 acres ; balance available for selection 204,281 acres ; and total revenue £796,800.

7. Tasmania.—Up to the 30th June, 1933, 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, 1933 :—

**CLOSER SETTLEMENT.—TOTAL AREAS ACQUIRED AND ALLOTTED AT 30th JUNE, 1933.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Area acquired(a) acres	4,233,517	1,182,729	970,778	786,625	907,823	101,231	8,182,703
Purchase price (b) £	14,568,595	8,679,905	2,292,881	2,532,440	1,180,443	366,099	29,620,363
Farms, etc., allotted	No. 8,967	(c) 8,090	3,046	2,730	1,470	310	24,613
acres	4,128,406	1,143,582	914,100	752,643	676,962	101,231	7,710,924

(a) Includes Crown lands—New South Wales, 204,823 acres; Victoria, 113,346 acres; Tasmania, 10,000 acres. (b) Private lands only. (c) Includes 697 allotments of a total area of 81,682 Acres granted to discharged soldiers under the Discharged Soldiers Settlement Acts.

**§ 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 1932-33 :—

**AREAS TAKEN UP UNDER MINING ACTS.—NEW SOUTH WALES, 1932-33.**

Purposes for which Issued or Occupied.					Areas Taken up during Year.	Total Areas Occupied at End of Year.
					Acres.	Acres.
Gold-mining .. .. .	..	..	..	..	4,685	10,475
Mining for other minerals	..	..	..	..	2,611	195,371
Authorities to prospect ..	..	..	..	..	30,844	63,834
Other purposes .. .. .	..	..	..	..	745	21,248
Total	..	..	..	..	38,885	290,928

3. Victoria.—During the year 1933, 263 leases, licences, etc., were issued covering an area of 33,960 acres, the rent, fees, etc., for which amounted to £1,681. The area occupied at the end of the year was 113,870 acres.

4. Queensland.—During the year 1933, the number of miners' rights issued was 8,119, and of business licences 14. The following table gives particulars regarding the areas of lands taken up under lease or licence, and the total areas occupied for the year 1933. In addition, an area estimated at 30,000 acres was at the end of 1933 held under miners' rights and dredging claims.

AREAS TAKEN UP UNDER MINING ACTS.—QUEENSLAND, 1933.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining .. .. .	4,572	9,646
Mining for other minerals .. .. .	647	22,028
Coal-prospecting licences .. .. .	..	400
Miners' homestead leases .. .. .	8,282	333,204
Petroleum-prospecting permits .. .. .	97,616	155,068
<b>Total .. .. .</b>	<b>111,117</b>	<b>520,346</b>

5. South Australia.—The following table gives particulars of operations for the year 1933 :—

AREAS TAKEN UP UNDER MINING ACTS.—SOUTH AUSTRALIA, 1933.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining leases .. .. .	418	1,601
Mineral and miscellaneous leases .. .. .	3,174	34,298
Claims .. .. .	8,500	6,415
Search licences and permits .. .. .	60,800	74,240
Occupation licences .. .. .	5	54
<b>Total .. .. .</b>	<b>72,897</b>	<b>116,608</b>

6. Western Australia.—The following table gives particulars of operations for the year 1933, the figures being exclusive of holdings under miners' rights and mineral oil licences. Of the areas shown as taken up in 1933, the area under lease was 6,063 acres for gold-mining, 150 for mining for other minerals, and 230 for miners' homesteads—a total of 6,523 acres. The balance was taken up under licences.

AREAS TAKEN UP UNDER MINING ACTS.—WESTERN AUSTRALIA, 1933.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining .. .. .	62,744	37,820
Mining for other minerals .. .. .	3,597	51,316
Other purposes .. .. .	459	33,644
<b>Total .. .. .</b>	<b>66,800</b>	<b>122,780</b>

7. Tasmania.—During the year 1933, the number of leases issued was 205, of which 45 were for gold-mining, covering 827 acres; and 62 for tin, covering 2,791 acres. The following table gives particulars of operations for the year 1933:—

AREAS TAKEN UP UNDER MINING ACTS.—TASMANIA, 1933.

Particulars.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
	Acres.	Acres.
Gold-mining .. .. .	923	3,879
Mining for other minerals .. .. .	3,119	24,229
Licences to search for coal or oil .. .. .	470	790
Other purposes .. .. .	299	2,499
<b>Total .. .. .</b>	<b>4,811</b>	<b>31,397</b>

8. Northern Territory.—At the 30th June, 1933, there existed 20 mineral leases comprising 505 acres, and 19 gold-mining leases comprising 740 acres. There were also 250 protected gold-mining lease applications comprising 7,331 acres, 68 protected mineral lease applications comprising 2,121 acres, and 2 protected dredging lease applications comprising 120 acres. In addition, 7 exclusive prospecting licences covering approximately 15 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 mining purposes for the years 1923, 1928 and 1933:—

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)
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AREAS FOR WHICH LEASES AND LICENCES ISSUED DURING YEAR.

	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	1,793,028	196,521	47,975	23,910	2,095,108
1933 ..	38,885	33,960	111,117	72,897	66,800	4,811	328,470

TOTAL AREAS OCCUPIED AT END OF YEAR.

1923 ..	307,336	47,361	444,586	653,899	127,829	77,627	1,658,638
1928 ..	293,205	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

(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. 10-18, *et seq.*, 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, 1933, the area set apart exclusively for soldiers was 9,754,349 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, 1933, was 9,543. Farms, etc., occupied at that date numbered 5,575 with an area of 7,966,178 acres, of which 6,354,618 acres were Crown lands (including 3,985,887 acres in the Western Division taken up under the Western Lands Act), 1,508,439 acres of acquired lands, and 103,121 acres within Irrigation Areas.

3. **Victoria.**—At the 30th June, 1933, the area acquired or set apart for soldier settlement was 2,512,013 acres, of which 1,763,238 acres comprised private land purchased at a cost of £13,361,211. Up to the 30th June, 1933, the number of settlers to whom farms, etc., had been allotted was 10,728, and the number of farms, etc., allotted was 9,695 (including 734 farms originally purchased for Closer Settlement purposes) containing 2,423,991 acres. In addition, 773 share-farmers and holders of leasing agreements and private land had received assistance. The number of farms, etc., occupied at the 30th June, 1933, was 9,198 (including 651 originally purchased for Closer Settlement) containing 2,349,749 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, 1933, 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, 1933, was 4,180, and the area of farms, etc. (including mortgages discharged), on which assistance had been granted was 2,740,484 acres. At the 30th June, 1933, farms, etc., occupied numbered 2,270, containing 1,827,567 acres.

6. **Western Australia.**—At the 30th June, 1933, 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, 1933, assistance had been given to 5,213 returned soldiers, and the Agricultural Bank held 3,565 properties as security for advances. The area held, including pastoral leases, was approximately 25,864,000 acres, and advances approved amounted to £6,637,986. The number of farms, etc., occupied at the 30th June, 1933, was 2,422.

7. **Tasmania.**—At the 30th June, 1933, 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 £2,013,913. Up to the 30th June, 1933, 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, 1933, was 2,105 containing 323,641 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, 1933 :—

**SOLDIER SETTLEMENT.—AREAS ACQUIRED, SETTLERS ASSISTED AND FARMS OCCUPIED—30th JUNE, 1933.**

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	1,763,238	41,101	61,202,653	345,110	270,227	5,332,601
(ii) Crown lands set apart acres	8,044,077	748,775	536,532	133,959	13,942,533	69,365	23,475,241
<b>Total land acquired or set apart .. acres</b>	<b>9,754,349</b>	<b>2,512,013</b>	<b>577,633</b>	<b>1,336,612</b>	<b>14,287,643</b>	<b>339,592</b>	<b>28,807,842</b>
Price paid by Government for private land acquired £	8,113,956	13,361,211	270,480	63,863,572	605,076	2,013,913	28,228,208
Number of settlers to whom farms, etc., had been allotted up to the 30th June, 1933	9,543	(c) 10,728	(d)	(e) 4,180	5,213	2,378	(d)
Farms, etc., occupied at the 30th June, 1933	5,575	(f) 9,198	1,148	2,270	2,422	2,105	22,718
No. of farms, etc., occupied at the 30th June, 1933	7,966,178	2,349,749	440,992	1,827,567	(d)	323,641	(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 773 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
Total .. ..	23,525,522	11,762,760	9,762,983	2,447,781

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, 1933. The remissions which have been agreed upon but still await legislative ratification 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, 1933.

State.	Number of Settlers.		Total Advances.	Repay-ments by States.	Remissions by Com-monwealth. (a)	Loans Out-standing. (a)
	Originally.	Remaining.				
			£	£	£	£
New South Wales ..	9,302	6,649	9,826,203	20,219	2,274,722	7,531,262
Victoria .. ..	11,140	9,249	11,968,176	174,101	2,160,960	9,633,115
Queensland .. ..	6,031	3,617	2,717,697	17,114	612,233	2,088,350
South Australia ..	4,082	2,754	2,857,780	24,775	1,371,988	1,461,017
Western Australia ..	5,030	3,545	5,463,782	32,580	796,000	4,635,202
Tasmania .. ..	1,976	777	2,168,303	38,740	381,880	1,747,683
Total .. ..	37,561	26,591	35,001,941	307,529	7,597,783	27,096,629

(a) The remissions shown have been agreed upon but still await legislative ratification.

The figures in the above table relating to the number of settlers, are taken from Mr. Justice Pike's report.

§ 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, 1933 :—

ADVANCES TO SETTLERS.—NEW SOUTH WALES.

Particulars.	Advances made during 1932-33.	Total Advances at 30th June, 1933.	Amount outstanding at 30th June, 1933.	
			Number of Persons.	£
	£	£		
Rural Bank Advances .. ..	192,473	27,292,865	(a)11,951	13,920,792
Soldier Settlement Advances .. ..	61,332	7,725,926	4,516	2,450,301
Advances for Purchase of Wire Netting	114,413	1,204,195	4,722	462,835
Advances to Necessitous Farmers .. ..	223,571	5,473,419	4,473	1,204,494
Advances to Civilian Settlers on Irrigation Areas .. ..	26,496	362,964	306	249,096
Shallow Boring Advances .. ..	17,084	651,823	1,354	253,903
<b>Total .. ..</b>	<b>635,369</b>	<b>42,711,192</b>	<b>27,322</b>	<b>18,541,421</b>

(a) This number is approximate only and represents the number of borrowers from the Bank. One borrower may have more than one advance account, such as :—Ordinary advance, and Bank overdraft.

3. Victoria.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1933 :—

ADVANCES TO SETTLERS.—VICTORIA.

Authority Making Advances.	Advances made to—	Advances made during 1932-33.	Total Advances at 30th June, 1933.	Amount outstanding at 30th June, 1933.	
				Number of Persons.	£
		£	£		
Crédit Foncier	Civilians .. ..	59,378	10,167,463	5,255	4,770,461
	Discharged soldiers .. ..	2,246	834,422	516	531,173
Closer Settlement Commission	Closer Settlement settlers .. ..	389,195	219,201,367	8,159	210,869,516
	Soldier settlers .. ..	204,382	227,905,331	5,670	218,598,229
Treasurer .. ..	Cultivators of land .. ..	204,676	1,176,003	1,300	585,197
	Cool stores, canneries, etc. .. ..	..	615,182	(b) 21	356,741
<b>Total .. ..</b>	<b>.. ..</b>	<b>859,877</b>	<b>59,899,768</b>	<b>20,921</b>	<b>35,711,317</b>

(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, 1933 :—

ADVANCES TO SETTLERS.—QUEENSLAND.

Act under which Advances were made.	Advances made during 1932-33.	Total Advances at 30th June, 1933.	Amount outstanding at 30th June, 1933.	
			Number of Persons.	£
	£	£		
Agricultural Bank Acts .. ..	304,923	6,594,291	6,566	2,237,169
Discharged Soldiers' Settlement Act (a)	8,913	2,424,292	2,286	940,902
Water Facilities .. ..	6,797	86,827	366	75,046
Wire Netting, Marsupial Proof Fencing, etc. .. ..	28,400	793,336	3,768	463,003
Seed Wheat .. ..	3,980	(b) 65,912	(c)	11,424
Drought Relief .. ..	..	67,381	1,471	44,398
<b>Total .. ..</b>	<b>353,013</b>	<b>10,032,039</b>	<b>14,457</b>	<b>3,771,942</b>

(a) Includes advances to group settlements through the Lands Department, as well as advances through the Agricultural Bank. (b) Includes accrued interest to 30th June, 1933. (c) Not available.

5. South Australia.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1933 :—

ADVANCES TO SETTLERS.—SOUTH AUSTRALIA.

Particulars.	Advances made during 1932-33.	Total Advances at 30th June, 1933.	Amount outstanding at 30th June, 1933.	
			Number of Persons.	£
	£	£		
<b>Department of Lands—</b>				
Advances to soldier settlers .. ..	50,141	5,249,070	1,487	3,721,915
Advances to blockholders .. ..	..	41,451	8	58
Advances for sheds and tanks .. ..	..	75,693	350	58,658
Advances in drought-affected areas ..	298	2,043,808	3,714	1,180,450
Advances under Farmers Relief Acts (b) .. ..	607,438	1,183,661	2,955	482,113
Advances under Closer Settlement Acts .. ..	8,933	2,429,080	1,326	1,511,259
Advances under Agricultural Graduates Settlement Act .. ..	..	22,563	11	22,123
<b>Irrigation Branch—</b>				
Advances to Civilians .. ..	546	257,924	411	135,538
Advances to Soldier Settlers .. ..	5,643	41,101,796	783	1,007,131
<b>State Bank of South Australia (C. F. Department) .. ..</b>	<b>30,284</b>	<b>4,768,797</b>	<b>2,172</b>	<b>1,263,057</b>
Advances to settlers for improvements .. ..	18,954	835,303	1,425	456,180
Advances under Vermin and Fencing Acts .. ..	10,199	1,280,123	6,689	474,931
Advances under Loans to Producers Act .. ..	4,885	264,250	260	229,001
<b>Total .. ..</b>	<b>737,321</b>	<b>19,553,519</b>	<b>21,591</b>	<b>10,542,414</b>

(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, 1933 :—

## ADVANCES TO SETTLERS.—WESTERN AUSTRALIA.

Particulars.	Advances made during Year 1932-33.	Total Advances at 30th June, 1933.	Amount outstanding at 30th June, 1933 (inclusive of interest).	
			Number of Persons.	£
	£	£		
Development loans .. ..	114,338	9,180,674	8,526	6,495,501
Soldier settlement loans .. ..	204	5,990,016	3,565	5,128,634
Advances to rural industries .. ..	..	31,017	7	41,536
Cropping advances .. ..	1,028	13,049,543	1,425	1,883,682
Group Settlement advances .. ..	185,780	2,211,714	1,716	2,538,739
<b>Total .. ..</b>	<b>301,350</b>	<b>30,462,964</b>	<b>15,249</b>	<b>16,088,092</b>

7. Tasmania.—The following table gives particulars respecting advances, etc., under State Authorities to 30th June, 1933 :—

## ADVANCES TO SETTLERS.—TASMANIA.

Authority making Advances.	Particulars.	Advances made during 1932-33.	Total Advances to 30th June, 1933.	Amount outstanding at 30th June, 1933.	
				Number of Persons.	£
		£	£		
Agricultural Bank	State Advances Act and Rural Credits	25,463	495,035	983	329,216
"	Orchardists' Relief, 1926 .. ..	..	46,832	166	8,857
"	Unemployed (Assistance to Primary Producers) Relief Act .. ..	34,720	64,440	844	58,057
Minister for Lands	Soldier Settlers .. ..	4,996	710,473	1,389	(a)191,423
" "	Closer Settlers .. ..	1,454	35,293	157	17,614
<b>Total .. ..</b>	<b>.. ..</b>	<b>66,633</b>	<b>1,352,073</b>	<b>3,539</b>	<b>605,167</b>

(a) Exclusive of £42,251 advances capitalized and £49,899 advances written off to bad debts.

8. Northern Territory.—During the financial year 1932-33 the amount of £413 was advanced, the total amount advanced to 30th June, 1933, was £22,768 (approximately). The balance outstanding from 87 settlers, at 30th June, 1933, including interest was £15,219.

9. Summary of Advances.—The following table gives a summary for each State and Northern Territory to the 30th June, 1933 :—

## ADVANCES TO SETTLERS.—AUSTRALIA.

State.	Advances made during 1932-33.	Total Advances made to 30th June, 1933.	Amount outstanding at 30th June, 1933.	
			Number of Persons.	£
	£	£		
New South Wales .. ..	635,369	42,711,192	27,322	18,541,421
Victoria .. ..	859,877	59,899,768	20,921	35,711,317
Queensland .. ..	353,013	10,032,039	14,457	3,771,942
South Australia .. ..	737,321	19,553,519	21,591	10,542,414
Western Australia .. ..	301,350	30,462,964	15,249	16,088,092
Tasmania .. ..	66,633	1,352,073	3,539	605,167
Northern Territory .. ..	413	22,768	87	15,219
<b>Total .. ..</b>	<b>2,953,976</b>	<b>164,034,323</b>	<b>103,166</b>	<b>85,275,572</b>

### § 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. 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.**—At the 30th June, 1933, of the total area of New South Wales, 22.6 per cent. had been alienated, 11.7 per cent. was in process of alienation, 55.1 per cent. was held under leases and licences, and the remaining 10.6 per cent. was unoccupied.

The following table gives particulars for the year ended 30th June, 1933 :—

#### ALIENATION AND OCCUPATION OF CROWN LANDS.—NEW SOUTH WALES, 1932-33.(a)

Particulars.	Acres.	Particulars.	Acres.
		<i>2. In Process of Alienation.</i>	
<i>1. Alienated.</i>		Conditional purchases .. ..	20,073,559
Granted and sold prior to 1862 ..		Closer settlement purchases .. ..	2,734,588
Sold by auction and other sales, 1862 to date .. ..		Soldiers' group purchases .. ..	419,536
Conditionally sold, 1862 to date ..		Other forms of sale .. ..	24,974
Granted under Volunteer Land Regulations, 1867 to date .. ..		Total .. ..	23,252,657
Granted for public and religious purposes .. ..		<i>3. Held under Leases and Licences.</i>	
.. ..		Total under Lands Department, Water Conservation and Irriga- tion Commissioner, and Western Lands Commissioners ..	108,756,359
.. ..		Mineral and auriferous leases and licences (Mines Department) ..	290,928
.. ..		Total .. ..	109,047,287
47,263,383		<i>4. Unoccupied (b) (approximate)</i>	
Less lands resumed or reverted to Crown .. ..		21,050,602	
.. ..			
2,580,649			
Total .. ..			
44,682,734			

Area of State—198,036,500 acres.

(a) Exclusive of Lord Howe Island, 3,220 acres. (b) Of this area only 5,065,512 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 47.0 per cent. had been alienated up to the end of the year 1932; 12.6 per cent. was in process of alienation under deferred payments and closer settlement schemes; 9.5 per cent. was occupied under leases and licences; while 30.9 per cent. was unoccupied.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—VICTORIA, 1932.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> .. .. .	26,446,619	3. <i>Leases and Licences held—</i>	
2. <i>In Process of Alienation—</i>		Under Lands Department—	
Exclusive of Mallee and Closer		Perpetual Leases .. .. .	86,577
Settlement Lands .. .. .	1,667,975	Other Leases and Licences .. .. .	43,915
Mallee Lands (exclusive of		Temporary (Yearly) Grazing Licences .. .. .	5,068,591
Closer Settlement Lands) .. .. .	4,750,795	Under Mines Department .. .. .	144,000
Closer Settlement Lands .. .. .	667,093	Total .. .. .	5,343,083
Village Settlements .. .. .	29	4. <i>Occupied by the Crown or</i>	
Total .. .. .	7,085,892	<i>Unoccupied (a)</i> .. .. .	17,370,166

Total area of State—56,245,760 acres.

(a) These Crown lands comprise the following acreage :—Permanent forests (under Forest Acts) 3,956,931; timber reserves (under Forest Acts) 735,889; State forests and timber reserves (under Land Act) 330,135; water reserves 311,451; reserves for agricultural colleges 88,650; reserves in the Mallee 410,000; other reserves 371,026; roads 1,794,218; water frontages, beds of rivers, lakes, etc., unsold land in cities, towns and boroughs 3,674,576; and other lands (unoccupied) 5,697,290.

4. *Queensland.*—The total area of this State is 429,120,000 acres, of which, on the 31st December, 1932, 4.5 per cent. was alienated; 2.0 per cent. was in process of alienation; and 75.3 per cent. was occupied under leases and licences. The remainder 18.2 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, 1932.

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated—</i>		3. <i>Occupied under Leases and Licences—</i>	
By Purchase .. .. .	19,031,137	Pastoral Leases .. .. .	223,906,040
Without Payment .. .. .	89,003	Occupation Licences .. .. .	9,321,080
Total .. .. .	19,120,140	Grazing Farms and Homesteads .. .. .	75,879,750
2. <i>In Process of Alienation</i> .. .. .	8,812,440	Leases—Special Purposes .. .. .	991,606
		Under Mines Department .. .. .	365,355
		Perpetual Lease Selections .. .. .	4,036,329
		Auction Perpetual Leases .. .. .	22,288
		Prickly-pear Leases .. .. .	8,489,640
		Total .. .. .	323,012,088
		4. <i>Reserves, Surveyed Roads and</i>	
		<i>Surveyed Stock Routes (a)</i> .. .. .	20,666,794
		5. <i>Unoccupied</i> .. .. .	57,508,538

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

(a) Includes reserves of a total area of 17,757,782 acres, comprising timber 3,217,549 acres, State forests and national parks 2,365,721 acres, aboriginal 6,206,892 acres, and general 5,967,620 acres; and streets, surveyed roads and surveyed stock routes 2,909,012 acres.

5. *South Australia.*—The area of the State of South Australia is 243,244,800 acres, and at the end of the year 1933, 5.0 per cent. was alienated; 1.7 per cent in process of alienation; 47.6 per cent. occupied under leases and licences; and 45.7 per cent. unoccupied.

The subjoined table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS.—SOUTH AUSTRALIA,  
1933.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> —		3. <i>Held under Lease and Licence</i> —	
Sold .. .. .	11,865,940	Right of Purchase Leases ..	1,595,303
Granted for Public Purposes	233,294	Perpetual Leases, including	
		Irrigation Leases ..	15,549,844
		Pastoral Leases .. .. .	96,865,150
		Other Leases and Licences ..	1,607,811
		Mining Leases and Licences	116,608
<b>Total .. .. .</b>	<b>12,099,234</b>	<b>Total .. .. .</b>	<b>115,734,746</b>
2. <i>In Process of Alienation</i> ..	4,155,063	4. <i>Area Unoccupied (a)</i> ..	111,255,757

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

(a) Includes surveyed roads, railways, and other reserves, 16,441,800 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, 1933, 2.6 per cent. was alienated; 3.1 per cent. was in process of alienation; while 31.8 per cent. was occupied under leases and licences issued either by the Lands or the Mines Departments. The balance of 62.5 per cent. was unoccupied.

The following table shows the distribution :—

**ALIENATION AND OCCUPATION OF CROWN LANDS.—WESTERN AUSTRALIA  
1932-33.**

Particulars.	Acres.	Particulars.	Acres.
1. <i>Alienated</i> ..	15,963,264	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 ..	196,044,113
Free Homestead Farms ..	789,702	Special Leases ..	20,964
Conditional Purchases ..	6,081,086	Leases of Reserves ..	948,183
Selections from the late W.A. Company	5,297	Residential Lots ..	4,896
Selections under the Agricultural Lands Purchase Act	475,082	(II) Issued by Mines Department—	
Special Occupation Leases and Licences	300	Gold-mining Leases ..	10,204
Homestead or Grazing Leases	12,154,187	Mineral Leases ..	45,168
Poison Land Leases or Licences	23,138	Miners' Homestead Leases ..	31,370
Village Allotments ..	46	(III) Issued by Forests Department—	
<b>Total .. .. .</b>	<b>19,583,638</b>	Timber Permits ..	1,222,102
		<b>Total .. .. .</b>	<b>198,325,300</b>
		4. <i>Area Unoccupied (a)</i> ..	390,716,598

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

(a) These Crown lands comprise the following :—State forests, 2,971,012 acres; timber reserves, 1,430,542 acres; other reserves, 36,027,223 acres; and vacant Crown land, 350,287,821 acres.

7. *Tasmania.*—At the end of the year 1933, 34.4 per cent. of the total area had been alienated; 2.9 per cent. was in process of alienation; 26.6 per cent. was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement, or occupied or reserved by the Crown; the remainder (36.1 per cent.) was unoccupied.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—TASMANIA, 1933.

Particulars.	Acres.	Particulars.	Acres.
1. Alienated .. .. .	5,774,481	3. Leases and Licences—continued.	
2. In Process of Alienation ..	487,373	(i) Issued by Lands Department	
3. Leases and Licences—		—continued.	
(i) Issued by Lands Department		Soldier Settlement .. .. .	112,000
Islands .. .. .	104,500	Other Leases .. .. .	130,500
Ordinary Leased Land ..	1,915,706	(ii) Issued by Mines Department	30,607
Land Leased for Timber	247,768	Total .. .. .	2,622,315
Closer Settlement ..	81,234	4. Area Occupied by the Crown or	
		Unoccupied (a) .. .. .	7,893,831

Total area of State—16,778,000 acres.

(a) Comprises the following :—Reserves, 1,821,000 acres, including 1,521,000 acres for timber; land occupied by Commonwealth and State Departments, 18,100 acres; the balance (6,054,731 acres) being unoccupied and unreserved.

8. Northern Territory.—The area of Northern Territory is 335,116,800 acres, of which, at the end of 1933, only 0.14 per cent. was alienated; 55.65 per cent. was held under leases and licences; while the remaining 44.21 per cent. was unoccupied.

The following shows the mode of occupancy of areas at the 30th June, 1933 :—

ALIENATION AND OCCUPATION OF CROWN LANDS.—NORTHERN TERRITORY, 1933.

Particulars.	Acres.
1. Alienated .. .. .	477,861
2. Leased—	
Pastoral .. .. .	141,175,040
Other leases, licences, reserves and mission stations ..	45,321,962
Total .. .. .	186,497,002
3. Unoccupied .. .. .	148,141,937
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 1933 are as follow :—Alienated 73,080 acres; in process of alienation 34,098 acres; leased 292,480 acres; and unoccupied 184,002 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 1933 comprised 12.5 per cent. of the total area, land in process of alienation 5.9 per cent., land held under lease 50.1 per cent., and unoccupied land 31.5 per cent. of the total area.

## 12. Classification of Alienated Holdings According to Size.

The classification of private holdings according to their area is of interest chiefly in relation to the efforts made by the several States in recent years to promote settlement on the land on blocks of suitable size, especially by means of the Closer Settlement Acts.

The following table gives particulars of the number and areas of holdings of alienated land and land in process of alienation at the latest date for which the information has been compiled. A similar classification for the year 1928-29, excepting as regards New South Wales the figures for which referred to the year 1924-25, will be found in Official Year Book No. 26, p. 137.

### CLASSIFICATION OF HOLDINGS (ONE ACRE AND OVER) IN AREA SERIES, FOR YEARS SHOWN.

Size of Holdings.	N.S.W. 1929-30.	Victoria. 1928-29.	S. Aust. 1930-31.	W. Aust. 1932-33.	Tas. 1931-32.	Fed. Cap. Ter. 1928-29.	Total (a)
NUMBER.							
1 and under 50 acres	(b) 13,872	19,791	6,409	4,810	2,768	3	47,653
50 " 100 "	(b) 7,358	8,388	1,883	867	2,163	1	20,665
100 " 500 "	(b) 25,142	25,979	5,787	3,665	4,859	10	65,451
500 " 1,000 "	(b) 11,138	12,449	4,513	3,194	718	18	32,030
1,000 " 5,000 "	(b) 10,702	6,929	5,266	8,386	729	15	32,027
5,000 " 10,000 "	1,516	297	134	454	132	3	2,536
10,000 " 20,000 "	575	90	34	119	63	1	887
20,000 " 50,000 "	235	15	9	19	33	..	311
50,000 and over	57	..	..	7	6	..	70
Total	70,595	73,938	24,035	21,521	11,481	60	201,630
AREA.							
1 and under 50 acres	Acres. 6372,441	Acres. 374,677	Acres. 118,847	Acres. 63,503	Acres. 59,523	Acres. 92	Acres. 989,082
50 " 100 "	6675,622	601,533	144,657	71,483	154,647	65	1,648,007
100 " 500 "	67,793,419	6,384,766	1,662,229	884,933	1,011,299	5,267	17,741,913
500 " 1,000 "	69,316,414	8,828,038	3,339,608	2,731,806	488,451	12,778	24,717,095
1,000 " 5,000 "	625,283,975	11,858,819	9,401,700	18,017,234	1,567,040	30,950	66,158,818
5,000 " 10,000 "	10,223,976	2,047,281	929,107	3,044,434	918,022	21,354	17,184,174
10,000 " 20,000 "	7,886,787	1,106,469	459,199	1,671,655	924,025	12,600	12,150,735
20,000 " 50,000 "	6,771,351	390,876	237,112	524,959	931,647	..	8,855,945
50,000 and over	4,907,390	..	..	504,612	437,573	..	5,849,575
Total	73,231,375	31,682,459	16,292,459	27,514,619	6,492,227	82,205	155,295,344

(a) Information not available for Queensland and the Northern Territory. (b) Partially estimated; The actual number and areas as recorded are as follows:—1-30 acres, 8,720, 117,889; 31-320, 27,214, 3,949,300; 321-640, 11,309, 5,424,505; 641-1,280, 10,728, 9,966,089; 1,281-2,000, 4,950, 7,920,484; 2,001-5,000, 5,291, 16,063,604.

## § 13. Present Position of Land Settlement.

1. Condition of Public Estate.—The position in regard to land settlement in each State and Territory and in Australia as a whole in the years 1929 to 1932 is shown in the following table.

During the past ten years, the area of alienated land in Australia increased by 12,253,143 acres, and that in process of alienation by 7,027,086 acres, or a total of 19,280,229 acres during the decade, while the area leased increased from 949,884,653 acres in 1922 to 950,068,212 acres in 1932.

## AREAS ALIENATED, IN PROCESS OF ALIENATION, HELD UNDER LEASE OR LICENCE, AND UNOCCUPIED.

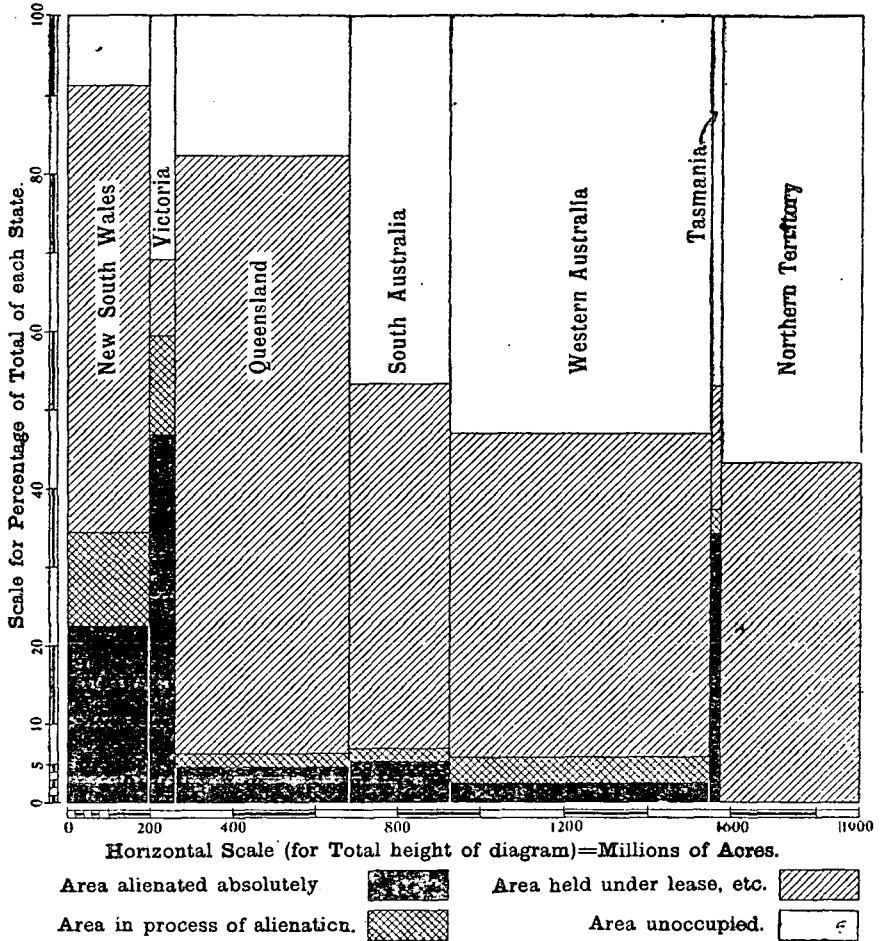
Year.	Alienated.		In Process of Alienation.		Held under Lease or Licence.		Occupied by the Crown or Unoccupied.	
	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.	Area in Acres.	Per Cent.
NEW SOUTH WALES (a).—AREA, 198,036,500 ACRES.								
1929e	643,491,984	21.96	23,153,865	11.69	114,164,082	57.65	17,223,349	8.70
1930e	643,750,361	22.09	23,680,891	11.96	113,692,127	57.41	16,909,901	8.54
1931e	644,074,823	22.26	23,785,072	12.01	112,285,734	56.70	17,887,651	9.03
1932e	644,361,944	22.40	23,539,831	11.89	109,461,765	55.27	20,669,740	10.44
VICTORIA.—AREA, 56,245,760 ACRES.								
1929	26,204,928	46.59	7,918,032	14.08	7,539,476	13.40	14,583,324	25.93
1930	26,316,492	46.79	7,280,000	12.94	6,659,107	11.84	15,999,161	28.43
1931	26,383,623	46.91	7,167,797	12.74	5,403,714	9.61	17,290,626	30.74
1932	26,446,619	47.02	7,085,892	12.60	5,343,083	9.50	17,370,166	30.88
QUEENSLAND.—AREA, 429,120,000 ACRES.								
1929	18,486,184	4.31	5,911,240	1.38	317,763,259	74.05	86,959,317	20.26
1930	18,731,295	4.36	6,860,667	1.60	315,388,957	73.50	88,139,081	20.54
1931	18,947,974	4.42	7,765,825	1.81	326,192,503	76.01	76,213,698	17.76
1932	19,120,140	4.46	8,812,440	2.05	323,012,088	75.27	78,175,332	18.22
SOUTH AUSTRALIA.—AREA, 243,244,800 ACRES.								
1929	12,004,959	4.94	3,933,568	1.62	118,249,913	48.61	109,056,360	44.83
1930	12,044,877	4.95	4,175,985	1.72	116,453,402	47.87	110,579,536	45.46
1931	12,058,125	4.96	4,314,352	1.77	113,257,265	46.56	113,615,058	46.71
1932	12,077,716	4.97	4,238,241	1.74	115,716,290	47.57	111,212,553	45.72
WESTERN AUSTRALIA (a).—AREA, 624,588,800 ACRES.								
1929	13,594,254	2.18	21,804,506	3.49	243,724,065	39.02	345,465,975	55.31
1930	14,506,064	2.32	21,533,054	3.45	245,385,249	39.29	343,164,433	54.94
1931	14,984,035	2.40	21,224,804	3.40	256,620,655	41.09	331,759,306	53.11
1932	15,484,758	2.48	20,384,552	3.26	206,162,718	33.01	382,556,772	61.25
TASMANIA.—AREA, 16,778,000 ACRES.								
1929	5,698,697	33.97	560,070	3.34	2,817,535	16.79	7,701,698	45.90
1930	5,721,259	34.10	541,653	3.23	2,772,097	16.52	7,742,991	46.15
1931	5,739,827	34.21	516,795	3.08	2,655,179	15.83	7,866,199	46.88
1932	5,759,420	34.33	500,471	2.98	2,611,235	15.56	7,906,874	47.13
NORTHERN TERRITORY.—AREA, 335,116,800 ACRES.								
1929	477,853	0.14	..	..	148,905,274	44.44	185,733,673	55.42
1930	477,853	0.14	..	..	148,287,330	44.25	186,351,617	55.61
1931	477,854	0.14	..	..	145,000,000	43.27	189,638,946	56.59
1932	477,861	0.14	..	..	187,468,553	55.94	147,170,386	43.92
FEDERAL CAPITAL TERRITORY.—AREA, 601,580 ACRES.								
1929c	46,968	8.05	60,844	10.42	288,919	49.50	186,929	32.03
1930c	66,904	11.46	39,977	6.85	279,032	47.81	197,747	33.88
1931c	66,904	11.46	39,977	6.85	288,558	49.44	188,221	32.25
1932c	73,080	12.52	34,098	5.84	292,480	50.11	184,002	31.53
AUSTRALIA.—AREA, 1,903,732,240 ACRES.								
1929d	120,005,827	6.30	63,342,125	3.33	953,452,523	50.08	766,910,625	40.29
1930d	121,615,105	6.39	64,112,227	3.37	948,917,301	49.84	769,066,467	40.40
1931d	122,733,165	6.45	64,814,622	3.40	961,703,608	50.52	754,459,705	39.63
1932d	123,801,538	6.50	64,595,525	3.39	950,068,212	49.91	765,245,825	40.20

(a) To 30th June. (b) Excludes lands alienated but subsequently resumed or reverted to the Crown. (c) Excludes Jervis Bay area, 17,920 acres. (d) Excludes Lord Howe Island, 3,220 acres, and Jervis Bay area, 17,920 acres. (e) Excludes Lord Howe Island, 3,220 acres.



2. Diagram showing Condition of Public Estate.—The following diagram shows the condition of the public estate at the end of the year 1931. 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 absolutely, in process of alienation under various systems of deferred payments, and the areas held under leases or licences, are designated by the differently-shaded areas as described in the reference given below the diagram, while the areas unoccupied are left unshaded.

Land Tenure



## 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 for 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 1923-24 to 1932-33 :—

## TOTAL OVERSEA SHIPPING, ENTERED.—AUSTRALIA.

Year.	Steam.		Sailing.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1923-24 .. ..	1,437	4,808,129	109	103,007	1,546	4,911,136
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

The average tonnage of vessels entered has risen from 3,177 tons per vessel in 1923-24 to 3,818 tons in 1932-33.

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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>TONNAGE ENTERED.</b>						
United Kingdom and European Countries	Cargo	1,759,576	2,043,137	1,632,252	1,524,673	1,549,889
	Ballast	35,563	39,840	248,998	593,997	946,342
New Zealand .. ..	Cargo	476,987	457,812	400,623	426,704	448,684
	Ballast	147,819	166,948	157,029	97,781	110,559
Asiatic Countries and Islands in the Pacific .. ..	Cargo	1,372,717	1,329,505	1,196,313	1,182,212	1,291,014
	Ballast	353,350	121,907	765,805	895,825	441,286
Africa .. ..	Cargo	57,453	42,304	34,543	7,836	19,129
	Ballast	75,807	52,103	261,442	226,226	144,609
North and Central America	Cargo	1,254,911	1,194,358	861,415	802,672	966,985
	Ballast	11,480	8,305	12,987	..	12,088
South America .. ..	Cargo	5,920	8,227	2,821	2,321	2,649
	Ballast	..	..	7,289	16,151	..
	Cargo	4,927,564	5,075,343	4,127,967	3,946,918	4,278,350
	Ballast	624,019	369,103	1,453,550	1,739,980	1,654,974
<b>Total .. ..</b>	<b>.. ..</b>	<b>5,551,583</b>	<b>5,444,446</b>	<b>5,581,517</b>	<b>5,686,898</b>	<b>5,933,324</b>

<b>TONNAGE CLEARED.</b>						
United Kingdom and European Countries .. ..	Cargo	2,313,817	2,247,735	2,457,125	2,673,463	2,496,405
	Ballast	..	5,537	..	5,659	11,784
New Zealand .. ..	Cargo	514,588	544,643	469,806	385,088	460,937
	Ballast	29,189	43,584	19,121	66,739	93,613
Asiatic Countries and Islands in the Pacific .. ..	Cargo	1,390,401	1,061,434	1,651,536	1,647,769	1,657,465
	Ballast	444,169	594,752	311,894	249,981	440,372
Africa .. ..	Cargo	122,965	45,114	(a) 169,060	42,096	33,567
	Ballast	672	4,205	..	56	2,627
North and Central America	Cargo	536,134	633,692	450,702	488,134	542,663
	Ballast	164,290	306,629	120,786	130,270	146,511
South America .. ..	Cargo	29,356	12,356	18,643	19,631	23,272
	Ballast	..	..	..	..	..
	Cargo	4,907,261	4,544,974	5,216,872	5,256,181	5,213,409
	Ballast	638,320	954,797	451,801	452,705	694,907
<b>Total .. ..</b>	<b>.. ..</b>	<b>5,545,581</b>	<b>5,499,681</b>	<b>5,668,673</b>	<b>5,708,886</b>	<b>5,908,316</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, though the proportion of British tonnage is declining. The proportion which British ships represent has been reduced during the past three years mainly by an increase in the tonnage of Japanese, Norwegian and Swedish vessels.

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.				
	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>BRITISH—</b>					
Australian .. ..	206,188	211,890	227,550	230,996	264,848
United Kingdom .. ..	3,286,445	3,244,561	3,086,586	3,138,330	3,218,273
Canadian .. ..	77,907	57,282	38,683	42,032	54,228
New Zealand .. ..	415,517	399,209	320,822	260,628	291,329
Other British .. ..	120,580	84,928	62,398	59,905	115,681
<b>Cargo .. ..</b>	<b>3,703,435</b>	<b>3,726,326</b>	<b>2,924,814</b>	<b>2,680,856</b>	<b>2,831,878</b>
<b>Ballast .. ..</b>	<b>403,202</b>	<b>271,544</b>	<b>811,225</b>	<b>1,051,035</b>	<b>1,112,481</b>
<b>Total British .. ..</b>	<b>4,106,637</b>	<b>3,997,870</b>	<b>3,736,039</b>	<b>3,731,891</b>	<b>3,944,359</b>
<b>Per cent. on total .. ..</b>	<b>73.97</b>	<b>73.43</b>	<b>66.94</b>	<b>65.62</b>	<b>66.48</b>
<b>FOREIGN—</b>					
Danish .. ..	34,016	72,431	44,693	46,061	107,052
Dutch .. ..	147,843	154,036	147,425	156,617	185,342
French .. ..	118,842	106,939	102,641	90,552	108,032
German .. ..	137,766	105,435	114,922	116,004	117,589
Italian .. ..	54,716	63,840	68,220	68,220	76,674
Japanese .. ..	286,607	207,910	671,742	688,712	546,088
Norwegian .. ..	255,270	307,943	339,695	395,269	394,470
Swedish .. ..	92,397	86,540	114,244	111,196	136,059
United States .. ..	289,228	267,827	186,800	205,485	245,530
Other Foreign .. ..	28,261	73,075	55,096	76,891	72,129
<b>Cargo .. ..</b>	<b>1,224,129</b>	<b>1,349,017</b>	<b>1,203,153</b>	<b>1,266,062</b>	<b>1,446,472</b>
<b>Ballast .. ..</b>	<b>220,817</b>	<b>97,559</b>	<b>642,325</b>	<b>688,945</b>	<b>542,493</b>
<b>Total Foreign .. ..</b>	<b>1,444,946</b>	<b>1,446,576</b>	<b>1,845,478</b>	<b>1,955,007</b>	<b>1,988,965</b>
<b>Per cent. on total .. ..</b>	<b>26.03</b>	<b>26.57</b>	<b>33.06</b>	<b>34.38</b>	<b>33.52</b>
<b>Cargo .. ..</b>	<b>4,927,564</b>	<b>5,075,343</b>	<b>4,127,967</b>	<b>3,946,918</b>	<b>4,278,350</b>
<b>Per cent. on total .. ..</b>	<b>89.76</b>	<b>93.22</b>	<b>73.96</b>	<b>69.40</b>	<b>72.11</b>
<b>Ballast .. ..</b>	<b>624,019</b>	<b>369,103</b>	<b>1,453,550</b>	<b>1,739,980</b>	<b>1,654,974</b>
<b>Per cent. on total .. ..</b>	<b>11.24</b>	<b>6.78</b>	<b>26.04</b>	<b>30.60</b>	<b>27.89</b>
<b>Grand Total .. ..</b>	<b>5,551,583</b>	<b>5,444,446</b>	<b>5,581,517</b>	<b>5,686,898</b>	<b>5,933,324</b>

The Australian tonnage which entered Australia from overseas during the year 1932-33 represented 4.47 per cent. of the total tonnage entered. This figure was greater than the average for the quinquennium, which was 4.05 per cent. The Australian tonnage has decreased considerably since 1928, due mainly to the disposal of Australian-owned vessels to foreign owners or to other Australian owners and transferred to the interstate trade, and to the sale effected in April, 1928, of the five Bay liners and the freighters *Fordsdale* and *Ferndale* to the White Star Line.

### § 3. Shipping of Ports.

The total shipping tonnage—oversea, interstate, and coastwise—which entered the more important ports of Australia during the year 1932-33, together with similar information in regard to some of the ports of New Zealand and of Great Britain for the year 1932, 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.) ..	9,360,116	London .. ..	26,855,937
Melbourne (Vic.) ..	6,775,924	Liverpool (including Birkenhead) ..	15,506,106
Adelaide (S.A.) ..	4,245,445	Southampton .. ..	10,870,325
Brisbane (Qld.) ..	3,637,774	Tyne Ports .. ..	8,732,820
Newcastle (N.S.W.) ..	3,506,472	Cardiff .. ..	6,883,233
Fremantle (W.A.) ..	3,460,481	Plymouth .. ..	6,633,534
Townsville (Qld.) ..	1,163,199	Hull .. ..	5,422,419
Hobart (Tas.) .. ..	896,116	Swansea .. ..	3,920,337
Geelong (Vic.) .. ..	848,314	Manchester (including Runcorn) .. ..	3,510,683
Pirie (S.A.) .. ..	663,340	Bristol .. ..	3,125,421
Kembla (N.S.W.) ..	639,537	Sunderland .. ..	2,836,212
Cairns (Qld.) .. ..	591,033	Harwich .. ..	2,699,809
Launceston (Tas.) ..	410,197	Grimsby (including Immingham) ..	2,478,923
Lincoln (S.A.) .. ..	407,999	Blvth .. ..	2,361,981
Burnie (Tas.) .. ..	392,612	Middlesbrough ..	2,279,631
Wallaroo (S.A.) ..	342,188	Dover .. ..	2,217,520
Albany (W.A.) .. ..	337,364	Newport .. ..	2,153,125
Mackay (Qld.) .. ..	332,247	Portsmouth .. ..	2,024,522
Devonport (Tas.) ..	322,243		
Thursday Island (Qld.) ..	301,579	<b>SCOTLAND—</b>	
Rockhampton (Qld.) ..	288,754	Glasgow .. ..	5,230,194
Geraldton (W.A.) ..	269,813	Greenock .. ..	3,059,790
		Leith .. ..	2,031,956
<b>NEW ZEALAND—</b>		<b>NORTHERN IRELAND—</b>	
Wellington .. ..	3,448,286	Belfast .. ..	6,351,927
Auckland .. ..	2,424,186		
Lyttleton .. ..	1,856,568		
Dunedin .. ..	868,521		

### § 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 1929 to 1933, 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.				
1929 ..	..	..	..	..	..	14	2	..	16
1930 ..	..	..	..	..	..	11	2	..	13
1931 ..	..	..	..	..	..	4	..	..	4
1932 ..	..	..	..	..	..	8	2	..	10
1933 ..	..	..	..	..	..	3	1	..	4

TONNAGE.

Year.	Steamers.		Oil Motor Vessels.		Sailing.		Pontoons, Dredges, etc.		Total.	
	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.
1929 ..	..	..	383	287	17	14	..	..	400	301
1930 ..	..	..	310	219	12	12	..	..	322	231
1931 ..	..	..	60	43	..	..	..	..	60	43
1932 ..	..	..	166	109	15	15	..	..	181	124
1933 ..	..	..	140	115	3	3	..	..	143	118

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, 1933 :—

VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1933.

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	1,235	314	64,737	259	4,694	218	7,508	48	11,782	886	89,956
Victoria ..	41	4,160	131	141,588	54	2,610	53	825	63	27,730	342	176,913
Queensland ..	16	2,429	36	5,452	54	849	94	1,375	27	4,002	227	14,107
South Australia ..	11	337	59	9,624	58	2,576	53	3,107	21	4,743	202	20,387
Western Australia ..	9	173	28	5,818	29	567	289	4,559	21	4,370	376	15,487
Tasmania ..	5	530	43	4,858	66	1,651	64	2,408	1	382	179	9,829
Northern Territory ..	..	..	..	..	3	44	17	163	..	..	20	207
Total ..	129	8,864	611	232,077	523	12,991	788	19,945	181	53,009	2,232	326,886

§ 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 .. ..	.. ..	.. .. Oversea <i>via</i> States
Clears Adelaide for Melbourne .. ..	.. ..	Interstate direct
Enters Melbourne from United Kingdom <i>via</i> Adelaide .. ..	.. ..	.. .. Oversea <i>via</i> States
Clears Melbourne for Sydney .. ..	.. ..	Interstate direct
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
Clears Melbourne for United Kingdom <i>via</i> Adelaide .. ..	.. ..	.. .. Oversea <i>via</i> States
Enters Adelaide from Melbourne .. ..	.. ..	Interstate direct
Clears Adelaide for United Kingdom <i>via</i> Fremantle .. ..	.. ..	.. .. Oversea <i>via</i> States
Enters Fremantle from Adelaide .. ..	.. ..	Interstate direct
Clears Fremantle for United Kingdom ..	Oversea direct	

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows :—(a) The aggregate of all ships recorded for each State as "Oversea *direct*" gives the oversea shipping for Australia as a whole. (b) The aggregate for all ships recorded in any State as "Oversea *direct*" plus those recorded as "Oversea *via* States" gives the total *oversea shipping* for that State. (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 1928-29 to 1932-33. 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>NUMBER.</b>					
New South Wales .. ..	1,723	1,588	1,564	1,483	1,656
Victoria .. ..	1,704	1,739	1,534	1,494	1,678
Queensland .. ..	455	490	469	483	485
South Australia .. ..	730	753	606	598	644
Western Australia .. ..	339	387	305	311	309
Tasmania .. ..	950	1,022	941	933	984
Northern Territory .. ..	33	26	21	19	20
<b>Total .. ..</b>	<b>5,934</b>	<b>6,005</b>	<b>5,440</b>	<b>5,321</b>	<b>5,776</b>
<b>TONNAGE.</b>					
New South Wales .. ..	4,103,542	4,079,399	3,996,976	3,947,128	4,583,979
Victoria .. ..	3,416,924	3,552,904	3,274,609	3,154,197	3,594,992
Queensland .. ..	1,106,905	1,164,183	1,061,560	1,123,578	1,184,471
South Australia .. ..	2,238,706	2,504,065	2,143,692	2,176,155	2,191,498
Western Australia .. ..	1,663,818	1,915,695	1,653,953	1,643,755	1,695,267
Tasmania .. ..	853,982	1,207,640	1,134,113	1,094,767	1,255,877
Northern Territory .. ..	59,048	64,075	62,570	51,570	53,553
<b>Total .. ..</b>	<b>13,442,925</b>	<b>14,487,961</b>	<b>13,327,473</b>	<b>13,191,150</b>	<b>14,559,637</b>

3. **Oversea Vessels Moving Interstate.**—(*Oversea via States.*) To ascertain the aggregate movement of shipping between the States during the year 1932-33, 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, 1932-33.**

States and Territory.	Entered.		Cleared.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales .. ..	459	2,340,152	479	2,546,910	938	4,887,062
Victoria .. ..	426	2,274,810	481	2,606,668	907	4,881,478
Queensland .. ..	232	1,442,977	232	1,470,359	464	2,913,336
South Australia .. ..	261	1,500,436	272	1,555,234	533	3,055,670
Western Australia .. ..	38	132,411	11	40,491	49	172,902
Tasmania .. ..	33	146,292	93	568,348	126	714,640
Northern Territory .. ..	1	1,218	..	..	1	1,218
<b>Total .. ..</b>	<b>1,450</b>	<b>7,838,296</b>	<b>1,568</b>	<b>8,788,010</b>	<b>3,018</b>	<b>16,626,306</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 1928-29 to 1932-33 were as follow :—

**VESSELS ENGAGED SOLELY IN INTERSTATE TRADE. NUMBER AND TONNAGE ENTERED AND CLEARED.—AUSTRALIA.**

Year.	Entered.		Cleared	
	Vessels.	Tonnage.	Vessels.	Tonnage.
1928-29 .. .. .	4,373	5,512,897	4,383	5,611,354
1929-30 .. .. .	4,396	6,218,634	4,373	6,091,994
1930-31 .. .. .	4,054	5,761,040	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

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 1928-29 to 1932-33 :—

**TOTAL INTERSTATE MOVEMENT OF SHIPPING.—AUSTRALIA.**

Year.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
1928-29 .. .. .	7,823	22,648,956	7,833	22,747,413
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

(ii) *States.* The following table shows the number and tonnage of vessels which entered and cleared each State from and for other States during 1932-33, including the coastal movements of oversea vessels :—

**INTERSTATE SHIPPING OF EACH STATE, 1932-33.**

States and Territory.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales .. .. .	2,115	6,924,131	2,053	6,701,695
Victoria .. .. .	2,104	5,869,802	2,123	6,126,596
Queensland .. .. .	717	2,627,448	721	2,643,239
South Australia .. .. .	905	3,691,934	959	3,887,130
Western Australia .. .. .	347	1,827,678	306	1,646,595
Tasmania .. .. .	1,017	1,402,169	1,007	1,356,763
Northern Territory .. .. .	21	54,771	19	53,539
<b>Total, Australia .. .. .</b>	<b>7,226</b>	<b>22,397,933</b>	<b>7,188</b>	<b>22,415,557</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 1929 to 1933 :—

INTERSTATE AND COASTAL STEAMSHIP SERVICES.—AUSTRALIA.

Particulars.	1929.	1930.	1931.	1932.	1933.
Number of companies making returns .. .. .	29	22	23	23	22
Number of steamships .. .. .	181	173	162	154	154
Tonnage { Gross .. .. .	360,459	349,163	319,756	306,878	309,309
Net .. .. .	202,749	196,342	178,549	171,089	172,334
Horse-power (Nominal) .. .. .	37,911	36,230	34,357	33,340	34,514
Number of passengers for which licensed { 1st class .. .. .	7,983	7,686	7,278	7,222	7,230
2nd class and steerage .. .. .	1,755	1,784	1,775	1,755	1,755
Masters and officers .. .. .	588	563	524	498	512
Engineers .. .. .	598	576	538	514	529
Crew .. .. .	4,710	4,630	4,232	4,072	4,193

§ 6. Tonnage of Cargo.

1. Oversea and Interstate Cargo.—(i) *Australia.* The table hereunder shows the aggregate tonnage of oversea cargo discharged and shipped in Australian ports, and the tonnage of interstate cargo shipped in all ports for the years 1928–29 to 1932–33. 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.
1928–29 ..	3,596,936	2,470,493	4,529,232	759,813	4,381,692	1,168,601
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	1,047,054

(ii) *Principal Ports.* The following table shows the tonnage of Oversea and Interstate Cargo discharged and shipped at principal ports, 1932-33 :—

**TONNAGE OF CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1932-33.**

Port.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sydney .. ..	1,217,527	769,942	1,987,469	1,649,813	548,503	2,198,316
Newcastle .. ..	79,798	624,015	703,813	240,314	1,587,106	1,827,420
Kembla .. ..	30,195	141,162	171,357	57,324	116,925	174,249
Other .. ..	..	548	548	9,119	43,202	52,321
Total, New South Wales .. ..	1,327,520	1,535,667	2,863,187	1,956,570	2,295,736	4,252,306
Melbourne .. ..	1,178,786	1,408,958	2,587,744	957,321	651,781	1,609,102
Geelong .. ..	109,900	174,612	284,512	357,026	32,356	389,382
Other .. ..	12,426	13,316	25,742	37,339	4,586	41,925
Total, Victoria .. ..	1,301,112	1,596,886	2,897,998	1,351,686	688,723	2,040,409
Brisbane .. ..	222,763	304,483	527,246	170,121	112,664	282,785
Cairns .. ..	5,641	32,582	38,223	80,413	98,165	178,578
Townsville .. ..	36,725	70,262	106,987	93,920	60,676	154,596
Other .. ..	11,397	36,261	47,658	97,660	82,826	180,486
Total, Queensland .. ..	276,526	443,588	720,114	442,114	354,331	796,445
Adelaide .. ..	325,167	563,949	889,116	481,617	235,636	717,253
Pirie .. ..	53,952	171,805	225,757	376,504	134,659	511,163
Walleroo .. ..	33,605	1,127	34,732	254,850	15,291	270,141
Whyalla .. ..	..	..	..	13,757	613,027	626,784
Other .. ..	12,886	26,937	39,823	257,261	8,446	265,707
Total, South Australia .. ..	425,610	763,818	1,189,428	1,383,989	1,007,059	2,391,048
Fremantle .. ..	453,800	207,383	661,183	748,495	25,287	773,782
Bunbury .. ..	31,211	529	31,740	127,148	20,595	147,743
Geraldton .. ..	26,738	4,846	31,584	161,829	..	161,829
Other .. ..	2,847	7,353	10,200	55,978	7,472	63,450
Total, Western Australia .. ..	514,596	220,111	734,707	1,093,450	53,354	1,146,804
Hobart .. ..	38,933	257,748	296,681	154,999	185,393	340,392
Launceston .. ..	3,914	84,823	88,737	28,603	51,643	80,246
Other .. ..	976	64,995	65,971	8,811	229,161	237,972
Total, Tasmania .. ..	43,823	407,566	451,389	192,413	466,197	658,610
Darwin (Northern Territory) .. ..	7,831	4,843	12,674	283	1,308	1,591
Total, AUSTRALIA .. ..	3,897,018	4,972,479	8,869,497	6,420,505	4,866,708	11,287,213

*a* Includes Devonport, 135,624 tons.

2. **Nationality.**—The following table shows the total oversea cargo discharged and shipped according to the nationality of the vessels carrying during the years 1928–29 to 1932–33 :—

**OVERSEA CARGO DISCHARGED AND SHIPPED.—TONS.(a)**

Vessels Registered at Ports in—	1928–29.	1929–30.	1930–31.	1931–32.	1932–33.
<b>British—</b>					
Australia .. .. .	255,296	237,792	219,168	223,841	229,930
United Kingdom .. .. .	6,988,043	6,861,323	5,528,848	5,429,998	5,644,962
Canada .. .. .	190,273	135,154	86,775	64,169	88,733
New Zealand .. .. .	456,560	441,593	357,258	260,988	317,821
Other British .. .. .	222,787	163,949	98,492	134,739	221,606
<b>Total British .. .. .</b>	<b>8,112,959</b>	<b>7,839,811</b>	<b>6,290,541</b>	<b>6,113,735</b>	<b>6,503,052</b>
Per cent. on Total .. .. .	71.44	69.72	63.83	63.39	63.03
<b>Foreign—</b>					
Denmark .. .. .	117,499	227,779	133,777	137,378	296,265
France .. .. .	153,670	119,533	92,460	76,666	95,977
Germany .. .. .	385,692	269,783	241,868	248,983	258,915
Italy .. .. .	92,476	108,605	90,412	73,962	107,503
Japan .. .. .	532,174	436,747	1,146,557	1,161,303	1,071,568
Netherlands .. .. .	280,675	290,949	234,897	254,768	313,188
Norway .. .. .	687,509	876,701	868,346	876,991	883,810
Sweden .. .. .	330,290	355,621	360,373	313,986	418,101
United States of America .. .. .	585,587	512,923	282,383	232,182	226,033
Other Foreign .. .. .	77,943	206,311	113,312	154,714	143,111
<b>Total Foreign .. .. .</b>	<b>3,243,515</b>	<b>3,404,952</b>	<b>3,564,385</b>	<b>3,530,933</b>	<b>3,814,471</b>
Per cent. on Total .. .. .	28.56	30.28	36.17	36.61	36.97
<b>Grand Total .. .. .</b>	<b>11,356,474</b>	<b>11,244,763</b>	<b>9,854,926</b>	<b>9,644,668</b>	<b>10,317,523</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 oversea and interstate shipments. The latest figures available, which give the rates current at 30th June, 1934, 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 22s. 6d. per ton weight and 1½d. per lb. plus 5 per cent. less 10 per cent. The charter rate for wheat was 24s. 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, 1934, was included in the Transport and Communication Bulletin No. 24, 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 found to be at fault. Particulars of shipping casualties reported on or near the coast during the year 1933 are shown in the Transport and Communication Bulletin No. 24. 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.* The Navigation Act 1925 (July, 1925), conferred authority for the suspension, for any specified time, if in the opinion of the Governor-General in Council such is expedient in the public interest, of the operation of the provisions of that part of the principal Act relating to the engagement of ships in the coasting trade by exempting, under certain circumstances, any ship or class of ships from compliance with any specified provisions of the Act.

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 in certain specified circumstances to unlicensed British ships to engage in passenger tourist traffic between any specified Commonwealth ports. 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 the periods 6th March, 1926, to 31st May, 1926; 1st January, 1927, to 31st May, 1927; 1st January, 1928, to 31st May, 1928; and 1st December, 1928, to 31st May, 1929. No further exemption was granted till December, 1932. The exemption was, however, then repeated as from 9th December, 1932, to 31st May, 1933; later, as from 1st December, 1933, to 31st May, 1934; and has been issued, in advance, for the period from 1st December, 1934, to 31st May, 1935.

A Bill to further amend the Act was introduced into the House of Representatives on 24th May, 1933, the purpose of the Bill being to implement, and to enable the Commonwealth to ratify, a number of International Conventions. Of these, the principal are the Convention for the Safety of Life at Sea, London, 1929, and the Load Line Convention, London, 1930.

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 4ft. 8½in. 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, 1933, the total expenditure by the Commonwealth was £4,371,000, the interest charge for the year 1932-33 being £205,435. 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 £38,877 being shown on the New South Wales section and a profit of £21,720 on the Queensland section. In addition, the following amounts were paid as interest:—New South Wales £72,320, and Queensland £27,082, the remainder, £106,033, 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 1928-29 to 1932-33. 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales .. ..	6,082.25	6,089.93	6,159.70	6,208.30	6,246.61
Victoria .. ..	4,723.95	4,737.65	4,741.69	4,745.71	4,745.71
Queensland .. ..	6,720.91	6,726.03	6,794.54	6,821.04	6,834.14
South Australia .. ..	3,821.29	3,765.45	3,759.10	3,775.81	3,775.81
Western Australia .. ..	4,809.47	4,841.89	4,911.37	4,966.06	5,068.72
Tasmania .. ..	827.26	821.01	806.45	786.45	786.45
Federal Capital Territory ..	4.94	4.94	4.94	4.94	4.94
Northern Territory .. ..	264.84	489.73	489.73	489.73	489.73
<b>Australia .. ..</b>	<b>27,254.91</b>	<b>27,476.63</b>	<b>27,667.52</b>	<b>27,798.04</b>	<b>27,952.11</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, 1933 :—

## RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE CLASSIFIED, 1932-33.

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 .. ..	6,163.91	..	82.70	6,246.61
Victoria .. ..	4,720.77	..	24.94	4,745.71
Queensland .. ..	6,566.51	..	267.63	6,834.14
South Australia .. ..	2,529.26	1,196.04	50.51	3,775.81
Western Australia .. ..	4,337.73	453.99	277.00	5,068.72
Tasmania .. ..	644.89	..	141.56	786.45
Federal Capital Territory ..	..	4.94	..	4.94
Northern Territory .. ..	..	489.73	..	489.73
<b>Australia .. ..</b>	<b>24,963.07</b>	<b>2,144.70</b>	<b>844.34</b>	<b>27,952.11</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, 1933 :—

## RAILWAYS.—GOVERNMENT AND PRIVATE.—COMPARISON OF FACILITIES, 1933.

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 ..	2.40	2.61	7.26	6.50	11.55	3.45	0.55	100.77	4.23
Per 1,000 sq. miles of Territory ..	20.19	54.00	10.19	9.93	5.19	30.00	5.26	0.94	9.40

7. Classification of Lines according to Gauge, 1932-33.—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, 1933, and of private railways open for general traffic to the 31st December, 1933, as nearly as possible.

## RAILWAYS.—GOVERNMENT AND PRIVATE.—GAUGES, 1932-33.

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.	

## FEDERAL RAILWAYS.

	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
Total .. ..	..	1,056.79	1,087.91	..	..	..	2,144.70

## STATE RAILWAYS.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales .. ..	..	6,124.40	39.51	..	..	..	6,163.91
Victoria .. ..	4,599.00	..	..	..	121.77	..	4,720.77
Queensland .. ..	..	68.82	6,467.43	..	..	30.26	6,566.51
South Australia .. ..	1,451.24	..	1,078.02	..	..	..	2,529.26
Western Australia .. ..	..	..	4,337.73	..	..	..	4,337.73
Tasmania .. ..	..	..	633.56	..	..	11.33	644.89
Total .. ..	6,050.24	6,193.22	12,556.25	..	121.77	41.59	24,963.07

## PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales .. ..	..	45.97	36.73	..	..	..	82.70
Victoria .. ..	13.94	..	..	11.00	..	..	24.94
Queensland .. ..	..	..	97.24	..	7.50	162.89	267.63
South Australia .. ..	..	..	50.51	..	..	..	50.51
Western Australia .. ..	..	..	277.00	..	..	..	277.00
Tasmania .. ..	..	..	125.07	..	..	16.49	141.56
Total .. ..	13.94	45.97	586.55	11.00	7.50	179.38	844.34

## ALL RAILWAYS OPEN FOR GENERAL TRAFFIC.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales .. ..	..	6,170.37	76.24	..	..	..	6,246.61
Victoria .. ..	4,612.94	..	..	11.00	121.77	..	4,745.71
Queensland .. ..	..	68.82	6,564.67	..	7.50	193.15	6,834.14
South Australia .. ..	1,451.24	597.86	1,726.71	..	..	..	3,775.81
Western Australia .. ..	..	453.99	4,614.73	..	..	..	5,068.72
Tasmania .. ..	..	..	758.63	..	..	27.82	786.45
Federal Capital Territory .. ..	..	4.94	..	..	..	..	4.94
Northern Territory .. ..	..	..	489.73	..	..	..	489.73
GRAND TOTAL .. ..	6,064.18	7,295.98	14,230.71	11.00	129.27	220.97	27,952.11



8. **Summary of Operations, 1932-33.**—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, 1933:—

**RAILWAYS.—FEDERAL, STATE, AND PRIVATE.—SUMMARY 1932-33.**

Particulars.	Federal Railways.	State Railways.	Private Railways.	Total for Australia.
Mileage open (route) 30th June, 1933 .. .. Miles	2,144.70	24,963.07	844.34	27,952.11
Capital cost .. .. £	15,544,745	309,986,574	5,113,409	330,644,728
Cost per mile .. .. £	7,248	12,418	6,056	11,829
Gross revenue .. .. £	308,452	37,691,541	542,475	38,542,468
Gross revenue per train mile .. .. d.	135.27	143.56	133.47	143.34
Working Expenses .. .. £	347,801	27,175,672	347,096	27,870,569
Working Expenses per train mile .. .. d.	152.53	103.51	85.40	103.65
Net Revenue .. .. £	-39,349	10,515,869	195,379	10,671,899
Net Revenue per train mile .. .. d.	-17.26	40.05	48.07	39.69
Train miles run .. .. Miles	547,246	63,010,011	975,457	64,532,714
Passengers carried .. .. No.	81,339	314,758,638	983,097	315,823,074
Tons of goods, etc., carried .. .. Tons	105,401	26,816,299	1,652,370	28,574,070
Average number of employees .. .. No.	(d) 1,094	(d) 91,534	(b) (c) 942	93,570
Average wage .. .. £	222	208	221	208

(a) Exclusive of the capital cost of 166.65 miles of private lines for which information is not available.  
 (b) Incomplete. (c) Employees at 30th June, 1932. (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, 1930 to 1933, classified according to gauge, together with the percentages on the total:—

**RAILWAYS, FEDERAL AND STATE.—TRACK MILEAGE.(a)**

Gauge.	At 30th June—							
	1930.		1931.		1932.		1933.	
	Miles.	%	Miles.	%	Miles.	%	Miles.	%
5 ft. 3 in. ..	7,867.32	25.17	7,872.09	25.05	7,860.50	24.88	7,859.71	24.70
4 ft. 8½ in. ..	9,040.86	28.93	9,113.21	29.01	9,205.61	29.14	9,317.75	29.28
3 ft. 6 in. ..	14,176.91	45.37	14,268.41	45.41	14,358.58	45.45	14,478.76	45.50
2 ft. 6 in. ..	131.87	0.42	131.87	0.42	131.87	0.42	131.87	0.42
2 ft. 0 in. ..	33.00	0.11	33.00	0.11	33.00	0.11	33.00	0.10
Total ..	31,249.96	100.00	31,418.58	100.00	31,589.56	100.00	31,821.09	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. In 1917 an Act was passed by which all the Federal railways were vested in a Commonwealth Railways Commissioner.

2. **North Australia Railway.**—(i) *Darwin to Birdum.* On the 1st January, 1911, the line from Darwin to Pine Creek came under the jurisdiction 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 the construction of a transcontinental line from South Australia is 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 is £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 rapidly until December, 1927, when, owing to a reduction in the amount of money to be made available for construction during the year 1927-28, a drastic curtailment of operations was made. The work then proceeded at a limited 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 not to proceed with construction work beyond Birdum (316 miles 40 chains from Darwin), and on 4th September, 1929, this section was opened for traffic and further construction work ceased.

3. **Central Australia Railway.**—(i) *General.* This line was taken over by the South Australian Government until 31st December, 1913. From the 1st January, 1914, the line was worked under agreement by the South Australian Government for and on behalf of the Commonwealth, but from 1st January, 1926, the management 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 between Port Augusta and Alice Springs. This involved the construction of an extension to Alice Springs of the then existing 3 ft. 6 in. gauge line from Port Augusta to Oodnadatta. The estimated cost, exclusive of rolling stock, of the proposed extension, which comprises 292 miles, was £1,700,000. The first section 21¼ miles from Oodnadatta was completed on the 29th August, 1927. The contract for the construction of the balance of 270¾ miles to Alice Springs was signed on the 11th August, 1927. The contract provided for the completion of the railway to Alice Springs by the 30th June, 1929, but it was not until 2nd August, 1929, that the completed line was taken over for public traffic.

4. **Federal Capital Territory Railway.—Queanbeyan-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 and on behalf of 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 departmental goods traffic on 25th May, 1914. It connects with the New South Wales railway system at Queanbeyan, is 4.94 miles in length, and has sidings of an aggregate length of 2.00 miles.

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.

On the 22nd October, 1917, the first through train left Port Augusta with an official party on board for Kalgoorlie. It should be mentioned that 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.

6. Lines Open, Surveyed, etc.—The following table shows the lines open for traffic under the control of the Commonwealth Government at 30th June, 1933, together with the lines which have been or are being surveyed :—

**RAILWAYS, FEDERAL, 30th JUNE, 1933.**

Terminals.	Miles.
<b>OPEN FOR TRAFFIC.</b>	
Trans-Australian—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
Queanbeyan to Canberra (Federal Capital Territory) .. .. .	4.94
North Australia Railway—Darwin to Birdum .. .. .	316.50
Total opened for traffic .. .. .	2,144.70
<b>SURVEYED OR BEING SURVEYED.</b>	
Birdum to Daly Waters (Northern Territory) .. .. .	43.50
Kingoonya to Boorthanna (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—Red Hill—Adelaide .. .. .	188.98
Total surveyed or being surveyed .. .. .	1,189.56

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 (3) 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 1929 to 1933 :—

**RAILWAYS, FEDERAL.—MILEAGE OPEN, WORKED, AND TRAIN MILES.**

**MILES OPEN FOR TRAFFIC.**

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
	Miles.	Miles.	Miles.	Miles.	Miles.
1929 .. .. .	1,052	648	5	265	1,970
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

**RAILWAYS, FEDERAL.—MILEAGE OPEN, WORKED, AND TRAIN MILES**  
*—continued.*

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
<b>AVERAGE MILES WORKED.</b>					
	Miles.	Miles.	Miles.	Miles.	Miles.
1929 .. ..	1,052	566	5	265	1,888
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

<b>TRAIN MILES RUN.(a)</b>					
1929 .. ..	500,402	408,970	12,915	82,861	1,005,148
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	516,900
1933 .. ..	324,173	182,414	6,850	33,809	547,246

(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 1929 to 1933 :—

**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>					
	£	£	£	£	£
1929 .. ..	7,736,355	3,882,006	83,888	2,431,964	14,134,213
1930 .. ..	7,805,945	4,730,364	84,253	2,749,807	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

**COST PER MILE OPEN.**

1929 .. ..	7,355	5,991	16,981	9,183	7,176
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

(a) Exclusive of Rolling Stock the property of New South Wales Government Railways.

The sum of £1,633,015, of which £113,266 was for surveys, etc., has been provided from revenue for capital purposes to 30th June, 1933, 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 1929 to 1933 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>					
	£	£	£	£	£
1929 .. ..	332,199	184,046	6,824	46,156	569,225
1930 .. ..	265,562	99,626	6,473	32,475	404,136
1931 .. ..	187,681	88,479	3,904	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
<b>GROSS REVENUE PER AVERAGE MILE WORKED.</b>					
1929 .. ..	316	325	1,381	174	302
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
<b>GROSS REVENUE PER TRAIN-MILE RUN.</b>					
	d.	d.	d.	d.	d.
1929 .. ..	159.32	108.00	126.81	133.69	135.92
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

(ii) *Classification and Percentages.* During the year 1932–33 receipts from coaching traffic, and goods and live stock represented 50 per cent. and 28 per cent. respectively of the total gross revenue of the Trans-Australian line, similar percentages for the remaining lines being :—Central Australia line 15 per cent. and 80 per cent., Federal Capital Territory line 53 per cent. and 46 per cent., and North Australia line 14 per cent. and 32 per cent. coaching, and goods and live stock revenue respectively.

The miscellaneous receipts for the year 1932–33 include an amount of £15,669, revenue from dining cars and refreshment services on the Trans-Australian and Central Australia Railways. A sum of £14,037 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 1929 to 1933 :—

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>					
	£	£	£	£	£
1929 .. ..	300,270	196,329	10,331	56,862	563,792
1930 .. ..	296,403	194,918	8,031	55,229	554,581
1931 .. ..	241,490	155,438	6,363	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
<b>PERCENTAGE OF WORKING EXPENSES ON REVENUE.</b>					
	%	%	%	%	%
1929 .. ..	90.39	106.67	151.39	123.20	99.05
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

Compared with results for the previous year, the percentage of working expenses on revenue shows decreases for each railway. There was an increase in earnings on each of the railways, with the exception of the North Australia line. The reductions in working expenses were due to (a) the operation of the Financial Emergency Act; (b) improved methods of working; and (c) the closest scrutiny over every item of expenditure.

(ii) *Averages.* The next table gives the working expenses per average mile worked, and per train-mile run for each railway for the years 1929 to 1933:—

## 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>					
	£	£	£	£	£
1929 .. ..	286	347	2,091	215	299
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
<b>WORKING EXPENSES PER TRAIN-MILE RUN.</b>					
	d.	d.	d.	d.	d.
1929 .. ..	144.01	115.21	191.98	164.70	134.62
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

(iii) *Classification and Percentages.* Of the total working expenses of the Federal Railways during the year 1932-33, maintenance expenses represented 39 per cent., locomotive, carriage and wagon charges 38 per cent., and traffic expenses 14 per cent. Details for each line were as follow :—Trans-Australian line 35 per cent., 42 per cent. and 12 per cent.; Central Australia line 44 per cent., 37 per cent., and 12 per cent.; Federal Capital Territory line 14 per cent., 41 per cent. and 39 per cent.; and North Australia line 50 per cent., 19 per cent. and 22 per cent. respectively.

II. *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 1929 to 1933 :—

## RAILWAYS, FEDERAL.—TRAFFIC.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	

## PASSENGER JOURNEYS.

	No.	No.	No.	No.	No.
1929 .. ..	36,030	57,993	47,470	5,135	146,628
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 .. ..	19,642	28,380	30,533	2,784	81,339

## TONNAGE OF GOODS AND LIVE STOCK CARRIED.

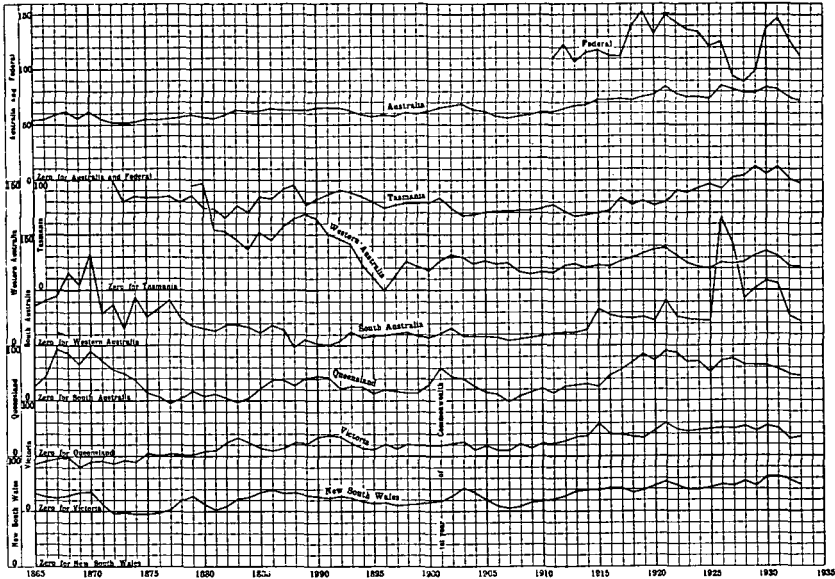
	Tons.	Tons.	Tons.	Tons.	Tons.
1929 .. ..	40,750	90,734	23,196	14,919	169,599
1930 .. ..	20,906	44,047	20,966	7,024	92,943
1931 .. ..	12,360	38,831	10,077	3,296	64,564
1932 .. ..	21,316	65,538	7,807	3,039	97,700
1933 .. ..	19,754	71,710	10,502	3,435	105,401

(ii) *Passenger-Mileage Summary.* The appended table gives particulars of "Passenger-Mileage" on each of the Federal railways for the year 1932-33 :—

## RAILWAYS, FEDERAL.—PASSENGER-MILES SUMMARY, 1932-33.

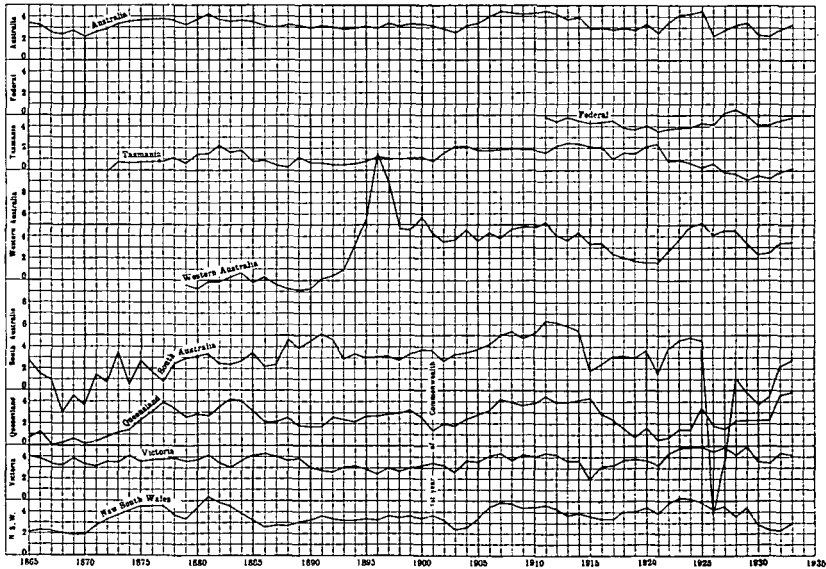
Railway.	Passenger Train Mileage.	Number of Passenger Journeys.	Total "Passenger-Miles."	Amount Received from Passengers.	Average Number of Passengers carried per Train Mile.	Average Mileage per Passenger Journey.	Average Earnings per "Passenger-Mile."	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked.
			,000 omitted.	£		Miles.	d.	£ s. d.	
Trans-Australian ..	224,950	19,642	14,845	67,898	66	756	1 10	3 9 1	14,113
Central Australia ..	23,325	28,380	1,820	10,238	78	64	1 35	0 7 2	2,359
Federal Capital Territory ..	5,906	30,533	152	1,234	26	5	1 95	0 0 10	39,722
North Australia ..	10,761	2,784	315	2,543	29	113	1 93	0 18 3	997

PERCENTAGES OF WORKING EXPENSES ON GROSS REVENUE OF GOVERNMENT RAILWAYS, 1865 TO 1933.



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 1933.

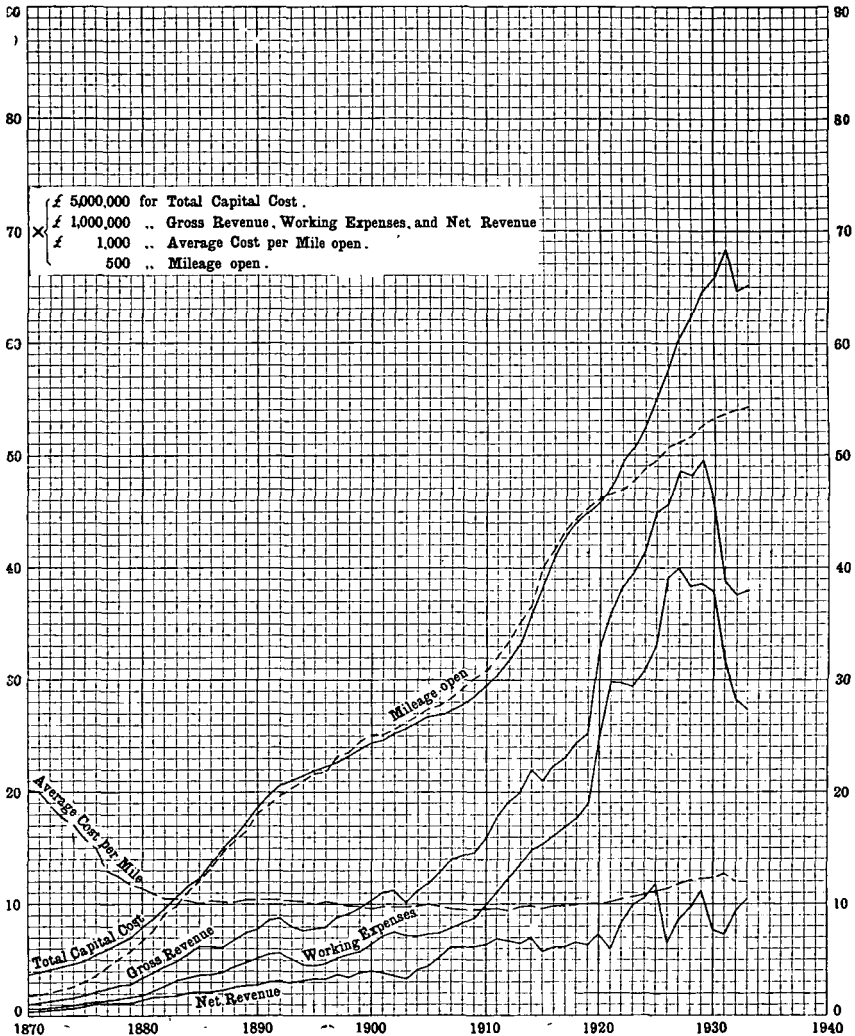


EXPLANATION.—The base of each small square represents throughout one year. The vertical side of a small square denotes 1 per cent., the thick zero lines, however, for each State and Australia being different.

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 1933.



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.

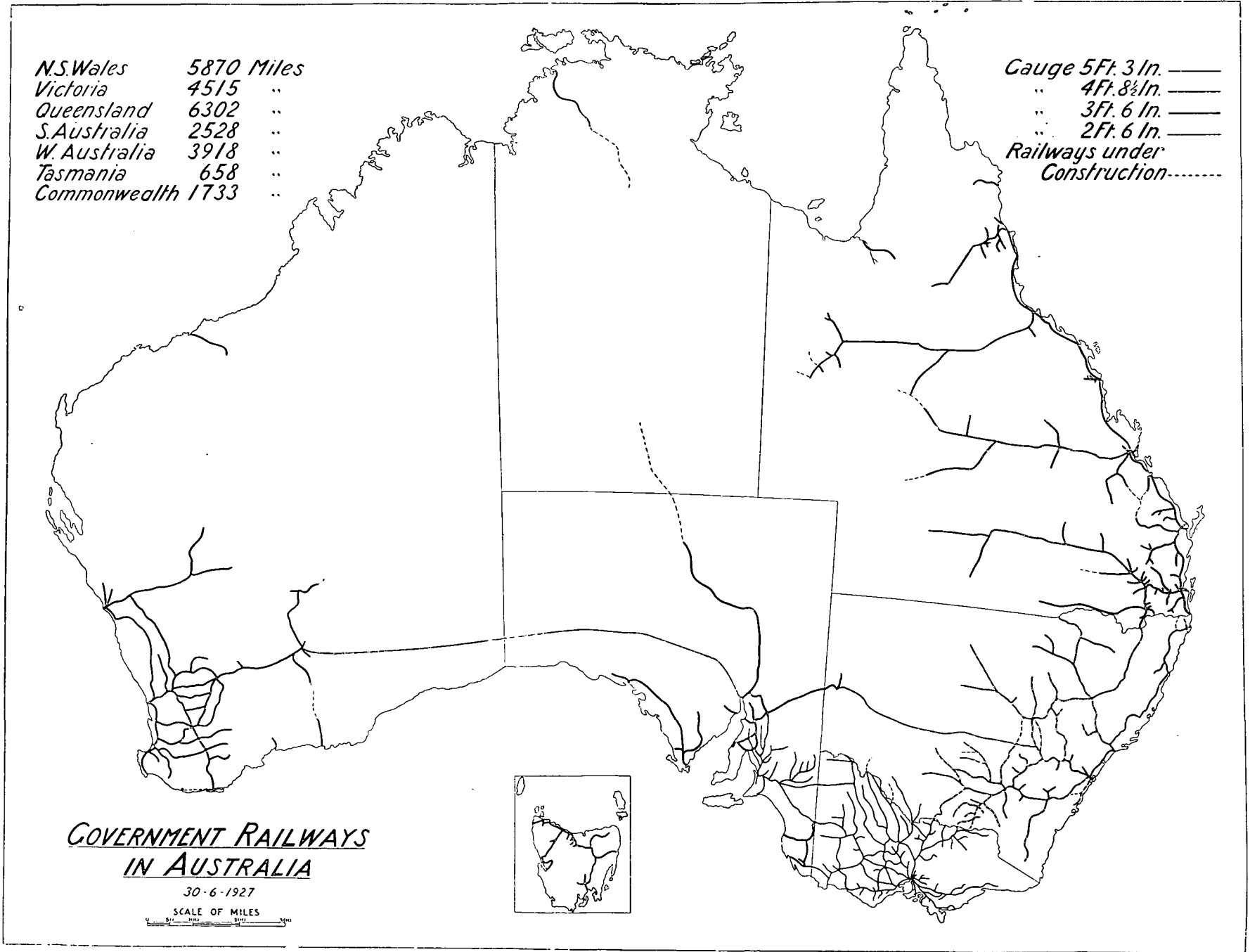
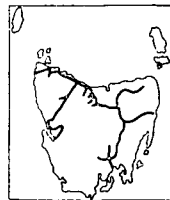
<i>N.S.Wales</i>	<i>5870 Miles</i>
<i>Victoria</i>	<i>4515 ..</i>
<i>Queensland</i>	<i>6302 ..</i>
<i>S. Australia</i>	<i>2528 ..</i>
<i>W. Australia</i>	<i>3918 ..</i>
<i>Tasmania</i>	<i>658 ..</i>
<i>Commonwealth</i>	<i>1733 ..</i>

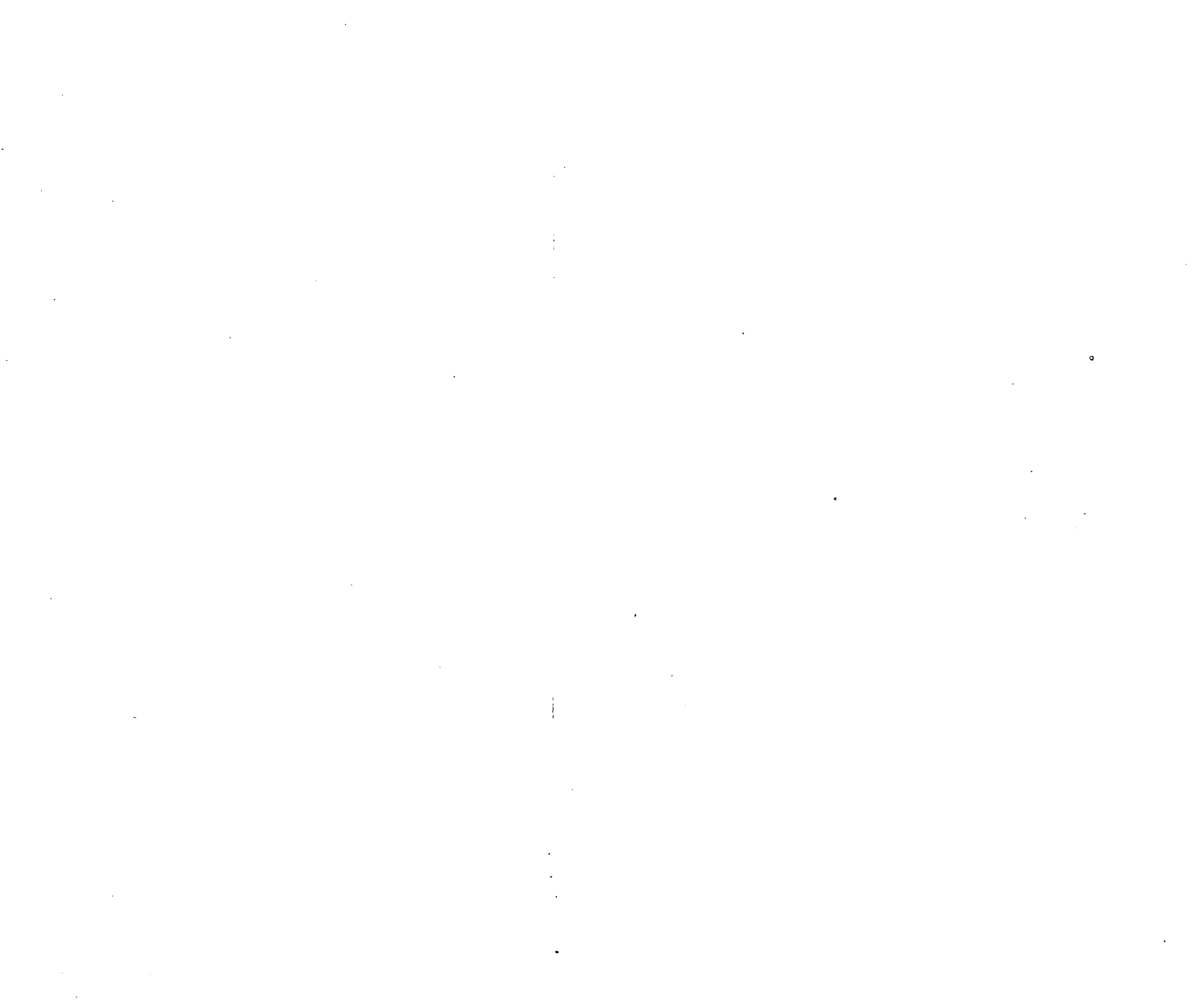
*Gauge 5 Ft. 3 In.* ———  
 .. *4 Ft. 8½ In.* ———  
 .. *3 Ft. 6 In.* ———  
 .. *2 Ft. 6 In.* ———  
*Railways under Construction* - - - - -

***GOVERNMENT RAILWAYS  
IN AUSTRALIA***

30-6-1927

SCALE OF MILES  



(iii) *Ton-Mileage Summary.* Particulars of ton-mileage are shown hereunder in respect of each of the Federal railways for the year 1932-33 :—

**RAILWAYS, FEDERAL.—“TON-MILEAGE” SUMMARY, 1932-33.**

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.
					£	Tons.	Miles.	d.
Trans-Australian ..	99,223	19,754	9,006 omitted.	51,837	(a) 92	461	1.37	8,657
Central Australia ..	159,089	71,710	10,128	74,555	(a) 64	141	1.77	13,129
Federal Capital Territory ..	944	10,502	53	2,000	56	5	9.14	10,629
North Australia ..	23,048	3,435	349	7,134	(a) 15	102	4.91	1,102

(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. 24.

13. *Employees.*—(i) *General.* The following table shows the number of employees on the Federal railways at 30th June in each year from 1929 to 1933 inclusive, classified according to salaried and wages staffs :—

**RAILWAYS, FEDERAL.—EMPLOYEES.**

Railway.	At 30th June—									
	1929.		1930.		1931.		1932.		1933.	
	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	128	776	117	733	106	(b) 554	102	(b) 556	99	(b) 718
Central Australia	68	539	59	383	57	331	55	275	53	(c) 297
Federal Capital Territory (a) ..	5	8	5	7	4	5	4	5	4	5
North Australia ..	22	178	15	93	13	100	14	82	15	88
Total ..	223	1,501	196	1,216	180	990	175	918	171	1,108

(a) Worked by New South Wales Government Railways until 1st July, 1928. (b) Includes those engaged on construction work, 1931, 4; 1932, 15; and 1933, 157. (c) Includes 6 on construction work.

(ii) *Average Employed throughout Year.* The average number of employees throughout the year 1932-33 was 172 salaried staff and 1,010 wages staff (88 of whom were on construction work).

14. *Accidents.*—The following table shows the number of accidents in each of the years 1929 to 1933 :—

**RAILWAYS, FEDERAL.—ACCIDENTS.**

Railway.	Number of Persons.									
	Killed.					Injured.				
	1929.	1930.	1931.	1932.	1933.	1929.	1930.	1931.	1932.	1933.
Trans-Australian ..	..	..	..	..	..	3	..	2	3	2
Central Australia ..	..	1	..	..	..	7	..	2	1	4
Federal Capital Territory ..	..	..	..	..	..	..	..	..	1	..
North Australia ..	..	..	..	..	..	4	..	..	1	..
Total ..	..	1	..	..	..	14	..	4	6	6

Of those injured in 1933, all were railway employees. Further details are available on page 24 of Transport and Communication Bulletin No. 24.

### § 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, 1929 to 1933.*—(i) *General.* The following table shows the length of State railways open for traffic on the 30th June in the years 1929 to 1933 :—

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.
1929 .. .. .	5,940	4,699	6,447	2,542	4,079	653	24,360
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

A graph indicating the mileage open in Australia at the end of each of the years 1870 to 1933 accompanies this chapter.

The appended statement shows the actual mileage opened for traffic in the year 1933, also the annual average increase in mileage opened since 1923 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 1932-33 .. .. .	38.31	..	8.42	..	102.67	..	149.40
Average annual mileage increase for 10 years to 30th June, 1933 ..	84.61	38.74	66.11	15.62	78.29	1.85	281.52

(ii) *New South Wales.* During the year ended 30th June, 1933, the following new line was opened for traffic, viz. :—Unanderra to Moss Vale, a distance of 38.31 miles.

(iii) *Victoria.* During the year ended 30th June, 1933, no new lines were opened for traffic.

(iv) *Queensland.* The new line from Thangool to Lawgi (8.42 miles) was opened for traffic during the year ended 30th June, 1933.

(v) *South Australia.* There were no alterations to route mileage during this year.

(vi) *Western Australia.* The following new mileage was opened for traffic during the year :—Paroo to Wiluna (43.54 miles) and Lake Grace to Hyden (58.45 miles). Minor adjustments increased the length of existing lines by 0.68 miles, the total increase for the year being therefore 102.67 miles.

(vii) *Tasmania.* There were no alterations to route mileage during this year.

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, 1933, is given in the Transport and Communication Bulletin No. 24 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 1929 to 1933 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.
AVERAGE MILEAGE WORKED.							
1929 ..	5,903	4,698	6,387	2,545	3,993	654	24,180
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	24,553
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

## TRAIN-MILES RUN. (a)

1929 ..	27,382,124	17,979,219	11,893,147	5,765,366	5,829,465	1,405,929	70,255,250
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	1,251,702	64,102,256
1932 ..	25,848,580	15,363,776	10,064,819	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

(a) Traffic Train-Miles (exclusive of " Assistant " and " Light " mileages).

5. Lines under Construction, and Lines Authorized, 1933.—(i) *General.* The following statement gives particulars at the 30th June, 1933, 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, 1933.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	All States.
Mileage under construction ..	(a)	(b)38.00	(c)	..	27.90	..	65.90
Mileage authorized but not commenced ..	366.24	39.50	1,130.00	26.25	319.85	..	1,881.84

(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.* At 30th June, 1933, no railway construction work was in progress. 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, 1933, 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, 1933, no railway construction work was in progress.

(e) *Western Australia.* The following line was in course of construction but not completed by the Railways Department on the 30th June, 1933 :—Pemberton to Westcliffe (27.90 miles).

(f) *Tasmania.* At 30th June, 1933, no railway construction work was in progress.

(iii) *Lines Authorized for Construction.* (a) *New South Wales.* At the 30th June, 1933, the following lines had been authorized for construction but not commenced :—Gulgandra 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, 1933 :—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); an aggregate distance of 39.50 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); Wandooan 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 Peeramon towards Boongee (11 miles); a total of 1,130 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, 1933 :—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); a total distance of 319.85 miles.

(f) *Tasmania.* There were no new railways authorized on which work had not been commenced at 30th June, 1933.

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, 1933, amounted to £309,986,574, representing an average cost of £46.85 per head of population. If the cost of railways owned by the Commonwealth Government is included, the total capital cost (£325,531,319) is equivalent to an amount of £49.10 per head of the population of the Commonwealth, while the total mileage open (27,107.77 miles) per 1,000 of population is 4.09. 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, 1933.

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 at 30th June, 1933.
	Miles.	£	£	£	Miles.
New South Wales (a) ..	(b)6,163.91	(d)138,921,968	(d) 20,915	(d) 53.41	(c) 2.37
Victoria .. .. .	4,720.77	74,706,736	15,833	41.04	2.59
Queensland .. ..	(b)6,566.51	(d)34,098,724	(d) 5,193	(d) 35.98	(c) 6.93
South Australia (a) ..	2,529.26	27,167,930	10,743	46.76	4.35
Western Australia (a) ..	4,337.73	24,159,782	5,569	55.04	9.88
Tasmania .. .. .	644.89	6,560,434	10,173	28.82	2.83
All States .. .. .	24,963.07	(c)309,986,574	(c) 12,418	(c) 46.85	(c) 3.77

(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 para. 4, page 153). (c) Includes Grafton-South Brisbane line, £4,371,000. (d) Exclusive of Grafton-South Brisbane line.

The lowest average cost (£5,569) per mile open is in Western Australia, and the highest (£20,915) in New South Wales, as compared with an average of £12,418 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.

There was a reduction of £28,000,000 in the capital cost of the Queensland railways as a result of a continued agitation on the part of the railway authorities for some relief from the over-capitalization of the government railways. As the latter are largely a means of developing the country, it follows that they cannot be conducted as a purely commercial undertaking, nor can they be expected to show a profit after payment of operation costs and interest charges on capital invested. As it was deemed hardly equitable to burden the railways with the interest charges on capital expended largely in developing the State, part of the capitalization of the railways was transferred to a separate fund by "The Railway (Capital Indebtedness) Reduction Act of 1931."

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 1929 to 1933 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>							
1929 ..	£ 122,566,422	£ 73,061,522	£ 58,251,561	£ 26,835,717	£ 22,427,112	£ 6,494,003	£ 309,636,337
1930 ..	124,555,236	74,193,518	58,727,528	27,272,316	22,846,871	6,534,186	314,129,655
1931 ..	130,802,3624	74,302,935	59,497,4954	27,255,443	23,329,093	6,549,965	6326,108,493
1932 ..	137,792,3194	74,415,458	633,884,1904	27,202,936	23,648,654	6,561,429	6307,875,986
1933 ..	138,921,9684	74,706,736	634,098,7244	27,167,930	24,159,782	6,560,434	6309,986,574

## COST PER MILE OPEN.

1929 ..	20,633	15,548	9,035	10,558	5,498	9,945	12,711
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	15,763	(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

(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, 1933 :—

## RAILWAYS, STATE.—EXPENDITURE FROM CONSOLIDATED REVENUE FOR CONSTRUCTION AND EQUIPMENT TO 30th JUNE, 1933.

To 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
1933 ..	£ 669,390	£ 4,622,595	£ ..	£ ..	£ 640,908	£ 16,935	£ 5,949,828

(iii) *Loan Expenditure.* The subjoined table shows the total net loan expenditure on Government railways in each State, except Tasmania, and on Government railways and tramways in the latter State for the years 1929 to 1933 :—

## RAILWAYS, STATE.—NET LOAN EXPENDITURE.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	All States.
1929 ..	£ 6,356,971	£ 1,229,521	£ 1,212,131	£ 706,144	£ 826,204	£ Cr. 11,684	£ 10,319,287
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	..	50,275	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

(a) Including tramways.

The following statement shows the total loan expenditure on railways to the 30th June, 1933 :—

## RAILWAYS, STATE.—TOTAL LOAN EXPENDITURE TO 30th JUNE, 1933.

State.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.(a)	All States.
Expenditure	£ 138,160,396	£ 74,085,988	£ 61,652,135	£ 31,940,470	£ 24,039,825	£ 6,911,662	£ 336,790,476

(a) Including tramways.

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 1929 to 1933 inclusive were as follow :—

## RAILWAYS, STATE.—GROSS REVENUE.

Year ended 30th June—	N.S.W.	Victoria. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
TOTAL GROSS REVENUE.							
1929 .. ..	£ 220,415,616	£ 13,162,973	£ 7,568,647	£ 3,593,646	£ 3,799,764	£ 503,855	£ 49,044,501
1930 .. ..	£ 218,626,692	£ 12,001,806	£ 7,302,281	£ 3,276,945	£ 3,659,203	£ 507,374	£ 45,374,301
1931 .. ..	£ 216,005,741	£ 10,008,358	£ 6,476,979	£ 2,586,132	£ 3,198,913	£ 400,176	£ 38,676,299
1932 .. ..	£ 215,301,022	£ 9,454,304	£ 5,994,523	£ 2,746,341	£ 2,922,385	£ 381,283	£ 37,290,858
1933 .. ..	£ 216,205,320	£ 9,446,121	£ 5,992,394	£ 2,734,683	£ 2,932,140	£ 381,483	£ 37,691,541

## GROSS REVENUE PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£
1929 .. ..	3,458	2,802	1,185	1,412	951	712	2,028
1930 .. ..	3,126	2,549	1,133	1,291	890	709	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	1,081	685	592	1,514

## GROSS REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1929 .. ..	178.04	175.71	152.73	149.60	156.43	86.01	167.54
1930 .. ..	167.34	163.01	147.79	141.68	153.27	80.94	157.76
1931 .. ..	149.89	150.64	142.83	124.34	142.10	76.77	144.80
1932 .. ..	146.71	147.69	131.21	134.12	137.71	80.07	141.39
1933 .. ..	152.15	147.97	132.84	133.65	133.20	82.65	143.56

(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.

The amounts of revenue earned per average mile worked and per train-mile run in respect of (a) coaching 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 for 1929 to 1933, 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.
COACHING TRAFFIC RECEIPTS.							
	£	£	£	£	£	£	£
1929 ..	8,124,716	5,871,037	2,444,697	1,013,296	979,999	180,295	18,614,040
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

## GOODS AND LIVE STOCK TRAFFIC RECEIPTS.

1929 ..	10,379,192	6,251,682	4,949,614	2,358,579	2,610,193	305,287	26,854,547
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

## MISCELLANEOUS RECEIPTS.

		(b)					
1929 ..	21,911,708	1,040,254	174,336	221,771	209,572	18,273	3,575,914
1930 ..	21,832,809	974,274	144,369	219,960	207,466	17,906	3,396,784
1931 ..	22,293,659	812,388	264,152	162,895	184,286	14,192	3,731,572
1932 ..	22,341,277	702,513	223,332	166,944	166,366	13,841	3,614,273
1933 ..	22,342,311	703,551	217,868	153,302	159,631	14,232	3,590,895

(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.

(b) Percentages. The following table shows for the two years 1931-32 and 1932-33 the percentage which each class of receipts bears to the total gross revenue :—

## RAILWAYS, STATE.—PERCENTAGES OF RECEIPTS.

State.	1931-32.			1932-33.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
	%	%	%	%	%	%
New South Wales ..	35.48	49.70	14.82	35.14	50.41	14.45
Victoria ..	41.74	50.83	7.43	42.01	50.54	7.45
Queensland ..	29.40	66.87	3.73	29.51	66.85	3.64
South Australia ..	22.98	70.94	6.08	23.98	70.41	5.61
Western Australia ..	22.24	72.07	5.69	22.59	71.96	5.45
Tasmania ..	34.74	61.63	3.63	33.10	63.17	3.73
All States ..	34.12	56.19	9.69	34.16	56.31	9.53

(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, 1933. Further particulars of passenger-mileage will be found in sub-paragraph 14 (i) hereinafter.

**RAILWAYS, STATE.—PASSENGER EARNINGS, AVERAGES, 1932-33.**

State.	Number of Passenger-Train-Miles.	Passenger Earnings.		
		Gross.	Per Average Mile Worked.	Per Passenger-Train-Mile.
	No.	£	£	d.
New South Wales .. ..	16,382,222	5,025,484	816	73.62
Victoria .. ..	10,540,785	3,561,588	754	81.09
Queensland .. ..	4,657,942	1,301,405	198	67.05
South Australia .. ..	3,151,505	519,277	205	39.54
Western Australia .. ..	(a) 2,181,247	503,177	118	55.36
Tasmania .. ..	(a) 498,328	104,978	163	51.56
All States .. ..	37,412,029	11,015,909	442	70.67

(a) Includes "Assistant" and "Light" mileage.

(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, 1933, 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, 1932-33.**

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 .. ..	9,179,998	610,888,973	8,169,056	1,326	213.57	180.05
Victoria .. ..	4,780,613	6,244,346	4,773,699	1,011	239.65	183.48
Queensland .. ..	6,072,594	3,620,222	3,944,275	601	155.88	261.48
South Australia .. ..	1,758,083	2,387,817	1,924,982	761	262.78	193.48
Western Australia .. ..	(a) 3,229,557	2,840,077	2,110,065	493	156.81	178.31
Tasmania .. ..	(a) 613,396	510,585	240,978	374	94.29	113.27
All States .. ..	25,634,241	26,492,020	21,163,055	850	198.14	191.72

(a) Includes "Assistant" and "Light" mileage.

(b) Exclusive of 258,893 tons of coal on which way leave charges only were collected.

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 1929 to 1933 :—

## 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>							
	£	£	£	£	£	£	£
1929 .. ..	14,978,050	9,532,798	6,202,801	3,622,567	3,055,446	563,652	37,955,314
1930 .. ..	14,962,423	9,311,548	5,945,163	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	2,139,395	2,123,281	386,929	27,784,182
1933 .. ..	12,021,284	6,366,838	4,323,655	1,978,545	2,111,588	373,762	27,175,672

## PERCENTAGE OF WORKING EXPENSES ON GROSS REVENUE.

	%	%	%	%	%	%	%
1929 .. ..	73.37	72.42	81.95	100.80	80.41	111.86	77.39
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 .. ..	74.18	67.40	72.15	72.37	72.02	97.97	72.10

The variation in the percentage of working expenses on the gross revenue in each State for the years 1865 to 1933 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 1929 to 1933 :—

## 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>							
	£	£	£	£	£	£	£
1929 .. ..	2,537	2,029	971	1,423	765	862	1,570
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 .. ..	1,952	1,349	659	782	494	580	1,092

## WORKING EXPENSES PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1929 .. ..	131.28	127.25	125.17	150.80	125.79	96.22	129.66
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 .. ..	112.87	99.73	95.85	96.72	95.93	80.97	103.51

(iii) *Distribution.* The subjoined table shows the distribution of working expenses under four chief heads of expenditure for the years 1929 to 1933 :—

## RAILWAYS, STATE.—DISTRIBUTION OF WORKING EXPENSES.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
MAINTENANCE.							
	£	£	£	£	£	£	£
1929 .. ..	2,538,981	1,926,157	1,608,978	658,941	748,123	158,302	7,639,482
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	117,319	6,127,374
1932 .. ..	2,346,791	1,110,987	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
LOCOMOTIVE, CARRIAGE, AND WAGON CHARGES.							
1929 .. ..	7,003,464	3,579,620	2,719,211	1,899,717	1,381,160	235,641	16,818,813
1930 .. ..	6,926,296	3,587,086	2,639,642	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
TRAFFIC EXPENSES.							
1929 .. ..	3,848,525	2,605,790	1,721,355	764,203	803,016	130,068	9,872,957
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	1,690,512	1,177,336	457,706	572,101	92,275	7,049,773
1933 .. ..	2,771,583	1,628,237	1,136,739	450,886	562,000	87,154	6,636,599
OTHER CHARGES.							
1929 .. ..	1,587,080	1,421,231	153,257	299,706	123,147	39,641	3,624,062
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	3,863,263
1932 .. ..	1,845,633	1,119,809	249,590	235,117	101,938	24,344	3,576,431
1933 .. ..	1,796,976	1,042,912	266,107	244,074	94,627	24,247	3,468,943

9. *Salaries and Wages.*—The following table shows the total amount paid in salaries and wages in each State during the years 1929 to 1933 :—

## RAILWAYS, STATE.—SALARIES AND WAGES PAID.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
TOTAL SALARIES AND WAGES PAID.							
	£	£	£	£	£	£	£
1929 .. ..	12,422,298	7,436,531	4,805,836	2,499,872	2,551,056	374,107	30,089,700
1930 .. ..	11,656,142	7,097,012	4,649,032	2,437,783	2,587,455	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	4,435,618	3,311,129	1,382,707	1,620,084	260,943	20,677,633
1933 .. ..	8,462,006	4,417,160	3,244,342	1,376,676	1,675,594	254,882	19,431,560

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 1929 to 1933 :—

**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>							
	£	£	£	£	£	£	£
1929 .. ..	5,437,566	3,630,175	1,365,846	— 28,921	744,318	— 59,797	11,089,187
1930 .. ..	3,664,269	2,690,258	1,356,118	— 296,176	546,308	— 28,040	7,932,737
1931 .. ..	3,106,095	2,508,424	1,401,501	— 148,487	588,074	— 48,662	7,406,945
1932 .. ..	3,268,153	3,272,814	1,565,305	615,946	799,104	— 5,616	9,515,676
1933 .. ..	4,184,036	3,079,283	1,668,739	755,538	820,552	7,721	10,515,869

**PERCENTAGE OF NET REVENUE ON CAPITAL EXPENDITURE.**

	%	%	%	%	%	%	%
1929 .. ..	4.44	4.97	2.34	— 0.11	3.32	— 0.92	3.58
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) 3.01	4.12	(a) 4.89	2.78	3.40	0.12	(b) 3.39

(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>							
	£	£	£	£	£	£	£
1929 .. ..	921	773	214	— 11	186	— 91	458
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 .. ..	679	652	254	299	192	12	422

**NET REVENUE PER TRAIN-MILE RUN.**

	d.	d.	d.	d.	d.	d.	d.
1929 .. ..	46.76	48.46	27.56	— 1.20	30.64	— 10.21	37.88
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 .. ..	39.28	48.24	36.99	36.93	37.28	1.67	40.05

11. **Interest.** The amount of interest payable on expenditure from loans on the construction and equipment of the railways in each State, during the years ended 30th June, 1929 to 1933, 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.
AMOUNT OF INTEREST PAYABLE.							
	£	£	£	£	£	£	£
1929 .. ..	6,150,000	3,473,575	2,902,710	1,366,807	923,017	283,554	15,099,663
1930 .. ..	6,420,643	3,508,657	2,953,211	1,399,053	950,797	284,379	15,516,740
1931 .. ..	66,790,082	3,596,758	43,018,355	1,426,741	968,066	285,881	116,205,274
1932 .. ..	66,519,217	3,641,109	41,589,643	1,217,338	989,173	263,900	114,328,550
1933 .. ..	66,352,581	3,221,710	41,593,522	1,137,193	996,233	263,861	113,673,133

(a) Interest charges on the Grafton—South Brisbane line for the year 1930—31 amounted to £215,971, of which New South Wales contributed £70,269 and Queensland £26,311, the remainder, £119,391, being borne by the Commonwealth. The total charges for 1931—32 were £213,027, of which New South Wales contributed £72,301, Queensland £32,546 and the Commonwealth £108,180. The total charges for 1932—33 were £210,609, of which New South Wales contributed £72,320, Queensland £32,256, and the Commonwealth £106,033. See B § 1, 4 ante.

Exchange on interest payments in London during the year 1931—32, New South Wales £1,313,541, Victoria £440,938 and South Australia £176,913, are not included in the amounts shown above for those States; the figures for the year 1932—33 being New South Wales £1,191,937, Victoria £402,705, and South Australia £180,826. With regard to the remaining States, the amounts of exchange, which are not available, are not charged against the Railways, and are therefore not included in the above figures. The interest payable on the cost of construction and equipment, exclusive of expenditure from consolidated revenue (£5,949,828) for that purpose, was at the rate of 4.50 per cent., in 1932—33.

The reduction of £28,000,000 in the Queensland Capital Account referred to on page 171 is reflected in the decrease in the annual interest payable by that State.

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.
PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES, INTEREST, AND OTHER CHARGES.							
	£	£	£	£	£	£	£
1929 .. ..	- 712,434	+ 156,600	- 1,536,864	- 1,395,728	- 178,699	- 343,351	- 4,010,476
1930 .. ..	- 2,756,374	- 818,399	- 1,597,093	- 1,693,229	- 404,489	- 312,419	- 7,584,003
1931 .. ..	a- 3,683,987	- 1,088,334	- 1,616,854	- 1,575,228	- 379,092	- 334,543	a- 8,798,329
1932 .. ..	a- 3,251,064	- 368,295	- 24,338	- 601,392	- 190,069	- 269,546	a- 4,812,884
1933 .. ..	a- 2,168,545	- 142,427	+ 73,217	- 381,655	- 175,681	- 256,140	a- 3,157,264

## PERCENTAGE OF PROFIT OR LOSS ON CAPITAL COST OF CONSTRUCTION AND EQUIPMENT.

	%	%	%	%	%	%	%
1929 .. ..	- 0.58	+ 0.21	- 2.64	- 5.20	- 0.80	- 5.29	- 1.30
1930 .. ..	- 2.21	- 1.10	- 2.72	- 6.22	- 1.77	- 4.78	- 2.41
1931 .. ..	(b) - 2.73	- 1.46	(b) - 2.64	- 5.78	- 1.63	- 5.11	(c) - 2.70
1932 .. ..	(b) - 2.36	- 0.49	(b) - 0.07	- 2.21	- 0.80	- 4.11	(c) - 1.56
1933 .. ..	(b) - 1.56	- 0.19	(b) + 0.21	- 1.40	- 0.73	- 3.90	(c) - 0.98

(a) See Note (a) paragraph 11 above. (b) Exclusive of Grafton—South Brisbane line.  
(c) Includes Grafton—South Brisbane line.



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 long and bulky hauls of wheat, live stock and wool to the coast require a large equipment of rolling stock, but the requirement for back freight is very much less. In this respect, therefore, the Australian railways are at a disadvantage compared with those of countries where there is a more balanced traffic in both directions.

The following table gives particulars for the years 1929 to 1933 :—

### 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.

1929 ..	151,116,086	161,002,267	24,738,327	17,829,946	14,904,917	2,212,817	371,804,360
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

#### PER 100 OF MEAN POPULATION.

1929 ..	6.083	9.141	2.775	3.117	3.596	1.022	5.864
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

#### PER AVERAGE MILE OF LINE WORKED.

1929 ..	25,598	34,272	3,873	7,007	3,732	3,384	15,377
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

#### TONNAGE OF GOODS AND LIVE STOCK CARRIED.

1929 ..	14,516,643	8,187,088	4,558,099	2,748,423	3,670,147	660,523	34,340,923
1930 ..	12,150,964	7,513,606	4,528,201	2,652,753	3,530,188	632,057	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

#### PER 100 OF MEAN POPULATION.

1929 ..	5.84	4.65	5.11	4.80	8.85	3.05	5.42
1930 ..	4.82	4.22	5.01	4.63	8.20	2.88	4.83
1931 ..	4.22	3.40	4.20	3.77	7.32	2.09	4.08
1932 ..	3.98	3.43	4.15	4.19	6.57	1.99	3.97
1933 ..	4.30	3.44	3.92	4.12	6.50	2.24	4.07

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>							
1929 ..	2,459	1,743	714	1,080	919	1,010	1,423
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	944	664	792	1,077

(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 1932-33 :—

## RAILWAYS, STATE.—METROPOLITAN AND SUBURBAN, AND COUNTRY PASSENGER TRAFFIC AND RECEIPTS, 1932-33.

Particulars.	Passenger Journeys.			Revenue.		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
	No.	No.	No.	£	£	£
N.S.W. ..	a124,986,591	7,880,630	132,867,221	2,524,984	2,500,500	5,025,484
Victoria ..	b124,898,334	5,291,679	130,190,013	2,178,893	1,382,695	3,561,588
Queensland ..	17,577,067	4,639,342	22,216,409	252,405	1,083,425	1,335,830
S. Australia ..	c 14,930,714	1,143,507	16,074,221	212,777	306,500	519,277
W. Australia ..	10,333,956	1,398,435	11,732,391	131,145	372,032	503,177
Tasmania ..	(d)	(d)	1,678,483	(d)	(d)	104,978
<b>Total ..</b>	<b>(e)</b>	<b>(e)</b>	<b>314,758,738</b>	<b>(e)</b>	<b>(e)</b>	<b>11,050,334</b>

(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 of Melbourne. (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 1932-33 :—

**RAILWAYS, STATE.—CLASSIFICATION OF COMMODITIES CARRIED, 1932-33.**

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>								
New South Wales	4,890,533	848,877	2,368,743	220,315	198,243	656,097	1,965,058	11,147,866
Victoria ..	218,810	321,898	1,386,824	197,389	86,483	483,774	3,549,168	6,244,346
Queensland ..	514,498	351,833	1,488,750 <sup>(a)</sup>	(b)	86,087	311,975	932,465	3,685,608
South Australia	121,426	457,620	914,238	16,029	32,558	99,414	746,532	2,387,817
Western Australia	216,419	281,854	1,187,137	45,498	21,464	84,058	1,003,647	2,840,077
Tasmania ..	199,580	(c)	66,176	19,002	3,971	20,809	201,047	510,585
All States ..	6,161,266	2,262,082	7,411,868	498,233	428,806	1,656,127	8,397,917	26,816,299

**PERCENTAGE OF TOTAL TONNAGE CARRIED.**

	%	%	%	%	%	%	%	%
New South Wales	43.87	7.61	21.25	1.98	1.78	5.88	17.63	100.00
Victoria ..	3.50	5.16	22.21	3.16	1.38	7.75	56.84	100.00
Queensland ..	13.96	9.55	40.39	(b)	2.34	8.46	25.30	100.00
South Australia	5.09	19.17	38.29	0.67	1.36	4.16	31.26	100.00
Western Australia	7.62	9.92	41.80	1.60	0.76	2.96	35.34	100.00
Tasmania ..	39.09	(c)	12.96	3.72	0.78	4.07	39.38	100.00
All States ..	22.97	8.43	27.64	1.86	1.60	6.18	31.32	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 1932-33 according to a classification which has been adopted by all States :—

**RAILWAYS, STATE.—GOODS, ETC., TRAFFIC—REVENUE, 1932-33.**

Class.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
General merchandise	4,973,560	3,022,593	2,518,151	925,193	1,086,324	169,002	12,694,823
Wheat ..	..	758,150	(a)	460,291	662,754	(a)	4,181,195
Wool ..	822,980	244,112	499,888	71,892	60,961	5,510	1,705,343
Live stock	1,099,681	590,691	480,957	140,100	109,077	17,716	2,438,222
Minerals—							
Coal, coke, and shale ..	1,038,680	68,557	240,324	33,934	118,455	(b) 30,730	1,530,680
Others ..	234,155	89,596	266,959	293,572	72,494	(c) 18,020	974,796
Total ..	8,169,056	4,773,699	4,006,279	1,924,982	2,110,065	240,978	21,225,059

(a) Included with General Merchandise.  
(d) Incomplete.

(b) Native coal.

(c) Minerals other than native coal.

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. Passenger-Mileage and Ton-Mileage.—(i) *Passenger-Miles.* The subjoined table gives particulars of passenger-mileage in respect of all States for the years 1928-29 to 1932-33.

## 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.									
1929	16,738	151,116	1,820,701	7,238,329	108	12.05	0.95	11.50	308,409
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
VICTORIA.									
1929	12,104	161,002	1,420,570	5,222,224	117	8.82	0.88	7.78	302,392
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
QUEENSLAND.									
1929	4,143	24,738	(a)	1,905,285	(a)	(a)	(a)	18.48	(a)
1930	4,313	24,441	(a)	1,838,812	(a)	(a)	(a)	18.06	(a)
1931 <sup>b</sup>	4,411	21,955	(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)
SOUTH AUSTRALIA.									
1929	3,563	17,830	219,857	815,323	62	12.33	0.89	10.98	86,403
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
WESTERN AUSTRALIA.									
1929	2,169	14,905	(a)	774,225	(a)	(a)	(a)	12.47	(a)
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)
TASMANIA.									
1929	.627	2,213	35,751	149,792	57	16.15	1.05	16.25	54,674
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

(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 1928-29 to 1932-33:—

## 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.
<b>NEW SOUTH WALES.</b>								
1929	10,645	14,307	1,690,560	10,379,192	183	118.16	1.45	286,376
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
<b>VICTORIA.</b>								
1929	5,876	8,187	834,605	6,251,682	173	101.94	1.80	177,651
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
<b>QUEENSLAND.</b>								
1929	7,751	4,558	553,815	4,949,614	071	124.03	2.14	88,572
1930	7,546	4,528	554,171	4,780,114	073	125.20	2.06	88,628
1931 <sup>b</sup>	6,406	3,838	495,912	4,148,845	077	133.20	2.00	79,149
1932 <sup>b</sup>	6,257	3,835	516,699	3,968,227	083	139.02	1.83	82,084
1933 <sup>b</sup>	6,073	3,620	517,502	3,944,275	085	147.72	1.82	82,101
<b>SOUTH AUSTRALIA.</b>								
1929	2,202	2,748	337,631	2,358,579	156	122.91	1.66	132,694
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
<b>WESTERN AUSTRALIA.</b>								
1929	23,773	3,670	367,032	2,610,193	113	100.00	1.71	91,919
1930	23,654	3,530	361,935	2,523,302	115	102.53	1.67	88,083
1931	23,487	3,154	373,405	2,289,638	121	118.41	1.47	90,566
1932	23,266	2,848	347,492	2,100,129	119	122.03	1.45	82,461
1933	23,230	2,840	339,007	2,110,065	105	119.37	1.49	79,237
<b>TASMANIA.</b>								
1929	2787	636	31,140	281,577	040	48.99	2.17	47,623
1930	2857	607	33,715	288,373	039	55.58	2.05	51,091
1931	2667	444	27,253	220,545	041	61.39	1.94	40,988
1932	2627	427	26,690	215,180	043	62.45	1.93	41,386
1933	2613	490	27,246	223,262	044	55.63	1.98	42,248

(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 209,664 tons (1929), 289,667 tons (1930), 127,209 tons (1931), 157,110 tons (1932) and 258,893 tons (1933). 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. 24.

17. **Employees.**—(i) *At 30th June.* The following table gives the number of railway employees in each year from 1929 to 1933 inclusive, classified according to (a) salaried staff, and (b) wages staff :—

**RAILWAYS, STATE.—EMPLOYEES. (a)**

State.	At 30th June—									
	1929.		1930.		1931.		1932.		1933.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
New South Wales	5,995	37,535	5,754	34,243	5,947	34,517	5,948	34,091	5,724	32,984
Victoria	4,295	23,025	4,249	20,361	4,051	17,985	3,720	17,456	3,621	18,159
Queensland	3,403	15,467	3,219	14,542	3,030	12,970	2,946	12,461	2,917	12,554
South Australia	1,312	7,401	1,293	6,794	1,158	5,586	1,137	5,736	1,143	5,784
Western Australia	1,418	7,770	1,424	7,587	1,287	5,900	1,204	5,671	1,178	6,135
Tasmania	219	1,376	217	1,352	191	1,234	174	1,137	166	1,133
All States	16,642	92,574	16,156	84,879	15,664	78,192	15,129	76,552	14,754	76,747

(a) Exclusive of construction staff.

In the period under review the totals of salaried and wages staffs decreased from 109,216 in 1929 to 91,501 in 1933, a decline of 16.2 per cent.

(ii) *Average staff employed, 1932-33.* 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, 1932-33.**

State.	Operating Staff.		Construction Staff.		All Employees—Staff.	
	Salaried.	Wages.	Salaried.	Wages.	Salaried.	Wages.
New South Wales	5,824	33,057	48	243	5,872	33,300
Victoria	3,855	17,767	..	..	3,855	17,767
Queensland	2,943	12,565	6	154	2,949	12,719
South Australia	1,143	5,711	..	..	1,143	5,711
Western Australia	1,186	6,184	12	188	1,198	6,372
Tasmania	166	1,133	..	..	166	1,133
All States	15,117	76,417	60	585	15,183	77,002

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 1929 to 1933 inclusive :—

## RAILWAYS, STATE.—ACCIDENTS.

State.	In year ended 30th June—									
	1929.		1930.		1931.		1932.		1933.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales	61	565	64	571	44	409	73	308	69	329
Victoria ..	46	281	57	197	57	150	56	227	52	177
Queensland ..	19	125	26	133	15	138	13	124	26	100
South Australia	20	156	9	196	13	98	7	104	13	127
Western Australia	15	354	18	330	13	195	23	266	15	236
Tasmania ..	2	71	6	84	2	42	4	16	1	70
All States ..	163	1,552	180	1,511	144	1,032	176	1,045	176	979

Particulars 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. 24.

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 1932-33 :—

## GOVERNMENT RAILWAYS.—CONSUMPTION AND VALUE OF OIL AND FUEL, 1932-33.

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	392,786	45,630	2 3.88	1,189,483	42,213	0 8.52	1,288,355	929,510 0 14 5.15	
Victoria ..	159,128	15,232	1 10.90	1,689,177	63,092	0 8.96	496,793	421,382 0 16 11.60	
Queensland ..	162,920	21,193	2 7.22	165,978	9,232	1 1.35	349,036	295,057 0 16 10.88	
South Australia	84,406	10,721	2 6.48	997,602	56,105	1 1.50	141,638	182,993 1 5 10.07	
Western Australia	66,256	8,579	2 7.10	257,544	11,516	0 10.70	278,250	215,316 0 15 5.72	
Tasmania ..	28,574	3,205	2 2.92	95,443	4,355	0 10.95	41,560	44,286 1 1 3.74	
Total States ..	894,070	104,560	2 4.07	4,395,227	186,513	0 10.18	2,595,632	2,088,544 0 16 1.11	
Federal ..	14,833	1,609	2 2.03	54,405	3,775	1 4.65	16,871	26,249 1 11 1.41	
Total, Australia..	908,903	106,169	2 4.03	4,449,632	190,288	0 10.26	2,612,503	2,114,793 0 16 2.28	

(a) Railways and Tramways.

The range in the average cost per ton of coal from 14s. 5d. in New South Wales to £1 11s. 1d. 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 1932-33 showed a decrease of 1s. 6.77d. on that for 1931-32.

### § 4. Private Railways.

1. **Total Mileage Open, 1932-33.**—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 1932-33 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 1932-33:—

#### RAILWAYS, PRIVATE.—SUMMARY, 1932-33.

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.		
										Locos.	Coaches.	Other Vehicles.
	No.	Miles.	£	£	£	Miles.	No.	Tons.	No.	No.	No.	
New South Wales ..	7	82.70	1,286,914	267,992	175,464	453,977	889,142	571,512	406	46	7	729
Victoria ..	2	24.94	93,574	11,494	6,805	20,024	12,469	34,038	22	5	4	35
Queensland	13	267.63	600,825	38,773	32,181	110,634	13,459	214,538	71	24	16	456
South Australia ..	1	50.51	(a)	(a)	(a)	37,310	300	644,526	30	7	1	188
Western Australia	1	277.00	2,235,783	156,705	77,037	237,045	30,701	121,432	238	23	23	488
Tasmania	4	141.56	896,313	67,511	55,609	116,467	37,026	66,324	175	21	19	298
All States(b)	28	844.34	5,113,409	542,475	347,096	975,457	983,097	1,652,370	942	126	70	2,194

(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 paragraph.



(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 1932-33, classified (a) according to the motive power utilized, and (b) according to gauge, also for Australia according to motive power for the years 1928-29 to 1932-33, :—

**TRAMWAYS.—ROUTE MILEAGE OPEN, 1932-33.**

Nature of Motive Power, and Gauge.	N.S. Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Total Australia.
<b>ACCORDING TO MOTIVE POWER.</b>							
Electric .. ..	Miles. 188.41	Miles. 154.38	Miles. 56.86	Miles. 82.83	Miles. 61.08	Miles. 30.73	Miles. 574.29
Steam .. ..	9.06	..	6.65	..	6.26	..	21.97
Cable .. ..	..	24.29	..	..	..	..	24.29
Horse .. ..	..	..	..	..	1.50	..	1.50
<b>Total .. ..</b>	<b>197.47</b>	<b>178.67</b>	<b>63.51</b>	<b>82.83</b>	<b>68.84</b>	<b>30.73</b>	<b>622.05</b>

**ACCORDING TO GAUGE.**

Gauge—							
5 ft. 3 in. .. ..	..	5.18	..	..	..	..	5.18
4 ft. 8½ in. .. ..	197.47	173.49	56.86	82.83	..	..	510.65
3 ft. 6 in. .. ..	..	..	6.65	..	68.84	30.73	106.22
<b>Total .. ..</b>	<b>197.47</b>	<b>178.67</b>	<b>63.51</b>	<b>82.83</b>	<b>68.84</b>	<b>30.73</b>	<b>622.05</b>

Of the total mileage of tramway lines, 400.06 are Government owned, 185.68 are municipal and 36.31 are private. Further details on this subject may be obtained from page 27 of Transport and Communication Bulletin No. 24.

**TRAMWAYS.—ROUTE MILEAGE OPEN, AUSTRALIA.**

Nature of Motive Power.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>ACCORDING TO MOTIVE POWER.</b>					
Electric .. ..	Miles. 557.99	Miles. 571.85	Miles. 574.52	Miles. 574.59	Miles. 574.29
Steam .. ..	40.19	41.62	29.37	21.97	21.97
Cable .. ..	30.60	26.44	24.29	24.29	24.29
Horse .. ..	1.50	1.50	1.50	1.50	1.50
<b>Total .. ..</b>	<b>630.28</b>	<b>641.41</b>	<b>629.68</b>	<b>622.35</b>	<b>622.05</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, 1933, 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. 24.

**TRAMWAYS.—COST OF CONSTRUCTION AND EQUIPMENT, 1932-33.**

Nature of Motive Power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
ACCORDING TO MOTIVE POWER.							
	£	£	£	£	£	£	£
Electric	8,001,622a	7,314,710	2,109,396	4,068,156	1,732,095	630,657	23,856,636
Steam ..	202,443	..	53,235	..	60,632	..	316,310
Cable ..	..	1,285,743	..	..	..	..	1,285,743
Horse ..	..	..	..	..	10,104	..	10,104
<b>Total ..</b>	<b>8,204,065</b>	<b>8,600,453</b>	<b>2,162,631</b>	<b>4,068,156</b>	<b>1,802,831</b>	<b>630,657</b>	<b>25,468,793</b>

(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 3½ 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 has now been completed, the last of the steam lines having been closed in November, 1930. The gauge of all lines is 4 ft. 8½ in.

(ii) *Particulars of Working.—Electric and Steam Tramways.* The following table gives a summary of the operations of all tramways for the years 1929 to 1933 :—

**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.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed.
	Miles.	£	£	£	£	£	%	%	No. ,000	No.
1929 ..	213.93	11,476,189	4,460,063	3,837,213	622,850	615,997	86.03	5.43	333,615	11,090
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	3,010,267	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

(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 114.54 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, and there are also systems of electric tramways 21.25 miles in length at Ballarat and Bendigo constructed and worked by a private company.

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 1929 to 1933 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.
1929 ..	180.19	7,943,382	2,586,663	1,846,454	749,209	313,854	71.38	9.32	228,308	5,713
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	8,690,155	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	4,734

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, on which date 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, 1933, 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 1929 to 1933:—

**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.
1929 ..	62.38	2,267,872	810,148	600,567	209,581	115,483	74.13	9.24	77,791	1,594
1930 ..	63.23	2,204,620	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

(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 this year, the system was run with horse-traction by several private companies. Electric traction was inaugurated in 1909, and at the 31st July, 1933, 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 1929 to 1933:—

**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.
1929..	75.79	3,527,710	677,513	501,362	176,151	231,737	74.00	4.99	66,578	1,982
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

(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, 1933, was 40.91 route miles. Electric tramways with a route mileage at 31st August, 1933, 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 1933, 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 7.76 miles of 3-ft. 6-in. gauge. The lines are under control of the Department of Works and Labour, and the total mileage of 7.76 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 1929 to 1933 :—

**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.	In-terest. (b)	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.
1929 ..	67.76	1,753,499	427,224	354,960	72,264	54,651	83.09	4.12	43,206	822
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	326,700	52,450	57,432	86.17	2.92	38,292	794
1932 ..	60.03	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

(a) Electric tramways only.  
operated by a private company.

(b) Exclusive of Kalgoorlie and Boulder electric tramways

7. *Tasmania.—(i) General.* In Hobart there is a system of electric tramways consisting of 19.00 route miles of 3-ft. 6-in. gauge controlled by the Hobart Municipal Council. The Launceston City Council operates tramways in Launceston having a length of 11.73 miles of 3-ft. 6-in. gauge.

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 1929 to 1933 :—

**ELECTRIC TRAMWAYS.—TASMANIA.—SUMMARY.**

Year.	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.
1929 ..	30.23	567,841	171,664	138,808	32,856	32,549	80.86	5.79	17,334	387
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	113,096	39,716	41,485	74.34	6.32	15,493	353
1933 ..	30.73	630,657	161,902	116,112	45,790	42,726	71.72	7.26	14,850	291

8. Australia.—All Tramways—Summary 1929 to 1933. The following table gives a summary of the working of all tramway systems in Australia for the years 1929 to 1933:—

## ALL TRAMWAYS—AUSTRALIA—SUMMARY.

Particulars.	1929.	1930.	1931.	1932.	1933.
Mileage open for traffic .. Miles	630.28	639.98	629.68	622.35	622.05
Cost of Construction and Equipment .. £	27,536,493	28,616,003	25,330,705	25,461,877	25,468,793
Cost per mile .. .. £	43.689	44.714	40.228	40.912	40.943
Gross Revenue .. .. £	9,133,275	8,514,345	7,227,991	7,218,605	7,180,549
Working Expenses .. .. £	7,279,364	7,001,248	6,068,041	5,644,208	5,346,464
Net Earnings .. .. £	1,853,911	1,513,097	1,159,950	1,574,397	1,834,085
Interest .. .. £	1,364,271	1,424,525	1,314,737	1,341,127	1,268,202
Percentage of Working Expenses on Gross Revenue .. %	79.70	82.23	83.95	78.19	74.46
Percentage of Net Earnings on Capital Cost .. .. %	6.73	5.29	4.58	6.18	7.20
Tram-miles run .. .. ,000 miles	80,566	79,010	77,308	79,963	80,910
Gross revenue per tram mile .. d.	27.21	25.86	22.44	21.66	21.30
Working expenses per tram mile .. d.	21.69	21.27	18.84	16.94	15.86
Net earnings per tram mile .. .. d.	5.52	4.59	3.60	4.72	5.44
Passengers carried .. .. ,000	766,832	718,000	633,014	631,508	641,680
Passengers carried per tram mile .. No.	9.52	9.09	8.19	7.90	7.93
Average revenue per passenger .. d.	2.86	2.85	2.74	2.74	2.69
Persons employed at end of year .. No.	21,588	19,839	17,402	17,479	16,875

(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 (550 miles); Brisbane to Camooweal (1,226 miles); Camooweal to Darwin (802 miles); Katherine to Ord River (375 miles); Cloncurry to Normanton (221 miles); Melbourne to Launceston (342 miles); Melbourne to Hobart, via King Island (487 miles); Melbourne to Hay (233 miles); Mildura to Broken Hill (189 miles); Melbourne to Charleville, via Cootamundra (900 miles).

Up to the 30th June, 1934, 204 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, 1934, there were 130 licensed public aerodromes under the control of local authorities. The total number of recognized landing grounds in Australia at the 30th June, 1934, was 334.

4. General Flying Activities, 1933.—During 1933, 553,963 miles were flown by the subsidized contractors without a fatal accident. The total mileage flown by all civil aircraft during the same period was 3,534,232 miles. Three fatal accidents occurred—an average of one fatal accident for every 1,178,077 miles flown. These figures cover all phases of civil flying operations in Australia and New Guinea.

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, 1934, seven subsidized contractors were operating under contracts which provided that such space as is required on each trip must be reserved for mails, the letters for transmission being surcharged 3d. per  $\frac{1}{2}$  ounce. The total route mileage of these services is 5,336 miles.

Since their inception the various subsidized regular air services over prepared routes have completed 11,279,000 passenger miles, and have carried 54,886 paying passengers over various stages. Over 183,300 lb. (81 tons) of letters have also been carried.

All pilots and mechanics employed on these services must join the Air Force Reserve when called upon.

(ii) *Reorganization of Services.* During the year, tenders were called for the establishment of services in accordance with the reorganized and extended air transport scheme indicated on page 192 of Official Year Book No. 26. The following contracts were let :—

Singapore-Darwin-Brisbane (4,361 miles)	..	Qantas Empire Airways Ltd. (D.H.86 aircraft).
Charleville-Cootamundra (629 miles)	..	A. C. Butler (D.H.84 aircraft)
Perth-Katherine (2,252 miles)	..	MacRobertson-Miller Aviation Co. Ltd. (D.H.84 aircraft).
Cloncurry-Normanton (215 miles)	..	Qantas Empire Airways Ltd. ("Fox Moth" aircraft).
Melbourne-Launceston-Hobart (469 miles)	..	Holyman's Airways Pty. Ltd. (D.H.86 aircraft).

For the Ord River-Wyndham service (158 miles) no tender was accepted. Fresh tenders are being called for this small "spur" service.

It has been decided to extend the system by the establishment of a service between Adelaide and Bourke (590 miles), thus giving South Australia direct connexion with the overseas service, via Bourke, Charleville and Darwin. Tenders are being invited for this additional service. It is expected that the new contracts already let will be in operation by December, 1934, replacing the existing "major" subsidized services mentioned in (iii) (a) hereunder. All the new services will be operated weekly in each direction, except the Melbourne-Hobart connexion, which will be flown six times weekly in each direction.

In the latter part of 1933, the Government authorized the establishment of four additional air services, operative for twelve months, and subsidized at the rate of approximately 6d. per mile. These are known as "minor" services, and are shown in detail in sub-paragraph (iii) (b) hereunder.

(iii) *Regular Air Services at 30th June, 1934.* The following regular air services were in operation at 30th June, 1934 :—

(a) "*Major*" *Subsidized Services.* West Australian Airways Ltd.—Perth-Derby, 1,467 miles; Derby-Wyndham, 600 miles. Queensland and Northern Territory Aerial Services Ltd.—Brisbane-Camooweal, 1,269 miles; Cloncurry-Normanton, 215 miles; Daly Waters-Birdum, 50 miles. Larkin Aircraft Supply Co. Ltd.—Camooweal-Daly Waters, 475 miles. All these services are operated once weekly in each direction over the routes mentioned. The Derby to Wyndham service is not operated in the "wet" season, which is usually December to March. The Daly Waters to Birdum service is operated during the "wet" season only, when surface transport between these two centres is impracticable except by pack-horses.

(b) "*Minor*" *Subsidized Services.* Aircrafts Pty. Ltd.—Brisbane-Cracow, 250 miles. Rockhampton Aerial Services Ltd.—Rockhampton-Mt. Coolon, 330 miles. Adastræ 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.* West Australian Airways Ltd.—Perth—Adelaide, 1,453 miles, weekly in each direction (until 1st April, 1934, this was a "major" subsidized service). New England Airways Ltd.—Brisbane—Sydney, 500 miles, daily (except Sundays) in each direction. Tasmanian Aerial Services Ltd. (now Holyman's Airways Pty. Ltd.)—Melbourne—Launceston, via Flinders Island, 356 miles, tri-weekly in each direction; Launceston—Flinders Island, 120 miles, bi-weekly in each direction. Rockhampton Aerial Services Ltd.—Brisbane—Rockhampton, 325 miles, weekly in each direction. With the exception of the lastmentioned, surcharged air mail is carried on all services under arrangements with the Postmaster-General's Department.

(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.

The "flying doctor" scheme will be extended to North-west Australia when the Ord River—Wyndham regular air service is established at the end of 1934. The contractor for this service will provide an air ambulance for the use of the Australian Aerial Medical Services as required. The Commonwealth Government will also assist by granting a subsidy for the first year. Negotiations are also in train for the establishment of a "flying doctor" service in the Port Hedland (W.A.) district.

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. *Air Survey.*—The Western Mining Corporation Ltd., in the latter part of 1933, began an air survey, based on Kalgoorlie, of portions of Western Australia. The work involves the photographing of extensive areas of territory, and is being carried out with specially equipped aircraft. Large tracts of auriferous country will be mapped, and the information gained should prove of great assistance to the Company's geologists. Directional wireless is being employed by the Company in both its ground and its air operations.

An interdepartmental committee was appointed in 1933 to investigate the possibilities of the development of air survey and of air photography in Australia. This Committee has completed its inquiry and has submitted its report to the Minister for Defence.

The Government has decided to make extensive use of air photography in connexion with the proposed geophysical survey of the Northern Territory. It is proposed, in the first instance, to invite tenders for this work from aircraft companies possessing, or willing to provide, the necessary equipment and trained personnel.

7. *Gliding.*—The Government has approved the grant of assistance to responsible and properly incorporated gliding associations, believing that the development of gliding will stimulate interest in aviation generally, and will provide an avenue for the youth of the country to interest itself in a form of aviation at a small cost. The grant of assistance under this heading is subject to compliance with prescribed conditions. The first agreement of this nature was made by the Commonwealth with the Western Australian Flying Club.

8. *Meteorological Aids to Aviation.*—Close co-operation exists between the meteorological authorities and aviation interests, with corresponding advantage to both. 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.



To secure further information over a wider area of upper air conditions, arrangements were made for civil aircraft operators to carry out daily observations during April, 1934, at a number of selected places in the Eastern States. The series of flights proved very successful, and provided information which will be of value to the meteorological authorities for general as well as for special aviation purposes.

Arrangements have been made for an extension of the Commonwealth meteorological organization to ensure that the companies operating the Darwin-Singapore, Melbourne-Hobart, and other air services, will have the benefit of special weather forecasts before commencing their weekly journeys.

9. *Wireless.*—Preliminary action has been taken by the Government to ensure that suitable wireless facilities will be available as aids to navigation in the operation of the Singapore-Darwin and Melbourne-Hobart air services, both of which involve sea crossings.

10. *Aircraft Construction.*—The local construction of aircraft has made steady progress, but the industry is chiefly directed to the manufacture of airscrews and other parts rather than to the building of complete aircraft. The Aircraft Section at Cockatoo Island Dockyard has, however, built to the design of Wing-Commander L. J. Wackett, a twin-engined six-seater passenger aircraft, known as the "Codock". This aircraft performed well during official flight trials. It is proposed to use the aircraft in the operation of a regular service between Sydney and Newcastle.

A Genairco cabin float seaplane was constructed by Tugan Aircraft Co. Ltd., Sydney, for Rabaul Airways Ltd. This aircraft completed its flight trials for certificates of airworthiness in Sydney and was shipped to New Guinea for service between the islands in the Territory.

The Lascoter, a locally-built aircraft employed on a regular subsidized service, is being modified by the incorporation of a large radial air-cooled engine which will ensure a better performance under tropical conditions.

11. *Training of Air Pilots.*—(i) *The Associated Aero Clubs.* These clubs provide facilities in all States for flying instruction and practice. At the end of June, 1934, over 800 pupils had qualified for private ("A") pilots' licences, whilst many graduates had 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 D.H.60 "Moth" aeroplanes and spare engines, 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") pilot's 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.

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 pupils are offering.

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 1933, 156 pupils graduated from all flying training organizations for "A" pilots' licences, whilst the number so qualifying during the six months ended 30th June, 1934, was 65.

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, 1934, there were ten flights between Europe and Australia. Those perhaps worthy of special mention were Sir Charles Kingsford Smith's solo flight from England in the remarkably fast time of 7 days, 4 hours, 47 minutes, which, however, was eclipsed a week later by Messrs. Ulm, Allan and Taylor, who completed the journey in the record time of 6 days, 17 hours, 57 minutes, and the solo flight of Miss Jean Batten, a young New Zealand pilot, who arrived at Darwin in just over 14 days from the time of departure from England. Her flight was particularly meritorious, inasmuch as it was her third attempt, and on this, the successful occasion, the aviatrix had to contend with very unfavorable weather conditions over several stages. During the period under review, there were also seven successful flights between Australia and New Zealand. Five of these were carried out by Mr. C. T. P. Ulm and crew in the aircraft *Faith in Australia*, and the other two were made by Sir Charles Kingsford Smith and crew in the famous *Southern Cross*. On the flight from New Zealand on the 17th February, 1934, by Mr. Ulm and party, approximately 44,000 letters were carried. This constituted the first official air mail across the Tasman Sea. The first official air mail from Australia to New Zealand—some 37,000 letters—was carried by the *Faith in Australia* on 11th–12th April, 1934, and the return flight was made two days later, when approximately 22,000 letters were carried.

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, 1929, to 1933:—

## CIVIL AIRCRAFT.—AUSTRALIA.—SUMMARY.

Particulars.	Year ended 30th June—				
	1929.	1930.	1931	1932.	1933.
Registered Aircraft Owners					
(a) .. .. No.	72	122	129	115	115
Registered Aircraft (a) No.	175	220	225	189	197
Licensed Pilots—(a)					
Private .. No.	209	344	407	363	370
Commercial .. No.	122	181	209	183	184
Licensed Ground Engineers					
(a) .. .. No.	198	257	293	277	272
Aerodromes—(a)					
Government No.	56	58	57	58	59
Public .. No.	19	39	66	96	114
Government Emergency					
Grounds .. No.	108	114	121	121	119
Flights carried out No.	92,000	128,916	113,340	96,192	85,346
Hours flown .. No.	27,268	42,963	44,507	31,959	31,883
Approx. Mileage .. Miles	1,992,070	3,234,307	3,596,930	2,527,700	2,587,389
Passengers carried—					
Paying .. No.	56,363	91,415	80,651	56,883	58,155
Non-paying .. No.	10,037	12,801	13,699	13,771	12,949
Total .. No.	66,400	104,216	94,350	70,654	71,104
Goods, weight carried lb.	160,424	196,795	204,445	221,552	244,258
Mails, letters carried No.	316,338	383,942	(b) 48,503	(b) 29,494	(b) 36,212
Accidents—					
Persons killed No.	7	18	29	7	5
Persons injured No.	10	20	20	17	6

(a) At 30th June.

(b) Weight in lb. all contractors.

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. is now operating three specially constructed freight machines for the transportation of several thousand tons of hydro-electric power plant and dredging machinery to the Bulolo fields. This work is being successfully accomplished and 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, Salamaua, 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 Holden's Air Transport Service Ltd. under arrangement with New Guinea Administration from Salamaua to Wau and other inland mining centres. None of the air services operating in the Territory is subsidized by the Commonwealth Government, but the latter Company holds a contract 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 operating in New Guinea are—Guinea Airways Ltd.; Holden's Air Transport Service Ltd.; W. R. Carpenter Ltd.; and Pacific Air Transport. The subjoined table gives a summary of operations for the years ended 30th June, 1929 to 1933.

**CIVIL AIRCRAFT.—TERRITORY OF NEW GUINEA.—SUMMARY.**

Particulars.	Year ended 30th June—				
	1929.	1930.	1931.	1932.	1933.
Registered Aircraft Owners					
(a) .. .. . No.	7	7	5	6	5
Registered Aircraft (a) No.	15	13	15	15	19
Licensed Pilots—(a)					
Private .. . No.	..	1	4	2	1
Commercial .. No.	10	11	13	16	21
Licensed Ground Engineers					
(a) .. .. . No.	10	11	18	30	30
Aerodromes—(a)					
Government .. No.	2	2	2	2	2
Emergency Landing					
Grounds .. . No.	4	4	3	3	3
Flights carried out .. No.	1,532	2,882	2,672	4,664	7,228
Hours flown .. . No.	2,626	3,619	3,969	5,160	8,499
Approximate mileage Miles	137,705	272,976	325,807	424,232	680,871
Passengers carried—					
Paying .. . No.	1,293	2,490	2,992	3,450	6,948
Non-paying .. . No.	65	649	87	31	93
<b>Total .. . No.</b>	<b>1,358</b>	<b>3,139</b>	<b>3,079</b>	<b>3,481</b>	<b>7,041</b>
Goods, weight carried .. lb.	1,385,510	3,062,430	3,107,616	9,778,072	10,982,936
Mails, weight carried .. lb.	13,876	23,257	24,604	23,394	47,097
Accidents—					
Persons killed .. . No.	..	..	1	..	2
Persons injured .. . No.	..	..	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 1928-29 to 1932-33 :—

**MOTOR BODIES BUILT, AND BODIES, CHASSIS AND FUELS IMPORTED—  
AUSTRALIA.**

Particulars.		1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Motor bodies built in Australia ..	No.	72,193	46,409	10,417	6,322	12,701
	Value £	4,357,841	3,118,987	864,209	450,510	1,039,925
Motor bodies imported ..	No.	14,546	6,556	137	61	108
	Value £	1,471,878	697,862	14,007	7,360	12,233
Chassis imported ..	No.	99,500	61,981	9,367	4,146	15,776
	Value £	8,830,362	5,807,024	721,893	355,415	1,306,830
Fuels imported—						
Crude petroleum ..	Million gallons	105	122	93	49	58
	Value £	858,678	1,118,332	823,575	448,651	486,302
Petroleum spirit, etc. ..	Million gallons	200	240	171	156	181
	Value £	6,816,287	7,429,485	4,054,265	2,622,414	3,218,209

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. By regulating the licensing of motor omnibuses, the economic waste arising from duplication of routes and 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 adjunct mot. services 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 1932-33. Particulars of the registration of motor vehicles, etc., for the year 1932-33 are contained in the subjoined table:—

**MOTOR VEHICLES.—SUMMARY, 1932-33.**

States and Territories.	Motor Vehicles Registered.					Drivers' and Riders' Licences Issued.	Revenue derived from—		
	Motor Cars.	Motor Cycles.	Commercial Vehicles.	Total.	Per 1,000 of Population.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Total.
	No.	No.	No.	No.	No.		£	£	£
New South Wales	152,717	23,354	46,399	222,470	85.5	309,704	1,402,476	154,965	1,557,441
Victoria	124,609	23,439	31,554	179,602	98.7	235,613	1,125,954	59,520	1,185,474
Queensland	b 81,492	7,725	(c)	89,217	94.1	46,222	474,397	19,106	493,503
South Australia	39,036	8,520	12,073	59,629	102.6	89,507	462,161	41,225	d 503,386
Western Australia	27,710	5,992	12,885	46,587	106.1	56,730	257,139	17,582	274,721
Tasmania	11,557	3,741	2,457	17,755	78.0	20,863	86,770	10,432	97,202
North Australia	369	39	206	614	485	139.9	113	223	336
Central Australia	42	4	20	66	66	87	52	36	88
Federal Capital Territory	967	82	243	1,292	144.4	1,762	6,408	820	7,228
Australia	438,499	72,896	105,837	617,232	93.1	760,973	3,815,470	303,909	4,119,379

(a) Approximate figures only on account of Annual and Quarterly Registration Certificates. (b) Includes Commercial Vehicles. (c) Included under Motor Cars. (d) Gross Revenue.

(ii) *Quinquennium* 1929-1933. The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1928-29 to 1932-33:—

**MOTOR VEHICLES.—REGISTRATIONS, ETC., AUSTRALIA.**

Year.	Motor Vehicles Registered.					Drivers' and Riders' Licences Issued.	Revenue derived from—		
	Motor Cars.	Motor Cycles.	Commercial Vehicles.	Total.	Per 1,000 of Population.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Total.
							£	£	£
1928-29	474,359	88,049	(a) 71,851	634,259	99.2	767,328	3,877,734	289,300	4,167,034
1929-30	466,930	84,897	104,487	656,314	101.5	823,452	4,194,910	329,988	4,524,898
1930-31	429,206	76,966	97,933	604,105	92.6	805,626	3,747,726	324,907	4,072,633
1931-32	410,970	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

(a) Incomplete, partly included with Motor Cars.

(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 1929 to 1933:—

**MOTOR VEHICLES (EXCLUSIVE OF MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.**

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	North-ern Territory.	Federal Capital Territory.	Australia.
31st Dec., 1921	15	16	8	24	12	13	(a)	(a)	15
30th June, 1929	84	81	82	119	90	62	94	149	86
" 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

(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 1928-29 to 1932-33. 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales .. .. .	7 4 5	7 5 8	7 2 6	7 8 8	6 17 11
Victoria .. .. .	6 19 2	7 0 10	7 0 2	6 19 2	6 19 6
Queensland .. .. .	5 14 5	5 13 8	5 12 3	5 13 3	5 13 5
South Australia .. .. .	7 6 10	9 7 11	8 5 9	8 16 7	8 13 1
Western Australia .. .. .	6 10 0	6 16 1	6 15 8	6 3 11	6 3 5
Tasmania .. .. .	5 0 11	5 1 6	5 11 1	5 15 0	5 15 8
Northern Territory .. .. .	0 7 5	0 3 6	1 0 0	0 7 6	0 5 2
Federal Capital Territory .. .. .	6 0 11	6 2 2	4 19 9	5 9 2	5 4 6
Australia .. .. .	6 17 0	7 2 0	6 17 8	7 0 1	6 16 1

6. *Comparative Motor Vehicle Statistics, 1934.*—The result of the 1934 World Motor Census, conducted by the "American Automobile" magazine, from which the following particulars have been extracted, shows that there were 33,268,000 motor cars, trucks, and buses registered in various countries of the world at 1st January, 1934.

**COMPARATIVE MOTOR VEHICLE STATISTICS, 1st JANUARY, 1934.**

Country.	Approximate Population in Millions.	Motor Cars, Trucks, and Buses.	Motor Cycles.
Australia .. .. .	7	543,551	73,000
Argentina .. .. .	12	325,000	..
Belgium .. .. .	8	150,000	45,000
Brazil .. .. .	43	163,200	..
Canada .. .. .	10	1,041,593	9,380
Cuba .. .. .	4	30,987	368
Denmark .. .. .	4	119,546	27,798
France .. .. .	42	1,881,885	..
Germany .. .. .	65	682,376	852,776
Great Britain .. .. .	45	1,701,076	541,000
India .. .. .	353	112,982	7,445
Irish Free State .. .. .	3	50,816	5,769
Italy .. .. .	41	331,967	..
Japanese Empire .. .. .	93	111,379	..
Mexico .. .. .	17	95,356	1,267
Netherlands .. .. .	8	138,450	34,400
Netherlands East Indies .. .. .	62	79,984	16,460
New Zealand .. .. .	2	165,964	23,020
Union of South Africa .. .. .	8	168,649	32,769
Spain .. .. .	24	155,700	12,100
Sweden .. .. .	6	136,340	48,000
Switzerland .. .. .	4	98,100	49,400
United States of America .. .. .	124	23,771,854	93,414

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. The figures for motor cycles for Australia are estimated at 31st December, 1933, and differ from those stated in para. 5, which are actual registrations at 30th June, 1933.

As regards numbers of motor cars, Australia ranks sixth among the countries of the world, having been displaced by Germany from fifth position during 1928.

## 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, 1933. 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, 1933.

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
Number of post offices (a) ..	2,443	2,533	1,192	770	567	509	8,014
Number of square miles of territory to each office in State ..	127	35	563	1,174	1,721	52	371
Number of inhabitants to each office	1,068	719	795	761	774	447	827
Number of inhabitants per 100 square miles .. ..	841	2,069	141	65	45	865	223

(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 1932-33 :—

## POST OFFICES—NUMBER.

State.	At 31st December—				At 30th June—					
	1901.(b)		1913.		1923.		1932.		1933.	
	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	503	2,093	460	2,139	438	1,990	437	2,006
Victoria .. ..	181	2,076	294	2,338	270	2,325	278	2,270	276	2,257
Queensland ..	137	1,165	216	1,170	212	1,033	199	995	188	1,004
South Australia ..	180	523	161	635	141	663	146	617	145	625
Western Australia ..	181	34	157	387	134	598	124	436	124	443
Tasmania .. ..	57	315	54	401	46	473	43	468	43	466
Australia .. ..	1,174	5,883	1,385	7,024	1,263	7,231	1,228	6,776	1,213	6,801

(a) Includes offices previously designated as "Allowance" and "Receiving" Offices. (b) Figures for 1903 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—					
	1903.		1913.		1923.		1932.		1933.	
	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.
Central Office ..	(a)		(a)	..	95	..	175	..	178	..
New South Wales ..	5,726	996	10,823	2,376	13,255	1,732	12,357	2,010	12,430	1,949
Victoria ..	4,017	914	8,437	1,123	9,148	1,124	9,490	1,103	9,485	1,085
Queensland ..	2,686	(b)	4,134	812	4,978	810	4,818	832	4,792	1,054
South Australia ..	1,973	(b)	2,364	382	3,227	422	3,252	242	3,221	297
Western Australia ..	1,331	140	2,444	355	2,450	339	2,564	309	2,623	327
Tasmania ..	(c)863	(b)	1,141	294	1,321	202	1,398	238	1,361	233
Australia ..	16,596	2,050	29,343	5,342	34,474	4,629	34,054	4,734	34,090	4,945

(a) Included in Victorian Staff. (b) Included in "employees." Separate particulars are not available. (c) Estimated.

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>	£	£	£	£	£	£	£
1928-29 ..	2,380,622	1,656,326	827,737	461,723	387,675	170,321	5,884,404
1929-30 ..	2,392,882	1,842,658	849,828	454,131	419,044	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 ..	2,305,537	1,583,136	841,602	435,526	381,113	162,695	5,709,629
1932-33 ..	2,340,889	1,620,972	862,051	462,520	397,253	162,112	5,845,797
<b>Telegraph Branch (a)—</b>							
1928-29 ..	532,292	334,168	237,042	182,017	137,360	46,554	1,469,433
1929-30 ..	556,561	396,383	240,612	177,115	138,964	47,224	1,556,859
1930-31 ..	459,170	325,045	208,556	158,023	115,124	42,672	1,308,590
1931-32 ..	436,523	307,740	207,108	153,191	109,237	40,358	1,254,157
1932-33 ..	437,916	328,664	211,056	158,843	120,997	44,481	1,301,957
<b>Telephone Branch—</b>							
1928-29 ..	2,106,433	1,529,634	762,998	599,035	320,603	140,856	5,459,559
1929-30 ..	2,305,453	1,633,790	818,170	607,130	350,385	147,758	5,862,686
1930-31 ..	2,199,466	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 ..	2,092,461	1,595,977	787,597	534,157	301,418	134,228	5,445,838
<b>All Branches—</b>							
1928-29 ..	5,019,347	3,520,128	1,827,777	1,242,775	845,658	357,731	12,813,396
1929-30 ..	5,254,866	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 ..	4,831,635	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	12,593,592
<b>Total Revenue per head of mean population—</b>							
1928-29 ..	2.01	2.00	2.05	2.16	2.04	1.65	2.02
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

(a) Includes radio receipts.



As compared with the corresponding figures for the previous year, an increase of 1.9 per cent. is shown in the gross revenue earned, the increases in the several branches being as follow :—Postal 2.4 per cent., Telegraph 3.8 per cent., and Telephone 0.9 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, 1933. 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, 1932-33.**

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 ..	35,224	1,688,408	1,199,335	621,677	429,690	322,363	156,702	4,453,399
General expenses ..	1,947	85,840	56,583	27,802	23,180	22,025	12,957	230,334
Stores and material ..	565	57,863	35,402	13,028	12,125	9,993	5,860	134,836
Mail services ..	110,000	409,774	246,168	198,355	68,393	73,190	34,976	1,140,856
Engineering services (other than New Works) ..	34,380	701,767	531,347	263,138	208,089	116,897	80,481	1,936,099
Other services ..	41,382	..	..	..	..	..	..	41,382
<b>Total ..</b>	<b>223,498</b>	<b>2,943,652</b>	<b>2,068,835</b>	<b>1,124,000</b>	<b>741,477</b>	<b>544,468</b>	<b>290,976</b>	<b>7,936,906</b>
Pensions and retiring allowances ..	..	35,713	48,807	..	..	27,604	..	112,124
Rent, repairs, maintenance, fittings, &c. ..	..	24,860	20,660	13,449	5,471	7,252	1,416	73,108
Proportion of audit expenses ..	..	3,799	2,699	1,454	882	631	335	9,800
Interest on transferred properties ..	..	114,328	61,362	45,575	37,523	21,869	9,924	290,581
New Works—								
Telegraph, telephone and wireless ..	77	191,083	138,902	49,790	30,466	29,009	16,290	455,617
New buildings, &c. ..	..	3,596	..	237	543	1,934	185	6,495
Other expenditure, except Central Office expenditure charged to all States on a population basis ..	3,280,579 (b)	..	..	..	..	..	..	3,280,579
<b>Total ..</b>	<b>3,504,154 (c)</b>	<b>3,317,031</b>	<b>2,341,265</b>	<b>1,234,505</b>	<b>816,362</b>	<b>632,767</b>	<b>319,126</b>	<b>12,165,210 (c)</b>

(a) Orient Steamship Company's Overseas Mail contract. (b) Particulars of apportionment to States not available. (c) Including expenditure not apportioned to States.

(ii) *Total, 1929 to 1933*. 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, 1929 to 1933 inclusive.

**EXPENDITURE, POSTMASTER-GENERAL'S DEPARTMENT.**

Expenditure.	Year ended 30th June—				
	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
<b>Total .. ..</b>	<b>15,693,070</b>	<b>15,797,072</b>	<b>14,282,984</b>	<b>12,196,307</b>	<b>12,165,210</b>

The total expenditure for 1932-33 decreased by 22.5 per cent. compared with the amount for 1928-29.

5. Profit or Loss, Postmaster-General's Department.—(i) *States* 1932-33. 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, 1932-33.

Branch.	Profit or Loss.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
		£	£	£	£	£	£	£
Postal ..	{ Profit	554,715	482,913	239,540	116,380	80,543	..	1,471,685
	{ Loss	..	..	..	..	..	2,406	..
Telegraph (a)	{ Profit	..	35,156	..	..	..	..	..
	{ Loss	32,877	..	32,739	13,786	27,165	7,381	78,792
Telephone ..	{ Profit	18,290	..	9,266	..	..	..	..
	{ Loss	..	1,284	..	111,715	52,919	61,913	200,275
All Branches	{ Profit	540,128	516,785	216,067	..	459	..	1,192,618
	{ Loss	..	..	..	9,121	..	71,700	..

(a) Including Wireless Branch.

After providing for depreciation, pensions and retiring allowances and interest on capital, the year 1932-33 closed with a surplus of £1,192,618. For the preceding year a surplus of £736,009 was shown.

(ii) *Branches*, 1929 to 1933. The following statement gives particulars of the operating results of each branch for the period 1929 to 1933 :—

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

Year Ended 30th June—	Branch.							
	Postal.		Telegraph.		Telephone.		All Branches.	
	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.
	£	£	£	£	£	£	£	£
1929 ..	531,870	..	..	228,134	..	247,212	56,524	..
1930 ..	557,105	..	..	232,188	..	127,034	197,883	..
1931 ..	721,282	..	..	355,366	..	432,920	..	67,004
1932 ..	1,267,534	..	..	152,435	..	379,090	736,009	..
1933 ..	1,471,685	..	..	78,792	..	200,275	1,192,618	..

6. Capital Account.—The appended statement shows particulars of the fixed assets of the Postmaster-General's Department at 30th June, 1933.

## FIXED ASSETS, POSTMASTER-GENERAL'S DEPARTMENT, 30th JUNE, 1933.

Particulars.	Net Value, 1st July, 1932.	Capital Expenditure, 1932-33.	Gross Value, 30th June, 1933.	Less Deprecia- tion, &c. 1932-33. (a)	Net Value, 30th June, 1933.
	£	£	£	£	£
Telephone Lines and equipment	31,499,479	717,588	32,217,067	433,444	31,783,623
Telegraph Lines and Trunk Line equipment .. .. .	10,117,133	84,168	10,201,301	75,290	10,126,011
Telegraph equipment .. .. .	603,400	16,072	619,472	17,778	601,694
Postal equipment .. .. .	395,019	6,520	401,539	1,594	399,945
Sites, Buildings, Furniture, and Office equipment .. .. .	9,311,931	31,354	9,343,285	22,176	9,321,109
Miscellaneous .. .. .	576,717	28,198	604,915	32,719	572,196
Wireless equipment and Buildings	128,689	32,035	160,724	9,918	150,806
<b>Total .. .. .</b>	<b>52,632,368</b>	<b>915,935</b>	<b>53,548,303</b>	<b>592,919</b>	<b>52,955,384</b>

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

During the past quinquennium the value of the fixed assets has increased by 14 per cent., the net value at 30th June, 1928, being £46,451,015.

## § 2. Posts.

i. Postal Matter Dealt With.—(i) *Australia*. The following table gives a summary of the postal matter dealt with in Australia during the five years 1929 to 1933. 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.

1929 .. .. .	797,743	125,571	151,698	23,878	14,873	2,341	7,376	1,161
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

## TOTAL POSTAL MATTER DEALT WITH.

1929 .. .. .	887,799	139,747	180,612	28,430	15,571	2,451	8,413	1,324
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 .. .. .	752,755	113,972	140,733	21,308	9,044	1,369	6,710	1,016

(ii) *States.* The next table shows separately for each State the postal matter dealt with in 1932-33.

POSTAL MATTER DEALT WITH—STATES, 1932-33. (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.
<b>POSTED FOR DELIVERY WITHIN AUSTRALIA.</b>								
New South Wales	275,475	105,959	55,645	21,403	3,707	1,426	2,255	868
Victoria ..	205,402	113,176	25,243	13,909	1,611	888	1,720	948
Queensland ..	92,759	98,588	20,454	21,739	1,714	1,822	919	976
South Australia	54,158	92,683	6,899	11,806	828	1,416	494	846
Western Australia	43,328	99,173	5,045	11,548	677	1,551	476	1,090
Tasmania ..	28,810	126,397	5,071	22,249	124	542	229	1,004
Australia ..	699,932	105,974	118,357	17,920	8,661	1,311	6,093	923

OVERSEA DISPATCHED.

New South Wales	11,712	4,505	2,021	777	84	32	125	48
Victoria ..	8,967	4,941	4,292	2,365	41	23	55	30
Queensland ..	2,355	2,503	601	639	12	13	24	26
South Australia	2,126	3,638	289	495	7	13	23	40
Western Australia	2,531	5,793	384	879	9	21	29	66
Tasmania ..	1,643	7,209	187	822	2	7	3	11
Australia ..	29,334	4,441	7,774	1,177	155	24	259	39

OVERSEA RECEIVED.

New South Wales	9,627	3,703	7,452	2,866	98	38	173	67
Victoria ..	6,454	3,556	2,105	1,160	67	37	106	58
Queensland ..	2,333	2,480	2,257	2,399	22	24	29	31
South Australia	1,328	2,273	928	1,588	13	22	17	29
Western Australia	2,958	6,770	1,543	3,532	24	54	28	64
Tasmania ..	789	3,461	316	1,388	4	17	5	23
Australia ..	23,489	3,556	14,601	2,211	228	35	358	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 1929 to 1933 :—

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.
1929 .. ..	313,654	24,426	248,210	14,564	79,699	430	680,983
1930 .. ..	299,930	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	195,713	23,559	79,820	1,711	628,345

VALUE COLLECTED.

	£	£	£	£	£	£	£
1929 .. ..	462,964	41,878	364,156	19,964	103,683	859	993,504
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	302,347	24,704	81,029	1,980	802,607

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

	£	£	£	£	£	£	£
1929 .. ..	38,968	3,116	33,048	1,669	8,914	53	85,768
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

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, 1933 :—

**MAIL SUBSIDIES.—OCEAN AND COASTAL SERVICES, 1932-33.**

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 1932-33 the amount paid for conveyance of mails at postage rates by non-contract vessels and on account of other countries' services was £25,819 ; by road services, £558,440 ; and by railway services, £397,521. The total expenditure during the financial year 1932-33 on the carriage of mails, as disclosed by the Profit and Loss Account, amounted to £1,146,552.

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 1932-33, and the methods adopted in the disposal thereof :—

**DEAD LETTER OFFICES.—SUMMARY, 1932-33.**

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 .. ..	983,853	233,216	150,128	68,417	111,869	74,148	1,621,631
Destroyed in accordance with Act .. ..	56,604	33,377	21,442	8,559	4,506	3,612	128,160
Returned to other States or Countries as unclaimed .. ..	48,396	16,835	10,651	3,620	11,466	924	91,892
<b>Total .. ..</b>	<b>1,088,913</b>	<b>283,428</b>	<b>182,221</b>	<b>80,596</b>	<b>127,841</b>	<b>78,684</b>	<b>1,841,683</b>

**PACKETS AND CIRCULARS.**

Returned direct to writers or delivered .. ..	651,310	104,768	133,151	9,196	71,124	32,328	1,001,877
Destroyed in accordance with Act .. ..	92,716	24,635	28,174	10,260	4,581	678	161,044
Returned to other States or Countries as unclaimed .. ..	1,601	21,167	3,327	1,769	611	330	28,805
<b>Total .. ..</b>	<b>745,627</b>	<b>150,570</b>	<b>164,652</b>	<b>21,225</b>	<b>76,316</b>	<b>33,336</b>	<b>1,191,726</b>
<b>Grand Total (letters, packets, etc.) .. ..</b>	<b>1,834,540</b>	<b>433,998</b>	<b>346,873</b>	<b>101,821</b>	<b>204,157</b>	<b>112,020</b>	<b>3,033,409</b>

During the year 1932-33 money and valuables to the amount of £60,374 were found in undelivered postal articles, while 38,090 postal articles were posted without address, including 471 which contained money and valuables to the extent of £3,293.

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, 1932-33.* Particulars regarding the business transacted in each State for the year 1932-33 are given hereunder :—

**MONEY ORDERS AND POSTAL NOTES.—SUMMARY, 1932-33.**

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 ..	6,977,437	7,021,115	36,348	2,547,049	58,309
Victoria ..	2,644,680	2,847,902	17,064	1,650,113	38,835
Queensland ..	2,278,448	2,107,011	16,037	667,725	14,930
South Australia ..	758,896	765,279	5,086	367,470	8,749
Western Australia ..	1,144,414	1,062,777	7,304	360,231	7,929
Tasmania ..	452,854	424,882	2,620	153,046	3,614
<b>Australia ..</b>	<b>14,256,729</b>	<b>14,228,966</b>	<b>84,459</b>	<b>5,745,634</b>	<b>132,366</b>

The figures in the foregoing table relating to money orders show a decrease compared with the previous year, while those referring to postal notes show an increase.

(iii) *Australia, 1929 to 1933.* The next table shows the total number and value of money orders and postal notes issued and paid in Australia from 1928-29 to 1932-33 :—

**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).
1929 ..	3,416	17,094	3,233	16,503	15,626	5,741	15,591	5,737
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

(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 1932-33, classified according to the country where payable :—

**MONEY ORDERS ISSUED.—COUNTRY WHERE PAYABLE, 1932-33.**

Where Issued.	Where Payable.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
<b>NUMBER.</b>					
Australia .. ..	2,572,211	13,272	83,410	38,279	2,707,172
<b>VALUE.</b>					
Australia .. ..	£ 13,847,788	£ 55,646	£ 195,976	£ 157,319	£ 14,256,729

(b) *Money Orders Paid.* The number and value of money orders paid during the year 1932-33, classified according to the country where issued, are given hereunder:—

**MONEY ORDERS PAID.—COUNTRY OF ISSUE, 1932-33.**

Where Paid.	Where Issued.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
NUMBER.					
Australia .. ..	2,577,598	38,176	51,199	23,687	2,690,660
VALUE.					
Australia .. ..	£ 13,851,372	£ 71,449	£ 214,016	£ 92,129	£ 14,228,966

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 at 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 1932-33, 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, 1932-33.**

Particulars.	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
NUMBER.							
Issued in same State	6,684,848	3,295,818	1,532,545	729,329	863,506	348,059	13,454,105
Issued in other States	732,500	488,793	457,871	82,140	54,175	1,465,209	3,280,688
Total .. ..	7,417,348	3,784,611	1,990,416	811,469	917,681	1,813,268	16,734,793
VALUE.							
Issued in same State	£ 2,237,746	£ 1,156,571	£ 555,699	£ 251,113	£ 313,659	£ 114,490	£ 4,629,278
Issued in other States	237,899	172,422	189,483	32,229	15,300	452,280	1,099,613
Total .. ..	2,475,645	1,328,993	745,182	283,342	328,959	566,770	5,728,891

The number and value of postal notes paid in Australia during the year showed an increase of 3.7 per cent. and 3.0 per cent. respectively compared with the corresponding figures for the year 1931-32.

### § 3. Telegraphs.

1. *General.*—(i) *Development of System.* A review of the development of the Telegraph Services in Australia was given in a previous issue of this work (see Year Book No. 15), 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 nine repeating centres, fourteen 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 uni-directional 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, 1,068 miles. These direct channels provide a speedy service between the centres named, the average time involved in the transmission of a telegram being ten minutes.

(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, Melbourne and Brisbane, Melbourne and Adelaide, Melbourne and Perth, 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 Sydney and Bathurst, Sydney and West Maitland, Melbourne and Bendigo, Melbourne and Mildura, Brisbane and Toowoomba, Brisbane and Charleville, 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, 1933, was 1,621,256 or 12.7 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, 1933, 300 picturegrams were transmitted between Sydney and Melbourne, the revenue being £691. Any kind of picture or document may be accepted for transmission, the charges varying from 30s. to 67s. 6d. according to the size of the picture or document and the grade of transmission desired.

(ix) *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 33.5 per cent. as indicated in the following table :—

Year.						No. of Greeting Telegrams.
1929	..	..	..	..	..	144,102
1930	..	..	..	..	..	157,705
1931	..	..	..	..	..	184,142
1932	..	..	..	..	..	191,156
1933	..	..	..	..	..	192,363

During the year 1933-34 telegram forms of special design and attractive colouring, in connexion with Mothers' Day messages, Birthday greetings and Congratulatory telegrams, have been placed at the disposal of the public.

(x) *Linking of Telegraph and Broadcast Services.* During the 1932-33 Australian tour of the English Test Cricket Team, a network of telegraph channels linking the National Broadcasting Stations was arranged. This innovation permitted direct and simultaneous transmission of ball-to-ball descriptions from the observer on the field to the studio announcers who were able to describe events to listeners within 30 seconds of their actual occurrence, over 12,000 miles away.

(xi) *Private Wire Teleprinter Services.* In conformity with its policy of placing at the service of the public new developments in communication, the Department has now introduced teleprinter service. This may be briefly defined as typewriting over electrical circuits, teleprinters 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 matter may be despatched with the utmost privacy even in exposed situations where other means are unsuitable. It affords two-way communication and a great variety of matter can be despatched at speeds up to 60 words a minute.

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 1929 to 1933:—

**TELEGRAPHS, AUSTRALIA.—SUMMARY.**

Particulars for Year ended 30th June.	1929.	1930.	1931.	1932.	1933.
Number of offices .. ..	9,252	9,317	9,189	9,160	9,137
Length of wire (miles)—					
Telegraph purposes only .. ..	72,642	71,629	62,009	58,891	55,302
Telegraph and telephone purposes ..	87,303	88,785	98,140	98,369	101,797
Length of line (miles)—					
Conductors in Morse cable .. ..	3,500	3,735	3,789	4,157	4,401
Conductors in submarine cable (statute miles) .. ..	4,676	4,524	4,859	4,863	4,833
Pole routes (miles) .. ..	96,467	98,450	100,596	100,507	99,951

(ii) *States.* The following table gives corresponding particulars for each State for the year 1932-33:—

**TELEGRAPHS.—STATES, SUMMARY, 30th JUNE, 1933.**

Particulars.	N.S.W.	Victoria.	Q'land.	S.Aust.	W.Aust.	Tas.	Aus- tralia.
Number of offices .. ..	2,978	2,423	1,442	796	959	539	9,137
Length of wire (miles)—							
Telegraph purposes only	17,779	8,248	12,776	7,111	8,659	729	55,302
Telegraph and telephone purposes .. ..	37,331	14,109	28,179	13,553	6,931	1,694	101,797
Length of line (miles)—							
Conductors in Morse cable	2,253	1,438	477	..	209	24	4,401
Conductors in submarine cable (statute miles) .. ..	3,573	282	311	251	..	416	4,833
Pole routes (miles) .. ..	34,613	19,289	15,735	15,037	11,758	3,519	99,951

A total length of 157,099 miles of wire is available for telegraph purposes, of which 101,797 miles are also used for telephone purposes. Compared with those for the previous year the figures show a decrease of 161 miles (0.1 per cent.) in the total length and an

increase of 3,428 miles (3.48 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—				
	1929.	1930.	1931.	1932.	1933.
Number (a) ..	16,345,152	15,724,246	12,985,298	12,679,951	12,778,028

(a) Including interstate cablegrams.

(ii) *States.* The appended table shows the total number of telegrams dispatched in each State in 1932-33 according to the class of message transmitted :—

**TELEGRAMS DISPATCHED.—STATES, 1932-33.**

Class of Message Transmitted within Australia.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>Paid and Collect—</b>							
Ordinary ..	3,558,626	2,520,005	2,002,601	858,149	1,188,717	236,472	10,364,570
Urgent ..	220,808	73,663	68,080	35,124	36,988	7,912	442,575
Press ..	214,065	121,887	94,539	38,386	34,882	22,284	526,043
Lettergram ..	74,771	72,670	68,698	35,052	80,085	30,636	361,912
Radiogram ..	12,042	4,348	4,488	5,411	2,473	6,163	34,925
<b>Total ..</b>	<b>4,080,312</b>	<b>2,792,573</b>	<b>2,238,406</b>	<b>972,122</b>	<b>1,343,145</b>	<b>303,467</b>	<b>11,730,025</b>
<b>Unpaid—</b>							
Service ..	126,520	46,265	48,715	38,106	45,357	15,896	320,859
Shipping ..	31,985	77,654	16,733	3,786	11,271	5,242	146,671
Meteorological ..	177,351	82,357	77,286	87,145	127,279	29,055	580,473
<b>Total ..</b>	<b>335,856</b>	<b>206,276</b>	<b>142,734</b>	<b>129,037</b>	<b>183,907</b>	<b>50,193</b>	<b>1,048,003</b>
<b>Grand Total</b>	<b>4,416,168</b>	<b>2,998,849</b>	<b>2,381,140</b>	<b>1,101,159</b>	<b>1,527,052</b>	<b>353,660</b>	<b>12,778,028</b>

The figures in the foregoing table show an increase in the total volume of telegraph business of 98,077 messages (0.8 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 expenditure of the telegraph systems for the years 1928-29 to 1932-33 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 .. .. .	3.1	2.1
Austria .. .. .	0.5	0.4
Belgium .. .. .	2.3	0.7
Canada .. .. .	0.5	1.2
Czechoslovakia .. .. .	1.8	0.4
Denmark .. .. .	0.4	0.6
France .. .. .	3.8	0.8
Germany .. .. .	0.8	0.3
Great Britain .. .. .	2.9	1.0
Hungary .. .. .	1.9	0.3
Japan .. .. .	1.5	0.8
Netherlands .. .. .	0.8	0.5
New Zealand .. .. .	1.4	2.9
Norway .. .. .	1.2	1.1
Poland .. .. .	0.6	0.1
Spain .. .. .	3.4	1.0
Sweden .. .. .	0.5	0.6
Switzerland .. .. .	1.0	0.6
Union of South Africa .. .. .	2.3	0.6
United States of America .. .. .	0.7	1.5

**§ 4. Overseas Cable and Radio Communication.**

1. **First Cable Communication with the Old World.**—In earlier issues of the Year Book will be found a detailed account of the connexion of Australia with the old world by means of submarine cables. (See No. 6, p. 770.)

2. **General Cable 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 1930-31 to 1932-33 :—

**CABLEGRAMS AND RADIOGRAMS.—AUSTRALIA.**

Messages.	Number Received.			Number Dispatched.			Total Number Received and Dispatched.		
	1930-31.	1931-32.	1932-33.	1930-31.	1931-32.	1932-33.	1930-31.	1931-32.	1932-33.
Number ..	572,423	564,205	579,958	647,655	610,763	639,121	1,220,078	1,174,968	1,219,079

(ii) *States.* The number of cablegrams received and dispatched in each State during the year 1932-33 is given hereunder :—

**CABLEGRAMS AND RADIOGRAMS.—STATES, 1932-33.**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number received ..	298,814	190,856	24,474	28,674	28,926	8,214	579,958
Number dispatched	311,142	215,591	32,557	34,312	35,411	10,108	639,121
Total ..	609,956	406,447	57,031	62,986	64,337	18,322	1,219,079

(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 following are the rates at present operating in regard to traffic with the principal countries :—

**CABLEGRAM AND RADIOGRAM RATES, JUNE, 1933.**

To—	Rate per Word and Route.		
	Via Pacific.	Via Eastern.	Via Beam.
European Countries ..	2s. 6d. to 2s. 7d.	2s. 6d. to 2s. 7d.	1s. 11½d. to 2s. 5½d.
Asiatic Countries ..	5s. 3d. to 6s. 3d.	2s. 5d. to 4s. 7d.	..
Africa .. ..	..	1s. 8d. to 5s. 4d.	2s. 2½d. to 2s. 11d.
North America ..	1s. 7d. to 3s. 5d.	2s. 4d. to 4s. 4d.	1s. 5½d. to 3s. 7d.
Central America ..	3s. 10d. to 4s. 4d.	5s. to 6s. 1d.	3s. 5½d. to 4s. 10d.
West Indies ..	3s. to 5s. 3d.	4s. to 5s. 8d.	..
South America ..	4s. 1d. to 6s. 8d.	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 deliverable 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 on press messages exchanged with Great Britain is 6d. by cable and 4d. via radio.

(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, 1930 to 1933:—

#### TELEPHONE LINES.—AUSTRALIA.

Particulars.	Year ended 30th June—			
	1930.	1931.	1932.	1933.
Ordinary Lines—				
Conduits .. .. duct miles	5,844	6,047	6,217	6,454
„ .. .. route miles	3,310	3,416	3,571	3,776
Conductors in aerial cables loop mileage	5,461	5,213	4,436	4,276
Conductors in underground cables loop mileage	761,723	789,736	800,081	811,122
Conductors in cables for junction circuits loop mileage	101,040	105,047	103,237	102,168
Open conductors single wire mileage	424,007	422,737	418,264	418,053
Trunk Lines—				
Telephone trunk lines only .. miles	232,909	233,543	236,209	232,409
Telegraph and telephone purposes „	88,785	98,140	98,369	101,797

(ii) *Comparison with Other Countries.* An encouraging improvement in telephone development occurred in Australia during 1932–33, a net gain of 3,036 telephones having been secured as against a loss of 13,429 for 1931–32 and 22,114 for 1930–31. This recovery has enabled Australia to retain seventh place in the list of countries showing the greatest density of telephone growth; there are 73.6 telephones per 1,000 of population. The average length of wire per telephone in Australia is 5.3 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.* The system embraces practically every town and village, and commercial communication is available between the States on the mainland. The proposal to link up Tasmania by a submarine telephone cable has been advanced a step by the invitation of tenders for the necessary material. When this cable is laid the ideal of a nation-wide telephone service will be realized.

Increasing use continues to be made of the carrier system of telephony whereby several additional channels of communication may be obtained over one pair of wires. There are 54 carrier telephone systems in service in Australia, giving a total of 91 channels with an aggregate channel mileage of approximately 25,534 miles.

(iv) *Automatic Exchanges.* At the 30th June, 1933, there were 69 automatic or semi-automatic exchanges in operation, providing facilities for 198,963 telephones, 193,482 of which were in the telephone networks of the six State capital cities.

(v) *Rural Automatic Exchanges.* For some time, trials have been conducted in country districts of small units of automatic equipment designed to provide continuous telephone service where an extension of the hours under manual conditions is impracticable. The trials have indicated the suitability of this equipment for Australian conditions, and arrangements are in progress to install additional units at selected centres throughout Australia.

(vi) *Summary for States.* Particulars relating to the telephone service in each State for the years ended 30th June, 1931 to 1933, 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 ..	1931	1,946	1,652	934	553	646	355	6,086
	1932	1,942	1,641	938	552	648	348	6,069
	1933	1,935	1,639	947	554	644	352	6,071
No. of Telephone Offices (including Exchanges)	1931	2,993	2,353	1,424	787	934	516	9,007
	1932	2,981	2,350	1,429	790	937	513	9,000
	1933	2,937	2,339	1,415	791	930	512	8,924
No. of lines connected ..	1931	141,445	113,282	48,979	39,552	21,258	11,727	376,243
	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
No. of instruments connected	1931	188,345	154,647	62,375	50,656	27,734	14,298	498,055
	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
(a) No. of subscribers' instruments	1931	183,507	151,190	60,065	49,237	26,505	13,499	484,003
	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
(b) No. of public tele- phones	1931	2,944	2,213	1,527	788	900	525	8,897
	1932	2,986	2,199	1,532	788	903	544	8,952
	1933	3,229	2,226	1,534	789	900	549	9,227
(c) No. of other local instruments	1931	1,894	1,444	783	631	329	274	5,155
	1932	1,914	1,267	793	727	330	275	5,306
	1933	1,894	1,288	814	729	364	283	5,372
Instruments per 100 of population	1931	7.49	8.60	6.50	8.61	6.59	6.52	7.66
	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
Earnings .. ..		£	£	£	£	£	£	£
	1931	2,246,395	1,628,164	819,395	568,925	328,833	139,636	5,731,348
	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	799,251	532,090	308,470	136,090	5,504,840	
Working expenses ..	1931	1,643,800	1,219,722	558,500	496,697	272,543	167,225	4,358,487
	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
Percentage of working ex- penses on earnings		%	%	%	%	%	%	%
	1931	73.18	74.91	68.16	87.30	82.83	119.76	76.05
	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	

The number of instruments per 100 of population declined from 7.40 in 1931-32 to 7.36 in 1932-33. The actual number of instruments increased from 484,626 to 487,662, a gain of 0.63 per cent. Of the total instruments connected at 30th June, 1933, 214,206, or 43.9 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, 1931 to 1933 :—

**PERCENTAGE OF AUTOMATIC, COMMON BATTERY, AND MAGNETO LINES.**

System.	30th June.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Automatic .. ..	1931	41.8	37.3	34.1	37.9	40.9	28.7	38.5
	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
Common Battery ..	1931	2.9	18.6	..	13.4	6.1	16.8	9.0
	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
Magneto .. ..	1931	55.3	44.1	65.9	48.7	53.0	54.5	52.5
	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

(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 1932-33 :—

**TELEPHONES.—SUBSCRIBERS' LINES AND DAILY CALLING RATE, 1932-33.**

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	15,283	10.82	60,445	4.02	58,262	2.07	133,990	3.95
Victoria ..	7,667	10.13	55,031	3.81	45,786	1.63	108,484	3.34
Queensland ..	6,558	8.69	11,763	3.56	29,679	2.40	48,000	3.54
South Australia ..	5,088	8.23	14,420	3.32	17,634	1.57	37,142	3.16
Western Australia	6,846	5.55	3,872	3.77	9,839	1.37	20,557	3.21
Tasmania ..	2,712	4.06	987	2.30	7,458	1.88	11,157	2.45
Australia ..	44,154	8.87	146,518	3.82	168,658	1.91	359,330	3.54

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 nearly two and a half 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 following 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 1930-31 to 1932-33 :—

**TELEPHONES.—TRUNK LINE CALLS AND REVENUE.**

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
Total Calls for Year—	No.	No.	No.	No.	No.	No.	No.
1930-31 ..	10,384,188	8,100,657	5,549,423	3,999,105	1,736,945	1,293,759	30,164,077
1931-32 ..	9,678,897	8,067,603	5,334,890	3,959,101	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
Total Revenue for Year—	£	£	£	£	£	£	£
1930-31 ..	512,403	358,833	318,748	142,557	90,085	43,494	1,466,120
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
Average Revenue per Call—	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1930-31 ..	11.84	10.63	13.78	11.04	12.45	8.07	11.66
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



The number of trunk line calls originated during 1932-33 increased by over a quarter of a million compared with the figures for the previous year, but the average revenue per call decreased by 0.29d.

2. Revenue from Telephones.—Particulars regarding the revenue from telephone services are included in tables in § 1.

### § 6. Radio Telegraphy and Telephony.

1. Radio Telegraphy and Telephony.—(i) *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.

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; (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*, for transportable sets on motor cars, &c.; (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 1932-33 and 1933-34:—

#### WIRELESS LICENCES, 1932-33.

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 .. ..	21	60	2	12	4	..	..	..	99	..	99
Land (b) ..	8	3	3	..	2	3	4	..	24	3	27
Broadcasting (a) ..	14	14	8	4	4	3	..	1	48	..	48
Broadcast listeners' ..	177,386	170,995	36,146	50,097	20,536	12,563	53	614	468,390	40	468,430
Experimental .. ..	383	323	126	111	68	30	..	4	1,045	2	1,047
Portable .. ..	9	1	7	2	1	..	5	..	25	..	25
Special .. ..	26	11	..	1	6	..	..	..	44	..	44
<b>Total Licences issued</b>	<b>177,849</b>	<b>171,408</b>	<b>36,298</b>	<b>50,229</b>	<b>20,626</b>	<b>12,602</b>	<b>63</b>	<b>619</b>	<b>469,694</b>	<b>54</b>	<b>469,748</b>

#### 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	8	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	1	4	1,169	5	1,174
Portable .. ..	9	5	7	..	3	..	7	..	31	1	32
Special .. ..	26	15	..	1	6	..	..	..	48	..	48
<b>Total Licences Issued</b>	<b>226,428</b>	<b>207,431</b>	<b>52,173</b>	<b>64,280</b>	<b>31,501</b>	<b>16,594</b>	<b>51</b>	<b>939</b>	<b>599,397</b>	<b>63</b>	<b>599,460</b>

(a) There are also twelve stations operated by the National Broadcasting Service. (b) In addition to the licensed stations two are operated by the Postmaster-General's Department, viz.:—Wave Hill (N.T.) and Camooweal (Q.).

(ii) *Broadcasting.* (a) *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 Department receives 12s. and the Commission 12s. from each listener's licence fee of 24s.

There are at present twelve National 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, 7HO Hobart.

Contracts have been let for the erection of seven additional regional stations—two in New South Wales, two in Victoria and one each in Queensland, Western Australia and Tasmania.

(b) *Licensed 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. The 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, 1934, was 53.

(c) *Simultaneous Broadcasts.* Simultaneous broadcasting in the various States has been a regular feature for some years. By means of telephone trunk lines and amplifying apparatus, items of national interest and programmes of special merit are distributed to the various stations of the National Broadcasting Service. In some cases they are relayed overseas by means of short wave stations or the Anglo-Australian radiotelephone service. Frequently, the licensed stations also are linked by telephone trunk lines for simultaneous broadcasts.

(iii) *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 para. (vi) (a).

(iv) *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, India, South Africa, and North and South America. The fee for a conversation between Australia and England is £6 for a minimum of three minutes' effective conversation and £2 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 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.

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, 4,963 calls have been completed, of which 3,597 were between Australia and Great Britain, and 834 between Australia and New Zealand. During the year ended 30th June, 1934, 1,565 calls were completed, 907 originating in Australia and 658 in other countries. Of the total calls, 1,161 were between Australia and Great Britain, 283 between Australia and New Zealand, 35 between Australia and the United States of America, and 86 between Australia and other foreign countries.

(v) *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.

(vi) *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, 1933 :—

**RADIO TRAFFIC.—INTERNATIONAL, YEAR ENDED 30th JUNE, 1933.**

Class of Traffic.	Number of Words Transmitted.			Number of Words Received.		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary .. ..	940,294	379,294	1,319,588	618,001	148,861	766,862
Deferred .. ..	581,975	212,582	794,557	485,949	79,319	565,268
Government .. ..	70,790	10,599	81,389	68,874	3,362	72,236
Press (including deferred press) ..	153,361	2,421	155,782	1,025,291	52,365	1,077,656
Daily letter and week-end telegrams (a) ..	3,244,510	687,006	3,931,516	2,096,685	227,886	2,324,571
<b>Total .. ..</b>	<b>4,990,930</b>	<b>1,291,902</b>	<b>6,282,832</b>	<b>4,294,800</b>	<b>511,793</b>	<b>4,806,593</b>

(a) Includes Christmas and New Year Greeting telegrams.

(b) *Coast Stations.* Particulars of the traffic handled by the several coast stations during the year 1932-33 are as follow :—

**RADIO TRAFFIC.—COAST STATIONS, 1932-33.**

State or Territory.	Particulars.				
	Total, Paying Words.	Messages.			
		Paying.	Service.	Weather.	Total.
	No.	No.	No.	No.	No.
New South Wales .. ..	780,135	47,333	5,656	5,928	58,917
Victoria .. ..	65,243	6,539	175	1,780	8,494
Queensland .. ..	182,491	14,717	4,727	3,094	22,538
South Australia .. ..	47,618	4,568	146	601	5,315
Western Australia .. ..	143,699	11,331	2,115	2,903	16,349
Tasmania .. ..	198,797	12,082	1,658	1,669	15,409
Northern Territory .. ..	50,002	2,302	863	1,276	4,441
<b>Australia .. ..</b>	<b>1,467,985</b>	<b>98,872</b>	<b>15,340</b>	<b>17,251</b>	<b>131,463</b>
<b>Papua .. ..</b>	<b>202,823</b>	<b>12,389</b>	<b>685</b>	<b>1,171</b>	<b>14,245</b>
<b>Grand Total .. ..</b>	<b>1,670,808</b>	<b>111,261</b>	<b>16,025</b>	<b>18,422</b>	<b>145,708</b>

(c) *Island Stations.* Particulars of the island radio traffic dealt with during the year 1932-33 are given hereunder :—

RADIO TRAFFIC.—ISLAND STATIONS, 1932-33.

Particulars.	To Australia.	From Australia.	Inter- Island.	Ship.	Total.
	No.	No.	No.	No.	No.
Messages .. ..	21,506	15,812	17,652	1,911	56,881
Words .. ..	310,651	282,976	233,999	22,097	849,723

(vii) *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 Tariff 1933.**—The Tariff Schedule now in operation is 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). Customs Tariff 1933 incorporates the *Customs Act* 1901–1930 and repeals 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 Tariff 1933 validates 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 Tariff 1933 makes no provision for an Intermediate Tariff, but provides 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 as amended by Resolution introduced into Parliament on 7th December, 1933); New Zealand (*vide* Act No. 26 of 1933); Norfolk Island (*vide* Act No. 15 of 1913); Papua and New Guinea (*vide* Act No. 26 of 1926, as amended); and British non-self-governing Colonies, British Protectorates and certain Territories governed under British mandate.

The Duties of Customs imposed by Customs Tariff 1933 (No. 27 of 1933), except in respect of items in the Schedule for which a later date is specified came into force on the 14th October, 1932.

Customs Tariff 1933 provides for duties on certain goods to be deferred. Where a deferred duty on any goods is provided in the Schedule, the Minister shall refer to the Tariff Board for inquiry and report the question whether the deferred duty should or should not operate on and after the date to which it has been deferred. The Board shall report whether the goods in respect of which the deferred duty is provided are being made or produced in Australia or will be so made or produced on, or immediately after, the date to which the duty has been deferred—(a) in reasonable quantities; (b) of satisfactory quality; and (c) at a reasonable price having regard, among other things, to the probable economic effect of the imposition of the deferred duty upon other industries concerned, and upon the community in general. Upon receipt of a report from the Tariff Board, the Minister may defer the duty further by notice published in the *Gazette*.

During the period 3rd April, 1930, to 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 the 24th May, 1932, and further reductions were made subsequently. From the 5th October, 1933, the items affected were—fancy goods, sporting requisites and toys, jewellery and imitation jewellery, rubber, gum, and wading boots.

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.

On the 11th July, 1931, a further amendment came into operation (a) exempting certain aids to primary production and minor imports from primage duty; (b) providing for a rate of 4 per cent. *ad valorem* on a few other items, mainly aids to production; and (c) increasing the *ad valorem* rate of primage duty to 10 per cent. on all other articles imported.

Further amendments removing or reducing primage duties were made on the following dates:—26th February, 1932; 1st September, 1932; 14th October, 1932; 14th November, 1932; 8th March, 1933; and 5th October, 1933.

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 were superseded during the year 1925.

Important alterations in the conditions governing the entry of goods into the Commonwealth under the British Preferential Tariff were made during 1925. The amended conditions applied to goods invoiced to Australia after the 1st April, 1925.

Under the new conditions preference was granted in the Commonwealth as follows :—

- (a) To goods which are wholly produced or wholly manufactured in the United Kingdom.

Manufactured goods will be considered "wholly manufactured in the United Kingdom" only if in the raw materials used and in the finished goods no manufacturing process has been performed outside the United Kingdom which is being commercially performed in the United Kingdom.

The Minister shall determine what are to be regarded as raw materials, and in such determination may include partially manufactured Australian materials.

- (b) To goods, not wholly produced or wholly manufactured in the United Kingdom in the terms of paragraph (a), provided they contain at least 75 per cent. of United Kingdom labour and/or material in their factory or works cost.
- (c) Notwithstanding anything contained in the preceding paragraphs, to goods of a class or kind not commercially manufactured in Australia provided they contain at least 25 per cent. of United Kingdom labour and/or material in their factory or works cost.
- (d) It is essential in every case that the final process or processes of manufacture shall take place in the United Kingdom, and that the goods shall be consigned therefrom direct to Australia.

It was also provided that the conditions of preference set out above should apply (in addition to goods from the United Kingdom) to goods, claiming preference, shipped from any country to which the Commonwealth of Australia had extended tariff preference, whether the rates granted were those of the "British Preferential Tariff," the "Intermediate Tariff," or special rates.

The Customs Tariff (No. 27 of 1933) provides that the British Preferential Tariff rates of duty apply to goods or manufactures of the United Kingdom provided such goods comply with the laws and statutory regulations for the time being in force affecting the grant of British preference (see Section 151A of the Customs Act 1901-1930). These conditions are set out briefly above. It also provides that the benefits of the British Preferential Tariff may be extended wholly or in part to any British non-self-governing colony, British Protectorate, or to certain territories governed under British mandate. The benefits of the British Preferential Tariff have also been extended by separate Trade Agreements to certain goods the produce of the Dominions of Canada and New Zealand.

At the Imperial Economic Conference held at Ottawa, Canada, during July and August, 1932, a trade agreement providing increased preference was made between the Government of the United Kingdom and the Government of the Commonwealth of Australia. The Tariff proposals embodying the terms of the trade agreement came into operation on the 14th October, 1932. An Act entitled the *United Kingdom and Australia Trade Agreement Act*, 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 Section 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 1932-33, the Tariff of 1921-1933 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 14.2 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 1932-33, under the Tariff of 1921-1933, on goods of United Kingdom origin was about 18.8 per cent., whereas the same goods under the General Tariff rates would have been called upon to pay an average rate of about 33 per cent.

An application of the Tariff of 1921-1933 to the total imports of £A30,155,747 (including outside packages) from the United Kingdom entered for home consumption during the year 1932-33 shows that the value of the goods of United Kingdom origin which participated in the preferential provisions of the Tariff was £A27,292,910, upon which, duty to the amount of £2,923,866 was collected. Under the General Tariff, the same goods would have been required to pay £6,803,543 duty. Thus, had the conditions of the General Tariff operated on these goods, £3,879,677 additional duty would have been paid, representing an average of 14.2 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 1932-33 were textiles, £1,478,639; metals and metal manufactures, £785,878; machines and machinery, £257,680; paper, £356,137; drugs, chemicals, etc., £186,200; optical, surgical and scientific instruments, £122,505; spiritus and alcoholic liquors, £71,589; and earthenware, glass, etc., £96,861.

From the preceding paragraph it appears that, if there had been no preference, and the General Tariff had been operating on the goods actually imported under the preferential provisions, there would have been £3,879,677 more collected in Customs duties in Australia. The consumer in Australia has, therefore, benefited approximately to this amount by preference at the expense of the Treasury, which has had, of course, to make up the loss in other ways. 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 value of goods from countries other than the United Kingdom which were adversely affected by the preferential provisions of the Tariff amounted to £A16,841,635, and the duty collected thereon was £4,692,270, or £2,348,161 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 favorably or adversely by the British Preferential Tariff during the years, 1930-31, 1931-32 and 1932-33.

**EFFECT OF THE PREFERENTIAL PROVISIONS OF THE CUSTOMS TARIFF.**  
**IMPORTS OF GOODS AFFECTED FAVORABLY OR ADVERSELY BY THE BRITISH PREFERENTIAL TARIFF.**

Particulars.	United Kingdom.			Other Countries.(a)		
	1930-31.	1931-32.	1932-33.	1930-31.	1931-32.	1932-33.
<b>GOODS OF A KIND WHICH WERE "FREE", IF FROM UNITED KINGDOM.</b>						
Value of goods cleared for consumption ..	£ 12,009,600	8,506,549	11,729,146	6,957,878	4,660,270	5,961,194
Amount of Duty collected thereon ..	£ ..	..	..	979,201	538,593	866,145
Average <i>ad valorem</i> rate of Duty collected ..	% ..	..	..	14.1	11.6	14.5
Duty which would have been collected under General Tariff rates ..	£ 1,258,068	898,344	1,599,757	..	..	..
Average <i>ad valorem</i> rate of Duty which would have been collected under General Tariff rates ..	% 10.5	10.6	13.6	..	..	..
<b>GOODS OF A KIND WHICH WERE "DUTIABLE", IF FROM UNITED KINGDOM.</b>						
Value of goods cleared for consumption ..	£ 11,168,139	11,992,546	15,563,764	11,252,926	8,728,184	10,880,441
Amount of Duty collected thereon ..	£ 3,252,703	2,354,104	2,923,866	4,487,419	2,842,803	3,826,125
Average <i>ad valorem</i> rate of Duty collected ..	% 29.1	19.6	18.8	39.9	32.6	35.2
Duty which would have been collected on United Kingdom goods under General Tariff rates ..	£ 4,769,743	3,968,834	5,203,786	..	..	..
Average <i>ad valorem</i> rate of Duty which would have been collected under General Tariff rates ..	% 42.7	33.1	33.4	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff ..	£ ..	..	..	3,005,557	1,810,769	2,344,109
Average <i>ad valorem</i> rate of Duty which would have been collected under British Preferential Tariff ..	% ..	..	..	26.7	20.8	21.6
Amount of Rebate on United Kingdom goods as against General Tariff rates ..	£ 1,517,040	1,614,730	2,279,920	..	..	..
Average <i>ad valorem</i> rate of Rebate on United Kingdom goods ..	% 13.6	13.5	14.6	..	..	..
Amount of Surcharge on goods from Other Countries as against British Preferential Tariff rates ..	£ ..	..	..	1,481,862	1,032,034	1,482,016
Average <i>ad valorem</i> rate of Surcharge on goods of Other Countries ..	% ..	..	..	13.2	11.8	13.6

(a) Goods cleared under "General Tariff".

EFFECT OF THE PREFERENTIAL PROVISIONS OF THE CUSTOMS  
TARIFF—*continued.*

Particulars.	United Kingdom.			Other Countries.(a)		
	1930-31.	1931-32.	1932-33.	1930-31.	1931-32.	1932-33.
<b>TOTAL GOODS—"FREE" AND "DUTIABLE", AFFECTED BY THE BRITISH PREFERENTIAL TARIFF.</b>						
Value of goods cleared for consumption ..	£ 23,177,739	20,499,095	27,292,910	18,210,804	13,388,454	16,841,635
Amount of Duty collected thereon ..	£ 3,252,703	2,354,104	2,923,866	5,466,620	3,381,396	4,692,270
Average <i>ad valorem</i> rate of Duty collected ..	% 14.0	11.5	10.7	30.0	25.2	27.8
Duty which would have been collected on United Kingdom goods under General Tariff rates ..	£ 6,027,811	4,867,178	6,803,543	..	..	..
Average <i>ad valorem</i> rate of Duty which would have been collected under General Tariff rates ..	% 26.0	23.7	24.9	..	..	..
Duty which would have been collected on goods of Other Countries under British Preferential Tariff ..	£ ..	..	..	3,005,557	1,810,769	2,344,109
Average <i>ad valorem</i> rate of Duty which would have been collected under British Preferential Tariff ..	% ..	..	..	16.5	13.5	13.9
Amount of Rebate on United Kingdom goods as against General Tariff rates ..	£ 2,775,108	2,513,074	3,879,677	..	..	..
Average <i>ad valorem</i> rate of Rebate on United Kingdom goods ..	% 12.0	12.2	14.2	..	..	..
Amount of Surcharge on goods from Other Countries as against British Preferential rates ..	£ ..	..	..	2,461,063	1,570,627	2,348,161
Average <i>ad valorem</i> rate of Surcharge on goods of Other Countries ..	% ..	..	..	13.5	11.7	13.9

(a) Goods cleared under "General Tariff"

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 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. 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  $11\frac{1}{5}$  per cent., and less than  $16\frac{2}{3}$  per cent.

If (a), 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. ( $\frac{1}{8}$ ) of the value for duty, whichever is the less :

If (b) applies, the deduction will be—(i) one-eighth of the amount of duty ; or (ii)  $6\frac{1}{2}$  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.

Only those protected goods imported from British countries in relation to whose currency Australian currency is depreciated to the extent necessary to invoke the provisions of the Act will be affected. The United Kingdom will be the principal country affected, Canada, and, to a very minor degree, certain of the Colonies proclaimed as being entitled to the British Preferential Tariff will be affected also. New Zealand's currency is practically of equal value to Australian, therefore, imports from that country will not at present be affected.

Primage will be calculated in accordance with the Customs Act and paid on the value for duty as hitherto.

(iii) *Papua and New Guinea Preference.* Customs Tariff (Papua and New Guinea Preference) 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 Tariff 1933 be free of duty. The goods specified in the schedule to the resolution of 10th March, 1933 (Customs Tariff (Papua and New Guinea Preference)) proposals are coffee, dried litchi fruit, various native fresh fruits, edible fungi, green and dry ginger, coconuts, Rangoon beans, kapok and sesame seeds, arecanuts, cocoa beans, massoi oil, nuts (edible), sago, tapioca and spices. Total imports from Papua during 1932-33 amounted to £151,183, imports of goods entitled to preference to £56,244, and duties remitted to £48,211. Total imports from the Territory of New Guinea during 1932-33 amounted to £800,467, imports of goods entitled to preference to £44,668, and the duties remitted to £34,181.

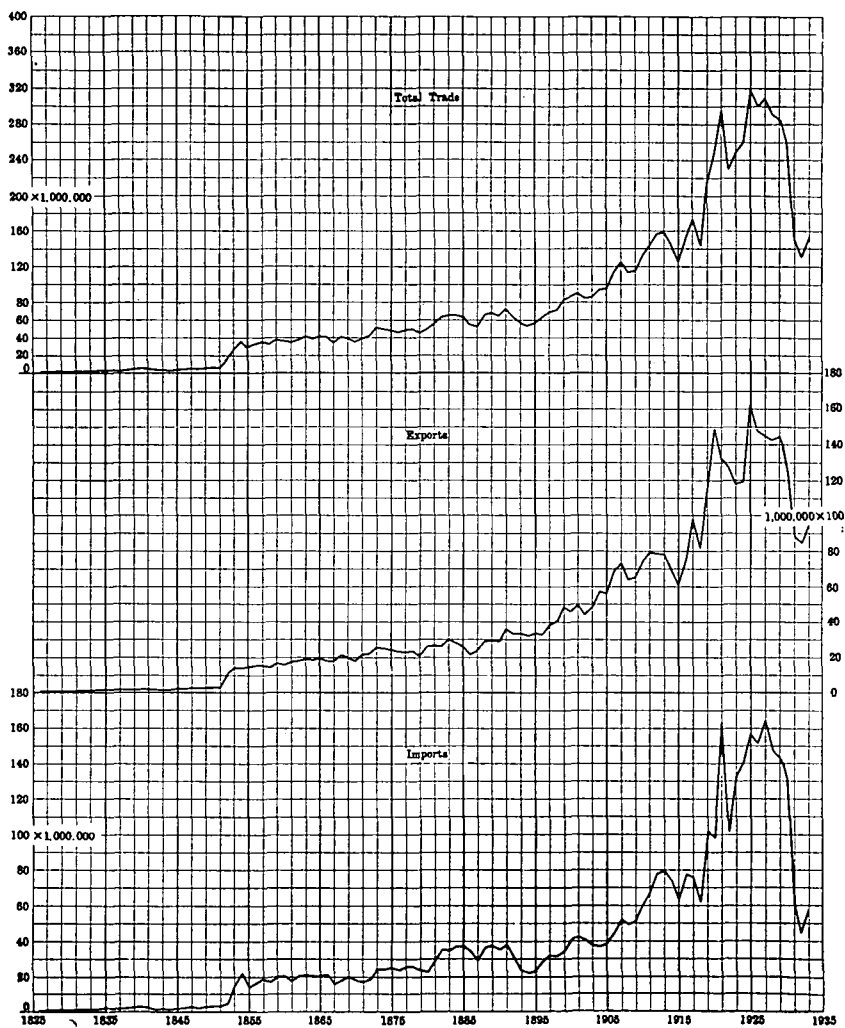
5. *Reciprocal Tariffs.*—(i) *General.* The Tariff Act of 1921 introduced a new feature into Australian Tariffs in the form of an Intermediate Tariff. The purpose of the Intermediate Tariff, as announced by the Minister for Customs when submitting the schedule to Parliament, was stated in Year Book No. 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 Section 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 Section 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 arrangement. 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.

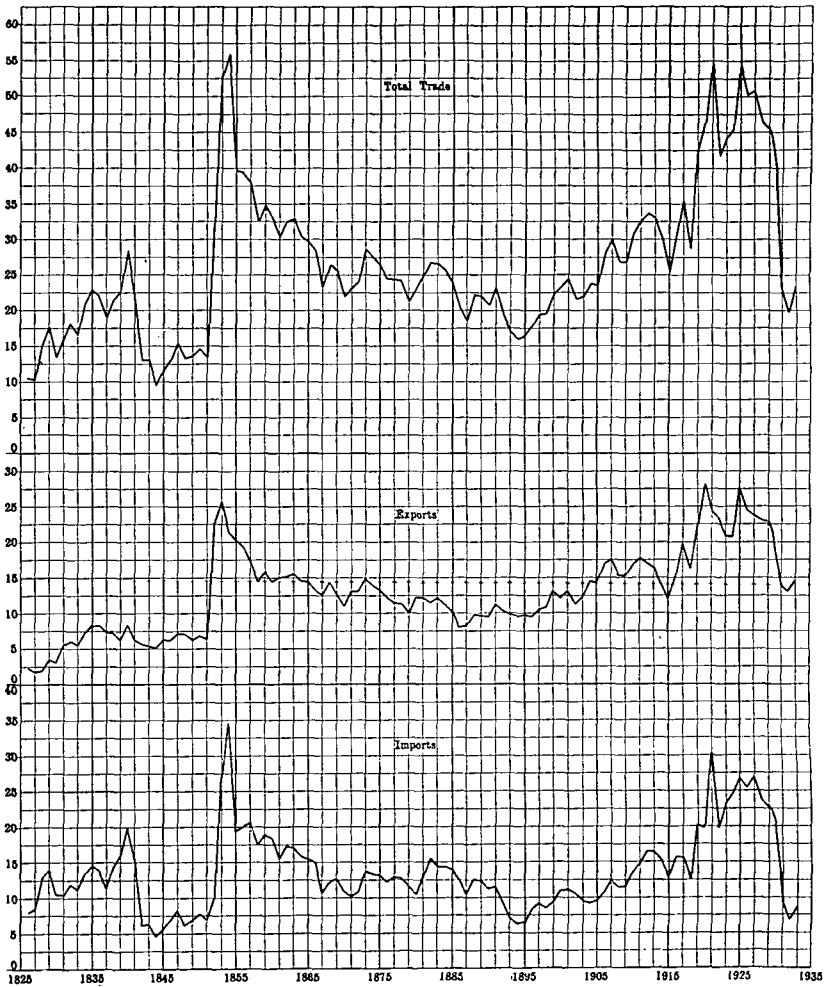
## VALUE OF TOTAL TRADE, EXPORTS AND IMPORTS, AUSTRALIA 1826 TO 1932-33.



(See page 244.)

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.

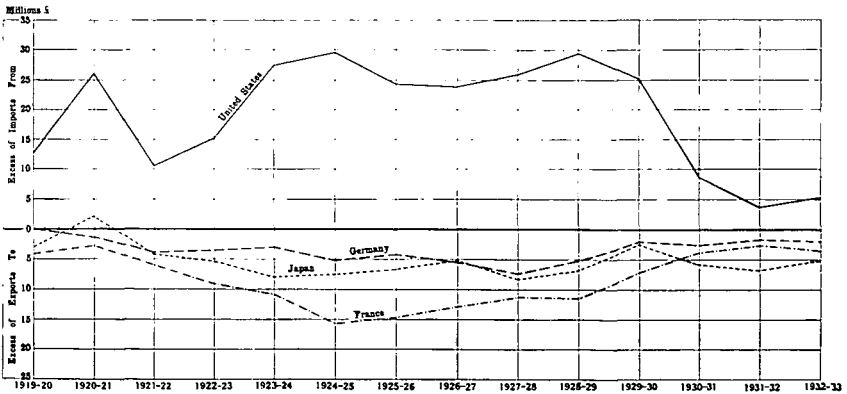
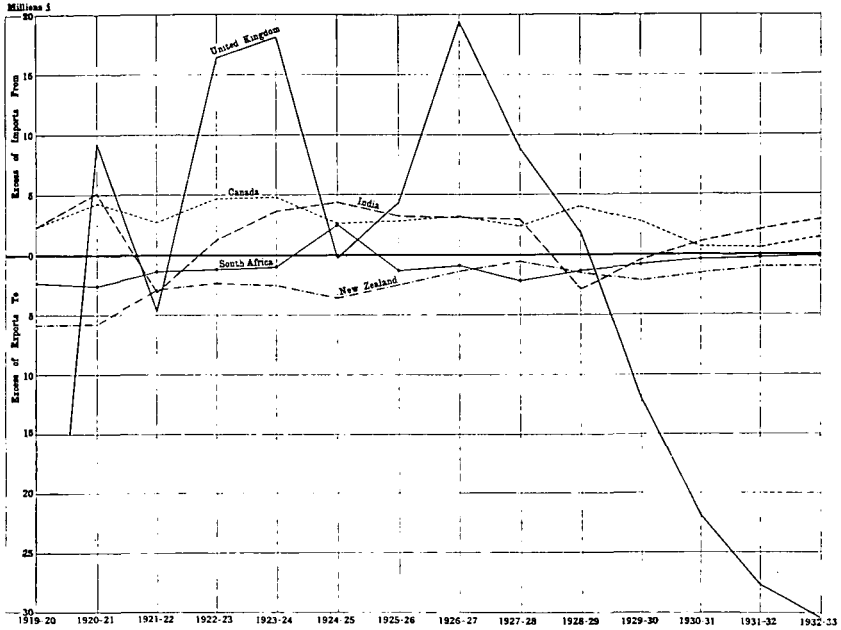
VALUE: PER HEAD OF POPULATION OF TOTAL TRADE, EXPORTS AND IMPORTS  
—AUSTRALIA, 1826 TO 1932-33.



(See page 244.)

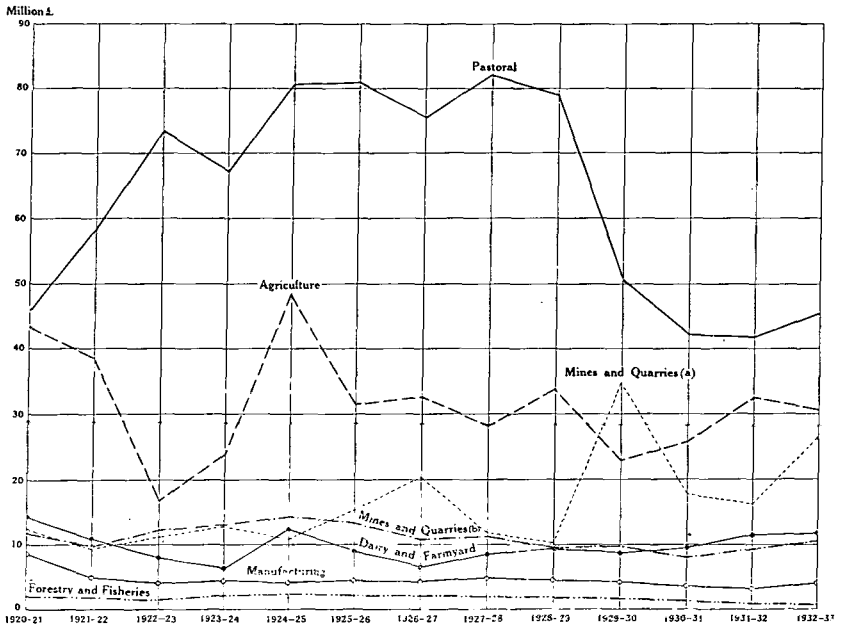
EXPLANATION.—The base of each square represents an interval of two years, and the vertical height £2 ros. od. per head of the population.

**BALANCE OF AUSTRALIAN TRADE WITH OTHER COUNTRIES, 1919-20 TO 1932-33.**



**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 1932-33



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.

(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) 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) 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.

Of the total imports of £1,103,008 from New Zealand during 1932-33 it is estimated that goods otherwise dutiable amounting in value to £309,998 were admitted free under the provisions of the Preferential Tariff and the duty thus remitted was £209,324. In addition, goods valued at £38,695, were admitted under the preferential rates of duty, the duty remitted on such goods being £8,352. The total of the duties remitted on the import of New Zealand goods was thus £217,676, representing a margin of preference of 62.4 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 £251,424; fish, £44,826; and dried milk, £5,297; the amounts of duty remitted being £192,454, £13,957, and £3,114 respectively.

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) No. 26 of 1933, which repealed the earlier Acts. 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. 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 Somoa shall not be subject to any higher duties than those paid on cocoa beans the produce of any British non-self-governing Colony or Protectorate or any Territory under British mandate. Nothing in the Act shall apply to goods being the produce of Cook Islands.

Goods, the produce or manufacture of the Dominion of New Zealand, are exempt from primage duty.

The conditions of preference in the Act provide that goods shall be deemed to be the produce or manufacture of New Zealand if they conform to the laws and regulations in force in Australia which apply to such goods when imported under the British Preferential Tariff (*vide* section 151A of *Customs Act 1901-1930*) 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.

(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. The Customs Tariff (Canadian Preference) Act (No. 13 of 1931) and the Customs Tariff (Canadian Preference) proposals introduced into Parliament on 13th October, 1932, 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 1932-33 the imports from Canada amounted in Australian currency to £A2,900,100 and imports of Canadian origin entitled to preference were valued at £A2,529,100, the principal items being paper, £A748,500; timber, £A505,100; motor vehicles, etc., £A360,800; and fish, £A326,100. The duty on the total imports of Canadian origin entitled to preference under the General Tariff would have been £A829,929, but of this amount £A496,710 was remitted under the Preferential Tariff, being equivalent to 19.6 per cent. on the total imports of Canadian origin entitled to preference. Australian exports to Canada subject to preference amounted to approximately £900,000, the principal items being dried fruits, £408,514; fruits, preserved, £32,086; meats, £17,184; sugar, £360,221; wine, £16,524; tallow, £15,526, and butter, £12,446.

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. On the basis of the quantities of dried fruits, spirits, wine, sugar, canned fruits and jams and jellies imported into the United Kingdom from Australia during the year 1932, valued at £4,290,811, as shown in the Annual Statement of the Trade of the United Kingdom, it is estimated that £1,529,130 additional duty would have been collected if the same quantities of goods had been subject to the rates applicable to similar imports from foreign countries. The main items receiving preference and the amount of rebate were sugar, £790,501; wine, £605,764; and dried fruits, £123,510.

The effect of the concessions granted by the Ottawa Trade Agreement, which came into operation on 15th November, 1932, is not taken into account in the above estimate, nor is the effect of the general *ad valorem* duty of 10 per cent. imposed on certain foreign goods by Section 1 of the *Imports Duties Act* 1932, which came into operation on 1st March, 1932.

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.

The agreement provides for the regulation of imports of frozen mutton and lamb and frozen and chilled beef into the United Kingdom from foreign countries (*vide* Schedule H).

7. **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) and 1929 (No. 5 of 1929), 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 1921-1929, reviews the work of the Board during the year ended 30th June, 1933. During the year the Board furnished 109 reports to the Minister for Trade and Customs, and of these reports 71 related to matters on which public inquiries had been held. The subjects dealt with comprised:—Tariff revision, 70; adjustment of protective duties to compensate for effects of Primage and Exchange, 1. The reports on matters which did not call for public inquiry were:—Admission of goods under by-law, 2; deferred duties, 36.

The Report states that the general problem of the Board, viz., the determination of reasonable rates of duty, has been rendered more difficult than at any previous period through the introduction or continuance of factors not existent a few years ago when trade and industrial conditions were deemed to be normal. Among these are the *United Kingdom-Australia Trade Agreement Act 1932* (Ottawa Agreement) which includes important clauses affecting the fixation of rates of duty; the imposition of primage which imposes an additional landing charge of indeterminate permanency; the currency exchange conditions; and the industrial depression which continues seriously to interfere with economical production in many industries.

By the Ottawa Agreement the Government of the United Kingdom pledged itself to take certain action towards securing to Australian exporters a more stable and profitable market in the United Kingdom for their products. In return the Commonwealth Government pledged itself to revise the Tariff on lines intended to secure for United Kingdom manufacturers a greater share of the Australian market. In Australia action was taken in two directions, viz.:—(a) The margin of British preference on certain goods was increased from the 13th October, 1932, and (b) the general revision of the duties imposed on goods imported from the United Kingdom was instituted. The general revision of duties under the British Preferential Tariff is in progress and is being carried out in accordance with principles laid down in the Ottawa Agreement, the most important of which are—(a) that protection shall be afforded only to those industries which are reasonably assured of sound opportunities for success; and (b) that, except in the case of industries not fully established, the 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. The Report states that the interpretations placed upon both these provisions by interested parties have been as divergent as their interests. To interpret clause (a) as demanding the abolition of duties in all such cases would inevitably result in hardship and unemployment. On the other hand, the retention of duties at too high a level may lead to expansion on an uneconomic basis. The Board, therefore, recommends a duty which, while limiting the excess, should enable the industry to hold a proportion of the market and to have an opportunity of qualifying for greater output. A reduced duty permits of importations of the lines least suitable for Australian manufacture, admittedly with an added impost on the consumer, but in the circumstances this is inevitable.

According to the Report the interpretation of clause (b) of the Agreement has given rise to much controversy. Both in Australia and in the United Kingdom it appears to have been assumed by some that the giving of "full opportunity of reasonable competition" entails finely adjusting duties so as to place efficient manufacturers of the United Kingdom and of Australia on exactly the same level in the Australian market. There is no doubt that such a practice would seriously reduce the sale of goods that can be made in Australia and sold at reasonable prices. This would seriously dislocate industries which have been established for years and would lead to an increase in unemployment, together with wastage of huge capital investment. The subversive consequences of such a policy could not fail to engender opposition to the Ottawa Agreement.

Other matters dealt with in the Report are:—Protective effect of Primage; Protective effect of Exchange, and admission of plant and machinery under Departmental 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. 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.

**8. 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.

**9. Commerce (Trade Descriptions) Act.**—This Act (No. 16 of 1905), as amended by Act No. 37 of 1926, by Act No. 15 of 1930 and Act 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.

**10. Acts Passed in 1932.**—The following Acts relating to Australian production and trade were assented to during the year 1932 :—

*Spirits Act (No. 12 of 1932).* An Act amending the *Spirits Act 1906–1923*.

*Cotton Industries Bounty Act (No. 17 of 1932).* An Act to amend the *Cotton Industries Bounty Act 1930*.

*United Kingdom and Australia Trade Agreement Act (No. 57 of 1932).* An Act to approve the provisions of an agreement made between His Majesty's Government in the United Kingdom and His Majesty's Government in the Commonwealth of Australia and arising out of the Conference of Representatives of the Governments of the British Dominions held at Ottawa in July and August, 1932.

*Wheat Bounty (Claims) Act (No. 71 of 1932).* An Act relating to the making of claims under the *Wheat Bounty Act 1931*.

*Sugar Agreement Act (No. 74 of 1932).* An Act to approve an agreement made between His Majesty's Government of the Commonwealth of Australia and His Majesty's Government of the State of Queensland and for other purposes.

11. Acts passed in 1933.—The following Acts relating to Australian production and trade were assented to during the year 1933 :—

*Canned Fruits Export Control Act (No. 9 of 1933).* An Act to amend the *Canned Fruits Export Control Act 1926-1930*.

*Commerce (Trade Descriptions) Act (No. 13 of 1933).* An Act to amend the *Commerce (Trade Descriptions) Act 1905-1930* and for other purposes.

*Excise Tariff (No. 20 of 1933).* An Act relating to Duties of Excise.

*Excise Tariff No. 2 (No. 21 of 1933).* An Act relating to Duties of Excise.

*Spirits Act (No. 23 of 1933).* An Act to suspend the operation of Sections 3, 4, and 5 of the *Spirits Act 1932*.

*Customs Tariff (New Zealand Preference) Agreement Act (No. 24 of 1933).* An Act to ratify an Agreement between the Commonwealth of Australia and the Dominion of New Zealand in relation to Preferential Duties of Customs and certain other matters.

*Sales Tax Assessment (New Zealand Imports) Act (No. 25 of 1933).* An Act to amend various Sales Tax Assessment Acts 1930-1933.

*Customs Tariff (New Zealand Preference) Act (No. 26 of 1933).* An Act relating to Preferential Duties of Customs on Goods the produce or manufacture of the Dominion of New Zealand and for other purposes.

*Customs Tariff 1933 (No. 27 of 1933).* An Act relating to Duties of Customs. The *Customs Tariff 1921-1930* was repealed by this Act.

*Iron and Steel Products Bounty Act (No. 28 of 1933).* An Act to amend the *Iron and Steel Products Bounty Act 1922-1929*.

*Customs Tariff (Exchange Adjustment) Act (No. 29 of 1933).* An Act to provide for Adjustments in Duties of Customs consequent upon depreciation in the value of Australian currency in relation to the currencies of countries to goods to which the British Preferential Tariff applies.

*Customs Tariff (Industries Preservation) Act (No. 30 of 1933).* An Act to amend the *Customs Tariff (Industries Preservation) Act 1921-1922*.

*Customs Tariff (No. 2) 1933 (No. 31 of 1933).* An Act relating to Duties of Customs.

*Fruit Growers' Relief Act (No. 39 of 1933).* An Act to provide for financial assistance to the States in the provision of relief to Fruit Growers.

*Wheat Growers' Relief Act (No. 42 of 1933).* An Act to provide for financial assistance to the States in the provision of relief to Wheat Growers and for other purposes.

*Flour Tax Assessment Act (No. 43 of 1933).* 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.

*Flour Tax Act (No. 1) (No. 44 of 1933).* An Act to impose a Tax upon Flour manufactured in Australia by any person, and sold or delivered, or used in the manufacture of goods for sale, by him.

*Flour Tax Act (No. 2) (No. 45 of 1933).* An Act to impose a Tax upon Flour held in stock by certain persons on the fourth day of December, 1933.

*Flour Tax Act (No. 3) (No. 46 of 1933).* An Act to impose a Tax upon Flour and certain goods imported into Australia.

*Dairy Produce Act (No. 58 of 1933).* An Act relating to Trade and Commerce with other countries and among the States in certain Dairy Produce.

*Dried Fruits Act (No. 59 of 1933).* An Act to amend the *Dried Fruits Act 1928*.

*Silver Agreement Act (No. 62 of 1933).* An Act to ratify and approve certain agreements relating to the production of Silver.

*Wheat Acquisition Act (No. 67 of 1933).* An Act to provide for the acquisition of Wheat by the Commonwealth and for other purposes.

*Tariff Board Act (No. 69 of 1933).* An Act to amend the *Tariff Board Act 1921-1929.*

*Trade Commissioners Act (No. 74 of 1933).* An Act to provide for the appointment of Trade Commissioners for the Commonwealth and for other purposes.

### § 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 attaching to the office.

The Commonwealth has a Trade Representative in France, with headquarters 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 headquarters 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 headquarters at Toronto.

Early in 1921 a Commonwealth Trade Commissioner was appointed in China, with offices at Shanghai and Hong Kong. This office was terminated in 1923. In 1922, an Australian Trade Representative in the East was appointed, with headquarters 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. At 30th June, 1934, one appointment under the Act had been made, Mr. R. H. Nesbitt being appointed as Australian Trade Commissioner in New Zealand.

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 headquarters in Sydney, and a Trade Commissioner is located at Melbourne, where the Canadian Government Trade Commissioner and the American Trade Commissioner have their headquarters. The New Zealand Tourist and Trade Commissioner and the Trade Commissioner for 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 1901-1931 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 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 the 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) *Butter*—the current market value less the amount paid as export bonus ; (c) *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.

The export values shown for sugar and butter for the years 1925-26 to 1927-28 inclusive have been amended also to accord with the new basis of valuation.

From the 1st July, 1930, the basis adopted for the value of exports of *wool* provides that the export value of (a) wool sold in Australia for export will be—the actual price paid plus the cost of services incurred in placing the wool on board ship, and (b) for wool shipped on consignment—the f.o.b. equivalent of ruling Australian prices is to be adopted.

From the 1st July, 1932, the basis adopted for the value of exports of *wheat* was — (a) sold in Australia for export—the f.o.b. equivalent of the price at which the wheat was sold · (b) shipped on consignment—the f.o.b. equivalent of the current selling price overseas.

During the year 1930-31 exports of merchandise generally were recorded in Australian currency and exports of bullion and specie in British currency, but from the 1st July, 1931, exports of bullion and specie are recorded in Australian currency also. The exports of bullion and specie during 1930-31 have been re-valued and are shown in the following tables in Australian currency. The comparison of export values for 1930-31 to 1932-33, with those for previous years is complicated by the varying value of the Australian £ in relation to sterling. In all export tables a footnote has been inserted showing the estimated British currency value, and in the summary tables the total oversea trade is shown in British currency.

3. **Customs Area.**—The Customs Area, to which all oversea trade statistics issued by this Bureau apply, is the whole area of the Commonwealth of Australia, comprising the States of New South Wales, 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 oversea trade of the Commonwealth. Such transactions are shown separately, i.e., the trade of the Commonwealth with each particular country is separately recorded and tabulated.

4. **Statistical Classification of Imports and Exports.**—The Oversea Trade Bulletin No. 30 for the year 1932-33, 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 classified list of items has been materially increased. The revised classification is divided into 21 classes, with 1,690 separate import items and 523 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 1930 to 1933 inclusive.

6. **Records of Past Years.**—In the years preceding federation, each State independently recorded its trade, and in so doing did not distinguish other Australian States from foreign countries. As the aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, it is unfortunate that past records of values and the direction of imports and exports were not on uniform lines. The figures in the following table for years prior to federation have been carefully compiled and may be taken as representative of the oversea trade of Australia as a whole. On the introduction of the Customs Act 1901, the methods of recording values were made uniform throughout the States, but it was not until September, 1903, that a fundamental defect in the system of recording transhipped goods was remedied. Prior to 1905 the value of ships imported or exported was not included in the returns of trade.

7. **Ships' Stores.**—Prior to 1906 goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and omitted from the return of exports. A table showing the value of these stores shipped each year since 1906 is given later in this Chapter.

## § 5. Oversea Trade.

1. **Total Oversea Trade.**—(i) *Including Gold.* The following table shows the total trade (including gold) of the Commonwealth with oversea 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	33,763	41,094	74,857	9 5 4	11 5 6	20 10 10	121.7
1901 „ 05	39,258	51,237	90,495	10 1 10	13 2 9	23 4 7	130.5
1906 „ 10	51,508	69,336	120,844	12 4 8	16 9 11	28 14 7	134.6
1911 „ 15-16	73,411	74,504	147,915	15 7 4	15 12 10	31 0 2	101.5
1916-17 to 1920-21	100,735	115,066	215,801	19 7 9	22 2 10	41 10 7	114.2
1921-22 ..	103,066	127,847	230,913	18 14 0	23 4 0	41 18 0	124.0
1922-23 ..	131,758	117,870	249,628	23 7 5	20 18 2	44 5 7	89.5
1923-24 ..	140,618	119,487	260,105	24 8 7	20 15 2	45 3 9	85.0
1924-25 ..	157,143	161,311	318,454	26 14 4	27 8 5	54 2 9	102.7
1925-26 ..	151,638	146,209	297,847	25 5 2	24 7 1	49 12 3	96.4
1926-27 ..	164,717	144,084	308,801	26 17 11	23 10 6	50 8 5	87.5
1927-28 ..	147,945	141,206	289,151	23 13 4	22 11 9	46 5 1	95.4
1928-29 ..	143,648	141,633	285,281	22 12 0	22 5 8	44 17 8	98.6
1929-30 ..	131,081	125,127	256,208	20 7 4	19 8 9	39 16 1	95.5
1930-31 (d)	60,960	104,355	..	9 7 6	16 1 0	..	..
(e)	60,960	88,904	149,864	9 7 6	13 13 6	23 1 0	145.8
1931-32 (d)	44,713	107,967	..	6 16 6	16 9 6	..	..
(e)	44,713	85,003	129,716	6 16 6	12 19 5	19 15 11	190.1
1932-33 (d)	58,014	121,268	..	8 15 8	18 7 3	..	..
(e)	58,014	96,857	154,871	8 15 8	14 13 4	23 9 0	167.0

(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 overseas 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 on two occasions only. 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.

In 1927-28 and for each year to 1931-32 there was a downward trend in the total oversea trade. This downward movement terminated in 1932-33 when the total trade (valued in British currency) amounted to £154,871,331, an increase of £25,155,832 on the figures for the previous year. Imports increased by £13,300,992 and exports by £11,854,840, or £1 19s. 2d. and £1 13s. 11d. per head of population respectively. Compared with imports during 1931-32 marked increases were recorded in imports of the following commodities:—spirituous and alcoholic liquors, textiles, bags and sacks, petroleum spirit and oils, electrical machinery and appliances, iron and steel, plated ware and cutlery, tools of trade, motor vehicles and parts, undressed timber, glass and glassware, paper, fertilizers and arms, ammunition and explosives. In quantity and value exports of the following principal commodities were greater than during 1931-32:—wool, hides and skins, lead, flour, raisins and fresh fruits; increased quantities of butter and frozen lamb were exported but values were lower. Frozen beef, wheat, sugar and wine were sent overseas in less quantities, and the values also were lower.

(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.	
				£ s. d.	£ s. d.	£ s. d.	
	£1,000 Stg.	£1,000 Stg.	£1,000 Stg.				%
1927-28	146,934	138,397	285,331	23 11 4	22 3 11	45 15 3	94.2
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	76,631	137,217	9 7 1	11 16 8	21 3 9	126.5
1931-32	44,059	75,472	119,531	6 15 0	11 11 4	18 6 4	171.3
1932-33	56,872	78,823	135,695	8 12 3	11 18 8	20 10 11	138.6

2. *Balance of Trade.*—The table on page 244 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, 1927-28 to 1932-33. 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. In 1930-31, 1931-32 and 1932-33, however, exports were again 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 to 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.	Commodity Balance of Trade.	Net Exports of Gold (Specie, Bullion and in Matte) in excess of Production.	Total Balance.
				B+C	D-A	F	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	4.2
1925-26 ..	151.3	141.9	2.3	144.2	- 7.1	1.7	- 5.4
1926-27 ..	164.1	132.7	2.2	134.9	-29.2	8.6	-20.6
1927-28 ..	146.9	138.4	2.1	140.5	- 6.4	- 0.3	- 6.7
1928-29 ..	143.3	138.6	1.9	140.5	- 2.8	0.8	- 2.0
1929-30 ..	130.8	98.2	1.9	100.1	-30.7	24.7	- 6.0
1930-31 ..	60.6	76.6	2.2	78.8	18.2	9.7	27.9
1931-32 ..	44.1	75.5	3.6	79.1	35.0	5.3	40.3
1932-33 ..	56.9	78.8	4.6	83.4	26.5	12.3	38.8

(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. Meanwhile tentative estimates of the balance of payments for the years 1928-29 to 1932-33 inclusive will be found in the Appendix.

### § 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 hereunder, 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
United Kingdom .. ..	57,022,757	54,248,339	23,283,784	17,408,811	23,541,877
<b>British Possessions—</b>					
Canada .. .. .	4,871,529	3,502,421	1,377,217	1,392,271	2,315,462
Ceylon .. .. .	1,966,171	2,125,141	1,061,478	598,177	624,562
India .. .. .	6,052,506	5,021,449	3,778,492	2,775,356	3,423,103
Malaya (British) .. ..	1,133,963	812,513	274,894	276,654	271,407
New Zealand .. .. .	2,067,143	1,512,774	774,970	702,686	731,200
<b>Pacific Islands—</b>					
Nauru .. .. .	516,544	442,516	229,316	217,512	334,747
Papua .. .. .	117,894	105,098	134,145	138,972	96,848
Territory of New Guinea ..	320,134	223,412	55,714	68,483	90,950
Other Islands .. .. .	848,640	719,391	288,756	228,768	328,971
Union of South Africa ..	586,879	302,879	89,823	56,598	99,648
Other British Possessions ..	639,831	867,623	424,887	352,196	456,435
<b>Total, British Possessions</b>	<b>19,121,234</b>	<b>15,635,217</b>	<b>8,489,692</b>	<b>6,807,673</b>	<b>8,773,333</b>
<b>Total, British Countries ..</b>	<b>76,143,991</b>	<b>69,883,556</b>	<b>31,773,476</b>	<b>24,216,484</b>	<b>32,315,210</b>
<b>Foreign Countries—</b>					
Belgium .. .. .	910,797	985,005	312,023	282,131	391,294
China .. .. .	633,217	568,664	347,641	314,778	266,938
France .. .. .	3,700,279	3,070,645	1,498,306	1,145,829	1,195,470
Germany .. .. .	4,545,501	4,341,678	1,997,056	1,427,079	1,831,636
Italy .. .. .	1,449,629	1,350,849	658,308	453,891	676,139
Japan .. .. .	4,707,299	4,181,643	2,370,558	2,396,734	3,536,581
Netherlands .. .. .	1,145,378	1,134,921	631,634	361,405	461,674
Netherlands East Indies ..	7,091,619	6,282,653	4,011,194	2,648,948	2,930,951
Norway .. .. .	890,414	655,523	214,440	188,300	305,455
Pacific Islands .. .. .	220,174	268,409	148,271	73,942	70,552
Philippine Islands .. .. .	163,030	174,518	39,957	35,947	34,899
Sweden .. .. .	1,480,808	1,671,786	822,563	693,433	886,332
Switzerland .. .. .	1,969,079	1,566,721	926,144	471,054	478,436
United States of America ..	35,307,343	30,313,535	11,399,005	7,037,417	8,084,047
Other Foreign Countries ..	2,941,046	2,802,069	1,631,293	1,098,211	1,881,833
<b>Total, Foreign Countries ..</b>	<b>67,155,613</b>	<b>59,368,619</b>	<b>27,017,393</b>	<b>18,629,099</b>	<b>23,032,237</b>
<b>Total .. .. .</b>	<b>143,299,604</b>	<b>129,252,175</b> (a)	<b>58,790,869</b> (a)	<b>42,845,583</b> (a)	<b>55,347,447</b> (a)

(a) Excluding Outside Packages 1929-30, £1,535,385, 1930-31, £1,794,965, 1931-32, £1,213,561 and 1932-33, £1,524,882.

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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	per cent.	per cent.	per cent.	per cent.	per cent.
United Kingdom .. ..	39.80	41.97	39.60	40.63	42.54
British Possessions—					
Canada .. .. .	3.40	2.72	2.34	3.25	4.18
Ceylon .. .. .	1.37	1.64	1.81	1.38	1.13
India .. .. .	4.22	3.88	6.43	6.48	6.18
Malaya (British) .. ..	0.79	0.63	0.47	0.65	0.49
New Zealand .. .. .	1.44	1.17	1.32	1.64	1.32
Pacific Islands—					
Nauru .. .. .	0.36	0.34	0.39	0.52	0.61
Papua .. .. .	0.08	0.08	0.23	0.32	0.17
Territory of New Guinea ..	0.22	0.18	0.09	0.16	0.16
Other Islands .. .. .	0.59	0.56	0.49	0.53	0.60
Union of South Africa .. ..	0.42	0.23	0.15	0.13	0.18
Other British Possessions ..	0.45	0.67	0.72	0.83	0.83
Total, British Possessions ..	13.34	12.10	14.44	15.89	15.85
Total, British Countries ..	53.14	54.07	54.04	56.52	58.39
Foreign Countries—					
Belgium .. .. .	0.64	0.76	0.53	0.66	0.71
China .. .. .	0.44	0.44	0.59	0.73	0.48
France .. .. .	2.59	2.38	2.55	2.67	2.15
Germany .. .. .	3.17	3.36	3.40	3.33	3.33
Italy .. .. .	1.01	1.05	1.12	1.06	1.22
Japan .. .. .	3.28	3.24	4.05	5.59	6.38
Netherlands .. .. .	0.80	0.88	1.07	0.84	0.83
Netherlands East Indies ..	4.96	4.85	6.83	6.18	5.29
Norway .. .. .	0.62	0.51	0.36	0.44	0.55
Pacific Islands .. .. .	0.15	0.21	0.25	0.17	0.12
Philippine Islands .. .. .	0.11	0.13	0.07	0.08	0.63
Sweden .. .. .	1.03	1.29	1.40	1.62	1.06
Switzerland .. .. .	1.37	1.21	1.58	1.10	0.86
United States of America ..	24.64	23.45	19.39	16.43	14.60
Other Foreign Countries ..	2.05	2.17	2.77	2.58	3.40
Total, Foreign Countries ..	46.86	45.93	45.96	43.48	41.61
Total .. .. .	100	100	100	100	100

The percentage of imports from the United Kingdom during the period covered by the above table showed alternate decreases and increases in successive years, with a gradual upward tendency, the percentage for 1931-32 marking an improvement compared with the previous year with a further improvement in 1932-33. The United Kingdom supplied 42.54 per cent. of the imports during 1932-33, compared with 39.80 per cent. in 1928-29, an increase of 2.74 per cent. The proportion of imports from British Possessions increased from 13.34 per cent. in 1928-29 to 15.85 per cent. in 1932-33, owing to the fact that the imports of bags and sacks from India were sustained at a higher level than imports in the aggregate. There were, in addition, small increases in the imports from Canada and Nauru. The proportion of imports supplied by foreign countries declined from 46.86 per cent. in 1928-29 to 43.48 per cent. in 1931-32, with a further decline to 41.61 per cent. in 1932-33, a decrease of 5.25 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 6.38 per cent. during 1932-33 as compared with 3.28 per cent. during 1928-29, the proportion of imports from that country showing a steady increase during the last three years. Imports from Netherlands East Indies were 4.85 per cent. in 1929-30 and rose, owing to a greater share in the tea trade, to 6.83 per cent. in the following year, declined to 6.18 per cent. in 1931-32,

with a further drop to 5.29 per cent. in 1932-33. The share of imports supplied by the United States of America declined from 23.45 per cent. in 1929-30 to 19.39 per cent. in 1930-31 with a further decline in 1932-33 to 14.60 per cent.

Compared with the previous year imports from the United States were £1,046,630 higher in 1932-33, but the proportion of the total imports declined by 1.83 per cent. Japan supplied £1,139,847 more imports in 1932-33 and increased the proportion of trade by 0.79 per cent. The principal items imported from Japan and from the United States of America may be found on pp. 254 and 256 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. Total imports from all countries increased from £42,845,583 in 1931-32 to £55,347,447 in 1932-33, representing a rise of 29 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 1928-29 to 1932-33 inclusive :—

EXPORTS FROM AUSTRALIA TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

*Australian Currency Values.*

Country.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
United Kingdom .. ..	50,046,841	43,357,463	39,600,153	47,823,652	47,196,727
British Possessions—					
Canada .. .. .	737,710	743,742	958,730	1,033,782	1,209,237
Ceylon .. .. .	458,919	507,191	373,736	313,243	331,001
Fiji .. .. .	478,211	456,733	363,988	268,704	347,168
Hong Kong .. ..	597,666	336,315	379,880	737,880	770,718
India .. .. .	8,112,847	3,233,919	2,227,457	748,835	831,470
Malaya (British) ..	1,968,084	1,389,321	818,917	916,462	963,970
Mauritius .. ..	129,752	72,178	52,572	102,757	90,421
New Zealand .. ..	3,729,147	3,624,395	2,975,848	2,603,716	2,770,190
Papua .. .. .	173,042	170,692	136,345	128,351	128,145
Union of South Africa	1,953,319	1,050,107	496,455	370,211	232,339
Other British Possessions	1,524,921	1,222,534	1,189,650	1,667,990	1,727,848
Total, British Possessions ..	19,863,612	12,807,127	9,973,578	8,891,331	9,402,507
Total, British Countries .. ..	69,910,453	56,164,590	49,573,731	56,714,983	56,599,234
Foreign Countries—					
Belgium .. .. .	9,044,614	5,535,231	4,195,186	3,579,143	4,061,551
Chile and Peru .. ..	428,431	207,014	115,253	208,238	264,568
China .. .. .	1,113,854	295,157	3,348,518	4,942,859	6,285,035
Egypt .. .. .	3,912,074	1,792,223	1,479,555	1,049,466	483,599
France .. .. .	15,141,155	10,134,578	6,747,944	4,636,602	6,054,054
Germany .. .. .	9,730,330	6,246,960	5,310,575	3,922,479	5,089,724
Italy .. .. .	5,169,404	2,761,293	3,494,885	3,631,915	3,275,500
Japan .. .. .	11,518,986	6,555,003	9,500,499	11,659,012	11,468,459
Netherlands .. ..	653,535	451,603	387,611	509,712	306,193
Netherlands East Indies	2,030,023	2,080,722	1,412,525	1,333,959	1,207,890
Norway .. .. .	5,026	21,891	48,076	54,240	35,685
Pacific Islands .. ..	506,367	358,955	243,213	244,262	284,483
Philippine Islands ..	430,993	390,750	329,239	315,366	431,808
Soviet Union (Russia)	1,574,603	343,023	4,141	190,143	267,279
Spain .. .. .	22,395	82,899	115,276	360,119	160,424
Sweden .. .. .	413,938	135,405	145,523	252,488	120,982
United States of America	5,831,794	4,233,772	2,930,407	1,990,262	1,341,241
Other Foreign Countries	1,210,459	466,540	590,069	479,223	986,013
Total, Foreign Countries .. ..	68,737,981	42,094,019	40,389,495	39,359,488	42,124,488
Total .. .. .	138,648,434	98,258,609	89,963,226	96,074,471	98,723,722

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 year to the extent of 25 per cent. by the fact that they are stated in Australian currency. Stated in sterling the value of exports for 1932-33 was £78,822,561, against £98,723,722 in Australian currency. Up to the end of the year 1928-29, the two currencies had practically the same value.

The smaller value of exports from Australia since 1928-29 is the result of lower prices.

The changes in the distribution of the export trade among countries are mainly governed by the disposal of the wheat crop. For instance in 1928-29, when the United Kingdom took 36.10 per cent. of all Australian exports of merchandise, she took about 25 per cent. of the wheat shipments, whereas in 1932-33, when 47.81 per cent. of all exports went to the United Kingdom, over 40 per cent. of the wheat went there. In 1928-29, India took about 30 per cent. of Australian wheat, and in 1932-33, less than 1½ per cent. of the wheat went to India. In 1932-33, nearly 28 per cent. of the wheat went to China, against about 3 per cent. in 1928-29, and so with Japan. These figures, of course, are supplemented by exports of flour.

4. Percentage of Exports to Various Countries.—In consequence of the fluctuations in the total values of exports, the relative importance of various countries as markets for Australian produce is shown more clearly by the following table of percentages :—

#### EXPORTS FROM AUSTRALIA.—PERCENTAGES TO VARIOUS COUNTRIES.

(EXCLUDING GOLD BULLION, SPECIE AND IN MATTE.)

Country.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	per cent.	per cent.	per cent.	per cent.	per cent.
United Kingdom .. ..	36.10	44.13	44.02	49.79	47.81
British Possessions—					
Canada .. ..	0.53	0.76	1.07	1.07	1.22
Ceylon .. ..	0.33	0.52	0.42	0.33	0.34
Fiji .. ..	0.34	0.46	0.40	0.28	0.35
Hong Kong .. ..	0.43	0.34	0.42	0.77	0.78
India .. ..	5.85	3.29	2.48	0.78	0.84
Malaya (British) .. ..	1.42	1.42	0.90	0.95	0.98
Mauritius .. ..	0.09	0.07	0.06	0.10	0.09
New Zealand .. ..	2.69	3.69	3.31	2.70	2.81
Papua .. ..	0.12	0.17	0.15	0.13	0.13
Union of South Africa .. ..	1.42	1.07	0.55	0.39	0.23
Other British Possessions .. ..	1.10	1.24	1.32	1.74	1.75
Total, British Possessions .. ..	14.32	13.03	11.08	9.24	9.52
Total, British Countries .. ..	50.42	57.16	55.10	59.03	57.33

EXPORTS FROM AUSTRALIA—PERCENTAGES TO VARIOUS  
COUNTRIES—*continued.*

Country.	1928-29.	1929-30.	1930-31	1931-32.	1932-33.
	per cent.	per cent.	per cent.	per cent.	per cent.
<b>Foreign Countries—</b>					
Belgium .. .. .	6.52	5.63	4.66	3.72	4.11
Chile and Peru .. .. .	0.31	0.21	0.13	0.23	0.27
China .. .. .	0.80	0.30	3.72	5.14	6.37
Egypt .. .. .	2.82	1.82	1.63	1.09	0.49
France .. .. .	10.92	10.31	7.50	4.83	6.13
Germany .. .. .	7.02	6.36	5.90	4.08	5.16
Italy .. .. .	3.73	2.82	3.88	3.78	3.32
Japan .. .. .	8.31	6.67	10.56	12.13	11.62
Netherlands .. .. .	0.47	0.46	0.43	0.53	0.31
Netherlands East Indies .. .. .	1.46	2.12	1.57	1.39	1.22
Norway .. .. .	0.00	0.02	0.05	0.06	0.04
Pacific Islands .. .. .	0.36	0.37	0.27	0.25	0.29
Philippine Islands .. .. .	0.32	0.40	0.36	0.33	0.44
Soviet Union (Russia) .. .. .	1.14	0.35	0.05	0.20	0.27
Spain .. .. .	0.02	0.08	0.13	0.37	0.16
Sweden .. .. .	0.30	0.14	0.16	0.26	0.12
United States of America .. .. .	4.21	4.31	3.25	2.07	1.36
Other Foreign Countries .. .. .	0.87	0.47	0.65	0.51	0.99
<b>Total, Foreign Countries .. .. .</b>	<b>49.58</b>	<b>42.84</b>	<b>44.90</b>	<b>40.97</b>	<b>42.67</b>
<b>Total .. .. .</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

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 1931-32 and 1932-33:—

**BALANCE OF AUSTRALIAN TRADE WITH PRINCIPAL COUNTRIES.**

(EXCLUDING BULLION AND SPECIE.)

*British Currency Values.*

Country.	Imports from—		Exports to—		Excess of Exports.	
	1931-32.	1932-33.	1931-32.	1932-33.	1931-32.	1932-33.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
United Kingdom .. .. .	17,405	23,524	37,155	36,981	19,750	13,457
Canada .. .. .	1,392	2,315	814	965	— 578	— 1,350
India .. .. .	2,775	3,423	359	656	— 2,416	— 2,767
New Zealand .. .. .	702	729	2,050	2,172	1,348	1,443
Other British Countries .. .. .	1,926	2,295	3,536	3,627	1,610	1,332
<b>Total, British Countries .. .. .</b>	<b>24,200</b>	<b>32,286</b>	<b>43,914</b>	<b>44,401</b>	<b>19,714</b>	<b>12,115</b>
Belgium .. .. .	282	391	2,818	3,243	2,536	2,852
China .. .. .	315	267	3,858	5,018	3,543	4,751
France .. .. .	1,146	1,195	3,650	4,834	2,504	3,639
Germany .. .. .	1,427	1,832	3,088	4,064	1,661	2,232
Italy .. .. .	454	676	2,859	2,615	2,405	1,939
Japan .. .. .	2,397	3,537	9,179	9,156	6,782	5,619
Netherlands East Indies .. .. .	2,649	2,931	1,050	964	— 1,599	— 1,967
United States of America .. .. .	7,037	8,084	1,538	1,069	— 5,499	— 7,015
Other Foreign Countries .. .. .	2,922	4,119	2,885	2,667	— 37	— 1,452
<b>Total, Foreign Countries .. .. .</b>	<b>18,629</b>	<b>23,032</b>	<b>30,925</b>	<b>33,630</b>	<b>12,296</b>	<b>10,598</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 1932–33, 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. 30," issued by this Bureau, which gives details, of the trade with Australia of 24 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 of 1931–32 and 1932–33, 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*, £23,542,918. The two outstanding classes of goods imported were—Apparel, textiles, yarns, etc., £9,319,633; and machines, machinery, and manufacturers of metal, £6,485,948. Imports of the following goods also contributed largely to the total:—Paper and stationery, £2,522,615; drugs and chemicals, £1,359,671; whisky, £359,552; earthenware, glass and glassware, £448,465; optical, surgical and scientific instruments, £338,256; and rubber and leather manufactures, £197,365.

*Total Exports to United Kingdom*, £67,543,514. Of this total, £66,325,710 represented Australian produce. The principal items of export were—Gold specie, £12,513,546; gold, bar, dust, etc., £7,833,241; wool, £11,479,976; butter, £8,556,465; wheat, £7,580,827; lead (pig), £2,139,714; sugar, £1,111,458; eggs, £1,014,992; frozen beef, £1,489,183; frozen mutton and lamb, £2,615,919; apples, fresh, £1,676,525; raisins, £1,314,210; wine, £739,927; silver, bar, ingots, etc., £587,306; and tallow, £333,219.

**Canada.**—*Total Imports of Canadian Origin*, £2,315,462. The principal imports were—Printing paper, £597,705; timber, £465,126; motor chassis and parts, £271,368; fish, preserved in tins, £268,478; piece goods, £114,631; sensitized films £107,663; and typewriters and parts, £32,959.

*Total Exports to Canada*, £1,209,237. Of this total £1,205,472 was Australian produce. Chief items were—Fruits, dried, £408,514; sugar, £360,221; wool, £241,346; oils, fats, etc., £35,733; fruits, preserved, £32,086; gelatine and glue, £22,612; and fruits, fresh, £32,086.

**Ceylon.**—*Total Imports of Ceylon Origin*. £624,562. The principal items were—Tea, £555,344; rubber, £33,638; and cocoa beans and shells, £9,047.

*Total Exports to Ceylon*, £333,001. Of this total, £326,789 was Australian produce. The chief items were—Flour, £127,822; silver, £40,420; milk and cream, £32,900; timber, £21,930; butter, £19,245; frozen beef, £10,050; and fruits, fresh, £19,924.

**Fiji.**—*Total Imports of Fijian Origin*, £31,698, include molasses, £10,251; bananas, £7,041; copra, £2,540, and hides, £1,865.

*Total Exports to Fiji*, £347,168. Of this total, £282,802 was Australian produce. The chief items were—Machinery and metal manufactures, £87,272; bran and pollard, £38,711; flour, £20,969; tobacco, cigars, etc., £27,845; apparel, textiles, cordage, £18,018; oils, fats and waxes, £12,294; coal, £9,397; and drugs and chemicals, £11,119.

**Hong Kong.**—*Total Imports of Hong Kong Origin*, £10,363. Chief items were—Ginger, £3,372; bamboo and cane, £2,036; and textiles, £1,008.

*Total Exports to Hong Kong*, £770,718. Principal items were—Flour, £330,046; sandalwood, £95,575; leather, £64,309; butter, £41,643; meats, £35,161; vessels, £30,000; Bêche-de-mer, £27,486; milk and cream, £16,432; fruits, fresh, £11,024; infants' and invalids' foods, £19,286; and timber, £20,343.

**India.**—*Total Imports of Indian Origin*, £3,423,103. The principal imports were—Corn and flour sacks, £2,004,145; woolpacks, £359,111; bran and chaff bags, £170,932; hessians, £347,757; hides and skins, £93,999; linseed, £79,361; and tea, £64,362.

*Total Exports to India*, £831,470. Of this total, £823,432 was Australian produce. The chief exports were—Wheat, £249,264; tallow, £100,681; milk and cream, £93,828; horses, £61,357; wool, £94,509; zinc, bars, blocks, etc., £105,025; silver £9,842; and coal, £8,455.

**Malaya (British).**—*Total Imports of Malayan (British) Origin*, £271,639. Principal items were—Rubber (crude), £173,370; sago and tapioca, £26,043; spices (unground), £45,528; and gums and resins, £2,432.

*Total Exports to Malaya (British)*, £963,970. Of this total, £930,878 was Australian produce. The chief items were—Milk and cream, £311,913; flour, £292,894; butter, £53,920; frozen beef, £24,516; fruits, fresh and preserved, £30,504; horses, £15,427; sheep, £17,363; coal, £13,786; and bacon and hams, £13,001.

**New Zealand.** *Total Imports of New Zealand Origin*, £1,103,008. The principal imports were—Gold, bar, dust, etc., £371,808; timber, £252,252; fish, smoked, dried, etc., £44,286; horses, £17,229; hides, £149,885; wool, £35,846; seeds, £51,056; and beans and peas, £13,990.

*Total Exports to New Zealand*, £2,770,237, of which £2,429,003 was Australian produce. The chief exports were—Machinery and metal manufactures, £521,806; apparel, textiles, etc., £247,623; wheat, £220,479; tobacco, manufactured, £103,999; coal, £110,759; drugs and chemicals, etc., £269,217; citrus fruits, £83,362; currants and raisins, £63,140; wine, £25,747; paints and varnishes, £39,060; rubber and leather goods, £93,961; paper and stationery, £108,196; and arms, ammunition and explosives, £56,610.

**Papua.** *Total Imports of Papuan Origin*, £151,183. The chief items were—Coconuts (prepared), £50,032; gold, bar, dust, etc., £54,335; rubber, £34,495; copra, £6,670; and coffee, raw, £2,514.

*Total Exports to Papua*, £128,145, of which £80,051 was Australian produce. The principal exports were—Tobacco, cigars, etc., £23,950; machinery and metal manufactures, £15,572; apparel and attire, £7,500; tinned meats, £6,345; flour, £5,529; butter, £2,716; films for cinematographs, £9,621; and timber, £2,836.

**Union of South Africa.** *Total Imports of Union of South Africa Origin*, £99,938. The principal items were—Fish, £13,065; precious stones, £56,228; asbestos (crude), £13,050; and feathers, £4,680.

*Total Exports to Union of South Africa*, £232,339, of which £226,957 was Australian produce. The chief exports were—Agricultural and other machinery, £24,542; gelatine and glue, £18,058; timber, £38,128; butter, £6,634; fruits, fresh, dried, etc., £18,590; piece goods, £14,100; coconut oil, £18,164; tallow, £14,083; soap, £9,143; and leather, £5,774.

**Belgium.** *Total Imports of Belgian Origin*, £391,294. Principal items were—Velvets, etc., £88,019; other piece goods, £35,563; gloves, £12,400; iron and steel, £34,257; plate and sheet glass, £62,095; paper and stationery, £37,638; precious stones, £15,012; and zinc sheets, £5,138.

*Total Exports to Belgium*, £4,061,551. Of this total, £4,058,827 was Australian produce. Chief exports were—Wool, £3,376,311; barley, £193,817; wheat, £117,551; silver and silver-lead concentrates, £86,312; beef, frozen, £81,845; lead (pig), £40,202; hides and skins, £34,900; fodders, £27,361; copper, £32,027; and zinc, bars, etc., £10,000.

**China.** *Total Imports of Chinese Origin*, £266,938. Chief items were—Ginger, £16,838; rice, £11,032; nuts, edible, £28,712; tea, £21,533; bristles, etc., £19,849; grass straw for hats, £6,292; apparel, attire and textiles, £62,395; tung, etc., oil, £16,497; drugs and chemicals, £6,347; and antiques, £17,531.

*Total Exports to China*, £6,285,035, of which £6,265,683 was Australian produce. Principal items were—Wheat, £4,943,276; flour, £1,069,703; infants' and invalids' foods, £64,921; butter, £46,164; milk and cream, £38,419; meats, £16,377; sandalwood, £20,413; and leather, £10,875.

**Egypt.** *Total Imports of Egyptian Origin*, £25,186. Chief items were—Bitumen and natural pitch, £11,902; cigarette tubes and papers, £4,118; seeds (kapok and sesame), £2,375; and gums and resins, £2,004.

*Total Exports to Egypt*, £483,599, of which £483,402 was Australian produce. Principal exports were—Flour, £177,411; wheat, £133,071; beef, frozen, £71,843; butter, £66,114; and hides and skins, £9,991.

**France.** *Total Imports of French Origin*, £1,195,470. Chief items were—Silk piece goods, £334,811; velvets, etc., £83,643; argol, £171,104; trimmings and ornaments, £64,287; gums and resins, £34,883; brandy, £15,401; olive oil, £40,290; paper and stationery, £67,238; pipes, cigar holders, etc., £10,676; and perfumery and toilet preparations, £24,399.

*Total Exports to France*, £6,054,054. Of this total, £6,027,477 was Australian produce. Principal exports were—Wool, £4,996,227; sheepskins, £964,767; concentrates, £15,987; frozen mutton, £7,753; and tallow, £6,188.

**Germany.**—*Total Imports of German Origin*, £1,831,636. Chief items were—Machinery and metal manufactures, £474,428; gloves, £144,817; trimmings and ornaments, £52,133; paper, £79,300; stationery, £37,695; china, glass and glassware, £41,476; optical and scientific instruments, £75,677; timepieces, £41,461; dyes, £51,046; fertilizers, £33,405; drugs and chemicals, £235,353; toys, £22,441; and musical instruments, £16,505.

*Total Exports to Germany*, £5,089,724, of which £5,076,623 was Australian produce. Principal exports were—Wool, £4,561,536; apples, fresh, £169,631; pears, fresh, £18,327; lead (pig), £155,736; zinc, bars, etc., £10,688; and hides and skins, £17,509.

**Italy.** *Total Imports of Italian Origin*, £676,139. Chief imports were—Apparel, textiles and yarns, £257,869; nuts, edible, £17,479; hides and skins, £35,517; fibres, £52,484; olive oil, £14,989; parchment, £10,826; essential oils, £15,536; sulphur, £111,135; and argol, £37,429.

*Total Exports to Italy*, £3,275,500, of which £3,268,537 was Australian produce. Principal exports were—Wool, £2,567,680; wheat, £568,190; hides, £88,035; and tallow, £39,274.

**Japan.** *Total Imports of Japanese Origin*, £3,536,581. Chief imports were—Silk or containing silk piece goods, £1,475,239; cotton and linen piece goods, £538,801; other piece goods, £117,706; silk, raw, £256,008; sulphur, £110,368; yarns, £113,190; towels and towelling, £54,232; crockery and household ware, £150,513; fancy goods and toys, £74,960; fish, £22,518; grass straw for hats, £20,251; hats and caps, £42,960; buttons, buckles, etc., £40,319; lamps, filament, £27,170; glass and glassware, £22,965; and paper and stationery, £41,022.

*Total Exports to Japan*, £11,468,459. Of this total, £11,458,287 was Australian produce. Principal exports were—Wool, £7,969,600; wheat, £2,729,812; tallow £204,681; zinc, bars, blocks, etc., £148,012; trochus shell, £49,291; iron and steel (scrap), £43,227; zinc concentrates, £125,211; flour, £25,061; beef, frozen, £22,251; lead (pig), £20,850; milk and cream, £15,135; casein, £14,333; and butter, £11,675.

**Netherlands.** *Total Imports of Netherlands Origin*, £461,674. Chief items were—Artificial silk yarns, £178,870; electrical machinery and appliances, £124,177; lamps and lampware, £21,405; drugs and chemicals, £22,865; jewellery, etc., £16,655; gin, £12,914; and paper, £11,800.

*Total Exports to Netherlands*, £306,193, of which £280,419 was Australian produce. Principal items were—Wool, £119,867; wheat, £69,970; fruits, fresh, £27,961; machinery and metal manufactures, £19,361; tallow, £14,764; meats, £11,151; and flour, £10,840.

**Netherlands East Indies.** *Total Imports of Netherlands East Indies Origin*, £2,930,951. Chief imports were—Petroleum spirit, £1,084,754; tea, £626,873; residual oil, £333,297; petroleum, crude, £304,257; kerosene, £191,682; kapok, £97,275; flax and hemp, £60,528; crude rubber, £43,421; coffee and chicory, £36,224; hides and skins, £25,977; and waxes, £22,048.

*Total Exports to Netherlands East Indies*, £1,207,890. Of this total, £1,179,588 was Australian produce. Principal exports were—Flour, £487,822; butter, £349,104; milk and cream, £76,695; leather, £41,446; bacon and hams, £38,742; fresh fruits, £28,708; biscuits, £26,899; coal, £18,286; medicines, £10,226; and tallow, £3,701.

**Norway.** *Total Imports of Norwegian Origin*, £305,455. Chief items were—Paper—printing, £56,420, writing and typewriting, £70,254, wrapping, £19,678, other paper, £20,634; fish, £47,482; metal manufactures, £40,027; timber, £36,619; and oils, £3,797.

*Total Exports to Norway*, £35,685. Principal exports were—Wheat, £30,643; and wool, £2,016.

**Pacific Islands (British and Foreign).** *Total Imports of Pacific Island Origin*, £1,690,108. The chief imports were—Gold, £768,040; rock phosphates, £583,995; copra, £137,073; coconut, prepared, £94,073; crude rubber, £34,495; molasses, £10,251; cattle, £5,193; and silver, £5,013.

*Total Exports to Pacific Islands*, £1,537,696. Of this total, £1,129,733 was Australian produce. Principal exports were—Machines, implements, and metal manufactures, £289,862; tobacco, etc., £136,591; meats, £101,049; flour, £95,317; apparel and attire, £90,216; coal, £75,509; ale, beer and porter, £44,052; bran and pollard, £43,186; kinematograph films, £50,087; drugs and chemicals, £42,818; biscuits, £33,237; milk and cream, £22,045; butter, £20,813; confectionery, £10,951; soap, £14,900; and oilmen's stores, £23,305.

**Philippine Islands.** *Total Imports of Philippine Islands Origin*, £34,899. Chief items were—Hemp, £23,070; timber, £5,136; and tobacco, £2,780.

*Total Exports to Philippine Islands*, £431,808. The principal exports were—Milk and cream, preserved, etc., £123,151; flour, £91,987; coal, £54,166; frozen beef, £71,182; butter, £46,641; bacon and hams, £14,535; and leather, £3,785.

**Soviet Union (Russia).** *Total Imports of Soviet Union Origin*, £86,031. Chief items were—Furs, dressed, £38,956; hair and bristles, £15,891; fish, £7,975; hides and skins, £6,786; and veneers and plywood, £2,524.

*Total Exports to Soviet Union (Russia)*, £267,279. Principal items were—Flour, £174,942; and wheat, £91,978.

**Spain.** *Total Imports of Spanish Origin*, £144,913. Chief items were—Corks, etc., £52,427; nuts, edible, £26,709; potash salts, £25,660; and liquorice, £9,896.

*Total Exports to Spain*, £160,424. Principal items were—Wool, greasy, £107,657; and hides and skins, £47,077.

**Sweden.** *Total Imports of Swedish Origin*, £886,332. Chief imports were—Pulp for paper-making, £214,634; dairy implements and machinery, £133,217; timber, £44,951; wood manufactures, £42,039; paper—boards, £50,814; printing, £54,757; wrapping and other, £178,455; metal manufactures, £61,686; and vacuum cleaners, £27,616.

*Total Exports to Sweden*, £120,982. Principal exports were—Wool, greasy, £59,961; wool, scoured, £14,599; apples, fresh, £28,540; hides and skins, £10,422.

**Switzerland.** *Total Imports of Swiss Origin*, £478,436. Chief imports were—Clocks and watches, £79,980; silk piece goods, £63,606; trimmings and ornaments, £59,304; handkerchiefs, £33,572; cotton and linen piece goods, £33,239; metal manufactures, £56,985; dyes, £17,976; cheese, £3,285; grass straw for hats, etc., £36,001; and lace for attire, £3,464.

*Total Exports to Switzerland*, £128,757. Principal exports were—Wool, greasy, £116,254; and wheat, £6,727.

**United States of America.** *Total Imports of United States Origin*, £8,084,160. Chief imports were—Petroleum spirit, £1,844,579; oil, lubricating (mineral), £729,695; kerosene, £384,496; motor cars and parts, £383,615; tobacco, unmanufactured, £630,978; electrical machinery and appliances, £382,847; sulphur, £333,053; paper and stationery, £234,166; kinematograph films, £274,177; timber and wood manufactures, £184,446; sausage casings, £114,074; and asphalt, bitumen, etc., £82,011.

*Total Exports to the United States of America*, £3,538,659. Of this total, £3,197,348 was Australian produce. Principal exports were—Wool, £337,215; rabbit and hare skins, £339,747; kangaroo skins, £69,848; fox skins, £38,160; sheepskins, £39,507; sausage casings, £143,300; tin, ingots, £15,324; pearlshell, £170,875; eucalyptus oil, £9,568; and gold specie, £1,921,858.

7. **Imports—States.**—For statistical purposes, imports into Australia from other countries are recorded, for the most part, at the port of discharge from the oversea ship and are credited to the State in which that port is situated, although in some cases the goods are transhipped on a through bill of lading and are then recorded at the port to which they are consigned. The figures given in the following table, therefore, do not represent the value of the imported goods which are ultimately consumed in the several States. Large amounts of imported goods recorded in New South Wales and Victoria are distributed thence by direct re-sale and otherwise to the other States, but the extent of this distributed trade cannot be ascertained. The total imports for the last five years are given hereunder.

## IMPORTS.(a)—STATES.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
New South Wales ..	63,491,751	57,127,427	26,311,411	18,797,584	23,831,322
Victoria ..	46,005,650	42,301,093	20,305,201	16,043,817	21,516,988
Queensland ..	11,594,348	11,540,083	5,556,434	3,746,131	4,519,578
South Australia ..	11,395,866	9,360,275	3,916,258	2,821,538	3,760,595
Western Australia ..	9,453,169	8,879,010	4,060,261	2,728,963	3,816,621
Tasmania ..	1,765,052	1,834,530	790,817	564,951	564,531
Northern Territory ..	32,045	38,902	19,251	9,884	4,225
<b>Total ..</b>	<b>143,647,881</b>	<b>131,081,320</b>	<b>60,959,633</b>	<b>44,712,868</b>	<b>58,013,860</b>
			(a)	(a)	(a)

(a) British currency value.

8. **Exports—States.**—The following table gives the value of exports shipped from each State during the last five years. It must be noted that the value of goods transferred from one State to another for shipment to oversea countries is shown as an export from the State from which the goods were finally dispatched.

## EXPORTS.(a)—STATES.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£A	£A	£A	£A	£A
New South Wales ..	49,231,220	35,761,807	31,624,592	34,608,871	46,676,333
Victoria ..	39,090,707	36,499,943	26,569,700	27,587,320	29,950,068
Queensland ..	20,438,051	18,821,824	16,922,406	16,106,067	15,279,726
South Australia ..	14,811,542	15,009,496	10,253,176	12,247,406	12,816,954
Western Australia ..	15,301,307	16,004,694	16,629,725	14,816,420	14,018,532
Tasmania ..	2,706,042	2,970,913	2,340,083	2,580,435	2,515,934
Northern Territory ..	53,720	58,471	14,956	20,624	10,427
<b>Total ..</b>	<b>141,632,589</b>	<b>125,127,148</b>	<b>104,354,638</b>	<b>107,967,143</b>	<b>121,267,974</b>
			(a)	(a)	(a)

(a) Recorded values. Australian currency. The estimated value of exports in British currency is as follows, viz.:—1930-31, £ stg. 88,904,142; 1931-32, £ stg. 85,002,631; 1932-33, New South Wales, £ stg. 37,287,633; Victoria, £ stg. 23,917,322; Queensland, £ stg. 12,200,626; South Australia, £ stg. 10,234,815; Western Australia, £ stg. 11,199,976; Tasmania, £ stg. 2,008,774; Northern Territory, £ stg. 8,325; Total, £ stg. 96,857,471.

The above figures show the distribution of the external trade of Australia among the component States, but takes no account of the internal or inter-State trade.

In the shipping section of Chapter VI. "Transport and Communication" a table is given which shows the total tonnage of cargo discharged and shipped at the more important ports of the several States.

§ 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 due to large exports to China. Wheat exports to Eastern countries remained steady. Other commodities showing increased trade during 1932-33, were infants' and invalids' foods, milk and cream, iron and steel (scrap), zinc, bars, etc. pearl and trochus shell and sandalwood. The value of butter exports declined in 1932-33 compared with the previous year, due to lower prices, the quantities remaining fairly constant. Exports of coal, lead (pig), tallow and timber (undressed) declined in 1932-33.

TOTAL EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.

Article.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£(A)	£(A)	£(A)	£(A)	£(A)
Biscuits .. .. .	79,107	60,411	41,253	32,587	33,638
Butter .. .. .	883,372	836,253	609,734	679,977	577,586
Cheese .. .. .	10,629	12,163	9,963	13,295	17,785
Coal .. .. .	67,006	27,089	82,540	148,086	94,963
Fruits—					
Fresh .. .. .	91,136	77,881	85,831	90,727	96,321
Dried and Preserved .. .. .	28,220	37,692	35,139	53,929	47,333
Grain and pulse—					
Wheat .. .. .	8,756,564	2,645,318	6,540,867	7,929,220	7,930,706
Flour .. .. .	1,978,031	1,969,516	1,193,999	1,534,452	2,498,016
Other (prepared and unprepared) .. .. .	56,385	77,226	33,913	18,839	30,683
Hay, chaff, and compressed fodder .. .. .	16,131	20,362	11,648	13,618	13,028
Horses .. .. .	118,296	124,522	95,857	93,089	84,265
Infants' and Invalids' Food .. .. .	58,887	56,254	48,116	74,986	89,663
Iron Ore .. .. .		92,831	27,492	8,347	7,908
Iron and Steel (scrap) .. .. .	18,307	26,597	1,879	35,579	43,227
Jams and Jellies .. .. .	46,493	33,296	29,306	33,648	34,406
Lard and Refined Animal Fats .. .. .	34,538	21,802	21,810	21,670	22,495
Lead, Pig .. .. .	123,953	92,323	70,180	51,745	34,031
Leather .. .. .	327,355	166,551	124,168	182,788	142,686
Meats—					
Bacon and Hams .. .. .	107,496	99,545	74,606	76,192	82,301
Other meats .. .. .	461,299	461,153	344,143	260,721	242,769
Milk and Cream .. .. .	1,283,929	920,558	567,170	569,011	730,650
Pearlshell and trochus shell .. .. .	95,327	66,612	45,925	32,544	49,295
Sandalwood .. .. .	278,238	89,427	72,969	62,914	132,657
Skins, hoofs, horns, bones, and sinews .. .. .	41,851	43,088	37,594	43,330	35,305
Tallow (unrefined) .. .. .	536,190	497,301	393,341	391,890	322,616
Timber (undressed) .. .. .	151,712	139,116	165,488	95,210	47,046
Wool .. .. .	8,806,489	4,512,341	6,528,817	7,590,943	8,034,927
Zinc—					
Bars, blocks, ingots, etc. .. .. .	372,960	334,921	195,175	180,193	253,037
Concentrates .. .. .	4,212			24,994	125,211
Other merchandise .. .. .	748,211	518,350	382,987	382,727	497,917
Total merchandise .. .. .	25,582,324	14,060,499	17,871,910	20,727,251	22,352,471
Specie, and gold and silver bullion .. .. .	1,845,964	3,516,873	1,477,543	600,501	50,262
<b>Total Exports .. .. .</b>	<b>27,428,288</b>	<b>17,577,372</b>	<b>19,349,453</b>	<b>21,327,752</b>	<b>22,402,733</b>

(a) Australian currency value. The estimated British currency values are, 1930-31, £ stg. 16,485,000; 1931-32, £ stg. 16,791,000; 1932-33, £ stg. 17,886,400.

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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£ (A.)	£ (A.)	£ (A.)	£ (A.)	£ (A.)
China .. .. .	1,075,718	273,507	3,310,048	4,900,020	6,285,035
Hong Kong .. .. .	600,889	336,315	379,880	727,280	770,718
India and Ceylon .. .. .	7,702,149	2,394,139	2,031,033	778,603	1,114,209
Japan .. .. .	11,518,086	6,555,003	9,500,499	11,659,012	11,468,459
Malaya (British) .. .. .	1,974,431	1,389,321	818,917	916,462	963,970
Netherlands East Indies .. .. .	2,957,664	2,080,622	1,412,406	1,333,959	1,207,890
Philippine Islands .. .. .	430,993	390,750	329,239	313,366	431,808
Other Eastern Countries .. .. .	221,494	140,842	89,888	86,549	110,382
<b>Total .. .. .</b>	<b>25,582,324</b>	<b>14,060,499</b>	<b>21,787,910</b>	<b>22,072,251</b>	<b>22,352,471</b>

(a) Australian currency value. Estimated British currency value, 1930-31, £ stg. 15,225,839; 1931-32, £ stg. 16,318,584; 1932-33, £ stg. 17,846,284.

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 therefrom in 1932-33, and the countries of origin, were as follow:—Tea—India and Ceylon, £619,706, and Netherlands East Indies, £626,873; Petroleum—Netherlands East Indies, £1,389,011; Bags and Sacks, and Hessians—India, £2,932,540; Silk Piece Goods—Japan, £1,475,239; Cotton and Linen Piece Goods—Japan, £538,801.

**IMPORTS OF MERCHANDISE INTO AUSTRALIA FROM EASTERN COUNTRIES.**

*British Currency Values.*

Country of Origin.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£ stg.	£ stg.	£ stg.	£ stg.	£ stg.
China .. .. .	633,217	568,013	347,432	314,778	266,938
Hong Kong .. .. .	13,273	17,420	14,436	6,156	10,363
India and Ceylon .. .. .	8,018,677	7,146,590	4,839,970	3,373,533	4,047,665
Japan .. .. .	4,707,299	4,181,643	2,379,558	2,396,734	3,536,581
Malaya (British) .. .. .	1,133,963	812,513	274,894	276,654	271,407
Netherlands East Indies .. .. .	7,091,619	6,282,653	4,011,194	2,648,919	2,930,951
Philippine Islands .. .. .	163,030	174,518	39,957	35,947	34,899
Other Eastern Countries .. .. .	52,492	122,321	39,744	27,722	42,823
<b>Total .. .. .</b>	<b>21,813,570</b>	<b>19,305,671</b>	<b>11,947,185</b>	<b>9,080,443</b>	<b>11,141,627</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 1928-29, 1930-31, 1931-32 and 1932-33.

**§ 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
I. Animal foodstuffs, etc. . . . .	2,367,393	2,182,397	911,076	747,110	799,859
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . . . .	6,246,824	6,037,798	3,372,099	2,387,434	2,330,791
III. Alcoholic liquors, etc. . . . .	1,876,944	1,583,368	530,166	231,938	460,437
IV. Tobacco, etc. . . . .	2,694,546	2,422,648	1,565,636	614,193	711,848
V. Live animals . . . . .	159,325	213,229	67,628	31,432	48,240
VI. Animal substances, etc. . . . .	1,972,615	1,953,561	914,821	783,160	833,154
VII. Vegetable substances, etc. . . . .	3,009,229	2,879,321	1,405,258	1,306,047	1,556,425
VIII. Apparel, textiles, etc. . . . .	36,710,916	32,546,428	15,898,259	13,831,502	17,323,363
IX. Oils, fats, and waxes . . . . .	11,106,944	11,565,261	6,927,042	4,833,651	5,953,471
X. Paints and varnishes . . . . .	784,594	686,195	263,079	249,964	301,366
XI. Stones and minerals, etc. . . . .	1,010,951	1,668,078	401,293	234,595	379,336
XII. Metals, metal manufactures, and machinery . . . . .	42,987,433	36,323,308	12,338,793	6,559,798	10,128,134
XIII. Rubber and leather, etc. . . . .	2,943,661	2,070,294	769,959	668,101	644,782
XIV. Wood and wicker, etc. . . . .	4,880,755	4,629,167	1,113,854	906,943	1,265,780
XV. Earthenware, etc. . . . .	2,455,467	2,251,940	818,987	518,637	891,827
XVI. Paper and stationery . . . . .	7,778,529	7,912,167	4,565,813	3,861,802	4,251,636
XVII. Jewellery, etc. . . . .	2,658,148	2,144,442	895,532	486,432	692,769
XVIII. Optical, surgical, and scientific instruments . . . . .	1,443,356	1,414,638	1,067,162	911,454	940,694
XIX. Drugs, chemicals, etc. . . . .	5,213,338	5,082,161	3,069,237	2,670,688	3,687,498
XX. Miscellaneous . . . . .	4,979,198	5,189,196	3,664,865	2,174,493	3,641,291
XXI. Gold and silver; and bronze specie . . . . .	367,715	325,723	399,024	670,491	1,171,159
Total . . . . .	143,647,881	131,081,320	60,959,633	44,712,868	58,013,860

2. Exports.—In the following tables 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>A. AUSTRALIAN PRODUCE.</b>					
	£ (A.)	£ (A.)	£ (A.)	£ (A.)	£ (A.)
I. Animal foodstuffs, etc. . . . .	15,475,951	14,649,566	15,059,866	17,607,436	17,545,797
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . . . .	33,543,785	22,515,068	25,569,888	31,727,701	30,062,717
III. Alcoholic liquors, etc. . . . .	544,538	601,653	555,713	953,667	855,299
IV. Tobacco, etc. . . . .	420,499	363,457	282,908	214,774	171,771
V. Live animals . . . . .	279,189	240,763	136,659	124,033	124,279
VI. Animal substances, etc. . . . .	71,456,567	43,827,255	36,174,451	34,766,515	39,198,506
VII. Vegetable substances, etc. . . . .	594,334	337,089	212,657	183,431	249,732
VIII. Apparel, textiles, etc. . . . .	172,474	200,859	175,401	265,127	323,029
IX. Oils, fats, and waxes . . . . .	1,624,812	1,070,626	689,739	909,397	886,843
X. Paints and varnishes . . . . .	50,320	51,567	39,428	42,213	57,289
XI. Stones and minerals, etc. . . . .	1,634,414	1,944,020	1,291,729	548,299	629,958
XII. Metals, metal manufactures, and machinery . . . . .	5,395,367	5,774,982	4,312,849	4,111,474	4,208,791
XIII. Rubber and leather, etc. . . . .	576,419	523,887	426,172	447,102	469,473
XIV. Wood and wicker, etc. . . . .	1,178,698	1,042,042	783,732	566,552	377,913
XV. Earthenware, etc. . . . .	77,680	89,260	59,549	68,045	77,999
XVI. Paper and stationery . . . . .	162,908	178,437	158,848	127,299	134,403
XVII. Jewellery, etc. . . . .	61,178	110,115	55,356	59,644	68,017
XVIII. Optical, surgical, and scientific instruments . . . . .	240,604	249,529	174,045	112,984	121,911
XIX. Drugs, chemicals, etc. . . . .	581,000	535,148	423,801	427,577	437,565
XX. Miscellaneous . . . . .	577,772	562,722	520,459	453,897	441,299
XXI. Gold and silver; and bronze specie . . . . .	3,892,352	27,748,839	15,018,664	12,118,880	22,291,422
Total . . . . .	138,540,861	122,616,884	102,121,914	105,836,047	118,734,013
			(a)		(a)

(a) Recorded value. Estimated British currency value, 1930-31, £ stg. 86,988,142; 1931-32, £ stg. 83,324,817; 1932-33, £ stg. 94,832,632.



EXPORTS FROM AUSTRALIA.—CLASSES—*continued.*

Classes.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>B. OTHER PRODUCE.—RE-EXPORTS.</b>					
<i>Australian Currency Values.</i>					
	£ (A.)	£ (A.)	£ (A.)	£ (A.)	£ (A.)
I. Animal foodstuffs, etc. . .	22,379	15,858	15,877	17,023	9,977
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	225,239	215,301	100,862	51,098	77,704
III. Alcoholic liquors, etc. . .	29,873	83,304	40,276	22,141	17,848
IV. Tobacco, etc. . .	108,099	97,191	80,459	76,353	86,904
V. Live animals . . .	25,196	63,403	36,038	25,343	18,922
VI. Animal substances, etc. . .	49,878	34,663	19,789	2,058	2,640
VII. Vegetable substances, etc. . .	409,360	313,216	16,181	5,993	7,118
VIII. Apparel, textiles, etc. . .	358,381	334,686	298,373	171,747	173,994
IX. Oils, fats, and waxes . . .	89,620	78,826	42,519	51,863	80,371
X. Paints and varnishes . . .	10,530	7,981	6,129	9,953	3,642
XI. Stones and minerals, etc. . .	1,589	1,587	2,153	274	1,132
XII. Metals, metal manufactures, and machinery . . .	742,469	636,016	677,535	634,339	414,879
XIII. Rubber and leather, etc. . .	61,404	78,645	65,120	13,902	8,501
XIV. Wood and wicker, etc. . .	61,677	57,316	39,233	26,783	21,381
XV. Earthenware, etc. . .	16,201	15,345	12,580	7,020	6,350
XVI. Paper and stationery . . .	82,647	83,463	65,981	57,470	52,518
XVII. Jewellery, etc. . .	166,093	69,590	63,331	39,853	30,281
XVIII. Optical, surgical, and scientific instruments . . .	106,092	108,785	166,334	160,155	139,261
XIX. Drugs, chemicals, etc. . .	65,962	47,468	40,351	44,419	31,971
XX. Miscellaneous . . .	433,871	167,608	172,439	137,493	105,820
XXI. Gold and silver; and bronze specie . . .	34,168	10	279,594	575,906	1,242,657
Total . . .	3,091,728	2,510,264	2,232,724	2,131,096 (a)	2,533,961 (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.

## C. TOTAL EXPORTS.—AUSTRALIAN PRODUCE AND RE-EXPORTS.

*Australian Currency Values.*

	£ (A.)	£ (A.)	£ (A.)	£ (A.)	£ (A.)
I. Animal foodstuffs, etc. . .	15,498,330	14,665,424	15,075,743	17,624,459	17,555,774
II. Vegetable foodstuffs; non-alcoholic beverages, etc. . .	33,769,024	22,730,369	25,670,750	31,778,799	30,140,421
III. Alcoholic liquors, etc. . .	574,411	684,957	595,989	975,808	873,147
IV. Tobacco, etc. . .	528,598	460,648	363,367	291,127	258,675
V. Live animals . . .	304,385	304,166	173,297	149,376	143,201
VI. Animal substances, etc. . .	71,497,445	43,861,920	36,185,210	34,768,573	39,201,146
VII. Vegetable substances, etc. . .	1,003,694	650,305	228,838	189,334	256,850
VIII. Apparel, textiles, etc. . .	539,855	535,545	473,774	436,874	497,023
IX. Oils, fats, and waxes . . .	1,714,432	1,149,452	732,258	961,260	967,214
X. Paints and varnishes . . .	60,850	59,548	45,557	52,166	60,931
XI. Stones and minerals, etc. . .	1,636,003	1,945,607	1,293,882	548,573	631,090
XII. Metals, metal manufactures, and machinery . . .	6,137,836	6,410,998	4,990,384	4,745,813	4,623,670
XIII. Rubber and leather, etc. . .	637,823	602,532	491,292	461,004	478,064
XIV. Wood and wicker, etc. . .	1,240,375	1,099,358	822,965	593,335	399,294
XV. Earthenware, etc. . .	93,881	104,605	72,129	75,065	84,349
XVI. Paper and stationery . . .	245,555	261,900	224,829	184,769	186,921
XVII. Jewellery, etc. . .	227,271	179,705	118,687	99,497	98,298
XVIII. Optical, surgical, and scientific instruments . . .	346,696	358,314	340,379	273,139	261,172
XIX. Drugs, chemicals, etc. . .	646,962	582,616	464,152	471,996	469,536
XX. Miscellaneous . . .	1,011,643	730,330	692,898	591,390	547,119
XXI. Gold and silver; and bronze specie . . .	3,926,520	27,748,849	15,298,258	12,694,786	23,534,079
Total . . .	141,632,589	125,127,148	104,354,638 (a)	107,967,143 (a)	121,267,974 (a)

(a) Recorded value. Estimated British currency value, 1930-31, £ stg. 88,904,142; 1931-32, £ stg. 85,002,631; 1932-33, £ stg. 95,857,471.

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.		1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Fish, preserved in tins	lb. £	28,266,411	28,039,277	13,126,217	14,478,827	15,828,494
Tea	lb. £	1,265,310	1,342,016	501,080	442,510	468,276
	gal. £	50,038,649	50,790,402	46,433,350	44,140,136	48,441,433
	gal. £	3,506,605	3,298,705	2,245,567	1,365,656	1,270,943
Whisky	gal. £	1,024,807	946,523	385,896	150,201	335,259
Tobacco and preparations thereof	£	1,216,154	1,113,512	446,418	166,190	360,285
	£	2,694,346	2,421,648	1,565,636	614,193	711,848
Copra	cwt. £	576,414	520,262	190,312	249,956	267,475
Fibres	cwt. £	681,683	497,320	97,909	136,657	137,773
Hides and skins	£	983,575	838,330	414,489	368,355	458,842
Pulp for paper making	ton £	976,707	916,311	397,566	292,640	439,442
	£	11,966	23,709	22,327	25,783	34,142
Seeds	£	151,838	269,270	218,749	190,834	246,995
Socks and stockings	£	661,600	668,973	370,660	289,633	318,755
Gloves	£	1,148,409	702,456	67,297	3,516	7,092
Hats and caps	£	520,121	487,869	202,402	225,321	309,145
Trimmings and ornaments	£	983,059	683,501	121,386	94,514	124,561
Other apparel and attire	£	869,714	721,257	454,962	327,805	310,217
Carpets and carpeting	£	2,391,943	1,956,739	461,793	354,482	528,987
Floorcloths and linoleums	£	1,389,022	1,343,932	468,461	397,850	599,174
Piece Goods—	£	1,046,787	796,865	218,219	134,811	202,005
Canvas and duck	£	689,991	645,828	285,527	252,495	383,493
Cotton and linen	£	7,571,863	7,488,675	4,123,483	4,068,299	4,943,007
Silk and artificial silk	£	6,532,742	5,500,268	3,017,936	2,471,972	2,771,277
Woolen or containing wool	£	1,490,957	1,201,018	185,235	51,451	111,171
All other piece goods	£	3,011,948	2,969,201	1,216,456	1,476,534	1,896,814
Sewing silks, cottons, etc.	£	789,032	873,935	468,591	466,120	544,879
Bags and sacks	£	4,098,972	2,906,817	2,753,911	1,931,355	2,596,201
Yarns—	£					
Artificial silk	£	793,359	854,034	445,590	547,926	504,979
Cotton	£	858,986	939,609	454,050	470,801	586,998
Woolen	£	283,890	391,829	44,736	35,602	52,332
Other	£	133,573	135,528	48,558	31,798	30,260
Kerosene	gal. £	40,091,368	41,162,038	35,158,991	25,940,524	36,647,723
Lubricating (mineral) oil	gal. £	1,159,438	1,089,938	707,806	434,589	622,838
Petroleum	gal. £	16,861,428	13,532,413	10,957,159	7,783,073	11,750,191
Residual and solar oil..	gal. £	1,319,081	1,139,580	738,310	534,997	783,072
Electrical machinery and appliances	£	304,582,469	361,975,866	264,085,522	205,506,146	239,217,947
Electrical cable and wire, covered	cwt. £	7,674,965	8,547,817	4,877,840	3,071,064	3,704,511
Agricultural machinery	£	804,051	1,197,389	17,647,552	61,035,861	65,821,403
Metal-working machinery	£	17,879	11,273	82,980	335,249	363,831
Motive power machinery	£	4,809,652	4,583,660	2,334,260	927,242	1,046,064
Iron and Steel—	£	283,484	306,163	127,568	43,441	66,445
Pipes and tubes	£	1,317,115	1,517,817	507,669	274,082	376,324
Plate and sheet	£	611,875	443,707	174,942	47,690	83,491
Cutlery and platedware	£	398,684	407,190	110,344	32,421	96,074
Tools of trade	£	2,556,500	2,482,268	1,011,306	299,031	353,969
Motor cars, chassis, bodies, and parts	£	1,805,565	1,390,469	461,715	272,480	416,024
Rubber and rubber manufactures	£	3,954,003	3,713,883	1,339,715	1,033,954	1,401,892
Timber, undressed, including Logs (a)	sp. ft. £	812,659	673,658	324,308	195,502	344,292
Crockery	£	1,074,219	922,499	413,028	304,030	516,197
Glass and glassware	£	10,677,344	6,794,769	860,037	436,096	1,435,771
Paper, printing	£	2,497,423	1,684,621	682,755	611,262	580,680
Stationery and paper manufactures	£	323,088,698	338,462,347	116,452,047	121,600,530	188,663,281
Kinematograph films	lin. ft. £	3,054,597	2,915,619	629,673	629,692	884,411
Drugs, chemicals, and fertilizers	£	741,481	694,740	391,531	260,305	390,584
Arms and explosives	£	1,124,100	1,046,109	280,532	176,634	359,345
Musical instruments, pianos, etc.	£	3,046,868	3,129,705	1,651,410	1,661,603	1,817,973
Outside Packages	£	2,800,175	2,738,781	1,805,769	1,198,587	1,211,626
All other articles	£	35,698,152	41,480,720	50,516,896	56,946,629	56,949,478
Total Imports	£	253,866	290,524	528,732	503,460	534,191
	£	5,213,338	5,082,161	3,069,287	2,670,688	3,687,498
	£	1,004,236	871,408	408,445	349,805	538,650
	£	646,638	343,242	66,873	26,296	36,824
	£		1,535,385	1,794,965	1,213,561	1,524,882
	£	38,363,594	35,064,051	14,390,534	10,033,077	13,996,790
	£	143,647,881	131,081,320	60,959,633	44,712,868	58,013,860

(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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Butter .. .. .centl.	1,024,428	1,073,661	1,631,807	2,016,394	2,263,293
Cheese .. .. .centl.	83,310	30,894	85,947	72,677	117,852
Eggs in shell .. .. doz.	2,916,338	3,570,219	5,970,606	9,921,829	16,844,288
Milk and cream .. .. centl.	253,852	164,935	123,510	159,063	244,526
Fruits, dried .. .. centl.	1,071,543	1,144,081	1,233,706	969,076	1,063,245
Fruits, fresh .. .. centl.	826,523	1,959,418	1,680,254	2,254,665	2,750,353
Barley .. .. .centl.	639,507	323,771	1,664,326	1,657,555	1,525,569
Wheat .. .. .centl.	49,137,747	24,234,424	71,533,974	76,440,603	71,733,563
Flour .. .. .centl.	11,276,066	9,314,664	10,484,864	12,217,163	12,629,179
Sugar (cane) .. .. cwt.	3,988,837	3,634,216	3,983,046	5,758,158	3,740,774
Wine .. .. .gal.	1,736,787	2,181,533	2,205,562	3,471,604	3,095,655
Tobacco, manufactured .. centl.	16,780	13,727	10,309	7,671	6,138
Wool (in terms of greasy wool) .. centl.	8,577,417	7,892,288	8,262,152	8,936,206	10,054,173
Pearlshell .. .. .cwt.	45,058	58,503	48,353	26,779	32,975
Sandalwood .. .. .cwt.	189,403	72,435	59,273	46,890	97,076
Tallow (unrefined) .. .. cwt.	777,563	598,533	527,007	772,769	747,102
Coal .. .. .ton	346,658	294,503	387,851	344,015	282,977
Concentrates .. .. .cwt.	3,944,942	4,154,519	3,604,319	1,248,296	1,598,314
Copper .. .. .cwt.	131,991	219,582	241,121	220,471	168,195
Lead .. .. .cwt.	2,892,551	2,322,401	3,093,195	2,997,015	3,632,208
Zinc—bar, block, dust .. cwt.	652,931	658,846	909,535	910,691	699,380
Tin—Ingots .. .. .cwt.	25,634	17,128	11,990	15,577	19,571
Timber, undressed, including Logs (a) .. .. .sup. ft.	91,190,142	81,348,857	62,396,283	47,038,823	26,508,661
Soap .. .. .centl.	168,393	159,822	137,699	108,955	89,946

(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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£A.	£A.	£A.	£A.	£A.
Butter .. .. .	7,159,446	7,001,540	8,120,165	9,812,827	9,264,665
Cheese .. .. .	329,700	124,716	244,066	212,870	314,895
Eggs in shell .. .. .	218,929	255,571	321,627	494,032	958,065
Meats .. .. .	6,335,949	6,259,924	5,747,995	6,368,245	5,998,187
Milk and cream .. .. .	1,424,313	997,512	610,653	642,016	927,546
Fruits, dried .. .. .	2,299,330	2,169,832	2,248,791	1,965,310	2,230,110
Fruits, fresh .. .. .	941,880	1,861,428	1,588,027	2,085,595	2,417,437
Fruits, preserved in liquid ..	435,571	568,205	588,142	644,180	726,650
Barley .. .. .	228,707	99,046	403,919	450,477	352,152
Wheat .. .. .	20,336,199	10,036,535	14,744,468	19,220,203	17,804,849
Flour .. .. .	5,998,600	4,948,927	3,513,573	3,833,237	4,148,973
Sugar (cane) .. .. .	2,390,810	2,216,468	1,805,777	2,514,502	1,489,639
Wine .. .. .	496,739	553,658	508,110	904,518	789,351
Tobacco, manufactured ..	399,036	347,717	272,418	200,701	159,097
Hides and skins .. .. .	9,280,898	6,584,614	3,635,577	2,314,279	2,366,941
Wool .. .. .	61,612,995	36,596,600	32,001,760	32,102,246	36,406,990
Pearlshell .. .. .	339,016	450,615	354,992	194,351	233,786
Sandalwood .. .. .	278,238	89,427	72,969	62,914	132,657
Tallow (unrefined) .. ..	1,384,191	991,592	643,405	831,415	790,405
Coal .. .. .	428,754	346,916	411,612	341,800	281,512
Concentrates .. .. .	994,821	1,036,377	744,098	141,133	297,190
Copper .. .. .	319,192	625,649	485,548	469,184	248,897
Lead .. .. .	3,233,390	3,431,939	2,418,974	2,267,924	2,384,062
Zinc—bar, block, dust ..	913,191	810,457	723,894	697,236	578,453
Tin—ingots .. .. .	282,636	167,863	81,660	124,963	189,723
Leather .. .. .	489,375	444,439	366,558	386,027	300,355
Timber, undressed, including Logs (a) ..	1,100,325	965,647	712,501	499,008	302,809
Soap .. .. .	297,937	292,469	258,591	194,673	166,228
Gold .. .. .	2,958,137	26,868,534	14,279,829	11,225,304	21,598,527
Silver .. .. .	934,198	880,249	733,471	592,376	602,875
All other articles .. .. .	4,698,358	4,592,418	3,478,744	3,740,801	4,086,987
Total Exports (Australian Produce) .. .. .	138,540,861	122,616,884	102,121,914	105,836,047	118,734,013

(a) Exclusive of undressed timber not measured in super. feet. (b) Recorded value. The estimated British currency values are: 1930-31, £ stg. 86,988,142; 1931-32, £ stg. 83,324,817; 1932-33, £ stg. 94,832,632.

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.		
	£	£	£	£	£
1928-29 ..	53,607,067	89,674,382	143,281,449	366,432	143,647,881
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

(a) The estimated Australian currency value was 1930-31, £A68,808,280; 1931-32, £A56,967,274; 1932-33, £A72,662,360.

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.	£A.
1928-29..	134,648,509	3,057,560	137,706,069	3,892,352	34,168	3,926,520	141,632,589
1929-30..	94,868,045	2,510,254	97,378,299	27,748,839	10	27,748,849	125,127,148
1930-31 {	(b)87,103,250	1,953,130	89,056,380	15,018,664	279,594	15,298,258	104,354,638
(c)74,171,063	1,686,123	75,857,186	12,817,079	229,877	13,046,956	88,904,142	
1931-32 {	(b)93,717,167	1,555,190	95,272,357	12,118,880	575,906	12,694,786	107,967,143
(c)73,614,468	1,223,917	74,838,385	9,710,349	453,897	10,164,246	85,002,631	
1932-33 {	(b)96,442,591	1,291,304	97,733,895	22,291,422	1,242,657	23,534,079	121,267,974
(c)77,000,074	1,030,981	78,031,055	17,832,558	993,858	18,826,416	96,857,471	

(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.				
	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
I. Ale, Spirits, and Beverages .. ..	2,157,814	1,823,775	619,909	272,661	522,240
II. Tobacco and preparations thereof .. ..	2,694,546	2,422,648	1,565,636	614,193	711,848
III. Sugar .. ..	44,080	49,282	16,752	9,461	12,167
IV. Agricultural Products and Groceries .. ..	10,732,856	10,156,619	6,824,198	3,752,673	3,709,621
V. Textiles, Felts and Furs, and Manufactures thereof, and Attire .. ..	33,291,416	28,935,639	14,332,883	12,502,068	15,473,427
VI. Metals and Machinery	29,278,935	27,311,871	10,946,912	5,943,193	8,071,275
VII. Oils, Paints, and Varnishes .. ..	11,939,811	12,330,568	7,233,924	5,208,357	6,195,643
VIII. Earthenware, Cement, China, Glass, and Stone .. ..	3,221,320	2,851,314	1,106,687	791,154	1,169,548
IX. Drugs and Chemicals	3,253,824	3,326,255	2,179,831	1,999,799	2,923,319
X. Wood, Wicker, and Cane .. ..	4,877,474	4,629,167	1,113,854	906,943	1,265,780
XI. Jewellery and Fancy Goods .. ..	3,282,764	2,773,249	1,515,943	1,122,774	1,278,446
XII. Hides, Leather, and Rubber .. ..	3,433,966	3,418,138	1,252,068	1,085,344	1,093,902
XIII. Paper and Stationery	7,767,229	8,224,459	4,777,302	4,034,606	4,517,669
XIV. Vehicles .. ..	13,830,380	9,121,772	1,485,644	743,448	2,075,555
XV. Musical Instruments	648,261	344,925	66,873	26,296	36,824
XVI. Miscellaneous .. ..	9,186,039	8,455,167	4,285,951	4,236,598	6,367,260
— Free Goods not specially mentioned in Tariff .. ..	3,640,734	4,583,686	1,236,420	793,094	1,418,177
<b>Total Merchandise ..</b>	<b>143,281,449</b>	<b>130,758,534</b>	<b>60,560,787</b>	<b>44,042,662</b>	<b>56,842,701</b>
<b>Specie and Bullion ..</b>	<b>366,432</b>	<b>322,786</b>	<b>398,846</b>	<b>670,206</b>	<b>1,171,159</b>
<b>Grand Total ..</b>	<b>143,647,881</b>	<b>131,081,320</b>	<b>60,959,633</b>	<b>44,712,868</b>	<b>58,013,860</b>

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. Marked decreases occurred in all divisions of the Tariff Schedule. Imports of vehicles (mainly motors) in 1931-32 were only 8 per cent. of the imports in 1929-30; ales and spirits, 15 per cent.; wood and wicker, 20 per cent.; metals and machinery, 22 per cent., and textiles, attire, etc., 43 per cent. 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. The most noticeable increases were recorded in the tariff divisions covering imports of ales and spirits; metals and machinery; textiles, attire, etc.; drugs and chemicals; paper and stationery; oils, paints and varnishes; vehicles (mainly motors) and miscellaneous imports. Compared with the previous year imports during the year 1932-33 increased in all tariff divisions, with the exception of the division covering agricultural products and groceries.

**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:—1928-29, 20.5 per cent.; 1929-30, 23.0 per cent.; 1930-31, 23.0 per cent.; 1931-32, 26.5 per cent., and 1932-33, 23.5 per cent. Primage duty was imposed during the last three 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, 29.9 per cent. The percentages of net Customs revenue, omitting primage, on the total value of dutiable goods only were—1928-29, 32.8 per cent.; 1929-30, 39.2 per cent.; 1930-31, 39.9 per cent.; 1931-32, 45.2 per cent., and 1932-33, 40.8 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 1932-33, 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	1,653,141
1917-18.. ..	632,910	1,389,291	1931-32 .. ..	534,897	1,559,574
1918-19.. ..	857,507	1,765,367	1932-33 .. ..	550,277	1,621,640

In addition to bunker coal, the principal items of ships' stores supplied to oversea vessels in 1932-33 were—Oils, £516,653 (mainly fuel oils which have displaced coal); meats, £161,051; butter, £35,438; fish, £40,014; and vegetables, £22,509.

The net Customs duty collected on ships' stores carried to Australia on oversea vessels and consumed in Australian waters amounted in 1932-33 to £50,900.

### § 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 1928-29 to 1932-33 :—

#### IMPORTS AND EXPORTS, SPECIE AND BULLION—AUSTRALIA.

Items.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
IMPORTS.					
Gold—Specie ..	£ 502	£ 17,372	£ 5,357	£ 459	£ 683
Bullion ..	346,948	273,451	368,378	653,253	1,140,848
Total ..	347,450	290,823	373,735	653,712	1,141,531
Silver—Specie ..	13,932	25,419	23,074	14,004	20,220
Bullion ..	4,923	6,480	1,947	2,305	9,314
Total ..	18,855	31,899	25,021	16,399	29,534
Bronze—Specie ..	127	64	90	95	94
GRAND TOTAL ..	366,432	322,786	(a) 398,846	(a) 670,206	(a) 1,171,159
(a) British currency values. The estimated Australian currency values are : 1930-31, £A468,000 ; 1931-32, £A852,000 ; 1932-33, £A1,467,000.					
EXPORTS.					
Gold—Specie ..	£ 2,915,797	£ 26,866,824	£ 12,909,567	£ 4,817,890	£ 14,435,404
Bullion ..	68,358	1,715	1,481,845	7,074,782	8,108,848
Total ..	2,984,155	26,868,539	14,391,412	11,892,672 (a)	22,544,252 (b)
Silver—Specie ..	33,327	32,605	235,110	168,939	336,132
Bullion ..	908,971	847,635	649,767	583,498	639,206
Total ..	942,298	880,240	884,877	752,437	975,338
Bronze—Specie ..	67	70	21,969	49,677	14,489
Total— Australian Produce ..	3,892,352	27,748,839	15,018,664	12,118,880	22,291,422
Other Produce ..	34,168	10	279,594	575,906	1,242,657
GRAND TOTAL ..	3,926,520	27,748,849	15,298,258 (c)	12,694,786 (c)	23,534,079 (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, £A3,206,438, 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.13,047,000 ; 1931-32, £stg.10,164,000. ; 1932-33, £stg.18,826,000.

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 1932-33.

IMPORTS AND EXPORTS OF SPECIE AND BULLION BY COUNTRIES—AUSTRALIA, 1932-33.

Country.	Imports.			Exports.		
	Specie.	Bullion.	Total.	Specie.	Bullion.	Total.
	£	£	£	£	£	£
Australia (a) ..	5,012	..	5,012	..	..	..
United Kingdom ..	15,691	3,239	18,930	12,804,110	8,420,547	21,224,657
India and Ceylon ..	..	..	..	..	50,262	50,262
Malaya (British) ..	..	232	232	..	..	..
New Zealand ..	10	373,519	373,529	50,000	194	50,194
Pacific Islands—						
Fiji ..	..	4,188	4,188	76	142	218
Gilbert and Ellice Islands Colony ..	..	..	..	1,000	..	1,000
Papua ..	..	54,896	54,896	..	..	..
Solomon Islands Territory of New Guinea ..	..	..	..	1,208	..	1,208
Union of South Africa ..	..	713,969	713,969	6,405	..	6,405
Total, British Countries..	20,997	1,150,049	1,171,046	12,862,799	8,471,145	21,333,944
Pacific Islands—						
New Hebrides ..	..	..	..	729	..	729
United States of America ..	..	113	113	1,922,497	276,909	2,199,406
Total, Foreign Countries ..	..	113	113	1,923,226	276,909	2,200,135
GRAND TOTAL ..	20,997	1,150,162	1,171,159 (b)	14,786,025	8,748,054	23,534,079 (c)

(a) Australian produce re-imported. (b) British currency value. The estimated Australian currency value is £A1,467,000. (c) Australian currency value. The estimated British currency value is £stg.18,826,000. See also footnotes (a) and (b) to previous table.

§ 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 1931-32 and 1932-33 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 AS RECORDED.

Industrial Group.	1913. (a)		1931-32.		1932-33.	
	£	Index No.	£	Index No.	£	Index No.
	Agriculture .. ..	10,677,734	100	32,428,418	304	30,662,382
Pastoral .. ..	42,057,346	100	41,789,304	99	45,331,667	108
Dairy and Farmyard ..	3,854,734	100	11,392,537	296	11,700,621	304
Mines and Quarries ..	21,926,310	100	9,265,632	42	10,442,752	48
Fisheries .. ..	424,849	100	233,228	55	292,608	69
Forestry .. ..	1,106,549	100	625,150	56	487,072	44
Total, Primary Produce	80,047,522	100	95,734,269	120	98,917,102	124
Manufacturing .. ..	2,304,693	100	3,087,148	134	3,959,554	171
Total .. ..	82,352,215	100	98,821,417 (b)	120	102,876,656 (b)	125

(a) Base year. (b) Recorded value; estimated British currency value, 1931-32, £stg.77,802,202, index number, 94; 1932-33, £stg.82,163,208, index number, 100.



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 42.3 per cent. in 1931-32 and 44.1 per cent. in 1932-33. Exports of pastoral produce generally realized low prices during 1931-32, and during 1932-33 prices showed little improvement. Wool constitutes the greater part of the exports in the pastoral group, and the increase in this group in 1932-33 was entirely due to the larger exports of wool.

Exports of agricultural produce rank next in importance. Compared with the previous year the value of agricultural exports was nearly two millions lower in 1932-33. This group, which was equivalent to 13.0 per cent. of the total exports in 1913, increased to 32.8 per cent. in 1931-32, but declined to 29.8 per cent. in 1932-33.

According to value, exports of dairy and farmyard produce increased from 4.7 per cent. in 1913 to 11.5 per cent. in 1931-32, with a further increase to 13.7 per cent. in 1932-33, mainly due to increased exports of butter and eggs. Though the exports of the products of mines and quarries have declined seriously since 1913 there has been some recovery during recent years. The manufacturing group of exports, which represented 2.8 per cent. in 1913, increased to 3.1 per cent. in 1931-32, and to 3.8 per cent. in 1932-33.

Compared with the year 1913, exports of agricultural produce in 1932-33 showed an increase of 187 per cent., dairy and farmyard produce, 204 per cent., manufacturing group, 71 per cent., pastoral produce, 8 per cent., and total exports, 25 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, 1923-24 to 1932-33, 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 .. ..	847,319	21.36	309,497	25.52	30.53
Pastoral .. ..	984,529	24.82	644,595	53.15	65.47
Dairy and Farmyard .. ..	457,103	11.52	93,172	7.68	20.38
Mining .. ..	200,001	5.04	107,902	8.90	53.95
Forestry and Fisheries .. ..	109,248	2.76	16,941	1.39	15.51
Total, Primary Produce.. ..	2,598,200	65.50	1,172,107	96.64	45.11
Manufacturing .. ..	1,368,662	34.50	40,698	3.36	2.97
Total .. ..	3,966,862	100.00	1,212,805	100.00	30.57

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 65.5 per cent. was classified as primary produce and 34.5 per cent. as manufactured articles. The main contributing groups in the primary produce section were pastoral with 24.8 per cent., agriculture with 21.4 per cent., and dairy and farmyard produce with 11.5 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 and mining groups with 25.5 per cent. and 8.9 per cent. respectively. 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, 45.0 per cent. was exported. Over one-third of the agricultural production, over one-half of the mining production, and nearly two-thirds of the pastoral production were sent abroad. Twenty 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 transhipment 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, 1932.**

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) ..	56.8	78.0	134.8	8 12 0	11 16 2	20 8 2
United Kingdom ..	650.9	365.5	1016.4	14 9 9	8 2 8	22 12 5
Canada ..	113.9	139.0	252.9	10 19 6	13 7 11	24 7 5
India ..	100.2	101.3	201.5	0 5 8	0 5 9	0 11 5
New Zealand ..	22.3	31.1	53.4	15 6 6	21 7 5	36 13 11
Union of South Africa ..	47.9	91.9	139.8	5 16 1	11 2 9	16 18 10
United States of America ..	379.5	450.1	829.6	3 1 10	3 13 4	6 15 2
Argentine Republic ..	61.4	94.2	155.6	5 5 1	8 1 3	13 6 4
Belgium ..	129.0	117.3	246.3	15 18 10	14 9 10	30 8 8
China ..	98.5	45.9	144.4	0 4 6	0 2 1	0 6 7
Denmark ..	58.5	57.9	116.4	16 9 6	16 6 2	32 15 8
France ..	334.4	220.9	555.3	7 19 10	5 5 7	13 5 5
Germany ..	316.2	388.9	705.1	5 1 4	6 4 7	11 5 11
Italy ..	120.7	99.3	220.0	2 17 9	2 7 6	5 5 3
Japan ..	112.7	110.7	223.4	1 15 0	1 14 4	3 9 4
Netherlands ..	149.5	97.3	246.8	18 10 10	12 1 4	30 12 2
Norway ..	35.1	28.8	63.9	12 9 5	10 4 8	22 14 1
Sweden ..	60.5	49.7	110.2	9 16 4	8 1 3	17 17 7
Switzerland ..	94.7	42.5	137.2	23 5 9	10 9 0	33 14 9

(a) Year ended 30th June, 1933.

**§ 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 that 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 1929-30 to 1932-33 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.
		£	£	£	£	£	£
Foodstuffs of animal origin	1913 ..	301,025	3,093	12,071	6,988	280,229	947,607
	1929-30	497,727	3,776	1,752	136,663	399,159	2,182,327
	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
Spirituous and alcoholic liquors	1913 ..	1,227,561	343,394	143,426	1,689	2,805	1,947,248
	1929-30	1,307,566	148,424	7,472	..	65	1,583,368
	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
Apparel, textiles, and manufactured fibres	1913 ..	12,254,561	961,025	1,712,395	475,973	623,542	19,935,750
	1929-30	18,427,684	1,593,457	1,021,931	2,988,352	2,093,022	32,546,428
	1930-31	7,913,673	673,087	448,170	1,641,178	744,615	15,808,259
	1931-32	7,350,720	565,332	331,373	1,680,969	430,851	13,811,502
	1932-33	9,319,633	585,188	408,584	2,466,327	262,847	17,323,363
Metals, metal manufactures, and machinery	1913 ..	13,905,483	217,148	2,380,152	7,657	3,817,705	21,670,212
	1929-30	18,427,684	136,187	1,417,616	23,205	12,591,938	32,546,428
	1930-31	7,167,899	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	6,550,798
	1932-33	6,485,948	54,136	474,428	95,452	1,784,015	10,128,134
Paper and stationery	1913 ..	1,789,577	21,930	266,483	10,656	403,679	3,134,750
	1929-30	4,824,866	171,983	238,806	19,687	733,526	7,912,167
	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
Jewellery, time-pieces, and fancy goods	1913 ..	521,290	88,070	263,688	19,307	138,217	1,442,292
	1929-30	4,824,866	94,202	380,120	97,398	207,541	2,144,442
	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
Earthenware, cements, glass, etc.	1913 ..	650,138	40,245	453,188	21,493	62,887	1,565,727
	1929-30	1,291,885	27,919	169,449	123,118	140,907	2,251,940
	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
Drugs, chemicals, and fertilizers	1913 ..	1,020,647	245,426	304,179	139,178	210,758	2,721,902
	1929-30	1,835,367	273,687	355,118	46,264	1,053,804	5,082,161
	1930-31	1,094,371	320,574	247,625	24,823	452,693	3,069,287
	1931-32	1,100,644	253,000	254,980	45,171	433,623	2,670,688
	1932-33	1,359,671	261,253	319,804	143,889	605,615	3,687,498
Rubber and leather and manufactures thereof, and, substitutes therefor	1913 ..	485,216	68,686	347,045	888	433,837	1,717,035
	1929-30	509,313	67,006	91,271	968	408,702	2,070,294
	1930-31	225,955	5,696	37,229	807	121,490	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
Total, above-mentioned imports	1913 ..	32,155,498	1,989,017	5,882,627	683,629	5,982,659	55,082,613
	1929-30	48,619,259	2,516,641	3,683,535	3,435,655	17,628,664	92,096,244
	1930-31	20,762,980	1,310,364	1,726,467	1,912,285	4,938,414	39,791,874
	1931-32	15,942,115	1,011,161	1,192,082	1,973,359	2,696,336	29,576,008
	1932-33	21,073,123	1,037,572	1,485,184	3,101,128	3,175,145	38,880,305
Total imports (less bullion and specie)	1913 ..	40,948,803	2,222,631	7,029,325	950,300	10,907,512	78,196,109
	1929-30	54,241,400	3,070,645	4,341,678	4,181,643	30,313,532	130,758,534
	1930-31	23,275,830	1,498,160	1,997,056	2,379,558	11,398,537	60,566,787
	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

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
	1929-30	22.81	0.17	0.08	6.26	18.29	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
Spirituous and alcoholic liquors	1913 ..	63.04	17.64	7.37	0.09	0.14	100
	1929-30	82.58	9.37	0.47	0.00	0.00	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
Apparel, textiles, and manufactured fibres	1913 ..	61.48	4.82	8.59	2.39	3.13	100
	1929-30	56.61	4.90	3.34	9.18	6.43	100
	1930-31	49.78	4.23	2.82	10.32	4.68	100
	1931-32	53.21	4.00	2.40	12.22	3.11	100
	1932-33	53.80	3.58	2.36	14.24	1.52	100
Metals, metal manufactures, and machinery	1913 ..	64.17	1.00	10.98	0.04	17.62	100
	1929-30	53.08	0.37	3.90	0.06	34.66	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
Paper and stationery	1913 ..	57.41	0.70	8.50	0.34	12.88	100
	1929-30	60.98	2.17	3.02	0.25	9.27	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
Jewellery, timepieces, and fancy goods	1913 ..	36.14	6.11	18.28	1.34	9.58	100
	1929-30	30.01	4.39	17.73	4.54	9.67	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
Earthenware, cements, glass, etc.	1913 ..	41.52	2.57	28.94	1.37	4.02	100
	1929-30	57.36	1.24	7.52	5.47	6.26	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
Drugs, chemicals, and fertilizers	1913 ..	37.49	9.02	11.18	5.11	7.74	100
	1929-30	36.11	5.39	6.99	0.91	20.73	100
	1930-31	35.65	10.44	8.07	0.81	14.75	100
	1931-32	41.21	9.47	9.55	1.69	16.24	100
	1932-33	36.87	7.08	8.67	3.90	16.42	100
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	28.26	4.00	20.21	0.04	25.27	100
	1929-30	24.60	3.24	4.41	0.04	19.74	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
Total above-mentioned articles	1913 ..	58.38	3.61	10.68	1.24	10.86	100
	1929-30	52.79	2.73	4.00	3.73	19.14	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
Total imports (less bullion and specie)	1913 ..	52.37	2.84	8.99	1.22	13.95	100
	1929-30	41.48	2.35	3.32	3.20	23.18	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

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 rose to £38,880,305 in 1932-33. The principal classes of competitive imports are (a) apparel, attire and manufactured fibres (value £17,323,363 in 1932-33), and (b) metals, metal manufactures and machinery (value £10,128,134 in 1932-33). The value of goods included in these two groups represented 71 per cent. of the total value of competitive commodities during 1932-33, as compared with 69 per cent. during 1931-32. In previous years imports of the latter group were greater than those in the apparel and textiles group, but in the last three years the position was reversed owing to the particularly heavy decline in imports of motor cars, electrical machinery, and iron and steel.

Of the total value of competitive goods, the United Kingdom supplied 54.20 per cent. during 1932-33, as against 58.38 per cent. during 1913, and 53.90 per cent. in 1931-32. In three of the nine competitive groups of imports, the proportion supplied by the United Kingdom increased during 1932-33 as compared with the previous year. The groups which showed increased proportions were apparel and textiles, spirituous and alcoholic liquors, and rubber and leather manufactures. In six groups the proportion from the United Kingdom declined, the two groups in which marked declines were recorded being: jewellery, timepieces and fancy goods, and drugs, chemicals and fertilizers. In these groups the proportion supplied by Japan increased noticeably during 1932-33. The United Kingdom supplied Australia during 1932-33 with 87.38 per cent. of the total oversea purchases of spirituous and alcoholic liquors; 53.80 per cent. of apparel and attire; 59.33 per cent. of paper and stationery; 50.29 per cent. of earthenware, glassware, etc.; and 64.04 per cent. of metal manufactures and machinery. The proportion of the imports of metals, metal manufactures and machinery supplied by the United Kingdom remained steady during the last two years.

The share of Japan in the competitive trade increased from 1.24 per cent. in 1913 to 7.98 per cent. in 1932-33, as compared with 4.80 per cent. in 1930-31 and 6.67 per cent. in 1931-32. In eight of the competitive groups of imports the proportion of the trade supplied by Japan increased, the groups showing marked increases being: earthenware, cements, glass, etc.; jewellery and fancy goods; apparel, textiles, etc., and drugs, chemicals and fertilizers. 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 1932-33 was £3,101,128, and of this total silk piece goods valued at £1,475,239 represented 48 per cent., and cotton and linen piece goods valued at £538,801 represented 17 per cent., or 65 per cent. of the total competitive goods imported from Japan.

The position of the United States of America in this competitive trade improved from 10.86 per cent. in 1913 to 23.52 in 1928-29, but was not maintained in 1929-30, during which year a decrease to 19.14 per cent. was experienced. The trade declined in 1930-31 to 12.41 per cent., with a further downward movement to 8.17 per cent. in 1932-33. 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 1932-33 it was £3,175,145. The only group of commodities in which United States sales to Australia during 1932-33 was greater than those of 1913 was drugs, chemicals and fertilizers. Imports of machinery and metal manufactures (including motor vehicles) from the United States declined from £16,472,338 in 1928-29 to £12,591,938 in 1929-30, and then fell rapidly during the following years, the imports during 1932-33 amounting to £1,784,015.

The position of France declined from 3.61 per cent. in 1913 to 2.73 per cent. in 1929-30, increased to 3.41 per cent. in 1931-32 and declined to 2.67 per cent. in 1932-33. 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 1932-33 was 3.82 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 1932-33 for France, Germany and the United States of America, and increased for the United Kingdom and Japan. The greatest decrease is shown in the percentage imported from the United States of America, which fell from 9.12 per cent. in 1931-32 to 8.17 per cent. in 1932-33 while Japan had the greatest increase, from 6.67 per cent. in 1931-32 to 7.98 per cent. in 1932-33.

## § 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 1930 to 1933.

## OVERSEA TRADE, AUSTRALIA.—CALENDAR YEARS.

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£1,000 (S).	£1,000 (S).	£1,000 (S).	£1,000 (S).	£1,000 (S).	£1,000 (S).
QUARTER ENDED 31ST MARCH.						
1930 ..	32,208	{ 24,246 (R) 24,246 (S) 24,246	50	{ 13,853 (R) 13,853 (S) 13,853	32,264	{ 38,099 (R) 38,099 (S) 38,099
1931 ..	12,782	{ (R) 24,119 (S) 18,073	139	{ (R) 1,224 (S) 1,224	12,921	{ (R) 25,343 (S) 20,197
1932 ..	10,518	{ (R) 27,814 (S) 22,163	158	{ (R) 2,505 (S) 2,027	10,676	{ (R) 30,319 (S) 24,190
1933 ..	13,504	{ (R) 30,527 (S) 24,373	349	{ (R) 16,608 (S) 13,286	13,853	{ (R) 47,135 (S) 37,659
QUARTER ENDED 30TH JUNE.						
1930 ..	23,883	{ 23,607 (R) 23,607 (S) 23,607	118	{ 3,214 (R) 3,214 (S) 3,214	24,001	{ 26,821 (R) 26,821 (S) 26,821
1931 ..	9,422	{ (R) 21,623 (S) 16,560	99	{ (R) 4,762 (S) 4,762	9,521	{ (R) 26,385 (S) 21,322
1932 ..	12,283	{ (R) 21,719 (S) 17,305	230	{ (R) 5,818 (S) 4,712	12,513	{ (R) 27,537 (S) 22,017
1933 ..	12,929	{ (R) 20,926 (S) 16,707	274	{ (R) 2,527 (S) 2,021	13,203	{ (R) 23,453 (S) 18,728
QUARTER ENDED 30TH SEPTEMBER.						
1930 ..	20,297	{ (R) 17,005 (S) 16,021	72	{ 6,412 (R) 6,412 (S) 6,412	20,369	{ (R) 23,417 (S) 22,433
1931 ..	10,222	{ (R) 15,960 (S) 12,236	144	{ (R) 2,044 (S) 1,586	10,366	{ (R) 18,004 (S) 13,822
1932 ..	15,023	{ (R) 16,639 (S) 13,285	330	{ (R) 2,377 (S) 1,923	15,353	{ (R) 19,016 (S) 15,208
1933 ..	14,065	{ (R) 22,031 (S) 17,589	333	{ (R) 2,490 (S) 1,992	14,398	{ (R) 24,521 (S) 19,581
QUARTER ENDED 31ST DECEMBER.						
1930 ..	18,060	{ (R) 26,310 (S) 24,292	89	{ (R) 648 (S) 648	18,149	{ (R) 20,958 (S) 24,940
1931 ..	11,019	{ (R) 29,779 (S) 23,150	139	{ (R) 2,328 (S) 1,824	11,158	{ (R) 32,107 (S) 24,974
1932 ..	15,343	{ (R) 29,610 (S) 23,639	255	{ (R) 2,022 (S) 1,637	15,598	{ (R) 31,632 (S) 25,276
1933 ..	14,788	{ (R) 39,887 (S) 31,846	284	{ (R) 2,718 (S) 2,174	15,072	{ (R) 42,605 (S) 34,020
TOTAL FOR YEAR.						
1930 ..	94,448	{ (R) 91,168 (S) 88,166	335	{ (R) 24,127 (S) 24,127	94,783	{ (R) 115,295 (S) 112,293
1931 ..	43,445	{ (R) 91,481 (S) 70,919	521	{ (R) 10,358 (S) 9,396	43,966	{ (R) 101,839 (S) 80,315
1932 ..	53,167	{ (R) 95,782 (S) 76,392	973	{ (R) 12,722 (S) 10,299	54,140	{ (R) 108,504 (S) 86,691
1933 ..	55,286	{ (R) 113,371 (S) 90,515	1,240	{ (R) 24,343 (S) 19,473	56,526	{ (R) 137,714 (S) 109,988

(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 XV.—Public Finance, Section 2.

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID—AUSTRALIA.

Article.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Spirits—	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.
Brandy (Pure Australian Standard Brandy) ..	226,756	210,309	139,378	143,297	146,152
Brandy (Blended Wine Brandy, etc.) ..	831	1,337	339	1,103	334
Gin (Distilled from Barley, Malt, Grain, or Grape Wine, etc.) ..	59,136	118,476	148,891	137,353	148,930
Whisky (Australian Standard Malt Whisky) ..	217,372	265,905	150,225	142,107	139,259
Whisky (Australian Blended Whisky) ..	152	278	5	67	..
Rum (Australian Standard Rum) ..	518,176	487,024	287,733	283,129	280,985
Liqueurs ..	358	852	838	1,148	1,956
Spirits, n.e.i. ..	923	172	44	148	50
Spirits for Industrial or Scientific Purposes ..	137,887	124,636	93,205	98,738	97,409
Spirits for Fortifying Wine (Distilled from Doradillo Grapes) ..	248,263	258,827	238,607	280,365	216,093
Spirits for Fortifying Wine	571,399	502,061	296,044	450,624	188,484
Spirits for making Vinegar	45,005	39,426	37,283	29,906	19,014
Amylic Alcohol and Fusel Oil ..	55	115	200	69	14
Concentrated Grape Must ..	..	..	22,224	14,149	8,384
Total, Spirits ..	2,026,313	2,009,418	1,415,016	1,582,203	1,247,064
Spirit for manufacture of Scents, etc. ..	liq. gal. 36,109	liq. gal. 44,113	liq. gal. 39,641	liq. gal. 40,967	liq. gal. 39,515
Beer ..	gal. 71,160,596	gal. 65,095,178	gal. 52,459,070	gal. 47,667,903	gal. 48,981,805
Tobacco — Manufactured, n.e.i. ..	lb. 13,529,775	lb. 13,859,202	lb. 13,180,577	lb. 13,370,263	lb. 13,597,478
Tobacco—Hand-made ..	274,213	206,161	147,537	122,566	75,198
Tobacco—Fine-cut, suitable for Cigarettes ..	18,110	2,991	532	..	..
Total, Tobacco ..	13,822,098	14,068,354	13,328,646	13,492,829	13,672,676
Cigars—Machine-made ..	46,442	48,627	53,349	39,582	41,097
Cigars—Hand-made ..	291,842	287,618	257,019	199,120	191,808
Total, Cigars ..	338,284	336,245	310,368	238,702	232,905



QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY  
WAS PAID—AUSTRALIA—*continued.*

Article.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	lb.	lb.	lb.	lb.	lb.
Cigarettes—Machine-made	5,336,298	5,243,588	4,324,679	4,054,064	4,455,456
Cigarettes—Hand-made ..	4,807	463	403	826	612
Total, Cigarettes ..	5,341,105	5,244,051	4,325,082	4,054,890	4,456,068
Cigarette Tubes and Papers	..	..	..	60 papers or tubes. 1,579,456	60 papers or tubes. 43,819,859
Matches.. ..	..	..	..	gross of boxes. 333,190	gross of boxes. 2,909,390
Petrol .. ..	..	gal. 16,815,600	gal. 19,402,032	gal. 19,044,324	gal. 20,130,190
Playing Cards .. ..	..	doz. packs. 1,200	doz. packs. 104,331	doz. packs. 111,719	doz. packs. 116,341

### § 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 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 retarded 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 special 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. Classes for boys and girls were established at two of the metropolitan schools in 1932, and it was proposed to extend the scheme in 1933.

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 4. hereunder. At the Conference of Directors of Education held in Sydney in September, 1932, the chief subjects of discussion were the training of teachers, finance as affecting courses to be undertaken, administration, and revision of curricula.

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, originally received from the Carnegie Corporation an endowment of £5,000 a year for ten years for general purposes, and a further sum of £2,500 a year for five years for administrative purposes. The Corporation has since undertaken to continue its payments at the rate of £7,500 a year for the full ten year period. It consists of nine members, of whom six are elected by the State Institutes for

Educational Research, and three are co-opted members. The publications of the Council appear in the form of a Research Series published by the Melbourne University, and up to the end of 1933, twenty-three numbers had appeared. Since its inception the Council has granted 108 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. In addition to organizing the carrying out of research, the Council acts as a centre for the collection and dissemination of information concerning Australian education. Expenditure on grants to the end of June, 1933, amounted to £7,640.

The Council has been recognized as the National Centre for Educational Information in Australia, under the scheme adopted by the Institute of Intellectual Co-operation—which functions under the League of Nations—for the establishment and recognition of such centres in as many countries as possible.

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 4. (iv) hereinafter.

2. **Returns for Year 1932.**—(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 1932 :—

STATE SCHOOLS.—RETURNS, 1932.

State or Territory.	Schools.	Teachers.	Enrolment.	Average Attendance.	Percentage of Attendance on Enrolment
New South Wales (a) ..	3,303	12,597	363,968	322,899	88.7
Victoria ..	2,767	9,203	244,342	216,133	88.5
Queensland ..	1,717	4,217	141,775	117,803	83.1
South Australia ..	1,067	3,266	90,557	78,318	86.5
Western Australia ..	876	2,164	59,129	53,549	90.6
Tasmania ..	510	1,266	33,985	29,583	87.1
Northern Territory ..	6	12	319	281	88.1
Australia ..	10,246	32,725	934,075	818,566	87.6

(a) Including Federal Capital Territory.

During recent years the percentage of attendance on enrolment has risen considerably. This is due partly to the greater attractiveness of school life consequent on improved methods in teaching and school management, and partly to more effective administration of the compulsory provisions of the Education Acts. Due weight must also be given to the excellent help given by parents' and citizens' associations, mothers' clubs, etc., in connexion with many of the schools.

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 1932 fourteen State Schools were in operation in the Federal Capital Territory. The individual pupils enrolled numbered 1,488 and the average attendance 1,215. Cost of upkeep amounted to £12,829. 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. **Increase in Average Attendance.**—The average attendance at the State Schools in Australia is shown below for the years 1891, 1901, 1911, and for each year of the period 1928 to 1932 :—

STATE SCHOOLS.—AVERAGE ATTENDANCE.—AUSTRALIA.

Year.	Total Population. (a)	Average Attendance.	Year.	Total Population. (a)	Average Attendance.
1891 .. ..	3,421	359,773	1929 .. ..	6,437	777,626
1901 .. ..	3,825	450,246	1930 .. ..	6,501	801,729
1911 .. ..	4,573	463,799	1931 .. ..	6,553	817,262
1928 .. ..	6,356	764,496	1932 .. ..	6,604	818,566

(a) At 31st December, in thousands.

During the last five years the average attendance increased by about 7.1 per cent., the figures ranging from about 10 per cent. in New South Wales to about 4 per cent. in South Australia.

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 15,800 children were receiving instruction in this way during 1932, the respective numbers in each State being New South Wales, 5,524; Victoria, 858; Queensland, 5,460; South Australia, 1,575; Western Australia, 2,138; Tasmania, 275. In the Northern Territory, 37 children were receiving 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 1932 a sum of £28,123 was expended in boarding allowance and conveyance to central schools.

Cost of conveyance to State Schools in Victoria during 1932 was returned as £12,303. In South Australia the sum of £14,406 was disbursed in connexion with travelling expenses of school children in 1932, while £14,058 was spent in Western Australia, and about £4,985 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 Retarded 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 37 Evening Continuation Schools had an average weekly enrolment in 1932 of 4,900 and an average attendance of 3,884. The schools are divided into three groups, junior technical, domestic science, and commercial. Attendances at the schools for boys numbered 2,598, and at those for girls 1,286. 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), but considerations of space preclude the repetition of this matter herein.

5. **Teachers.**—The distribution of the teaching staff in the State Schools during the year 1932, including teachers of needlework, was as follows:—

**STATE SCHOOLS.—TEACHING STAFF, 1932.**

State.	Principal Teachers.		Assistants.		Pupil or Junior Teachers.		Sewing Mistresses.	Total.		
	Males.	Fem.	Males.	Fem.	Males.	Fem.		Males.	Fem.	Total.
New South Wales	3,207	1,713	2,354	5,129	..	..	194	5,561	7,036	12,597
Victoria ..	1,900	850	1,354	2,918	686	1,142	353	3,940	5,263	9,203
Queensland ..	1,187	610	867	1,518	17	18	..	2,071	2,146	4,217
South Australia	760	362	567	1,123	45	108	301	1,372	1,894	3,266
Western Australia	481	399	210	731	27	159	157	718	1,446	2,164
Tasmania ..	240	308	106	444	21	144	3	367	899	1,266
Northern Territory	2	3	2	3	..	2	..	4	8	12
<b>Total ..</b>	<b>7,777</b>	<b>4,245</b>	<b>5,460</b>	<b>11,866</b>	<b>796</b>	<b>1,573</b>	<b>1,008</b>	<b>14,033</b>	<b>18,692</b>	<b>32,725</b>

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 40 junior technical school teachers. Some of the teachers in sole charge of small schools have had very little training, but future permanent appointments will be 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.

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 of its retention herein.

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 1932 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.
TOTAL (INCLUDING SECONDARY SCHOOLS).								
	£	£	£	£	£	£	£	£
1928	4,004,495	2,464,714	1,471,322	778,715	624,271	266,281	5,153	9,614,951
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	206,475	4,471	8,317,046
PER HEAD OF AVERAGE ATTENDANCE.								
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1928	13 15 4	12 1 11	12 13 7	10 6 6	12 5 1	9 17 3	21 4 1	12 12 9
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 7	15 19 4	10 2 11

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.

#### STATE SECONDARY SCHOOLS.—EXPENDITURE ON MAINTENANCE, 1932.

State.					Cost.	Cost Per Head of Population.
					£	s. d.
New South Wales	..	..	..	..	516,734	4 0
Victoria	..	..	..	..	299,811	3 4
Queensland	..	..	..	..	111,378	2 5
South Australia	..	..	..	..	101,571	3 6
Western Australia	..	..	..	..	122,290	5 7
Tasmania	..	..	..	..	16,812	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 £91,027. For Queensland, the figure quoted does not include the cost of the Agricultural High School and College, which amounted in 1932 to £17,865. For Western Australia the total includes £73,690 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.
	£	£	£	£	£	£	£	£
1928	1,004,252	398,939	143,995	102,477	68,957	44,150	..	1,762,770
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	44,402	22,471	56,267	10,719	122	504,075
1932	178,532	51,947	152,792	33,822	40,424	4,628	122	462,267

The total for New South Wales for 1932 includes an amount of £53,000 expended from loan funds, as compared with £185,000 in 1931. In South Australia, loan expenditure for the year amounted to £20,000, and in Western Australia to £39,000.

(iv) *Total.* The net total cost during the year 1932 was as follows:—

#### STATE SCHOOLS.—NET TOTAL COST, 1932.

Item.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Ter.	Total.
	£	£	£	£	£	£	£	£
Net cost of education, including buildings	3,708,521	2,151,705	1,403,829	736,128	563,434	211,103	4,593	8,779,313

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 1932. to £10 14s. 3d., as compared with £4 9s. 3d. in 1901.

8. **School Savings Banks.**—In New South Wales the control of these institutions was taken over in 1924 by the Government Savings Bank (now amalgamated with the Commonwealth Savings Bank), which allows interest on the children's deposits. At the 30th June, 1932, there were 125,599 depositors having at credit £92,622. In Victoria banks were in operation at 2,614 schools at the 30th June, 1933. On the same date the number of depositors amounted to 175,917 and balances at credit to £281,512. School Savings Banks began operations in Queensland in July, 1928, and at the 30th June, 1933, there were 71,300 depositors, who had balances amounting to £99,105. In South Australia, there were 69,500 depositors in 1933 at 1,194 banks with £107,656 to their credit; and in Western Australia, there were 737 school banks, with 60,046 depositors and £70,553 to their credit.

### § 3. Private Schools.\*

1. **Returns for 1932.**—The following table shows the number of private schools, together with the teachers engaged therein, and the enrolment and average attendance in 1932 :—

PRIVATE SCHOOLS, 1932.

State.	Schools.	Teachers.	Enrolment.	Average Attendance.
New South Wales .. .. .	746	4,712	93,280	79,948
Victoria .. .. .	504	2,317	66,225	56,300
Queensland .. .. .	193	1,176	29,777	25,035
South Australia .. .. .	175	860	13,533	12,199
Western Australia .. .. .	134	549	11,324	10,397
Tasmania .. .. .	67	321	6,485	4,951
Northern Territory .. .. .	1	5	99	82
<b>Total .. .. .</b>	<b>1,820</b>	<b>9,940</b>	<b>220,723</b>	<b>188,912</b>

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 1,092 boys and 518 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 1932 amounted to £16,833. In addition, a sum of £10,751 was received by way of fees for the tuition of State scholarship holders. The Grammar schools are inspected annually by officers of the Department of Public Instruction.

2. **Growth of Private Schools.**—The enrolment and average attendance at private schools during 1891, 1901, 1911, and in each year of the period 1928 to 1932 are as follow :—

PRIVATE SCHOOLS.—ENROLMENT AND ATTENDANCE.

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891 .. .. .	124,485	99,588	1929 .. .. .	242,077	189,018
1901 .. .. .	148,659	120,742	1930 .. .. .	242,024	193,691
1911 .. .. .	160,794	132,588	1931 .. .. .	221,387	189,605
1928 .. .. .	237,713	184,464	1932 .. .. .	220,723	188,912

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



The increase in average attendance at private schools during the last five years amounted to about 2.4 per cent., or only one-third of the rate for the State schools during the same period. So far as the private schools are concerned the decline in enrolments during recent years is largely attributable to a falling-off in prosperity, particularly in country areas.

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, the details for which were furnished by the Education Department.

##### FREE KINDERGARTENS, 1933.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistants.
New South Wales ..	16	920	34	70	60
Victoria .. ..	29	1,665	32	36	383
Queensland .. ..	6	(a) 462	10	23	16
South Australia ..	10	393	13	28	25
Western Australia ..	7	345	13	15	23
Tasmania .. ..	4	110	8	3	..
Total .. ..	72	3,895	110	175	507

(a) Estimate.

The kindergartens in New South Wales are all in the metropolitan area, but there is a Kindergarten Holiday Home at Thirroul at which a small staff is maintained for the purpose of looking after delicate children sent to the Home to recuperate. In New South Wales there were 100 students at the Kindergarten Training College. In Victoria, the schools at Ballarat and Geelong were attended by about 172 children in 1933. At the Melbourne College, 52 students were in training. The Brisbane Training College had 23 students in training, the Training College at Adelaide, 41, and at Perth, 33. Three students were in training at 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 1932 :—

UNIVERSITIES.—TEACHERS AND STUDENTS, 1932.

University.	Professors.	Lecturers and Demonstrators.	Students attending Lectures.		
			Matriculated.	Non-matriculated.	Total.
Sydney .. .. .	48	164	2,654	353	3,007
Melbourne .. .. .	34	133	..	..	(a) 2,894
Queensland (Brisbane) .. .. .	14	45	664	162	826
Adelaide .. .. .	17	107	1,213	871	(b) 2,084
Western Australia (Perth) .. .. .	14	29	763	6	769
Tasmania (Hobart) .. .. .	8	17	271	91	362

(a) Exclusive of 270 students at Conservatorium of Music. (b) Exclusive of 329 students at Conservatorium of Music.

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

3. **University Revenue.**—The income of the Universities from all sources during the year 1932 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, 1932.

University.	Government Grants.		Fees.	Private Foundations. (a)	Other.	Total.
	Endowment.	Other.				
	£	£				
Sydney .. .. .	25,600	29,208	64,360	102,556	11,503	233,227
Melbourne .. .. .	55,600	..	96,557	28,564	14,263	194,984
Queensland (Brisbane) .. .. .	16,000	3,900	17,028	16,926	2,955	56,809
Adelaide .. .. .	4,000	(b) 48,100	28,594	14,257	11,493	106,444
Western Australia (Perth) .. .. .	25,200	..	2,400	20,069	3,206	50,875
Tasmania (Hobart) .. .. .	4,000	6,831	4,557	977	414	16,779
<b>Total .. .. .</b>	<b>130,400</b>	<b>88,039</b>	<b>213,496</b>	<b>183,349</b>	<b>43,834</b>	<b>650,118</b>

(a) Not including value of new foundations received during the year as follows :—New South Wales £27,750 ; Victoria, £7,592 ; Queensland, £17,000 ; South Australia, £584. (b) Including £14,000 yearly parliamentary appropriation and £34,100 special vote.

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 £142,000 from the McCaughey estate, and up to the end of April, 1934, had benefited to the extent of £30,000 from the Walter and Eliza Hall Trust. The chief benefactors to 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 1932 the expenditure by the Universities under various headings was as follows:—

**UNIVERSITIES.—EXPENDITURE, 1932.**

University.	Salaries and Administration.	Scholarships, Bursaries, etc.	Equipment, Publications, &c.	Buildings and Grounds.	Other.	Total.
	£	£	£	£	£	£
Sydney .. ..	141,606	7,382	27,447	(a) 36,597	1,438	214,470
Melbourne .. ..	119,100	7,456	12,030	(b) 7,708	40,072	186,966
Queensland (Brisbane) ..	30,589	1,860	3,064	(c) 35,307	..	70,820
Adelaide .. ..	46,181	1,065	(d) 31,653	(e) 12,649	19,866	111,414
Western Australia (Perth)	24,593	5,614	3,202	(f) 7,510	3,556	44,475
Tasmania (Hobart) ..	11,884	1,195	292	269	3,590	17,230
<b>Total .. ..</b>	<b>373,953</b>	<b>24,572</b>	<b>78,288</b>	<b>100,040</b>	<b>68,522</b>	<b>645,375</b>

(a) Including £33,466, new expenditure. (b) Includes new expenditure, £920. (c) Defrayed by Queensland Government. (d) Research, £29,000. (e) New expenditure, £10,608. (f) New expenditure, £4,108.

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 1933 and 1934 the students numbered 43 and 50 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 1933 were as follow :—New South Wales, £3,800, 50 classes and 3 study circles; Victoria, £3,450, 40 tutorial classes and extension work; Tasmania, £1,135, 6 classes; South Australia, £2,025, 5 tutorial classes, 18 lecture classes and 10 study circles; Queensland, £1,000, 12 classes and 36 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 in respect to many necessary 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 1932.**—Returns for the year 1932 in regard to enrolments and attendances, etc., in each State are given in the table hereunder.

TECHNICAL EDUCATION.—ENROLMENTS, ETC., 1932.

State.	Number of Classes.	Teachers.	Enrolments.	Average Attendance.	Fees Received.
New South Wales ..	766	516	(a) 15,549	(b)	(c) £ 28,472
Victoria (f) ..	320	842	22,891	16,143	37,346
Queensland ..	(b)	347	10,893	(b)	12,012
South Australia ..	605	208	6,302	5,042	7,628
Western Australia ..	445	133	(d) 9,000	(b)	1,936
Tasmania(e) ..	(b)	61	889	759	1,954
<b>Total ..</b>	<b>(g) 2,136</b>	<b>2,107</b>	<b>65,524</b>	<b>(g)</b>	<b>89,348</b>

(a) Individual Students. (b) Not available. (c) Includes Receipts from other sources, £6,738. (d) Average enrolments; individual students, 4,123. (e) Includes the School of Mines. (f) Includes junior enrolments as teaching staff and expenditure cover both senior and junior sections. (g) 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. With regard to the figure quoted for number of classes in Victoria, it is stated that each grade of a subject is counted as a class. Special classes for young people out of work were continued in 1932 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 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.

3. **Expenditure on Technical Education.**—The expenditure on technical education in each State for the year 1932 is shown below :—

**TECHNICAL EDUCATION.—EXPENDITURE, 1932.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
	£	£	£	£	£	£	£
1932	(a) 155,454	229,753	58,584	36,097	17,284	16,092	513,264
	(b) 3,100	1,888	3,037	4,362	252	179	12,818

(a) Maintenance. (b) Buildings.

The expenditure on maintenance for technical education in 1932 amounted to rs. 7d. per head of the population of Australia, as compared with 25s. 3d. 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., 1932.**

State.	Schools.	Teachers.	Students Enrolled.		Average Attendance.	
			Males.	Females.	Males.	Females.
New South Wales ..	22	155	1,757	4,895	735	2,434
Victoria ..	16	127	2,375	2,082	2,212	1,787
Queensland ..	8	26	195	761	107	350
South Australia ..	7	34	772	1,306	531	553
Western Australia ..	11	48	2,560	1,040	(a)	(a)
Tasmania ..	3	14	82	142	67	133
<b>Total</b> ..	<b>67</b>	<b>404</b>	<b>7,741</b>	<b>10,226</b>	<b>(b)3,652</b>	<b>(b)5,257</b>

(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 1932 are available for Western Australia only, where the total was returned at £22,330.

### § 8. Diffusion of Education.

**1. General Education.**—A rough indication of the state of education of the people is obtained at each census under the three headings, "read and write," "read only," and "cannot read." Particulars for each State and Territory were included in previous issues of the Official Year Book (see No. 19, p. 439). Detailed tables dealing with various aspects of education were published in connexion with the census of 1921. Here it must suffice to mention that during the period 1871 to 1921 the proportion per 10,000 of the population of Australia able to "read and write", advanced from a little over 6,000 to nearly 8,500, while that of those able to "read only", fell from about 1,100 to under 30.

**2. Education as shown by Marriage Registers.**—Another common method of testing the spread of education is to compare the number of mark signatures in the marriage registers with the total number of persons married during each year of a series. The percentage signing with a mark on the total persons married in the Census year 1921 was only 0.17, as compared with 24.60 in 1861.

### § 9. Miscellaneous.

**1. Scientific Societies.**—(i) *Royal Societies.* In previous issues of the Official Year Book an outline was given of the origin and progress of the Royal Society in each State (see No. 22, pp. 454-5), 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 headquarters in the capital cities.

ROYAL SOCIETIES—PARTICULARS, 1933.(a)

Heading.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
Year of origin .. ..	1821	1854	1884	1853	1897	1843
Number of members ..	288	201	187	172	195	259
Vols. of transactions issued	67	75	45	57	19	83
Number of books in library	31,500	18,000	6,250	6,500	3,400	18,000
Societies on exchange list ..	321	314	180	240	145	296
Income .. .. .£	2,010	458	164	..	204	260
Expenditure .. ..£	1,496	441	129	..	175	238

(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 74 in 1933. Receipts and expenditure for the year amounted to £58 and £11 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 Australasian Association for the Advancement of Science.* This Association was founded in 1887, with headquarters at the Royal Society's House in Sydney. Its meetings are usually held biennially within the various States and in the Dominion of New Zealand. The next meeting will be held in Melbourne in January, 1935. 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. Four fellowships were awarded in 1932. The library comprises some 14,000 volumes, valued at about £7,000. Fifty-eight volumes of proceedings have been issued, and the Society exchanges with some 232 kindred institutions. The ordinary membership at the end of 1933 was 174.

The British Astronomical Society has a branch in Sydney, and in some of the States the British Medical Association has branches.

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 commenced, 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, 1933, 107,587 books and 7,500 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 contains over 46,000 volumes, and includes literature dealing with patents in the principal countries of the world. This library is now situated in Canberra.

(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 :—

## METROPOLITAN PUBLIC LIBRARIES, 1932-33.

City	Number of Volumes in—			Total.
	Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	
Sydney(c) .. .. .	(a) 384,907	(b) .. .. .	74,819	459,726
Melbourne .. .. .	396,442	65,428	.. .. .	461,870
Brisbane .. .. .	58,957	.. .. .	.. .. .	58,957
Adelaide(c) .. .. .	162,854	(f) .. .. .	(g) 3,309	166,163
Perth(c) .. .. .	141,241	.. .. .	(d) 23,941	165,182
Hobart .. .. .	29,252	(e) 8,440	.. .. .	37,692

(a) Including 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 30th June, 1933, the books numbered 51,493. (c) Year ended June, 1933. (d) Includes 5,049 volumes in School Children's Lending Library. (e) Includes 1,540 volumes in the Children's Branch. (f) The Adelaide Circulating Library, at the end of June, 1933, contained 86,000 books. (g) Children's Branch.

In connexion with the Country Lending Branch of the Sydney Public Library, it may be noted that books are forwarded on loan to State schools, to approved associations, to Schools of Art and to individual students. During the year 1932-33, about 76,000 books were lent to small State schools, 16,000 to Schools of Arts, 7,000 to branches of the Teachers' Federation, 4,600 to Agricultural Bureaux, and 48,000 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 7,000 books and periodicals were added to the library in 1932-33

The Mitchell Library in Sydney consisted of over 60,000 volumes and pamphlets, and 300 paintings, principally relating to Australasia, valued at £100,000, and bequeathed 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 over 130,000 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 206,000 volumes; the library at the Australian Museum, 27,700; the Teachers' College library, 42,800; Sydney Technical College library, 16,700; and the library at the Botanic Gardens, 10,000. At the end of 1932 the Parliamentary Library contained 78,000 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 1932 the volumes added to the Reference branch by purchase, donation, etc., numbered 8,317, while additions to the lending branch numbered 1,699.



The library at Brisbane (South) contained about 15,478 volumes at the end of June, 1933.

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, 1933, the collection numbered 301,740 documents, 13,315 views, and 1,282 maps.

For the year ended 30th June, 1933, accessions to the Public Library at Perth numbered 3,273 books including 164 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 38,000 volumes. Books added to the Public Libraries at Hobart and Launceston during the year 1932 numbered 387 and 1,025 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 1932 showed a total of 420 libraries in receipt of State or municipal aid, but statistics are now only collected from institutions in Greater Melbourne and the chief extra metropolitan towns. The 76 libraries from which returns were received contained a total of about 472,000 volumes. Queensland returned 233 libraries, with 558,000 books; South Australia, 243 suburban and country institutes with 643,000 books; Tasmania, 20 libraries and 71,000 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 1932-33 were as follow :—

**STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART, 1932-33.**

State.	Expenditure from—				Receipts.	Net Expenditure.
	Revenue.	Loan.	Other Funds.	Total.		
	£	£	£	£	£	£
New South Wales	3,844,849	a 140,791	..	3,985,640	70,693	3,914,947
Victoria ..	2,570,016	17,595	7,942	2,595,553	88,765	2,506,788
Queensland ..	1,373,473	150,571	..	1,524,044	15,217	1,508,827
South Australia ..	870,796	24,700	5,432	900,928	26,946	873,982
Western Australia	607,481	34,634	9,082	651,197	19,050	632,147
Tasmania ..	244,464	643	..	245,107	4,294	240,813
<b>Total ..</b>	<b>9,511,079</b>	<b>368,934</b>	<b>22,456</b>	<b>9,902,469</b>	<b>224,965</b>	<b>9,677,504</b>

(a) Includes £29,183 from Special Unemployment Relief Loan.

In the case of New South Wales, repayments to credit of votes of previous years have not been taken into account, and expenditure in connexion with agriculture, agricultural and viticultural colleges, and agricultural, pastoral, and horticultural societies has been excluded. The total receipts in Victoria include an amount of £37,753 expended by the Councils of technical schools, and which may be considered as not necessarily a set-off to the total expenditure. In the case of Queensland the figures include an amount of £17,520 from revenue and £12,725 from loan expended on the Agricultural College, but are exclusive of £14,646 for medical and dental inspection of schools, and £3,729 for aboriginal schools. Figures for expenditure in South Australia include a sum of about £5,400 in connexion with sinking funds, but exclude expenditure on Roseworthy Agricultural College £11,867, and grant of £11,000 to Waite Agricultural Research Institute. Benevolent grants to institutions of an educational nature amounting to £3,200 have been excluded from the total for Western Australia.

## 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 1932 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.	1928.	1929.	1930.	1931.	1932.
New South Wales ..	309,432	3,444	3,631	3,709	3,653	3,590
Victoria ..	87,884	2,112	2,141	2,115	2,107	2,121
Queensland ..	670,500	1,125	1,229	1,236	1,233	1,231
South Australia ..	380,070	801	784	762	742	740
Western Australia	975,920	549	581	562	573	550
Tasmania ..	26,215	239	237	252	261	264
Northern Territory	523,620	39	42	41	40	40
Fed. Cap. Territory	940	13	13	13	13	13
<b>Total ..</b>	<b>2,974,581</b>	<b>8,322</b>	<b>8,658</b>	<b>8,690</b>	<b>8,622</b>	<b>8,549</b>

The figures for New South Wales for 1932 are exclusive of 20 "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 69 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 30 "black trackers" and 5 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 to each officer in each State 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.				
		1928.	1929.	1930.	1931.	1932.
New South Wales .. ..	8.41	714	689	683	700	719
Victoria .. ..	20.71	830	827	845	854	853
Queensland .. ..	1.41	787	730	737	750	760
South Australia .. ..	1.53	713	730	752	776	781
Western Australia .. ..	0.45	742	724	704	755	791
Tasmania .. ..	8.68	902	919	877	861	860
Northern Territory .. ..	0.01	115	107	122	124	123
Fed. Cap. Territory .. ..	9.52	631	657	689	677	687
<b>Total .. ..</b>	<b>2.23</b>	<b>758</b>	<b>739</b>	<b>744</b>	<b>757</b>	<b>770</b>

The above figures show, therefore, that the rate of protection maintained for Australia as a whole has remained fairly constant.

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 1933 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, 1932, nearly 245,000 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, 1928-29 to 1932-33, are given in the following table:—

## POLICE FORCES.—COST.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>TOTAL.</b>					
	£	£	£	£	£
New South Wales .. ..	1,749,575	1,863,021	1,811,469	1,430,033	1,409,162
Victoria .. ..	917,454	921,383	850,372	783,390	790,691
Queensland .. ..	595,490	596,057	550,473	499,330	499,740
South Australia .. ..	315,338	327,572	323,541	294,244	278,209
Western Australia .. ..	236,332	250,200	237,996	207,653	203,298
Tasmania .. ..	93,609	96,214	93,732	80,505	83,798
<b>Total .. ..</b>	<b>3,907,798</b>	<b>4,054,447</b>	<b>3,867,583</b>	<b>3,295,155</b>	<b>3,264,898</b>

POLICE FORCES.—COST—*continued.*

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
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 1	14 10	14 3	11 2	10 11
Victoria .. ..	10 5	10 4	9 6	8 8	8 9
Queensland .. ..	13 4	13 2	12 0	10 9	10 7
South Australia .. ..	11 0	11 5	11 3	10 2	9 7
Western Australia .. ..	11 5	11 9	11 1	9 7	9 4
Tasmania .. ..	8 8	8 9	8 5	7 2	7 4
Total .. ..	12 4	12 7	11 11	10 1	9 11

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 1932-33 amounted to £16,284 and £4,991 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. The Conference was held at Melbourne in 1928, and at Perth in 1929. Owing to the need for economy meetings were not held during the years 1930 to 1932.

## § 2. Lower (Magistrates') Courts.

1. **General.**—In considering the criminal returns of the various States, due allowance must be made on account of several 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, and 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 1928 to 1932 :—

MAGISTRATES' COURTS.—PERSONS CHARGED.

State.	1928.	1929.	1930.	1931.	1932.
New South Wales ..	137,079	132,439	124,538	121,743	116,341
Victoria ..	60,562	58,097	56,749	54,775	56,797
Queensland ..	27,300	27,719	29,369	25,899	24,983
South Australia ..	21,766	20,106	18,475	17,033	17,546
Western Australia ..	15,499	16,972	15,734	14,986	14,707
Tasmania ..	7,413	7,468	7,504	6,785	7,051
Northern Territory ..	456	500	441	442	308
Federal Capital Territory ..	..	..	..	92	194
Total ..	270,075	263,301	252,810	241,755	237,927

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 1928 as compared with the previous year 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 over 4,000, and in the latter to 7,760, 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 1928 to 1932 is, therefore, given in the next table. A separate line is added showing the committals to higher courts.

MAGISTRATES' COURTS.—CONVICTIONS AND COMMITTALS.

State.		1928.	1929.	1930.	1931.	1932.
New South Wales ..	Convictions	119,936	113,398	102,670	101,675	93,860
	Committals	2,003	2,403	2,725	2,751	2,264
Victoria ..	Convictions	47,865	45,318	45,537	42,997	45,664
	Committals	731	950	948	1,095	1,026
Queensland ..	Convictions	25,563	25,324	26,814	22,081	21,679
	Committals	313	309	358	367	352
South Australia ..	Convictions	18,665	17,320	15,609	14,654	14,705
	Committals	420	403	491	424	400
Western Australia ..	Convictions	14,197	15,565	14,358	13,441	13,214
	Committals	76	93	114	99	111
Tasmania ..	Convictions	6,835	6,898	6,743	6,180	6,450
	Committals	98	105	76	175	142
Northern Territory	Convictions	424	460	354	314	297
	Committals	2	14	11	11	..
Federal Capital Territory	Convictions	..	..	..	84	186
	Committals	..	..	..	1	5
Total ..	Convictions	233,485	224,283	212,085	201,426	196,055
	Committals	3,043	4,277	4,723	4,923	4,300

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.	1928.	1929.	1930.	1931.	1932.
NUMBER.					
New South Wales .. ..	10,237	11,674	11,822	13,627	12,224
Victoria .. ..	3,415	3,860	4,060	4,123	4,024
Queensland .. ..	3,135	3,420	4,148	2,396	2,526
South Australia .. ..	1,091	1,235	1,254	1,370	1,448
Western Australia .. ..	1,344	1,508	1,736	1,713	1,479
Tasmania .. ..	616	743	725	875	726
Northern Territory .. ..	51	99	90	97	21
Federal Capital Territory .. ..	..	..	..	28	29
Total .. ..	19,889	22,539	23,835	24,229	22,477
PER 10,000 OF THE POPULATION.					
New South Wales .. ..	41.60	46.64	46.68	53.31	47.38
Victoria .. ..	19.49	21.81	22.73	22.91	22.25
Queensland .. ..	35.43	38.10	45.50	25.00	26.99
South Australia .. ..	19.11	21.57	21.87	23.80	25.05
Western Australia .. ..	32.97	35.84	40.45	37.61	33.99
Tasmania .. ..	28.59	34.12	32.81	38.92	31.97
Northern Territory .. ..	114.17	221.18	180.40	195.21	42.61
Federal Capital Territory .. ..	..	..	..	31.81	32.49
Total .. ..	31.55	35.24	36.86	37.12	34.17

The rate for 1931 is the highest recorded for the quinquennium, the increase in this year being mainly due to a rise in convictions for offences against property in New South Wales, but the returns for 1932 show a considerable decline.

6. *Decrease in Serious Crime, 1881 to 1932.*—(i) *Rate of Convictions.* The figures quoted in the preceding table show that during the last five years the rate of serious crime has increased, but if the comparison be carried back to 1881 the position is seen to be more satisfactory. The rate of convictions at magistrates' courts per 10,000 of the population is given below for each of the years 1881, 1891, 1901, 1921, 1931 and 1932. 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 1932.**

Year.	Convictions per 10,000 Persons.	
1881 .. ..	..	69.3
1891 .. ..	..	44.8
1901 .. ..	..	29.1
1921 .. ..	..	29.2
1931 .. ..	..	37.1
1932 .. ..	..	34.2

The figures already quoted refer to total convictions, and in respect of individuals necessarily involve a considerable amount of duplication, especially as regards the less important offences, such as petty larcenies, etc.

(ii) *Causes of Decrease.* The statistics given above show that there has been a considerable decrease in crime throughout Australia over the period dealt with. The results so far quoted are 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 1928 to 1932 will be found in the following table :—

DRUNKENNESS.—CASES AND CONVICTIONS.

State.	1928.		1929.		1930.		1931.		1932.	
	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.
New South Wales	35,590	35,155	33,819	33,136	26,126	25,655	21,195	20,559	21,815	21,510
Victoria	9,635	6,241	9,385	5,866	8,132	6,243	7,018	5,602	8,255	7,028
Queensland	10,836	10,599	9,882	9,747	9,476	9,385	6,120	6,079	6,355	6,315
South Australia	4,996	4,946	4,312	4,291	2,582	2,577	2,334	2,320	2,653	2,643
Western Australia	4,039	4,011	3,567	3,539	2,906	2,879	2,329	2,309	2,111	2,093
Tasmania	281	274	329	321	240	240	245	243	250	245
Northern Territory	232	232	157	153	103	100	146	145	139	139
Fed. Cap. Terr.	..	..	..	..	..	..	26	26	64	64
Total	65,609	61,458	61,451	57,053	49,565	47,079	39,413	37,283	41,642	40,037

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 four 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 1928 to 1932 are given hereunder :—

DRUNKENNESS.—CONVICTIONS PER 10,000 INHABITANTS.

State.	1928.	1929.	1930.	1931.	1932.
New South Wales	142.9	132.4	101.3	80.4	83.4
Victoria	35.6	33.1	35.0	31.1	38.9
Queensland	110.8	108.6	103.1	65.7	67.5
South Australia	86.6	75.0	45.0	40.3	45.7
Western Australia	98.4	84.1	67.1	53.4	48.1
Tasmania	12.7	14.7	10.9	10.8	10.8
Federal Capital Territory	..	..	..	29.5	71.7
Total	97.5	89.2	72.8	57.1	60.9



During the last five years there has been a considerable decline in convictions, and as shown in the following table this has been accompanied by a falling off in the consumption of intoxicating beverages.

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 1929-33 :—

#### INTOXICANTS, CONSUMPTION.—AUSTRALIA.

Year.	Consumption per Head of Population.		
	Spirits.	Wine.	Beer.
	Imp. Galls.	Imp. Galls.	Imp. Galls.
1928-29 .. .. .	0.38	(a) 0.82	11.31
1929-30 .. .. .	0.36		10.22
1930-31 .. .. .	0.18		8.12
1931-32 .. .. .	0.17		7.32
1932-33 .. .. .	0.17		7.43

(a) Average for period.

The figure for wine represents the average consumption for the period covered by the table. In previous years the consumption of wine was estimated at 0.50 gallons per head, but more complete information shows that this was understated, and the figure 0.82 quoted in the table may be regarded as approximately accurate. As pointed out in connexion with the preceding table, the decline in the consumption per head of intoxicants during the last five years was accompanied by a corresponding decrease 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. The Comptroller-General of Prisons in Queensland stated in his Report for the year 1907 that "the drunken habit in many cases is merely one of the many symptoms which jointly indicate the existence of a graver condition than simple habitual drunkenness."

(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 Acts 1915, 1923, 1928 and 1929; Queensland, Inebriate Institutions Act 1896; South Australia, Inebriates Acts 1908, 1913, and 1920, Licensing Act, 1932; Western Australia, Inebriates Acts 1912 and 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 some years, the dates of passing the Acts being as follow:—New South Wales, 1894, 1900 and (women) 1919; Victoria, 1890, 1907, 1915 (Crimes Act, sec. 340), 1928 and 1931; Queensland, 1887 and 1899; South Australia, 1887, 1913, 1921, 1924, and 1925; Western Australia, 1892; Tasmania, 1886 and 1898. 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 practically provided for by the State Children's Acts of 1895 and 1900 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 1928 to 1932, with the rate of such committals per 10,000 of the population:—

COMMITTALS TO SUPERIOR COURTS.

State.	1928.	1929.	1930.	1931.	1932.
NUMBER.					
New South Wales .. ..	2,003	2,403	2,725	2,751	2,264
Victoria .. ..	731	950	948	1,095	1,026
Queensland .. ..	313	309	358	367	352
South Australia .. .	420	403	491	424	400
Western Australia .. .	76	93	114	99	111
Tasmania .. ..	98	105	76	175	142
Northern Territory .. .	2	14	11	11	..
Federal Capital Territory .. .	..	..	..	1	5
<b>Total .. ..</b>	<b>3,643</b>	<b>4,277</b>	<b>4,723</b>	<b>4,923</b>	<b>4,300</b>

COMMITTALS TO SUPERIOR COURTS—*continued.*

State.	1928.	1929.	1930.	1931.	1932.
PER 10,000 OF THE POPULATION.					
New South Wales ..	8.1	9.6	10.8	10.8	8.8
Victoria ..	4.2	5.4	5.3	6.1	5.7
Queensland ..	3.5	3.4	3.9	4.0	3.8
South Australia ..	7.4	7.0	8.6	7.4	6.9
Western Australia ..	1.9	2.2	2.7	2.3	2.6
Tasmania ..	4.5	4.8	3.4	7.8	6.3
Northern Territory ..	4.5	31.3	22.0	22.1	..
Federal Capital Territory ..	..	..	..	1.1	5.6
Total ..	5.8	6.7	7.3	7.5	6.5

(ii) *Decrease in Rate since 1861.* The figures in the preceding table show that the rate of committals for serious crime has increased slightly during the last five years, but if the comparison be carried further back, it will be found that there has been a very considerable improvement. This will be evident from an examination of the following figures, which show the rate of committals per 10,000 persons in Australia at various periods since 1861 :—

## RATE OF COMMITTALS, AUSTRALIA, 1861 TO 1932.

Year ..	..	1861.	1871.	1881.	1891.	1901.	1911.	1921.	1931.	1932.
Committals per 10,000 inhabitants ..	..	22	14	12	11	8	6	7	8	7

The decline in proportion to population since 1861 has therefore been about 68 per cent.

## § 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 1928 to 1932 :—

## SUPERIOR COURTS.—CONVICTIONS.

State.	1928.	1929.	1930.	1931.	1932.
NUMBER.					
New South Wales ..	(a) 846	(a) 1,034	(a) 1,208	(a) 1,139	(a) 1,024
Victoria ..	521	630	720	723	674
Queensland ..	(a) 244	(a) 193	(a) 198	(a) 209	(a) 198
South Australia ..	264	258	304	274	236
Western Australia ..	51	74	92	72	75
Tasmania ..	70	73	65	84	81
Northern Territory ..	4	21	2	6	..
Federal Capital Territory ..	..	..	..	1	5
Total ..	2,000	2,283	2,589	2,508	2,293
PER 10,000 OF THE POPULATION.					
New South Wales ..	3.4	4.1	4.8	4.5	4.0
Victoria ..	3.0	3.5	4.0	4.0	3.7
Queensland ..	2.8	2.1	2.2	2.3	2.1
South Australia ..	4.6	4.5	5.3	4.8	4.1
Western Australia ..	1.3	1.8	2.1	1.7	1.7
Tasmania ..	3.2	3.4	2.9	3.7	3.6
Northern Territory ..	9.0	46.9	4.0	12.1	..
Federal Capital Territory ..	..	..	..	1.1	5.6
Total ..	3.2	3.6	4.0	3.8	3.5

(a) Year ended 30th June following.

The rate in 1901 was 4.6 per 10,000, and the decrease to the end of 1932 was, therefore, about 24 per cent. With the exception of the year 1930, when there was a slight rise, the rates for Australia for the last quinquennium were comparatively stable. 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 1928 to 1932. 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.	1928.	1929.	1930.	1931.	1932.
Murder, and attempts at ..	25	33	21	38	15
Manslaughter .. ..	17	15	8	13	17
Rape, and attempts at ..	11	15	14	9	14
Other offences against females ..	159	124	136	118	102
"    "    "    the person	222	244	224	211	217
<b>Total .. ..</b>	<b>434</b>	<b>431</b>	<b>403</b>	<b>389</b>	<b>365</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 1932 amounted to 0.55, as compared with a rate of 1.14 in 1901, the decrease for the period amounting, therefore, to about 52 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 1928 to 1932 :—

**EXECUTIONS.**

State.	1928.	1929.	1930.	1931.	1932.
New South Wales .. ..	..	..	..	..	1
Victoria .. ..	..	..	..	..	1
South Australia .. ..	..	1	..	..	..
Western Australia (a) ..	1	..	1	1	..
Tasmania .. ..	..	..	..	..	1
<b>Total .. ..</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</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.

During the period 1861 to 1880 the average annual number of executions in Australia was 9, from 1881 to 1900 the average was 6, for the period 1901 to 1910 the figure was 4, from 1911 to 1920 it was 2, while the average for the last ten years was about 1.7.

#### § 4. Prisons.

1. Prison Accommodation and Prisoners, 1932.—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 1932 :—

PRISON ACCOMMODATION AND PRISONERS, 1932.

State.	Number of Prisons.	Accommodation in—		Prisoners at End of Year.
		Separate Cells.	Wards.	
New South Wales (a)	26	(b) 2,342	..	1,775
Victoria .. .. .	14	1,292	493	1,339
Queensland .. .. .	7	581	98	353
South Australia .. .. .	15	731	212	313
Western Australia .. .. .	19	609	486	337
Tasmania .. .. .	1	142	4	125
Northern Territory (a)	3	..	64	21
<b>Total .. .. .</b>	<b>85</b>	<b>5,697</b>	<b>1,357</b>	<b>4,263</b>

(a) Year ended 30th June following.

(b) Total accommodation.

The figures refer to prisoners under sentence and are exclusive of aborigines. There are no gaols in the 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, 1928 to 1932.—The number of prisoners in gaol at the 31st December in each of the years 1928 to 1932 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.	1928.	1929.	1930.	1931.	1932.
NUMBER.					
New South Wales (a)	1,699	1,842	1,691	1,648	1,775
Victoria .. .. .	934	1,145	1,299	1,407	1,339
Queensland .. .. .	365	368	323	318	353
South Australia .. .. .	403	368	361	369	313
Western Australia .. .. .	236	315	382	319	337
Tasmania .. .. .	73	89	116	125	125
Northern Territory (a)	18	30	26	25	21
<b>Total .. .. .</b>	<b>3,728</b>	<b>4,157</b>	<b>4,198</b>	<b>4,211</b>	<b>4,263</b>

(a) Year ended 30th June following.

PRISONERS IN GOAL—*continued.*

State.	1928.	1929.	1930.	1931.	1932.
PER 10,000 OF THE POPULATION.					
New South Wales ..	6.9	7.4	6.7	6.4	6.9
Victoria ..	5.3	6.5	7.3	7.8	7.4
Queensland ..	4.1	4.1	3.5	3.4	3.8
South Australia ..	7.1	6.4	6.3	6.4	5.4
Western Australia ..	5.8	7.5	8.9	7.4	7.7
Tasmania ..	3.4	4.1	5.3	5.6	5.5
Total ..	5.9	6.5	6.5	6.5	6.5

The proportion to population of prisoners in gaol under sentence has risen by about 10 per cent. in Australia during the last five years, but, if the comparison be carried farther back, the position is seen to be more favourable, the proportion in 1891 being 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 1932 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, 1932.

State.	1932.	State.	1932.
New South Wales	{ Cases No. 58,384 Amount £ 318,348	Western Australia	{ Cases No. 21,247 Amount £ 121,085
Victoria ..	{ Cases No. 98,200 Amount £ 696,285	Tasmania ..	{ Cases No. 9,270 Amount £ 65,425
Queensland ..	{ Cases No. 19,306 Amount £ 221,378	Total ..	{ Cases No. 227,991 Amount £ 1,575,741
South Australia ..	{ Cases No. 21,584 Amount £ 153,220		

Particulars in regard to the amount of judgments involved in the 181 civil cases in the Northern Territory were not available.

Causes dealt with in the Civil Courts of the Federal Capital Territory during the year 1932 were as follow:—Lower Courts: Causes 158, judgments £2,045; Higher Courts: Causes in 1932 nil.

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 1932. 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, 1932.**

State.		1932.	State.		1932.
New South Wales	{ Causes No.	2,437	Western Australia	{ Causes No.	526
	{ Amount £	317,233		{ Amount £	69,950
Victoria	{ Causes No.	605	Tasmania	{ Causes No.	166
	{ Amount £	86,066		{ Amount £	21,738
Queensland	{ Causes No.	192	Total	{ Causes No.	4,174
South Australia	{ Causes No.	11,607			
	{ Amount £	119,133			

The figures for amount of judgments in New South Wales are exclusive of returns for the Supreme Court for which particulars are not available. Causes numbering 2,468, involving an amount of £255,832, 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 1928 to 1932 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.	1928.		1929.		1930.		1931.		1932.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
New South Wales	921	6	1,078	17	933	7	1,084	3	853	17
Victoria	481	..	546	2	387	1	423	2	459	..
Queensland	117	2	89	..	119	2	107	1	96	..
South Australia	113	..	107	..	148	1	139	..	157	..
Western Australia	142	1	167	1	153	2	138	1	110	..
Tasmania	55	..	48	1	42	..	47	..	33	..
Northern Territory	..	..	1	..	1	..	..	..	1	..
Total	1,829	9	2,036	21	1,783	13	1,938	7	1,703	17

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 bulk of the divorces and judicial separations refer to New South Wales and Victoria, the Acts of 1899 and 1889 in the respective States having made a separation of the marriage tie comparatively easy.

4. Probates.—Information in regard to probates and letters of administration will be found in Chapter XVI., 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, 1933, are given in the following table. For purposes of comparison, figures for each of the preceding two years have been appended to the table.

COMMONWEALTH BANKRUPTCY ACT RETURNS—1932-33.

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 ..	312	251	157	162	37	39	1	959
	Liabilities £	434,059	586,022	637,880	209,678	75,025	24,598	800	1,968,062
	Assets £	159,408	163,856	352,500	93,819	70,520	12,706	298	853,107
Compositions, etc., after Bankruptcy	Number ..	..	1	..	2	..	1	..	4
	Liabilities £	..	1,709	..	5,235	..	486	..	7,430
	Assets £	..	2,130	..	4,872	..	1,000	..	8,002
Compositions, etc., without Bankruptcy	Number ..	12	16	4	390	109	5	1	537
	Liabilities £	27,301	79,067	2,335	1,050,851	475,708	14,180	500	1,649,942
	Assets £	7,961	68,759	1,944	935,415	389,996	4,940	100	1,409,115
Deeds of arrangement	Number ..	313	259	109	7	11	23	..	722
	Liabilities £	602,799	581,361	384,517	12,227	46,901	29,481	..	1,657,286
	Assets £	650,000	514,681	406,481	14,932	75,784	25,980	..	1,687,858
Total, 1932-33	Number ..	637	527	270	561	157	68	2	2,222
	Liabilities £	1,064,159	1,248,159	1,024,732	1,277,991	597,634	68,745	1,300	5,282,720
	Assets £	817,369	749,426	760,925	1,049,038	536,300	44,626	398	3,958,082
Total, 1931-32	Number ..	863	689	314	764	226	109	..	2,965
	Liabilities £	2,302,735	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
Total, 1930-31	Number ..	1,540	1,052	358	1,044	500	151	..	4,645
	Liabilities £	2,902,511	1,726,508	586,414	1,420,301	1,146,671	196,509	..	7,978,914
	Assets £	2,622,265	1,320,861	601,974	1,029,769	1,633,021	152,645	..	7,360,535

The Commonwealth Attorney-General's Report for the year ended 31st July, 1929, states that comparative tables have not been prepared in relation to State bankruptcy or insolvency for previous years, as the methods of collection and presentation do not afford a reliable common basis. It is also pointed out that the procedure



in certain States has been largely influenced by the procedure in force prior to the passing of the Commonwealth Act, and that, therefore, no particular significance attaches to the large number of compositions, etc., in South Australia and Western Australia. The Bankruptcy Act 1930 created a Federal Court of Bankruptcy and gave power to appoint two Judges thereto. In 1930 a Federal Judge in Bankruptcy was appointed to deal with bankruptcy work, in addition to the State Judges, in New South Wales and Victoria, the Courts in these States having been unable to cope with the business. All the bankruptcy cases in these States are now heard by the Federal Judge who sits in Sydney and Melbourne alternately.

6. **High Court of Australia.**—Under the provisions of section 71 of the Commonwealth Constitution Act, the judicial power of the Commonwealth is vested in a Federal Supreme Court, called the High Court of Australia, and in such other courts as the Parliament creates or invests with federal jurisdiction. The Federal High Court possesses both original and appellate jurisdiction. The powers of the Court are defined in Chapter III. of the Constitution Act and in the Judiciary Acts of 1903–1932. 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 year 1932. Figures for previous years are given in preceding issues.

#### COMMONWEALTH HIGH COURT.—TRANSACTIONS, 1932.

Original Jurisdiction.	1932.	Appellate Jurisdiction.	1932.
Number of writs issued ..	38	Number of appeals set down for hearing .. ..	91
Number of causes entered for trial .. ..	9	Number allowed .. ..	33
Verdicts for plaintiffs ..	5	Number dismissed .. ..	46
Verdicts for defendants ..	4	Otherwise disposed of ..	9
Otherwise disposed of ..	3		
Amount of judgments ..	£8,377		

The fees collected in 1932 amounted to £775.

During the year 1932, the Court dealt also with other matters as follows :—

Appeals from Assessments under the Taxation Assessment Acts, 53 ; Special cases stated for the opinion of the Full Court, 9 ; Applications for Prohibitions, etc., 7.

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 1932–33 in connexion with the administration of justice in each of the States.

STATE EXPENDITURE ON JUSTICE, 1932-33.

State.	Expenditure.	Per Head of Population.	State.	Expenditure.	Per Head of Population.
	£	s. d.		£	s. d.
N.S.W. ..	{ Police 1,409,162	10 11	W.A. ..	{ Police 203,298	9 4
	{ Gaols 305,636	2 4		{ Gaols 24,449	1 1
	{ Other 492,379	3 10		{ Other 70,071	3 2
Vic. ..	{ Police 790,691	8 9	Tas. ..	{ Police 83,798	7 4
	{ Gaols 97,128	1 1		{ Gaols 11,535	1 0
	{ Other 210,373	2 4		{ Other 29,369	2 7
Q'land ..	{ Police 499,740	10 7			
	{ Gaols 28,290	0 7			
	{ Other 164,096	3 6			
S.A. ..	{ Police 278,209	9 7	Total ..	{ Police 3,264,898	9 11
	{ Gaols 40,483	1 5		{ Gaols 507,521	1 6
	{ Other 55,546	1 11		{ Other 1,021,834	3 1

The total expenditure in connexion with the administration of justice in the various States declined from 18s. 9d. per inhabitant in 1928-29 to 14s. 6d. in 1932-33. Police expenditure decreased by 2s. 5d. per head, the average for gaols decreased by 6d. per head, while the expenditure on courts and the remaining machinery of justice decreased by 1s. 4d per head during the period. As might naturally be expected, in view of the necessity for economy, the total expenditure on this service for the year 1932-33 amounting to £4,794,000, 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 1928-29 to 1932-33 :—

COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT—EXPENDITURE.

Year.	Amount.	Year.	Amount.
	£		£
1928-29 .. ..	246,745	1931-32 .. ..	196,528
1929-30 .. ..	245,491	1932-33 .. ..	197,070
1930-31 .. ..	233,199		

The totals for each year include expenditure in connexion with Patents and Copyright which decreased from £51,477 in 1928-29 to £39,008 in 1932-33. As pointed out previously, the Commonwealth took over jurisdiction in bankruptcy in August, 1928, and the expenditure thereon in 1932-33 amounted to £25,779, not including £2,500 on account of salary of judge. Expenditure in connexion with the Federal Capital Territory police amounted in 1932-33 to £4,991 while £1,158 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, £16,284 ; Prisons, £5,026 ; other expenditure in connexion with administration of Justice, £3,493.

## 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, 1932.* Details regarding the number of hospitals, staffs, and accommodation for the year 1932, or nearest available year, are given in the appended table :—

**PUBLIC HOSPITALS.—NUMBER, STAFFS, AND ACCOMMODATION, 1932. (a)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Hospitals—							
Government .. .. .	174	75	113	14	18	3	53†
Other .. .. .				41	76	16	
Total .. .. .	174	75	114	55	94	19	531
Medical Staff—							
Honorary .. .. .	1,395	728	214	216	123	73	2,749
Salariéd .. .. .	216	179	150	47	24	24	640
Total .. .. .	1,611	907	364 (b)	263	147	97	3,389
Nursing Staff .. .. .	3,170	2,173	1,922 (b)	750	676	332	9,023
Accommodation—							
Number of beds and cots	10,160	6,778	4,927 (b)	2,075	2,679	1,361	27,980

(a) The figures relate to the years ended as follow :—New South Wales, Queensland and Western Australia—30th June, 1933; South Australia and Tasmania—31st December, 1932; Victoria—30th June, 1932. (b) Exclusive of particulars of Lying-in Homes, Sanatoria, and Convalescent Homes.

(iv) *Patients Treated.* The table hereunder furnishes particulars respecting patients treated. In addition to the facilities provided in the ordinary wards, a considerable amount of accommodation for certain classes of cases is furnished in out-door or verandah sleeping places, and this can be augmented; full particulars in connexion with these are not available. So far as the returns show, there were 876 out-door beds in Queensland and 210 in South Australia. These figures are not included in the totals given in the table above.

**PUBLIC HOSPITALS.—PATIENTS TREATED, 1932.(a)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Indoor Relief—Inmates at beginning of year—							
Males .. .. .	(b)	2,599	1,855	716	940	308	(b)
Females .. .. .	(b)	2,538	1,637	748	798	362	(b)
Total .. .. .	6,517	5,137	3,492	1,464	1,738	670	19,018
Admissions and Re-admissions during year—							
Males .. .. .	(b)	34,516	40,152	13,028	16,854	6,681	(b)
Females .. .. .	(b)	43,448	36,769	15,708	15,599	8,456	(b)
Total .. .. .	147,566	77,964	76,921	28,736	32,453	15,137	378,777
Discharges—							
Males .. .. .	(b)	31,789	38,183	12,167	15,987	6,215	(b)
Females .. .. .	(b)	41,606	35,666	15,123	15,172	8,165	(b)
Total .. .. .	140,535	73,395	73,849	27,290	31,159	14,380	360,608
Deaths—							
Males .. .. .	(b)	2,687	1,900	877	934	408	(b)
Females .. .. .	(b)	1,787	1,078	601	511	264	(b)
Total .. .. .	6,408	4,474	2,978	1,478	1,445	672	17,455
Inmates at end of year—							
Males .. .. .	(b)	2,639	1,924	700	873	366	(b)
Females .. .. .	(b)	2,593	1,662	732	714	389	(b)
Total .. .. .	7,070	5,232	3,586	1,432	1,587	755	19,662
Average Daily Number Resident—							
Males .. .. .	(b)	(b)	(b)	733	(b)	319	(b)
Females .. .. .	(b)	(b)	(b)	726	(b)	407	(b)
Total .. .. .	6,896	5,215	3,567 (c)	1,450	1,477	726	10,340

(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 1932 were as follow :—

**PUBLIC HOSPITALS.—REVENUE AND EXPENDITURE, 1932.(a)**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue—							
Government Aid ..	792,506	281,623	302,590	182,807	141,355	46,994	1,747,875
Municipal Aid ..	..	59,953	115,284	27,897	346	6,425	209,905
Public Subscriptions, Legacies, etc. ..	310,811	323,277	84,781	17,155	14,771	15,731	766,526
Fees ..	294,989	161,081	158,180	72,565	83,243	41,901	811,959
Other ..	71,032	73,598	13,640	9,365	18,281	2,488	188,404
<b>Total ..</b>	<b>1,469,338</b>	<b>899,532</b>	<b>674,475</b>	<b>309,789</b>	<b>257,996</b>	<b>113,539</b>	<b>3,724,669</b>
Expenditure—							
Salaries and Wages	591,484	358,209	300,492	132,070	(b)119,208	53,051	1,554,514
Upkeep and Repair of Buildings and Grounds ..	31,026	22,803	9,331	15,615	1,951	1,719	82,445
All Other ..	555,611	354,306	345,289	145,978	118,296	52,945	1,572,425
Capital (c) ..	159,685	121,380	3,364	14,141	10,133	..	308,703
<b>Total ..</b>	<b>1,337,806</b>	<b>856,698</b>	<b>658,476</b>	<b>307,804</b>	<b>249,588</b>	<b>107,715</b>	<b>3,518,087</b>

(a) See note (a) to table on page 311. (b) Excluding "Leased" Hospitals. (c) Includes such items as Purchases of Land, Cost of New Buildings and Additions to Buildings.

(vi) *Summary for Five Years, 1928 to 1932.* 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 years 1928 and 1929 relate mainly to general hospitals, while those for 1930 to 1932 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.	1928.	1929.	1930.	1931.	1932.
Number of institutions ..	472	480	508	513	531
Number of beds ..	21,638	22,629	25,181	26,522	27,980
Admissions during year ..	311,103	319,754	353,190	353,266	378,777
Total indoor cases treated ..	326,049	335,530	370,743	371,315	397,795
Deaths ..	17,265	18,004	18,361	(a) 10,482	17,455
Expenditure ..	£ 3,862,048	4,064,654	4,318,212	3,524,414	3,518,087

(a) Exclusive of 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 532,416 out-patients treated in New South Wales, 216,666 in Victoria, 51,515 in South Australia, and 34,240 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 the 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 1932 are given in the following table :—

## BENEVOLENT ASYLUMS.—REVENUE AND EXPENDITURE, 1932.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
	£	£	£	£	£	£	£
Revenue—							
Government Aid ..	137,876	28,413	40,077	9,890	6,040	10,452	232,748
Municipal Aid ..	3	1,078	..	..	..	..	1,081
Public Subs., Legacies, etc. .. ..	3,252	20,560	456	..	..	..	24,268
Fees .. ..	3,992	39,086	..	5,364	13,340	3,641	65,423
Other .. ..	4,778	20,058	23,018	376	273	330	48,833
Total .. ..	149,901	109,195	63,551	15,630	19,653	14,423	372,353
Expenditure—							
Salaries and Wages ..	70,962	28,155	50,999	4,620	9,316	6,677	170,729
Upkeep and Repair of Buildings .. ..	4,479	4,862	443	678	235	130	10,827
All Other .. ..	75,606	61,149	6,495	10,332	10,102	7,616	171,300
Total .. ..	151,047	94,166	57,937	15,630	19,653	14,423	352,856

(a) The figures relate to the years ended as follow :—New South Wales, South Australia and Tasmania—31st December, 1932; Victoria—30th June, 1932; and Queensland and Western Australia—30th June, 1933.

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. The expenditure on orphanages in 1932 was approximately £298,000.

(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 1932 of State Departments for the relief of neglected children :—

STATE RELIEF OF NEGLECTED CHILDREN.—SUMMARY, 1932.(a)

Particulars.	N.S.W	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of children in institutions, boarded-out, or on probation—							
Males .. ..	2,396	3,741	802	553	538	343	8,373
Females .. ..	2,029	2,772	644	379	438	240	6,502
Total .. ..	4,425	6,513	1,446	932	976	583	14,875
Number of children boarded-out with their mothers or female relatives—not included in above figures—							
Males .. ..	10,252	9,538	2,921	130	27	..	25,786
Females .. ..			2,830	63	25	..	
Total .. ..	10,252	9,538	5,751	193	52	..	25,786
Total children under State control .. ..	14,677	16,051	7,197	1,125	1,028	583	40,661
Gross cost of children's relief .. ..	£ 454,341	£ 340,779	£ 183,880	£ 45,461	£ 27,533	£ 14,729	£ 1,066,723
Receipts from parents' contributions, etc. ..	19,560	7,564	6,881	3,746	4,011	1,002	42,764
Net cost to State..	434,781	333,215	176,999	41,715	23,522	13,727	1,023,959

(a) The figures relate to the years ended as follow :—New South Wales—31st December, 1933; Victoria—31st December, 1932; Other States—30th June, 1933.

4. **Lepor 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). In October, 1931, the 17 inmates of the hospital previously established near Cossack in Western Australia, were transferred to Darwin. At the end of 1933 there were 19 cases in residence at Little Bay, 62 at Peel Island, 1 at Thursday Island, and 88 in the Northern Territory. During the year 1933, 32 cases of leprosy were reported in Australia, of which 1 was recorded in New South Wales, 1 in Victoria, 10 in Queensland, 4 in the Northern Territory, and 16 in Western Australia. In 1932 the number of deaths recorded was 7, 6 in Queensland and 1 in the Northern Territory; in 1933 there were 5 deaths in Queensland.

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., 1932.* Particulars regarding the number of institutions, the medical and nursing staffs, and accommodation are given in the appended table for the year 1932 :—

**HOSPITALS FOR THE INSANE.—NUMBER, STAFFS, ACCOMMODATION, 1932.(a)**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Institutions ..	13	(b) 12	3	2	5	1	36
Medical Staff—							
Males .. ..	31	28	6	6	5	2	78
Females .. ..	4	..	1	..	..	..	5
Total .. ..	35	28	7	6	5	2	83
Nursing Staff and Attendants—							
Males .. ..	916	1,312	259	106	135	59	4,087
Females .. ..	853						
Total .. ..	1,769	1,312	464	199	210	133	4,087
Accommodation— Number of beds and cots	10,253	6,087	3,171	1,509	1,759	661	23,440

(a) The figures relate to years ended as follow :—New South Wales, Queensland and Tasmania—30th June, 1933 ; other States—31st December, 1932. (b) Includes four licensed private houses, in which cases at the end of the year numbered 101 ; other particulars not available.

(iii) *Patients, 1932.* Information regarding patients treated, deaths, etc., for the year 1932 is given in the table hereunder :—

**HOSPITALS FOR THE INSANE.—PATIENTS, DEATHS, ETC., 1932.(a)**

Particulars.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of distinct persons treated during year (c)—							
Males .. ..	6,229	3,667	2,322	914	956	386	14,474
Females .. ..	5,175	3,820	1,450	731	502	355	12,033
Total .. ..	11,404	7,487	3,772	1,645	1,458	741	26,507
Number of patients on books at beginning of year—							
Males .. ..	5,447	3,235	1,936	775	846	333	12,572
Females .. ..	4,447	3,469	1,226	620	429	313	10,504
Total .. ..	9,894	6,704	3,162	1,395	1,275	646	23,076
Admissions and re-admissions exclusive of absconders retaken (c)—							
Males .. ..	782	432	277	139	110	53	1,793
Females .. ..	728	351	220	111	73	42	1,525
Total .. ..	1,510	783	497	250	183	95	3,318
Discharges (including absconders not retaken)—							
Males .. ..	364	175	136	78	36	29	818
Females .. ..	328	176	104	51	24	22	705
Total .. ..	692	351	240	129	60	51	1,523

(a) See footnote (a) to previous table. (b) Exclusive of four licensed private houses. (c) Exclusive of transfers to other Institutions.



HOSPITALS FOR THE INSANE.—PATIENTS, DEATHS, ETC., 1932(a)—*continued.*

Particulars.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Deaths—							
Males .. .. .	356	218	154	68	49	17	862
Females .. .. .	234	176	71	38	29	12	560
Total .. .. .	590	394	225	106	78	29	1,422
Number of patients on books at end 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
Average daily number resident—							
Males .. .. .	5,195	2,784	1,927	776	848	339	11,869
Females .. .. .	4,187	3,061	1,208	634	431	322	9,843
Total .. .. .	9,382	5,845	3,135	1,410	1,279	661	21,712
Number of patients on books at end of year per 1,000 of population—							
Males .. .. .	4.18	3.64	3.87	2.65	3.74	2.95	3.78
Females .. .. .	3.60	3.80	2.82	2.22	2.21	2.85	3.31
Persons .. .. .	3.89	3.72	3.37	2.43	3.02	2.90	3.55
Average number of patients resident in hospitals for insane per 1,000 of mean population—							
Males .. .. .	3.95	3.10	3.90	2.68	3.64	2.95	3.55
Females .. .. .	3.28	3.36	2.70	2.20	2.13	2.85	3.04
Persons .. .. .	3.62	3.23	3.33	2.44	2.94	2.90	3.30

(a) See footnote (a) to previous table.

(b) Exclusive of four licensed private houses.

In some States patients 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, 1932.* 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, 1932.(a)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Revenue (Exclusive of Government Grants)—	£	£	£	£	£	£	£
Fees of Patients .. .. .	104,348	33,366	22,795	19,799	17,606	8,195	206,109
Other .. .. .	2,147	4,514	370	3,346	1,992	582	12,951
Total .. .. .	106,495	37,880	23,165	23,145	19,598	8,777	219,060
Expenditure—							
Salaries and Wages .. .. .	360,523	231,461	116,266	44,997	57,299	26,964	837,510
Upkeep and Repair of Buildings and Grounds .. .. .	..	11,883	34,873	3,072			
All Other .. .. .	190,200	137,014	(b) 44,314	43,493			
Total .. .. .	550,723	380,358	195,453	91,562	90,999	46,420	1,355,515
Expenditure per Average Daily Resident .. .. .	£58/14/0	£65/1/6	£62/6/11	£64/18/9	£71/3/0	£70/4/6	£62/8/7

(a) The figures relate to years ended as follow:—South Australia—31st December, 1932; other States—30th June, 1933. (b) Includes £15,865, covering such items as Purchases of Land, Cost of New Buildings, and Additions to Buildings.

(v) *Summary for Australia, 1928 to 1932.* The table hereunder gives a summary for hospitals for the insane in Australia for each of the five years 1928 to 1932. 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.	1928.	1929.	1930.	1931.	1932.
Number of institutions .. ..	36	38	37	36	36
„ „ beds .. ..	19,467	20,951	21,779	22,540	23,440
Admissions .. ..	3,537	3,471	3,443	3,314	3,318
Discharged as recovered, relieved, etc.	1,669	1,625	1,558	1,497	1,523
Deaths .. ..	1,429	1,451	1,297	1,503	1,422
Expenditure—Total .. ..	£1,706,259	1,721,602	1,539,003	1,356,387	1,355,515
„ —Per Average Daily Resident .. ..	£84/1/8	£83/11/10	£72/17/8	£63/2/6	£62/8/7

(vi) *Number of Insane, 1928 to 1932.* The proportion of insane, as well as the total number returned as under treatment, shows a continuous increase during the period covered by the table. The more rapid increase during the last three years is possibly a reflection of the financial stress of the period. A comparison with the proportion of 3.57 per 1,000 of population for the pre-war years 1910 to 1913 is of interest, as the rate for the years 1928 to 1931 declined to 3.50 per 1,000 of population. The next table gives the number of insane under official care in Australia, and the proportion per 1,000 of population for the last five years.

**INSANE PERSONS IN INSTITUTIONS.**

State.	1928.	1929.	1930.	1931.	1932.
NUMBER.					
New South Wales .. ..	9,104	9,377	9,670	9,894	10,122
Victoria .. ..	6,501	6,531	6,669	6,704	6,742
Queensland .. ..	3,032	3,042	3,108	3,162	3,194
South Australia .. ..	1,350	1,374	1,404	1,395	1,410
Western Australia .. ..	1,229	1,252	1,274	1,275	1,320
Tasmania .. ..	615	622	635	646	661
<b>Australia .. ..</b>	<b>21,831</b>	<b>22,198</b>	<b>22,760</b>	<b>23,076</b>	<b>23,449</b>

**PER 1,000 OF POPULATION.**

New South Wales .. ..	3.64	3.71	3.79	3.84	3.89
Victoria .. ..	3.69	3.67	3.72	3.72	3.72
Queensland .. ..	3.37	3.34	3.35	3.37	3.37
South Australia .. ..	2.36	2.40	2.44	2.42	2.43
Western Australia .. ..	2.96	2.93	2.95	2.64	3.02
Tasmania .. ..	2.79	2.79	2.82	2.85	2.90
<b>Australia .. ..</b>	<b>3.43</b>	<b>3.44</b>	<b>3.50</b>	<b>3.52</b>	<b>3.55</b>

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 of the insane.

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 8 years 346 days for males and 10 years 189 days for females; of those discharged 3 years 100 days for males and 2 years 36 days for females.

(c) *South Australia.* The average residence of those who died during the year was 8 years 8 months 24 days for males, and 8 years 3 months 17 days for females; of those discharged, 2 years 10 months 6 days for males, and 2 years 5 months 29 days for females.

(d) *Western Australia.* The average residence of those who died was 9 years 3 months 14 days for males, and 6 years 3 months for females; of those discharged, 1 year 2 months 14 days for males and 2 years 5 months 7 days for females.

(e) *Tasmania.* The average residence of those who died during the year was 12 years 6 months for males, and 6 years 9 months for females; of those discharged, 1 year 10 months for males, and 2 years 10 months 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 1932-33 was, New South Wales, £54,681; Victoria, £7,138; Queensland, £39,302; South Australia, £24,776; Western Australia, £27,239; Northern Territory, £8,454 (including £1,320, Government subsidy to aboriginal mission stations); total for Australia, £161,590. 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, 1933, were as follow:—

ABORIGINES.(a)—AUSTRALIA—30th JUNE, 1933.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Northern Territory.	Total.
	No.	No.	No.	No.	No.	No.	No.
Full-bloods ..	599	28	5,912	82	1,640	2,628	10,889
Half-castes ..	3,115	148	1,684	536	852	339	6,674

(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 been established in the larger provincial districts. 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. Upwards of 10,000 certificates of proficiency in various grades are issued annually after examination throughout Australia, the numbers for the individual States for 1933 being New South Wales, 4,483; Victoria, 1,366; Queensland, 752; South Australia, 773; Western Australia, 1,317; and Tasmania, 57.

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. Compulsory registration is not in force throughout the whole area of the various States.

**DAIRY PREMISES REGISTERED, AND CATTLE THEREON, 1933.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.
Premises registered ..	23,544	28,138	25,949	11,243	(b)	5,353
Cattle thereon ..	1,124,006	434,990	792,943	(a)76,150	(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 has been 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 1933 the diseases which are notifiable in each State and Territory and the number of cases notified. Diseases not notifiable in a State or Territory are indicated by an asterisk.

**DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY AND NOTIFICATIONS FOR THE YEAR ENDED 31st DECEMBER, 1933.**

Disease.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Fed. Cap. Ter.
Anchylostomiasis	*	..	166	..	..	..	..	..
Anthrax	..	I	..	..	..	..	..	..
Beri-beri	..	*	..	..	..	..	2	..
Bilharziasis	..	..	..	..	I	..	*	..
Cerebro-spinal Fever	..	16	4	3	3	5	..	..
Chickenpox	..	*	*	1,062	*	*	2	..
Dengue Fever	..	*	*	*	*	*	45	*
Diphtheria	3,926	6,586	1,941	877	848	706	*	8
Dysentery	..	25	I	5	8	..	..	..
Encephalitis Lethargica	..	15	4	2	..	..	..	..
Erysipelas	13	*	*	130	..	*	I	..
Filariasis	..	*	2	..	..	..	..	..
Hydatid	..	II	*	..	*	*	..	..
Influenza	..	*	*	804	*	*	112	..
Leprosy	I	I	10	..	16	..	4	..
Malaria	*	9	5	..	I	..	30	..
Measles	..	*	*	13,469	*	*	..	170
Mumps	..	*	*	454	*	*	..	..
Poliomyelitis (a)	12	16	11	13	3	I	..	..
Puerperal Fever (b)	220	74	33	80	20	14	..	..
Scarlet Fever (c)	4,254	2,493	509	978	253	370	..	8
Tetanus	..	28	*	*	*	*	*	*
Trachoma (d)	..	12	*	*	*	*	*	*
Tuberculosis (e)	1,440	1,040	206	383	291	188	4	3
Typhoid Fever (f)	139	73	103	16	81	37	..	..
Typhus (Endemic) (g)	3	..	I	8	51	..	..	..
Whooping Cough	..	..	*	1,008	*	..	*	*

(a) Includes Poliomyelitis Acute Anterior, Infantile Paralysis and Polioencephalitis. (b) Includes Puerperal Pyrexia. (c) Includes Scarletina. (d) Notifiable in Victoria since 13th September, 1933. (e) Includes all forms except in New South Wales, Western Australia and Northern Territory where only pulmonary tuberculosis is notifiable. (f) Includes Enteric Fever and Paratyphoid. (g) 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.

**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 aboriginals on Palm Island, and throughout the whole coastal area northwards to Thursday Island, leprosy among aboriginals 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 1933 a total of 18,083 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 1933 the staff comprised 11 medical officers (including one oculist), 9 dental officers, 8 dental assistants, 9 school nurses, and 8 clerical officers. In addition, one oculist was appointed during the year. Four medical officers were engaged for the greater part of the year in country districts, and 7 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-patient 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, Maitland, and Wollongong 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 1,171 boys were examined in 1932, and 1,037 in 1933. 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.

During 1932, 44,918 children were fully examined, 16,572 (36.9%) were notified for treatment of physical defects, including 7,517 (16.7%) for defects other than dental. In addition, 36,843 children were “reviewed,” of whom 12,690 (34.4%) were notified for medical and dental defects.

During 1933, 49,653 children were fully examined, 18,885 (38.0%) were notified for treatment of physical defects, including 8,329 (16.8%) for defects other than dental. In addition, 26,318 children were “reviewed,” of whom 7,704 (29.3%) were notified for medical and dental defects, and 2,856 fully or partly examined apart from the usual routine inspection. Of these 1,229 (43.0 per cent.) were notified.

Further, in 1932, 190 and in 1933, 183 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, and 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. The result of this work is that the treatment received is much greater than that which is obtained without such visits.

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. This method gives all schools in the district the opportunity for dental treatment.

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 advantage in the use of a dental motor van is that it is furnished as a dental surgery. It can be driven into the school yard and, immediately on its arrival, work can be commenced without any delay incidental to unpacking equipment, etc., and to the preparation of a room.

In no case is the same dental officer on the same trip for the whole year; work is distributed so that there is a change over at every school vacation—Christmas, May, and September. Those who have been in the country take a period of duty in the city and vice versa, while those who have been in the van on one trip will probably travel by train the next time, likewise there is constant change between dentist and dental attendants. By doing this it is felt that monotony is relieved, and that the standard of work is maintained at a higher level by the stimulus of change.

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, 1933, 43,915 children and 852 teachers were medically examined, and 38,280 children received dental treatment. In addition, 6,493 homes were visited by the school nurse.

4. **Queensland.**—In matters affecting the general administration of the medical branch of the Department of Public Instruction, the Department acts on the advice of its Chief Medical Officer, who, while acting independently in all matters affecting individual schools, is in close touch with the Department of Public Health, and observes the policy of that Department in all matters connected with schools which may have direct bearing upon the health of the State.

Lack of funds has necessitated a reduction in Medical Staff. 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; 2,954 were thus medically examined in 1933, and of these 1,092 were notified as suffering from some condition requiring correction.

The number of nurses in the employ of the Department has been increased to eleven, this being made possible by a special grant from the Home Department for the five nurses engaged on hookworm duty in addition to some school duties. To each nurse is assigned a group of schools, and she is instructed to make a list at each school of those children whom 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 1933, school nurses examined 25,333 children. In the metropolitan area, the nurses examine the teeth and report all eligible carious cases to the Dental Hospital for treatment. The work of the school nurse is proving more and more valuable in keeping the standard of sanitation high and in controlling the general health of the children.

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 1933, 32,050 children were examined; 40,892 extractions were performed; and there were 45,984 fillings and 19,108 other treatments. Children and parents alike are beginning to realize the very great value of early dental treatment. The former appreciate the fact that, in the early stages of decay, they are not called upon to suffer pain during dental manipulations, and the latter see in the increased health and vigour of their children the practical value of such treatment.

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.

Following the policy of the Government 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 has been constructed. This consists of a carriage 21 feet long, divided into—

- (a) Lavatory and shower accommodation.
- (b) Sleeping and living room, fitted with all conveniences, including ice chest and two-burner Gloria cooking-stove. Ample drawer space is provided in dressing table, and under the sleeping berth.
- (c) Dental surgery fitted with all the latest appliances for dental treatment, including Gloria sterilizer and pressure filtered water. The dental engine is electrically driven and foot controlled. Perfect illumination is obtained by a dental spot light which is part of the chair equipment.
- (d) A compartment for waiting patients which also contains the engine and generator and batteries for lighting the car throughout.

A motor car is carried on a railway waggon at the rear, and can be used at each stopping place to visit the surrounding villages served by the rail centre. This unit operates in the distant and roadless parts of the State where there is difficulty in taking the present Road Motor Clinic.

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 a dental assistant 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 1933, 18,915 children were examined by medical inspectors; of these 502 required notices for defective vision, 88 for defective hearing, and 1,026 for tonsils and adenoids. Six hundred and forty 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 1933, 12,836 (5,987 country and 6,849 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, although the Department still retained the services of four nurses, whose chief duty is to visit the homes to advise the parents as to the treatment of defects disclosed by the medical examination. Prior to this date 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, while two part-time medical officers conducted examinations of school children in Hobart and Launceston. Country schools were visited by medical officers about once a year. There are two 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 1929 to 1933 no less than 26,600 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.				
	1929.	1930.	1931.	1932.	1933.	1929.	1930.	1931.	1932.	1933.
<b>NUMBER OF INFANTILE DEATHS.</b>										
New South Wales	1,267	1,099	850	686	630	1,706	1,499	1,225	1,154	1,109
Victoria ..	855	853	713	630	549	732	691	636	551	599
Queensland ..	289	227	210	215	186	562	530	444	483	553
South Australia ..	221	256	167	149	129	215	227	163	163	157
Western Australia	269	218	176	164	118	239	212	179	191	172
Tasmania ..	59	66	59	48	52	196	176	160	137	135
Australia (b) ..	2,960	2,719	2,175	1,892	1,658	3,650	3,335	2,807	2,679	2,725

#### RATE OF INFANTILE MORTALITY.(a)

New South Wales	56.68	50.03	44.53	39.01	36.80	56.27	49.70	42.78	42.26	40.96
Victoria ..	50.69	50.80	47.88	47.67	40.68	43.74	42.30	41.19	38.67	40.21
Queensland ..	49.58	39.23	40.84	50.00	41.57	44.40	40.30	34.99	36.06	40.01
South Australia ..	43.81	54.72	40.46	38.70	31.77	38.25	42.78	32.92	34.90	32.44
Western Australia	63.99	51.40	46.10	47.54	34.65	49.31	42.75	37.84	42.30	38.49
Tasmania ..	56.73	60.61	58.76	48.83	48.87	52.17	47.61	42.58	39.05	38.69
Australia (b) ..	53.49	49.84	45.25	43.61	38.14	49.37	45.31	39.98	39.80	39.73

(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 XV.—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, 1933.

Heading.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Total.
Baby Health Centres—								
Metropolitan .. No.	46	66	5	37	12	2	1	169
Urban-Provincial and Rural .. No.	68	79	11	7	9	10	..	184
Total .. No.	114	145	16	44	21	12	1	353
Attendances at Centres .. No.	514,000	403,205	125,427	88,440	69,448	29,097	3,270	1,232,887
Visits paid by Nurses .. No.	67,800	65,744	11,319	31,092	12,275	11,854	521	200,605
Bush Nursing Association, Number of Centres .. ..	45	68	11	(a) 29	5	16	..	174

(a) District Trained Nursing Society.

The number of attendances at the Baby Health Centres has increased very considerably in recent years. The following are the attendances for the years 1928 to 1932 :—1928, 724,801 ; 1929, 822,312 ; 1930, 919,893 ; 1931, 1,150,619 ; and 1932, 1,200,380.

## 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, is 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.* In connexion with the numbers available, the figures of male population are of interest. The total number at cadet age, i.e., between 12 and 18, at the Census of 1921 (4th April), was about 300,000; at citizen soldier age, i.e., between 18 and 26, 354,000; these latter, with 409,000 at ages between 26 and 35, give 763,000 as the total males at the best period for military service. It is estimated that 529,000 of those available between the ages of 18 and 35 were unmarried or widowers without children, and 233,000 were married or widowers with children. In addition, there were about 768,000 between the ages 35 and 60. In connexion with the foregoing figures it should be noted that since the Census of 1921 the total male population of Australia has increased from 2,762,870 to 3,379,483 at the 31st December, 1933.



(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, 1934.

State.	Military District.	Number of Infantry Brigade Areas.	Battalion Areas.											
			Number of Battalion Areas. (a)	Providing the undermentioned Units—									Artillery Survey.	Anti-aircraft Battery.
				Infantry Battalions.	Light Horse Regiments.	Armoured Car Regiment.	Field Artillery Batteries.	Medium Artillery.		Heavy Artillery.				
								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	4	1	1	
Queensland ..	1st	2	8	6	3	..	6	..	..	..	2	..	..	
South Australia ..	4th	1	4	3	3	..	4	..	..	..	2	..	..	
Western Australia	5th	1	4	3	1	..	4	..	..	..	2	..	..	
Tasmania ..	6th	1	4	3	1	..	4	..	..	..	2	..	..	
<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—									A.A.V.C. Sections.				
		Engineers.		Signals.	Tank Corps.	A.A.S.C.			A.A.M.C.						
		Field.	For-tress.						Field Ambulance.	Field Hygiene Sections.		A.A.O.C. Companies.			
Companies.	Troops.	Companies.	Sections.	Troops.	Tank Section.	Supply Companies.	Mechanical Transport Companies.	Supply Sections.	Mechanical Transport Sections.						
New South Wales	2nd	5	3	2	23	5	1	3	3	..	..	7	3	4	4
Victoria ..	3rd	5	3	1	22	5	..	3	3	..	..	7	3	4	4
Queensland ..	1st	2	1	1	6	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	4	..	..	..	1	1	1	1	1	..	..
Tasmania ..	6th	1	..	1	4	..	..	..	1	1	1	1	1	..	..
<b>Total ..</b>	<b>..</b>	<b>15</b>	<b>8</b>	<b>6</b>	<b>62</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 by the Australian Government in 1922 that the universal training law was to be continued, but its operation was to be restricted to the more populous centres and to certain quotas only. From 1st July, 1922, to 30th June, 1925, training in the Senior Cadets was limited to two quotas instead of four, and in the Citizen Forces to two quotas instead

of seven. On 1st July, 1925, Senior Cadet training was reduced to one quota only while Citizen Force training was increased to three quotas. These conditions remained in force until 1st November, 1929, when the constitution of the forces on a voluntary basis was adopted. During the period last mentioned, Senior Cadet training commenced on 1st July of the year in which Senior Cadets reached the age of 17 years, and on 1st July of the following year they were allotted to the Citizen Forces, in which training continued until the 30th June of the year in which they attained the age of 21 years. Notwithstanding the reduction in training, all males residing within 5 miles of a training centre were required to register during the months of January or February of the year in which they reached the age of 14 years. Junior Cadet training of boys of the ages of 12 and 13 years which was in abeyance during the years 1922-23 and 1923-24, was also supervised by the Defence Department during the period 1st July, 1925, to 31st October, 1929.

Under the voluntary enlistment system now in force men from 18 to 40 years of age may be enlisted. The first period of enlistment is for three years, and on its completion, the member concerned may be re-engaged for successive periods of one year until he reaches the age for retirement (48 years). The normal period of training is 16 days per annum (including 8 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.	1932. 31/3/32.	1933. 31/3/33.	1934. 31/3/34.
Army Head-Qrs. (Melbourne) ..	..	(c) 277	(c) 499	78	73	(d) 69	(d) 71
1st (Q'ld.) ..	4,310	4,625	4,319	3,892	3,369	3,280	3,506
2nd (N.S.W.) ..	9,772	12,105	14,561	11,524	10,819	10,122	10,881
3rd (Vict.) ..	7,011	10,840	11,117	10,339	10,141	9,262	9,911
4th (S. Aus.) ..	2,956	3,228	3,452	2,450	2,477	2,290	2,261
5th (W. Aus.) ..	2,283	1,685	2,018	1,820	1,715	1,656	1,739
6th (Tas.) ..	2,554	1,777	1,190	1,179	1,227	1,275	1,305
Total ..	28,886	34,537	37,156	31,282	29,821	27,963	29,674

(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, 1934, were as follow :—

**ARMS OF THE AUSTRALIAN MILITARY FORCES, ACTIVE LIST,  
31st MARCH, 1934.(a)**

Head-quarters Staffs .. .. .	88	Fortress Engineers .. .. .	285
Staff Corps .. .. .	240	Signals .. .. .	1,253
Corps of Staff Cadets .. .. .	30	Infantry .. .. .	12,122
Instructional Corps .. .. .	481	Tank Corps .. .. .	47
Light Horse .. .. .	4,149	Army Service Corps .. .. .	1,576
Armoured Car Regiment .. .. .	161	Army Medical Corps .. .. .	1,198
Royal Australian Artillery .. .. .	505	Army Ordnance Corps (b) .. .. .	309
Field Artillery .. .. .	4,169	Army Veterinary Corps .. .. .	117
Garrison Artillery .. .. .	1,568	Provost Staff .. .. .	10
Royal Australian Engineers .. .. .	144		
Survey Corps .. .. .	15		
Field Engineers .. .. .	1,227	Total .. .. .	29,674

(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, 1934.

**DISTRIBUTION OF LAND FORCES,(a) ACTIVE AND RESERVE LISTS,  
31st MARCH, 1934.**

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) 65	191	628	498	82	137	67	1,668
Militia Forces ..	6	3,315	10,253	9,413	2,179	1,602	1,238	28,006
Engineer and Railway Staff Corps ..	2	10	7	11	11	9	5	55
Unattached List of Officers ..	6	55	129	123	11	14	9	347
Reserve of Officers ..	..	770	1,971	1,940	512	448	206	5,847
Chaplains ..	4	38	77	84	24	25	15	267
<b>Total ..</b>	<b>83</b>	<b>4,379</b>	<b>13,065</b>	<b>12,069</b>	<b>2,819</b>	<b>2,235</b>	<b>1,540</b>	<b>36,190</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, 1934 :—

**STRENGTH OF MILITIA FORCES AND SENIOR CADETS, BY FORMATIONS,  
31st MARCH, 1934.**

State.	Military Formation.	Militia Forces.	Senior Cadets.	
			Regimental Detachments.	Educational Establishments.
Victoria ..	Army Head-quarters ..	6	..	..
Queensland ..	Field Troops, 1st Military District	3,164	327	485
Queensland ..	1st District Base ..	151	14	..
New South Wales	1st Cavalry Division ..	1,971	58	71
New South Wales	1st Division ..	3,140	318	363
New South Wales	2nd Division ..	4,147	445	559
New South Wales	2nd District Base ..	995	119	..
Victoria ..	2nd Cavalry Division ..	1,854	100	..
Victoria ..	3rd Division ..	3,798	627	659
Victoria ..	4th Division ..	2,978	389	361
Victoria ..	3rd District Base ..	783	110	..
South Australia ..	Field Troops, 4th Military District ..	2,105	231	239
South Australia ..	4th District Base ..	74	10	..
Western Australia	Field Troops, 5th Military District ..	1,405	122	148
Western Australia	5th District Base ..	197	19	..
Tasmania ..	Field Troops, 6th Military District ..	1,132	144	..
Tasmania ..	6th District Base ..	106	13	..
<b>Total ..</b>	<b>..</b>	<b>28,006</b>	<b>3,046</b>	<b>2,835</b>

(e) *Numbers who served under Compulsory Provisions.* In earlier issues of the Year Book (see No. 22, pp. 411-413) 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 240 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. Twelve Staff Cadets were admitted to the College in 1934. In addition, 4 members of the New Zealand Permanent Forces commenced training at the College in February, 1934. Further particulars respecting the College are given on page 915 of Official Year Book No. 15. On the 31st March, 1934, the Australian cadets in training numbered 30. In addition, 4 cadets are being trained for the New Zealand Permanent Forces under an arrangement made in 1933 with the Government of that Dominion.

(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 transhipment 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, 1934. Further details will be found in Official Year Book No. 6, pp. 1070-1.

(viii) *Rifle Clubs.* On the 30th June, 1933, there were 1,134 rifle clubs with a membership of 43,252, and 90 miniature rifle clubs having a membership of 2,724. Members of rifle clubs must fire an annual course of musketry, but do not undergo any systematic drill.

For the purposes of administration the control of rifle club activities reverted from the Secretary for Defence to the Military Board with effect from 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 annually to each efficient member.

## § 2. Naval Defence.

1. *State Systems.*—Information regarding naval defence systems prior to 1901 will be found in Official Year Book No. 12, p. 1011, 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.

A contract has been let to the Cockatoo Dock and Engineering Co. of Sydney, for the construction of a modern sloop for the Royal Australian Navy. This vessel will take about two years to build.

To ensure closer co-operation with the Royal Navy, arrangements have been concluded 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, 1934, there were 36 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 169 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 new 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, 1934.

Vessel.	Description.	Displacement.	Power.
		Tons.	H.P.
<b>IN COMMISSION—</b>			
<i>Australia</i> ..	Cruiser .. ..	10,000	80,000
<i>Canberra</i> ..	" .. ..	10,000	80,000
<i>Stuart</i> .. ..	Flotilla Leader .. ..	1,530	40,000
<i>Voyager</i> ..	Destroyer .. ..	1,100	27,000
<i>Waterhen</i> ..	" .. ..	1,100	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>Anzac</i> .. ..	Flotilla Leader .. ..	1,310	36,000
<i>Brisbane</i> ..	Cruiser .. ..	5,120	25,000
<i>Vampire</i> ..	Destroyer .. ..	1,090	27,000
<i>Vendetta</i> ..	" .. ..	1,090	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>FLEET AUXILIARY—</b>			
<i>Kurumba</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, 1934.**

Description of Force.	Numbers Borne.		
	In Training.	Officers.	Men.
Royal Australian Navy (Sea-going) .. .. .	..	334	2,879
Royal Australian Naval Auxiliary Services .. .. .	..	29	146
Cadet Midshipmen undergoing training at R.A.N. College	36	..	..
Royal Australian Naval Reserve (Sea-going) .. .. .	..	43	..
Royal Australian Fleet Reserve .. .. .	..	..	225
Royal Australian Naval Reserve .. .. .	..	240	4,928
Royal Australian Naval Volunteer Reserve .. .. .	..	47	..

### § 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 102 officers and 788 airmen, and of the Citizen Air Force, 49 officers and 261 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, 1934, 214 Government aerodromes and emergency landing grounds had been prepared and 125 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 defence expenditure, exclusive of war services, in 1901–2 and for 1929–30 and subsequent years. Details of the expenditure of the Defence Department and the cost of the war, repatriation, and war services are given in Chapter XV.—Public Finance.

## DEFENCE EXPENDITURE (EXCLUDING WAR SERVICES).—AUSTRALIA.

Item.	1901-2.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34. (a)
	£	£	£	£	£	£
Central Administration ..	5,594	25,382	24,189	20,599	21,925	21,400
Naval .. .. .	178,819	2,167,324	1,747,835	1,444,002	1,493,948	1,905,238
Military .. .. .	732,626	1,239,395	1,194,989	994,685	978,144	1,353,840
Air Services—						
R. A. Air Force .. .. .	..	498,366	392,408	326,330	319,974	429,635
Civil Aviation .. .. .	..	102,809	149,812	131,726	137,271	152,340
Munitions Supply Branch .. .. .	..	358,159	248,708	234,070	180,341	351,803
Rifle Clubs and Associations .. .. .	41,653	39,922	33,257	27,897	20,515	31,760
Special Appropriations—						
Naval Construction .. .. .	..	307,845	30,193	2,701	2,865	37,000
Survey of Gt. Barrier Reef .. .. .	..	39,005	..	..	..	..
Reconditioning Equipment and Purchase of Aircraft Equipment .. .. .	..	3,322	16,663	1,747	Cr. 4,971	381,540
Development of Civil Aviation .. .. .	..	104,458	21,015	1,079	1,948	15,000
	958,692	4,885,987	3,859,069	3,184,836	3,159,960	4,679,556

(a) Estimated.

In addition to the above, expenditure on war services, naval and military only, directly under the control of the Defence Department amounted in 1932-33 to £9,997 from Revenue, while the estimated expenditure in 1933-34 was £8,773 from Revenue.

The total cost of war services including interest, sinking fund, war pensions, repatriation, etc., will be found in Chapter XV., Section 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, 1933, numbered 158.

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, 1933.

The Clothing Factory at Melbourne, Victoria, which had a staff of 240 employees on 30th June, 1933, commenced output in July, 1912, and since that date has been able to supply the whole of the uniform clothing 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, 1933, 271 employees. Rifles and machine guns 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, 1933, numbered 389.

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, 1933, was 327.

(ii) *Investment in Factories.* Up to 30th June, 1933, 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, £550,824; Explosives Factories, £555,494; Clothing Factory, £7,750; Acetate of Lime Factory, £92,204; Ammunition Factories, £502,835; and Ordnance Factories, £616,820.

### § 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, p. 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, 1933, was £27,501,780, and bonds amounting to £15,598 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 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 sustenance would be payable only where the necessities of medical treatment prevented the soldier from following his usual occupation. Since the passing of the Financial Emergency Act, sustenance is paid only where subsistence is actually needed, income from all sources being taken into account. 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, 1933, 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.

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.**—Pensions expenditure progressively increased from 1923-24, and the number of pensioners grew, year by year, from 1920-21. The effects of the Financial Emergency Act were, however, evidenced in 1932-33, by a decline in total expenditure and in the number of persons receiving benefit. At the close of that year the annual liability was £6,860,516, with 269,810 pensioners. The outstanding figures for the year ended 30th June, 1933, are as follow :—

New claims granted during year .. .. .	2,693
Claims rejected during year .. .. .	664
Pensions reviewed during year .. .. .	48,871
Pensions cancelled or discontinued during year .. .. .	6,005
Pensioners died during year .. .. .	2,179
Number of pensions in force at 30th June, 1933 .. .. .	269,810
Annual pension liability on the 30th June, 1933 .. .. .	£6,860,516

At the close of the year special rate pension of £8 per fortnight was being paid to—

Blinded soldiers .. .. .	134
Tubercular soldiers .. .. .	935
Totally and permanently incapacitated soldiers .. .. .	1,523

An analysis of the total number of new grants (2,693) during the year reveals the following :—

Members (i.e., ex-soldier pensioners) .. .. .	399
Wives of members .. .. .	552
Children .. .. .	1,517
Other dependants .. .. .	225
	<hr/>
	2,693
	<hr/>

3. **Pensions in Force.**—The following table shows for each class of pensioner the number receiving pensions at the 30th June, 1933 :—

PENSIONS IN FORCE, AUSTRALIA, AT 30th JUNE, 1933.

Class.	Number of Pensioners.
Orphan children .. .. .	4,891
War widows .. .. .	7,919
Soldiers .. .. .	75,244
Children .. .. .	103,803
Wives .. .. .	57,629
Parents .. .. .	19,979
Brothers and sisters .. .. .	207
Others .. .. .	138
	<hr/>
Total .. .. .	269,810

4. Number of Pensioners and Expenditure—The following table shows the number of pensioners at 30th June, 1933, and the places where payments were made during 1932-33:—

WAR PENSIONS.—NUMBER OF PENSIONERS, 1933.

Where Paid.	Incapacitated Members of the Forces.	Dependants of—		Total.	Expenditure.
		Deceased Members.	Incapacitated Members.		
					£
New South Wales ..	25,140	9,319	52,435	86,894	2,382,007
Victoria ..	25,573	9,011	56,782	91,366	2,086,389
Queensland ..	8,214	2,779	17,583	28,576	755,447
South Australia ..	4,086	2,417	9,014	15,517	421,491
Western Australia ..	7,180	2,334	15,961	25,475	629,357
Tasmania ..	3,085	1,256	8,185	12,526	320,586
<b>Total, Australia ..</b>	<b>73,278</b>	<b>27,116</b>	<b>159,960</b>	<b>260,354</b>	<b>6,595,277</b>
London ..	1,676	2,989	3,878	8,543	} 330,553
South Africa ..	47	27	76	150	
New Zealand ..	224	161	325	710	
Other Overseas ..	19	5	29	53	
<b>Total ..</b>	<b>75,244</b>	<b>30,298</b>	<b>164,268</b>	<b>269,810</b>	<b>6,925,830</b>
Payments made in Australia in respect of other countries less amounts received from other countries	..	..	..	..	28,198
<b>Total, War Pensions Trust Fund Account</b>	..	..	..	..	<b>6,954,028</b>

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, 1933:—

PENSIONS.—SUMMARY, AUSTRALIA.

Year ended 30th June—	Pensions Granted.	Claims Rejected.	Pensions in Force.				Amount paid in Pensions.
			Incapacitated Members of the Forces.	Dependants of Incapacitated Members.	Dependants of Deceased Members.	Total.	
1921 ..	25,983	3,388	79,491	93,995	49,051	222,537	7,386,842(a)
1929 ..	12,857	1,044	73,436	163,013	36,182	272,631	7,734,921
1930 ..	13,650	1,257	74,578	170,437	34,270	279,285	7,919,476
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

(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 1932-33, after allowing for the amount recoverable from the Government of the United Kingdom on account of administrative cost of British pensions was £142,667, or 2.05 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, 1933 :—

(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, 1933, 15,983 applications for assistance had been received. Of these 14,680 had been approved, of which 8,461 recipients of the benefits had completed their training, 3,969 were undergoing training, 22 applications were pending, and the remainder had been refused or withdrawn.

Up to 30th June, 1933, the expenditure was £1,429,352.

(iv) *Assistance Granted.* The total expenditure incurred during the period from 8th April, 1918, to 30th June, 1933, was £19,222,833, of which £1,675,995 represented loan and £17,546,838 general expenditure. Of the total the largest amounts were absorbed by medical treatment, with £6 millions, vocational training, with £5 millions, and expenses of providing employment, £2½ millions.

(v) *Medical Treatment.* At 30th June, 1933, there were 1,386 in-patients and 15,049 out-patients receiving medical treatment. The expenditure to this date was £6,299,507.

2. **Expenditure of Department of Repatriation.**—The expenditure of the Department during the twelve months ended 30th June, 1933, was £7,832,042, and was applied as follows :—

Repatriation benefits—	£
Loans to soldiers .. .. .	8
Grants to soldiers and general expenditure (including maintenance of training schools, medical institutions, etc.) ..	495,380
Assistance to soldiers in necessitous circumstances ..	69
Allowances to dependants of soldiers not provided for under the Act .. .. .	909
Medical treatment to Home Service personnel .. ..	166
Losses .. .. .	13
	496,545
Capital expenditure—	
Office premises and furniture .. .. .	112
Hostels and other Medical Institutions .. .. .	485
Bundoora Mental Hospital, Victoria .. .. .	1,046
Minor Capital works .. .. .	227
Maintenance of Buildings, etc. .. .. .	935
	2,805
Soldiers' Children Education Scheme .. .. .	84,488
	6,954,028
War Pensions .. .. .	6,954,028
Administrative costs—	
Salaries .. .. .	146,822
Contingencies .. .. .	68,731
	215,553
Exchange on Remittances to London and New York ..	78,623
	7,832,042

The total expenditure for the previous year was £8,339,335.

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.

## 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 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 total 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, is 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 number 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 for the last five years is given in the following table:—

## NORTHERN TERRITORY.—POPULATION (EXCLUSIVE OF ABORIGINALS).

Year.	Males.	Females.	Total.
1929 .. ..	3,495	1,295	4,790
1930 .. ..	3,598	1,376	4,974
1931 .. ..	3,461	1,396	4,857
1932 .. ..	3,351	1,445	4,796
1933 .. ..	3,368	1,460	4,828

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 1933 (excluding overland migration):—

NORTHERN TERRITORY.—MOVEMENT OF POPULATION, 1933.

Immigration ..	515	Emigration ..	496	Excess of immigration over emigration ..	19
Births .. ..	74	Deaths .. ..	61		
Increase ..	589	Decrease ..	557	Net Increase ..	32

The immigration and emigration figures for the Territory during the five years ending 1933 are shown in the following table:—

NORTHERN TERRITORY.—IMMIGRATION AND EMIGRATION.

Year.				Immigration.	Emigration.
1929 .. ..	..	..	..	1,079	540
1930 .. ..	..	..	..	807	617
1931 .. ..	..	..	..	573	692
1932 .. ..	..	..	..	479	546
1933 .. ..	..	..	..	515	496

(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, 1933, was estimated at 19,424, of whom 2,805 were in regular employment. There are fifteen aboriginal reserves, comprising an area of 67,124 square miles. (See also Chapter on Population, hereinafter.)

## § 2. Legislation and Administration.

On 1st January, 1911, the Territory was transferred by South Australia to the Commonwealth. The terms were outlined in Year Book No. 15, p. 940. By the *Northern Australia Act* 1926, the Territory was divided into two parts, Central Australia and North Australia, separated by the 20th parallel of south latitude, each administered by a Government Resident. In addition, Advisory Councils and a Development Commission were provided for. The Act of 1926 was superseded by the *Northern Territory (Administration) Act* 1910–1933. By this Act the provision made for Advisory Councils was cancelled, and the Development Commission abolished. The administration of the Territory was placed in the hands of an Administrator, residing 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.

I. *Tropical Nature of the Country.*—The Territory is within the torrid zone, with the exception of a strip  $2\frac{1}{2}$  degrees wide, which lies south of the Tropic of Capricorn.

2. **Contour and Physical Characteristics.**—The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl, and ironstone form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries.

The principal features of the coast line are enumerated in Year Book No. 1, p. 66; the rivers in Year Book No. 2, p. 76; the mountains in Year Book No. 3, p. 67; the lakes in Year Book No. 4, p. 77; 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*, *Convolvulaceæ*, *Rubiaceæ*, *Goodeniaceæ*, *Leguminosæ*, *Urticææ*.

Fuller particulars regarding fauna and flora are given in Year Book No. 6, pp. 1116-7.

#### § 5. Production.

1. **Holdings.**—There were in 1933, 854 holdings in the Northern Territory, covering an area of 223,143 square miles. Of these, 448 were held on pastoral lease, 113 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. Peanuts have become the principal crop, and the harvest in 1930-31 amounted to 410 tons, from about 1,400 acres. A Primary Producers' Board was instituted in 1931 to give advice and help in primary production. In 1931-32 owing to insufficient rainfall and the land selected being unsuitable the peanut crop amounted to 175 tons only, valued at £4,600, but for the year 1932-33 it was 200 tons, valued at approximately £10,000.

3. **Pastoral Industry.**—The pastoral possibilities of certain parts of the Northern Territory were recognized at an early date, and in 1866 stock was brought into the Macdonnell Range country from South Australia. Six years later cattle were moved from Queensland to the northern parts of the Territory, and in 1879 Mr. Giles reached the Katherine River with 2,000 head of cattle and 12,000 sheep from South Australia. For various reasons sheep-raising did not succeed. The cattle industry progressed and became the mainstay of the Territory, a great impetus being given to it in 1917 by the opening of extensive meat works at Darwin. Unfortunately the works closed down in 1920, and are still idle. The number of cattle exported by land from the Northern Territory during the year 1932-33 was about 55,275, and the number imported about 5,295. 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.
1928 ..	37,452	768,751	7,635	407	16,499	603	1,112	496
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

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 high cost of transport and of white labour.

(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
	£	£	£	£	£	£	£	£
1928-29 ..	553	6,958	79	..	10,548	..	207	18,345
1929-30 ..	57	3,345	1,684	589	6,099	3,867	1,013	16,654
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 ..	4,488	2,519	411	1	10,771	..	..	18,190



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. The production of shell for the year 1932-33 was 270 tons valued at approximately £48,000 as compared with 225 tons valued at £45,000 in the preceding year. 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, six boats were engaged.

### § 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 1928-29 to 1932-33 is given hereunder:—

#### NORTHERN TERRITORY.—VALUE OF DIRECT OVERSEA TRADE.

Items.	1901.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£	£
Imports .. ..	37,539	32,069	37,902	19,251	9,884	4,225
Exports .. ..	29,191	53,720	58,471	14,956	20,624	10,427
Total .. ..	66,730	85,789	96,373	34,207	30,508	14,652

The sharp decline in the export figures for 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.

2. **Shipping.**—The Territory is dependent for its shipping facilities chiefly on the services of vessels trading between Sydney 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.
1928-29 .. ..	61	129,997	48	129,218
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

The foregoing figures are exclusive of particulars of coastwise shipping. During 1932-33 eleven vessels of 231 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.

### § 8. Internal Communication.

1. **Railways.**—Under the agreement ratified by the Act, 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. 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, 1932-33.**—In the Commonwealth finance statements separate accounts are given for Northern Territory administration. Revenue and expenditure for 1932-33 are given below:—

#### REVENUE AND EXPENDITURE.—NORTHERN TERRITORY, 1932-33.

REVENUE.	£	EXPENDITURE.	£
Customs and Excise .. .. .	3,869	Northern Territory Adminis- tration .. .. .	103,660
Postal, Telegraph, and Tele- phone .. .. .	9,770	Other Departments .. .. .	4,577
Railways—		New Works .. .. .	6,660
North Australia .. .. .	22,149	Repairs, Maintenance, &c. ..	12,467
Central Australia .. .. .	86,937	Unemployment Relief .. .. .	1,263
Territorial .. .. .	26,460	Railways—	
Land and Income Tax .. .. .	5,652	Working Expenses .. .. .	147,555
Lighthouses and Light Dues ..	602	New Works .. .. .	5,738
Sales Tax .. .. .	1,013	Interest .. .. .	345,048
Miscellaneous .. .. .	13,297	Sinking Fund .. .. .	45,608
Deficiency on year's trans- actions .. .. .	549,066	Post, Telegraph and Telephone	16,954
		Interest .. .. .	25,933
		Sinking Fund .. .. .	3,352
<b>Total .. .. .</b>	<b>718,815</b>	<b>Total .. .. .</b>	<b>718,815</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, 1933.

## NORTHERN TERRITORY DEBT.

Location.	1st January, 1911.		30th June, 1933.	
	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
Total .. .. .	3,931,086	151,420	362,024	13,400
PORT AUGUSTA—OODNADATTA RAILWAY DEBT.				
	£	£	£	£
London .. .. .	2,227,101	84,933	859,034	32,450
Australia .. .. .	(a) 57,385	419	62,012	1,859
Total .. .. .	2,284,486	85,352	921,046	34,309

(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; a public swimming pool equipped with a modern filtration chlorination plant.

The following engineering works have been completed or are well advanced:—Automatic indicator, Cotter pumping station; improvements to valve tower, Cotter; 12 inch reticulation main and 18 inch supply main, Black Mountain reservoir; installation of concrete street name posts.

Commencement has been made with the first section of the Australian War Memorial, and with the first section of the National Library. The planting of avenues, parks and gardens and shelter belts has been continued, and numerous other engineering works extensions and residential buildings have been or are in course of construction.

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, 1933, was 6,778 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. The area of all varieties of pines planted from 1925-1926 to 1932-1933 was 6,078 acres.

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 noxious animals. The lands are classified into three grades of agriculture and three grades of grazing land. About 292,480 acres, comprising 435 leases are at present held under lease for periods varying from quarterly tenure to 25 years.

Regarding auction sales of city leaseholds see Year Book No. 22, p. 599.

Eight leases for church purposes have been granted under the *Church Lands Leases Ordinance 1924-1932*, which require the lessees to submit a definite building programme within a specified period, and a further eight 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 1933-34, was 300, representing a capital value of £162,130. During the year twenty 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 226.

Under the terms of the *City Area Leases Ordinance 1924-1934*, 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 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, and is operated by the New South Wales Railways Commissioners for, and on behalf of, the Commonwealth.

The railway terminus is situated in the area known as Kingston.

A direct and convenient 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 completed, 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, 1933 was 9,253.

9. **Live Stock.**—The live stock, according to the latest return, comprised :—Horses, 898, Cattle, 5,957, and Sheep, 209,734.

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, to accommodate 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 1933-34.* Receipts and Expenditure for the financial year 1933-34 are given in the table hereunder.

FEDERAL CAPITAL TERRITORY.—RECEIPTS AND EXPENDITURE, 1933-34.

Receipts.		Expenditure.				
Items.	Amount.	Items.	Capital.	Maintenance.	Other.	Total.
	£		£	£	£	£
Rent and Rates ..	112,868	Architectural Services ..	49,170	24,349	..	73,519
Electricity ..	30,190	Engineering Services ..	86,838	60,095	..	146,933
Motor Registration and Fees ..	7,922	Forestry ..	16,260	..	..	16,260
Hospital Tax ..	3,912	Loans for Housing ..	13,395	..	..	13,395
Hotels ..	91,419	Sundry Works and Services ..	15,358	30,403	..	45,761
Transport and City Bus Service ..	41,815	Buildings and Engineering Services for Health Department ..	3,878	..	..	3,878
Sales of Goods, Manufactured Products, etc. ..	94,374	Unemployment Relief Works ..	1,473	..	..	1,473
Miscellaneous ..	30,195	Education ..	..	..	17,470	17,470
		Hospital—Working Expenses ..	..	..	8,429	8,429
		Interest and Sinking Fund ..	..	..	297,520	297,520
		Administrative ..	..	..	45,900	45,900
		Hotels—Working Expenses ..	..	..	87,226	87,226
		Transport and City Bus Service—Expenses ..	..	..	47,391	47,391
		Factory Stores, etc.—Working Expenses ..	..	..	100,428	100,428
		Miscellaneous—Police, Fire Brigade, etc. ..	..	..	49,851	49,851
<b>Total Receipts ..</b>	<b>412,695</b>	<b>Total Expenditure ..</b>	<b>186,372</b>	<b>114,847</b>	<b>654,215</b>	<b>955,434</b>

(ii) *From Date of Selection of Site to 30th June, 1934.*—The total receipts and expenditure from the date of selection of site to the 30th June, 1934, were as follow :—

**FEDERAL CAPITAL TERRITORY.—RECEIPTS AND EXPENDITURE TO 30th JUNE, 1934.**

Receipts.		Expenditure.	
Items.	Amount.	Items.	Amount.
	£		£
Commonwealth Treasury—		Lands .. .. .	901,133
Initial Liability at 31st		Engineering Works .. .. .	3,837,854
December, 1924 .. .. .	2,966,600	Architectural Works .. .. .	3,695,175
		Other Capital Expenditure .. .. .	301,608
			£
Loans and Advances, Federal Capital Commission,		Maintenance and Administration	5,270,493
1st January, 1925 to		<i>Less—</i>	
30th April, 1930 .. .. .	6,220,299	Rents .. .. .	1,339,311
Net Expenditure, 1st May,		Hotel and Liquor Receipts .. .. .	868,009
1930 to 30th June, 1934	672,627	Revenue from Local Government Services, Electricity, Motor Registration, etc.	720,186
		Sale of Goods, Transport and Sundry Services .. .. .	1,231,819
			4,159,325
		Other .. .. .	1,111,168*
			12,583
Total Receipts .. .. .	9,859,526	Net Expenditure .. .. .	9,859,526

\* 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 3,528 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 fair 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. Four of these were still alive at the 77th anniversary of the transfer celebrated in June, 1933.

3. **Administration.**—In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896 it was made a dependency under the Governor of that Colony. In 1913, however, the Federal Parliament provided for the taking over of the island 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. (See also Official Year Book No. 22, p. 604.)

4. **Population.**—The population at the census of the 30th June, 1933, was 1,231, consisting of 662 males and 569 females. In the year 1932-33, 23 births, 15 deaths, and 11 marriages were recorded.

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. Twenty-two thousand eight hundred and thirty-six cases of bananas were shipped in 1932-33. Various other sub-tropical fruits thrive well. During 1932-33, the export of oranges was 51 cases; passion fruit and pulp, 204 cases; mixed fruit, 419 cases; potatoes, 2,493 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.	1928-29.	1929-30.	1930-31.	1931-32.	1923-33.
	£	£	£	£	£
Imports .. ..	55,894	46,776	43,370	40,278	30,921
Exports .. ..	33,027	32,255	21,908	20,555	21,792
Total .. ..	88,921	79,031	65,278	60,833	52,713

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 according to the requirements of a High School of the Rural Science type. 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 1933 was 155.

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 1932-33 were as follow :—

**NORFOLK ISLAND.—RECEIPTS AND EXPENDITURE, 1932-33.**

Items.	Receipts.	Items.	Expenditure.
	£		£
Brought forward .. ..	10,341	Salaries .. ..	4,958
Commonwealth Subsidy .. ..	3,500	Miscellaneous .. ..	3,807
Customs Duties .. ..	2,915	Purchase of Liquor .. ..	2,069
Sale of Liquor .. ..	2,888	Balance carried forward .. ..	10,614
Miscellaneous .. ..	1,804		
<b>Total .. ..</b>	<b>21,448</b>	<b>Total .. ..</b>	<b>21,448</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, 1933, was 1,148, made up of 677 males and 471 females. The following table gives the white population in each of the last five years :—

### WHITE POPULATION OF PAPUA.

YEAR ENDED 30TH JUNE.

1929.	1930.	1931.	1932.	1933.
1,523	1,525	1,128	1,152	1,148

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, was 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 present economic depression, the number of indentured native labourers has considerably declined and only 5,059 natives were employed under contract in 1933 compared with 5,244 in 1932. The number of unindentured labourers increased from 1927 in 1932 to 2,242 in 1933.

2. **Native Taxes.**—Under the Native Taxes Ordinance, 1917–1932, a tax not exceeding £1 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 1932–33 amounted to £14,040, of which £2,411 was transferred to the Native Education Fund, and £9,281 to the Native Benefit Fund. The Native Education Fund during the year 1932–33 disbursed to primary and technical education £4,036, and to agricultural education £1,123, leaving a credit balance of £20,499. From the Benefit Fund the expenditure included :—Anthropology, £1,050; health, £6,068; village improvements, £249; family bonus, £1,386; and planting useful trees, £492.

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. Natives are also being trained as medical assistants.

The chief complaints treated are yaws, ulcers, lung affections, hookworm, venereal and skin diseases. In 1932-33 an epidemic of influenza appeared in the Gulf, Central, Eastern and South-Eastern Divisions, only slightly in the former two Divisions but severely in the latter two. Dysentery was also epidemic in some parts of the Territory. The death rate amongst native labourers was 2.2 per cent..

#### § 4. Land Tenure.

1. **Method of Obtaining Land.**—Information under this heading is given in Official Year Book No. 22, p. 608.

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 1931-32 was 19,287 acres.

The total area surveyed in the Territory is 21,695 acres of freehold, and 302,899 acres of leasehold.

#### § 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.* On 31st December, 1930, there were 338 plantations. Agricultural settlement has been mostly in the Central and Eastern Divisions, and the acreage under cultivation in 1932 was 59,753, as against 61,209 in 1931. The principal plantation crops are coconuts, rubber, and sisal hemp. There is also some cultivation of bowstring hemp, kapok, coffee, tobacco, cotton, vanilla, cocoa, tapioca, cinnamon, tea, 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, 1932 :—

PAPUA.—AREA OF PLANTATIONS, 1932.

Description.						Area.
						Acres.
Coconuts	..	..	..	..	..	49,305
Rubber	..	..	..	..	..	8,796
Hemp	..	..	..	..	..	150
Kapok	..	..	..	..	..	121
Coffee	..	..	..	..	..	375
Quinine	..	..	..	..	..	1
Rice	..	..	..	..	..	17
Sugar	..	..	..	..	..	46
Mauritius Beans	..	..	..	..	..	100
Other crops (including fruit trees)	..	..	..	..	..	842
Total						59,753

The quantities of copra and rubber exported during the year ended 30th June, 1933, were :—Copra, 9,687 tons ; rubber, 953 tons. Compared with the year 1932 there was an increase in the acreage under coffee, rice, sugar, and Mauritius beans, and a decrease in the acreage under coconuts, rubber, and kapok.

(iii) *Government Plantations.* There are two Government plantations, the Orangerie Bay coconut plantation and the Kemp Welch rubber plantation. The profits from these and from various minor plantations in 1932-33 were £6,523, as against £5,035 in 1931-32.

3. *Forestry.*—According to the Commonwealth Forestry Adviser 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, 1931 (the latest date for which particulars are available), the live stock in the Territory consisted of 404 horses, 5,432 head of cattle, 123 mules, 15 donkeys, 2,458 goats, and 592 pigs. The introduction of rabbits, foxes, hares, and monkeys is prohibited.

5. *Fisheries.*—Pearl-shell fishing occupies an important place in the industries of Papua. A considerable number of luggers is 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.

1928-29.		1929-30.		1930-31.		1931-32.		1932-33.	
Quantity. (a)	Value.	Quantity. (a)	Value.	Quantity. (a)	Value.	Quantity. (a)	Value.	Quantity. (a)	Value.
fine ozs. 1,625	£ 6,901	fine ozs. 2,368	£ 10,059	fine ozs. 5,283	£A. 26,097	fine ozs. 8,014	£A. 54,241	fine ozs. 9,387	£A. 70,337

(a) Estimated.

NOTE.—The value allotted for 1928-29 and 1929-30 is the conventional value of £4 4s. 11<sup>1</sup>/<sub>2</sub>d. per fine ounce. The values for the later years 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, 1933, was £1,824,125.

(iii) *Copper.* Owing to the very low prices ruling for copper in the world's market, the copper mines in Papua have practically suspended operations. The production of copper ore in 1931-32 was only 1½ tons, valued at £60. No copper was exported during the year 1932-33. The total value of the copper exported to the 30th June, 1933, was £366,743.

(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. The production in 1931-32 had dwindled to ¾ oz., valued at £12. There was no export in 1932-33.

(v) *Other Minerals.* Some good samples of galena (sulphide of lead) have been obtained, while cinnabar (sulphide of mercury), graphite (or plumbago), zinc-blende, native sulphur, and other minerals are known to exist. In 1924 a deposit of lignite was discovered on Smoky Creek, a tributary of the Era River.

A mineral laboratory and museum have been fitted up, and are available to prospectors and others interested.

7. *Water Power.*—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there 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 1933-34 were as follow :— Commonwealth Grant, £40,000; Customs and Excise, £35,551; Government Plantations, £3,574; Fees of Office, £4,874; Land Revenue, £5,376; Post Office, £4,423; Port and Wharfage Dues, £2,636; and Miscellaneous, £24,714.

Returns of revenue and expenditure for the last five years, exclusive of Commonwealth grants, are given hereunder :—

## PAPUA.—LOCAL REVENUE AND EXPENDITURE.

Item.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£	£	£	£	£
Revenue .. ..	107,265	89,918	90,116	93,043	81,148
Expenditure .. ..	151,874	135,325	128,682	128,421	121,199

2. Trade.—The value of imports and exports for the last five years is shown in the table below :—

## PAPUA.—IMPORTS AND EXPORTS.

Particulars.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Imports .. ..	361,271	373,918	240,074	221,843	218,016
Exports .. ..	337,365	324,775	274,354	269,254	275,866
Total Trade ..	698,636	698,693	514,428	491,097	493,882

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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Bêche-de-Mer .. ..	11,833	6,381	5,549	..	41
Copra .. ..	214,051	176,485	93,710	100,454	89,512
Desiccated Coconut .. ..	16,033	39,923	79,264	59,826	49,514
Gold .. ..	6,767	10,632	22,440	34,338	45,383
Pearls .. ..	1,861	11,422	123	..	1,480
Rubber .. ..	46,816	50,640	47,036	49,262	56,929
Trochus Shell .. ..	9,044	10,975	7,606	8,510	9,619
Bark .. ..	1	..	..	4,380	6,482

Though the rubber trade still suffers from low prices, last year showed a slight improvement both in quantity and value. 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 1928-29 to 1932-33. All the vessels recorded in 1932-33 except 25 were of British nationality.

## PAPUA.—OVERSEA SHIPPING.

Year.	Vessels.	Tonnage.
1928-29 .. ..	171	184,946
1929-30 .. ..	180	228,391
1930-31 .. ..	171	220,399
1931-32 .. ..	185	333,304
1932-33 .. ..	170	398,451

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.	1933.
White population .. .. .	690	1,148
Native labourers employed .. .. .	2,000	7,301
Territorial revenue .. .. .	£21,813	£93,043
„ expenditure .. .. .	£45,335	£128,421
Value of imports .. .. .	£87,776	£218,016
„ exports .. .. .	£63,756	£275,866
Area of plantations .. .. . acres	1,467	59,753
Meteorological stations established .. .. .	3	20
Gold yield .. .. . fine ounces	12,439	9,387

### THE 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.
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
<b>Total .. .. .</b>	<b>93,000</b>

Information regarding physiography and climate will be found in Official Year Book, No. 22, p. 613.

## § 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.**—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*.

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. (See Official Year Book No. 17, p. 631.) 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 seven Districts, as follow:—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. **Statute Law.**—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. (See Official Book No. 17, p. 631.)

8. **Reports to the League of Nations.**—Thirteen 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, 1933.



### § 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 present number 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, 1933 :—

#### TERRITORY OF NEW GUINEA.—NATIVE POPULATION, ENUMERATED 30th JUNE, 1933 (INCLUSIVE OF INDENTURED LABOURERS).

District.	Children.			Adults.			Totals.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Kieta ..	8,110	6,789	14,899	13,683	12,615	26,298	21,793	19,404	41,197
Madang ..	9,101	7,477	16,578	16,949	13,007	29,956	26,050	20,484	46,534
Manus ..	3,200	2,742	5,942	5,266	4,370	9,636	8,466	7,112	15,578
Morobe ..	14,581	12,962	27,543	22,624	18,747	41,371	37,205	31,709	68,914
New Britain ..	18,897	16,323	35,220	32,302	24,603	56,905	51,199	40,926	92,125
New Ireland ..	6,851	5,802	12,653	16,993	12,626	29,619	23,844	18,328	42,272
Sepik ..	21,288	17,331	38,619	28,373	27,517	55,890	49,661	44,848	94,509
Total ..	82,028	69,426	151,454	136,190	113,485	249,675	218,218	182,911	401,129

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, 1933, was 28,242, compared with 26,606 in the previous year.

### § 4. The Natives.

1. **General.**—A brief description of the native inhabitants of the Territory was included in Year Book No. 16, p. 670. It may be noted here that the natives are divided into two main groups—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago, the Solomon Islands, and the coastal districts of the New Guinea mainland, while the latter inhabit the interior of

the mainland. Odd tribes of Negritos are known to exist in the mountains of New Guinea. In the Admiralty Islanders there is a strain of Papuan, and, possibly, of Polynesian blood, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians.

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.)

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 to extend 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 1932-33 was £6,261. Though the natives are liable to pay education tax, none has been collected since 1922-23, but a considerable sum annually is obtained from a tax levied on employers of native labour.

In 1929 the Under-Secretary for Education in Queensland visited the Territory to advise regarding educational matters. The European teachers have been seconded from the Education Department of Queensland. During the year ended 30th June, 1933, the following schools were maintained by the Administration :—Native elementary boarding schools and native day schools, Rabaul and Kavieng; native technical school, Rabaul; native agricultural school, Keravat. In addition there are schools for Europeans at Rabaul, Kavieng and Wau. (See Official Year Book No. 17, p. 635.)

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, 1933, the various missions maintained 40 training centres, 52 high and technical schools, 159 elementary schools, and 1,656 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, frambœsia, yaws, tropical ulcer, hookworm, filariasis, and beriberi. Further reference to this subject will be found in Official Year Book No. 18, p. 647.

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 necessaries; (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 work 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 1922-1933* 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. Reference to the leasehold system in force will be found in Official Year Book No. 18, page 648.

A total area of 277,135 hectares (about 692,837 acres) had been alienated up to the 30th June, 1933. The area alienated in 1932-33 was 2,902 hectares (about 7,255 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 analyses have 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 1932-33 amounted to 65 tons.

(f) *Desiccated Coconut*. Three desiccated coconut factories are established in the Territory. The quantity exported during 1933 was 1,335 tons, being 53 tons in excess of the previous year.

(g) *Coffee*. The cultivation of coffee for export has increased and about 770 acres were planted in 1932-33.

(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, 1933. The figures are exclusive of native plantations. (One hectare equals 2.4711 acres.)

TERRITORY OF NEW GUINEA.—PLANTATIONS, 30th JUNE, 1933.

Areas.	Government Plantations.	Privately owned Plantations.	Total.
Area of Holdings .. .. . hectares	482	205,218	205,700
Area Cleared .. .. . "	340	91,247	91,587
Area Cleared and Planted .. .. . "	284	88,539	88,823
Coconuts—			
Area Planted .. .. . hectares	202	85,514	85,716
Area Bearing .. .. . "	168	66,832	67,000
Cocoa—			
Area Planted .. .. . hectares	3	826	829
Area Bearing .. .. . "	..	399	399
Coffee—			
Area Planted .. .. . hectares	14	294	308
Area Bearing .. .. . "	6	8	14
Kapok—			
Area Planted .. .. . hectares	2	139	141
Area Bearing .. .. . "	..	..	..
Native Food (a) .. .. . hectares	13	1,310	1,323
Other Crops .. .. . "	51	1,259	1,310

(a) Native food of all kinds is mostly grown between young coconut palms not yet in bearing.

Several Government plantations were leased during the year.

The area of plantations at various periods from 1885 to 1933 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 .. .. .	84,941	76,845
1924 .. .. .	179,163	172,373
1931 .. .. .	212,495	204,083
1932 .. .. .	216,634	209,340
1933 .. .. .	266,469	214,290

(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 1933 there were 971 horses, 16,438 cattle, 1,300 sheep, 7,862 goats, and 6,901 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 Forestry Adviser, 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 by three privately owned mills in New Britain. Approximately 1,100,000 super. feet of timber were sawn in 1932-33. 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. Fifteen timber permits were issued during the year 1932-33.

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 1932-33 was £21,533, compared with £20,219 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 Salamua, 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* 1928–1933. 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 quantity of gold exported and its value during the last four financial years, and the nine months of 1933–34 :—

## TERRITORY OF NEW GUINEA.—EXPORTS OF GOLD.

Year.				Quantity.	Value.
				(Crude) Oz.	£
1929–30	..	..	..	42,819	96,338
1930–31	..	..	..	55,201	154,046
1931–32	..	..	..	108,647	398,939
1932–33	..	..	..	196,823	933,940
1933–34 (9 months)	..	..	..	186,516	965,142

The increased production in 1932–33 and 1933–34 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, 1933, 2 licences to search for mineral oil were in force.

## § 7. Trade.

1. 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
1928–29	..	..	..	869,514	1,146,112	2,015,626
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

The import values are exclusive of money and Government stores. In 1932-33 the imports were distributed as follow :—From Australia, £388,760; United Kingdom, £125,656; America, £168,319; China, £41,519; Germany, £36,824; Japan, £22,046; India, £33,465; Burma, £31,310; Dutch East Indies, £9,823; other countries, £54,643.

2. **Principal Items of Imports.**—From Australia the principal items of imports are foodstuffs and beverages, tobacco, apparel, foot-wear, textiles, machinery, hardware, building material, coal, etc.; from the United Kingdom, textiles, apparel, 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.

3. **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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Copra .. .. .	933,769	864,358	716,543	618,298	543,906
Cocoa .. .. .	3,816	3,074	3,200	3,060	2,292
Stone and Ivory Nuts .. .. .	153	77	75	280	131
Bêche-de-Mer.. .. .	4,440	6,360	7,530	4,960	3,900
Pearl Shell .. .. .	22,695	18,410	22,075	15,170	17,585
Tortoise Shell.. .. .	350	78	114	89	48
Gold .. .. .	179,433	96,338	154,046	398,939	933,940
Desiccated Coconut .. .. .	1,456	8,640	37,640	64,100	73,452
Miscellaneous .. .. .	..	..	15	3,723	6,018
<b>Total .. .. .</b>	<b>1,146,112</b>	<b>997,335</b>	<b>941,238</b>	<b>1,108,619</b>	<b>1,581,272</b>

4. **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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	Tons.	Tons.	Tons.	Tons.	Tons.
Copra .. .. .	60,435	63,832	62,303	59,452	59,040
Cocoa .. .. .	72	58	64	102	65

Most of the copra is shipped direct to European and American ports.

5. **Banks.**—There are two banks operating in the Territory, the Commonwealth Bank of Australia, and the Bank of New South Wales.

### § 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. A Norwegian shipping line trading with Australia visits Rabaul twice a month. 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 *Coastal Shipping, Ports, and Harbours Regulations*.

2. **Oversea Tonnage in 1932-33.**—The number and net tonnage of oversea vessels which entered and cleared the Territory during the year 1932-33 are shown hereunder :—

#### TERRITORY OF NEW GUINEA.—SHIPPING 1932-33.

Country from which Entered or for which Cleared.	Vessels Entered.		Vessels Cleared.		Total.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Australia .. .. .	47	141,541	41	116,393	88	257,934
British Solomon Islands .. .. .	10	4,810	10	5,258	20	10,068
China .. .. .	10	13,396	10	12,178	20	25,574
Europe .. .. .	6	23,508	19	63,943	25	87,451
French Indo-China .. .. .	5	9,230	..	..	5	9,230
Japan .. .. .	12	51,356	12	51,246	24	102,602
Other Countries .. .. .	11	16,569	6	5,427	17	21,996
Total .. .. .	101	260,410	98	254,445	199	514,855

Among the 101 vessels which entered from external ports during 1932-33 there were 71 vessels representing 199,926 tons, British nationality; 11 vessels of 12,376 tons were German; 6 vessels of 23,508 tons were Norwegian; 5 vessels of 9,230 tons were Dutch; the remainder were of Swedish, American, Danish and Japanese 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.	1931-32.	1932-33.
	£	£
Revenue from Taxation (direct and indirect) ..	212,489	230,082
Revenue from Public Services and undertakings ..	43,499	29,988
Other receipts .. .. .	50,084	61,847
	306,072	321,917

2. Expenditure.—The expenditure for the financial year 1932-33 was distributed as follows :—

#### TERRITORY OF NEW GUINEA.—EXPENDITURE, 1932-33.

£	£
Secretary and Central Administration .. .. .	39,059
Justice .. .. .	8,385
Treasury .. .. .	11,590
Audit .. .. .	60,235
Lands and Survey .. .. .	94,929
Native Affairs, Police, and Prisons .. .. .	5,452
	Total .. 321,567
Public Works .. .. .	
Trade and Customs .. .. .	
Agriculture .. .. .	
Public Health .. .. .	
District Services .. .. .	
Miscellaneous .. .. .	

#### 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 1933 the rainfall amounted only to 55.15 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 1929 to 1932, and at the census of the 30th June, 1933, are given hereunder :—

## NAURU.—POPULATION.

Population.	1929.	1930.	1931.	1932.	Census 30.6.1933.
Europeans .. ..	134	147	147	141	165
Chinese .. ..	1,099	1,110	1,105	696	936
Nauruans (a) .. ..	1,365	1,411	1,426	1,475	1,527
Other Pacific Islanders .. ..	16	16	14	4	13

(a) The natives of Nauru are Micronesians.

Births in 1933 numbered 81 (all Nauruans). There were 10 marriages (9 Nauruan), and 29 deaths (24 Nauruans, 4 Chinese, 1 European).

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 1933, there were 66 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 1933 numbered 22 Europeans and 368 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 phosphate, as shipped, averages 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) *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.
1928-29	.. ..	575,390	75.38	24.62
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

From Nauru alone, during the calendar year 1933, the export was 363,680 tons, of which 227,150 tons went to Australia, and 100,730 tons to New Zealand.

(iii) *Accounts of Commission.* A statement for the five years ended June, 1933, is given hereunder.

**NAURU AND OCEAN ISLAND.—SALES OF PHOSPHATE.**

Receipts from Sales of Phosphate, etc.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Receipts from Sales, etc. ..	736,420	648,165	584,738	599,727	882,277
F.o.b. cost, including interest on capital, sinking fund, etc.	698,056	645,987	584,244	599,209	876,898

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, 1933, this had been reduced to £3,301,827. 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.

(iv) *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.*—Information regarding imports and exports for years 1929 to 1933 is appended :—

**NAURU.—IMPORTS AND EXPORTS.**

Heading.	Year ended 31st December—				
	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
Imports .. ..	101,692	143,416	108,729	95,739	97,684
Exports—	tons.	tons.	tons.	tons.	tons.
Phosphate .. ..	326,125	271,255	245,165	418,180	363,680

11. *Revenue and Expenditure.*—The revenue and expenditure of the Administration during the years 1929 to 1933 were as follow :—

**NAURU.—REVENUE AND EXPENDITURE.**

Heading.	Year ended 31st December—				
	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
Revenue .. ..	19,936	18,742	16,206	20,235	19,779
Expenditure .. ..	17,860	15,532	16,904	15,435	18,748

Of the revenue in 1933, £9,944 was royalty on phosphate, £4,317 consisted of customs receipts, £1,296 of capitation taxes, and £475 of harbour dues and shipping fees. The total credit balance on the 31st December, 1933, amounted to £26,699.

## CHAPTER XV. 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 396 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 1933-34 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 <i>d</i>	..
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 <i>b</i>	..
1927-28..	73,808,227	79,258,404	..	5,450,237 <i>d</i>	..	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 <i>c</i>	..	10,757,619 <i>c</i>	..	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 <i>d</i>	..

(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 Geophysical 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, &c., paid on behalf of New South Wales and not recovered at 30th June, 1931. (d) Of this amount it is proposed to allocate £6,160,000 for expenditure in subsequent years, viz., £4,160,000 for Defence equipment and £2,000,000 for financial assistance to the States.

## § 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.

**I. 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 1928-29 to 1932-33:—

## COMMONWEALTH CONSOLIDATED REVENUE—SOURCES.

Source.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Taxation (a) .. .. .	56,303,489	58,187,775	50,420,106	53,959,042	56,146,036
Percentage of Total .. %	75.2	75.4	72.5	75.4	76.4
Per head of population (d) ..	£8 17 3	£9 0 11	£7 15 2	£8 4 8	£8 10 0
Business Undertakings (a) .. .. .	13,404,412	13,969,124	13,148,341	12,653,704	12,894,580
Percentage of Total .. %	17.9	18.1	18.9	17.7	17.5
Per head of population (d) ..	£2 2 2	£2 3 5	£2 0 6	£1 18 8	£1 19 1
Other Revenue—					
Interest, etc. (c)—					
Loans to States for Soldier Settlement .. .. .	1,832,732	1,682,891	1,387,151	1,174,187	1,083,865
Other .. .. .	1,683,319	1,773,723	1,668,479	1,427,307	1,384,639
Coinage .. .. .	92,898	41,070	141,846	191,136	49,568
Defence .. .. .	117,614	103,351	79,005	50,510	47,753
Quarantine .. .. .	26,284	28,360	20,814	16,488	17,312
Territories (b) .. .. .	35,613	86,770	207,192	202,402	202,936
Patents, Trade Marks, etc. .. .. .	44,917	58,300	54,429	48,798	45,018
Marine .. .. .	210,162	201,210	196,501	201,218	205,133
Pension Contributions .. .. .	44,291	48,924	43,932	33,147	48,673
Net Profit on Australian Note Issue .. .. .	694,642	703,669	449,506	1,305,955	1,108,519
Bankruptcy .. .. .	15,695	32,086	44,395	41,943	31,787
Ex-enemy properties .. .. .	.. .. .	.. .. .	1,500,000	.. .. .	.. .. .
Export charges .. .. .	68,959	74,034	80,785	64,092	Dr. 1,874
Miscellaneous .. .. .	319,772	152,102	124,438	162,369	248,864
Total .. .. .	5,186,898	4,986,490	5,998,473	4,919,552	4,472,193
Percentage of Total .. %	6.9	6.5	8.6	6.9	6.1
Per head of population (d) ..	£0 16 4	£0 15 6	£0 18 5	£0 15 0	£0 13 6
Grand Total (c) .. .. .	74,894,799	77,143,389	69,566,920	71,532,298	73,512,809
Per head of population (d) ..	£11 15 9	£11 19 10	£10 14 1	£10 18 4	£11 2 8

(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 1928-29 to 1932-33 are given below.

## TAXATION—TOTAL COLLECTIONS.

Heading.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Customs .. .. .	29,502,755	30,157,040	18,224,227	18,565,630	21,313,793
Excise .. .. .	11,555,816	11,617,351	10,070,846	9,840,166	11,678,650
Sales Tax .. .. .	.. .. .	.. .. .	3,472,854	8,425,067	9,369,276
Land Tax .. .. .	2,988,885	2,840,078	2,758,598	2,156,765	1,650,311
Income Tax .. .. .	9,841,496	11,120,029	13,604,374	13,481,982	10,878,718
Income Tax, Federal Officers' Salaries .. .. .	.. .. .	.. .. .	34,475	4,304	.. .. .
Estate Duties .. .. .	2,080,149	2,122,478	2,068,865	1,385,811	1,126,996
Entertainments Tax .. .. .	358,697	316,121	186,661	133,072	134,042
War Time Profits Tax .. .. .	Dr. 24,309	14,678	794	Dr. 33,755	Dr. 5,750
Total Taxation .. .. .	56,303,489	58,187,775	50,420,106	53,959,042	56,146,036
Percentage on Total Revenue ..	75.2	75.4	72.5	75.4	76.4

(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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	%	%	%	%	%
Customs .. .. .	52.4	51.8	36.1	34.4	38.0
Excise .. .. .	20.5	20.0	20.0	18.2	20.8
Sales Tax .. .. .	..	..	6.9	15.6	16.7
Land Tax .. .. .	5.3	4.9	5.5	4.0	2.9
Income Tax .. .. .	17.5	19.1	27.0	25.0	19.4
Income Tax, Federal Officers' Salaries .. .. .	..	..	..	..	..
Estate Duties .. .. .	3.7	3.7	4.1	2.6	2.0
Entertainments Tax .. .. .	0.6	0.5	0.4	0.3	0.2
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 1928-29 to 1932-33 are furnished in the following table :—

## COMMONWEALTH CUSTOMS REVENUE.—CLASSIFICATION.

Classes.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Stimulants .. .. .	2,658,071	2,598,593	1,045,601	966,952	1,027,012
Narcotics .. .. .	2,412,859	3,069,426	2,875,840	3,088,656	2,529,473
Sugar .. .. .	11,654	11,029	674	392	844
Agricultural products	1,262,065	1,291,643	1,000,437	1,132,319	1,363,600
Apparel and textiles ..	5,362,694	5,154,257	2,069,610	1,656,599	2,163,750
Metals and machinery	4,949,249	4,758,415	1,594,769	655,363	1,122,346
Oils, paints, etc. ..	3,092,522	4,137,016	3,945,960	5,032,748	5,392,554
Earthenware, etc. ..	710,052	713,599	360,889	179,885	275,660
Drugs and chemicals ..	545,958	539,275	358,334	252,357	287,736
Wood, wicker and cane	1,583,145	1,802,580	379,328	205,288	401,149
Jewellery, etc. ..	870,130	1,028,151	557,262	254,821	312,914
Leather, etc. ..	743,948	526,056	256,498	355,888	349,918
Paper and stationery	762,357	878,800	732,888	420,551	424,732
Vehicles .. .. .	3,193,211	2,315,739	377,688	114,938	337,858
Musical instruments ..	267,824	138,329	13,855	4,518	6,451
Miscellaneous articles	998,785	1,116,340	704,833	452,290	640,737
Primage .. .. .	..	..	1,812,624	3,657,427	4,512,090
Other receipts .. .. .	78,231	77,792	137,137	134,938	164,969
Total Customs .. .. .	29,502,755	30,157,040	18,224,227	18,565,630	21,313,793



(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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
New South Wales (a)	13,735,305	14,028,700	8,747,066	8,566,662	9,282,263
Victoria .. ..	8,776,892	8,877,033	5,554,343	6,018,159	7,351,501
Queensland .. ..	2,581,591	2,816,474	1,669,839	1,636,868	1,890,206
South Australia (b) ..	2,228,540	2,182,794	1,060,942	1,113,543	1,363,710
Western Australia ..	1,867,569	1,892,050	1,019,024	1,006,911	1,177,655
Tasmania .. ..	312,858	359,989	173,013	223,487	248,458
<b>Total .. ..</b>	<b>29,502,755</b>	<b>30,157,040</b>	<b>18,224,227</b>	<b>18,565,630</b>	<b>21,313,793</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, 1929 to 1933, are given hereunder :—

## COMMONWEALTH EXCISE REVENUE.—CLASSIFICATION.

Particulars.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Beer .. ..	6,190,725	6,105,443	5,200,361	4,739,117	4,867,844
Spirits .. ..	1,756,957	1,856,951	1,248,700	1,337,262	1,298,325
Concentrated Grape Must .. ..	..	..	766	1,840	2,229
Tobacco .. ..	3,597,061	3,573,198	3,283,545	3,396,098	4,751,575
Petrol .. ..	..	70,065	315,582	328,073	461,313
Starch .. ..	134	..	..	..	..
Playing Cards .. ..	..	120	10,432	11,129	11,548
Matches .. ..	..	..	..	8,330	72,735
Cigarette Tubes and Papers .. ..	..	..	..	6,581	201,186
Licences .. ..	10,939	11,574	11,460	11,736	11,895
<b>Total Excise .. ..</b>	<b>11,555,816</b>	<b>11,617,351</b>	<b>10,070,846</b>	<b>9,840,166</b>	<b>11,678,650</b>

(b) States. Excise collections in each State for the last five years were as follow :—

## COMMONWEALTH EXCISE REVENUE.—COLLECTIONS, EACH STATE.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
New South Wales ..	5,887,511	5,775,428	4,753,246	4,200,426	5,156,998
Victoria .. ..	2,907,806	3,051,581	2,986,267	3,146,119	3,463,238
Queensland .. ..	1,088,231	1,080,622	989,918	1,014,614	1,266,235
South Australia (a) ..	843,303	819,269	569,938	706,898	829,438
Western Australia ..	715,205	763,365	651,668	662,514	856,393
Tasmania .. ..	113,760	127,086	119,809	109,595	106,348
<b>Total .. ..</b>	<b>11,555,816</b>	<b>11,617,351</b>	<b>10,070,846</b>	<b>9,840,166</b>	<b>11,678,650</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 and Sales 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.
	£	£	£	£	£	£
1923-24 ..	2,030,127	1,320,911	11,057,555	70,646	622,460	..
1924-25 ..	2,519,711	1,381,051	11,136,344	Dr. 74,783	680,586	..
1925-26 ..	2,521,940	1,411,336	10,858,046	Dr. 77,491	460,326	..
1926-27 ..	2,615,960	1,362,351	11,126,278	Dr. 28,357	366,159	..
1927-28 ..	3,027,206	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

"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 previous issues of the Official Year Book. 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 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 rate for an absentee is always 1d. more than for a resident, 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.

Land Tax receipts in each State and Central Office for the years 1928-29 to 1932-33 were as follow. The particulars shown differ slightly from those in a preceding sub-section:—

## LAND TAX RECEIPTS.

State, etc.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Central Office .. ..	995,745	983,380	942,467	702,124	606,394
New South Wales .. ..	1,004,751	940,107	919,494	695,587	529,421
Victoria .. ..	600,309	585,720	564,235	481,528	380,714
Queensland .. ..	64,113	46,079	62,380	52,586	35,428
South Australia .. ..	179,623	163,982	137,510	98,979	67,545
Western Australia .. ..	92,377	81,510	76,278	75,229	61,195
Tasmania .. ..	36,379	37,254	33,111	22,586	15,174
<b>Total .. ..</b>	<b>2,973,297</b>	<b>2,838,032</b>	<b>2,735,475</b>	<b>2,128,619</b>	<b>1,695,871</b>

(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, the percentage being limited to £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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Central Office .. ..	1,234,477	1,067,046	1,227,784	682,370	466,740
New South Wales .. ..	351,676	451,528	383,212	282,545	272,736
Victoria .. ..	295,448	395,502	270,632	296,104	214,950
Queensland .. ..	66,967	86,484	81,181	43,263	55,945
South Australia .. ..	69,850	69,023	45,455	57,912	63,386
Western Australia .. ..	43,927	35,325	30,031	20,159	28,085
Tasmania .. ..	17,275	9,432	16,465	14,164	15,182
Northern Territory .. ..	..	63	18	136	..
<b>Total .. ..</b>	<b>2,079,620</b>	<b>2,114,403</b>	<b>2,054,778</b>	<b>1,396,653</b>	<b>1,117,024</b>

The average dutiable value of estates, and the average amount of duty paid in 1932-33 were £5,016 and £174 respectively. 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 tax 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.

Years in which Rates were Amended.	Index of Rate of Tax.	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) (b)
1922-23 .. ..	1,535	1932-33 .. ..	1,419 (a) (c)
1924-25 .. ..	1,380	1933-34 .. ..	1,313 (a) (d)
1925-26 .. ..	1,200		

(a) Estimated. (b) In addition, a special tax of 1s. 6d. in the £1 was imposed on all taxable income from property. (c) In addition, a special tax of 2s. in the £1 was imposed on all taxable income from property over and above the exemption of £250. (d) In addition, a special tax of 1s. 2.4d. in the £1 was imposed on all taxable income from property over and above the exemption of £250.

For the 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 special tax of 1s. 6d. in the £1.

A new scale of rates was struck for the revenue year 1931-32, designed to consolidate all existing rates to 1930-31, and increase them by 5 per cent. At the same time the special tax on property income was increased to 2s. in the £1 on all taxable income from property over and above the exemption of £250.

No change was made in the rates for the 1932-33 assessment. For 1933-34 the consolidated rate for Personal Exertion incomes assessments was reduced by 15 per cent. Ordinary Rates on Incomes from Property remained unaltered, but the special tax was reduced to 1s. 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Central Office .. ..	3,195,204	3,729,150	5,535,521	4,557,246	2,975,575
New South Wales .. ..	2,961,925	3,155,503	3,169,627	3,817,049	4,042,270
Victoria .. ..	1,924,543	2,225,040	2,656,205	2,537,581	2,295,984
Queensland .. ..	688,178	820,123	928,142	1,028,955	711,775
South Australia .. ..	588,127	512,076	607,411	728,218	342,786
Western Australia .. ..	317,445	466,016	467,223	584,208	345,595
Tasmania .. ..	121,969	136,818	189,588	205,717	131,905
Northern Territory .. ..	1,554	2,191	3,206	3,128	2,599
<b>Total .. ..</b>	<b>9,798,945</b>	<b>11,046,917</b>	<b>13,556,923</b>	<b>13,462,102</b>	<b>10,848,489</b>

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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
New South Wales ..	24 0	25 2	25 0	29 9	31 3
Victoria ..	22 0	25 2	29 9	28 2	25 4
Queensland ..	15 6	18 3	20 4	22 2	15 2
South Australia ..	20 7	17 11	21 2	25 3	11 10
Western Australia ..	15 7	22 2	21 9	27 0	15 11
Tasmania ..	11 5	12 8	17 3	18 4	11 8
Six States ..	21 0	22 11	24 10	27 4	23 11

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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
New South Wales (a) ..	159,288	132,392	76,597	52,278	52,369
Victoria ..	119,311	100,951	63,541	47,620	50,106
Queensland ..	32,711	35,598	23,887	16,371	15,300
South Australia (b) ..	16,295	12,231	4,991	4,051	4,267
Western Australia ..	24,935	25,550	15,068	12,283	10,876
Tasmania ..	3,304	4,093	1,810	1,026	990
Total ..	355,844	310,815	185,894	133,629	133,908

(a) Includes Federal Capital Territory.

(b) Includes Northern Territory.

(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, 1933, are shown hereunder:—

## WAR TIME PROFITS TAX RECEIPTS.

State, etc.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Central Office .. ..	5,650	1,566	Dr. 12,659	1,106	..
New South Wales .. ..	Dr. 28,464	3,707	16,043	1,243	1,585
Victoria .. ..	Dr. 1,304	5,255	75	85	80
Queensland .. ..	12,677	5,905	Dr. 1,077	Dr. 25	..
South Australia .. ..	Dr. 17,446	Dr. 2,069	Dr. 3,331	..	..
Western Australia .. ..	..	183	..	..	..
Tasmania .. ..	Dr. 320	Dr. 1,099	..	..	..
<b>Total .. ..</b>	<b>Dr. 29,207</b>	<b>13,448</b>	<b>Dr. 949</b>	<b>2,409</b>	<b>1,665</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 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 collections of Sales Tax and certain other details for each State for 1932-33 are included in the statement following. The figures regarding "Tax collected" represent collections during the period 1st July, 1932, to 30th June, 1933, 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, 1932, to 31st May, 1933.

## SALES TAX AND AMOUNT OF SALES, 1932-33.(a)

State or Territory.	Gross Taxable Sales.	Non-Taxable Sales.	Sales of Exempt Goods.	Net Amount of Sales on which Sales Tax was payable.	Tax Collected. (a)
	£'000.	£'000.	£'000.	£'000.	£
New South Wales .. ..	59,409	56,669	68,033	55,854	3,526,181
Victoria .. ..	54,931	53,978	61,371	49,651	3,281,235
Queensland .. ..	20,502	10,976	33,080	19,432	1,172,398
South Australia .. ..	11,481	7,796	15,567	10,840	683,431
Western Australia .. ..	9,180	3,754	12,353	8,629	556,383
Tasmania .. ..	2,954	2,669	4,842	2,800	169,996
Northern Territory .. ..	12	1	39	11	1,030
<b>Total .. ..</b>	<b>158,469</b>	<b>135,843</b>	<b>195,285</b>	<b>147,217</b>	<b>9,390,654</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".

Of the total tax collections, £593,779 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 are 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. To 30th June, 1934, collections amounted to approximately £1,300,000.

3. *Business Undertakings.*—(i) *Postal Revenue.* Particulars concerning this branch of revenue for each of the financial years from 1928-29 to 1932-33 are contained in the following table:—

## COMMONWEALTH POSTAL REVENUE.

Particulars.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Private boxes and bags ..	79,101	69,185	64,959	63,089	63,307
Commission—					
Money orders and postal notes .. .. .	244,976	259,609	216,645	228,421	216,837
Telegraphs .. .. .	1,447,256	1,390,012	1,152,918	1,085,960	1,091,823
Telephones .. .. .	5,459,559	5,862,686	5,644,356	5,399,365	5,445,838
Postage .. .. .	5,177,177	5,179,082	5,276,663	5,086,919	5,116,052
Radio receipts .. .. .	22,177	166,847	155,672	168,197	210,134
Miscellaneous .. .. .	383,150	623,666	327,891	331,200	449,601
<b>Total .. .. .</b>	<b>12,813,396</b>	<b>13,551,087</b>	<b>12,839,104</b>	<b>12,363,151</b>	<b>12,593,592</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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Trans-Australian ..	344,948	274,816	190,028	177,254	187,043
Central Australian ..	185,811	104,724	86,360	85,456	86,938
North Australian ..	50,259	31,291	28,986	23,548	22,149
Federal Capital Territory ..	9,998	7,206	3,863	4,295	4,358
<b>Total .. .. .</b>	<b>591,016</b>	<b>418,037</b>	<b>309,237</b>	<b>290,553</b>	<b>300,988</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 1932–33 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, 1933, are stated hereinafter.

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\* 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Departments—	£	£	£	£	£
Governor-General .. .. .	39,547	31,577	24,995	21,443	21,822
Parliament .. .. .	557,763	555,701	421,266	453,324	339,710
Prime Minister .. .. .	1,351,752	1,411,824	1,461,674	1,313,811	1,429,009
Treasury (a) .. .. .	747,240	971,176	1,482,999	2,949,181	2,253,052
Attorney-General .. .. .	246,745	245,491	233,199	196,528	197,070
Interior .. .. .	980,354	1,109,271	1,102,388	1,010,065	983,947
Defence—					
Military .. .. .	1,612,241	1,819,967	1,697,717	1,520,004	1,456,441
Naval .. .. .	2,034,443	2,170,127	1,834,773	1,507,222	1,586,185
Air .. .. .	457,823	555,132	547,172	482,737	475,132
Trade and Customs .. .. .	1,277,037	1,263,313	1,156,604	984,516	911,946
Health .. .. .	291,112	275,233	221,297	174,811	171,189
Commerce .. .. .	614,841	646,307	600,414	581,972	763,058
<b>Total, Departments .. .. .</b>	<b>10,210,898</b>	<b>11,055,119</b>	<b>10,784,498</b>	<b>11,195,614</b>	<b>10,588,561</b>
Business Undertakings—					
Postmaster-General .. .. .	12,680,725	13,025,358	12,994,870	11,753,788	11,703,098
Railways .. .. .	1,087,560	1,109,405	1,056,806	1,040,210	1,016,748
<b>Total, Business Undertakings .. .. .</b>	<b>13,768,285</b>	<b>14,134,763</b>	<b>14,051,676</b>	<b>12,793,998</b>	<b>12,719,846</b>
Territories—					
Federal Capital Territory .. .. .	211,348	315,290	604,697	612,365	590,827
Northern Territory .. .. .	145,380	138,925	149,152	161,271	145,013
Papua .. .. .	57,411	49,853	52,969	47,857	52,136
New Guinea .. .. .	13,346	12,911	8,054	2,947	2,740
Norfolk Island .. .. .	4,000	4,000	4,000	3,500	3,500
<b>Total, Territories .. .. .</b>	<b>431,485</b>	<b>520,979</b>	<b>818,872</b>	<b>827,940</b>	<b>794,216</b>
New Works .. .. .	274,730	245,536	74,445	832,622	874,390
War and Repatriation (b) .. .. .	29,798,401	29,734,336	29,140,828	20,963,413	19,121,967
Invalid and Old-age Pensions .. .. .	10,124,239	10,791,325	11,710,953	11,125,956	10,771,061
Maternity Allowances .. .. .	661,520	642,990	630,652	378,022	320,986
Debt Redemption .. .. .	947,578	..	..	..	..
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 .. .. .	931,726	994,432	1,057,703	1,153,591	1,188,522
Special Grants .. .. .	520,000	910,000	1,720,000	1,550,000	1,830,000
Federal Aid Roads .. .. .	2,000,000	2,000,000	2,000,000	1,812,139	1,922,048
Unemployment Relief .. .. .	..	..	750,000	..	..
<b>Total to or for States (c) .. .. .</b>	<b>11,036,638</b>	<b>11,489,344</b>	<b>13,112,615</b>	<b>12,100,642</b>	<b>12,525,482</b>
Relief to Primary Producers .. .. .	..	..	..	..	2,249,692
<b>Grand Total .. .. .</b>	<b>77,253,774</b>	<b>78,614,392</b>	<b>80,324,539</b>	<b>70,218,207</b>	<b>69,966,201</b>
Per head of Population .. .. .	£ s. d. 12 3 2	£ s. d. 12 4 5	£ s. d. 12 7 3	£ s. d. 10 14 4	£ s. d. 10 15 10
Excess Receipts (d) .. .. .	..	..	..	1,314,091	3,546,608

(a) Excludes Invalid and Old-age Pensions and Maternity Allowances; see page 391. (b) For details see page 408. (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 1928-29 to 1932-33 is as follows:—

## EXPENDITURE.—GOVERNOR-GENERAL AND ESTABLISHMENT.

Details.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Salary .. .. .	10,000	10,000	10,000	8,900	8,900
Governor-General's Establishment .. .. .	21,576	15,329	11,064	9,802	9,962
Contingencies (a) .. .. .	7,118	5,395	3,099	1,885	2,101
Interest .. .. .	853	853	832	856	859
<b>Total .. .. .</b>	<b>39,547</b>	<b>31,577</b>	<b>24,995</b>	<b>21,443</b>	<b>21,822</b>

(a) Represents official services outside the Governor-General's personal interests, and carried out mainly at the instance of the Government.

(b) *Parliament.* Under this head have been grouped all the items of expenditure connected with the parliamentary government of the Commonwealth for the last five years. Although the administration of the Electoral Act and the conduct of elections comes 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Salaries of Ministers .. .. .	15,300	15,300	15,300	11,858	10,997
Allowances to Senators .. .. .	35,541	35,746	35,504	28,324	27,115
Allowances to Members of House of Representatives .. .. .	73,720	74,107	74,012	59,004	56,863
Officers, staff, contingencies, etc.	73,940	78,039	75,764	60,441	56,173
Repairs, maintenance, etc. .. .. .	6,179	5,561	5,327	6,275	7,443
Printing .. .. .	24,938	35,003	31,644	26,035	22,404
Travelling expenses of Members and others .. .. .	26,725	26,699	25,006	25,708	25,833
Electoral Office .. .. .	86,410	90,051	92,182	72,199	73,334
Election expenses .. .. .	118,831	106,932	1,717	91,054	..
Administration of Electoral Act .. .. .	41,019	39,465	21,874	33,971	17,315
Miscellaneous .. .. .	55,160	48,798	42,936	38,455	42,233
<b>Total .. .. .</b>	<b>557,763</b>	<b>555,701</b>	<b>421,266</b>	<b>453,324</b>	<b>339,710</b>

In section 66 of the Constitution, provision is made for payment out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of Ministers of State, of an annual sum which, until Parliament otherwise provides, shall not exceed £12,000. In 1917, the amount allotted for salaries was increased to £15,300 and in 1920 an allowance of £800 to each Minister was granted under the *Parliamentary Allowances Act*. Allowances to Senators and Members of the House of Representatives are provided for in the Constitution, section 48 of which specifies that until Parliament otherwise provides, each such allowance shall consist of £400 a year reckoned from the day on which the member takes his seat. During the second session of the Parliament in 1907 an Act was passed raising the annual allowance from £400 to £600, such increase to date from 1st July, 1907. In 1920, the salaries of members of both Houses were further increased to £1,000 per annum. By the *Income Tax Salaries Act* of 1930, the salaries of Ministers or presiding officers in either House of Parliament were subjected to a tax of 15 per cent., Chairman of Committees or Leader of the Opposition in either House, 12½ per cent., and other Members of either House, 10 per cent. The salaries and allowances of Ministers of the Crown and of members were reduced in July, 1931, by approximately 22½ per cent., and in September, 1932, to 30 per cent. below the rates prior to 1931, under the *Financial Emergency Acts* of 1931 and 1932 respectively. Portion of these reductions were restored by the *Financial Relief Act* 1933, which provided a total amount of £12,240 for the salaries of Ministers; the Parliamentary allowances of Ministers was increased to £640 each and to £825 for each Senator and each Member of the House of Representatives.

(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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Salaries, contingencies, and miscellaneous .. ..	£ 153,373	£ 160,409	£ 240,746	£ 133,886	£ 202,124
Audit Office .. ..	36,817	36,871	34,984	31,179	29,405
Rent, repairs, etc. .. ..	19,539	14,458	6,982	7,333	8,039
Public Service Board's Office .. ..	54,864	52,851	49,877	33,720	34,517
High Commissioner's Office .. ..	66,133	60,684	56,777	46,446	47,661
Commissioner for Australia in United States of America .. ..	13,134	15,516	11,228	6,086	5,196
Interest and Sinking Fund .. ..	907,499	976,126	968,907	962,051	972,678
Mail Service, Pacific Islands .. ..	49,750	51,989	47,848	42,262	41,000
Secretariat, League of Nations .. ..	25,758	28,078	30,762	42,656	50,323
Scientific and Industrial Research .. ..	19,451	8,664	8,165	1,925	(b)30,902
Pensions and Superannuation .. ..	5,434	6,178	5,398	6,267	7,164
<b>Total .. ..</b>	<b>1,351,752</b>	<b>1,411,824</b>	<b>1,461,674</b>	<b>1,313,811</b>	<b>1,429,009</b>

(a) Excluding Territories, see page 395.

(b) Includes £29,000 for Investigations.

(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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Treasury .. .. .	54,548	52,869	51,775	48,642	45,233
Taxation Office .. ..	428,765	440,102	493,793	455,516	480,066
Pensions Office .. ..	83,891	86,940	91,278	80,008	87,390
Maternity Allowance Office ..	16,464	15,028	15,002	13,882	12,122
Census and Statistics .. ..	30,697	31,217	29,593	26,063	24,609
Census .. .. .	..	1,019	130	..	137,224
Coinage .. .. .	19,540	11,534	3,485	20,058	19,526
Rent, repairs, etc. .. ..	15,672	13,801	8,320	8,259	14,867
Interest and Sinking Fund ..	8,168	171,762	555,822	958,744	635,431
Exchange .. .. .	..	98,367	185,843	1,030,425	713,537
Miscellaneous .. .. .	89,495	48,537	47,958	(a)307,584	83,047
<b>Departmental Expenditure</b>	<b>747,240</b>	<b>971,176</b>	<b>1,482,999</b>	<b>2,949,181</b>	<b>2,253,052</b>
Invalid and Old-age Pen- sions .. .. .	9,991,299	10,633,979	11,549,828	10,978,633	10,521,894
Maternity Allowance .. ..	661,520	642,990	630,652	378,022	320,986
Maintenance of persons in charitable institutions .. ..	132,940	157,346	161,125	147,323	249,167
<b>Total .. .. .</b>	<b>11,532,999</b>	<b>12,405,491</b>	<b>13,824,604</b>	<b>14,453,159</b>	<b>13,345,099</b>

(a) Includes £250,000, Unemployment Relief.

(e) *Attorney-General's Department.* 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 1928-29 to 1932-33 are furnished hereunder :—

## EXPENDITURE.—ATTORNEY-GENERAL'S DEPARTMENT.

Details.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Attorney-General's Office .. ..	24,390	19,691	19,709	15,126	15,333
Crown Solicitor's Office .. ..	29,392	27,983	27,144	22,244	21,635
Salaries of Justices of High Court ..	21,328	17,926	17,371	18,500	18,500
High Court expenses .. .. .	15,218	15,441	15,609	11,047	10,233
Court of Conciliation and Arbitration ..	27,491	27,195	21,785	18,046	17,875
Public Service Arbitrator's Office ..	4,465	5,471	1,740	2,678	2,721
Rent, repairs, etc. .. .. .	24,111	22,613	18,624	17,890	21,113
Patents, Trade Marks, etc. .. ..	51,477	56,301	54,136	41,328	39,008
Investigation Branch .. .. .	10,951	11,896	12,175	9,712	9,246
Bankruptcy .. .. .	20,941	24,909	32,586	28,521	28,279
Miscellaneous .. .. .	16,981	16,065	12,320	11,436	13,127
<b>Total .. .. .</b>	<b>246,745</b>	<b>245,491</b>	<b>233,199</b>	<b>196,528</b>	<b>197,070</b>

(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-sections (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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Salaries, Contingencies and Miscellaneous—					
Administrative ..	146,973	119,573	140,975	85,904	79,695
Meteorological Bureau	35,935	36,199	36,040	30,733	30,762
Solar Observatory ..	7,585	5,497	5,486	4,369	4,552
Forestry Branch ..	7,116	7,509	7,253	6,182	5,173
Rent, Repairs and Maintenance ..	30,819	25,944	10,693	12,335	11,456
Pensions and Retiring Allowances ..	8,643	10,315	12,530	11,955	14,353
Petroleum Prospecting ..	..	18,800	10,000	1,000	4,550
Interest .. ..	691,203	830,844	829,375	803,545	780,507
Sinking Fund .. ..	36,331	47,183	27,100	51,355	52,879
All Other .. ..	15,749	7,407	22,936	2,687	20
<b>Total .. ..</b>	<b>980,354</b>	<b>1,109,271</b>	<b>1,102,388</b>	<b>1,010,065</b>	<b>983,947</b>

(a) Excludes Territories, Railways and Electoral Office.

(g) *Defence.* The expenditure in connexion with defence for the last five years was as follows :—

## EXPENDITURE.—DEPARTMENT OF DEFENCE.

Details.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
<b>Defence—Chief Office .. ..</b>	<b>25,821</b>	<b>23,483</b>	<b>22,809</b>	<b>19,447</b>	<b>19,825</b>
Military .. ..	1,270,443	1,455,241	1,364,187	1,180,128	1,111,740
Audit (Proportion) .. ..	6,686	6,729	6,302	4,977	4,567
Pensions and Retiring Allowances (a) ..	20,353	23,899	37,336	32,909	33,270
Rent, Repairs, etc. .. ..	34,577	47,526	25,050	23,657	36,959
Interest and Sinking Fund .. ..	229,965	238,406	231,440	237,715	238,378
Exchange .. ..	..	..	4,827	7,869	4,160
Miscellaneous .. ..	24,396	24,683	5,766	13,302	7,542
<b>Total .. ..</b>	<b>1,612,241</b>	<b>1,819,967</b>	<b>1,697,717</b>	<b>1,520,004</b>	<b>1,456,441</b>
<b>Navy—Chief Office .. ..</b>	<b>83,257</b>	<b>80,537</b>	<b>66,788</b>	<b>50,009</b>	<b>47,012</b>
Naval .. ..	1,808,247	1,946,418	1,610,590	1,326,357	1,147,126
Audit (Proportion) .. ..	2,462	2,323	2,557	2,004	1,957
Pensions and Retiring Allowances (a) ..	2,451	2,807	3,283	3,403	3,441
Rent, Repairs, etc. .. ..	43,720	37,166	24,624	15,530	15,213
Interest and Sinking Fund .. ..	77,189	83,802	81,012	82,078	82,244
Exchange .. ..	..	..	38,698	24,153	9,274
Miscellaneous .. ..	17,117	17,074	7,221	3,679	3,930
<b>Total .. ..</b>	<b>2,034,443</b>	<b>2,170,127</b>	<b>1,834,773</b>	<b>1,507,222</b>	<b>1,586,185</b>
<b>Air Services—</b>					
Civil Branch—Pay, etc. .. ..	22,509	27,477	27,429	24,615	24,643
Development of Civil Aviation .. ..	50,990	75,332	108,787	101,266	99,472
<b>R.A.A.F.—</b>					
Pay, etc. .. ..	227,325	237,305	230,301	191,719	180,442
General Contingencies .. ..	79,346	82,913	69,518	66,844	66,844
General Stores and Maintenance .. ..	32,087	80,962	53,470	54,898	54,898
Rent, Repairs, etc. .. ..	8,530	9,440	9,282	6,783	6,334
Interest and Sinking Fund .. ..	24,752	28,543	27,877	28,157	28,081
Exchange .. ..	..	..	11,170	2,440	..
Miscellaneous .. ..	12,284	13,160	9,338	6,015	9,160
<b>Total .. ..</b>	<b>457,823</b>	<b>555,132</b>	<b>547,172</b>	<b>482,737</b>	<b>475,132</b>
<b>Grand Total .. ..</b>	<b>4,104,507</b>	<b>4,545,226</b>	<b>4,079,662</b>	<b>3,509,963</b>	<b>3,517,758</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 1928-29 to 1932-33 are given in the following table :—

## EXPENDITURE.—TRADE AND CUSTOMS DEPARTMENT.

Details.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Chief Office .. .. .	70,814	73,855	67,708	49,771	51,247
Customs—Ordinary .. ..	569,168	565,038	545,598	435,612	427,104
Audit (proportion) .. ..	9,421	9,647	10,332	9,052	8,917
Pensions and Superannuation .. ..	35,595	36,952	38,781	37,571	40,689
Rent, Repairs, etc. .. ..	14,387	11,906	5,169	4,240	4,766
Bounties .. .. .	532,564	517,582	446,344	410,173	343,193
Interest and Sinking Fund .. ..	34,356	34,405	33,288	34,555	34,721
Miscellaneous .. .. .	10,732	13,928	9,384	3,542	1,309
<b>Total .. .. .</b>	<b>1,277,037</b>	<b>1,263,313</b>	<b>1,156,604</b>	<b>984,516</b>	<b>911,946</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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Central Administration .. ..	22,791	19,216	27,498	22,437	24,356
Salaries, Contingencies, etc. .. ..	93,202	92,743	88,790	72,703	68,534
Interest .. .. .	13,394	13,749	13,680	14,069	14,035
Sinking Fund .. .. .	1,485	1,514	950	1,645	1,727
Rent and repairs .. .. .	21,126	17,537	8,917	4,337	9,420
Subsidy, Cattle Tick Control .. .. .	54,972	57,318	53,066	44,450	44,450
Miscellaneous .. .. .	84,142	73,156	28,396	15,170	8,667
<b>Total .. .. .</b>	<b>291,112</b>	<b>275,233</b>	<b>221,297</b>	<b>174,811</b>	<b>171,189</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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Salaries, Contingencies and Miscellaneous—	£	£	£	£	£
Administrative ..	68,147	71,376	70,306	61,910	65,228
Marine ..	270,950	263,901	237,103	193,934	195,667
Administration of Commerce Act ..	30,581	35,648	45,772	45,055	53,583
Export Control—					
Canned Fruits ..	3,819	4,990	6,500	5,994	..
Dried Fruits ..	42,753	46,152	38,779	27,167	..
Dairy Produce ..	22,374	22,898	24,309	24,410	..
Assistance Marketing					
Primary Produce ..	50,000	50,000	31,000	19,500	16,000
Rent, Repairs, Maintenance, etc. ..	10,859	7,419	5,071	7,338	5,510
Pensions and Retiring Allowances ..	4,195	5,585	6,847	6,466	5,516
Interest ..	86,498	93,040	96,174	132,130	210,935
Sinking Fund ..	8,685	9,210	6,010	26,790	183,095
All Other ..	15,980	36,088	32,543	31,278	27,524
<b>Total ..</b>	<b>614,841</b>	<b>646,307</b>	<b>600,414</b>	<b>581,972</b>	<b>763,058</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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Chief Office ..	£ 80,440	£ 87,395	£ 93,845	£ 69,637	£
Postal Department (ordinary) ..	9,831,131	9,847,327	9,381,512	7,792,014	} 7,936,906
Wireless ..	37,903	69,800	74,790	72,422	
Audit (proportion) ..	11,593	12,150	12,930	9,700	9,800
Pensions and retiring allowances ..	110,605	110,032	110,480	103,830	112,124
Superannuation ..	112,546	136,095	156,822	160,739	170,273
Rents, repairs, etc. ..	127,855	129,145	68,989	61,471	73,108
Interest on transferred properties ..	290,262	290,262	290,262	290,262	290,262
Interest on Commonwealth Securities ..	1,403,069	1,619,995	1,648,754	1,598,759	1,582,672
Sinking Fund on Commonwealth Securities ..	518,060	560,125	742,569	779,699	818,684
Exchange ..	..	..	300,115	724,708	691,615
Miscellaneous ..	157,261	163,032	113,802	90,547	17,654
<b>Total ..</b>	<b>12,680,725</b>	<b>13,025,358</b>	<b>12,994,870</b>	<b>11,753,788</b>	<b>11,703,098</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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Working Expenses—	£	£	£	£	£
Trans-Australian .. ..	301,621	294,090	251,577	195,454	197,938
North Australian .. ..	54,697	56,155	55,606	45,733	39,007
Central Australian .. ..	198,213	198,108	157,076	111,937	108,548
Federal Capital Territory .. ..	10,504	8,458	6,344	5,035	4,762
Interest .. ..	462,728	490,491	500,319	477,801	460,966
Sinking Fund .. ..	50,519	52,479	37,789	58,158	61,066
Exchange .. ..	..	..	38,281	136,366	135,152
Miscellaneous .. ..	9,278	9,624	9,814	9,726	9,309
<b>Total .. ..</b>	<b>1,087,560</b>	<b>1,109,405</b>	<b>1,056,806</b>	<b>1,040,210</b>	<b>1,016,748</b>

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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Internal—					
North and Central Australia (a) .. ..	145,380	138,925	(b)149,152	(b)161,271	(b)145,013
Federal Capital Territory(a) .. ..	211,348	315,290	604,697	612,365	590,827
External—					
Papua .. ..	57,411	49,853	52,969	47,857	52,136
New Guinea .. ..	13,346	12,911	8,054	2,947	2,740
Norfolk Island .. ..	4,000	4,000	4,000	3,500	3,500
<b>Total .. ..</b>	<b>431,485</b>	<b>520,979</b>	<b>818,872</b>	<b>827,940</b>	<b>794,216</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 :—1928-29, £274,730; 1929-30, £245,536; 1930-31, £74,445; 1931-32, £832,622; and 1932-33, £874,390.



In the two later years, expenditure on new works was not made from Loan Funds, the money being provided from revenue. To 30th June, 1933, the total expenditure from revenue on new works, additions, etc., amounted to almost £55,000,000.

(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 int rest 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 is 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.

**Amounts Paid.**—(a) 1901 to 1933. 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.

#### 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 1932-33 (c) ..	19,854	14,074	7,470	5,019	3,460	1,781	51,658
Special Grants (d) ..	..	..	..	3,530	5,456	3,341	12,327
Grants for Road Construction, 1922-23 to 1932-33	4,370	2,857	2,946	1,788	2,989	784	15,734
Unemployment Relief, 1930-31 (e) .. .. .	194	332	73	45	65	41	750
<b>Total .. .. .</b>	<b>93,658</b>	<b>68,419</b>	<b>34,567</b>	<b>26,455</b>	<b>27,590</b>	<b>12,917</b>	<b>263,606</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) 1932-33. For the year ended 30th June, 1933, the payments made to or for each State are given below.

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES, 1932-33.

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) ..	486,581	234,157	156,235	152,938	126,782	31,829	1,188,522
Special Grants ..	..	..	..	1,000,000	500,000	330,000	1,830,000
Federal Aid Roads ..	530,485	345,969	361,345	219,114	369,033	96,102	1,922,048
Total ..	3,934,477	2,707,285	1,613,815	2,075,868	1,469,247	724,790	12,525,482

(a) Paid to National Debt Sinking Fund.

### § 3. Trust Funds.

The Trust Fund balances on 30th June, 1933, amounted to £21,198,487, as compared with £16,047,626 for the corresponding date in the year 1932.

### § 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, 1933, the debt outstanding amounted to £1,283,070, of which £362,024 was on account of the Northern Territory, and £921,046 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Total to 30th June, 1933.
	£	£	£	£	£	£
Works, Buildings, Land, &c.—						
Shipbuilding Yards and Docks	..	..	..	..	..	733,711
Ship Construction .. ..	Cr. 86,784	Cr. 165,000	Cr. 165,000	..	Cr. 821,910	7,572,150
F.C.T. Works, Services and Acquisition of Land ..	1,193,500	253,988	263,077	..	(c) 100,000	8,004,328
North Australia Commission	40,800	23,000	16,103	..	..	111,203
Drill Halls Stores, Barracks etc.	33,014	20,204	458	..	..	427,084
Rifles and Ammunition Reserve	..	..	..	..	..	315,300
Other Military Services ..	231	1,000	..	..	..	101,959
Naval Bases, Depots, etc. ..	36,907	93,230	6,229	..	..	1,466,556
Fleet Construction .. ..	..	..	..	..	..	355,397
Other Naval Services .. ..	..	..	..	..	..	71,300
Air Services—						
R.A.A.F. .. ..	40,530	32,740	8,766	..	..	473,010
Civil Aviation .. ..	..	..	13,596	..	..	53,773
Buildings and Works, Munitions Production	92,513	83,127	38,467	..	..	1,185,852
Other Munitions Supply Services .. ..	..	..	..	..	..	1,150
Lighthouses and Lighthouse Services	17,673	18,520	89,500	..	..	643,900
River Murray Waters Act ..	250,000	200,000	122,000	..	..	2,105,625
Telegraph and Telephone Construction .. ..	2,775,991	2,537,489	1,248,197	..	..	30,024,968
Post Office Buildings and Land	227,397	224,186	38,190	..	..	3,398,382
Wireless .. ..	482	10,037	1,727	..	..	56,608
Serum and Health Laboratories	10,082	3,748	..	..	..	75,220
Railways—						
Trans-Australian .. ..	48,415	64,622	30,387	..	..	6,662,298
North Australian .. ..	79,092	20,097	910	..	..	1,597,559
Central Australian .. ..	747,894	170,911	30,185	..	..	2,477,853
Federal Capital Territory ..	3,291	365	175	..	..	28,755
Grafton—South Brisbane ..	675,000	586,000	68,000	..	Cr. 5,000	4,366,000
Other Expenditure .. ..	..	..	..	..	..	200,000
Papua—Railways, Wharves, Buildings, etc. .. ..	..	..	..	..	..	71,556
War Service Homes (b) ..	1,673,451	999,964	154,906	..	..	7,314,524
London Offices .. ..	..	..	..	..	..	880,190
Acquisition of Properties not elsewhere included .. ..	987	769	10,653	..	..	134,544
Miscellaneous .. ..	..	..	..	..	..	266,899
Unemployment Relief .. ..	..	..	..	153,873	1,155,698	1,309,571
<b>Total, Works, etc. ..</b>	<b>7,860,466</b>	<b>5,178,997</b>	<b>1,976,526</b>	<b>153,873</b>	<b>428,788</b>	<b>82,577,225</b>
Other purposes—						
Loans for Works to External Territories—						
Papua .. ..	..	7,500	7,500	..	..	53,420
New Guinea .. ..	20,000	..	7,000	..	..	40,496
Immigration (a) .. ..	132,815	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 .. ..	230,838	50,000	..	..	..	610,838
Wheat Bounty .. ..	..	..	..	3,296,464	132,807	3,429,272
<b>Total Loan Expenditure</b>	<b>8,244,119</b>	<b>5,294,202</b>	<b>1,991,026</b>	<b>3,450,337</b>	<b>561,595</b>	<b>89,035,837</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, 1933, 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. No interest payment was called for in 1932–33. The adoption of these proposals represented a saving to the Commonwealth Government of £6,145,000, including exchange, for each of the years 1931–32 and 1932–33. The principal outstanding on 30th June, 1933, was £79,724,221.

6. **Flotation of War Loans in Australia.**—In addition to the advances from the Imperial Government, the Commonwealth Government raised large amounts of money in Australia. Full details of the seven War Loans are given in Official Year Book No. 14.

7. **London Conversion Loans.**—Loans aggregating £22 millions were due for redemption in London in 1932–33, and in addition the Government had optional rights of redemption over a further £88 millions, all of which 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.

Details of the several conversions effected during the period October, 1932 to February, 1934, are given in the following table:—

DETAILS OF LOANS CONVERTED IN LONDON 1932 TO 1934.

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	208	52
1933— February	New South Wales	9,621	4	4	100	4 0 0	1955-70	178	45
May ..	New South Wales	6,427							
	South Australia	2,983							
July . . .	Tasmania	2,000	6½	3½	99	3 14 5	1937-38	83	21
	New South Wales	9,527							
	Queensland	2,000							
September	South Australia	2,978	6	4	99	4 1 10	1943-48	56	14
	Western Australia	2,716							
	Commonwealth	15,000							
December	New South Wales	4,901	5½	3½	98	3 17 11	1948-53	91	23
	Western Australia	1,050							
	Victoria	2,880							
1934— February	New South Wales	6,888	5½	3½	99	3 16 9	1946-49	115	29
	South Australia	5,933							
	Tasmania	1,146							
1934— February	New South Wales	3,979	5	3½	97	3 13 8	1954-59	52	13
	Victoria	13,876							
	Queensland	3,782							
			(b)	(b)	(b)	(b)			
Total ..	Commonwealth	15,000	6	3.75	98	3 17 11	..	316	79
	New South Wales	49,796	5.48	3.73	98.56	3 19 0	..	761	190
	Victoria	20,764	5.17	3.58	97.66	3 14 8	..	297	75
	Queensland	5,782	5.67	3.67	97.69	3 16 6	..	107	27
	South Australia	11,594	5.64	3.75	99.00	3 17 5	..	205	51
	Western Australia	3,766	5.93	3.93	98.72	4 0 9	..	71	18
	Tasmania	3,146	5.95	3.59	99.00	3 15 3	..	69	17
	Grand Total	109,848	5.55	3.71	98.33	3 17 9	..	1,826	457

(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 closely approximates £2 millions with a consequential saving of roughly £500,000 in exchange at the existing rate.

Approximately £86 millions of additional securities (including £67 millions with optional redemption dates) are due for redemption before 31st December, 1935, and it is anticipated that these can be converted on terms as favourable as those in the above series.

8. Loan Raisings, 1932-33.—Particulars of Loan raisings in Australia during 1932-33 are given in the following table.

LOAN RAISINGS, AUSTRALIA, 1932-33.

Service.	For—	Rate of Interest.	Date of Maturity.	Price.	Amount.
Public Works and Redemption of Treasury Bills	Commonwealth States ..	3½	15.12.1942	Par.	£ 918,819 7,081,921
Redemption of Treasury Bills	Commonwealth States ..				
Works ..	States ..	3½	15.7.1940	Par.	290,000
Treasury Bills (short-dated)	States ..	2½	15.12.1942	Par.	710,000
Conversion and Redemption (a)	States ..	Various	Various	Par.	1,847,000
Treasury Bills (b)	Commonwealth	2½	..	Par.	6,715,000
					11,549,445
					2,503,000

(a) "Over the Counter Sales" Sales and Conversions at State Treasuries.

(b) General Trust Fund investment.

The above figures refer to loans raised in Australia and do not include Instalment Stock, £100,000, bearing interest at 4½ per cent. loaned to Federal Capital Commission by Commonwealth Bank for Housing. The final instalment is repayable on 1st January, 1965.

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, 1933.

## PUBLIC DEBT FOR COMMONWEALTH PURPOSES AT 30th JUNE, 1933.

Particulars.	Maturing in	Maturing in	Maturing in	Total.
	London.	New York.	Australia.	
	£ Stg.	£ (c)	£ Aust.	(a) £
<b>War Debt—</b>				
Stock, Bonds, etc. . . . .	11,020,160	..	218,975,910	229,996,070
Short dated Treasury Bills . . . . .	..	..	510,700	510,700
Indebtedness to United Kingdom Govern- ment . . . . .	79,724,221	..	..	79,724,221
<b>Total</b> . . . . .	<b>90,744,381</b>	<b>..</b>	<b>219,486,610</b>	<b>310,230,991</b>
Deduct advances to States for Soldier Land Settlement, etc. . . . .	..	..	-27,096,629	-27,096,629
<b>Total, War Debt</b> . . . . .	<b>90,744,381</b>	<b>..</b>	<b>192,389,981</b>	<b>283,134,362</b>
<b>Works and other Purposes—</b>				
Short dated Treasury Bills and Debentures	10,220,160	..	2,989,300	13,209,460
Other Treasury Bills (d) . . . . .	..	..	11,300,000	11,300,000
Stock, Bonds, etc. . . . .	56,489,549	16,889,983	14,388,954	87,768,486
Balance of Loans taken over from South Australia—				
Northern Territory . . . . .	329,100	..	32,924	362,024
Port Augusta Railway . . . . .	859,034	..	62,012	921,046
Properties transferred from New South Wales . . . . .	..	..	111,125	111,125
<b>Total, Works and other Purposes</b> . . . . .	<b>67,897,843</b>	<b>16,889,983</b>	<b>28,884,315</b>	<b>113,672,141</b>
<b>Total Commonwealth Purposes</b> . . . . .	<b>158,642,224</b>	<b>16,889,983</b>	<b>221,274,296</b>	<b>396,806,503</b>

## PER HEAD OF POPULATION. (b)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.
War . . . . .	13 13 8	..	29 0 4	42 14 0
Works and other Purposes . . . . .	10 4 10	2 11 0	4 7 1	17 2 11
<b>Total Commonwealth Purposes</b> . . . . .	<b>23 18 6</b>	<b>2 11 0</b>	<b>33 7 5</b>	<b>59 16 11</b>

(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, 1933.  
(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. paras. 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—				
	1929.	1930.	1931.	1932.	1933.
<b>War Debt—</b>					
London .. .. £ Stg.	93,810,641	92,314,742	90,744,381	90,744,380	90,744,381
<b>Total Overseas (a) ..</b>	<b>93,810,641</b>	<b>92,314,742</b>	<b>90,744,381</b>	<b>90,744,380</b>	<b>90,744,381</b>
Australia .. .. £ Aust.	201,604,887	197,673,573	194,633,628	195,315,356	192,389,981
<b>Total War Debt (a) ..</b>	<b>295,415,528</b>	<b>289,988,315</b>	<b>285,378,009</b>	<b>286,059,736</b>	<b>283,134,362</b>
<b>Works and other purposes—</b>					
London .. .. £ Stg.	48,819,932	58,431,406	66,694,426	68,031,550	67,897,843
New York .. .. £ (b)	17,155,718	17,155,718	17,155,718	17,115,997	16,889,983
<b>Total Overseas (a) ..</b>	<b>65,975,650</b>	<b>75,587,124</b>	<b>83,850,144</b>	<b>85,147,547</b>	<b>84,787,826</b>
Australia .. .. £ Aust.	23,828,177	14,979,706	27,088,176	27,677,447	28,884,315
<b>Total Debt for Works, etc. (a)</b>	<b>89,803,827</b>	<b>90,566,830</b>	<b>110,938,320</b>	<b>112,824,994</b>	<b>113,672,141</b>
<b>Total Debt—</b>					
London .. .. £ Stg.	142,630,573	150,746,148	157,438,806	158,775,930	158,642,224
New York .. .. £ (b)	17,155,718	17,155,718	17,155,718	17,115,997	16,889,983
<b>Total Overseas (a) ..</b>	<b>159,786,291</b>	<b>167,901,866</b>	<b>174,594,524</b>	<b>175,891,927</b>	<b>175,532,207</b>
Australia .. .. £ Aust.	225,433,064	212,653,279	221,721,804	222,992,803	221,274,296
<b>Grand Total (a) ..</b>	<b>385,219,355</b>	<b>380,555,145</b>	<b>396,316,328</b>	<b>398,884,730</b>	<b>396,806,503</b>

(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 403.

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 22½ per cent. Conversion loans in London referred to on page 401 have materially reduced the average rate of interest on debt maturing in London. The average rate of interest on internal loans at 30th June, 1933, was £3 17s. 9d. 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 6s. 5d. per cent. at 30th June, 1933.

The accompanying table gives particulars of rates of interest on the debt for Commonwealth purposes for the year ended 30th June, 1933.

**PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—RATES OF INTEREST.**

Rates of Interest.	At 30th June, 1933—Debt Maturing in—			
	London.	New York.	Australia.	Total.
%	£ (Stg.)	£ (c)	£ (Aust.)	£ (a)
6.0 .. .. .	15,000,000	..	..	15,000,000
5.0 .. .. .	46,509,709	12,640,173	(b) 15,319	59,165,201
4.91667 .. .. .	79,724,220	..	..	79,724,220
4.75 .. .. .	6,000,000	..	..	6,000,000
4.65 .. .. .	..	..	1,852,100	1,852,100
4.50 .. .. .	..	4,249,810	..	4,249,810
4.45625 .. .. .	..	..	89,650	89,650
4.2625 .. .. .	..	..	1,694,633	1,694,633
4.25 .. .. .	..	..	95,595	95,595
4.06875 .. .. .	..	..	4,804,500	4,804,500
4.0 .. .. .	656,778	..	210,459,439	211,116,217
3.875 .. .. .	..	..	8,454,703	8,454,703
3.75 .. .. .	..	..	2,070,160	2,070,160
3.5 .. .. .	531,330	..	111,125	642,455
3.0 .. .. .	27	..	3,856,191	3,856,218
2.90417 .. .. .	..	..	1,483	1,483
2.75 .. .. .	..	..	2,065,000	2,065,000
2.7125 .. .. .	..	..	2,008	2,008
2.5 .. .. .	9,220,160	..	12,735,000	21,955,160
2.0 .. .. .	1,000,000	..	..	1,000,000
Overdue and Unconverted .. .. .	..	..	64,019	64,019
Deduct loans to States for Soldier Land Settlement, etc. .. .. .	..	..	-27,096,629	-27,096,629
<b>Total .. .. .</b>	<b>158,642,224</b>	<b>16,889,983</b>	<b>221,274,296</b>	<b>396,806,503</b>
<b>Total Interest Payable .. .. .</b>	<b>7,725,633</b>	<b>823,249</b>	<b>8,597,257</b>	<b>17,146,139</b>
<b>Average rate of interest .. .. .</b>	<b>£4 15 5</b>	<b>£4 15 6</b>	<b>£3 17 9</b>	<b>£4 6 5</b>

(a) See note (a) to table on page 403. (b) Peace and War Savings Certificates. (c) See note (c) to table on page 403.

(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 1929 to 1933 inclusive.

**PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—INTEREST PAYABLE.**

Interest on and where payable.	At 30th June—				
	1929.	1930.	1931.	1932.	1933.
<b>War Debt—</b>					
London .. .. . £ Stg.	4,721,540	4,647,992	4,570,782	4,570,782	4,570,782
Australia .. .. . £ Aust.	10,928,403	10,709,304	10,865,537	7,828,852	7,694,479
<b>Total War Debt .. .. . £ (a)</b>	<b>15,649,943</b>	<b>15,357,296</b>	<b>15,436,319</b>	<b>12,399,634</b>	<b>12,265,261</b>
<b>Average Rate .. .. . %</b>	<b>£5 5s. 11d.</b>	<b>£5 5s. 11d.</b>	<b>£5 8s. 2d.</b>	<b>£4 6s. 8d.</b>	<b>£4 6s. 8d.</b>
<b>Works and other Purposes—</b>					
London .. .. . £ Stg.	2,460,837	2,943,397	3,216,561	3,287,368	3,154,851
New York .. .. . £ (b)	836,109	836,109	836,109	834,133	823,249
<b>Total Overseas .. .. . £ (a)</b>	<b>3,296,946</b>	<b>3,779,506</b>	<b>4,052,670</b>	<b>4,121,501</b>	<b>3,978,100</b>
<b>Australia .. .. . £ Aust.</b>	<b>1,098,733</b>	<b>664,756</b>	<b>1,324,706</b>	<b>980,353</b>	<b>902,778</b>
<b>Total Debt for Works, etc. .. .. . £ (a)</b>	<b>4,395,679</b>	<b>4,444,262</b>	<b>5,377,376</b>	<b>5,101,854</b>	<b>4,880,878</b>
<b>Average Rate .. .. . %</b>	<b>£4 17s. 11d.</b>	<b>£4 18s. 2d.</b>	<b>£4 10s. 11d.</b>	<b>£4 10s. 5d.</b>	<b>£4 5s. 11d.</b>
<b>Total Debt—</b>					
London .. .. . £ Stg.	7,182,377	7,591,389	7,787,343	7,858,150	7,725,633
New York .. .. . £ (b)	836,109	836,109	836,109	834,133	823,249
<b>Total Overseas .. .. . £ (a)</b>	<b>8,018,486</b>	<b>8,427,498</b>	<b>8,623,452</b>	<b>8,692,283</b>	<b>8,548,882</b>
<b>Australia .. .. . £ Aust.</b>	<b>12,027,136</b>	<b>11,374,060</b>	<b>12,190,243</b>	<b>8,809,205</b>	<b>8,597,257</b>
<b>Grand Total .. .. . £ (a)</b>	<b>20,045,622</b>	<b>19,801,558</b>	<b>20,813,695</b>	<b>17,501,488</b>	<b>17,146,139</b>
<b>Average Rate .. .. . %</b>	<b>£5 4s. 1d.</b>	<b>£5 4s. 1d.</b>	<b>£5 5s. 0d.</b>	<b>£4 7s. 9d.</b>	<b>£4 6s. 5d.</b>

(a) The totals shown represent the nominal amount of interest, taking no account of exchange.

(b) See note (c) to table on p. 403.

(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, 1933. While the actual dates of maturity extend from 1933-34 to 1975-76, or a period of 42 years, the average period till maturity is only about 10 years.

PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—DUE DATES OF AMOUNTS  
OUTSTANDING ON 30th JUNE, 1933(a).

Due Dates (year ended 30th June).				Due in—			Total
				London.	New York.	Australia.	
				£ (Stg.)	£ (d)	£ (Aust.)	£ (c)
1934	..	..	..	10,220,160	..	16,891,776	27,111,936
1935	..	..	..	83,051	..	942,130	1,025,181
1936	..	..	..	573,727	..	538,212	1,111,939
1937	..	..	..	371,806	..	299,330	671,136
1938	..	..	..	..	..	147,586	147,586
1939	..	..	..	159,524	..	42,313,197	42,472,721
1940	..	..	..	..	..	432,438	432,438
1941	..	..	..	15,000,000	..	374,650	15,374,650
1942	..	..	..	..	..	33,883,710	33,883,710
1943	..	..	..	..	..	4,338,590	4,338,590
1945	..	..	..	17,354,817	..	27,820,928	45,175,745
1948	..	..	..	..	..	24,952,567	24,952,567
1949	..	..	..	..	..	439,920	439,920
1951	..	..	..	..	..	16,741,381	16,741,381
1954	..	..	..	..	..	16,122,250	16,122,250
1956	..	..	..	..	14,394,041	15,823,128	30,217,169
1958	..	..	..	..	2,495,942	15,373,746	17,869,688
1960	..	..	..	..	..	15,341,242	15,341,242
1961	..	..	..	6,000,000	..	..	6,000,000
1962	..	..	..	..	..	14,909,325	14,909,325
1966	..	..	..	..	..	146,163	146,163
1976	..	..	..	29,154,892	..	..	29,154,892
Overdue	..	..	..	..	..	112,079	112,079
Half-yearly	..	..	..	..	..	95,595	95,595
Indefinite	..	..	..	27	..	219,857	219,884
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>	..	..	..	158,642,224	16,889,983	221,274,296	396,806,503

(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 hereinafore. (c) See note (a) to table on page 403. (d) See note (c) to table on page 403.

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 1928-29 are as follows :—

**PUBLIC DEBT FOR COMMONWEALTH PURPOSES.—SINKING FUND.**

Items.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Total, 1922-23 to 1932-33.
	£	£	£	£	£	£
Cr. Brought forward ..	955,726	746,737	573,276	512,944	2,050,172	..
Balance transferred to Fund on 11th August, 1923 ..	..	..	..	..	..	2,262,982
From Consolidated Revenue	2,469,272	2,668,133	889,170	2,507,100	2,684,654	22,849,893
Repayments of Sundry Loans ..	260,028	261,855	2,967	28,475	41,426	1,185,566
Purchase Money and Re- payments under War Service Homes Act ..	799,508	702,244	491,887	409,996	550,802	6,739,629
Half Net Profit Common- wealth Bank ..	349,204	362,825	391,013	396,905	337,702	2,812,817
Reparation Moneys ..	876,404	877,832	1,264,519	Dr. 616	524	5,571,628
Interest on Investments ..	30,312	28,573	24,544	21,015	58,271	602,863
Contributions by States ..	21,013	24,945	9,898	10,088	11,178	87,267
<b>Total .. ..</b>	<b>5,761,467</b>	<b>5,673,144</b>	<b>3,647,274</b>	<b>3,885,907</b>	<b>5,734,729</b>	<b>42,112,645</b>
Dr. Redemptions .. ..	5,014,730	5,099,868	3,134,330	1,835,735	3,774,859	40,152,775
Carried forward .. ..	746,737	573,276	512,944	2,050,172	1,959,870	1,959,870
<b>Total .. ..</b>	<b>5,761,467</b>	<b>5,673,144</b>	<b>3,647,274</b>	<b>3,885,907</b>	<b>5,734,729</b>	<b>42,112,645</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 401.

Information regarding the transactions of the States' Account of the National Debt Sinking Fund is published in Finance Bulletin No. 24 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, 1933, 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
1927-28 .. .. .	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	..
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 .. .. .	452,295	..	452,295	27,049,485
<b>Total to 30th June, 1933</b>	<b>146,482,247</b>	<b>292,565,313</b>	<b>439,047,560</b>	<b>373,076,611</b>

(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, 1933, the amount outstanding had been reduced to £79,724,221. (b) Excluding expenditure on War Service Homes from 1923-24. (See page 400.)

§ 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 <sup>(a)</sup>	71 10 0
26th October, 1933 .. ..	45 10 0	78 0 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. In 1931 the amount was reduced to 5s. per week and in 1932 to 3s. 9d. per week.

Asiatics, generally, are not eligible to receive the old-age pension, 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 her or his 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 amount of pension may be at such a rate (not exceeding £52—reduced to £45 10s. from 23rd July, 1931) per annum, 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 *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 are now 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.

Further explanation of pension rates; the liability of pensioners under certain circumstances to repay pension payments made from 31st December, 1932, which, upon the death of the pensioner, becomes a debt due to the Commonwealth Government and is payable out of the pensioner's estate; dealings in property by pensioners; contributions by relatives; 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, 1932, there were 183,317 old-age pensions in force. During 1932-33, 16,351 pension claims were granted, cancellations and deaths amounted to 23,243, giving a net decrease of 6,892 pensions for the year and bringing the total pensions in existence at 30th June, 1933, to 176,425.

(ii) *Sexes of Pensioners.* Of the pensioners at 30th June, 1933, 76,946 (or 44 per cent.) were males, and 99,479 (or 56 per cent.) were females. Details for the several States are as follow:—

OLD-AGE PENSIONS.—SEXES OF PENSIONERS, 1932-33.

State.	Males.	Females.	Total.	Masculinity.(a)
New South Wales .. ..	30,551	38,256	68,807	79.9
Victoria .. ..	20,680	28,769	49,449	71.9
Queensland .. ..	10,457	12,143	22,600	86.1
South Australia .. ..	6,496	9,946	16,442	65.3
Western Australia .. ..	5,288	5,809	11,097	91.0
Tasmania .. ..	3,474	4,556	8,030	76.3
<b>Total .. ..</b>	<b>76,946</b>	<b>99,479</b>	<b>176,425</b>	<b>77.3</b>

(a) Number of males to each 100 females.

(iii) *Ages and Conjugal Condition of Pensioners.* The recorded ages of the 16,351 persons, 8,167 males and 8,184 females, to whom pensions were granted during the year 1932-33 varied considerably, ranging from 3,620 at age 60 to 1 at age 95. The conjugal condition of these pensioners was as follows:—Males—single, 1,913; married, 4,782; and widowed, 1,472. Females—single, 1,013; married, 4,640; and widowed, 2,531.

3. *Invalid Pensions.*—(i) *Number in force, 1933.* During the year 1932-33, the number of invalid pensioners increased from 72,292 to 72,742, an increase of 450 pensions. Altogether 7,179 claims were allowed and 6,729 pensions were cancelled.

(ii) *Sexes of Pensioners.* Of the 72,742 persons in receipt of invalid pensions on 30th June, 1933, 32,377, or 45 per cent., were males, and 40,365, or 55 per cent., were females. Details for the several States are as follow:—

INVALID PENSIONS.—SEXES OF PENSIONERS, 1932-33.

State.	Males.	Females.	Total.	Masculinity.(a)
New South Wales .. ..	13,474	17,255	30,729	78.1
Victoria .. ..	8,955	11,236	20,191	79.7
Queensland .. ..	4,931	5,330	10,261	92.5
South Australia .. ..	1,970	3,049	5,019	64.6
Western Australia .. ..	1,820	2,007	3,827	90.7
Tasmania .. ..	1,227	1,488	2,715	82.5
<b>Total .. ..</b>	<b>32,377</b>	<b>40,365</b>	<b>72,742</b>	<b>80.2</b>

(a) Number of males to each 100 females.



(iii) *Ages and Conjugal Conditions of Pensioners, 1933.* The recorded ages of the 7,179 persons (3,850 males and 3,329 females) to whom invalid pensions were granted during the period under review varied from 16 to 84.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows:—Males—single, 1,650; married, 2,018; and widowed, 182. Females—single, 1,363; married, 1,342; and widowed, 624.

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 1932–33, the total cost to the Commonwealth of administering the Old-age and Invalid Pensions Department was £92,305, or about 0.86 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 1932–33, apart from the cost of administration and inclusive of the amount paid to asylums and hospitals for the maintenance of pensioners, was £10,771,061.

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 Fortnightly Pension on last day of Financial Year.
	Old-age.		Invalid.	Total.					
	No.	Est. No. per 1,000 of persons eligible on age qualification. (a)							
			No.	No.	£	£	£	£ s. d.	s. d.
1929	145,393	310	59,148	204,541	9,991,299	10,124,239	86,605	0 17 1	38 5
1930	155,196	320	63,304	218,500	10,633,979	10,791,325	89,201	0 16 6	38 5
1931	172,177	343	68,343	240,520	11,549,828	11,710,953	93,077	0 15 11	38 4
1932	183,317	354	72,292	255,609	10,978,633	11,125,956	81,859	0 14 9	33 3b
1933	176,425	331	72,742	249,167	10,643,196	10,771,061	92,305	0 17 2	31 10

(a) Based on a special estimate in 1932 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.

(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 1929 to 1933 :—

## MATERNITY ALLOWANCE.—SUMMARY.

Year.	Claims Paid.	Claims Rejected.	Amount Paid.	Cost of Administration.	Cost per £100 of allowance paid.
	No.	No.	£	£	£ s. d.
1928-29 ..	132,304	901	661,520	16,626	2 10 3
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
Aggregate— 1912-13 to 1932-33 ..	2,648,196	24,168	13,076,288	291,926	2 4 8

(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.
1929 .. ..	54,275	34,132	19,040	11,148	8,888	4,777	44	132,304
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
Total, 1910 to 1932-33 ..	1,056,083	693,844	389,782	230,443	168,025	109,192	827	2,648,196

## § 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, 1933, was 30,726, viz., 27,497 males and 3,229 females, and the average pension contributed for was 4.399 units or £114 7s. 6d. per annum.

During 1932-33, the receipts of the fund amounted to £561,514, of which officers' contributions represented £388,484. The payments from the fund for the year were £558,283, of which £373,592 was invested, bringing the total funds invested to £4,156,039 (at cost). The average rate of interest on investments at 30th June, 1933, was 4.53 per cent.

Pensions in force on the 30th June, 1933, numbered 4,538, with a net annual liability after the reduction of 20 per cent. of the Commonwealth's share of pensions referred to in the next paragraph, of £330,911, of which £250,395 represents 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 1933 and the aggregate at each mint to the end of 1933 were as follow:—

#### AUSTRALIAN MINTS.—RECEIPTS OF GOLD, 1933, AND TOTAL.

Mint.	Deposits during 1933.	Total to end of 1933.		
		Quantity.		Value.
		Gross.	Fine.	
	ozs. Gross.	ozs.	ozs.	£
Sydney ..	..	(a) 42,082,928	(a) 36,907,045	(a) 156,771,141
Melbourne ..	306,893	42,581,756	38,947,903	165,440,068
Perth ..	798,092	35,418,421	28,996,545	123,169,417
<b>Total ..</b>	<b>1,104,985</b>	<b>120,083,105</b>	<b>74,851,493</b>	<b>445,380,626</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 1933, 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.		
1933—	£	£	£	£	£
Melbourne ..	..	..	..	820,961	820,961
Perth ..	..	..	..	2,721,677	2,721,677
<b>Total, 1933</b>	..	..	..	3,542,638	3,542,638
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	16,415,865	123,167,400
<b>Total to end of 1933 ..</b>	<b>398,102,878</b>	<b>6,095,118</b>	<b>404,197,996</b>	<b>41,200,475</b>	<b>445,398,471</b>

(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 November, 1934. Particulars are also shown for the value of the sovereign.

## PRICE OF GOLD.—LONDON AND AUSTRALIA, 1932 to 1934.

Month.	London.		Australia.		Equivalent to a premium of—
	Average price per ounce, fine.	Average value of Sovereign.	Average price per ounce, fine.	Average value of Sovereign.	
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
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
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

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 the table in Chapter XVII., Mineral Industry.

(ii) *Profits on Coinage of Silver.* As sixty-six shillings are coined out of one pound troy of standard silver (.925 fine), the silver required to produce £3 6s. of coin cost, at the average 1933 London market price of 1s. 6.14d. per ounce, approximately 18s. 2d. 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	405,513	103,895	409,408
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
<b>Total ..</b>	<b>3,928,000</b>	<b>1,846,500</b>	<b>866,700</b>	<b>829,700</b>	<b>7,470,900</b>	<b>346,633</b>	<b>126,125</b>	<b>472,758</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 1933 was as follows :—Melbourne, nil; Perth, nil. The total withdrawals of worn silver coin to 1933 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 1930 to 1933 are given in the following table.

## COMMONWEALTH NOTE ISSUE.—PARTICULARS.

Particulars.	Average of monthly statements for year—				
	1914	1930.	1931.	1932.	1933.
Notes held by—	£	£	£	£	£
Banks ..	(a)	21,322,892	24,939,874	24,916,825	22,685,449
Public ..	(a)	23,446,192	25,221,885	25,740,767	25,033,410
<b>Total ..</b>	<b>11,944,848</b>	<b>44,769,084</b>	<b>50,161,759</b>	<b>50,657,592</b>	<b>47,718,859</b>
Gold Reserve ..	5,368,822	18,143,823	13,144,494	(b)10,616,563	(b)11,672,099
Percentage of Reserve on Total Issue ..	%	%	%	%	%
	44.9	40.5	26.2	21.0	24.46

(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 1929 to 1933 are given in Finance Bulletin No. 24 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 1933.

## ESTIMATED LEGAL TENDER EXTANT.—AUSTRALIA.

Particulars.	1930.	1931.	1932.	1933.
Australian Note Issue (a)—	£'000.	£'000.	£'000.	£'000.
Held by Banks ..	22,342	25,351	26,505	23,346
Held by Public ..	22,572	25,302	24,798	24,207
Notes of Trading Banks outstanding (b)	199	198	197	181
Coin—Gold—Held by Banks (c)	1,091	312	158	61
Held by Public ..	..	..	..	..
Silver—Held by Banks ..	2,577	2,026	2,289	2,047
Held by Public ..	4,163	5,031	5,057	5,289
Bronze—Held by Banks ..	145	133	110	105
Held by Public ..	288	300	341	364
<b>Total ..</b>	<b>53,377</b>	<b>58,653</b>	<b>59,455</b>	<b>55,600</b>

(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 expenditure are difficult, owing to the fact that functions which in one State are assumed by the Central Government are in another relegated to local governing bodies, and that costly developmental work may, under certain conditions, be not only economically justifiable but may be essential to progress, while parsimonious expenditure may be an economic blunder. Similarly, as regards revenue, imposts which in some States are levied by the Central Government, are in others dealt with by local or quasi-governmental bodies. 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 396 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 contributes to the Railways Commissioners an amount not exceeding £800,000 in respect of losses on country developmental railways. To avoid duplication in determining the aggregate receipts



and expenditure for each of the past four years, a sum of £800,000 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 not been included 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 previously published herein for New South Wales have been amended to 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)	Q'land.	S. Aust.	W. Aust. (b)	Tasmania.	All States.
TOTAL COLLECTIONS.							
	£	£	£	£	£	£	£
1928-29	50,499,913	28,156,034	16,725,682	10,840,914	9,947,951	2,766,434	118,936,928
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
PER HEAD OF POPULATION.(c)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1928-29	20 6 7	15 19 9	18 15 2	18 9 0	23 19 11	12 15 8	18 15 2
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

(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.

There was a marked increase in the revenue per head in all the States up to the year 1928-29, but in 1929-30 there was a decline of about 16s. per head in the total. A fall of £1 5s. per head was recorded in 1930-31, followed by a further fall of 16s. 6d. per head in 1931-32, when the revenue per head, £15 18s. 3d., was the lowest since 1922-23. In 1932-33 the position improved by 10s. 10d. per head to £16 9s. 1d. Revenue from Business Undertakings receded by £5 millions in 1929-30, by £8.7 millions in 1930-31, and by £1.2 millions in 1931-32, but increased slightly in 1932-33.

3. Sources of Revenue.—(i) *General.* Classifying the revenue of the several States in the manner indicated in *1 ante*, particulars for the year 1932-33 are as follow:—

## STATE CONSOLIDATED REVENUE.—SOURCES, 1932-33.

Particulars.	N.S.W. (a)	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>TOTAL REVENUE.</b>							
Taxation (c) ..	£ 918,052,914	£ 8,301,194	£ 3,308,981	£ 2,733,445	£ 1,128,514	£ 1,003,454	£ 34,528,502
Business Under- takings ..	223,970,309	11,467,817	6,071,970	4,660,710	4,578,724	480,563	51,230,093
Territorial ..	1,726,946	360,459	1,243,972	184,924	279,151	56,422	3,851,874
Commonwealth pay- ments ..	2,917,411	2,127,159	1,096,235	61,703,816	(b)973,432	(l)596,859	9,414,912
Interest ..	733,464	1,694,218	1,017,153	821,609	(e)	370,081	4,636,525
Miscellaneous ..	1,928,513	755,138	658,333	56,208	1,372,332	14,812	4,785,336
<b>Total ..</b>	<b>49,329,557</b>	<b>24,705,985</b>	<b>13,396,644</b>	<b>10,160,712</b>	<b>8,332,153</b>	<b>2,522,191</b>	<b>108,447,242</b>

## PER HEAD OF POPULATION. (h)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Taxation (c) ..	(g)6 19 4	4 11 6	3 10 4	4 14 4	2 11 8	4 8 1	5 4 9
Business Under- takings ..	(d)9 5 0	6 6 4	6 9 1	8 0 10	10 9 7	2 2 2	7 15 6
Territorial ..	0 13 4	0 4 0	1 6 5	0 6 5	0 12 9	0 4 11	0 11 8
Commonwealth pay- ments ..	1 2 6	1 3 5	1 3 4	(b)2 18 10	(b)2 4 7	(b)2 12 4	1 8 7
Interest ..	0 5 8	0 18 8	1 1 7	1 8 4	(e)	1 12 6	(f)0 14 1
Miscellaneous ..	0 14 11	0 8 4	0 14 0	0 1 11	3 2 10	0 1 4	0 14 6
<b>Total ..</b>	<b>19 0 9</b>	<b>13 12 3</b>	<b>14 4 9</b>	<b>17 10 8</b>	<b>19 1 5</b>	<b>11 1 4</b>	<b>16 9 1</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 tax. In addition to these, a State land tax and licence fees of various kinds are collected in all the States, while a dividend tax is levied in Western Australia and a family endowment tax is imposed in New South Wales.

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 1932-33 are given in the following table :-

## STATE REVENUE FROM TAXATION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
<b>TOTAL.</b>							
	£	£	£	£	£	£	£
1928-29	13,625,238	7,192,115	5,175,137	3,767,994	1,721,833	1,111,533	32,593,850
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

## PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1928-29	5 9 8	4 1 8	5 16 1	6 11 9	4 3 1	5 2 9	5 2 10
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

(a) Based on mean population of each financial year.

Taking the States as a whole, taxation decreased by 2s. 8d. per head during the period 1928-29 to 1931-32, but increased by 13s. 1d. during the year 1932-33. During the period covered in the above table New South Wales, Victoria and Queensland showed increases of £1 9s. 8d., 9s. 10d. and 4s. 3d. respectively and South Australia, Western Australia and Tasmania showed decreases of £1 17s. 5d.; 11s. 1d.; and 14s. 9d. respectively. These decreases, however, were due to lower taxpaying capacity and not to reduced imposts.

(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 later. (See Chapter XVI., Private Finance, Section F.)

The duties collected for the last five financial years are as follow :—

STATE PROBATE AND SUCCESSION DUTIES.—COLLECTIONS.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
New South Wales ..	1,816,927	1,860,052	1,496,641	1,251,650	1,639,979
Victoria ..	1,079,840	1,133,422	1,131,603	1,014,669	1,164,200
Queensland ..	524,135	491,892	528,129	424,522	452,872
South Australia ..	329,924	395,082	254,264	323,008	299,826
Western Australia ..	82,469	75,707	72,093	63,162	91,995
Tasmania ..	74,812	65,991	78,275	86,764	117,387
Total ..	3,908,107	4,022,146	3,561,005	3,163,775	3,766,259

(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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
New South Wales ..	1,586,776	1,362,147	931,308	843,986	929,158
Victoria ..	1,017,908	985,088	704,958	639,578	725,834
Queensland ..	575,809	555,391	442,149	418,205	423,450
South Australia ..	469,861	379,546	285,915	164,708	177,396
Western Australia ..	291,400	255,725	170,949	189,174	181,642
Tasmania ..	62,623	64,929	114,401	137,876	100,020
Total ..	4,004,377	3,602,826	2,649,680	2,393,527	2,537,500

(d) *Land Tax.* All the States impose a land tax, although Queensland, the last State to fall into line, collected 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 1928-29 to 1932-33 :—

STATE LAND TAX.—COLLECTIONS.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
New South Wales ..	2,870	2,588	2,486	2,453	1,968
Victoria ..	560,765	531,426	506,025	497,609	503,752
Queensland ..	569,551	556,532	503,656	346,064	442,584
South Australia ..	452,994	440,265	486,505	434,544	306,198
Western Australia ..	196,301	219,066	168,579	132,368	130,963
Tasmania ..	99,384	99,453	97,963	95,916	92,823
Total ..	1,881,865	1,849,330	1,765,214	1,508,954	1,478,288

(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 1928-29 to 1932-33. 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
New South Wales .. ..	7,343,049	7,084,465	6,183,481	3,411,146	3,870,616
Victoria .. ..	2,881,917	2,981,050	2,659,585	2,061,561	2,117,000
Queensland .. ..	2,714,764	2,405,810	2,522,300	1,652,329	1,689,383
South Australia .. ..	1,735,922	1,507,375	1,802,176	1,484,066	1,254,961
Western Australia .. ..	644,836	751,116	562,695	436,767	336,001
Tasmania .. ..	309,165	322,098	302,925	242,347	339,239
<b>Total .. ..</b>	<b>15,629,653</b>	<b>15,051,914</b>	<b>14,033,162</b>	<b>9,288,216</b>	<b>9,607,200</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 but in Tasmania no special tax for this purpose was raised. Further references to this matter are included in the Chapter dealing with Labour, Wages and Prices. Detailed information may also be found in the *Labour Report*, Nos. 22 to 24.

(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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
New South Wales .. ..	1,710,453	1,807,376	1,669,969	1,617,387	1,608,154
Victoria .. ..	1,103,718	1,196,831	1,118,170	1,124,362	1,222,684
Queensland .. ..	477,310	523,881	519,108	519,467	525,967
South Australia .. ..	a 623,587	a 620,627	461,955	499,704	503,386
Western Australia .. ..	265,059	314,300	286,140	278,816	274,721
Tasmania .. ..	80,296	89,791	95,370	93,567	97,210
<b>Total .. ..</b>	<b>4,260,423</b>	<b>4,552,806</b>	<b>4,150,712</b>	<b>4,133,303</b>	<b>4,232,122</b>

(a) Includes motor spirit tax.

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) 1932-33. 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 1932-33 the revenue from these sources was £51,230,093, or 47 per cent. of the revenue from all sources. Details of revenue are as follow :—

#### STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1932-33.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Railways and tramways	£18,723,033	£9,261,443	£5,851,207	£2,771,405	£3,203,019	£430,766	£40,190,873
Harbour services	880,012	57,331	76,787	564,568	280,829	..	1,859,527
Water supply and sewerage	£3,078,892	£604,960	..	£914,572	£565,392	..	£5,163,816
Other	1,288,372	1,544,083	143,976	410,165	529,484	£99,797	£4,015,877
<b>Total</b>	<b>23,970,309</b>	<b>11,467,817</b>	<b>6,071,970</b>	<b>4,660,710</b>	<b>4,578,724</b>	<b>480,563</b>	<b>51,230,093</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 419 the particulars shown above for New South Wales railways and tramways do not include a sum of £800,000, recouped to Railways Commissioners from Consolidated Revenue in respect of losses on operating country developmental railways.

(b) 1928-29 to 1932-33. Particulars of the revenue from Business Undertakings for the last five years are given below.

#### STATE REVENUE FROM BUSINESS UNDERTAKINGS.(a)

Particulars.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Railways and Tramways	52,764,377	48,606,108	40,943,417	39,822,890	40,190,873
Harbour Services	2,277,611	2,120,023	1,742,907	1,761,715	1,859,527
Water Supply and Sewerage	5,188,584	5,185,780	5,008,555	5,189,034	5,163,816
Other	5,493,876	4,868,376	4,388,903	4,114,160	4,015,877
<b>Total</b>	<b>65,724,448</b>	<b>60,780,287</b>	<b>52,083,782</b>	<b>50,887,799</b>	<b>51,230,093</b>

(a) See notes to previous table.

During the above period the total revenue from Business Undertakings decreased by 22·1 per cent., Railways and Tramways showing a decrease of 23·8 per cent. and Harbour Services 18·4 per cent. Revenue from Water Supply and Sewerage Services has been fairly constant since 1928-29.

(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 1932-33 :—

## STATE TERRITORIAL REVENUE, 1932-33.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Sales ..	39,223	16,218	..	19,654	7,222	16,973	99,290
Rentals ..	1,623,914	231,216	1,099,167	165,270	210,494	26,220	3,356,281
Forestry ..	63,809	113,025	144,805	..	61,435	13,229	396,303
<b>Total ..</b>	<b>1,726,946</b>	<b>360,459</b>	<b>1,243,972</b>	<b>184,924</b>	<b>279,151</b>	<b>56,422</b>	<b>3,851,874</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 Trust Funds) represent in each instance a considerable proportion of the States' revenue, and for the year 1932-33 aggregated £9,134,912, or 8.7 per cent. of the total revenue of the States.

(vi) *Interest and Miscellaneous.* In addition to the foregoing, there are in each State several miscellaneous sources of revenue, including such items as interest, fines, fees, etc. In 1932-33 interest, mainly from loans to local governing bodies and on public account balances, was responsible for £4,636,525, exclusive of Western Australia, where interest is included under "Miscellaneous" which aggregated £4,785,335.

## Division II.—Expenditure.

**I. 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. 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 1932-33, working expenses were £733,124 less than for 1931-32 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, 10 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.							
	£	£	£	£	£	£	£
1928-29	52,123,999	28,104,947	16,902,145	11,771,772	10,223,919	2,855,977	121,982,759
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

PER HEAD OF POPULATION.(c)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1928-29	20 19 8	15 19 2	18 19 2	20 11 7	24 13 3	13 3 11	19 4 9
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

(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 420. (c) Based on mean population of each financial year.

3. Details of Expenditure for 1932-33.—The following table shows the total expenditure and expenditure per head under each of the principal items:—

## STATE EXPENDITURE.—DETAILS, 1932-33.

Particulars.	N.S.W. (c)	Victoria. (c)	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL.							
	£	£	£	£	£	£	£
Public debt (Interest, sinking fund, etc.)	16,900,431	8,438,251	6,433,523	5,370,959	4,093,694	1,226,863	42,462,821
Railways and Tramways (working expenses) ..	414,850,765	46,159,472	64,270,293	62,025,512	2,315,682	6372,560	29,994,284
Water Supply and Sewerage (f) ..	9804,879	202,409	214,689	283,092	215,514	..	1,520,583
Justice ..	492,379	210,373	164,096	55,546	70,071	29,369	1,021,834
Police ..	1,409,162	790,691	499,740	278,209	203,298	83,798	3,264,898
Penal establishments	305,636	97,128	28,290	40,483	24,449	11,535	507,521
Education ..	3,856,316	2,418,802	1,373,473	892,192	607,481	244,464	9,392,728
Medical and charitable	9,172,901	3,008,464	1,017,884	1,173,795	682,655	243,550	15,299,249
All other expenditure	5,167,808	4,221,896	1,149,100	1,050,722	983,390	365,268	12,938,184
Total ..	52,960,277	25,547,486	14,951,088	11,169,610	9,196,234	2,577,407	116,402,102

(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, £78,321 and South Australia, £80,267. (g) Portion only from Consolidated Revenue Fund.

## STATE EXPENDITURE.—DETAILS, 1932-33—continued.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
PER HEAD OF POPULATION.(a)							
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Public debt (interest, sinking fund, etc.)	6 10 5	4 13 0	6 16 9	9 5 4	9 7 5	5 7 8	6 8 11
Railways and Tramways (working expenses) ..	5 14 8	3 7 11	4 10 9	3 9 11	5 6 0	1 12 8	4 11 0
Water Supply and Sewerage ..	0 6 2	0 2 3	0 0 4	0 9 9	0 9 10	..	0 4 7
Justice ..	0 3 10	0 2 4	0 3 6	0 1 11	0 3 3	0 2 7	0 3 1
Police ..	0 10 11	0 8 8	0 10 8	0 9 7	0 9 4	0 7 4	0 9 11
Penal establishments ..	0 2 4	0 1 1	0 0 7	0 1 5	0 1 1	0 1 0	0 1 7
Education ..	1 9 9	1 6 8	1 9 2	1 10 10	1 7 10	1 1 5	1 8 6
Medical and charitable	3 10 10	1 13 2	1 1 8	2 0 6	1 11 3	1 1 5	2 6 5
All other expenditure	1 19 11	2 6 6	1 4 5	1 16 3	2 5 0	1 12 1	1 19 3
Total ..	20 8 10	14 1 7	15 17 10	19 5 6	21 1 0	11 6 2	17 13 3

(a) Based on mean population of the financial year.

## Division III.—Surplus Revenue.

The following table shows for each of the years 1928-29 to 1932-33 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.
	£	£	£	£	£	£	£
1928-29 ..	-1,624,086	51,087	-176,463	-930,858	-275,968	-89,543	-3,045,831
1929-30 ..	-4,812,348	-1,172,870	-723,185	-1,625,824	-518,004	-25,720	-8,877,951
1930-31 .. <sup>b</sup>	-8,752,435	-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	-7,954,860

## PER HEAD OF POPULATION.(c)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1928-29 ..	-0 13 1	0 0 7	-0 4 0	-1 12 7	-0 13 4	-0 8 3	-0 9 7
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 1	-0 9 4	-1 13 1	-1 14 10	-1 19 7	-0 4 10	-1 4 2

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, 1933, was as follows :—

#### STATE TRUST FUNDS, 30th JUNE, 1933.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
Amount of trust funds	24,144,728	6,376,738	1,996,551	1,469,788	3,859,838	544,095	38,391,738

### § 4. State Loan Funds.

#### Division I.—Loan Expenditure.

1. *General.*—As far back as the year 1842, revenue collections were supplemented with borrowed moneys, the earliest loan being by New South Wales for the purpose of assisting immigration, at rates of interest varying from 2½d. to 5½d. per £100 per diem. or approximately from 4½ per cent. to 8 per cent. per annum. Australian public borrowing, however, is mainly due to the fact that the State Governments, in addition to ordinary administrative duties, undertake functions which in other countries are usually entrusted to local authorities or left to private enterprise. Foremost amongst these are the construction and control of the railway systems, but loan moneys have 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, 1932-33.—(a) *Gross loan expenditure, 1932-33.* Particulars of the gross loan expenditure for the year 1932-33 are given in the following table:—

## STATE GROSS LOAN EXPENDITURE, 1932-33.

Heads of Expenditure.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	All States.
	£	£	£	£	£	£	£
<b>Public Works—</b>							
Railways .. .. .	398,746	156,728	69,041	101,207	180,567	} 100,050	1,117,691
Tramways .. .. .	96,925	..	..	(b) 8,825	5,602		
Roads .. .. .	..	118,119	} 191,551	..	83,004	} 58,690	1,262,461
Bridges .. .. .	394,432	5,832		..	..		
Harbours and Rivers ..	78,571	..	..	89,344	} 242,918	}	
Lights and Lighthouses	..	..	..	..			
Water Supply .. .. .	82,774	488,072	..	343,533	194,620	..	1,108,999
Sewerage .. .. .	284,643	(c) 6,779	..	198,905	125,055	..	615,382
Electricity Supply .. .	11,392	..	..	..	918	19,957	32,267
Loans to Local Bodies ..	(c)	..	620,999	57,045	..	501	678,545
Advances for Housing ..	204	..	277,625	67,016	35,000	14,101	393,946
Other Public Works .. .	2,921,151	1,204,863	231,909	181,836	44,781	20,216	4,624,756
<b>Primary Production—</b>							
Soldier Settlement .. .	..	216,437	12,888	21,611	403	104,635	355,974
Land for Settlement .. .	..	372,410	298,398	57	..	19,992	690,857
Water Conservation .. .	367,049	..	..	1,159	10,260	..	..
Irrigation and Drainage	151,482	..	29,489	3,234	451,606	..	1,014,279
Rabbit-proof Fencing ..	52,000	52,352	..	9,449	..	..	113,801
Agriculture .. .. .	775	..	33,131	..	143,101	..	177,007
Agricultural Bank .. .	..	..	224,642	..	303,257	..	527,899
Advances to Settlers ..	40	204,676	(a)	74,416	159,937	29,932	1,143,001
Forestry .. .. .	..	26,288	44,102	183,866	114,303	..	368,619
<b>Mines and Mineral Resources .. .. .</b>	..	..	95,997	..	30,195	..	126,192
<b>Other .. .. .</b>	68,667	..	50,000	5,792	..	..	124,459
<b>Other Purposes .. .. .</b>	320	..	10,774	1,476	14,388	71,777	98,735
<b>Total Public Works, etc., Expenditure ..</b>	4,909,171	2,852,556	2,190,546	2,022,771	2,139,975	439,851	14,554,870
<b>Per head of Population</b>	£1 17 11	£1 11 5	£2 6 7	£3 9 10	£4 18 0	£1 18 7	£ 2 4 2
<b>Non-Works—</b>							
Exchange on Remittances	537,762	..	..	..	..	..	537,762
Sinking Fund Contribution ..	..	..	100,000	..	..	..	100,000
Discounts and Flotation Expenses .. .. .	1,245,337	8,954	..	..	106,787	3,674	1,364,752
Revenue Deficits .. .. .	5,043,775	..	1,554,444	2,877,217	864,081	..	10,339,517
General Cash Deficits .. .	4,095,000	..	..	..	..	..	4,095,000
<b>Total Non-Works Expenditure ..</b>	10,921,874	8,954	1,654,444	2,877,217	970,868	3,674	16,437,031
<b>Grand Total .. .. .</b>	15,831,045	2,861,510	3,844,990	4,899,988	3,110,843	443,525	30,991,901

(a) Included with Land for Settlement. (b) Loans to Local Bodies for Tramways. (c) Included with Other Public Works. (d) Includes Loans for Unemployed Relief. (e) Country Towns.

(b) *Net loan expenditure, 1932-33.* For the year ended 30th June, 1933, State net loan expenditure on Public Works amounted to £9,701,511 while other non-works expenditure was £16,437,031 making an aggregate for the year of £26,136,224. Details for the year for each State are given in the following table:—

## STATE NET LOAN EXPENDITURE, 1932-33.

Heads of Expenditure.	New South Wales.	Victoria. (a)	Queensland	South Australia.	Western Australia.	Tasmania.	All States.
<b>Public Works—</b>	£	£	£	£	£	£	£
Railways .. ..	214,885	..	Cr. 28,829	Cr. 101,622	180,495	..	..
Tramways .. ..	87,889	..	..	Cr. €35,439	5,602	Cr. 6,682	316,299
Roads .. ..	Cr. 95,127	88,680	83,125	Cr. 8,933	83,004	..	..
Bridges .. ..	328,631	5,408	..	..	..	..	..
Harbours and Rivers ..	72,986	Cr. 1,904	Cr. 1,127	41,052	242,279	55,591	893,540
Lights and Lighthouses	..	..	..	Cr. 125	..	..	..
Water Supply .. ..	28,099	478,715	..	250,993	194,280	..	952,087
Sewerage .. ..	269,098	(b) 5,746	..	170,938	99,535	..	545,317
Electricity Supply ..	4,384	..	..	..	918	Cr. 129,343	Cr. 124,041
Public Buildings ..	219,849	Cr. 2,817	228,013	52,923	34,634	3,718	536,320
Loans to Local Bodies ..	(c) ..	Cr. 7,495	278,424	30,074	Cr. 892	Cr. 16,652	283,459
Unemployment Relief ..	2,686,515	1,205,812	Cr. 8,062	..	..	..	3,884,265
Advances for Housing ..	Cr. 11,980	..	58,352	85,658	35,000	Cr. 8,682	Cr. 12,968
Other Public Works ..	Cr. 6,028	Cr. 7,631	Cr. 52,539	88,106	10,146	..	32,054
<b>Primary Production—</b>							
Soldier Settlement ..	..	63,685	Cr. 53,275	Cr. 57,806	Cr. 47,443	3,931	Cr. 90,908
Land for Settlement ..	Cr. 38	214,234	162,001	Cr. 20,059	..	Cr. 941	355,197
Water Conservation ..	314,432	..	14,228	Cr. 5,699	20,173	..	846,352
Irrigation and Drainage	87,202	..	..	Cr. 23,370	449,386	..	..
Rabbit-Proof Fencing ..	51,931	36,676	Cr. 17,860	2,169	Cr. 7	..	72,909
Agriculture .. ..	775	..	9,331	..	136,244	..	146,350
Agricultural Bank ..	..	..	Cr. 138,670	..	303,257	..	164,587
Advances to Settlers ..	Cr. 554	Cr. 1,164	..	227,053	157,440	Cr. 10,729	372,046
Forestry .. ..	..	26,288	40,971	119,026	114,363	..	300,648
Mines and Mineral Resources ..	..	..	43,522	..	27,386	..	70,908
Other .. ..	68,180	..	50,000	Cr. 1,900	..	..	116,280
<b>Other Purposes ..</b>	Cr. 1,363	Cr. 9,962	4,869	Cr. 40	12,424	34,882	40,810
<b>Total Public Works etc., Expenditure</b>	4,319,766	2,094,271	672,474	(d) 641,683	2,048,224	Cr. 74,907	9,701,511
<b>Non-Works—</b>							
Exchange on Remittances	537,762	..	..	..	..	..	537,762
Sinking Fund Contribution ..	..	..	100,000	..	..	..	100,000
Discount and Flotation Expenses .. ..	1,245,337	8,954	..	..	106,787	1,356	1,362,434
Revenue Deficits ..	5,043,775	..	1,554,444	2,877,217	864,081	..	10,339,517
General Cash Deficits ..	4,095,000	..	..	..	..	..	4,095,000
<b>Total Non-Works Expenditure</b>	10,921,874	8,954	1,654,444	2,877,217	970,868	1,356	16,434,713
<b>Grand Total ..</b>	15,241,640	2,103,225	2,326,918	3,518,900	3,019,092	Cr. 73,551	26,136,224

(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 £259,790 arising from cancellation of securities redeemed from Sinking Fund. (e) Included with Unemployment Relief. (f) Includes credit of £117,611, transfer from Hydro-Electric Commission reserve in reduction of capital.

3. Net Loan Expenditure, 1928-29 to 1932-33.—The following table gives the works net loan expenditure during each of the years 1928-29 to 1932-33 :—

## STATE NET LOAN EXPENDITURE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
<b>TOTAL.</b>							
	£	£	£	£	£	£	£
1928-29	14,249,082	7,060,593	2,141,653	3,536,422	4,136,865	348,818	31,473,433
1929-30	10,878,627	5,868,445	2,295,866	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	6209,137	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

(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 1932-33 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.
1928-29	5 14 9	4 0 2	2 8 0	6 3 8	9 19 7	1 12 3	4 19 3
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

The loan expenditure per head of population varies in the different States and in different years, reaching its highest point for the five years under review in Western Australia in 1928-29 with £9 19s. 7d. per head, and its lowest in Tasmania in 1932-33 when repayments exceeded expenditure by £74,907 or 6s. 7d. per head.

4. Total Loan Expenditure to 30th June, 1933.—The total loan expenditure inclusive of revenue deficits, etc., of the States from the initiation of borrowing to the 30th June, 1933, amounted to £865,971,496. The purposes for which this sum was expended are shown in the following table:—

## TOTAL STATE LOAN EXPENDITURE TO 30th JUNE, 1933.

Heads of Expenditure.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	All States.
	£	£	£	£	£	£	£
<b>Public Works—</b>							
Railways ..	139,578,324	74,085,988	61,652,135	31,940,470	24,039,825	6,911,662	357,578,428
Tramways ..	12,368,849	..	2,403,540	3,441,372	1,006,263		
Roads and Bridges	16,436,863	11,851,827	..	3,140,603	2,835,932	6,835,309	78,478,368
Harbours, Rivers, Lighthouses ..	20,109,646	990,506	2,414,313	7,747,785	6,115,584		
Water Supply ..	23,542,304	28,247,370	..	13,169,740	6,471,919	..	71,431,333
Sewerage ..	14,154,313	(d) 212,402	..	2,802,376	2,044,797	..	19,213,888
Electricity Supply ..	1,202,608	17,839,227	..	..	1,186,780	3,712,501	23,941,116
Public Buildings ..	8,171,608	6,411,211	3,624,394	3,148,257	1,618,476	1,802,637	24,776,583
Loans to Local Bodies	2,871,592	1,129,414	11,412,440	491,224	94,112	1,191,075	24,411,783
Unemployment Relief	781,481	1,205,833	..	6,015,493	..	..	
Advances for Housing	..	..	4,124,356	..	635,500	191,593	5,732,930
Commonwealth Services ..	3,965,937	..	524,387	1,283,387	..	..	5,773,711
Other Public Works ..	411,119,263	1,729,005	..	2,279,387	1,510,649	..	16,638,304
<b>Primary Production—</b>							
Soldier Settlement ..	..	27,322,204	1,577,718	8,596,734	7,394,757	2,029,058	92,407,476
Land for Settlement	4,263,955	12,371,294	..	..	324,662	..	
Closer Settlement ..	9,738,429	..	2,418,398	1,659,774	..	394,997	24,664,847
Advances to Settlers	4,307,349	1,861,252	..	3,029,014	9,082,598	342,632	
Water Conservation	..	..	2,256,390	1,379,932	1,012,372	..	4,788,628
Irrigation and Drainage ..	9,555,836	..	..	4,788,628	1,364,340	..	
Rabbit Proof Fencing	..	737,136	299,576	252,578	341,765	..	1,631,055
Agricultural Bank ..	..	..	2,238,934	..	5,503,695	..	7,742,629
Mines and Mineral Resources ..	..	271,022	1,918,103	..	2,599,487	..	4,788,612
Other ..	..	668,014	1,187,197	1,465,651	3,361,125	..	6,681,987
Other Purposes ..	c 3,483,201	1,740,225	c 7,034,898	1,836,861	3,487,220	2,810,329	20,392,734
<b>Total Public Works, etc., Expenditure</b>	<b>285,651,558</b>	<b>188,673,930</b>	<b>105,146,779</b>	<b>98,469,266</b>	<b>262,121,858</b>	<b>26,222,393</b>	<b>786,285,784</b>
<b>Non Works—</b>							
Exchange on Re- mittances ..	13,326,764	..	..	..	..	..	21,662,291
Discounts and Flota- tion Expenses ..		4,927,749	..	..	3,407,778	..	
Sinking Fund Contri- bution ..	..	..	400,000	..	..	..	400,000
Revenue Deficits ..	5,043,775	3,875,682	1,554,444	6,737,305	10,500,605	496,272	28,208,083
General Cash Deficits	25,230,000	..	..	..	..	..	25,230,000
Treasury Bills Retired	..	..	4,185,338	..	..	..	4,185,338
<b>Grand Total ..</b>	<b>329,252,097</b>	<b>197,477,361</b>	<b>111,286,561</b>	<b>105,206,571</b>	<b>96,030,241</b>	<b>26,718,665</b>	<b>865,971,496</b>

(a) Includes Public Buildings other than Schools and Hospitals.

(b) Loans to Local Bodies for Tramways.

(c) Includes Industrial Undertakings.

(d) Country Sewerage.

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, 1929 to 1933.**—The table hereunder shows the State public debts and the amounts owing per head of population at the 30th June in each year from 1929 to 1933 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 32), 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, 1929	267,701,161	153,828,692	112,742,808	92,884,174	69,336,660	22,315,212	718,808,707
" 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	305,590,877	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

### PER HEAD OF POPULATION.(a)

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
30th June 1929	106 19 2	86 19 6	125 5 6	162 5 6	164 13 0	103 1 4	112 12 10	
" 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	

(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 £89 millions or at the rate of over £22 millions per annum. The debt per head of population increased during the period by £9 9s. to £122 1s. 10d. per head or about 8 per cent. The greatest advance was shown by Western Australia where the debt per head rose by £25 12s. 3d., followed by South Australia with an increase of £14 16s. 10d.; New South Wales with £13 15s. 9d.; Victoria with £6 and Tasmania with 12s. 4d. The debt of Queensland decreased by £4 8s. 8d. per head.

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 favorable 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, 1933, which had been floated abroad and in Australia respectively :—

## STATE PUBLIC DEBTS, 30th JUNE, 1933.—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	162,363,286	13,470,461	175,833,747	138,233,960	314,067,707
Victoria ..	63,444,606	4,615,021	68,059,627	101,178,445	169,238,072
Queensland ..	63,270,807	7,409,042	70,679,849	43,851,005	114,530,854
South Australia ..	43,760,156	1,779,308	45,539,464	57,362,881	102,902,345
Western Australia	45,697,799	2,072,331	47,770,130	35,744,567	83,514,697
Tasmania ..	13,620,237	234,624	13,854,861	9,743,084	23,597,945
Total ..	392,156,891	29,580,787	421,737,678	386,113,942	807,851,620

(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 403.

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 441.

The debt per head of population on the 30th June, 1933, was £122 1s. 10d. The amounts redeemable in London represented £59 5s. 4d. per head; in New York, £4 9s. 5d. per head; and in Australia, £58 7s. 1d. per head.

4. Rates of Interest.—(i) At 30th June, 1933. As mentioned previously, the highest rate of interest paid for the earliest State loans was 5½d. per £100 per diem, or, approximately, 8 per cent. per annum. At present the rates vary from 7 per cent. to 2 per cent., twenty-nine separate rates being involved. The average rate payable on the aggregate indebtedness is £4 2s. 5d. 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, 1933, 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 403.

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, 1933.

Rate of Interest.	Place of Maturity.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	All States.
%		£	£	£	£	£	£	£
7.0	New York	..	..	1,930,443	..	..	..	1,930,443
6.0	London	9,527,090	..	2,000,000	2,977,800	2,716,302	..	17,221,192
	New York	..	..	2,054,865	..	..	..	2,054,865
5.75	London	4,901,232	..	..	..	1,049,993	..	5,951,225
5.5	London	2,980,400	6,887,649	3,781,700	..	..	..	13,649,749
5.25	London	17,870,500	..	..	..	..	..	17,870,500
5.0375	Australia	3,035	..	2,792,500	8,000	250,000	268,740	3,322,275
5.0	London	42,731,232	30,191,874	39,219,894	20,342,399	18,779,352	2,584,987	153,849,738
	New York	9,577,828	3,793,116	2,300,339	1,779,308	2,072,331	234,624	19,757,546
4.75	London	..	5,999,000	..	..	..	..	5,999,000
4.65	Australia	577,910	90,000	..	2,152,200	1,321,733	200,000	4,341,843
4.5	London	10,954,600	..	..	..	2,631,165	..	13,585,765
	New York	3,892,633	821,905	1,123,395	..	..	..	5,837,933
4.45625	Australia	18,837	3,117,450	..	..	..	..	3,136,287
4.2625	Australia	12,929,919	3,154,709	2,186,120	2,910,590	597,957	..	21,779,295
4.25	London	..	..	..	..	..	137,750	137,750
4.06875	Australia	11,498,240	2,488,740	258,110	2,930,000	753,533	123,150	18,051,773
	London	62,863,190	54,470,053	15,551,219	35,583,203	17,811,590	7,600,489	193,879,744
4.0	London	19,714,842	2,962,116	6,000,000	6,064,222	5,962,436	3,800,000	44,503,616
3.875	Australia	3,084,120	20,536,718	1,640,020	2,744,615	1,968,809	137,030	30,111,312
3.75	Australia	10,856,900	6,293,865	1,937,925	2,502,900	3,205,457	306,270	25,103,317
	London	..	..	2,000,000	789,400	888,608	..	3,678,008
3.68125	Australia	..	80,730	..	..	..	..	80,730
3.5	Australia	..	39,855	565,200	..	21,000	..	626,055
	London	32,910,851	7,077,095	5,995,000	7,337,111	8,206,825	6,156,500	67,683,382
3.4875	Australia	66,500	500	6,445,955	83,050	1,765,558	171,802	8,533,365
3.29375	Australia	..	..	..	..	..	2,000	2,000
3.1	Australia	532,665	731,365	5,469,331	2,150	1,863,045	233,358	8,831,914
	London	6,600,135	3,159,531	5,475,280	3,026,173	232,700	295,145	18,788,964
3.0	Australia	12,715,113	5,340,346	4,274,213	2,433,499	2,899,304	450,000	28,112,475
	London	..	..	..	..	..	..	..
2.90625	Australia	360,550	220,000	5,100	319,092	..	..	904,742
2.75	Australia	16,075,000	2,875,000	295,000	3,120,000	2,995,000	245,000	25,605,000
2.7125	Australia	291,421	446,845	352,915	207,457	78,185	..	1,376,823
	London	11,815,000	2,695,000	820,000	1,400,000	2,880,000	160,000	19,770,000
2.5	London	8,047,776	4,986,526	..	2,815,725	2,563,814	..	18,413,841
2.325	Australia	659,973	778,084	54,750	373,451	..	..	1,866,258
	London	..	..	1,000,000	..	..	491,000	1,491,000
Overdue and unconverted	Australia	565	..	1,580	..	..	100	2,245
	London	9,650	..	..	..	..	..	9,650
Total Debt	Australia	138,233,960	101,178,445	43,851,005	57,362,881	35,744,567	9,743,084	386,113,942
	London	162,363,286	63,444,606	63,270,807	43,760,156	45,697,799	13,620,237	392,156,891
	New York	13,470,461	4,615,021	7,409,042	1,779,308	2,072,331	234,624	29,580,787
	Total	314,067,707	169,238,072	114,530,854	102,902,345	83,514,697	23,597,945	807,851,620
Total Interest	Australia	5,076,025	3,894,340	1,620,691	2,205,431	1,322,689	381,552	14,500,728
	London(a)	7,108,209	2,824,423	2,942,040	1,888,156	1,990,856	525,901	17,279,585
	New York	654,059	226,642	423,993	88,965	103,616	11,731	1,509,006
	Total	12,838,293	6,945,405	4,986,724	4,182,552	3,417,161	919,184	33,289,319
Average Rate of Interest payable	Australia	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
	London	3 13 5	3 17 0	3 13 11	3 16 11	3 14 0	3 18 4	3 15 1
	New York	4 7 7	4 9 0	4 13 0	4 6 4	4 7 2	3 17 3	4 8 2
		4 17 1	4 18 3	5 14 6	5 0 0	5 0 0	5 0 0	5 2 0
	Total	4 1 9	4 2 1	4 7 1	4 1 4	4 1 10	3 17 11	4 2 5

(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 loan 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 15s. 1d. per cent. in 1933. For debt maturing in London the average rate increased from £4 12s. 7d. per cent. in 1931 to £4 13s. 3d. in 1932, and as a result of the conversions effected in London prior to 30th June, 1933, fell to £4 8s. 2d. while for New York loans it fell from £5 2s. 6d. per cent. in 1931 to £5 2s. 3d. per cent. in 1932 and to £5 2s. 0d. in 1933.

(ii) *Variations from 1901 to 1933.*—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.
	%	%	%	%	%	%
Not exceeding 3 per cent.	18.0	17.9	10.2	5.3	6.6	14.4
Exceeding 3 per cent. but not exceeding 4 per cent. ..	78.5	81.9	45.4	17.2	48.2	47.4
Exceeding 4 per cent. but not exceeding 5 per cent. ..	3.1	0.1	15.6	36.8	34.3	30.5
Exceeding 5 per cent. but not exceeding 6 per cent. ..	0.4	0.1	23.5	38.4	9.2	7.5
Exceeding 6 per cent.	..	..	5.3	2.3	1.7	0.2
Total ..	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

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, 1933, 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, 1933,**

Year of Maturity (Ended 30th June).	Maturing in London.	Maturing in New York.	Total Maturing Overseas.	Maturing in Australia.	Grand Total.
	£ Str.	£ (b)	£ (a)	£ Aust.	£ (a)
1934 .. .. .	27,883,594	..	27,883,594	65,880,145	93,763,739
1935 .. .. .	15,480,158	..	15,480,158	22,813,163	38,293,321
1936 .. .. .	14,162,201	..	14,162,201	8,449,437	22,611,638
1937 .. .. .	6,375,532	..	6,375,532	10,177,174	16,552,706
1938 .. .. .	23,770,923	..	23,770,923	2,167,722	25,938,645
1939 .. .. .	2,858,276	..	2,358,276	39,212,777	41,571,053
1940 .. .. .	5,666,500	..	5,666,500	1,451,713	7,058,213
1941 .. .. .	22,177,985	..	22,177,985	4,638,485	26,816,470
1942 .. .. .	..	1,930,443	1,930,443	44,007,115	45,937,558
1943 .. .. .	24,634,150	..	24,634,150	24,342,557	48,976,707
1944 .. .. .	..	..	..	1,259,300	1,259,300
1945 .. .. .	12,769,046	..	12,769,046	23,950,063	36,719,109
1946 .. .. .	12,004,468	..	12,004,468	16,500	12,020,968
1947 .. .. .	5,707,813	2,054,865	7,762,678	1,287,928	9,050,606
1948 .. .. .	..	..	..	13,968,624	13,968,624
1949 .. .. .	5,202,146	..	5,202,146	697,165	5,899,311
1950 .. .. .	6,109,695	..	6,109,695	932,829	7,042,524
1951 .. .. .	20,857,428	..	20,857,428	13,827,027	34,684,455
1952 .. .. .	..	..	..	554,186	554,186
1953 .. .. .	..	..	..	491,718	491,718
1954 .. .. .	..	..	..	12,910,841	12,910,841
1955 .. .. .	3,345,804	..	3,345,804	778,078	4,123,882
1956 .. .. .	21,657,000	10,763,670	32,420,670	12,165,161	44,585,831
1957 .. .. .	..	4,784,034	4,784,034	346,685	5,130,719
1958 .. .. .	17,870,500	10,047,775	27,918,275	11,837,664	39,755,939
1960 .. .. .	3,850,724	..	3,850,724	11,618,112	15,468,836
1961 .. .. .	29,163,835	..	29,163,835	..	29,163,835
1962 .. .. .	4,964,083	..	4,964,083	11,385,645	16,349,728
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 .. .. .	2,000,000	..	2,000,000	..	2,000,000
1971 .. .. .	9,322,446	..	9,322,446	..	9,322,446
1976 .. .. .	65,284,674	..	65,284,674	50,064	65,334,738
Overdue .. .. .	9,650	..	9,650	565	10,215
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 .. .. .	..	..	..	4,759,934	4,759,934
Not fixed .. .. .	..	..	..	31,432,440	31,432,440
<b>Total .. .. .</b>	<b>392,156,891</b>	<b>29,580,787</b>	<b>421,737,678</b>	<b>386,113,942</b>	<b>807,851,620</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 403.

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 32, of this volume. Details of the transactions of the National Debt Sinking Fund (States' Account) are given in Finance Bulletin No. 24, 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 last five years to 1932-33, 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.
				£	£	£
1929	..	..	..	72,782,640	110,982,220	183,764,860
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	97,032,638	169,175,652

(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.
				£	£	£
1929	..	..	..	67,186,907	121,982,759	189,169,666
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	..	..	..	57,181,802	116,402,102	173,583,904

(a) Excluding Payments to States and Interest on States' Debts, etc.

2. **Taxation.**—The table hereunder shows the combined Commonwealth and State taxation for each of the years 1928-29 to 1932-33, 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
<b>Commonwealth—</b>					
Customs and Excise ..	41,058,571	41,774,391	28,295,073	28,405,796	32,992,443
Other .. ..	15,244,918	16,413,384	22,125,033	25,553,246	23,153,593
<b>Total .. ..</b>	<b>56,303,489</b>	<b>58,187,775</b>	<b>50,420,106</b>	<b>53,959,042</b>	<b>56,146,036</b>
<b>State .. ..</b>	<b>32,593,850</b>	<b>33,896,926</b>	<b>35,833,562</b>	<b>32,748,528</b>	<b>37,325,609</b>
<b>Grand Total ..</b>	<b>88,897,339</b>	<b>92,084,701</b>	<b>86,253,668</b>	<b>86,707,570</b>	<b>93,471,645</b>
<b>Taxation per head(b)—</b>					
<b>Commonwealth—</b>					
Customs and Excise ..	£6/9/3	£6/9/11	£4/7/1	£4/6/8	£4/19/11
Other .. ..	£2/8/0	£2/11/0	£3/8/1	£3/18/0	£3/10/1
<b>Total .. ..</b>	<b>£8/17/3</b>	<b>£9/0/11</b>	<b>£7/15/2</b>	<b>£8/4/8</b>	<b>£8/10/0</b>
<b>State .. ..</b>	<b>£5/2/10</b>	<b>£5/5/7</b>	<b>£5/10/6</b>	<b>£5/0/2</b>	<b>£5/13/3</b>
<b>Grand Total ..</b>	<b>£13/19/11</b>	<b>£14/6/4</b>	<b>£13/5/6</b>	<b>£13/4/8</b>	<b>£14/3/1</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; and £9,369,275 (£1 8s. 5d. per head) in 1932-33. (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 1929 to 1933. 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—				
		1929.	1930.	1931.	1932.	1933.
		£ (a)	£ (a)	£ (a)	£ (a)	£ (a)
Commonwealth ..	Aust. ..	225,433,064	212,653,279	221,721,804	222,992,803	221,274,296
	London	142,630,573	150,746,148	157,438,806	158,775,930	158,642,224
	New York	17,155,718	17,155,718	17,155,718	17,115,997	16,889,983
	Total (b)	385,219,355	380,555,145	396,316,328	398,884,730	396,806,503
States ..	Aust. ..	306,312,095	314,315,385	335,178,302	363,227,126	386,113,942
	London	381,718,085	375,039,685	394,105,816	395,752,485	392,156,891
	New York	30,778,527	30,686,983	30,435,672	29,963,527	29,580,787
	Total (b)	718,808,707	720,042,053	759,719,790	788,943,138	807,851,620
Total, Commonwealth and States	Aust. ..	531,745,159	526,968,664	556,900,106	586,219,929	607,388,238
	London	524,348,658	525,785,833	551,544,622	554,528,415	550,799,115
	New York	47,934,245	47,842,701	47,591,390	47,079,524	46,470,770
	Grand Total (b)	1,104,028,062	1,100,597,198	1,156,036,118	1,187,827,868	1,204,658,123

(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 403.

(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, 1933, 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, 1933.—  
DATES OF MATURITY.**

Year of Maturity.	Commonwealth and States' Debts.				Annual Interest Payable at 30th June, 1933, 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.
	£'000. (Aust.)	£'000 (Stg.)	£'000 (c)	£'000 (a)	£'000 (Aust.)	£'000 (Stg.)	£'000 (c)	£'000 (b)
1933-34 .. ..	82,772	38,104	..	120,876	2,477	1,082	..	3,559
1934-35 .. ..	23,755	15,563	..	39,318	1,001	714	..	1,715
1935-36 .. ..	8,988	14,736	..	23,724	385	467	..	852
1936-37 .. ..	10,477	6,747	..	17,224	403	309	..	712
1937-38 .. ..	2,315	23,771	..	26,086	83	832	..	915
1938-39 .. ..	81,526	2,518	..	84,044	3,208	88	..	3,296
1939-40 .. ..	1,884	5,607	..	7,491	73	199	..	272
1940-41 .. ..	5,013	37,178	..	42,191	173	2,209	..	2,382
1941-42 .. ..	77,891	..	1,930	79,821	3,122	..	135	3,257
1942-43 .. ..	28,681	24,634	..	53,315	1,096	1,232	..	2,328
1943-44 .. ..	1,259	..	..	1,259	56	..	..	56
1944-45 .. ..	51,771	30,124	..	81,895	1,985	1,446	..	3,431
1945-46 .. ..	17	12,004	..	12,021	..	545	..	545
1946-47 .. ..	1,288	5,708	2,055	9,051	49	178	123	350
1947-48 .. ..	38,921	..	..	38,921	1,546	..	..	1,546
1948-49 .. ..	1,137	5,202	..	6,339	40	156	..	196
1949-50 .. ..	933	6,110	..	7,043	32	214	..	246
1950-51 .. ..	30,569	20,857	..	51,426	1,216	774	..	1,990
1951-52 .. ..	554	..	..	554	19	..	..	19
1952-53 .. ..	492	..	..	492	17	..	..	17
1953-54 .. ..	29,033	..	..	29,033	1,157	..	..	1,157
1954-55 .. ..	778	3,346	..	4,124	30	117	..	147
1955-56 .. ..	27,988	21,657	25,158	74,803	1,119	1,083	1,208	3,410
1956-57 .. ..	347	..	4,784	5,131	14	..	239	253
1957-58 .. ..	27,211	17,870	12,544	57,625	1,088	938	627	2,653
1958-59 .. ..	..	..	..	..	..	..	..	..
1959-60 .. ..	26,959	3,851	..	30,810	1,078	152	..	1,230
1960-61 .. ..	..	35,164	..	35,164	..	1,673	..	1,673
1961-62 .. ..	26,295	4,964	..	31,259	1,052	198	..	1,250
1962-63 .. ..	107	10,392	..	10,499	3	416	..	419
1963-64 .. ..	1,566	..	..	1,566	49	..	..	49
1964-65 .. ..	..	..	..	..	..	..	..	..
1965-66 .. ..	146	16,761	..	16,907	6	825	..	831
1966-67 .. ..	..	..	..	..	..	..	..	..
1967-68 .. ..	..	..	..	..	..	..	..	..
1968-69 .. ..	..	..	..	..	..	..	..	..
1969-70 .. ..	..	2,000	..	2,000	..	70	..	70
1970-71 .. ..	..	9,322	..	9,322	..	373	..	373
1971-72 .. ..	..	..	..	..	..	..	..	..
1972-73 .. ..	..	..	..	..	..	..	..	..
1973-74 .. ..	..	..	..	..	..	..	..	..
1974-75 .. ..	..	..	..	..	..	..	..	..
1975-76 .. ..	50	94,440	..	94,490	2	4,722	..	4,724
Overdue and Unconverted .. ..	98	10	..	108	2	..	..	2
Interminable .. ..	462	1	..	463	15	..	..	15
Treasurers' Option .. ..	6,601	2,434	..	9,035	190	73	..	263
Half-yearly Drawings .. ..	4,856	..	..	4,856	161	..	..	161
Annual Repayments .. ..	..	79,724	..	79,724	..	3,920	..	3,920
Transferred Properties .. ..	111	..	..	111	4	..	..	4
Indefinite .. ..	4,537	..	..	4,537	147	..	..	147
<b>Total .. ..</b>	<b>607,388</b>	<b>550,799</b>	<b>46,471</b>	<b>1,204,658</b>	<b>23,098</b>	<b>25,005</b>	<b>2,332</b>	<b>50,435</b>

(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 takes no account of exchange. (c) See note (c) on page 403.

(iii) *Rates of Interest, 30th June, 1933.* 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, 1933.—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
2.325	.. ..	1,866,258	..	1,866,258
2.5	.. ..	32,505,000	27,634,001	60,139,001
2.7125	.. ..	1,378,831	..	1,378,831
2.75	.. ..	27,670,000	..	27,670,000
2.90625	.. ..	906,225	..	906,225
3	.. ..	22,645,155	28,112,502	50,757,657
3.1	.. ..	8,831,914	..	8,831,914
3.29375	.. ..	2,000	..	2,000
3.4875	.. ..	8,533,365	..	8,533,365
3.5	.. ..	737,180	68,214,711	68,951,891
3.68125	.. ..	80,730	..	80,730
3.75	.. ..	27,173,477	3,678,008	30,851,485
3.875	.. ..	38,566,015	..	38,566,015
4	.. ..	404,291,123	45,160,394	449,451,517
4.06875	.. ..	22,856,273	..	22,856,273
4.25	.. ..	95,595	137,750	233,345
4.2625	.. ..	23,473,928	..	23,473,928
4.45625	.. ..	3,225,937	..	3,225,937
4.5	.. ..	..	13,585,765	23,673,508
4.65	.. ..	6,193,943	..	6,193,943
4.75	.. ..	..	11,999,000	11,999,000
4.91667	.. ..	..	79,724,221	79,724,221
5	.. ..	15,319	200,359,447	232,772,485
5.0375	.. ..	3,322,275	..	3,322,275
5.25	.. ..	..	17,870,500	17,870,500
5.5	.. ..	..	13,649,749	13,649,749
5.75	.. ..	..	5,951,225	5,951,225
6	.. ..	..	32,221,192	34,276,057
7	.. ..	..	1,930,443	1,930,443
Overdue (a)	..	114,324	9,650	123,974
Deduct Loans to States for Soldier Land Settlement	..	— 27,096,629	..	— 27,096,629
Total	.. ..	607,388,238	550,799,115	46,470,770
Average Rate of Interest	.. ..	£3 16s. 1d.	£4 10s. 10d.	£5 0s. 5d.
	.. ..			£4 3s. 9d.

(a) Includes 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 p. 403.



(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 1929 to 1933.

## COMMONWEALTH AND STATES' PUBLIC DEBTS, INTEREST PAYABLE.

Particulars.	Where Payable.	At 30th June.				
		1929.	1930.	1931.	1932.	1933.
Commonwealth ..	Australia ..	£ (a) 12,027,136	£ (a) 11,374,060	£ (a) 12,190,243	£ (a) 8,809,205	£ (a) 8,597,257
	London ..	7,182,377	7,591,389	7,787,343	7,858,150	7,725,633
	New York ..	836,109	836,109	836,109	834,133	823,249
	Total (b)	20,045,622	19,801,558	20,813,695	17,501,488	17,146,139
States .. ..	Australia ..	15,941,357	16,395,263	17,551,862	14,271,278	14,500,728
	London (c) ..	17,933,140	17,594,511	18,244,281	18,442,628	17,279,585
	New York ..	1,579,367	1,574,789	1,559,597	1,531,720	1,509,006
	Total (b)	35,453,864	35,564,563	37,355,740	34,245,626	33,289,319
Total Commonwealth and States	Australia ..	27,968,493	27,769,323	29,742,105	23,080,483	23,097,985
	London ..	25,115,517	25,185,900	26,031,624	26,300,778	25,005,218
	New York ..	2,415,476	2,410,898	2,395,706	2,365,853	2,332,255
	Total (b)	55,499,486	55,366,121	58,169,435	51,747,114	50,435,458
Average Rate per cent.	Australia ..	£ s. d. 5 5 2	£ s. d. 5 5 5	£ s. d. 5 6 10	£ s. d. 3 18 9	£ s. d. 3 16 1
	London ..	4 15 10	4 15 10	4 14 5	4 14 11	4 10 10
	New York ..	5 0 9	5 0 9	5 0 8	5 0 6	5 0 5
	Total (b)	5 0 6	5 0 7	5 0 8	4 7 1	4 3 9

(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 403.

(b) The nominal amount and average rate of interest payable take 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. A further reduction of 2s. 8d. to £3 16s. 1d. occurred in 1932-33 due principally to the reductions in the rate for Treasury Bills in Australia particulars of which are given on page 445. 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 401) were responsible for the drop of about four shillings between 1931-32 and 1932-33. 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, 1934, 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	38,600	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

(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 1932-33 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 $\frac{1}{2}$

(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.

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 States 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., 23-27 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 XVI. 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 the 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.

(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.

3. Banks in Operation, Capital Resources, etc.—(i) Year 1933. 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, 1933. 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, 1933.

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	225,346	15,155,346	8,780,000	460,950	5½
Commercial Banking Co. of Sydney Ltd.	4,739,012	4,300,000	238,048	9,277,060	4,739,013	236,950	5
National Bank of Australasia Ltd. .. .	5,000,000	3,300,000	272,895	8,572,895	1,800,000	250,000	5
Commercial Bank of Australia Ltd. .. .	4,117,350	2,250,000	171,599	6,538,949	..	184,694	5 Ord. 4 Pref.
Ballarat Banking Co. Ltd. .. .. .	153,000	92,500	14,278	259,778	87,000	7,650	5
Queensland National Bank Ltd. .. .. .	1,750,000	860,000	56,684	2,666,684	..	70,000	4
Brisbane Permanent Building and Banking Co. Ltd. .. .. .	682,600	125,000	46,416	854,016	..	26,042	4
Bank of Adelaide .. .	1,250,000	1,000,000	69,298	2,319,298	1,250,000	50,000	4
Bank of Australasia .. .	4,500,000	4,475,000	304,783	9,279,783	4,500,000	236,250	(f) 5½
Union Bank of Australia Ltd. .. .. .	4,000,000	4,850,000	220,523	9,070,523	8,000,000	200,000	5
English, Scottish and Australian Bank Ltd.	3,000,000	3,220,000	404,181	6,624,181	2,000,000	150,000	5
<b>Total Australian Joint-Stock Banks</b>	<b>37,971,962</b>	<b>30,622,500</b>	<b>2,024,051</b>	<b>70,618,513</b>	<b>31,156,013</b>	<b>1,872,536</b>	<b>..</b>
<b>Other Cheque-paying Banks—</b>							
<b>Commonwealth Bank of Australia—</b>							
General Bank .. .	4,000,000	1,593,822	..	5,593,822	..	..	..
Rural Credits .. .	2,000,000	254,290	..	2,254,290	..	..	..
Rural Bank of New South Wales (e) .. .	1,970,200	586,351	..	14,556,551	..	..	..
State Bank of South Australia .. .. .	1,809,000	..	..	1,809,000	..	..	..
<b>Total Australian Banks</b>	<b>59,751,162</b>	<b>33,056,963</b>	<b>2,024,051</b>	<b>94,832,176</b>	<b>31,156,013</b>	<b>1,872,536</b>	<b>..</b>
<b>Bank of New Zealand .. .</b>	<b>6,858,113</b>	<b>3,575,000</b>	<b>344,795</b>	<b>10,777,908</b>	<b>..</b>	<b>644,531</b>	<b>(c)</b>
Comptoir National d'Escompte de Paris d .. .	3,225,806	4,300,000	117,445	7,643,251	..	322,580	10
Yokohama Specie Bank Ltd. d .. .	10,000,000	11,975,000	585,946	22,560,946	..	500,000	10
<b>Grand Total .. .. .</b>	<b>79,835,081</b>	<b>52,906,963</b>	<b>3,072,237</b>	<b>135,814,281</b>	<b>31,156,013</b>	<b>3,339,647</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," 8 43/44 per cent.; "C" Long Term Mortgage, 6 per cent.; "D" Long Term Mortgage, 7½ per cent., Ordinary, 11½ per cent.; and Guaranteed Stock, 4 per cent. (d) Approximate. (e) See letterpress (11) (a) following. (f) 7 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 the previous issue on 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 1933-34. 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, 1929 ..	5,367,950	2,037,057	109,928	7,514,935
" 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

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, 1933, the latter fund had benefited to the extent of £2,983,474.

(ii) *Liabilities in Australia, 1933-34.* The following table gives particulars of the average liabilities for each quarter from September, 1933, to June, 1934 :—

#### 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.	
	£	£	£	£	£	£
30.9.33 ..	381,603	22,611,923	6,280,043	32,001,004	38,281,047	61,274,573
31.12.33 ..	191,350	25,059,505	7,236,617	32,236,237	39,472,854	64,723,709
31.3.34 ..	209,417	30,874,937	9,588,509	27,866,131	37,454,640	68,538,994
30.6.34 ..	317,141	38,367,104	12,374,013	28,589,797	40,963,810	79,648,055

(a) Government "Set off" Accounts (Interstate) deducted.  
Cheque-paying Banks".

(b) Includes deposits of "Other

(iii) *Liabilities in Australia, June Quarter, 1930 to 1934.* The average liabilities for the June quarter of the years 1930 to 1934 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.	Bearing Interest.	Total Deposits.	
	£	£	£	£	£	£
1930 ..	278,860	16,937,846	12,279,194	13,090,193	25,369,387	42,586,093
1931 ..	265,871	32,234,744	a 8,425,860	14,785,744	23,211,604	55,712,219
1932 ..	449,679	29,119,080	a 8,606,629	26,609,760	35,216,389	64,785,148
1933 ..	1,416,206	23,553,955	a 6,336,555	33,088,720	39,425,275	64,394,536
1934 ..	317,141	38,367,104	a 12,374,013	28,589,797	40,963,810	79,648,055

(a) Government "Set-off" Accounts (Interstate) deducted. (b) Includes deposits of "Other Cheque paying Banks". (c) Excluding Commonwealth Savings Bank.

(iv) *Assets in Australia, 1933-34.* The average assets for each quarter of the year 1933-34, 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.
	£	£	£	£	£	£	£	£	£
30.9.33	783,657	86,435	5,347,287	46,868,406	966,262	72,946	7,861	6,486,474	60,619,328
31.12.33	698,383	77,331	4,705,357	48,718,947	933,099	66,699	17,074	6,125,570	61,342,460
31.3.34	750,416	67,582	5,230,489	46,305,786	931,261	66,684	20,779	6,509,525	59,942,522
30.6.34	726,573	111,262	6,386,613	45,579,777	910,979	83,506	8,426	6,919,074	60,726,210

(a) Includes short-term loans in Australia. Government "Set-off" accounts (Interstate) deducted.

(v) *Assets in Australia, June Quarter, 1930 to 1934.*—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.
	£	£	£	£	£	£	£	£	£
1930 ..	1,376,712	1,760	5,743,707	23,282,564	540,053	170,345	3,025	15,111,842	46,230,008
1931 ..	537,201	29,649	4,136,174	39,977,658c	683,075	127,289	10,614	13,113,024	58,614,774
1932 ..	850,787	67,508	6,028,267	36,548,934c	928,096	648,350	6,375	11,792,021	56,870,358
1933 ..	843,572	87,834	5,602,312	47,001,964c	939,279	92,514	6,458	7,108,522	61,682,455
1934 ..	726,573	111,262	6,386,613	45,579,777c	910,979	83,506	8,426	6,919,074	60,726,210

(a) Excludes Commonwealth Savings Bank. (b) Includes short-term loans in Australia. (c) 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, 1933-34.* Particulars of the average liabilities of "Other Cheque-paying Banks" for each quarter from September, 1933, to June, 1934, 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.	
	£	£	£	£	£	£	£
30.9.33	174,915	2,219,082	1,442,723	86,233,953	188,126,265	274,360,218	278,196,938
31.12.33	174,700	2,563,328	1,676,855	94,719,429	189,635,485	284,354,914	288,769,797
31.3.34	173,662	2,412,378	1,602,998	102,778,080	194,576,832	297,354,912	301,543,950
30.6.34	173,590	2,376,476	1,525,842	101,853,623	201,217,703	303,071,326	307,147,234

(iii) *Liabilities in Australia, June Quarters, 1930 to 1934.* The next table shows the average liabilities of "Other Cheque-paying Banks" for the quarters ended 30th June, 1930 to 1934.

**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.	
	£	£	£	£	£	£	£
1930 ..	199,337	2,829,140	2,938,944	91,688,866	193,506,073	285,194,939	291,162,360
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

(iv) *Assets in Australia, 1933-34.* 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 Other Banks.	Notes and Bills of Other Banks.	Discounts, Overdrafts, and all other Assets.	Total Assets.
	£	£	£	£	£	£	£	£	£
30.9.33..	1,619,511	233,377	38,445,159	51,521,428	8,135,264	3,981,365	1,436,914	255,860,869	361,233,887
31.12.33	1,624,060	238,913	40,991,592	50,216,893	8,152,693	3,799,005	1,740,804	258,568,136	365,332,096
31.3.34..	1,727,233	219,394	46,041,179	52,861,754	8,220,524	4,126,833	1,651,022	254,758,194	369,606,133
30.6.34..	1,642,411	243,659	51,972,774	53,041,964	8,285,489	4,089,342	1,592,633	255,796,072	376,664,344

(v) *Assets in Australia, June Quarter, 1930 to 1934.* The average assets of the banks for the June quarters of each of the years 1930 to 1934 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.
	£	£	£	£	£	£	£	£
1930	4,752,840	33,462,049	20,466,859	7,939,765	6,674,517	1,870,263	284,283,139	359,449,432
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	8,242,497	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

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, 1933-34.* The average liabilities of all cheque-paying banks for each quarter of the year ending June, 1934, 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.	
	£	£	£	£	£	£	£
30.9.33 ..	174,915	2,600,685	24,054,646	92,513,996	220,127,269	312,641,265	339,471,511
31.12.33 ..	174,700	2,754,678	26,736,360	101,956,046	221,871,722	323,827,768	353,493,506
31.3.34 ..	173,662	2,621,795	32,477,935	112,366,589	222,442,963	334,809,552	370,082,944
30.6.34 ..	173,590	2,693,617	39,892,946	114,227,636	229,807,500	344,035,136	386,795,289

(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, 1930 to 1934.* The next table shows the average liabilities in Australia for the June quarter of the years 1930 to 1934.

**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.	Bearing Interest.	Total.	
	£	£	£	£	£	£	£
1930 ..	199,337	3,108,000	19,876,790	103,968,060	206,596,266	310,564,326	333,748,453
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	39,517,792	96,437,001	222,804,332	319,241,333	352,537,702
1933 ..	180,937	3,577,297	25,259,075	95,800,228	223,075,862	319,776,090	348,793,309
1934 ..	173,590	2,693,617	39,892,946	114,227,636	229,807,500	344,035,136	386,795,289

(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, 1933-34.* Particulars of the average assets in Australia for each quarter from September, 1933, to June, 1934, 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.
	£	£	£	£	£	£	£	£	£
30.9.33 ..	2,403,168	319,812	43,792,446	98,389,834	9,101,526	4,054,311	1,444,775	262,347,343	421,853,215
31.12.33..	2,322,443	316,244	45,696,949	98,935,840	9,085,792	3,865,704	1,757,878	264,693,706	426,674,556
31.3.34 ..	2,477,649	286,976	51,271,668	99,227,540	9,151,785	4,193,517	1,671,801	261,267,719	429,548,655
30.6.34 ..	2,368,984	354,921	58,359,387	98,621,741	9,196,468	4,172,848	1,601,059	262,715,146	437,390,544

(a) Includes short-term loans in Australia. Government "Set-off" Accounts Interstate (Commonwealth Bank) deducted.

(v) *Assets in Australia, June Quarters, 1930 to 1934.* The average assets in Australia for the June quarters of the years 1930 to 1934 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.	Landed and House Property.	Balances Due from Other Banks.	Notes and Bills of Other Banks.	Advances and all other Assets.	Total Assets.
	£	£	£	£	£	£	£	£
1930..	6,131,312	39,205,756	43,749,423	8,479,818	6,844,862	1,873,288	299,394,981	405,679,440
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

(a) Includes Cash with Commonwealth Bank.

(b) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted.

(vi) *Cash Reserves Ratios.*—The following table shows for the June quarters of the years 1925 to 1934 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 (from and including the June quarter of 1925, 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.	Commonwealth Bank.	Other Cheque-paying Banks.
				%	%	%	%
1925	..	..	..	68.4	46.2	24.8	19.6
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

(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.		
	Common- wealth Bank.	Other Cheque- paying Banks.	Total.	Common- wealth Bank.	Other Cheque- paying Banks.	Total.
	%	%	%	%	%	%
1925.. ..	16.8	78.8	65.1	71.5	84.0	81.3
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

(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.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Total.
	£	£	£	£	£	£	£	£
1930 ..	51.6	52.2	48.7	39.2	28.5	33.6	35.1	48.1
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

(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 sub-joined table shows for each State the proportion of non-interest bearing deposits to the total deposits during the June quarter of each of the years 1930 to 1934. The figures relate to all Cheque-paying Banks and no adjustment has been made in respect of Government "set-off" accounts of the Commonwealth Bank.

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.
	%	%	%	%	%	%	%	%
1930 ..	37.0	28.3	33.8	28.8	43.9	36.2	52.2	33.5
1931 ..	34.0	26.3	33.0	25.8	40.2	29.1	49.2	31.0
1932 ..	37.1	25.0	33.1	26.5	39.9	31.6	49.3	31.2
1933 ..	34.7	26.9	32.3	23.9	37.3	29.9	46.1	30.8
1934 ..	38.6	28.4	37.7	24.8	37.6	33.1	54.3	33.6

(a) Includes Federal Capital Territory.

7. Deposit Rates.—Particulars of interest rates for deposits since 1913 are given hereunder :—

BANK DEPOSIT RATES.

Dates.	Deposit Rates for—			
	Three Months.	Six Months.	Twelve Months.	Two Years.
	%	%	%	%
January, 1913 .. ..	..	2	3	3½
January, 1920 .. ..	..	2½	4	4
October, 1923 .. ..	..	3	4	4½
January, 1924 .. ..	..	4	4½	5
September, 1927 .. ..	4	4	4½	5.
February, 1930 .. ..	4½	4¾	5	5½
26th June, 1931 .. ..	3½	3¾	4	4½
27th November, 1931 .. ..	3	3½	3¾	4
8th March, 1932 .. ..	2½	3	3½	4
May-June, 1932 (a) .. ..	2½	3	3½	3½
1st November, 1932 .. ..	2¼	2¾	3	3½
7th February, 1933 .. ..	2	2½	2¾	3
12th April, 1934 .. ..	2	2¼	2½	2¾

(a) All Banks did not take simultaneous action.

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 1929 to 1933 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 1933.

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	25,601	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—							
Ordinary Trans- actions .. ..	1,043,320	812,105	196,253	156,686	114,587	27,365	2,350,316
Treasury Bills Transactions ..	..	2,566	..	..	..	..	2,566
Total .. ..	1,043,320	814,671	196,253	156,686	114,587	27,365	2,352,882
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

(a) Figures now published for these years exclude payments in coin.

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 of 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 100	£ 100	plus	£ s. d.	s. d.
16th October, 1913 .. ..	.. ..	.. ..	.. ..	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 6
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
19th March, 1928 .. ..	.. ..	.. ..	.. ..	0 15 0	5 0
22nd July, 1929 .. ..	.. ..	.. ..	.. ..	1 0 0	5 0
3rd September, 1929 .. ..	.. ..	.. ..	.. ..	1 5 0	5 0
10th October, 1929 .. ..	.. ..	.. ..	.. ..	1 10 0	5 0
18th December, 1929 .. ..	.. ..	.. ..	.. ..	1 17 6	5 0
28th January, 1930 .. ..	.. ..	.. ..	.. ..	2 6 3	6 3
17th February, 1930 .. ..	.. ..	.. ..	.. ..	2 16 3	6 3
10th March, 1930 .. ..	.. ..	.. ..	.. ..	3 16 3	6 3
24th March, 1930 .. ..	.. ..	.. ..	.. ..	6 6 3	3 9
9th October, 1930 .. ..	.. ..	.. ..	.. ..	8 15 0	5 0
6th January, 1931 .. ..	.. ..	.. ..	.. ..	15 6 3	3 9
13th January, 1931 .. ..	.. ..	.. ..	.. ..	18 3 9	3 9
17th January, 1931 .. ..	.. ..	.. ..	.. ..	25 5 0	5 0
29th January, 1931 .. ..	.. ..	.. ..	.. ..	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 December, 1934, in the subjoined table.

STERLING-DOLLAR RATES.—AVERAGE RATE FOR EACH MONTH.

Month.	1931.	1932.	1933.	1934.
	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.	\$ to £ Stg.
January .. .. .	4.855	3.430	3.372	5.056
February .. .. .	4.857	3.459	3.422	5.019
March .. .. .	4.859	3.034	3.436	5.089
April .. .. .	4.860	3.752	3.587	5.154
May .. .. .	4.864	3.676	3.933	5.105
June .. .. .	4.865	3.649	4.141	5.059
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	4.991
December .. .. .	3.372	3.276	5.118	4.947

(iii) *Interstate.* Exchange rates between the several capital cities of the States at 30th June, 1933, were as follow:—

INTERSTATE EXCHANGE RATES, 30TH JUNE, 1933.

Between.	And—					
	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart and Launceston.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Sydney .. .. .	.. .. .	2 6	2 6	5 0	10 0	5 0
Melbourne .. .. .	2 6	.. .. .	7 6	2 6	7 6	5 0
Brisbane .. .. .	2 6	7 6	.. .. .	10 0	12 6	10 0
Adelaide .. .. .	5 0	2 6	10 0	.. .. .	5 0	7 6
Perth .. .. .	10 0	7 6	12 6	5 0	.. .. .	12 6
Hobart and Launceston .. .. .	5 0	5 0	10 0	7 6	12 6	.. .. .

## § 2. Savings Banks.

1. *General.*—The inauguration of Savings Banks in Australia dates from the year 1819, when a private Savings Bank was opened in Sydney, New South Wales. In 1832 the legislature created "the Savings Bank of New South Wales" under the control of trustees, and shortly after its establishment, the funds of the private Savings Bank were transferred to the new institution. In the other States provision for placing deposits with Savings Banks dates from 1841 in Victoria; 1854 in Queensland; 1840 in South Australia; 1863 in Western Australia (a Savings Bank was opened in 1856 but was closed a year later); 1835 in Launceston; and 1845 in Hobart. These early banks functioned as trustee Savings Banks, but 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 about the same as 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 para. 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, 1931, 1932, 1933 and 1934, 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.
	£	%	%	%	%
New South Wales	1,000	4	(d)	(d)	(d)
Victoria ..	1,000	4 (a)	3; (b) 3½	2½	2½
Queensland ..	(e)	(e)	(e)	(e)	(e)
South Australia	1,000	4½	3½	3	3; 2½ (g)
Western Australia	Unlimited	£1-£500.. 4 £501-£1,000.. 3½ Over £1,000.. 3	(a)	(d)	(d)
Tasmania (f)—					
Hobart ..	300	4½; (c) 5	3; (c) 4	2½; (c) 3	2½; (c) 3
Launceston ..	300	4½	3½	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.

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.
		%	%	%	%
New South Wales	£1,300	£1-£500 .. 4	3	2½	2½
Victoria ..		£501-£1,000 .. 3½	2½	2	1½
South Australia		£1,001-£1,300 3	2		
Western Australia					
Tasmania ..	£2,000	£1-£500 .. 4	3	2½	2½
Queensland ..		£501-£2,000 .. 3½	2½	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. A further reduction of one-quarter of 1 per cent. operated from 1st June, 1934.

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 1932-33.* The following statement gives details of the business transacted by all Savings Banks for the year 1932-33.

**ALL SAVINGS BANKS.—PARTICULARS, 1932-33.**

States and Territories.	Amount on Deposit at 30th June, 1932.	Amount Deposited during year 1932-33.	Interest Added during year 1932-33.	Total.	Amounts Withdrawn during year 1932-33.	Amount on Deposit at 30th June, 1933.
	£	£	£	£	£	£
New South Wales	71,647,869	53,506,994	1,720,183	126,875,046	54,567,361	72,307,685
Victoria ..	65,680,220	46,133,143	1,743,538	113,556,901	45,743,358	67,813,543
Queensland ..	22,951,758	21,108,453	556,635	44,616,846	21,163,829	23,453,017
South Australia ..	21,566,825	13,029,958	618,542	35,215,325	12,700,037	22,515,288
Western Australia	10,217,739	10,491,448	265,187	20,974,374	10,909,910	10,064,464
Tasmania ..	5,586,620	3,852,767	161,703	9,600,090	3,736,283	5,864,807
Northern Territory	40,440	26,908	976	68,324	29,913	38,411
Capital Territory ..	274,836	179,524	5,630	459,990	234,936	225,054
<b>Total ..</b>	<b>197,966,307</b>	<b>148,329,195</b>	<b>5,072,394</b>	<b>351,367,896</b>	<b>149,085,627</b>	<b>202,282,269</b>

(ii) *Deposits—Years 1929 to 1934.* 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, 1929 to 1934.

**ALL SAVINGS BANKS.—DEPOSITS.**

30th June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Fed. Cap. Ter.	All States.
<b>TOTAL.</b>									
	£	£	£	£	£	£	£	£	£
1929	85,727,513	72,706,991	24,075,504	25,228,402	11,609,190	5,811,458	47,291	279,355	225,485,704
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

**PER HEAD OF POPULATION.**

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1929	34 5 1	41 2 2	26 15 0	44 1 6	27 11 4	26 16 10	10 11 7	32 17 9	35 5 3	
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	25 8 10	31 11 0	

For the year ended 30th June, 1934, all States showed increases in deposits aggregating £8,393,778 or about 4 per cent. In Queensland the increase amounted to almost 6 per cent.; in South Australia to about 5 per cent.; in New South Wales to 4.7 per cent.; in Western Australia to 3.3 per cent.; in Victoria to 3.2 per cent.; and in Tasmania to 3 per cent.

Since the year 1921, deposits per head increased at the rate of roughly 3 per cent. per annum up to a high point of over £35 per head in 1929. (In the war years before 1921 the rate of increase was even more rapid.) This was followed by a sharp decline of 16.1 per cent. to £29 12s. 6d. per head during the two years to 1931, when the downward trend was reversed and at June, 1934, the recovery to £31 11s. per head represented an increase of over 6 per cent. on the 1921 figure, and was slightly less than the rate per head in 1925, viz., £31 16s. 4d. The present level of deposits has been exceeded only in the three years 1927-28 to 1929-30.

Considered in relation to purchasing power, the figures are more satisfactory. Retail prices (food and housing) have fallen 20 per cent. since 1925, while the nominal value of deposits per head had increased to £29.6 per head in 1931 and then increased to £31.5 in 1934. The purchasing power of deposits in terms of food and housing has actually increased by about 27 per cent. It should be remembered in interpreting the above figures that Savings Bank accounts are used to some extent by institutions and small traders for business purposes 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., probably fluctuates considerably from time to time.

10. Commonwealth Savings Bank.—(i) *Returns for Year 1932-33.* Returns for the States and Territories for the year 1932-33 have been incorporated in the table below.

COMMONWEALTH SAVINGS BANK.—RETURNS, 1932-33.

States and Territories.	Amount on Deposit at 30th June, 1932.	Amount Deposited during Year 1932-33.	Interest Added during Year 1932-33.	Total.	Amounts Withdrawn during Year 1932-33.	Amount on Deposit at 30th June, 1933.
	£	£	£	£	£	£
New South Wales	71,647,869	53,506,994	1,720,183	126,875,046	54,567,361	72,307,685
Victoria ..	7,098,817	7,891,362	173,595	15,163,774	7,576,302	7,587,472
Queensland ..	22,951,758	21,108,453	556,635	44,616,846	21,163,829	23,453,017
South Australia ..	2,127,288	1,940,400	51,329	4,119,017	1,914,095	2,204,022
Western Australia	10,217,739	10,491,448	265,187	20,974,374	10,909,910	10,064,464
Tasmania ..	1,581,718	1,217,179	38,477	2,837,374	1,192,321	1,645,053
Northern Territory	40,440	26,908	976	68,324	29,913	38,411
Federal Cap. Ter.	274,836	179,524	5,630	459,990	234,936	225,054
Total ..	115,940,465	96,362,268	2,812,012	215,114,745	97,589,567	117,525,178

(ii) *Deposits—Years 1929 to 1934.* 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 1929 to 1934 was as follows:—

## COMMONWEALTH SAVINGS BANK.—DEPOSITS.

Place of Deposit.	At 30th June—					
	1929.	1930.	1931.	1932.	1933.	1934.
	£	£	£	£	£	£
New South Wales	11,832,307	11,899,198	14,492,937	(a) 71,647,869	72,307,685	75,714,070
Victoria ..	6,577,350	6,424,278	6,104,264	7,098,817	7,587,472	8,361,264
Queensland ..	24,075,504	23,901,136	22,354,325	22,951,758	23,453,017	24,834,273
South Australia	2,296,777	2,145,811	1,951,151	2,127,288	2,204,022	2,304,751
Western Australia	3,214,231	3,240,252	2,788,373	(a) 10,217,739	10,064,464	10,398,972
Tasmania ..	1,801,289	1,682,727	1,519,418	1,581,718	1,645,053	1,714,882
Northern Territory	47,291	48,913	43,258	40,440	38,411	44,251
Federal Capital Territory ..	213,882	220,559	219,935	(a) 274,836	225,054	236,436
<b>Total ..</b>	<b>50,058,631</b>	<b>49,562,874</b>	<b>49,473,661</b>	<b>115,940,465</b>	<b>117,525,178</b>	<b>123,608,899</b>
Papua and New Guinea (b) ..	112,583	114,914	107,919	125,931	135,749	145,900
London (b) ..	434,141	371,936	236,151	233,605	282,554	310,579
<b>Grand Total ..</b>	<b>50,605,35</b>	<b>50,049,724</b>	<b>49,817,731</b>	<b>116,300,001</b>	<b>117,943,481</b>	<b>124,065,378</b>

(a) State Savings Bank absorbed during 1931-32. (b) Not included in the figures given in paras. 9 (i) and (ii) and 10 (i).

(iii) *Balance Sheet, 30th June, 1933.* The Commonwealth Savings Bank publishes a half-yearly balance-sheet, and the statement hereunder shows the position at the 30th June, 1933.

## COMMONWEALTH SAVINGS BANK.(a)—BALANCE-SHEET, 30TH JUNE, 1933.

Liabilities.		Assets.	
	£		£
Reserve Fund .. ..	1,793,640	Coin and Cash Balances ..	4,567,357
Depositors' Balances ..	117,943,481	Australian Notes .. ..	128,242
Other Liabilities .. ..	4,184,752	Government Securities ..	81,513,994
		Securities of Municipal and Other Public Authorities ..	31,092,878
		Other Assets .. ..	6,019,402
	<b>123,921,873</b>		<b>123,921,873</b>

(a) Includes London, Papua and Territory of New Guinea Branches.

(iv) *Profits.* For the year ended 30th June, 1933, the profits earned by the Commonwealth Savings Bank were £270,516, 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, 1933, was £3,052,512.

II. *State Savings Banks.*—(i) *Returns for 1932-33.* Particulars of the transactions of all State Savings Banks for the year 1932-33 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, 1932-33.

State or Territory.	Amount on Deposit at 30th June, 1932.	Deposits during 1932-33.	Interest added 1932-33.	Total.	With-drawals during 1932-33.	Total Deposits 30th June, 1933.
	£	£	£	£	£	£
New South Wales (d) ..	..	..	..	..	..	..
Victoria ..	58,581,403	38,241,781	1,569,943	98,393,127	38,167,056	60,226,071
Queensland (a) ..	..	..	..	..	..	..
South Australia ..	19,439,537	11,089,558	567,213	31,096,308	10,785,042	20,311,266
Western Australia (d) ..	..	..	..	..	..	..
Tasmania (b) ..	4,004,902	2,635,588	123,226	6,763,716	2,543,962	4,219,754
Northern Territory (c) ..	..	..	..	..	..	..
Federal Capital Territory (d) ..	..	..	..	..	..	..
Total .. ..	82,025,842	51,966,927	2,260,382	136,253,151	51,496,060	84,757,091

(a) State Savings Bank absorbed by Commonwealth Savings 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.

(ii) *Deposits—Years 1929 to 1934.* The following statement shows the amount on deposit with State Savings Banks at the 30th June in each of the years 1929 to 1934.

## STATE SAVINGS BANKS.—DEPOSITS.

State or Territory.	At 30th June—					
	1929.	1930.	1931.	1932.	1933.	1934.
	£	£	£	£	£	£
New South Wales ..	73,895,206	70,566,232	55,317,832	(d)	(d)	(d)
Victoria ..	66,129,641	62,942,975	57,138,264	58,581,403	60,226,071	61,610,147
Queensland (a) ..	..	..	..	..	..	..
South Australia ..	22,931,625	21,866,365	19,470,907	19,439,537	20,311,266	21,132,755
Western Australia ..	8,394,959	8,488,365	8,079,048	(d)	(d)	(d)
Tasmania (c) ..	4,010,169	4,016,594	3,846,406	4,004,902	4,219,754	4,324,246
Northern Territory (b) ..	..	..	..	..	..	..
Federal Capital Territory ..	65,473	67,112	49,279	(d)	(d)	(d)
Total .. ..	175,427,073	167,947,643	143,901,736	82,025,842	84,757,091	87,067,148

(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.

(iii) *Assets.* At 30th June, 1933, the assets of all State Savings Banks amounted to £91,098,779, distributed as shown hereafter.

## STATE SAVINGS BANKS.—ASSETS, 30TH JUNE, 1933.

Particulars.	New South Wales. (b)	Victoria.	Queens- land. (a)	South Australia.	Western Australia. (b)	Tasmania. (c)	Total.
	£	£	£	£	£	£	£
Government Securities ..	..	28,811,745	..	10,324,895	..	2,045,648	41,182,288
Municipal Securities ..	..	2,292,766	..	328,749	..	419,254	3,040,769
Other Public Securities ..	..	16,027,379	..	..	..	..	16,027,379
Mortgages ..	..	1,551,076	..	6,024,334	..	969,585	8,544,995
Other Investments ..	..	36,454	..	..	..	..	36,454
Outstanding Interest, Dividends and Rents ..	..	650,051	..	269,048	..	48,599	967,698
War Service Homes Landed and House Property ..	..	149,228	..	..	..	..	149,228
Fixed Deposits ..	..	824,781	..	90,974	..	10,587	926,342
Cash in hand, in tran- sit and on Current Account ..	..	11,470,000	..	2,813,500	..	603,000	14,886,500
All other Assets ..	..	2,793,297	..	1,995,082	..	541,670	5,330,049
	..	5,587	..	59	..	1,431	7,077
<b>Total Assets ..</b>	..	64,612,364	..	21,846,641	..	4,639,774	91,098,779

(a) State Savings Bank amalgamated with Commonwealth Bank in 1920. (b) Amalgamated with Commonwealth Savings Bank in 1931. (c) Year ended 31st August, 1933. See para. (1).

(iv) Profit and Loss Accounts 1932-33. Details of the Profit and Loss Accounts of the several State Savings Banks for the year 1932-33 are given in the following table:—

## STATE SAVINGS BANKS.—PROFIT AND LOSS ACCOUNTS FOR YEAR ENDED 30TH JUNE, 1933.

Particulars.	New South Wales. (a)	Victoria.	Queens- land. (b)	South Australia.	Western Australia. (a)	Tasmania. (c)	Total.
	£	£	£	£	£	£	£
<i>Dr.</i>							
Interest allotted to Depositors ..	..	1,569,943	..	567,213	..	123,541	2,260,697
Amount carried to Re- serves and Deprecia- tion Funds ..	..	..	..	196,966	..	17,000	213,966
Writing off Bank Pre- mises ..	..	4,400	..	..	..	2,000	6,400
Expenses of Manage- ment ..	..	487,975	..	111,080	..	31,027	630,082
All other Expenses ..	..	(e) 237,510	..	(d) 50,261	..	1,500	289,271
Balance carried forward ..	..	216,746	..	97,355	..	81,403	395,504
<b>Total ..</b>	..	2,516,574	..	1,022,875	..	256,471	3,795,920
<i>Cr.</i>							
Balance brought for- ward ..	..	199,878	..	96,743	..	80,266	376,887
Interest, Dividends, and Rents ..	..	2,316,696	..	886,132	..	176,205	3,379,033
All other Receipts ..	..	..	..	40,000	..	..	40,000
<b>Total ..</b>	..	2,516,574	..	1,022,875	..	256,471	3,795,920

(a) State Savings Bank amalgamated with Commonwealth Savings Bank in 1931-32. (b) State Savings Bank amalgamated with Commonwealth Bank in 1920. (c) Year ended 31st August, 1933; see para. (1). (d) Includes £40,000, provision for interest accrued on Depositors' Balances from 7th to 30th June, 1933. (e) Includes £150,000 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 1933 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 £1,055,232; other liabilities, £411,529; total liabilities, including capital, £2,822,713. Among the assets are included—Deposits with Governments, £231,594; other investments in public securities, fixed deposits, etc., £626,397; loans on mortgage, £463,594; property owned, £1,038,899; other assets, £462,229. Of the twenty-one companies, ten show the total amount of the estates, etc., under administration, the total for 1933 being approximately £138 millions. In respect of the twenty-one companies, net profits for the year totalled £118,238, of which £93,893 was paid in dividends.

## § 3. Registered Building and Investment Societies.

i. Summary.—Returns have been received relating to 210 Societies, but the information is not exhaustive, as particulars regarding unimportant organizations are not included.

## REGISTERED BUILDING AND INVESTMENT SOCIETIES.—SUMMARY, 1932.

Particulars.	N.S.W. (d) 1931-32.	Vic. 1931-32.	Q'land. 1931-32.	S. Aust. 1931-32.	W. Aust. 1931-32.	Tas. 1932.	Total.
Societies making returns—							
Permanent .. No.	7	22	7	8	5	} 4	210
Terminating .. No.	125	4	6	16	7		
<b>Total .. No.</b>	<b>132</b>	<b>(e) 25</b>	<b>13</b>	<b>24</b>	<b>12</b>	<b>4</b>	<b>210</b>
Number of shareholders ..	(e) 2,363	9,092	8,789	11,869	17,133	4,521	53,767
Number of shares ..	(e) 28,765	(a)	2,175,856	44,813	(a)	46,674	2,296,108
Number of borrowers ..	(e) 4,655	11,189	6,054	2,870	3,274	1,592	29,634
Income for year from							
Interest .. £	153,963	278,870	106,129	20,453	52,087	44,721	656,223
Working expenses for year £	92,546	177,305	16,638	10,646	49,409	6,861	353,405
Amount of deposits during year .. £	326,489	1,208,090	177,313	116,076	209,739	36,350	2,074,057
Repayment of loans during year .. £	510,252	697,317	251,141	80,084	196,810	102,261	1,837,865
Loans granted during year £	345,599	241,645	153,889	61,797	139,993	50,833	993,756

(a) Not available. (b) Exclusive of Victoria and Western Australia. (c) Permanent Societies only. (d) Excludes six Terminating Societies and five Investment Societies for which complete details are not available. (e) One Society has both a Permanent and Star Bowkett Branch.

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 1932. The figures quoted for the State of Tasmania refer to the calendar year 1932, while those for the remaining States are for the fiscal year 1931-32.

## REGISTERED BUILDING AND INVESTMENT SOCIETIES.—LIABILITIES, 1932.

State.	Paid-up Capital or Subscriptions.	Reserve Funds. (a)	Deposits.	Bank Overdrafts and other Liabilities.	Total Liabilities.
	£	£	£	£	£
New South Wales ..	2,689,530	693,592	597,170	74,970	4,055,262
Victoria ..	2,026,594	923,332	1,560,771	116,381	4,627,078
Queensland ..	1,507,783	46,615	7,946	81,342	1,643,686
South Australia ..	690,904	57,231	53,575	17,731	819,441
Western Australia ..	987,870	30,913	85,719	7,042	1,111,544
Tasmania ..	335,091	97,997	290,267	8,665	732,020
<b>Total ..</b>	<b>8,237,772</b>	<b>1,849,680</b>	<b>2,595,448</b>	<b>306,131</b>	<b>12,989,031</b>

(a) Includes Profit and Loss Account.

## REGISTERED BUILDING AND INVESTMENT SOCIETIES.—ASSETS, 1932.

State.	Advances on Mortgage.	Landed and House Property, Furniture, etc.	Cash in Hand and on Deposit and other Assets.	Total Assets.
	£	£	£	£
New South Wales ..	3,382,719	(a) 672,543	(b) 672,543	4,055,262
Victoria ..	4,066,288	322,074	238,716	4,627,078
Queensland ..	1,539,928	7,084	96,674	1,643,686
South Australia ..	746,518	46,811	26,112	819,441
Western Australia ..	1,015,893	29,784	65,867	1,111,544
Tasmania ..	609,396	10,150	112,474	732,020
<b>Total ..</b>	<b>11,360,742</b>	<b>415,903</b>	<b>1,212,386</b>	<b>12,989,031</b>

(a) Included in next column. (b) Includes Landed and House Property, Furniture, &c.

## § 4. Co-operative Societies.

1. **General.**—The returns relating to Co-operative Societies have, prior to 1931, been 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, 1932.

Particulars.	N.S.W. 1932.(a)	Vic. 1931-32.	Qld. 1931-32.	S.A. 1932.	W.A. 1931-32.	Tas. 1931-32.	Total.
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## PRODUCERS' SOCIETIES.

Number of Societies ..	102	63	46	32	3	12	258
Number of Branches ..	(c) 19	19	34	9	7	18	(d) 87
Number of Members ..	44,904	38,967	33,168	6,889	3,586	6,268	133,782
Gross Turnover (Sales) £	12,636,524	5,555,337	4,494,519	654,054	408,404	398,127	24,149,965
Other Income .. £	236,708	710,869	438,150	93,700	19,623	21,752	1,520,802
Total Income .. £	12,873,232	6,266,206	4,932,669	747,754	428,027	419,879	25,667,767
Total Purchases during Year £	6,312,721	4,321,249	3,629,586	590,974	281,916	332,121	15,468,540
Total Expenditure (b) £	8,732,508	5,887,700	4,875,376	819,574	386,116	415,565	21,116,839
Rebates and Bonuses £	25,463	581	2,250	24,540	8,949	194	61,977
Dividends on Share Capital £	14,588	26,400	19,119	11,961	140	1,455	73,662

## CONSUMERS' SOCIETIES.

Number of Societies ..	46	28	7	9	5	3	98
Number of Branches ..	(c) 9	9	2	46	..	3	(d) 60
Number of Members ..	41,845	12,122	23,726	39,795	1,535	509	119,532
Gross Turnover (Sales) £	2,055,464	684,384	58,267	837,781	67,929	61,063	3,764,888
Other Income .. £	26,228	18,966	17,873	19,927	1,495	815	85,304
Total Income .. £	2,081,692	703,350	76,140	857,708	69,424	61,878	3,850,192
Total Purchases during Year £	1,505,393	531,195	47,264	639,421	54,356	47,454	2,825,083
Total Expenditure (b) £	1,987,100	656,387	75,169	815,456	65,700	55,818	3,655,630
Rebates and Bonuses £	69,893	26,384	343	8,444	3,337	194	108,595
Dividends on Share Capital £	20,927	4,476	1,153	16,088	486	..	43,130

(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.

## SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.

Number of Societies ..	..	8	9	3	55	..	75
Number of Branches ..	..	9	30	1	53	..	93
Number of Members ..	..	3,901	9,904	505	14,142	..	28,452
Gross Turnover (Sales) £	..	926,491	1,712,895	80,283	1,201,126	..	3,920,795
Other Income .. £	..	19,276	70,012	15,593	228,838	..	333,719
Total Income .. £	..	945,767	1,782,907	95,876	1,429,964	..	4,254,514
Total Purchases during year £	..	764,026	1,355,103	79,875	1,036,799	..	3,235,803
Total Expenditure (a) £	..	932,371	1,722,734	92,521	1,437,445	..	4,185,071
Rebates and Bonuses £	..	6,160	12,708	1,940	1,841	..	22,649
Dividends on Share Capital £	..	2,349	6,683	1,041	3,323	..	13,396

(a) Working expenses and purchases.

2. Liabilities and Assets.—The next table gives the liabilities and assets.

CO-OPERATIVE SOCIETIES.—LIABILITIES AND ASSETS, 1932.

Particulars.	N.S.W. 1932.(a)	Vic. 1931-32.	Qld. 1931-32.	S.A. 1932.	W.A. 1931-32.	Tas. 1931-32.	Total.
<b>PRODUCERS' SOCIETIES.</b>							
<b>Liabilities—</b>							
Paid-up Capital ..	£ 906,029	£ 942,696	£ 455,335	£ 183,058	£ 51,045	£ 86,787	£ 2,624,950
Loan Capital ..	..	177,359	873,180	239,725	5,950	42,606	1,338,820
Bank Overdraft ..	299,071	1,085,276	160,192	94,091	8,181	29,842	1,676,653
Accumulated Profits ..	} 718,380	{ 125,453	40,467	37,496	27,881	8,455	} 1,748,363
Reserve Funds ..							
Sundry Creditors ..	} 1,184,611	{ 409,939	423,105	374,507	30,232	32,105	} 2,845,427
Other Liabilities ..							
<b>Total Liabilities</b> ..	<b>3,108,091</b>	<b>3,060,702</b>	<b>2,362,307</b>	<b>1,326,496</b>	<b>154,406</b>	<b>222,211</b>	<b>10,234,213</b>
<b>Assets—</b>							
Land and Buildings ..	} 1,716,488	1,225,611	{ 548,905	141,629	34,734	97,522	} 5,323,217
Machinery, Plant and other fixed Assets ..							
Stocks ..	390,346	704,924	204,726	681,184	12,784	37,000	2,030,964
Sundry Debtors ..	774,800	804,096	314,887	79,723	29,526	28,539	2,031,571
Cash in hand and on deposit ..	75,216	64,262	54,614	87,229	20,176	5,305	306,802
Profit and Loss Account ..	..	118,580	4,559	18,637	9,412	5,197	156,385
Other Assets ..	151,241	143,229	32,792	45,403	6,750	5,859	385,274
<b>Total Assets</b> ..	<b>3,108,091</b>	<b>3,060,702</b>	<b>2,362,307</b>	<b>1,326,496</b>	<b>154,406</b>	<b>222,211</b>	<b>10,234,213</b>

(a) Particulars relate to Societies registered under *Co-operation Act 1923-1929.*

CONSUMERS' SOCIETIES.

<b>Liabilities—</b>							
Paid-up Capital ..	£ 630,820	£ 171,549	£ 26,850	£ 451,659	£ 13,164	£ 20,592	£ 1,314,634
Loan Capital ..	..	58,402	9,846	137,724	..	6,245	212,217
Bank Overdraft ..	136,391	100,470	6,631	55,799	2,821	2,699	304,811
Accumulated Profits ..	} 325,867	{ 12,009	6,472	1,254	2,052	2,029	} 647,748
Reserve Funds ..							
Sundry Creditors ..	} 312,156	{ 83,512	4,257	28,770	5,854	4,178	} 450,165
Other Liabilities ..							
<b>Total Liabilities</b> ..	<b>1,405,234</b>	<b>560,566</b>	<b>62,470</b>	<b>829,421</b>	<b>25,911</b>	<b>45,973</b>	<b>2,929,575</b>
<b>Assets—</b>							
Land and Buildings ..	} 546,482	211,126	{ 27,386	269,423	5,211	13,985	} 1,138,663
Machinery, Plant and other fixed Assets ..							
Stocks ..	337,034	130,080	16,065	220,009	7,274	12,604	723,066
Sundry Debtors ..	345,368	165,776	8,944	139,847	7,193	8,001	675,129
Cash in hand and on deposit ..	14,777	36,949	4,051	40,560	3,199	9,193	108,729
Profit and Loss Account ..	..	7,952	..	22,382	289	337	30,960
Other Assets ..	161,573	8,683	2,865	78,473	1,318	116	253,028
<b>Total Assets</b> ..	<b>1,405,234</b>	<b>560,566</b>	<b>62,470</b>	<b>829,421</b>	<b>25,911</b>	<b>45,973</b>	<b>2,929,575</b>

CO-OPERATIVE SOCIETIES.—LIABILITIES AND ASSETS, 1932—*continued.*

Particulars.	N.S.W. (a) 1932.	Vic. 1931-32.	Qld. 1931-32.	S.A. 1932.	W.A. 1931-32.	Tas. 1931-32.	Total.
<b>SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.</b>							
<b>Liabilities—</b>							
Paid-up Capital .. ..	..	69,430	142,587	16,901	405,317	..	634,235
Loan Capital .. ..	..	12,292	..	375	160,436	..	173,103
Bank Overdraft .. ..	..	49,989	14,775	13,623	426,555	..	504,942
Accumulated Profits .. ..	..	40,584	16,418	..	10,407	..	67,409
Reserve Funds .. ..	..	47,587	58,457	6,522	107,702	..	220,268
Sundry Creditors .. ..	..	58,623	119,163	6,694	325,802	..	510,282
Other Liabilities .. ..	..	8,699	7,242	597	47,427	..	63,965
<b>Total Liabilities .. ..</b>	..	<b>287,204</b>	<b>358,642</b>	<b>44,712</b>	<b>1,483,646</b>	..	<b>2,174,204</b>
<b>Assets—</b>							
Land and Buildings .. ..	..	149,952	109,698	6,684	177,399	..	661,902
Machinery, Plant and other fixed Assets .. ..	..		92,216	8,908	117,045	..	
Stocks .. ..	..	55,290	58,313	11,786	269,193	..	394,582
Sundry Debtors .. ..	..	49,535	73,837	16,148	602,718	..	742,238
Cash on hand and on deposit .. ..	..	3,957	12,575	237	21,404	..	38,173
Profit and Loss Account .. ..	..	7,885	352	170	57,987	..	66,394
Other Assets .. ..	..	20,585	11,651	779	237,900	..	270,915
<b>Total Assets .. ..</b>	..	<b>287,204</b>	<b>358,642</b>	<b>44,712</b>	<b>1,483,646</b>	..	<b>2,174,204</b>

(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 1932, when Act No. 4, "An Act relating to Insurance" was passed. The principal features of this latter Act are given hereunder.

Companies, persons or associations of persons carrying on insurance business in the Commonwealth or in any Territory are required to deposit money or approved securities with the Commonwealth Treasurer, to the extent specified in the schedule hereunder. In the case of a Company carrying on business at the commencement of the Act (25th March, 1932) the specified deposit was required to be made within six months thereafter and a new company had to lodge its deposit before conducting business. The penalty for failing to lodge the prescribed deposit is £2,000, and, in addition, £500 per day for each day on which business is unlawfully carried on.

## 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 until deposit reaches a maximum of £40,000
Overseas—		
British .. ..	£50,000 .. ..	£50,000
Foreign .. ..	£60,000 .. ..	£60,000

Deposits in respect of existing Life Assurance Companies are based on their net liability and those in respect of other insurance business on the annual premium income.

Initial deposits must be accompanied by prescribed certified returns showing the extent of the business, and prescribed annual returns must also be submitted to the Treasurer by depositors. The penalty for false return is imprisonment for two years.

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 deposit 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.

## § 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 1932 was 29, four of which were overseas companies. Of the twenty-five Australian companies, six are purely mutual, and eighteen are public companies. One office is a State government institution.

(ii) *Ordinary and Industrial Business.* Of the societies enumerated in the preceding paragraph, fifteen 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, 1927–1932.**—(i) *Ordinary.* The subjoined table shows the ordinary life business in force for each of the last six years. While the total sum assured has increased by about 24 million pounds (about 9 per cent.), during the quinquennium the average per policy has increased from £303 to £330. The amount assured in 1932 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.	£	£	£
1927	..	..	866,710	262,276,366	303	8,532,723
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	285,164,656	327	9,424,411
1932	..	..	866,084	286,188,696	330	9,354,001

(ii) *Industrial.* Information in regard to industrial business is given in the following table.

The amount assured has increased by over 8½ million pounds (over 14 per cent.) in the 5 years. The average amount per policy in 1932 was £44, compared with an average of £41 in 1927.

#### INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN BUSINESS.

Year.			Policies In Force.	Amount.	Average per Policy.	Annual Premium Income.
			No.	£	£	£
1927	..	..	1,481,044	60,732,865	41	3,524,919
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

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.				
	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
Premiums—New ..	1,133,529	1,067,895	1,021,764	815,249	878,085
Renewal ..	8,021,031	8,445,354	8,759,112	8,609,162	8,475,916
Consideration for annuities ..	83,941	92,841	69,969	75,569	178,928
Interest, dividends, and rents ..	6,070,259	6,469,996	6,808,125	6,102,804	5,367,434
Other receipts ..	686,337	341,546	371,218	365,225	385,253
<b>Total Receipts ..</b>	<b>15,995,097</b>	<b>16,417,632</b>	<b>17,030,188</b>	<b>15,968,009</b>	<b>15,285,616</b>

In 1932 expenditure which had steadily increased to almost £13 million in 1931, decreased by about £1 million to £11,874,022 in 1932. Claims accounted for 49 per cent. of the total expenditure; surrenders 20 per cent.; and expenses of management, and licence fees and taxes, each 8 per cent.

## ORDINARY LIFE ASSURANCE.—AUSTRALIAN EXPENDITURE.

Heading.	Amount.				
	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
Claims .. ..	4,990,017	5,389,720	5,356,945	5,733,128	5,834,098
Surrenders .. ..	1,049,259	1,164,504	1,761,192	2,554,249	2,379,753
Annuities .. ..	101,752	116,015	103,451	103,560	106,890
Commission .. ..	752,344	769,252	681,424	572,887	586,092
Expenses of management .. ..	963,876	928,696	932,179	925,439	947,420
Licence fees and taxes	186,952	425,202	509,337	906,134	982,386
Shareholders' dividends	78,263	102,367	92,953	73,289	62,571
Cash bonuses paid to shareholders ..	483,033	579,490	758,991	878,310	726,721
All other expenditure	350,866	395,726	1,056,318	1,113,645	248,091
<b>Total Expenditure</b>	<b>8,956,362</b>	<b>9,870,972</b>	<b>11,252,790</b>	<b>12,860,641</b>	<b>11,874,022</b>

The excess of receipts over expenditure during the past five years was as follows:—1928, £7,038,735; 1929, £6,546,660; 1930, £5,777,398; 1931, £3,107,368; and 1932, £3,411,594. During each of the above years the proportions that expenditures bore to receipts were as follow:—1928, 56 per cent.; 1929, 60 per cent.; 1930, 66 per cent.; 1931, 80 per cent.; and 1932, 78.7 per cent.



(ii) *Industrial Business.* The aggregate Australian receipts for the years 1928 to 1932 of societies transacting industrial business were as follow :—

**INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN RECEIPTS.**

Heading.	Amount.				
	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
Premiums—New and Renewal .. ..	3,884,416	4,170,989	4,259,755	4,081,498	4,049,955
Consideration for annuities .. ..	13	14	..	..	..
Interest, dividends, and rents .. ..	981,444	1,105,141	1,205,959	1,239,068	1,062,294
Other receipts .. ..	17,328	18,732	17,477	16,220	20,434
<b>Total Receipts ..</b>	<b>4,883,201</b>	<b>5,294,876</b>	<b>5,483,191</b>	<b>5,336,786</b>	<b>5,132,683</b>

Expenditure during 1932 totalled £3,685,538. Claims amounted to almost 45 per cent. ; commission to nearly 23 per cent. ; and expenses of management to over 13 per cent.

**INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN EXPENDITURE.**

Heading.	Amount.				
	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
Claims .. ..	1,278,853	1,408,735	1,586,080	1,584,875	1,656,710
Surrenders .. ..	150,508	194,202	317,384	420,115	226,430
Annuities .. ..	254	195	195	285	231
Commission .. ..	944,909	988,565	895,421	812,153	840,422
Expenses of management .. ..	464,057	508,883	520,102	492,595	496,207
Licence fees and taxes	33,549	87,186	106,229	189,408	229,814
Shareholders' dividends	70,034	68,980	66,705	64,596	54,860
All other expenditure	87,040	129,597	238,508	403,070	180,864
<b>Total Expenditure</b>	<b>3,029,204</b>	<b>3,386,343</b>	<b>3,730,624</b>	<b>3,967,097</b>	<b>3,685,538</b>

The excess of receipts over expenditure for each of the last five years was :—1928, £1,853,997 ; 1929, £1,908,533 ; 1930, £1,752,567 ; 1931, £1,369,689 ; and 1932, £1,447,145.

The proportions that expenditures bore to receipts during each of the above years were—1928, 62 per cent. ; 1929, 64 per cent. ; 1930, 68 per cent. ; 1931, 74 per cent. ; and 1932, 72 per cent.

5. *Liabilities and Assets, 1932.*—(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 a few societies cannot state the amount of liabilities in Australia. In the following table, therefore, the figures relate to ordinary and industrial branches combined.

## ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN LIABILITIES.

Heading.	Amount.				
	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
Shareholders' capital, paid up .. ..	1,965,386	1,729,408	1,706,160	1,445,045	1,426,306
Assurance and annuity funds .. ..	85,295,617	91,938,296	90,551,713	90,325,856	93,798,818
Other funds .. ..	8,330,742	9,532,291	11,098,669	13,022,705	13,430,486
Claims admitted but not paid .. ..	891,849	920,549	884,365	941,450	1,042,886
All other liabilities ..	2,619,086	2,521,056	2,684,814	2,346,360	2,329,505
<b>Total Australian Liabilities (a) ..</b>	<b>99,102,680</b>	<b>106,641,600</b>	<b>106,925,721</b>	<b>108,081,416</b>	<b>112,028,001</b>

(a) Excluding Mutual Life and Citizens, National Mutual, Western Australian, Liverpool and London and Globe, and Mutual Life of United States of America

Assets for the years specified are set out in detail in the table hereunder :—

## ORDINARY AND INDUSTRIAL LIFE ASSURANCE.—AUSTRALIAN ASSETS.

Heading.	Amount.				
	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
Government and municipal securities ..	65,206,148	70,578,790	72,777,464	74,317,848	79,472,958
Mortgages .. ..	32,378,820	34,632,357	37,852,782	37,354,976	36,543,532
Loans on companies' policies .. ..	12,644,271	13,864,243	16,795,179	19,122,781	19,814,898
Landed and house property .. ..	4,944,345	5,327,568	5,691,395	5,954,157	6,330,864
Life interests and reversions .. ..	143,710	151,724	175,093	205,560	315,043
Other investments ..	3,089,755	3,195,550	3,404,720	3,127,424	3,557,292
Outstanding premiums	1,001,740	1,052,187	1,170,984	1,122,747	1,073,141
Outstanding interest, dividends, and rents	1,303,410	1,425,585	1,525,703	1,582,472	1,588,516
Cash .. ..	2,724,952	2,015,003	2,169,606	3,135,283	2,860,915
Establishment and organization accounts	1,320,700	1,259,921	1,084,240	1,082,056	1,017,443
All other assets ..	2,286,136	1,096,050	1,308,602	1,289,439	1,221,284
<b>Total Australian Assets (a) ..</b>	<b>127,043,987</b>	<b>134,598,978</b>	<b>143,955,768</b>	<b>148,294,743</b>	<b>153,795,886</b>

(a) Excludes Australian assets of Liverpool and London and Globe Coy. Assets of other companies referred to in footnote to the preceding table are included herein.

(iii) *Total Assets.* It has been thought desirable to restrict 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. 24."

The total assets of all life companies operating in Australia amounted to £539,465,255 in 1932, of which government and municipal securities (£162,252,653), and mortgages (£120,132,376), represented more than 50 per cent. The substantial increases in these figures over those for 1931 are due to the inclusion of returns relating to the Prudential Insurance Co. Ltd., London, which commenced business in Australia in 1932.

6. *New Policies issued in Australia, 1932.*—(i) *Ordinary Business.* During 1932 72,532 new policies were issued for £25,698,876. The average amount per policy was over £354, which compares with an average of £330 per policy for all policies which were in existence at the end of 1932.

(ii) *Industrial Business.* New policies to the number of 279,572 were issued during the year, for a total of £12,619,527. The average per policy was over £45—slightly more than the average for all industrial policies which were current at the end of 1932.

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.	1930.		1931.		1932.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	17,151	3,838,242	18,266	4,159,657	19,055	4,181,929
Surrender .. ..	19,928	6,192,092	30,259	9,411,471	27,061	8,407,828
Forfeiture .. ..	33,566	13,789,977	38,061	15,807,637	31,618	12,200,641
Total .. ..	70,645	23,820,311	86,586	29,378,765	77,734	24,790,398

(a) Includes Annuities.

(ii) *Industrial Business.* The number of policies discontinued in this branch each year is also very large. Of the total amount of discontinuance during 1932 only about 14 per cent. was due to death or maturity, while roughly 80 per cent. was due to forfeiture.

INDUSTRIAL LIFE ASSURANCE.—POLICIES DISCONTINUED IN AUSTRALIA.(a)

Mode.	1930.		1931.		1932.	
	No. of Policies.	Amount.	No. of Policies.	Amount.	No. of Policies.	Amount.
		£		£		£
Death or maturity ..	61,159	1,555,890	54,274	1,482,544	53,060	1,512,020
Surrender ..	16,915	830,367	27,783	1,316,062	19,486	918,230
Forfeiture ..	231,991	12,253,600	215,506	11,215,543	161,580	8,222,148
Total ..	310,065	14,639,857	297,563	14,014,149	234,126	10,652,398

(a) Includes Annuities.

8. *Conspectus of Australian Life Assurance Legislation.*—A conspectus of Australian Life Assurance Legislation as then existing appeared in Official Year Book No. 18, pp. 1041 to 1059.

§ 3. Fire, Marine, and General Insurance.

1. *Australasian Companies\*.*—(i) *General.* Returns in some detail are available showing the revenue and expenditure, assets and liabilities, and investments of 40 insurance companies having their head offices either in Australia, New Zealand, or Fiji. The business transacted by these companies represents from 55 to 60 per cent. of the aggregate Australian business, some particulars of which are given in para. 2 following.

(ii) *Revenue and Expenditure.* The most important items of revenue and expenditure are given below. The trade surplus in 1932-33 was £350,690, or 5.94 per cent. of premium income.

FIRE, MARINE, AND GENERAL INSURANCE COMPANIES.—SUMMARY OF REVENUE AND EXPENDITURE.

Heading.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
No. of Companies .. ..	42	41	39	38	40
	£	£	£	£	£
Premiums, less reinsurances ..	8,321,762	8,304,632	6,975,834	5,964,532	5,891,040
Losses .. ..	4,993,394	4,829,345	4,293,384	3,560,972	3,262,215
Expenses, commission, and taxes	2,812,676	2,795,130	2,549,181	2,297,928	2,278,135
Trade surplus .. ..	515,692	680,157	133,269	105,632	350,690
Interest, rent, etc. .. ..	779,314	829,410	787,978	745,519	684,674
Total surplus .. ..	1,295,006	1,509,567	921,247	851,151	1,035,364
Dividends and Bonuses paid ..	659,704	653,595	574,626	546,822	571,134
Ratio to premium income of—					
(a) Losses .. .. per cent.	60.00	58.15	61.55	59.70	55.38
(b) Expenses, etc. .. per cent.	33.80	33.66	36.54	38.53	38.67
(c) Trade surplus .. per cent.	6.20	8.19	1.91	1.77	5.95

(iii) *Liabilities and Assets.* The liabilities and assets for the same period are set out in the following tables. Comparison of the results for 1932-33 with those for 1928-29 shows that paid-up capital decreased by 2 per cent, while reserves increased by 4 per cent. Government securities represent an increasing proportion of assets.

\* The statistical information in this paragraph has been extracted from the "Australasian Insurance and Banking Record".

## FIRE, MARINE, AND GENERAL INSURANCE COMPANIES.

Heading.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>PAID-UP CAPITAL, RESERVES, AND LIABILITIES.</b>					
	£	£	£	£	£
Paid-up capital .. ..	6,423,425	6,541,033	6,479,866	6,235,241	6,308,179
Reserves and reinsurance funds (a) .. ..	10,048,875	10,136,075	10,236,760	10,279,065	10,416,126
Undivided profits .. ..	766,041	784,695	622,801	662,229	735,443
Losses unsettled .. ..	935,219	974,016	933,350	851,417	929,467
Sundry creditors, etc. ..	2,417,780	2,419,285	1,979,736	1,754,254	1,691,647
Dividends, etc., to pay ..	405,109	376,091	354,279	339,803	369,438
Life assurance funds (b) ..	2,008,769	2,331,665	2,603,598	2,805,673	3,022,937
<b>Total Liabilities ..</b>	<b>23,005,218</b>	<b>23,562,860</b>	<b>23,210,390</b>	<b>22,927,682</b>	<b>23,473,237</b>

## INVESTMENTS AND OTHER ASSETS.

	£	£	£	£	£
Loans on mortgage .. ..	768,378	829,079	845,085	745,445	797,417
Government securities, etc.	13,331,925	13,932,258	14,464,207	14,470,341	14,878,208
Landed and other property	3,550,460	3,584,044	3,397,399	3,304,802	3,236,307
Fixed deposits, etc. .. ..	1,850,771	2,194,546	1,667,753	1,808,276	1,709,384
Loans on life policies (b) ..	104,175	136,899	182,574	223,222	254,077
Investments .. ..	239,496	149,841	165,630	155,952	203,182
Cash and bills receivable ..	769,923	670,078	603,896	703,721	972,852
Sundry debtors and other assets .. ..	2,390,090	2,066,115	1,883,846	1,515,923	1,421,810
<b>Total Assets ..</b>	<b>23,005,218</b>	<b>23,562,860</b>	<b>23,210,390</b>	<b>22,927,682</b>	<b>23,473,237</b>

(a) Including amount required as reserves against unexpired risks.  
transact Life Business.

(b) Some of the companies

(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 1931-32 and 1932-33. It should be mentioned that the figures for 1931-32 include for the first time the business transacted by Lloyds Brokers, and this fact should be borne in mind in making any comparisons between these figures and those for previous years.

## FIRE, MARINE, AND GENERAL INSURANCE—PREMIUMS AND LOSSES.

State.	Premiums, less reinsurance and returns.		Losses, less reinsurance.		Proportion of Losses on Premiums.	
	1931-32.	1932-33.	1931-32.	1932-33.	1931-32.	1932-33.
	£	£	£	£	%	%
New South Wales ..	4,334,226	4,335,774	2,314,044	1,882,953	53.39	43.43
Victoria ..	3,069,444	3,078,295	1,335,781	1,204,754	43.52	36.96
Queensland ..	1,358,044	981,519	783,912	479,676	57.72	48.93
South Australia ..	793,906	804,493	230,482	206,155	29.03	25.63
Western Australia ..	846,498	893,218	327,445	397,817	39.68	44.54
Tasmania ..	269,338	254,753	100,894	107,765	37.46	42.30
All States ..	10,671,456	10,348,052	5,092,558	4,279,120	47.72	41.35

(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 1931-32 and 1932-33.

## 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.	
	1931-32.	1932-33.	1931-32.	1932-33.	1931-32.	1932-33.
	£	£	£	£	%	%
Fire ..	5,526,649	5,353,896	2,066,048	1,732,623	37.38	32.36
Workers' Compensation ..	1,697,176	1,450,979	1,312,047	1,098,179	77.31	75.69
Motor Vehicle ..	1,644,590	1,613,427	841,485	760,533	51.17	47.14
Marine ..	696,399	720,013	415,003	235,866	59.59	32.76
Personal Accident ..	300,695	306,061	142,818	131,320	47.49	42.91
All other ..	805,947	903,676	315,157	320,599	39.01	35.47
Total ..	10,671,456	10,348,052	5,092,558	4,279,120	47.72	41.35

The volume of business measured by the amounts of premium income shows that fire insurances represented about 51 per cent. of the total during each of the above years. While next in importance were Motor Vehicle (16 per cent.), and Workers' Compensation (14 per cent.).

For several years to 1930-31 slightly more than 50 per cent. of the premium income was absorbed in satisfaction of claims. In 1931-32 the proportion was reduced to about 48 per cent. and in 1932-33 slightly over 41 per cent. only 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 is almost 600,000, but as certain benefits, such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must, even when due allowance is made for young and unmarried members be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration,

and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules are conformable to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward annual returns as to their membership and their finances to the Registrar, and reports are published in most of the States dealing with the returns received. 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 tables relating to sickness and deaths, and revenue and expenditure represent two-thirds of the totals for that period.

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, 1932.

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) 2,497	225,331	233,837
Victoria .. ..	52	1,473	158,920	160,184
Queensland .. ..	60	(a) 607	66,166	66,953
South Australia (a) .. ..	17	814	72,133	74,248
Western Australia .. ..	15	348	22,564	23,118
Tasmania .. ..	19	191	25,352	(b) 25,747
Total .. ..	..	5,930	570,466	584,087

(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, 1932.

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) 44,710	(a) 465,723	10.42	(a) 2,021	8.64
Victoria .. ..	37,816	423,910	11.21	1,724	10.02
Queensland .. ..	12,050	128,921	10.70	589	8.80
South Australia (b) .. ..	13,296	200,059	15.05	810	10.91
Western Australia .. ..	5,122	48,355	9.44	200	8.65
Tasmania .. ..	5,294	59,767	11.29	275	10.68
Total .. ..	118,288	1,326,735	11.22	5,619	9.62

(a) Exclusive of Juvenile Branches.

(b) See paragraph 1.

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, 1932.

State.	Year ended—	Entrance Fees, Members' Contributions, and Levies.	Interest, Dividends, and Rents.	All other Revenue.	Total Revenue.
		£	£	£	£
New South Wales ..	30.6.32	758,229	162,321	86,043	1,006,593
Victoria ..	"	544,421	249,236	63,227	856,884
Queensland ..	"	226,336	89,917	(a)	316,253
South Australia (b) ..	"	231,344	119,183	29,193	379,720
Western Australia ..	"	78,659	23,978	4,102	106,739
Tasmania ..	31.12.32	85,042	18,393	12,956	116,391
Total ..	..	1,924,031	663,028	195,521	2,782,580

(a) Included in interest, dividends, and rents.

(b) See paragraph 1.

(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 £328,034 for Australia, representing about 11s. 3d. per average benefit member.

## FRIENDLY SOCIETIES.—EXPENDITURE, 1932.

State.	Year ended—	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 ..	30.6.32	299,508	292,065	78,144	153,500	67,548	890,765
Victoria ..	"	258,897	223,869	42,274	118,584	93,344	736,968
Queensland ..	"	93,963	95,877	32,105	53,808	(a)	275,753
South Australia (b) ..	"	113,647	93,391	36,955	52,611	40,032	336,936
Western Australia ..	"	31,896	29,079	10,088	20,184	11,680	102,927
Tasmania ..	31.12.32	34,103	28,316	22,168	18,477	8,433	111,497
Total ..	..	832,014	762,597	221,734	417,164	221,037	2,454,546

(a) Included in administration.

(b) See paragraph 1.

It appears from the above figures that sick pay averaged about 28s. 6d. 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 also came to about 26s. per average benefit member.

5. *Funds.*—The two foregoing tables show that the surplus of revenue over expenditure in all States amounted to £328,034 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 1932 the total funds of friendly societies amounted to £14,734,744 (£25 4s. 6d. per benefit members), 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 1932 approximately 47,572 deaths of adult persons, while the number of probates and letters of administration granted during the same period was 20,029. It would therefore appear that about 42 per cent. of the adults who died during the year were possessed of sufficient property to necessitate the taking out of probate. The details for each State are shown in the table hereunder :—

## PROBATES AND LETTERS OF ADMINISTRATION, 1932.

		New South Wales, 1932.	Victoria, 1932.	Queensland, 1931-32.	South Australia, 1932.	Western Australia, 1932.	Tasmania, 1932.	Total.
<b>Probates—</b>								
Estates	No.	8,089	5,433	878	1,750	(b) 985	(d) 544	17,679
Gross Value	£	17,504,038	18,820,899	3,456,991	5,120,861	2,141,464	d1,768,047	48,812,300
Net Value	£	(e)	16,422,194	(e)	4,246,116	1,786,922	d1,536,814	23,992,046
<b>Letters of Administration—</b>								
Estates	No.	(a)	1,420	180	(c) 327	(b) 322	(d) 101	2,350
Gross Value	£	(a)	(a)	277,110	(c) 226,307	432,197	(d) 136,237	1,071,851
Net Value	£	(a)	(a)	(e)	(c) 155,052	353,529	(d) 82,512	591,093
<b>Total—</b>								
Estates	No.	8,089	6,853	1,058	(e) 2,077	(b) 1,307	(d) 645	20,029
Gross Value	£	17,504,038	18,820,899	2,734,101	5,347,168	2,573,661	d1,904,284	48,884,151
Net Value	£	(e)	16,422,194	(e)	4,401,268	2,140,451	d1,619,326	24,583,139

(a) Included with Probates. (b) Applications lodged. (c) Includes Intestate Estates placed under control of Public Trustee. (d) Applications dealt with. (e) Not available.

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 1932, are given hereunder :—

## INTESTATE ESTATES, 1932.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
<b>Intestate estates placed under control of Curator during 1932—</b>							
Number	(a)	(b)	1,294	(c) 176	405	100	1,975
Gross Value	(a)	(b)	828,956	(c) 103,564	40,648	32,297	1,005,465
Net Value	(a)	(b)	688,315	(c) 75,335	(b)	24,621	788,271
<b>Unclaimed money paid into Consolidated Revenue by Curator during 1932 £</b>	(a)	19,856	8,442	5,554	14,665	(b)	48,517

(a) Included with Probates. (b) Not available. (c) Included with Letters of Administration.

## CHAPTER XVII. MINERAL INDUSTRY.

### § 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 1932.*—(NOTE.—A table showing particulars of mineral production for the year 1933 will be found in the Appendix. This information was not available at the time of compilation of the present Chapter.) The quantities (where available) and the values of the principal minerals produced in each State, and in Australia as a whole, during the year 1932, 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 States 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, but 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, 1932.

Minerals.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (c)	Australia.
Antimony ..	ton	87	..	..	..	..	..	..	87
Arsenic ..	..	487	..	..	..	1,477	..	..	1,964
Asbestos ..	..	..	..	..	20	110	..	..	130
Barytes ..	..	304	..	..	1,701	..	..	..	2,005
Bismuth ..	cwt.	380	..	1	4	..	20	..	405
Brown Coal ..	ton	..	2,612,512	..	..	..	..	..	2,612,512
Coal ..	..	6,784,222	432,353	841,711	..	415,719	111,853	..	8,585,858
Copper (Ingot, matte, etc.) ..	..	632	..	3,136	..	..	10,995	..	14,763
Copper ore ..	..	..	..	..	..	..	3	17	20
Diatomaceous earth ..	..	1,334	..	..	..	..	..	..	1,334
Gold ..	fine oz.	27,941	47,745	23,263	3,014	605,561	5,937	674	714,335
Gypsum ..	ton	2,442	2,920	..	44,962	3,647	..	..	53,971
Ironstone ..	..	3,065	..	8,232	537,928	..	..	..	549,225
Kaolin ..	..	2,731	2,004	375	..	..	..	..	5,110
Lead (b) ..	..	..	..	47,716	..	..	2,694	..	50,410
Lead and silver-lead ore, concentrates etc. ..	..	209,125	..	..	..	8	..	..	209,133
Limestone flux ..	..	44,205	..	15,930	10,619	..	90,335	..	161,089
Magnesite ..	..	5,117	29	130	115	..	..	..	5,391
Manganese ore ..	..	106	..	..	..	..	..	..	106
Molybdenite ..	cwt.	70	..	32	..	..	..	..	102
Osmiridium ..	..	..	..	..	..	..	785	..	785
Phosphate ..	ton	225	..	..	(d)	..	..	..	225
Pigments ..	..	698	..	..	50	..	..	..	748
Platinum ..	oz.	336	..	..	..	..	..	..	336
Salt ..	ton	..	(a)	..	60,063	..	..	..	60,063
Sapphires ..	oz.	..	..	..	..	..	..	..	..
Shale (oil) ..	ton	2,691	..	..	..	..	1,097	..	3,788
Silver ..	fine oz.	49,309	2,083	2,301,782	..	58,285	463,488	..	2,874,947
Tin and tin ore ..	ton	793	38	708	..	37	794	26	2,396
Wolfram ..	..	24	..	7	..	..	..	34	65
Zinc and concentrates ..	..	188,038	..	..	..	..	..	..	188,038

(a) Not available for publication.  
30th June.

(b) See letterpress preceding this table.

(c) Year ended

(d) Quantity not stated.

The values of the minerals raised in each State in 1932 are given in the following table:—

## MINERAL PRODUCTION.—VALUE, 1932.

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T. (d)	Australia.
	£	£	£	£	£	£	£	£
Antimony ..	2,743	..	..	..	..	..	..	2,743
Arsenic ..	11,316	..	..	..	26,161	..	..	37,477
Asbestos ..	..	..	..	130	1,762	..	..	1,892
Barytes ..	608	..	..	5,104	..	..	..	5,712
Bismuth ..	2,125	..	12	109	..	541	..	2,787
Brown Coal ..	..	276,799	..	..	..	..	..	276,799
Coal ..	4,376,453	274,903	684,555	..	270,630	86,733	..	5,693,274
Copper (ingot and matte) ..	21,785	..	108,858	..	..	399,646	..	530,289
Copper ore ..	..	..	..	..	..	116	137	253
Diamonds ..	252	..	..	..	..	..	..	252
Diatomaceous earth	4,002	..	..	..	..	..	..	4,002
Gold ..	203,622	351,586	173,144	22,018	4,413,800	43,137	4,196	5,211,512
Gypsum ..	1,221	1,135	..	39,342	5,354	..	..	47,052
Iron (pig) (b)	..	..	..	..	..	..	..	..
Ironstone ..	1,668	..	8,783	618,617	..	..	..	629,068
Kaolin ..	2,589	2,593	..	750	..	..	..	5,932
Lead (b) ..	..	..	573,813	..	..	32,637	..	606,450
Lead and silver- lead ore, con- centrates, etc. ..	1,563,229	..	..	..	112	..	..	1,563,341
Limestone flux ..	16,577	..	13,541	3,982	..	18,725	..	52,825
Magnesite ..	12,792	110	260	173	..	..	..	13,335
Manganese ore ..	340	..	..	..	..	..	..	340
Molybdenite ..	704	..	296	..	..	..	..	1,000
Opal ..	1,233	..	500	3,060	..	..	..	4,793
Osmiridium ..	..	..	..	..	..	9,075	..	9,075
Phosphate ..	169	..	..	1,912	..	..	..	2,081
Pigments ..	1,396	..	..	325	..	..	..	1,721
Platinum ..	2,906	..	..	..	..	..	..	2,906
Salt ..	..	(a)	..	135,142	..	..	..	135,142
Sapphires ..	..	..	1,982	..	..	..	..	1,982
Shale (oil) ..	2,372	..	..	..	..	1,074	..	3,446
Silver (b) ..	3,683	208	182,733	..	5,664	37,304	..	229,532
Tin and tin ore ..	120,124	404	66,174	..	3,295	109,767	2,322	302,086
Wolfram ..	1,012	..	137	..	..	..	1,369	2,518
Zinc & concentrates	155,928	..	..	..	..	..	..	155,928
Unenumerated ..	(c)22,342	1,256	3,913	7,232	5,013	303	(e)5,787	45,846
<b>Total ..</b>	<b>6,533,191</b>	<b>908,994</b>	<b>1,818,701</b>	<b>837,896</b>	<b>4,731,740</b>	<b>739,058</b>	<b>13,811</b>	<b>15,583,391</b>

(a) Not available for publication. (b) See letterpress above preceding table. (c) Includes dolomite £7,296, silica £5,559, fireclay £6,280, and felspar £1,731. (d) Year ended 30th June. (e) Mica, £5,547; tantalite, £240.

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 1932 consist of—lime, £30,745; building stone, £110,640; Portland cement, £390,715; coke, £403,177; road materials, £506,727; shell grit, £5,609; mineral water, £9; sulphur and sulphuric acid, £44,356; and brick and pottery clays, £47,434. Carbide, £59,495, and cement, £106,809, have been excluded from the Tasmanian figures.

4. Value of Production, 1928 to 1932.—The value of the mineral production in each State in the five years 1928 to 1932 is given in the table hereunder :—

## MINERAL PRODUCTION.—VALUE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
	£	£	£	£	£	£	£	£
1928 ..	12,600,668	1,098,691	1,359,616	1,008,514	2,128,109	1,329,057	14,627	19,539,282
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	16,956	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

For New South Wales the small increase in value of production in 1932 on that for the previous year was due to gold, silver, lead, and tin, but the gain in this respect was offset by heavy falls in the returns for zinc and coal.

The small increase in the Victorian returns for 1932 was chiefly due to the rise in the price of gold and the increased output of brown coal. There was a fall in the value of output of black coal, but this was more than offset by the increases above-mentioned.

In Queensland the rise in value recorded in 1932 was largely due to increases in the returns from lead, silver, and gold, amounting respectively to £570,000, £177,000, and £140,000, although these increases were partly counterbalanced by a fall of £268,000 in the return from coal, and of £65,000 from copper. The returns for South Australia in 1932 showed an increase of about £290,000 on the figures for 1931, the advance being mainly due to a rise in the production of ironstone from £333,000 in 1931 to £619,000 in 1932. The value of the yield from salt, however, showed a decline of over £19,000, i.e., from £154,000 in 1931 to £135,000 in 1932. In Western Australia the total for 1932 shows an increase of about £1,321,000 on that for the preceding year. All minerals, however, with the exception of gold, gypsum, arsenic, and silver showed decreases. The yield from gold, which showed an increase of £1,359,000, accounted for over 93 per cent. of the value of the State's output in 1932. The decline in Tasmania during 1931 was mainly due to the fall in price of the chief industrial metals. This was reflected in the returns from copper and lead, which showed decreases of £204,000 and £49,000 respectively. There were also considerable decreases in the returns from silver and wolfram and from coal. The small increase in 1932 was mainly due to tin, the production of which showed a rise in value of £39,000 over that for 1931, but there were further decreases in copper and coal, while consequent on low price and difficulty in securing a market the yield from osmiridium declined by 50 per cent. It is stated that the decline in the Northern Territory returns for recent years is due in some measure to the fact that some of those engaged in mining forsook it to take up more profitable work in other pursuits. The number of Chinese miners in the Territory has steadily decreased and those remaining are old men. Mica to the value of £5,787 was the chief item of production in 1932, the mineral being obtained in the Arltunga district.

5. Total Production to end of 1932.—In the next table will be found the estimated value of the total mineral production in each State up to the end of 1932. The figures given in the table are also exclusive of the same items referred to in connexion with the preceding table. Thus the total for New South Wales falls short by over £47,000,000 of that published by the State Department of Mines, the principal items excluded being coke, £15,046,000; cement, £19,282,000; lime, £1,707,000; 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 1932.

Minerals.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Australia.
	£	£	£	£	£	£	(a)	Million. £
Gold ..	64,243,061	304,212,734	86,175,130	1,681,465	172,762,395	9,058,635	2,290,503	640
Silver and lead ..	122,650,239	265,377	5,252,527	383,547	2,287,616	9,155,784	65,903	140
Copper ..	15,624,714	216,686	26,866,463	33,148,536	1,808,828	21,209,791	233,603	99
Iron ..	7,740,886	15,641	489,875	9,940,508	36,722	52,110	..	18
Tin ..	14,696,754	977,506	11,221,394	..	1,607,514	17,419,689	629,178	47
Wolfram	277,871	11,885	1,065,728	301	1,441	236,387	222,479	2
Zinc ..	24,547,662	..	13,460	15,993	5,437	996,977	..	26
Coal ..	198,565,707	14,334,931	20,837,205	..	7,209,120	2,042,130	..	243
Other ..	8,185,667	880,531	2,798,819	4,789,189	276,922	2,119,158	73,617	19
Total	456,532,561	320,915,311	154,720,601	49,959,539	185,995,995	62,289,770	3,515,283	1,234

(a) To 30th June, 1932.

The "other" minerals in New South Wales include alunite, £209,000; antimony, £365,000; arsenic, £144,000; bismuth, £244,000; chrome, £123,000; diamonds, £147,000; magnesite, £186,000; molybdenite, £213,000; opal, £1,601,000; 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 £1,955,000 for brown coal. Included in "other" in the Queensland production were opal, £187,000; gems, £632,000; bismuth, £119,000; cobalt, £155,000; molybdenite, £600,000; limestone flux, £753,000, and arsenic, £124,000. The chief items in South Australian "other" minerals were salt, £3,064,000; limestone flux, £289,000; gypsum, £804,000; phosphate, £135,000; and opal, £131,000. In the Tasmanian returns osmiridium was responsible for £598,000, scheelite for £112,000, and iron pyrites for £94,000.

6. **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.

7. **Geophysical Methods for Detection of Ore Deposits.**—Reference to the application of geophysical survey methods in Australia will be found in Official Year Book No. 24, p. 570.

## § 2. Gold.

1. **Discovery in Various States.**—The discovery of gold in payable quantities was an epoch-making event in Australian history, for, as one writer aptly phrases it, this event "precipitated Australia into nationhood." A more or less detailed account of the finding of gold in the various States appears under this section in Official Year Books Nos. 1 to 4.

2. **Production at Various Periods.**—In the following table will be found the 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 1922 to 1933, from the dates when payable discoveries were first reported. 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
1922 ..	118,359	501,515	378,154	4,693	2,525,811	16,101	540	3,545,173
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	163,699	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	1,768,623	18,976	57	1,981,971
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	4,486	5,211,802
1933 ..	226,068	448,228	710,168	49,619	4,915,958	51,579	4,449	6,406,069
<b>Total</b>								
1851-1933	64,469,129	304,660,962	86,885,298	1,731,084	177,678,353	9,110,214	2,295,242	646,830,282

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. 11½d.; and for 1933 as £7 14s. 3½d. 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 last five years. A separate line is added showing the total production in thousands of fine ounces since 1851:—

## 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.
1929 ..	7,496	26,275	9,476	1,009	377,176	5,597	130	427,159
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	637,208	6,673	594	830,268
<b>Total (b)</b>								
1851-1933	15,078	71,498	20,263	397	40,058	2,127	539	149,960

(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 State each year. With the exception of the year 1889, when its output was surpassed 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 outstripped 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 a period, the latter State dropping to third position.

4. **Place of Australia in the World's Gold Production.**—In the table given below will be found particulars of 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.

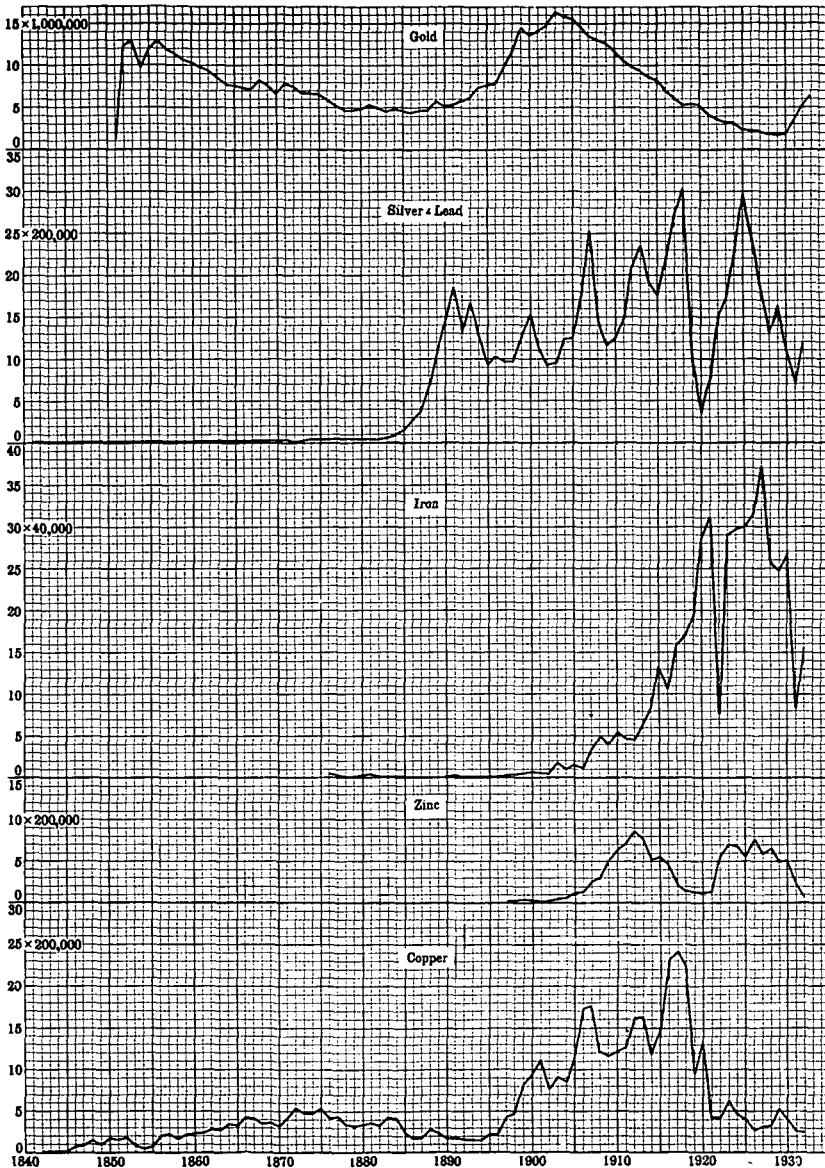
#### GOLD.—WORLD'S PRODUCTION.

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	5,841,902	3.14
1927 .. .. .	19,425,458	508,355	2.62
1928 .. .. .	19,745,749	457,674	2.32
1929 .. .. .	19,615,412	427,159	2.18
1930 .. .. .	20,839,955	466,593	2.24
1931 .. .. .	22,801,162	595,123	2.61
1932 .. .. .	24,226,915	714,135	2.95

For the year 1932 the world's production of gold in fine ounces was 24,227,000, as compared with a return of 22,801,000 oz. fine in 1931. It is estimated that the world's production in 1933 approximated 25,370,000 fine ounces, of which Australia's share amounted to 830,268 fine ounces or 3.27 per cent.

The quantity of gold produced in the ten chief producing countries in each of the five years 1928 to 1932 is given in the table hereunder. Particulars of the quantity and value of the gold production for all countries for the ten years 1923-32 will be found in the Australian Production Bulletin No. 27 issued by this Bureau.

## VALUES OF THE PRINCIPAL MINERALS PRODUCED—AUSTRALIA, 1840 TO 1932.

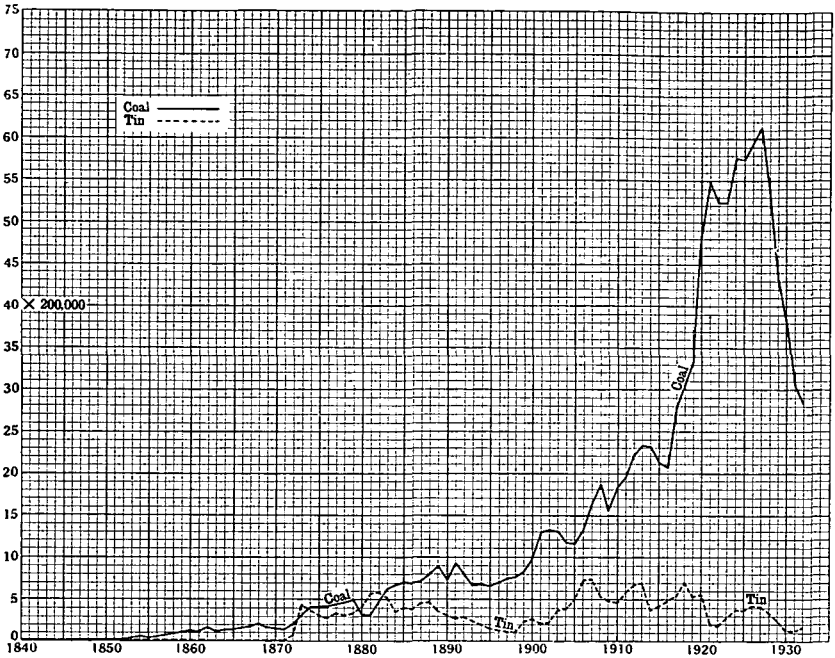


EXPLANATION.—The values shown are those of the total Australian production of certain of the most important minerals in successive years from 1840 onwards.

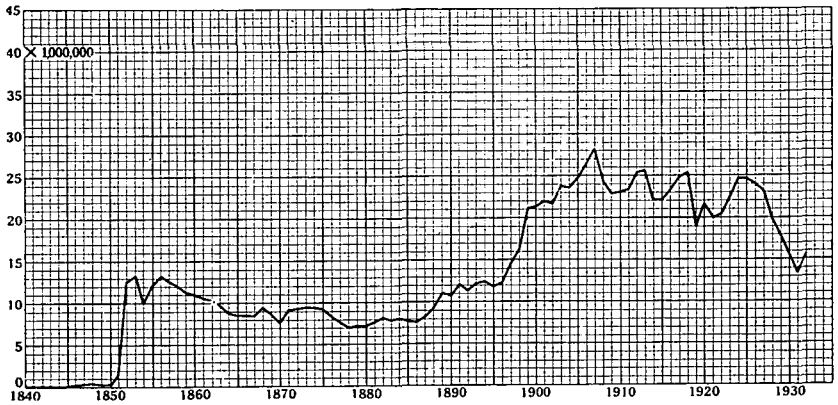
The base of each small square represents an interval of one year, and the vertical height represents in the case of gold £1,000,000; in the case of silver and lead, zinc and copper £200,000; and in the case of iron £40,000.



VALUES OF PRINCIPAL MINERALS PRODUCED—AUSTRALIA, 1840 TO 1932—*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.

## GOLD.—PRODUCTION, CHIEF COUNTRIES.

Country.	1928.	1929.	1930.	1931.	1932.
	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.	Fine ozs.
Union of South Africa	10,354,264	10,412,326	10,716,351	10,877,777	11,558,532
United States	2,144,720	2,056,629	2,100,395	2,213,741	2,219,198
Canada	1,890,592	1,928,308	2,102,068	2,693,892	3,044,387
Soviet Union	1,200,000	1,000,000	1,433,664	1,700,960	1,990,000
Mexico	699,102	651,873	670,488	623,003	584,198
Rhodesia	576,112	560,813	547,631	532,111	580,484
Australia	457,674	427,159	466,593	595,123	714,135
India	375,992	363,869	329,231	330,484	329,600
Japan	308,823	334,061	388,740	425,000	462,251
Gold Coast	167,042	207,851	240,899	261,651	280,000

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 1923-1932.

## GOLD.—AVERAGE ANNUAL PRODUCTION, CHIEF COUNTRIES, 1923 TO 1932.

Country.	Quantity.	Country.	Quantity.
	Fine ozs.		Fine ozs.
Union of South Africa	10,231,821	Rhodesia	584,562
United States	2,228,320	Australia	563,767
Canada	1,976,801	India	367,126
Soviet Union	1,170,895	Japan	333,856
Mexico	708,481		

The comparison has been restricted to countries where the average for the period is in excess of 300,000 fine ounces.

5. Employment in Gold Mining.—The number of persons engaged in gold mining in each State in 1901 and in each of the last five years is shown in the following table:—

## 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	1,000	19,771	1,112	200	70,972
1928	736	655	343	30	3,863	47	12	5,686
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

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 during the last three years was due to the higher price of the metal coupled with lack of other employment bringing about considerable accessions to the ranks of prospectors, particularly in New South Wales, Victoria and Queensland where much attention was devoted to turning over old gold-fields. In Western Australia renewed activity took place at existing mines and in some cases abandoned mines were reopened. The treatment plant at the Wiluna Gold Mines Ltd. was put into commission early in the year, and the Company was dealing with about 26,000 tons of ore monthly.

6. Bounty on Production.—A reference to the bounty provided by the Commonwealth on gold production in Australia will be found in § 16. 1. hereinafter.

### § 3. Platinum and Platinoid Metals.

1. **Platinum.**—(i) *New South Wales.* The deposits at present worked in the State are situated in the Fifield division, near Parkes, and the production in 1932 amounted to 336 ozs., valued at £2,906 as compared with 283 ozs., valued at £2,201, in the preceding year, while the total production recorded to the end of 1932 amounted to 19,702 ozs., valued at £124,902. About 70 men were engaged in prospecting and fossicking in the Fifield area in 1932.

(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 1932 the yield of osmiridium was returned as 785 ozs., valued at £9,075, the quantity raised being about 495 ozs. less than in 1931. 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 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 precluded the repetition of this matter.

2. **Production.**—(i) *General.* The value of the production of silver, silver-lead and ore, and lead from each State during the five years ending 1932 is given hereunder :—

#### SILVER AND LEAD.—PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter. (a)	Australia.
	£	£	£	£	£	£	£	£
1928 ..	2,492,089	275	3,387	..	10,836	180,517	22	2,687,126
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

(a) Year ended 30th June.

(ii) *New South Wales.* The figures quoted above for New South Wales for the year 1932 include silver to the value of £3,683 and silver-lead ore and concentrates valued at £1,563,229. 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 by the Broken Hill Associated Smelters Proprietary Limited at Port Pirie in South Australia,

\* Further details in regard to zinc are given in § 7 hereinafter.

while the remainder of the ore is concentrated on the field and the product is dispatched to Port Pirie for refining. Low prices coupled with increased costs of production and difficulty of marketing were responsible for the decrease in values during the period dealt with. The improvement in 1929 as compared with 1928 was mainly due to an advance in the price of lead.

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 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.	£
1928 ..	7,068,964	151,475	44,004	5,256,649	1,259,931	11,372	94,087	835,620
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	39,164	124,719

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 1932 the amount won from ores of New South Wales origin was given as 158 tons, valued at £22,164. 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 1932.

Mine.	Value of Output to end of 1932.	Dividends and Bonuses Paid to end of 1932.
	£	£
Broken Hill Proprietary Co. Ltd. .. ..	53,324,074	13,804,632
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)	26,982,303	3,466,875
Broken Hill South Ltd. .. ..	22,796,350	5,155,000
North Broken Hill Ltd. .. ..	18,214,692	5,447,690
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. .. ..	9,873,353	3,547,534
Barrier South Ltd. .. ..	151,517	50,000
Total .. ..	151,595,782	34,654,602

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 1932, 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 159 millions and 39 millions respectively. The authorized capital of the various companies amounted to £6,448,000. In 1932 the dividends and bonuses paid amounted to £476,000 shared in by the Companies controlling the principal mines as follows: Zinc Corporation, £71,000; North Broken Hill, £175,000; Broken Hill South, £80,000, and Broken Hill Proprietary, £149,000.

(b) *Other Areas.* Silver is found in various other localities in New South Wales, but the production therefrom in 1932 was unimportant, developmental operations being retarded by the low price of the metal.

(iii) *Victoria.* The silver produced in 1932 amounted to 2,083 ozs., valued at £208, and was obtained in the refining of gold at the Melbourne Mint.

(iv) *Queensland.* Although the prices of lead and silver fell to record low levels in 1932, the production of lead in Queensland rose from £231,000 in 1931 to £574,000 in 1932, while silver increased from £76,000 to £183,000. The Mount Isa Mines Ltd. which entered the production stage in 1931 increased output by effecting additions and improvements to plant. Operating costs were reduced to a minimum by extensive use of electric power and by adoption of up to date methods of mining. Owing to the low price of lead, mining for silver-lead ores on the northern fields was practically stagnant.

(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. Production in 1931 was, however, trifling, and none was recorded in 1932.

(vi) *Western Australia.* The quantity of silver obtained as a by-product and exported in 1932 was 58,285 oz., valued at £5,604. In addition, 8 tons of lead and silver-lead ore and concentrates valued at £112 were exported. There was no production of lead reported, and mining for this mineral was at a standstill.

(vii) *Tasmania.* The silver produced in 1932 amounted to 463,488 oz., valued at £37,304, and the lead to 2,694 tons, valued at £32,637. About 302,000 oz. of the total silver output were contained in silver-lead, while 161,000 oz. were contained in the blister copper produced by the Mount Lyell Co.

(viii) *Northern Territory.* A rich deposit of silver-lead and copper ore was located in 1930 at the Jervois Range about 200 miles east of Alice Springs. Development is, 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. During the year a small quantity of silver-lead ore was raised in the Mt. Gardner district. There was no record of production in 1931 and 1932.

3. *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.	1928.	1929.	1930.	1931.	1932.
World's production in 1,000 fine ozs. . .	257,273	260,970	248,708	192,710	161,003

(a) Estimated.

The share of Australia in the world's silver production in 1919 was estimated at 7,800,000 oz., or about  $4\frac{1}{2}$  per cent. of the total production, but in 1921, owing to the cessation of operations at the Broken Hill field, the total local extraction fell to 4,573,000 oz., and the estimated silver contents of the ores, bullion, and concentrates exported

to 732,000 oz., the total being a little over 3 per cent. of the world's production. For 1932 local extraction was set down as 6,499,000 oz., and exports as 2,494,000 oz., the total being equivalent to about 5½ per cent. on the production for the world. 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 1932 from the chief silver producing countries were as follow :—

## SILVER.—PRODUCTION, CHIEF COUNTRIES, 1932.

Country.	Production.	Country.	Production.
	Fine ozs. (‘000 omitted.)		Fine ozs. (‘000 omitted.)
Mexico .. .. .	71,700	Japan .. .. .	4,500
United States .. .. .	24,425	Central America .. .. .	3,800
Canada .. .. .	18,356	Transvaal .. .. .	1,121
South America .. .. .	12,400	East Indies .. .. .	1,000
Europe .. .. .	11,000	Congo .. .. .	421
Australia .. .. .	8,993	China .. .. .	200
British India .. .. .	5,000	Rhodesia .. .. .	80

4. 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.	1929.	1930.	1931.	1932.	1933.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Silver (Standard) per oz.	0 2 0.46	0 1 5.66	0 1 2.60	0 1 5.84	0 1 6.54
Lead .. per ton	23 4 11	18 1 5	13 0 9	12 0 6	11 16 4
Spelter per ton	24 17 8	16 16 9	12 8 11	13 13 10	15 14 10

The above figures are quoted on the authority of the Mines Department of New South Wales.

5. 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. (a)	Q'land.	S. Aust.	W. Aust. (b)	Tasmania. (a)	Nor. Ter.	Australia.
	No.	No.	No.	No.	No.	No.	No.
1928 ..	4,666	282	..	12	627	..	(c) 5,589
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

(a) Silver, lead, and zinc.

(b) Principally lead and silver-lead ore.

(c) Including 2 in Victoria.

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. The value of the local production as reported and credited to the mineral industry for the years 1928 to 1932 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.	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
New South Wales .. ..	3,497	14,183	8,347	23,948	21,785
Queensland .. ..	177,043	294,188	174,075	126,342	108,858
South Australia .. ..	13,321	22,982	6,966	934	..
Western Australia .. ..	765	2,778	102	..	..
Tasmania .. ..	444,802	740,985	620,578	416,309	399,762
Northern Territory (a) ..	..	..	589	25	137
<b>Australia .. ..</b>	<b>639,428</b>	<b>1,075,146</b>	<b>810,657</b>	<b>567,558</b>	<b>530,542</b>
Ingot, Matte, etc. .. .. tons	9,455	12,613	13,063	13,453	14,763
Ore .. .. tons	100	416	251	79	20

(a) Year ended 30th June.

(b) Includes £30, value of production in Victoria.

The total value of the production in 1920 was £2,658,000, and the heavy fall during recent years was due to the low price of the metal preventing the profitable working of many of the copper mines throughout Australia.

2. *Sources of Production.*—(i) *New South Wales.* For the year 1917 the yield was valued at upwards of £814,000, in 1918 it was returned at £697,000, but in 1928 it had declined to under £4,000. The rise in price during 1929 led to a moderate increase in activity. The small production in 1932 was obtained from the treatment of other than copper ores, the output for the year comprising 632 tons of electrolytic copper valued at £21,785. With the exception of a small quantity obtained from the treatment of gold and other ores, the entire production was obtained at Port Kembla from copper matte forwarded from the Broken Hill smelters and derived from silver-lead ores. None of the copper mines in the State operated productively during the year.

(ii) *Queensland.* The yield in this State amounted in 1932 to 3,136 tons valued at £108,858, 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. Returns from the chief producing areas in 1932 were as follow :—Cloncurry, 2,597 tons, £90,162 ; Herberton, 430 tons, £14,925 ; and Gladstone, 52 tons, £1,814.

(iii) *South Australia.* The total production of copper in South Australia easily exceeds that of any other State. In recent years, however, Tasmania, Queensland, and New South Wales have come to the front as copper 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 field. Opened in 1860, this field worked continuously until 1923, and up to the close of 1931 had produced copper to the value of £20,500,000. In 1930 the production for the State fell to 94 tons, valued at £6,966, the lowest return since the year 1845, and in 1931 the value dwindled to under £1,000.

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 the Moonta mines and smaller quantities at Wallaroo also were awaiting treatment. The copper obtained from Moonita ores is free from deleterious impurities and is specially suitable for manufacturing purposes. A new plant has been installed and a small amount of copper was produced in 1933.

(iv) *Western Australia.* No production was reported in this State for the year 1932.

(v) *Tasmania.* The quantity of copper produced in Tasmania during 1932 was 10,998 tons, valued at £399,762, the whole of the production being due to the Mount Lyell Mining and Railway Co. Ltd. This Company treated 59,168 tons of ore and concentrates and produced 11,101 tons of blister copper, containing copper, 10,995 tons; silver, 161,633 ozs.; and gold, 4,865 ozs., the whole being valued at £441,000.

(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 1932 was obtained from ore raised in former years at Wollgorang.

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.
1928	..	..	..	63.70	14.57
1929	..	..	..	75.42	18.11
1930	..	..	..	54.62	12.98
1931	..	..	..	38.34	8.12
1932	..	..	..	31.68	5.56

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 highest average was £71.47, recorded in January, but in October the price had fallen as low as £43.03. The highest average in 1931 was £45.37 for February, but thenceforward the price dropped to the very low figure of £31.50 in September, rising thereafter in the closing months of the year to £38.27 in December. In 1932 the average fell to a very low figure of £31.68, the price dropping from £39.46 in January to as low as £26.07 in July. For the remaining months of the year the price varied between £34.98 in September and £29.09 in December. For the year 1933 the average was returned at £32.56.

4. World's Production of Copper.—The world's production of copper during the five years 1928–1932 is estimated to have been as follows. The figures for foreign countries have been taken from the latest issue of *The Mineral Industry* :—

COPPER.—WORLD'S PRODUCTION.

Year.	1928.	1929.	1930.	1931.	1932.
World's production—tons ..	1,689,600	1,899,900	1,547,900	1,323,200	868,500



The yields from the chief copper-producing countries in 1932 were as follow :—

**COPPER.—PRODUCTION, CHIEF COUNTRIES, 1932.**

Country.		Production.	Country.		Production.
		Tons.			Tons.
United States	.. ..	228,000	Yugoslavia	.. ..	29,700
Africa	.. ..	126,800	Spain and Portugal	.. ..	29,100
Canada	.. ..	111,900	Germany	.. ..	27,600
Chile	.. ..	101,900	Peru	.. ..	21,100
Japan	.. ..	69,500	<b>Australia</b>	.. ..	<b>14,000</b>
Mexico	.. ..	33,600	Norway	.. ..	12,200
Soviet Union	.. ..	31,500	Cuba	.. ..	5,300

During the five years ending in 1932 the share of the United States in the world's copper production amounted to over 42 per cent.

The Australian production in 1932 amounted to a little over 1.6 per cent. of the total.

As pointed out in *The Mineral Industry*, the unprecedentedly low price of copper in 1932 was of minor importance as regards production, inasmuch as it was the inevitable result of conditions beginning with the pegging of copper at 18c. in 1929-30. Even on the basis of the world curtailment agreement, production was in excess of consumption, and under the existent conditions, selling below cost of production was ineffective in creating demand.

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.
1928	.. ..	3	517	14	10	1,181	..	1,725
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

(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 development 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 1928 to 1932. A separate line is appended showing the recorded tonnages for Australia during each of the specified years.

## TIN.—PRODUCTION.

State.	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
New South Wales .. ..	231,843	191,199	84,800	103,111	120,124
Victoria .. ..	12,954	3,545	..	440	4 <sup>04</sup>
Queensland .. ..	134,727	114,518	49,708	35,744	66,174
Western Australia .. ..	15,002	13,432	10,608	3,945	3,295
Tasmania .. ..	258,676	130,014	69,592	70,634	109,767
Northern Territory (a) ..	10,828	6,958	3,345	2,331	2,322
Total .. ..	664,030	459,666	218,053	216,205	302,086
Tonnage .. ..	3,425	2,723	1,798	1,938	2,396

(a) Year ended 30th June.

In 1923, the average London price of tin was £202 3s. per ton, while in 1926 it had advanced to £291 2s. per ton. There was a decline in the average for 1927 to £289 1s. 5d. per ton, although in March of that year the price was £313 9s. 5d. The sharp decline in values to £227 4s. 8d. in 1928, to £203 18s. 10d., in 1929, and the tremendous drop to £141 19s. 1d. in 1930, are reflected in the decreased production for those years. In December, 1930, the price had fallen to £111 13s. per ton. Early in May, 1931, the price fell as low as £99 15s. The average for the year 1932 was £135 18s. 10d., and for 1933, £194 11s. 11d. per ton.

2. Sources of Production.—(i) *New South Wales.* The production in 1932 was estimated at 793 tons of ingots valued at £120,124. The increase over the previous year's total was due to the rise in price of tin from £118 in 1931 to £136 in 1932. 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 1932 being 272 tons, valued at £27,842. The Tingha area was the principal contributor to the output in 1932, the yield from this district comprising 346 tons of concentrates, of which 150 tons were obtained by dredging. Amongst other areas, Emmaville produced 209 tons, Ardlethan 135 tons, while the lode mines at Torrington returned a yield of 80 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 the output for 1931 was trifling.

(iii) *Queensland.* The chief producing districts in Queensland during 1932 were Herberton, 426 tons, valued at £39,354; Cooktown, 40 tons, £3,847; Stanthorpe, 122 tons, £12,681; Chillagoe, 65 tons, £5,332; and Kangaroo Hills, 48 tons, £4,443. The total production, 708 tons, £66,174, showed a considerable advance on that for 1931 which was the lowest recorded, but it is far below that of 1929 and most of the earlier years.

(iv) *Western Australia.* The export of tin from the State in 1932 amounted to 37 tons, valued at £3,295. The small quantity won during the year was obtained in the Pilbara and Greenbushes fields.

(v) *Tasmania.* For 1932 the output amounted to 794 tons of metallic tin, valued at £109,767, an increase of 200 tons in quantity and £39,000 in value over the return for the previous year. Operations at Mount Bischoff, the principal producer, were mainly carried on by the tributers.

(vi) *Northern Territory.* The Maranboy field was the chief contributor to the small output of tin in 1932. Owing to the low price of the metal, however, the battery on the field operated for one month only, as many of the claim holders preferred to retain ore raised until the market improved. Small quantities were raised also at Hayes Creek and Mt. Tomler.

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.**

1928.	1929.	1930.	1931.	1932.
Tons. 178,000	Tons. 190,600	Tons. 173,100	Tons. 147,900	Tons. 94,000

The comparatively small total for the year 1932 was partly due to the low price of the metal and partly to the restriction in output agreed upon between the chief producing countries.

The yields from the chief producing countries in 1932 were as follow :—

**TIN.—PRODUCTION, CHIEF COUNTRIES, 1932.**

Country.	Production.	Country.	Production.
	Tons.		Tons.
Malaya .. .. .	28,400	Burma .. .. .	2,900
Bolivia .. .. .	20,600	Australia .. .. .	2,000
Netherlands East Indies .. .. .	14,900	Great Britain .. .. .	1,300
Siam .. .. .	9,300	Indo-China .. .. .	1,000
China .. .. .	6,800	Spain and Portugal .. .. .	700
Nigeria .. .. .	4,100	Union of South Africa .. .. .	600

Australia's share of the world's tin production, estimated at 94,000 tons, would appear therefore to be a little over 2 per cent.

The world's production of tin in 1932 was the lowest recorded since 1907, and reflects the increased severity of restriction in countries where the output was under the control of the International Tin Committee.

4. **Prices.**—The average price of the metal in the London market for the years 1928 to 1933 was as follows :—

**TIN.—PRICES, LONDON.**

Year.	Average Price Per Ton.	Year.	Average Price per Ton.
	£ s. d.		£ s. d.
1928 .. .. .	227 4 8	1931 .. .. .	118 9 1
1929 .. .. .	203 18 10	1932 .. .. .	135 18 10
1930 .. .. .	141 19 1	1933 .. .. .	194 11 11

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. Prices fell till April, then fluctuated more or less rapidly till August, when the average rose to £142 2s. 5d., and reached their 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., while that for 1933 showed an increase to £194 11s. 11d.

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.
1928 .. ..	1,275	118	954	119	1,113	95	3,674
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

(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 chiefly confined 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 unrecovered 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 1932 the zinc concentrates produced amounted to 188,038 tons, valued at £155,928. 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 1928 to 1932 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.* During the year 1932 there was no production of zinc or cadmium from local ores.

The Electrolytic Zinc Co. at Risdon operated on raw materials obtained wholly from Broken Hill in New South Wales. Production in 1932 amounted to 53,200 tons of slab zinc valued at £948,396, and 158 tons of cadmium, valued at £22,164. 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 1928-32 was as follows :—

**ZINC.—WORLD'S PRODUCTION.**

1928.	1929.	1930.	1931.	1932.
Tons. 1,399,000	Tons. 1,447,000	Tons. 1,391,000	Tons. 994,000	Tons. 781,000

The yields from the chief producing countries in 1932 were as given hereunder, the figures referring to slab zinc produced in the various countries, unallocated according to the source of the ore. In common with the other industrial metals zinc suffered in 1932 from a combination of low prices and reduced demand. Production was also curtailed through the operation of the zinc cartel.

ZINC.—PRODUCTION, CHIEF COUNTRIES, 1932.

Country.		Production.	Country.		Production.
		Tons.			Tons.
United States	.. ..	190,700	Mexico	.. ..	29,900
Belgium	.. ..	97,400	Great Britain	.. ..	26,900
<b>Australia</b>	.. ..	<b>84,700</b>	Japan	.. ..	24,400
Poland (a)	.. ..	83,600	Italy	.. ..	17,300
Canada	.. ..	69,100	Netherlands	.. ..	15,400
France	.. ..	48,600	Soviet Union	.. ..	13,800
Norway	.. ..	41,900	Spain	.. ..	9,400
Germany	.. ..	41,300	Czechoslovakia	.. ..	6,600

(a) Including Upper Silesia.

The figures for Australia have been taken from returns supplied by the Australian Mines and Metals Association.

3. Prices.—Information regarding prices of zinc will be found in the table in § 4.4. *ante*.

### § 8. Iron.

1. General.—The fact that iron ore is widely distributed in Australia had long been known, and extensive deposits have been discovered from time to time at various places throughout the States, but the utilization of these deposits for the production of iron and steel is, at present, confined to New South Wales.

2. Production.—(i) *New South Wales*. The production from local ores only 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. A quantity of iron oxide is purchased by the various gasworks for use in purifying gas, and is also to some extent employed as a pigment, and in paper manufacture, the output in New South Wales being drawn chiefly from the deposits in the Port Macquarie Division. During 1932 the iron oxide raised amounted to 3,065 tons, valued at £1,668.

(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, the ore raised amounting to over 928,000 tons, valued at £1,068,000. In 1931, however, the output fell to 289,179 tons, valued at £332,556, but there was a rise to 537,928 tons valued at £618,617 in 1932.

(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 1932, the output was returned at 274 tons, valued at £150. 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 1932–33 the bounties paid under the Iron and Steel Products Bounty Act on articles manufactured from locally produced materials were as follow :—wire-netting, £8,947; traction engines, £894.

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 for the principal countries was as follows :—

PIG IRON AND STEEL.—WORLD'S PRODUCTION.

Country.	Pig Iron.			Steel Ingots and Castings.		
	1930.	1931.	1932.	1930.	1931.	1932.
	Thousands of Tons.			Thousands of Tons.		
United States ..	31,752	18,426	8,781	40,699	25,429	13,681
Germany ..	9,694	6,063	3,933	11,539	8,291	5,751
France ..	10,100	8,217	5,549	9,402	7,809	5,604
Saar Territory ..	1,884	1,515	1,349	1,935	1,538	1,463
Belgium ..	3,403	3,231	2,783	3,370	3,056	2,758
Luxemburg ..	2,473	2,053	1,959	2,269	2,027	1,956
Austria ..	287	145	94	468	322	205
Italy ..	534	509	461	1,774	1,453	1,391
Spain ..	650	476	288	850	604	455
Czechoslovakia ..	1,572	1,165	450	1,984	1,526	685
Poland ..	478	347	199	1,237	1,037	551
Sweden ..	457	389	262	629	551	537
Soviet Union ..	4,969	4,900	6,370	5,552	5,400	5,800
China ..	400	252	200	200	30	25
Japan ..	1,630	1,408	1,542	1,750	1,864	2,360
United Kingdom ..	6,197	3,773	3,573	7,298	5,203	5,257
India ..	891	820	699	581	626	602
Canada ..	814	420	144	1,012	672	343
<b>Australia ..</b>	<b>440</b>	<b>129</b>	<b>228</b>	<b>420</b>	<b>143</b>	<b>255</b>
<b>Total—All Countries</b>	<b>79,360</b>	<b>54,795</b>	<b>39,333</b>	<b>93,430</b>	<b>68,031</b>	<b>50,029</b>

In regard to both iron and steel the figures for world production reached a distressingly low ebb in 1932. According to the annual review published by "The Iron Age" on the 5th January, 1933, in the four years 1929 to 1932 the industry fell from prosperity to impoverishment, from virtually full employment to widespread unemployment, and from more or less generous profits to staggering losses. The output of pig iron fell from 96 million tons in 1929 to 39 million tons in 1932, while during the same period steel declined from 118 million to 50 million tons.

(ii) *Australia.* The table below, which is also given on the authority of *The Mineral Industry*, shows the estimated production of pig iron and steel ingots and castings in Australia during each of the last ten years for which particulars are available.

PIG IRON AND STEEL.—AUSTRALIAN PRODUCTION.

Year.	Pig Iron.	Steel.	Year.	Pig Iron.	Steel.
	Thousands of Tons.			Thousands of Tons.	
1923 ..	330	200	1928 ..	420	439
1924 ..	416	306	1929 ..	333	348
1925 ..	439	351	1930 ..	440	429
1926 ..	450	360	1931 ..	129	143
1927 ..	410	420	1932 ..	228	255

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.

### § 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, and preceding issues. About 2,000 lb. of mercury sulphide valued at £754 was produced in 1932 in the Kilkivan district in Queensland. It is stated that with the cessation of production of this metal in New Zealand in 1931, the Kilkivan area is the sole producer of mercury in the British Empire.

### § 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
1928 ..	9,448,197	658,323	1,076,340	..	528,420	128,500	11,839,780
1929 ..	7,617,736	703,828	1,368,745	..	544,719	130,291	10,365,319
1930 ..	7,093,055	793,487	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	432,253	841,711	..	415,719	111,853	8,585,758
VALUE.							
	£	£	£	£	£	£	£
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
1928 ..	8,263,729	731,015	971,690	..	420,145	106,558	10,493,137
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

(a) Exclusive of brown coal, shown in next table.

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.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 ..	2,984	569	1929 ..	1,741,176	178,052
1921 ..	79,224	31,074	1930 ..	1,831,507	173,713
1926 ..	957,935	188,899	1931 ..	2,194,453	251,511
1928 ..	1,591,858	202,393	1932 ..	2,612,512	274,903

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 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 1928 to 1932 :—

COAL.—PRODUCTION IN DISTRICTS, NEW SOUTH WALES.

District.	1928.	1929.	1930.	1931.	1932.
	Tons.	Tons.	Tons.	Tons.	Tons.
Northern .. ..	5,978,480	3,019,693	3,715,805	4,161,798	4,398,253
Southern .. ..	1,817,225	2,339,837	1,529,674	981,964	1,112,686
Western .. ..	1,652,492	2,258,206	1,847,576	1,288,620	1,273,283
Total .. ..	9,448,197	7,617,736	7,093,055	6,432,382	6,784,222

The depression in industry is reflected in the decreased production, and 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, the value showed a decrease of nearly £231,000 on the figures for 1931. Of the total quantity of coal won in New South Wales since the inception of operations to the end of the year 1932, viz., 370 million tons, about 252 millions or 68 per cent. was obtained in the Northern District, 77 million tons or 21 per cent. came from the Southern District, and 41 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 Mine.	Other Coal Mines.	Total Production.	Value.
	Tons.	Tons.	Tons.	£
1928 .. ..	600,931	57,392	658,323	731,015
1929 .. ..	634,805	69,023	703,828	813,370
1930 .. ..	637,261	66,226	703,487	807,699
1931 .. ..	532,003	39,339	571,342	362,284
1932 .. ..	359,011	73,342	432,353	274,903

Amongst "other coal mines" in 1932, the principal producers were the Sunbeam Colliery at Korumburra with 24,000 tons, and the Kilcunda Coal Mining Co. at Kilcunda with 18,000 tons.

(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 was raised chiefly at the State Open Cut at Yallourn, where the output in 1932 amounted to 2,568,000 tons.



(2) *Production of Briquettes.* The briquetting plant started operations in November, 1924, and the output for the year 1932-33 was 308,000 tons, a decrease of about 14,000 tons on the total for the preceding year. Greater expansion in 1933 was restricted by decreased spending power of consumers, the free distribution of 86,000 tons of firewood by the Sustenance Department, and the competition of imported black coal. The Yallourn briquettes are considered to be equal in quality to those produced in the best German factories.

(3) *Distillation Products.* A new industry is in contemplation for the distillation of oil, motor spirit, and other valuable substances from brown coal, experiments in this direction on a small scale having yielded very satisfactory results.

(iii) *Queensland.* The distribution of production during the year 1932 was as follows :—

COAL PRODUCTION.—QUEENSLAND, 1932.

District.	1932.	District.	1932.
	Tons.		Tons.
Ipswich .. .. .	436,684	Clermont .. .. .	48,929
Darling Downs .. .. .	71,801	Bowen .. .. .	152,937
Wide Bay and Maryborough	64,765	Mount Mulligan (Chillagoe)	18,640
Rockhampton (Central) ..	47,955		
		Total .. .. .	841,711

The output in 1929, amounting to 1,369,000 tons, was the highest recorded, but with the resumption of operations after the close of the dispute in New South Wales the trade slackened off. Amongst the chief contributing factors were the effect of the competition of southern coal as a result of reductions in award rates, increase in the use of internal combustion engines, further extension of the use of electric power, and general trade depression. There were 48 collieries operating in the Ipswich district, 6 in the Darling Downs, 8 in the Maryborough area, 4 in Clermont district, 4 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 1932 was restricted to further exploration of the seams in the Inkerman and Balaclava areas.

(v) *Western Australia.* The production from the six collieries operating on the Collie field amounted in 1932 to 416,000 tons, a decrease of about 17,000 tons on the return for 1931. The deposits at Wilga again remained unworked during the year.

(vi) *Tasmania.* The production in 1932 amounted to 111,900 tons, about 12,000 tons less than the total for 1931. About 56,000 tons of the total output in 1932 were contributed by the Cornwall Coal Company, 28,000 tons by the Mt. Nicholas Proprietary and 16,000 tons by the Jubilee Company. About 1,700 tons were raised by the Excelsior Colliery at Avoca, and an output of 1,050 tons was returned at the Fingal Colliery.

(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 1932 amounted to about 1,110 million tons, towards which Australia contributed about 11 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.						
1929 .. ..	Tons. 257,906,800	Tons. 23,418,700	Tons. 12,079,000	Tons. 10,365,300	Tons. 1,367,200	Tons. 12,812,800
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
BROWN COAL, LIGNITE.						
1929 .. ..	320	..	3,542,900	1,741,200	1,168,700	..
1930 .. ..	..	..	3,083,100	1,831,500	1,159,200	..
1931 .. ..	..	..	2,598,700	2,194,500	1,178,100	..
1932 .. ..	..	..	3,080,700	2,612,500	913,700	..

COAL PRODUCTION.—FOREIGN COUNTRIES.

Year.	Germany.	Austria.	Hungary.	Belgium.	France. (b)	Czecho-slovakia.	Yugoslavia.
BLACK COAL.							
1929 .. ..	Tons. 160,859,300	Tons. 204,700	Tons. 813,200	Tons. 26,514,400	Tons. 52,930,400	Tons. 16,260,500	Tons. 435,100
1930 .. ..	140,444,000	212,500	798,700	26,972,700	53,033,000	14,207,000	360,400
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	45,536,000	13,034,000	(e) 3,480,500
BROWN COAL, LIGNITE.							
Year.	Poland.	Nether-lands.	Soviet Union.	Japan.	China. (c)	United States.	
1929 .. ..	Tons. 45,505,800	Tons. 11,398,300	Tons. 40,711,700	Tons. 33,716,800	Tons. 25,437,000	Tons. 543,586,400	
1930 .. ..	36,914,000	12,018,200	47,635,600	30,880,700	26,037,000	479,381,900	
1931 .. ..	37,661,000	12,697,600	56,804,500	27,545,300	27,245,000	394,406,300	
1932 .. ..	28,379,200	12,555,000	64,770,000	25,669,800	(d)	317,417,000	
BROWN COAL, LIGNITE.							
Year.	Germany.	Austria.	Hungary.	Belgium.	France.	Czecho-slovakia.	Yugoslavia.
1929 .. ..	Tons. 171,700,700	Tons. 3,469,100	Tons. 6,932,700	..	Tons. 1,178,300	Tons. 22,204,500	Tons. 5,363,500
1930 .. ..	143,704,000	3,014,600	6,078,900	..	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	3,055,000	5,837,800	..	975,700	16,792,000	(f) 1,097,500
BROWN COAL, LIGNITE.							
Year.	Poland.	Nether-lands.	Soviet Union.	Japan.	China.	United States.	
1929 .. ..	Tons. 73,100	Tons. 154,100	Tons. (a)	Tons. 137,000	..	(a)	
1930 .. ..	54,000	141,900	(a)	126,600	..	(a)	
1931 .. ..	38,800	120,300	(a)	115,900	..	(a)	
1932 .. ..	32,900	122,000	..	(d)	..	(a)	

(a) Included with black coal. (b) Exclusive of Saar District, which produced 13,364,900 tons in 1929; 13,026,700 tons in 1930; 11,187,500 tons in 1931; and 10,273,200 in 1932. (c) Includes about 300,000 tons of lignite yearly. (d) Not available. (e) Includes brown coal. (f) Lignite.

The figures, generally speaking, show a considerable decline in production, particularly as regards the more important countries. Several factors are responsible for the falling off, i.e., the practically world wide depression in industry, the increasing use of oil fuel instead of coal, and the wider application of electricity for power, fuel, and lighting.

4. Exports.—(i) *General*. The exports of coal from Australia are chiefly confined to New South Wales.

The quantity of coal of Australian production (exclusive of bunker coal) exported to other countries in 1932-33 was 283,000 tons, valued at £282,000. With the exception of 8 tons from Victoria the whole export was shipped by New South Wales. The quantity and value of the overseas 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	1929-30 ..	294,503	346,916
1921-22 ..	1,028,767	1,099,899	1930-31 ..	387,851	411,612
1927-28 ..	555,617	690,995	1931-32 ..	344,015	341,800
1928-29 ..	346,658	428,754	1932-33 ..	282,977	281,512

(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	1929-30 ..	507,349	742,383
1921-22 ..	1,498,035	2,178,101	1930-31 ..	509,303	607,537
1927-28 ..	950,708	1,300,832	1931-32 ..	506,140	534,897
1928-29 ..	739,713	1,009,163	1932-33 ..	562,442	550,277

(a) Calendar Year.

(ii) *New South Wales*. The overseas and interstate coal exports from New South Wales in 1932 amounted to 2,294,000 tons, valued at £2,184,000, of which 1,502,000 tons, valued at £1,414,000, went to Australasian ports.

About 87 per cent. of the total, or 1,991,000 tons, were shipped from the port of Newcastle. Victoria took 832,000 tons, South Australia 416,000 tons, other Australian States 187,000 tons, New Zealand 147,000 tons, while 112,000 tons went to the United Kingdom, 31,000 tons to India, 35,000 tons to Java, 54,000 tons to Philippine Islands, about 36,000 tons to Straits Settlements, 13,000 tons to Canada, 20,000 tons to Fiji, 17,000 tons to Nauru, and 13,000 tons to China. The figures quoted include bunker coal.

During the year 1932 the exports from Port Kembla, Bulli and Bellambi to other States amounted to 60,000 tons, while 3,900 tons were sent to Malaya (British) and about 38,000 tons to New Caledonia. The coal shipped from Sydney, amounting to 8,700 tons, went principally to New Guinea, Papua, the New Hebrides, and other Pacific Islands. For the twelve months ended 30th June, 1932, about 33,000 tons of coal were dispatched to interstate ports from the jetty at Catherine Hill Bay, near Newcastle.

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.	
	Tons.		Tons.		Tons.		Tons.	
1928 .. ..	2,209,981		1,135,572		6,102,644		9,448,197	
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 .. ..	1,460,939		802,760		4,169,583		6,432,382	
1932 .. ..	1,501,598		792,750		4,489,874		6,784,222	

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.
1928 .. ..	12,273,727	17,870	12,291,597
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

The bunker coal taken away in 1932 was estimated at 534,000 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, and 2,613,000 tons in 1932. With the exception of a few tons the whole of the oversea imports in 1932, which amounted to 4,674 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 much 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.
1928 .. ..	19 0	16 6	13 1	17 6
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

(ii) *Victoria*. In Victoria the average price of coal at the pit's mouth in 1928 was 22s. 2d.; in 1929, 23s. 1d.; in 1930, 23s.; in 1931, 12s. 8d., and in 1932, 12s. 9d. per ton. These averages are exclusive of brown coal, the production of which in 1932, when valued at the cost of production, amounted to 2s. 4d. per ton.

(iii) *Queensland*. Prices in the principal coal-producing districts during the last five years were as follow :—

**COAL.—PRICES, QUEENSLAND.**

District.	Value at Pit's Mouth.				
	1928.	1929.	1930.	1931.	1932.
	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.	Per ton. s. d.
Ipswich .. ..	16 11	16 10	16 7	15 8	15 2
Darling Downs .. ..	19 5	19 5	19 5	18 6	18 4
Wide Bay and Maryborough	23 8	23 2	23 0	22 10	22 10
Rockhampton .. ..	23 3	22 11	20 5	16 8	17 6
Clermont .. ..	14 1	12 2	14 3	14 7	14 0
Bowen .. ..	15 2	15 4	15 5	15 1	14 9
Mount Mulligan (Chillagoe)	31 11	31 9	29 9	28 10	27 1
Average for State ..	18 0	17 6	17 5	16 8	16 3

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 price of the Collie (Western Australia) coal during the last five years was as follows :—In 1928, 15s. 11d.; in 1929, 15s. 8d.; in 1930, 15s. 9d.; in 1931, 15s. 7d.; and in 1932, 13s. 0d. per ton.

(v) *Tasmania*. The average price per ton of coal at the pit's mouth in Tasmania for the five years 1928 to 1932 was :—In 1928, 16s. 7d.; in 1929, 16s. 3d.; in 1930, 15s. 11d.; in 1931, 15s. 10d.; and in 1932, 15s. 6d. per ton.

7. Prices in the United Kingdom.—During the five years 1928 to 1932 the average selling value of coal at the pit's mouth in the United Kingdom was :—In 1928, 12s. 10d.; in 1929, 13s. 5d.; in 1930, 13s. 7d.; in 1931, 13s. 6d.; and in 1932, 13s. 3d. per ton.

8. Employment and Accidents in Coal Mining.—(i) *Australia*. The number of persons employed in coal mining, both above and below ground, in each of the States during the year 1932 is shown below. The table also gives the number of persons killed and 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. A further table gives the rate of fatalities during the last five years.

**COAL MINING.—EMPLOYMENT AND ACCIDENTS, 1932.**

State.	Persons Employed in Coal Mining.	No. of Persons.		Proportion per 1,000 Employed.		Tons of Coal raised for each Person.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales ..	14,275	13	68	0.91	4.76	521,900	99,600
Victoria .. ..	1,944	..	5	..	2.57	..	609,000
Queensland .. ..	2,392	1	129	4.18	53.89	841,700	6,500
Western Australia ..	604	..	124	..	205.13	..	3,400
Tasmania .. ..	381	..	2	..	5.25	..	55,900
Total .. ..	19,596	14	328	0.71	16.74	728,400	34,100

Owing to lack of uniformity in the definition of "injury," the figures relating to persons injured possess little comparative value.

The next table shows the average number of miners employed, number of fatalities, and rate per 1,000 during the quinquennium 1928-32 :—

COAL MINING.—FATALITIES, 1928 TO 1932.

State.	Average No. of Coal Miners.	Average No. of Fatal Accidents.	Rate per 1,000 Employed.
New South Wales .. ..	16,522	12	0.73
Victoria .. ..	2,168	2	0.92
Queensland .. ..	2,594	3	1.16
Western Australia .. ..	782	1	1.28
Tasmania .. ..	371	1	2.70
Total .. ..	22,437	19	0.85

(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 1927-31 was 1.06, the rates varying between 1.11 in 1929, and 0.98 in 1931, while the rate for Australia for the same period was 0.89. In the United States during the eight years 1923-30 the death rate per 1,000 employees averaged 4.9 for bituminous coal miners, and 3.8 for anthracite miners. Rates for other coal-producing countries for the same period were—Canada, 2.6; Union of South Africa, 3.4; Germany, 2.3; 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 the necessity for import has to a large extent disappeared. For the year 1932-33 the coke imported amounted to 437 tons, of which 185 tons were obtained from the United Kingdom and 252 tons from Germany.

The table hereunder gives the production in New South Wales during the last five years :—

COKE.—PRODUCTION, NEW SOUTH WALES.

Items.	1928.	1929.	1930.	1931.	1932.
Quantity .. tons	520,201	464,360	367,772	217,509	356,495
Value, total .. £	852,739	757,580	589,343	297,318	403,177
Value, per ton .. ..	32s. 9d.	32s. 8d.	32s. 1d.	27s. 4d.	22s. 7d.

The figures quoted refer to metallurgical coke, 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 for the last few years.

A small quantity of coke is made in Queensland, the quantity returned in 1932 being 1,933 tons, valued at £3,414. The following table shows the amount manufactured locally during the last five years :—

**COKE.—PRODUCTION, QUEENSLAND.**

Year.	1928.	1929.	1930.	1931.	1932.
Quantity .. tons	4,058	4,079	3,444	2,280	1,933

About 29,000 tons of coke were purchased from the southern States during the year 1932 for consumption at the ore treatment works at Mount Isa and Chillagoe. It is hoped, however, that in the near future the whole of the local market will be supplied from coke ovens which are being erected at Bowen.

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 the event of successful operation it is proposed to supply the needs of the naval and military authorities for crude oil and petrol, and to distribute any surplus products through the Commonwealth Oil Refineries.

The total recorded production of shale in 1932 was 2,691 tons, valued at £2,372.

About 79,000 gallons of crude oil were produced in 1932 from shale treated in Tasmania, while the total quantity of oil distilled from shale up to the end of 1932 was set down at 262,000 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.

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 1932 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.

Attention is at present being devoted to the problem of economically obtaining fuel oil and other products from black and brown coals, to a review of the wasteful practice of burning lump coal to generate power, and to the more effective utilization of the known deposits of oil shale, particularly in New South Wales and Tasmania.

### § 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 1932.

### § 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 1932 in New South Wales was estimated at 251 carats, valued at £252, while the total production to the end of 1932 is given at 204,000 carats, valued at £147,000. The yield in 1932 was obtained mainly at Howell and Copeton in the Tingha division. Ninety carats were won from a site in the Bingara 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 was recorded in the period 1930–32. Production during recent years was restricted owing to the unfavourable market.

In Queensland, gems to the value of £1,981 were purchased on the Anakie sapphire fields in 1932, but the prices obtainable were not sufficiently high to encourage intensive prospecting. 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 1932 was £1,233, 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 recovered 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 £1,601,000, 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 1932 was estimated at £500, 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 £3,127 in 1931, and £3,060 in 1932. 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. A small quantity of the gem was obtained during the year on the new field near Mount Johns, about 130 miles west of Oodnadatta. 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, chialtolite, 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 1931 and 1932.

### § 15. Numbers Engaged, Wages Paid, and Accidents in Mining.

1. Total Employment in Mining.—The number of persons engaged in the mining industry in Australia fluctuates according to the season, the price of industrial metals, the state of the labour markets, and according to the permanence of new finds, and the development of the established mines. During the year 1932 the number so employed was as follows:—

#### NUMBER OF PERSONS ENGAGED IN MINING, 1932.

State.	Number of Persons engaged in Mining for—						Total.
	Gold.	Silver, Lead, and Zinc.	Copper.	Tin.	Coal.	Other.	
New South Wales .. .. .	8,154	3,145	3	1,201	14,275	930	27,708
Victoria .. .. .	6,089	..	..	27	1,944	45	8,105
Queensland .. .. .	3,893	443	278	597	2,392	410	8,013
South Australia .. .. .	142	1	51	..	..	337	531
Western Australia .. .. .	7,983	16	..	41	604	51	8,695
Tasmania .. .. .	250	932	1,518	870	381	654	4,605
Northern Territory .. .. .	89	1	3	27	..	67	187
<b>Australia .. .. .</b>	<b>26,600</b>	<b>4,538</b>	<b>1,853</b>	<b>2,763</b>	<b>19,596</b>	<b>2,494</b>	<b>57,844</b>

Included in the figures for "other" in South Australia were 81 engaged in mining iron ore, 34 gypsum miners, 77 salt gatherers, and 80 opal miners. The Tasmanian figures include 242 osmiridium miners and 306 miscellaneous miners in the non-metallic group, and those for the Northern Territory, 55 mica miners and 10 wolfram miners.

The following table shows the number of persons engaged in mining in each State during each of the years 1901, 1911, 1921, 1929 to 1932, 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 Popu- lation.	Miners employed.	No. per 100,000 of Popu- lation.	Miners employed.	No. per 100,000 of Popu- lation.
New South Wales .. .. .	36,615	2,685	37,017	2,177	29,701	1,408
Victoria .. .. .	28,670	2,381	15,986	1,193	5,211	339
Queensland .. .. .	13,352	2,664	13,201	2,122	5,847	765
South Australia .. .. .	7,007	1,931	6,000	1,435	2,020	406
Western Australia .. .. .	20,895	11,087	16,596	5,644	7,084	2,126
Tasmania .. .. .	6,923	4,017	5,247	2,713	3,170	1,486
Northern Territory .. .. .	..	..	715	..	131	3,351
<b>Australia .. .. .</b>	<b>113,462</b>	<b>2,992</b>	<b>94,762</b>	<b>2,074</b>	<b>53,164</b>	<b>974</b>

NUMBER ENGAGED IN MINING PER 100,000 OF POPULATION—*continued.*

State.	1929.		1930.		1931.		1932.	
	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 ..	22,893	915	27,512	1,086	30,682	1,200	27,708	1,074
Victoria ..	3,231	183	3,255	182	6,463	359	8,105	448
Queensland ..	5,069	565	5,531	608	6,753	730	8,013	856
South Australia ..	610	108	565	99	518	90	531	92
Western Australia ..	5,159	1,226	5,442	1,268	7,147	1,653	8,695	1,998
Tasmania ..	3,603	1,655	3,280	1,485	3,397	1,512	4,605	2,028
Northern Territory ..	153	3,478	173	3,468	145	2,918	187	3,795
Australia ..	40,727	637	45,761	708	55,105	844	57,844	879

The general falling-off since 1901 is largely due to the causes mentioned in § 1.6 *ante*. As compared with the preceding year, the proportion to population for Australia as a whole shows increases for the last three years, 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 20,000 in 1932.

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, 1932.*—The following table gives particulars of the number of men killed and injured in mining accidents during the year 1932 :—

**MINING ACCIDENTS, 1932.**

Mining for—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
<b>KILLED.</b>								
Coal ..	13	..	1	..	..	..	..	14
Copper ..	..	..	..	..	..	1	..	1
Gold ..	2	2	3	..	16	1	..	24
Silver, lead, and zinc ..	8	..	2	..	..	1	..	11
Tin ..	2	..	..	..	..	1	..	3
Other minerals	2	..	..	..	..	..	..	2
Total ..	27	2	6	..	16	4	..	55
<b>INJURED.</b>								
Coal ..	68	5	129	..	124	2	..	328
Copper ..	..	..	9	1	..	43	..	53
Gold ..	5	4	26	..	254	..	..	289
Silver, lead, and zinc ..	18	..	24	..	..	12	..	54
Tin ..	..	..	3	..	..	7	..	10
Other minerals	2	..	..	1	..	3	..	6
Total ..	93	9	191	2	378	67	..	740

### § 16. Government Aid to Mining.

1. *Commonwealth.*—Assistance to mining may be given by the Commonwealth under the provisions of the *Precious Metals Prospecting Act 1926*, the *Gold Bounty Act of 1930*, and the *Petroleum Prospecting Acts of 1926, 1927, and 1928*.

The first-mentioned Act provides for a sum of £40,000, of which £15,000 is to be expended in the Northern Territory, and the balance is to be allocated to the States in such proportions as the Minister determines. At the 30th June, 1932, the expenditure amounted to £18,490. No further assistance is being granted to the States from this fund.

The *Gold Bounty Act 1930* provided that for a period of ten years from 1st January, 1931, a bounty of £1 per ounce was 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. according to 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.

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.

Under the *Petroleum Prospecting Act 1926–1927* a trust account of £160,000 was established to assist in 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, 1932, the total expenditure under these Acts amounted to £187,827. The Government has decided to discontinue the granting of subsidies for deep drilling and to confine its attention to assistance in the carrying out of geological surveys and scout boring. Owing to financial stringency, however, the payment of all subsidies for oil prospecting has been temporarily suspended.

A small geological staff, including palaeontologists, has been appointed. The Geological Adviser was instructed to proceed to the United States and the 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 to what extent this technique is applicable under Australian conditions, and a report on the investigations is being issued.

To provide for geophysical prospecting in Australia, a sum of £32,000 was made available by the Commonwealth Government in conjunction with the Empire Marketing Board. This survey was completed and the covering report in connexion therewith has been issued.

2. *New South Wales.*—The chief aid given in this State under normal conditions is in the direction of assistance to prospectors, but there were no appropriations from the Prospecting Vote for the year 1932–33, all claims being met from Unemployment Relief Funds. Advances are also made for the purpose of assisting in the erection of crushing batteries or reduction plants, the expenditure in 1932 under this heading amounting to £2,915. 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 £5,852. Loans to the amount of £2,915 were also approved for the purpose of assisting in the erection of mining plant and machinery. Claims for rewards to an amount of £250 were paid in connexion with the discovery of new mineral fields.

3. **Victoria.**—During the year 1932 expenditure in connexion with mining amounted to £43,123, of which £17,353 consisted of advances to prospectors, while advances to miners amounted to £13,956, aid to boring, £1,220, and assistance to batteries, £7,980. The total includes also expenses amounting to £1,907 on account of geological surveys.

4. **Queensland.**—State assistance to the mining industry in 1932 amounted to £10,575, of which £9,070 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. In addition a sum of £25,000 was expended on the erection of coke ovens at the Bowen State coal mine.

State coal mines were in operation at Bowen, Styx and at Mount Mulligan. The last mentioned mine, however, was continued on the co-operative system during the year. 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 mining industry under the terms of the *Mining Act* of 1893, and previous measures. Up to the end of 1932 the total amount of subsidy paid was £70,815, of which £13,681 has been repaid, and £4,549 written off, leaving a debit of £52,585. 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 1932 amounted to £1,450.

6. **Western Australia.**—Under the *Mining Development Act* of 1902 assistance was granted in 1932 in accordance with the subjoined statement:—Advances in aid of mining work and equipment of mines with machinery, £70; aid to prospectors, £8,772; subsidies on stone crushed for the public, £851; Total, £9,693. Other assistance granted from the vote on various matters during the year amounted to £14,396, 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 1932 was £91,981 from revenue and £331,534 from loan, giving a total of £423,515. The working expenditure up to the end of 1932 exceeded the revenue by £171,776. The total value of gold and tin recovered to the end of 1932 at the State plants was £6,815,313. 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 1932 amounted to £4,691, of which £906 was expended under Part III. of the *Aid to Mining Act* 1927, on drilling and boring, and £3,112 represented assistance and sustenance to prospectors under Part II., the balance being expended on miscellaneous assistance under Parts III. and IV. of the Act, exclusive of a sum of £673 expended in connexion with Unemployment Relief Acts. The amount received from ore sales was £1,557, the bulk of which was paid to tributers. Receipts amounted to £146.

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 £2,874.

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 1928 to 1932 were as follow :—

#### REFINED METALS PRODUCED IN AUSTRALIA.

Metal.		1928.	1929.	1930.	1931.	1932.
Silver .. ..	ozs.	8,053,251	9,229,514	9,002,705	7,349,794	6,499,405
Lead, pig .. ..	tons	155,076	176,820	168,291	133,306	134,499
Zinc .. ..	"	50,223	51,872	54,901	53,832	53,200
Copper .. ..	"	11,858	10,874	14,900	12,936	13,307
Tin .. ..	"	3,133	2,260	1,544	1,690	1,958

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 1927-28 to 428,000 tons; in 1928-29 to 461,000 tons; in 1929-30 to 308,369 tons; and in 1930-31 to 232,783 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 1928 to 1932 are given in the following table :—

#### METALLIC CONTENTS OF ORES, CONCENTRATES, ETC., EXPORTED.

Metal.	Contained in—	1928.	1929.	1930.	1931.	1932.
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
		117,846	31,121	179,185	303,307	..
		1,453,396	604,014	558,577	183,111	23,366
		..	..	..	..	..
	Total .. ..	1,571,242	679,812	782,539	1,504,777	2,494,173
Lead	tons { Lead-Silver-Gold Bullion Lead Concentrates and Ores Zinc Concentrates and Ores	..	689	252	17,130	51,857
		2,221	878	12,986	10,982	..
		12,726	5,704	9,482	1,878	1,159
		..	..	..	..	..
	Total .. ..	14,947	7,271	22,720	29,990	53,016
Zinc	tons { Lead Concentrates and Ores Zinc Concentrates and Ores	77	21	396	557	..
		117,858	69,958	86,761	41,917	31,542
		..	..	..	..	..
		..	..	..	..	..
	Total .. ..	117,935	69,979	87,157	42,474	31,542
Copper	tons Ores, Matte, etc.	1,989	2,737	3,277	2,765	1,099
Tin	tons Concentrates and Ores	..	4	..	17	101

## § 18. Oversea Exports of Ores, Metals, etc.

The following table shows the quantity and value of the principal oversea exports of ores, concentrates, and metals, the produce of Australia, together with the countries to which the respective products were forwarded, for the year 1932-33:—

## OVERSEA EXPORTS OF AUSTRALIAN ORES, METALS, ETC., 1932-33.

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 ..	17,637	..	..	17,637	..	..	..	..
Silver and Silver-lead ..	9,094	..	..	8,714	380	..	..	..
Iron ..	275,140	..	..	..	..	275,140	..	..
Wolfram ..	650	26	620	..	4	..	..	..
Concentrates—								
Silver and Silver-lead ..	194,766	..	..	180,606	14,160	..	..	..
Zinc ..	1,356,198	554,410	..	..	..	751,726	(a)	50,062
Cadmium—Blocks, Ingots, etc. ..	4,402	2,560	..	..	1,217	185	(d)	440
Copper—								
Matte ..	37,512	..	..	37,512	..	..	..	..
Ingot ..	130,638	122,773	..	7,500	..	..	185	180
Tin—Ingot ..	19,571	16,200	1,600	..	..	..	1,715	56
Lead—								
Pig ..	3,634,202	3,211,663	..	70,625	286,712	26,580	15,382	(b) 21,240
Zinc—Bars, Blocks, etc. ..	699,378	372,069	..	10,000	15,005	178,979	(c)	123,325
	oz.	oz.	oz.	oz.	oz.	oz.	oz.	oz.
Platinum, Osmium, etc. ..	(f) 664	621	..	..	..	..	43	..
Gold—								
Bar, Dust, etc. ..	956,282	950,800	5,476	..	..	..	6	..
Silver—								
Bar, Ingot, etc. ..	6,253,331	5,773,101	..	..	..	..	1,313	(e) 478,917
VALUE.								
Ores—	£	£	£	£	£	£	£	£
Copper ..	5,750	..	..	5,750	..	..	..	..
Silver and Silver-lead ..	4,424	..	..	4,329	95	..	..	..
Iron ..	7,908	..	..	..	..	7,908	..	..
Wolfram ..	1,976	50	1,921	..	5	..	..	..
Concentrates—								
Silver and Silver-lead ..	94,028	..	..	86,312	7,716	..	..	..
Zinc ..	179,200	44,403	..	..	..	125,211	..	9,586
Cadmium—Blocks, Ingots, etc. ..	37,083	20,639	..	..	10,685	1,325	..	4,434
Copper—								
Matte ..	18,892	..	..	18,892	..	..	..	..
Ingot ..	229,713	215,819	..	13,135	..	..	450	309
Tin—Ingot ..	189,723	156,063	15,324	..	..	..	17,933	403
Lead—								
Pig ..	2,384,056	2,139,714	..	40,202	155,736	20,850	11,871	15,683
Zinc—Bars, Blocks, etc. ..	578,448	304,276	..	10,000	10,688	148,012	..	105,472
Platinum, Osmium, etc. ..	5,257	4,963	..	..	..	..	294	..
Gold—								
Bar, Dust, etc. ..	7,179,081	7,138,329	40,705	..	..	..	47	..
Silver—								
Bar, Ingot, etc. ..	633,477	584,168	..	..	..	..	147	49,162

(a) France. (b) Hong Kong, 15,904 cwt.; Norway, 4,000 cwt. (c) India, 122,924 cwt. (d) Sweden. (e) Ceylon, 375,358 oz.; India, 102,471 oz.; Fiji, 1,088 oz. (f) Mainly osmium exported from Tasmania, and platinum from New South Wales.

## CHAPTER XVIII.

## 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 1927 onwards in single years, are given in the following table, and are shown continuously in the graphs hereinafter.

During the seventy-two years covered by the table the live stock of Australia increased considerably, horses 309 per cent. ; cattle 223 per cent. ; sheep 461 per cent. ; and pigs 231 per cent. The average annual increases which these aggregates represent are as follow :—Horses, 1.98 per cent. ; cattle, 1.66 per cent. ; sheep, 2.42 per cent. ; and pigs, 1.68 per cent.

## LIVE STOCK.—AUSTRALIA.

31st December.				Horses.	Cattle.	Sheep.(a)	Pigs.
1860	..	..	..	431,525	3,957,915	20,135,286	351,096
1870	..	..	..	716,772	4,276,326	41,593,612	543,388
1880	..	..	..	1,068,774	7,527,142	62,184,252	815,776
1890	..	..	..	1,521,598	10,299,816	97,881,221	891,138
1900	..	..	..	1,609,654	8,640,225	70,602,995	950,349
1910	..	..	..	2,165,866	11,744,714	98,066,046	1,025,850
1920	..	..	..	2,415,510	13,499,737	81,795,727	764,406
1927	..	..	..	2,040,691	11,617,056	100,827,476	878,207
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

(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. In the latter years Central and Northern Queensland experienced one of the driest periods on record with a heavy mortality of stock.

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-two 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	1928 ..	0.31	1.78	16.32	0.14
1880 ..	0.48	3.37	27.87	0.37	1929 ..	0.29	1.75	16.30	0.16
1890 ..	0.48	3.17	31.06	0.28	1930 ..	0.28	1.81	17.07	0.17
1900 ..	0.43	2.29	18.75	0.25	1931 ..	0.27	1.88	16.95	0.18
1910 ..	0.49	2.65	22.16	0.23	1932 ..	0.27	1.95	17.23	0.18

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, 1932.

States and Territories.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales .. .. .	1.71	10.15	173.54	1.25
Victoria .. .. .	4.24	21.63	199.27	3.27
Queensland .. .. .	0.67	8.26	31.79	0.32
South Australia .. .. .	0.50	0.82	20.29	0.30
Western Australia .. .. .	0.16	0.88	10.67	0.12
Tasmania .. .. .	1.15	9.58	77.84	1.58
Northern Territory .. .. .	0.06	1.49	0.03	0.00
Federal Capital Territory .. .. .	1.00	4.94	228.04	0.06
Total .. .. .	0.59	4.30	37.96	0.39

7. Minor Classes of Live Stock.—Excluding Victoria, details not being available, the numbers of minor classes of live stock returned for 1932 were as follow :—Goats, 149,414; camels, 5,770; mules and donkeys, 12,332; and ostriches, 106. 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 7,664 angora goats are included in the total of 149,414 goats shown above. Of these, 3,157 were in New South Wales, 646 in Tasmania, 887 in Western Australia, 1,452 in South Australia, and 1,516 in Queensland, while the quantity of mohair produced in the latter State in 1932 was set down at 756 lb., and the number of skins placed on the market was returned as 166.

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 1928-29 to 1932-33 were as follow :—



## NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Products.	Unit of Quantity.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
QUANTITIES.						
Animals (living)—						
Cattle .. .. .	No.	8,452	6,191	174	331	189
Horses .. .. .	"	5,356	5,969	4,926	4,771	3,227
Sheep .. .. .	"	29,545	38,764	26,071	47,131	51,821
Bones .. .. .	cwt.	14,000	10,503	12,238	9,416	8,299
Glue-pieces and Sinews .. .. .	"	-18,420	-20,176	-15,927	186	495
Glycerine .. .. .	lb.	-388,800	-703,682	-254,290	13,575	93,126
Hair .. .. .	"	(a)	(a)	126,712	74,445	-121,363
Hoofs .. .. .	cwt.	9,852	11,273	(a)	(a)	(a)
Horns .. .. .	"	(a)	(a)	(a)	(a)	(a)
Meats—						
Frozen Beef .. .. .	lb.	189,090,102	156,748,365	155,630,647	165,871,501	153,972,403
"    Mutton and Lamb .. .. .	"	84,905,335	100,410,980	109,252,956	165,281,142	166,797,195
"    Rabbits and Hares .. .. .	pair	3,598,075	3,873,337	(a)	(a)	(a)
"    Other .. .. .	lb.	7,127,553	6,115,445	6,920,925	8,061,876	9,579,958
Potted, and Extract of .. .. .	"	(a)	(a)	(a)	(a)	(a)
Preserved in Tins, etc. .. .. .	lb.	3,168,759	3,381,248	4,265,578	5,258,749	7,212,976
Other (excluding Bacon and Ham) .. .. .	"	447,495	434,050	344,712	277,562	330,186
Sausage Casings .. .. .	cwt.	31,489	30,984	8,976	11,562	10,429
Skins—						
Hides .. .. .	No.	816,980	702,135	(a)	(a)	(a)
Sheep .. .. .	"	11,026,291	12,944,781	(a)	(a)	(a)
Rabbit and Hare .. .. .	cwt.	100,655	77,566	63,348	69,774	77,873
Other (including Undressed Furs) .. .. .	"	(a)	(a)	(a)	(a)	(a)
Tallow .. .. .	cwt.	768,314	592,231	484,762	768,511	745,422
Wool—						
Greasy .. .. .	lb.	759,443,979	696,578,126	767,050,003	772,804,985	848,468,549
Scoured .. .. .	"	46,019,059	44,195,688	43,685,080	55,708,642	73,248,756
Tops .. .. .	"	872,774	552,152	1,033,823	2,170,330	2,252,380

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 £252,123,849 for the period, or an average of £50,424,770 per annum, of which wool represents 78.53 per cent. Meat, skins, and tallow rank next in order of importance.

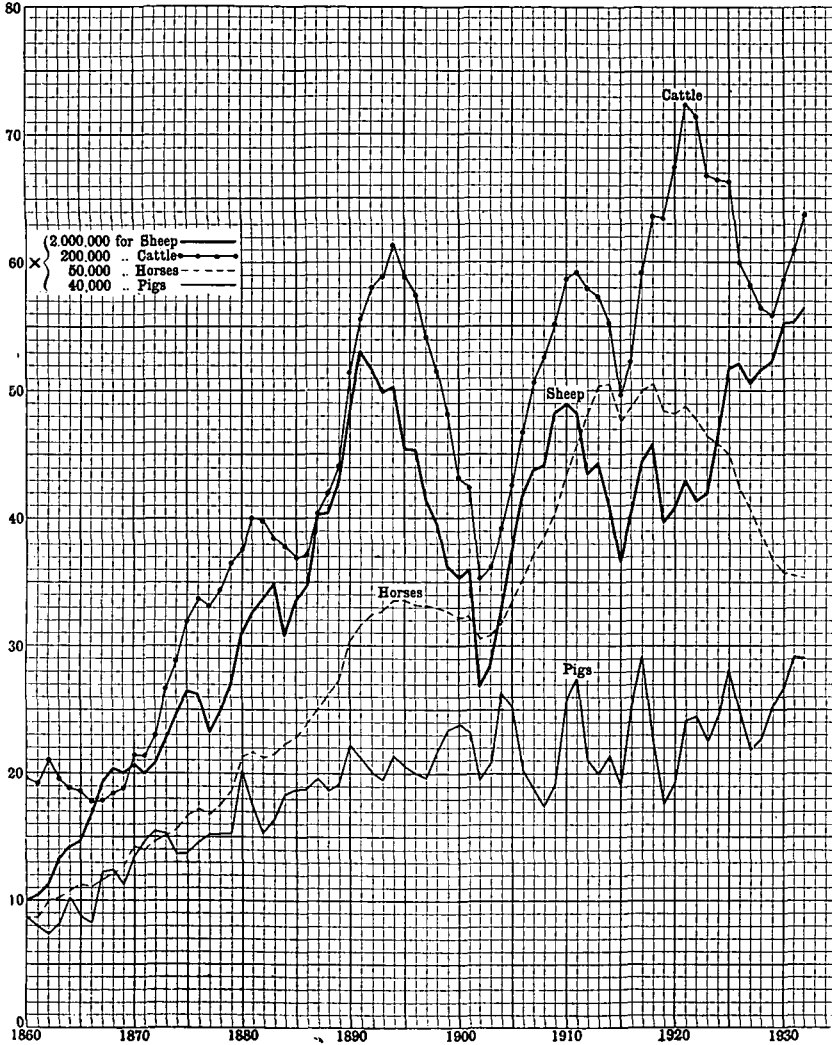
## NET EXPORTS OF PASTORAL PRODUCTS.—AUSTRALIA.

Products.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
VALUES.(a)					
Animals (living)—	£	£	£	£	£
Cattle .. .. .	21,205	-19,814	-7,788	-5,673	-7,089
Horses .. .. .	79,257	85,178	105,254	100,935	78,054
Sheep .. .. .	43,447	35,681	3,346	8,496	12,654
Bones .. .. .	10,775	8,015	8,702	6,725	5,199
Glue-pieces and Sinews .. .. .	-6,956	-13,577	-13,232	1,610	2,489
Glycerine .. .. .	-6,809	-15,167	-3,119	4,691	7,421
Hair .. .. .	-35,660	-47,591	-9,209	-24,966	-53,063
Hoofs .. .. .	6,162	7,128	4,412	4,750	4,330
Horns .. .. .	24,385	22,626	18,164	14,815	12,771
Meats—					
Frozen Beef .. .. .	2,888,284	2,569,782	2,235,526	2,087,812	1,854,569
"    Mutton and Lamb .. .. .	2,165,321	2,386,175	2,105,956	2,994,056	2,697,213
"    Rabbits and Hares .. .. .	331,456	339,917	412,845	478,946	559,367
"    Other .. .. .	180,422	152,319	149,643	151,793	170,462
Potted, and Extract of .. .. .	-76,328	-52,491	6,981	5,174	-7,584
Preserved in Tins, etc. .. .. .	84,029	118,513	138,253	135,805	183,539
Other (excluding Bacon and Ham) .. .. .	11,086	8,695	7,490	6,098	7,710
Sausage Casings .. .. .	144,063	245,246	159,913	56,701	44,002
Skins—					
Hides .. .. .	886,430	459,192	517,132	62,762	52,995
Sheep .. .. .	4,526,170	3,123,282	1,945,064	1,097,816	1,368,986
Rabbit and Hare .. .. .	2,624,253	1,507,142	557,207	477,476	450,862
Other (including Undressed Furs) .. .. .	277,477	586,842	175,095	304,696	-43,379
Tallow .. .. .	1,366,341	981,454	597,594	827,454	788,395
Wool—					
Greasy .. .. .	55,592,624	32,775,631	29,294,646	28,883,940	32,063,303
Scoured .. .. .	5,519,161	3,563,207	2,469,360	2,817,703	3,952,313
Tops .. .. .	166,957	87,781	114,021	248,055	271,993
Nails (b) .. .. .	.. .. .	.. .. .	30,814	44,520	53,902
Waste(b) .. .. .	.. .. .	.. .. .	9,487	7,940	20,030
Total Values .. .. .	76,823,552	48,915,166	41,033,557	40,800,130	44,551,444

NOTE.—The minus sign — signifies net imports. (a) Australian currency values.

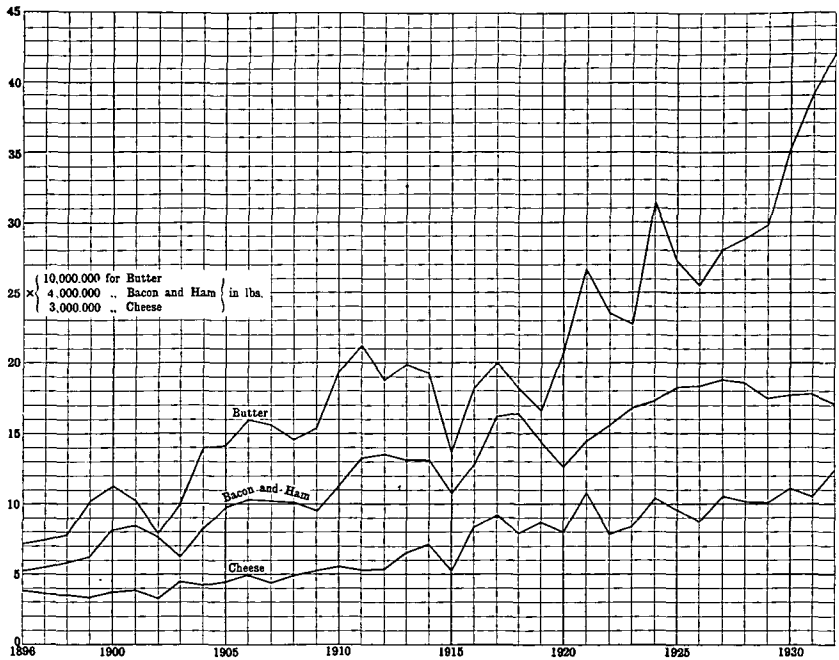
(b) Not available prior to 1930-31.

## NUMBER OF HORSES, CATTLE SHEEP AND PIGS—AUSTRALIA 1860 TO 1932.



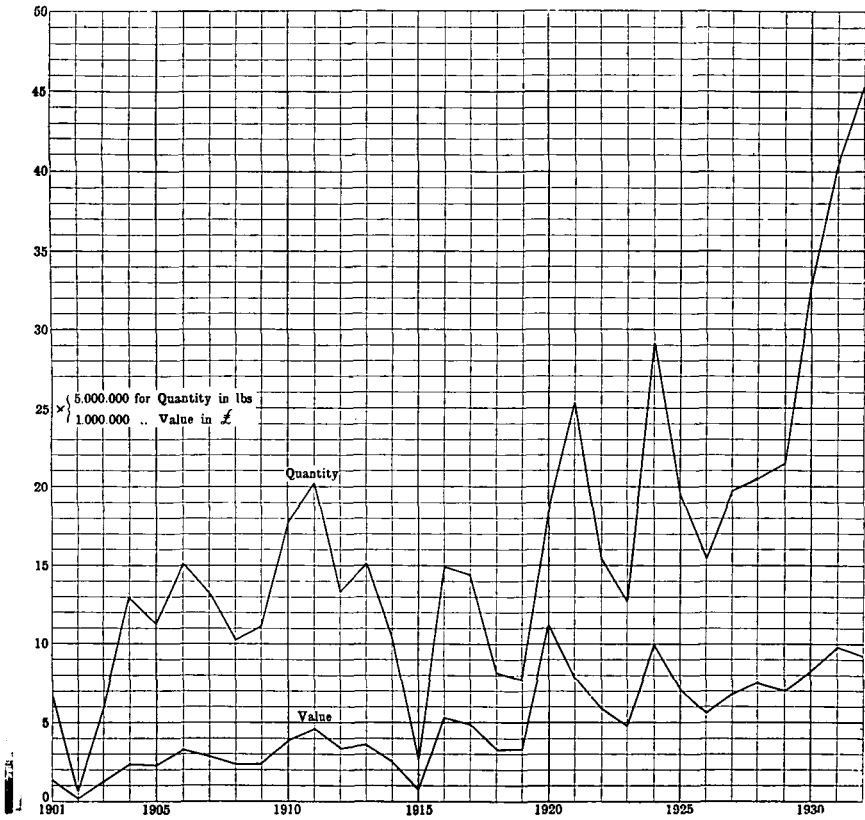
EXPLANATION.—The base of each small square represents an interval of one year, and the vertical side 2,000,000 in the case of sheep, 200,000 for cattle, 50,000 for horses, and 40,000 for pigs.

PRODUCTION OF BUTTER, CHEESE, AND BACON AND HAM—AUSTRALIA, 1896 TO 1932-33.



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 1932-33.



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.



9. Value of Pastoral Production.—Details of the quantities and values of the items included in the value of pastoral production for the year 1932-33 are shown in the following table. The values quoted are the gross values computed on the wholesale prices prevailing in the principal markets of the respective producing States. They include marketing and transport charges, cost of containers and goods consumed in the process of production, but the omission of the local consumption of rabbits (meat and skins) and other pastoral by-products tends to reduce the exaggeration of the total gross value shown. It is not possible to determine with exactitude the value which accrues to those immediately concerned in the industry, i.e., workers of all grades; proprietors (including landlords) of the instruments of production concerned; providers of capital, including mortgagees, etc., but it is estimated that after eliminating the costs enumerated above the net return, omitting maintenance and depreciation, would approximate £45,500,000 :—

PASTORAL PRODUCTION.—AUSTRALIA, 1932-33.

Item.	Quantity.	Gross Value.
Wool .. .. .	lb. 1,061,672,628	£ 38,599,500
Meats—		
Beef—		
Local Consumption (including Factories) .. .. .	.. .. . 712,235,702	9,526,153
Exports of Carcasses .. .. .	.. .. . 153,972,800	1,854,582
Mutton and Lamb—		
Local consumption (including Factories) .. .. .	.. .. . 607,458,167	6,798,525
Exports of Carcasses .. .. .	.. .. . 166,797,511	2,697,224
Rabbits and Hares (Export only) .. .. .	pair 10,602,932	559,367
Other Meats, frozen and other (Export only) .. .. .	.. .. . (a)	179,589
Sausage Casings (Export only) .. .. .	cwt. 25,257	211,958
Skins—		
Exports—		
Cattle and Calf .. .. .	No. 504,410	301,789
Sheep .. .. .	.. .. . 10,595,492	282,953
Rabbit and Hare .. .. .	cwt. 78,345	460,067
Other Furred .. .. .	.. .. . (a)	215,986
Other Skins .. .. .	.. .. . (a)	2,602
Consumption in Factories .. .. .	.. .. . (a)	1,768,960
Tallow—		
Exports .. .. .	cwt. 747,102	790,405
Local Consumption .. .. .	.. .. . 497,508	479,089
Hair, Horns, etc. (Export only) .. .. .	.. .. .	57,525
Net Exports of Live Stock .. .. .	.. .. .	64,913
	..	64,851,187

(a) Not available.

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.

While the average consumption in Australia is considerably below that of New Zealand, it is greatly in excess of that of Canada, Great Britain and the United States. Compared with Australia the consumption of beef, mutton and lamb in these countries is relatively small, but pork consumption is greatly in excess of the average recorded both for Australia and New Zealand. The consumption of beef in North America and on the Continent of Europe has shown a downward tendency of recent years, while the figures for pork and mutton have increased considerably :—

## MEATS.—PER CAPITA CONSUMPTION, AUSTRALIA AND OTHER COUNTRIES.

Description.	Australia, 1932-33.	New Zealand, (a)	Great Britain, 1931.	Canada, 1933.	United States of America, 1932.
	lb.	lb.	lb.	lb.	lb.
Beef and Veal .. ..	107.02	170.00	66.50	56.09	56.50
Mutton and Lamb .. ..	91.70	94.00	31.00	6.32	7.10
Pork .. ..	8.49	13.00	(b) 47.50	74.58	(c) 69.60
<b>Total</b> .. ..	<b>207.21</b>	<b>277.00</b>	<b>145.00</b>	<b>136.99</b>	<b>133.20</b>
Bacon and Ham .. ..	10.14	12.00	(d)	(d)	(d)
<b>Total All Meats</b> .. ..	<b>217.35</b>	<b>289.00</b>	<b>145.00</b>	<b>136.99</b>	<b>(c) 133.20</b>

(a) Average, three years ending 1931-32.  
(d) Probably included with Pork.

(b) Including Lard.

(c) Excluding Lard.

## § 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 large numbers are obtained annually for remount purposes. During the war, Australian horses were found to stand up well to requirements, especially in Palestine and Sinai, where the rigours of the desert campaign severely tested their powers of endurance.

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.

Year.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	F.C.T.	Total.
1928	4567,371	412,867	522,490	205,865	160,876	34,908	37,452	a 924	1,942,753
1929	4534,945	393,015	500,104	189,054	159,528	34,336	33,703	a 929	1,845,614
1930	4524,512	379,872	480,970	183,529	156,973	32,700	33,363	a 815	1,792,734
1931	4524,751	375,459	468,603	185,222	156,489	30,659	33,442	b 925	1,775,550
1932	4528,943	372,907	451,644	190,222	157,443	30,269	33,072	b 937	1,765,437

(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 1932 is the lowest returned since 1906. 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 that year up to the latest available date amounted to 30, 44 and 13 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 1932 in New South Wales, South Australia and Western Australia of 4,000, 5,000 and 1,000, respectively.

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 1932 were:—New South Wales, 29.97; Victoria, 21.12; Queensland, 25.59; South Australia, 10.77; Western Australia, 8.92; Tasmania, 1.71; Northern Territory, 1.87; and Federal Capital Territory, 0.05 per cent.

The percentages in the various States have remained practically constant during the last quinquennium.

4. Relation to Population.—In proportion to population, horses are much more numerous in the Northern Territory than in any other of the principal divisions of Australia. Queensland is next in order, while 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 1932 the relative numbers were:—New South Wales, 0.20; Victoria, 0.21; Queensland, 0.48; South Australia, 0.33; Western Australia, 0.36; Tasmania, 0.13; Northern Territory, 6.78; Federal Capital Territory, 0.11; and Australia, 0.27.

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 ..	1932	19,600	Sweden .. ..	1932	660
U.S. of America ..	1932	12,163	Uruguay .. ..	1930	623
Argentina .. ..	1930	9,858	Lithuania .. ..	1932	589
Brazil .. ..	1932	6,828	Spain .. ..	1931	563
Poland .. ..	1932	3,940	Turkey .. ..	1932	511
Germany .. ..	1932	3,395	Denmark .. ..	1932	496
Canada .. ..	1932	3,094	Bulgaria .. ..	1926	482
France .. ..	1932	2,901	Irish Free State ..	1932	446
India (British and (Native) .. ..	1931	2,337	Chile .. ..	1930	441
Rumania .. ..	1931	2,034	Peru .. ..	1929	432
Australia .. ..	1932	1,765	Haiti .. ..	1932	400
Japan .. ..	1931	1,477	Bolivia .. ..	1931	390
United Kingdom ..	1932	1,171	Latvia .. ..	1932	366
Yugoslavia .. ..	1932	1,157	Finland .. ..	1932	360
Mexico .. ..	1926	1,036	Greece .. ..	1932	324
Colombia .. ..	1931	1,000	Siam .. ..	1932	314
Italy .. ..	1930	943	Netherlands .. ..	1930	299
Hungary .. ..	1932	846	New Zealand .. ..	1932	281
Union of South Africa	1930	836	Belgium .. ..	1932	238
Cuba .. ..	1929	758	Paraguay .. ..	1926	210
Czechoslovakia ..	1932	706	French Morocco ..	1932	208
Dutch East Indies	1932	681	Estonia .. ..	1932	208



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 5,000. The total number of horses exported during that period amounted to 25,352, valued at £756,919, equal to an annual average of 5,070 for £151,384. The average export price for the period was £29 17s. 2d. About 86 per cent. of the horses exported went to India, where they are largely used for army remounts.

(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 £278 19s. od. The average number imported per annum was, however, only 221, and the average annual value, £61,648. The following table gives the imports, exports, and net exports of horses during each of the years from 1928–29 to 1932–33 :—

**HORSES.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1928–29.. ..	339	95,025	5,695	174,282	5,356	79,257
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

(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 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 in recent years 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, which particularly affected the beef cattle areas of New South Wales and Queensland, were mainly responsible for the heavy decreases recorded in both these States during recent years. Since 1929 an increase of 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.

Year.	N.S.W.	Vic. (b)	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Total.
1928	2,784,615	1,304,426	5,128,341	263,016	837,527	208,812	768,751	25,269	11,300,757
1929	2,686,132	1,335,242	5,208,588	204,516	836,646	214,643	711,607	24,760	11,202,134
1930	2,840,473	1,429,920	5,463,724	218,985	812,844	230,254	720,476	24,240	11,720,916
1931	2,993,586	1,637,530	5,550,399	265,324	826,532	232,444	749,745	25,395	12,260,955
1932	3,141,174	1,900,922	5,535,065	312,932	857,473	250,807	780,121	24,643	12,783,137

(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 43.3 per cent. of the cattle in Australia in 1932.

The largest relative gain since 1927 occurred in Victoria, followed by Queensland and Tasmania; slight increases were recorded in the remaining States. The proportion in each of the States and Territories during 1932 was :—New South Wales, 24.57; Victoria, 14.87; Queensland, 43.30; South Australia, 2.45; Western Australia, 6.71; Tasmania, 1.96; Northern Territory, 6.10; Federal Capital Territory, 0.04.

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.	No. of Cattle (,000 omitted).	Country.	Year.	No. of Cattle (,000 omitted).
India (British and Native) .. ..	1931	158,229	Kenya .. ..	1932	5,214
U.S. of America .. ..	1932	65,129	Siam .. ..	1932	4,972
Brazil .. ..	1931	42,539	Dutch East Indies .. ..	1931	4,681
Soviet Union .. ..	1932	40,700	Czechoslovakia .. ..	1932	4,341
Argentina .. ..	1930	32,212	Rumania .. ..	1932	4,189
Germany .. ..	1932	19,139	New Zealand .. ..	1932	4,072
France .. ..	1932	15,643	Cuba .. ..	1932	4,033
Australia .. ..	1932	12,783	Irish Free State .. ..	1932	4,025
Union of South Africa .. ..	1930	10,574	Yugoslavia .. ..	1932	3,812
Poland .. ..	1932	9,461	Spain .. ..	1931	3,654
Canada .. ..	1932	8,511	Denmark .. ..	1932	3,241
United Kingdom .. ..	1932	8,306	Rhodesia .. ..	1932	3,200
Colombia .. ..	1931	8,000	Sweden .. ..	1932	3,120
Uruguay .. ..	1932	7,372	Paraguay .. ..	1926	2,973
Italy .. ..	1930	7,089	Nigeria .. ..	1932	2,560
Madagascar .. ..	1932	6,575	Chile .. ..	1930	2,388
French Equatorial and West Africa .. ..	1932	5,960	Netherlands .. ..	1930	2,366
Mexico .. ..	1926	5,585	Austria .. ..	1930	2,313
Tanganyika Territory .. ..	1932	5,336	Venezuela .. ..	1922	2,278
Turkey .. ..	1932	5,315	Uganda .. ..	1932	2,152
			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.
		£		£		£
1928-29 ..	96	17,761	8,548	38,966	8,452	21,205
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

(a) Australian currency values. Note.—The minus sign (-) signifies net imports.

The average value of the cattle imported during the last five years was £185 18s. 4d. per head, while the average value of the cattle exported during the same period was £4 14s. 5d. 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 1928 to 1932 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.
1928	778,994	466,576	685,196	127,627	100,982	36,264	2,065	2,074	2,199,778
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	375,380	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

(a) For year ended 30th June of year following.

6. Production and Consumption of Beef.—The production of beef in Australia during the year 1932-33 was estimated at 866,208,500 lb. The requirements of the local market absorbed 706,798,000 lb., approximately 82 per cent., leaving a balance of 18 per cent., which was exported as frozen and canned beef. (See also § 1, 10 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.:—1928-29, 189,090,357 lb., £2,888,287; 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; and 1932-33, 153,972,800 lb., £1,854,582. (See Table § 1, No. 8.) The largest purchaser of Australian beef is the United Kingdom, which during the year 1932-33 took £1,489,183 worth, or about 80.3 per cent., of the total shipments. Other countries importing Australian beef were in order of importance Belgium, Egypt, Philippine Islands, Malta, Malaya (British), and Japan. These countries, together with the United Kingdom, accounted for 95.4 per cent. of the total exports.

The distance of Australia from the chief markets of the world has 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 more than 254,000 lb. were made during 1932-33 while in 1933-34 the quantity exported exceeded 1,515,000 lb. The success of these shipments indicates the displacement of the frozen beef trade at no distant date and preparations are being made in Australia to meet the new conditions. The hope has been expressed that the regular shipment of high quality beef will enable Australia to successfully compete in the chilled beef trade. Shipping companies are effecting structural alterations to their vessels to permit of the carriage of chilled beef.

8. **Agreements Regarding Meat at the Ottawa Conference.**—A further stimulus to the Australian meat industry should result from 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, in accordance with the following Schedule :—

**STATEMENT SHOWING THE MAXIMUM QUANTITIES OF FOREIGN MEAT TO BE ALLOWED TO BE IMPORTED INTO THE UNITED KINGDOM DURING EACH QUARTER OF THE PERIOD 1ST JANUARY, 1933, TO 30TH JUNE, 1934, EXPRESSED AS PERCENTAGES OF THE QUANTITIES IMPORTED IN THE CORRESPONDING QUARTERS OF THE TWELVE MONTHS ENDED JUNE, 1932.**

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

Australia undertook to limit the export to the United Kingdom of frozen mutton and lamb during the year 1933 to a quantity equivalent to that exported during the year ended June, 1932, viz., 165,282,000 lb., while the export of frozen beef would not be increased during 1933 to an extent exceeding 10 per cent. of the quantity exported during 1931-32, viz., 165,872,000 lb. Thereafter, no restriction will be placed upon the importation of any meat from Australia into the United Kingdom during the currency of the agreed programme. It was agreed that from 30th June, 1934, the regulation of the imports of foreign meat is to be continued until 1938, at the rates in force for the quarter ended June, 1934, unless a permanent policy is agreed upon as a result of consultations which took place during 1933 between the Governments of the United Kingdom and Australia. Details of imports of beef, mutton and lamb into the United Kingdom during the period 1928 to 1932 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 1928 to 1932 :—

**IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES INTO THE UNITED KINGDOM.**

Country of Origin.	1928.	1929.	1930.	1931.	1932.
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**CHILLED—QUANTITY.**

	cwt.	cwt.	cwt.	cwt.	cwt.
Brazil .. .. .	329,225	332,656	506,976	598,664	481,151
Uruguay .. .. .	589,659	795,465	866,685	778,437	503,855
Argentina .. .. .	8,644,551	8,174,800	7,713,349	7,911,175	7,804,366
Other Foreign Countries .. .. .	..	I	..	..	..
British .. .. .	1,085	2,004	..	..	9,369
<b>Total Chilled .. .. .</b>	<b>9,564,520</b>	<b>9,304,926</b>	<b>9,087,010</b>	<b>9,288,276</b>	<b>8,798,741</b>

**CHILLED—VALUE.**

	£	£	£	£	£
Brazil .. .. .	812,048	881,278	1,276,361	1,160,043	980,342
Uruguay .. .. .	1,456,834	2,075,707	2,197,906	1,589,591	986,489
Argentina .. .. .	22,260,448	22,275,517	20,248,423	17,384,571	16,198,019
Other Foreign Countries .. .. .	..	4	..	..	..
British .. .. .	2,244	4,121	..	..	13,807
<b>Total Chilled .. .. .</b>	<b>24,531,574</b>	<b>25,236,627</b>	<b>23,722,690</b>	<b>20,134,205</b>	<b>18,178,657</b>

**FROZEN—QUANTITY.**

	cwt.	cwt.	cwt.	cwt.	cwt.
United States of America .. .. .	166	173	..	..	..
Brazil .. .. .	68,820	50,636	106,271	83,477	24,544
Uruguay .. .. .	94,822	65,924	191,180	169,200	98,806
Argentina .. .. .	288,474	346,619	256,502	197,895	149,800
Other Foreign Countries .. .. .	..	24,268	..	486	1,090
Australia .. .. .	904,772	820,360	719,111	992,462	814,362
New Zealand .. .. .	331,508	77,969	230,876	220,317	362,003
Other British Countries .. .. .	121	7,347	11,133	1,288	1,244
<b>Total Frozen .. .. .</b>	<b>1,688,683</b>	<b>1,393,296</b>	<b>1,515,073</b>	<b>1,665,125</b>	<b>1,451,849</b>
<b>Grand Total .. .. .</b>	<b>11,253,203</b>	<b>10,698,222</b>	<b>10,602,083</b>	<b>10,953,401</b>	<b>10,250,590</b>

IMPORTS OF CHILLED AND FROZEN BEEF IN QUARTERS AND SIDES  
INTO THE UNITED KINGDOM—*continued.*

Country of Origin.	1928.	1929.	1930.	1931.	1932.
FROZEN—VALUE.					
	£	£	£	£	£
United States of America ..	508	778	..	..	..
Brazil .. ..	136,487	110,242	226,617	149,606	47,788
Uruguay .. ..	225,884	169,468	476,559	349,300	183,109
Argentina .. ..	680,191	869,126	664,586	410,853	276,653
Other Foreign Countries ..	..	54,037	..	877	1,526
Australia .. ..	1,935,417	1,819,616	1,561,342	1,547,425	1,185,849
New Zealand .. ..	681,685	171,623	496,784	320,691	479,757
Other British Countries ..	298	16,280	22,470	2,503	2,282
Total Frozen ..	3,660,470	3,211,170	3,448,358	2,781,255	2,176,964
Grand Total ..	28,192,044	28,447,797	27,171,048	22,915,460	20,355,621

### § 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 was, 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. 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 1929 to 1932 with an estimate for the year 1933 is as follows:—

### SHEEP.—NUMBER.

Year.	New South Wales.	Victoria. (c)	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Ter.	Fed. Cap.Ter.	Total.
1929	448,720,000	17,427,203	20,324,303	6,186,252	9,556,823	2,091,113	12,203	2240,445	104,558,342
1930	553,366,000	16,477,995	22,542,043	5,980,959	9,882,761	2,119,606	15,838	2183,077	110,568,279
1931	553,986,000	16,376,217	22,324,278	6,608,981	10,098,104	2,012,055	18,867	2194,391	110,618,893
1932	553,698,236	17,512,394	21,312,865	7,713,236	10,417,031	2,040,564	18,250	2214,355	112,926,931
1933b	50,000,000	17,195,969	19,255,585	7,941,060	10,305,102	2,000,000	20,000	200,000	106,917,716

(a) 30th June year following.

(b) Estimate as at 31st December, 1933.

(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 show little change. All States, however, showed an increase in 1932 compared with 1928; the greatest occurring in Western Australia with 16 per cent., followed by Queensland 15 per cent.

The percentage distribution in 1932 was:—New South Wales, 47.55; Victoria, 15.51; Queensland, 18.87; South Australia, 6.84; Western Australia, 9.22; Tasmania, 1.81; Federal Capital Territory, 0.18 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 113 millions, followed by the United States of America with 53 millions, the Soviet Union with 52 millions, and the Union of South Africa, 48 millions. For the years 1926 to 1929 the sheep flocks of the Soviet Union exceeded that of Australia; reaching its maximum in 1929 with nearly 134 millions. Since that year a remarkable decrease has been recorded; falling to 109 millions in 1930, to 78 millions in 1931 and to 52 millions in 1932. The figures for the last three years are inclusive of goats. No explanation of this large decrease is available, but it is known that heavy slaughterings have occurred as a protest by the peasants to 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 sub-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 1932. This represents an average weight of fleece shorn of about 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).
<b>Australia</b> .. ..	<b>1932</b>	<b>112,927</b>	Yugoslavia .. ..	1932	8,510
United States of America .. ..	1932	53,155	French Morocco .. ..	1932	7,556
Soviet Union(a) .. ..	1932	52,100	Greece .. ..	1932	6,927
Union of South Africa .. ..	1930	48,358	Chile .. ..	1930	6,263
India (British and Native) .. ..	1930	44,628	Algeria .. ..	1932	5,269
Argentina .. ..	1930	44,413	Bolivia .. ..	1931	5,232
New Zealand .. ..	1932	28,692	Iraq .. ..	1932	4,307
United Kingdom .. ..	1932	27,204	Portugal .. ..	1925	3,721
Uruguay .. ..	1930	20,558	Canada .. ..	1932	3,644
Spain .. ..	1931	20,047	Irish Free State .. ..	1932	3,461
Rumania .. ..	1932	12,294	Germany .. ..	1932	3,405
Turkey .. ..	1932	11,768	Kenya .. ..	1930	3,227
Peru .. ..	1929	11,209	Tunis .. ..	1932	2,931
Brazil .. ..	1931	10,702	Mexico .. ..	1926	2,698
Italy .. ..	1930	10,268	Somaliland .. ..	1932	2,500
France .. ..	1931	9,762	Poland .. ..	1932	2,488
French Equatorial and West Africa .. ..	1932	9,598	Tanganyika Territory .. ..	1932	2,281
Bulgaria .. ..	1926	8,739	Sudan (Anglo-Egyptian) .. ..	1932	2,250
Persia .. ..	1931	8,544	Nigeria .. ..	1932	2,127
			Syria and Lebanon .. ..	1932	2,080
			Basutoland .. ..	1932	1,949

(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 small 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 during recent 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 1932-33 exports increased to 968 sheep valued at £4,008, of which 850 sheep valued at £2,822 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 1928-29 to 1932-33 :—

## SHEEP.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1928-29 ..	3,764	17,797	33,309	61,244	29,545	43,447
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

(a) Australian currency values.

6. **Sheep Slaughtered.**—The number of sheep slaughtered in the several States during each of the years from 1928 to 1932 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.
1928..	4,967,835	5,286,642	805,461	1,263,352	807,510	331,820	..	20,384	13,483,004
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	25,444	19,530,510

(a) Year ended 30th June year following.

7. **Production and Consumption of Mutton and Lamb.**—The production of mutton and lamb during the year 1932-33 amounted to 774,256,000 lb., of which 605,646,000 lb., or 78 per cent., was consumed locally, leaving a balance of 22 per cent. for exportation. See also § 1, No. 10.

8. **Exports of Frozen Mutton and Lamb.**—The export trade in mutton and lamb preserved by cold process grew rapidly, until in 1913, the year immediately before the war, the value of the shipments amounted to nearly £3,000,000. The exports fell away



considerably during the war years, but a record export of 246,971,346 lb., valued at £5,482,564, was made in 1919-20, and in 1922-23 the shipments were valued at £4,321,917. Climatic conditions have since favoured a considerable output, and shipments have increased accordingly.

The quantity and value of the shipments during each of the last five years were as follow:—1928-29, 84,929,176 lb., £2,166,043; 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. See Table § 1, No. 8.

As with beef, the principal customer in this trade is the United Kingdom, which absorbed almost 97 per cent. of the total quantity exported from Australia during the year 1932-33.

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 1932 are given in the following table, viz. :—

#### IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM.

Country of Origin.	1928.	1929.	1930.	1931.	1932.
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#### MUTTON—QUANTITIES.

	cwt.	cwt.	cwt.	cwt.	cwt.
Soviet Union .. ..	1,152	..	..	..	..
China .. .. .	..	4,681	..	..	..
Chile .. .. .	223,693	192,017	202,715	125,907	151,195
Brazil .. .. .	1,421	26,168	11,588	1,799	462
Uruguay .. .. .	245,573	194,441	156,756	53,605	31,649
Argentina .. .. .	706,145	654,865	656,685	485,350	354,233
Other Foreign Countries ..	902	1,803	2,641	124	286
<b>Total, Foreign .. ..</b>	<b>1,178,886</b>	<b>1,073,975</b>	<b>1,030,385</b>	<b>666,785</b>	<b>537,825</b>
<b>Australia .. .. .</b>	<b>211,681</b>	<b>128,858</b>	<b>254,238</b>	<b>502,211</b>	<b>190,952</b>
<b>New Zealand .. .. .</b>	<b>962,891</b>	<b>883,789</b>	<b>1,172,262</b>	<b>1,105,105</b>	<b>1,335,884</b>
<b>Other British Countries ..</b>	<b>311</b>	<b>125</b>	<b>1,305</b>	<b>3</b>	<b>873</b>
<b>Total, British .. ..</b>	<b>1,174,883</b>	<b>1,012,772</b>	<b>1,427,805</b>	<b>1,607,319</b>	<b>1,527,709</b>
<b>Grand Total .. .. .</b>	<b>2,353,769</b>	<b>2,086,747</b>	<b>2,458,190</b>	<b>2,274,104</b>	<b>2,065,534</b>

IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM—  
*continued.*

Country of Origin.	1928.	1929.	1930.	1931.	1932.
<b>MUTTON—VALUE.</b>					
	£	£	£	£	£
Soviet Union .. .. .	2,690	..	..	..	..
China .. .. .	..	10,922	..	..	..
Chile .. .. .	555,282	440,917	335,882	203,360	216,577
Brazil .. .. .	3,941	56,985	29,466	3,038	659
Uruguay .. .. .	590,242	486,818	366,746	103,301	58,559
Argentina .. .. .	1,838,331	1,693,863	1,594,543	952,349	555,712
Other Foreign Countries ..	2,504	4,536	5,912	244	534
<b>Total, Foreign .. .. .</b>	<b>2,992,990</b>	<b>2,694,041</b>	<b>2,332,549</b>	<b>1,262,292</b>	<b>832,041</b>
Australia .. .. .	530,911	293,478	552,149	810,537	296,577
New Zealand .. .. .	2,708,136	2,360,940	2,699,759	2,033,978	2,083,185
Other British Countries ..	721	347	3,752	8	1,621
<b>Total, British .. .. .</b>	<b>3,239,768</b>	<b>2,654,765</b>	<b>3,255,660</b>	<b>2,844,523</b>	<b>2,381,383</b>
<b>Grand Total .. .. .</b>	<b>6,232,758</b>	<b>5,348,806</b>	<b>5,588,209</b>	<b>4,106,815</b>	<b>3,213,424</b>

**LAMB—QUANTITIES.**

	cwt.	cwt.	cwt.	cwt.	cwt.
Iceland .. .. .	8,383	10,980	16,910	18,097	30,661
United States .. .. .	208	1,595	2,443	..	..
Chile .. .. .	128,528	139,151	152,052	113,992	144,952
Brazil .. .. .	723	1,002	15,785	10,362	4,841
Uruguay .. .. .	157,823	172,316	266,571	230,695	131,220
Argentina .. .. .	805,323	890,297	795,358	1,067,959	1,017,417
Other Foreign Countries ..	14	1,105	182	280	266
<b>Total, Foreign .. .. .</b>	<b>1,101,002</b>	<b>1,216,446</b>	<b>1,249,301</b>	<b>1,441,385</b>	<b>1,329,357</b>
Australia .. .. .	334,846	464,632	555,932	1,027,134	961,140
New Zealand .. .. .	1,831,914	1,862,298	2,120,580	2,364,656	2,570,958
Other British Countries ..	236	785	905	..	85
<b>Total, British .. .. .</b>	<b>2,166,996</b>	<b>2,327,715</b>	<b>2,677,417</b>	<b>3,391,790</b>	<b>3,532,183</b>
<b>Grand Total .. .. .</b>	<b>3,267,998</b>	<b>3,544,161</b>	<b>3,926,718</b>	<b>4,833,175</b>	<b>4,861,540</b>

**IMPORTS OF FROZEN MUTTON AND LAMB INTO THE UNITED KINGDOM—**  
*continued.*

Country of Origin.	1928.	1929.	1930.	1931.	1932.
<b>LAMB—VALUE.</b>					
	£	£	£	£	£
Iceland .. .. .	34,864	31,026	50,177	45,310	58,784
United States .. .. .	1,046	5,317	8,761	..	..
Chile .. .. .	488,993	510,295	443,906	274,645	347,020
Brazil .. .. .	2,392	3,429	51,500	24,319	4,046
Uruguay .. .. .	511,805	573,966	820,209	603,981	315,141
Argentina .. .. .	2,834,450	3,077,313	2,519,074	2,806,270	2,357,467
Other Foreign Countries .. .. .	125	5,194	634	687	945
<b>Total, Foreign .. .. .</b>	<b>3,873,675</b>	<b>4,206,540</b>	<b>3,894,261</b>	<b>3,755,212</b>	<b>3,083,403</b>
<b>Australia .. .. .</b>	<b>1,284,660</b>	<b>1,725,152</b>	<b>1,933,600</b>	<b>2,785,113</b>	<b>2,199,041</b>
<b>New Zealand .. .. .</b>	<b>7,950,598</b>	<b>7,664,459</b>	<b>8,232,156</b>	<b>7,600,524</b>	<b>7,154,472</b>
<b>Other British Countries .. .. .</b>	<b>737</b>	<b>4,007</b>	<b>3,339</b>	<b>..</b>	<b>290</b>
<b>Total, British .. .. .</b>	<b>9,235,995</b>	<b>9,393,618</b>	<b>10,169,095</b>	<b>10,385,637</b>	<b>9,353,803</b>
<b>Grand Total .. .. .</b>	<b>13,109,670</b>	<b>13,600,158</b>	<b>14,063,356</b>	<b>14,140,849</b>	<b>12,437,206</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 1932-33, 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 6 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 .. .. .	1932-33	112.9	1,061.6
United States .. .. .	1932	51.6	411.3
Soviet Union .. .. .	1932	52.1	306.1
Argentina .. .. .	1932-33	(a)44.4	359.0
Union of South Africa .. .. .	1932-33	(b)43.0	322.0
New Zealand .. .. .	1932-33	27.8	288.4

(a) Year 1930.      (b) Estimate.

2. **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 season 1932-33 and its effect 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 1932-33

was valued at £38,599,500 compared with £70,833,000 for the clip of 1928-29, and £81,430,000 for 1924-25 when the record price was realized. On the average of the five seasons, 1927-28 to 1931-32, the annual clip was valued at £44,706,300. The average auction room price of greasy wool declined from 16.44d. per lb. in 1928-29 to 10.29d. per lb. in 1929-30, to 8.36d. in 1930-31, rose to 8.46d. in 1931-32, and in 1932-33 an increase to 8.72d. per lb. was recorded, leaving a fall of 47.0 per cent. since 1928-29. In 1933-34 a substantial increase in price took place when the price averaged 15.84d. per lb. for the year. This represents an increase of 81 per cent. over the previous year. and is slightly under the average of that for 1928-29. During the five years ended 1932-33 the export of wool averaged 39 per cent. of the value of the total shipments of merchandise of local origin from Australia (home produce), while during 1932-33 the proportion was 37.8 per cent.

3. **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 13 per cent. of the total wool exports regarded as “greasy”.

4. **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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	lb.	lb.	lb.	lb.	lb.
New South Wales(a) ..	484,753,597	461,852,890	428,752,210	503,275,416	533,710,404
Victoria ..	179,854,306	160,662,578	146,862,612	159,721,916	170,807,900
Queensland ..	150,108,044	161,087,873	182,061,407	184,716,462	185,833,546
South Australia ..	74,616,004	67,300,881	63,478,524	67,021,312	75,727,946
Western Australia ..	63,890,984	72,562,594	76,951,500	77,985,741	81,307,832
Tasmania ..	14,900,000	14,100,000	14,000,000	13,875,000	14,250,000
Northern Territory(b)	30,000	30,000	35,000	35,000	35,000
Total ..	968,152,935	937,596,816	912,141,253	1,006,630,847	1,061,672,628

(a) Including Federal Capital Territory.

(b) Approximate figures.

(ii) *Estimate for 1933-34.* Although the returns are not yet complete, the total wool production of Australia during 1933-34 is estimated at 975,600,000 lb., valued at approximately £64,400,000 or 15.84d. per lb. in Australian currency.

5. **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 that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

6. **World's Wool Production.**—The following table gives details of the world's wool production as published by the Imperial Economic Committee. It shows the importance of Australia as a wool-producing country. Out of a total production of 3,734 million lb. in 1932, Australia produced 1,061.7 million lb. or 28.4 per cent. It is also interesting to note that the share of the British Empire in world production during the same year was 51.4 per cent. :—

**WOOL.—WORLD'S PRODUCTION.**

(In millions of lb., "greasy" basis.)

Countries.	Average Annual Pre-war Production. (a)	1928.	1929.	1930.	1931.	1932.
Australia .. ..	741.4	968.2	937.6	912.1	1,006.6	1,061.7
United States .. ..	314.1	366.5	382.2	412.2	438.3	411.5
Argentina .. ..	358.7	353.0	332.0	354.0	342.0	359.0
Union of South Africa	165.9	287.0	306.0	299.0	308.0	322.0
Soviet Union (Russia)	380.0	392.0	394.0	306.0	220.0	140.0
New Zealand .. ..	198.5	272.0	272.9	271.1	282.8	288.4
Uruguay .. ..	157.0	141.0	163.0	165.0	107.0	120.0
China (b) .. ..	100.0	120.0	120.0	120.0	120.0	120.0
United Kingdom .. ..	134.0	112.0	110.0	109.0	111.0	117.0
India (b) .. ..	100.0	100.0	100.0	100.0	100.0	100.0
Spain .. ..	72.0	84.8	83.3	80.5	77.5	80.5
Rumania .. ..	13.2	44.0	43.9	43.5	42.8	43.3
Persia .. ..	12.1	49.0	45.0	45.0	49.0	(b) 49.0
France .. ..	80.7	47.2	46.1	46.1	44.8	43.4
Turkey .. ..	118.0	42.4	35.4	36.8	41.3	41.3
Italy .. ..	55.0	52.0	50.0	48.0	44.0	42.0
Algeria .. ..	35.2	36.8	47.2	49.3	28.1	39.3
Chile .. ..	17.4	27.9	27.1	26.7	29.6	32.5
Brazil .. ..	35.0	30.5	31.0	31.5	32.0	(b) 32.0
Germany .. ..	52.0	33.7	32.0	32.4	32.4	31.3
Yugoslavia .. ..	25.4	27.1	27.0	27.1	27.8	29.5
Canada .. ..	11.2	19.6	20.3	21.0	20.4	20.5
Morocco (French) .. ..	14.9	21.7	23.9	21.5	17.9	20.0
Bulgaria .. ..	23.7	21.2	21.2	19.6	19.8	(b) 19.8
Irish Free State .. ..	..	18.0	18.6	18.9	19.3	19.6
Basutoland .. ..	..	12.7	12.9	9.7	9.3	11.8
Falkland Islands .. ..	..	3.9	4.1	3.7	3.9	3.9
Other Countries .. ..	71.2	191.0	187.6	171.9	179.2	134.7
<b>Total .. ..</b>	<b>3,286.6</b>	<b>3,875.2</b>	<b>3,874.3</b>	<b>3,781.6</b>	<b>3,754.8</b>	<b>3,734.0</b>

(a) Average for years 1909 to 1913 inclusive.

(b) Estimated.

7. **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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	lb.	lb.	lb.	lb.	lb.
Wool Consumption — in terms of Greasy ..	51,130,028	56,499,906	46,523,514	72,511,766	77,550,768

8. Export of Wool.—(i) *Greasy—Quantities.* Of the total weight of greasy wool shipped overseas during the last five years nearly 30 per cent. was sent to the United Kingdom, as compared with 38 per cent. dispatched in pre-war years. The other leading consignees since 1929–30 were Japan, France, Germany, Belgium, Italy and the United States of America, the principal continental countries taking 49.6 per cent., and America and Japan 20.5 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.	1929–30.	1930–31.	1931–32.	1932–33.	Average for Five Years ended 1932–33.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	212,004,088	202,438,310	228,196,396	256,845,443	244,011,182	228,705,294
France ..	149,835,946	172,783,716	147,453,999	116,355,296	122,536,429	146,227,178
Japan ..	7,262,683	83,243,431	151,201,649	185,672,264	196,847,697	143,611,460
Germany ..	106,344,696	94,962,530	104,320,246	80,865,488	111,763,527	98,309,008
Belgium ..	55,143,706	80,764,804	74,488,232	63,822,477	89,832,272	81,720,812
United States of America	15,486,447	19,346,569	20,378,195	9,362,688	5,500,120	14,748,361
Italy ..	4,381,197	35,582,700	37,724,169	56,740,272	63,099,517	46,650,180
Netherlands ..	(a)	770,940	956,029	461,462	2,255,552	948,007
India ..	425,547	948,394	466,704	673,314	1,210,144	940,630
Canada ..	126,653	310,185	23,735	102,134	112,292	163,853
Other Countries ..	5,830,377	8,249,325	3,759,976	4,626,184	12,758,245	9,348,057
<b>Total ..</b>	<b>556,841,340</b>	<b>699,400,904</b>	<b>768,969,330</b>	<b>775,227,022</b>	<b>849,927,425</b>	<b>771,372,840</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.	1929–30.	1930–31.	1931–32.	1932–33.	Average for Five Years ended 1932–33.
	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ..	32,032,577	26,859,655	23,762,729	33,355,887	34,180,339	28,595,324
France ..	16,068,910	6,331,892	6,206,301	5,371,571	9,828,929	6,640,525
Japan ..	1,888,161	1,333,763	2,334,505	2,008,758	4,159,095	2,461,729
Belgium ..	7,528,058	4,382,722	5,255,927	6,007,231	10,101,445	6,546,990
Germany ..	12,310,967	3,964,028	5,174,277	4,883,089	9,019,009	5,315,043
United States of America	66,156	585,993	376,543	356,088	231,561	485,072
Canada ..	(b)	440,097	1,091,112	1,599,432	2,603,940	1,269,852
Italy ..	265,442	336,770	616,790	2,664,242	2,570,836	1,346,645
Netherlands ..	(b)	12,590	24,995	208,112	231,687	98,020
India ..	59,684	354,569	459,440	549,272	925,895	492,690
Other Countries ..	127,155	342,720	355,390	385,984	1,950,694	1,047,386
<b>Total ..</b>	<b>70,347,110</b>	<b>44,944,799</b>	<b>45,658,009</b>	<b>57,889,666</b>	<b>75,803,430</b>	<b>54,299,276</b>

(a) Including "tops."

(b) Included with Other Countries.

The figures for "scoured and washed wool" include tops as follow :—in 1928–29, 872,774 lb., valued at £166,957; in 1929–30, 552,152 lb., valued at £87,871; in 1930–31, 1,033,913 lb., valued at £114,035; in 1931–32, 2,170,330 lb. valued at £248,055, and in 1932–33, 2,525,380 lb., valued at £271,993. See also § 1 No. 8. The total exports of wool tops during the last five years amounted to 7,154,549 lb., valued at £888,821, of which 3,830,284 lb., or more than 53 per cent., were shipped to Canada and 916,309 lb., or 12 per cent., to Japan.

(iii) *Total Value of Exports.* The total value of the wool exported from Australia to the principal countries during the periods under review was as follows:—

WOOL EXPORTS.—TOTAL VALUE, AUSTRALIA.

Country to which Exported.	Average Five Years 1909-13.	1929-30.	1930-31.	1931-32.	1932-33.	Average for Five Years ended 1932-33.
	£	£	£	£	£	£
United Kingdom ..	10,608,967	12,648,045	10,257,653	11,841,995	11,479,976	13,235,072
France .. .. .	6,494,832	8,075,008	5,479,746	4,004,983	4,996,227	6,884,341
Japan .. .. .	516,528	4,434,746	6,478,587	7,513,519	7,969,600	7,017,930
United States of America	795,328	1,154,433	1,117,533	542,728	337,215	1,007,013
Germany .. .. .	5,131,282	4,626,041	4,165,920	3,223,083	4,561,321	4,869,849
Belgium .. .. .	2,546,915	3,316,902	2,623,906	2,284,555	3,376,311	3,607,199
Italy .. .. .	202,434	1,641,166	1,482,943	2,174,633	2,567,680	2,177,245
Netherlands ..	(6)	44,061	41,616	36,651	119,867	53,921
Canada .. .. .	6,765	82,850	109,280	178,703	21,346	145,221
India .. .. .	22,308	74,292	41,839	64,638	94,509	77,216
Other Countries ..	267,283	502,968	205,182	237,408	663,881	670,970
<b>Total</b> .. .. .	<b>26,592,642</b>	<b>36,600,510</b>	<b>32,003,305</b>	<b>32,102,896</b>	<b>36,407,933</b>	<b>39,745,977</b>

(a) Included with Other Countries.

9. *Average Export Value.*—The following table shows the average values per pound of Australian wool according to the export returns for the periods indicated. The values are based on the auction room price plus the cost of placing the wool on board ship:—

AUSTRALIAN WOOL.—EXPORT VALUE PER POUND.

Description.	Average Five Years 1909-13.	Average Five Years 1924-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	Average Five Years 1930-34.
	d.	d.	d.	d.	d.	d.	d.	d.	d.
Greasy	9.40	19.63	17.58	11.30	9.16	8.97	9.07	16.26	10.86
Scoured	16.36	30.22	28.72	19.34	13.56	12.14	12.95	21.94	16.04

10. *Average Market Value.*—The following table gives details of the average price in Australia of greasy and scoured wool as compiled by the National Council of Wool-selling Brokers. In the matter of greasy wool the margin between the values shown and those of the previous table represents the cost of placing the wool on board ship. This cost includes delivery from store to ship, wharfage, buyers' commission, handling charges, and insurance after sale:—

WOOL.—AVERAGE MARKET VALUE PER LB.

Description.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	d.	d.	d.	d.	d.	d.	d.
Greasy ..	19.50	16.44	10.29	8.36	8.46	8.72	15.84
Scoured ..	32.21	28.12	18.69	13.74	12.65	14.08	24.00

11. *Exports and Local Sales of Wool.*—Approximately 90 per cent. of Australian wool is now disposed of locally prior to export. 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.

12. **The Wool Market.**—(i) *The 1932-33 Season.* The season 1932-33 was the fourth consecutive year of extremely low values. Average auction prices were 16.44d. per lb. in 1928-29, compared with 10.29d. in 1929-30, 8.36d. in 1930-31, a fall of 49.15 per cent. In 1931-32, however, there was an increase to 8.46d., and to 8.72d. in 1932-33. In view of the findings of the Committee referred to on the next page recent prices have provided no margin of profit for growers. 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.
	d.	d.	d.
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

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. The estimated value in Australian currency of the total wool production for the season 1932-33 was £38,599,500; as compared with £35,073,500 in 1931-32; £34,803,500 in 1930-31; and £81,430,000 during the record year of 1924-25.

During the year 1932-33, 3,059,555 bales, having a gross value of £35,043,054, or an average of £11 9s. 1d. per bale, were sold by auction in Australia. Compared with the previous year this showed an increase in local sales of 346,000 bales and an increase of £5,400,000 in gross value while the average price per bale rose by 10s. 8d. The total value of all wool sold in Australia in recent years commencing with the record year of 1927-28 is as follows:—1927-28, £60.9 million; 1928-29, £57.1 million; 1929-30, £33.9 million; 1930-31, £27.6 million; and 1931-32, £29.6 million.

(ii) *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.

13. **United Kingdom Importation of Wool.**—The appended statement of the quantity and value of wool imported into the United Kingdom during the year 1932 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, 1932.**

Country.	Quantity.	Value.	Country.	Quantity.	Value.
	lb.	£		lb.	£
Australia ..	302,005,300	11,268,432	Peru ..	3,787,300	122,766
Union of South Africa ..	211,269,000	8,183,938	Other British Possessions ..	3,760,100	102,276
New Zealand ..	201,055,400	7,305,183	Falkland Islands	2,717,700	97,317
Argentina ..	90,378,200	2,115,824	Belgium ..	2,342,300	123,459
India ..	34,568,100	899,780	United States of America ..	1,090,500	36,710
Chile ..	24,819,400	769,949	Germany ..	798,800	33,831
Uruguay ..	16,247,200	521,318	Other Countries	4,665,100	114,085
France ..	12,935,300	650,390			
Irish Free State	5,868,100	137,485			
			Total ..	918,307,800	32,482,743

(a) Greasy, Scoured, and Tops.



Of the importations of wool into the United Kingdom, Australian wool represented 33 per cent. of quantity and 35 per cent. of value, and New Zealand 22 per cent. of quantity and 22 per cent. of value. Altogether, 761,243,700 lb., valued at £27,994,411, were received from British Possessions, these figures being equivalent to 83 per cent. of the total weight and 86 per cent. of the total value of all wool imported.

14. *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. From the returns received a sufficient number to represent typical conditions in different areas was selected and the following data are based on these selected returns. 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. One member of the Committee, however, did not accept the conclusions arrived at in determining the cost of production, and his objections were set out in a separate statement. 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 1928-29 to 1932-33 amounted to £24,211,243, or an average of £4,842,249 per annum.

2. **Sheepskins with Wool.**—Sheepskins with wool—the exports of which during the five years aggregated £12,086,210—constitute the largest item in the values referred to in the preceding paragraph. During the year 1932-33 France was the largest purchaser, taking 78 per cent. of the total consignments, while the United Kingdom ranked next with 14 per cent., followed by the United States with 4 per cent. The remaining 4 per cent. was shipped principally to Spain and Belgium. The exports of sheepskins with wool during each of the years from 1928-29 to 1932-33 were as follow :—

#### SHEEPSKINS WITH WOOL.—EXPORTS, AUSTRALIA.

Particulars.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average for 5 Years.
Number ..	10,910,516	12,562,384	12,016,672	9,146,335	10,448,928	11,016,967
Value £	4,544,827	3,103,558	1,949,048	1,106,195	1,382,583	2,417,242

3. **Sheepskins without Wool.**—Sheepskins without wool are exported chiefly to the United Kingdom and the United States of America, the former taking 47 per cent. of the total exports while the latter took 43 per cent. France was next with nearly 9 per cent.; combined these three countries accounted for 99 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average for 5 Years.
Number ..	514,302	673,221	280,128	131,276	146,564	349,098
Value £	44,001	53,415	13,612	3,643	3,914	23,717

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 overseas during each of the last five years. In 1932-33 Italy took 29.8 per cent. of the total shipments, followed by the United Kingdom 29.2 per cent., Finland 11 per cent., Belgium 4 per cent., and Japan 4 per cent.

The exports during the last five years are given in the table below :—

#### CATTLE HIDES.—EXPORTS, AUSTRALIA.

Particulars.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average for 5 Years.
Number ..	829,780	754,846	752,366	293,890	450,857	616,348
Value £	1,331,486	794,991	610,720	212,539	292,841	648,515

Calfskins exported during the years 1928-29 to 1932-33 numbered 1,035,784, valued at £264,241 and were shipped mainly to the United States of America, the value of the skins taken by that country averaging 63.6 per cent. of the total exports during the last five years. The annual export of horse hides is very small, and averaged only 8,367 hides, valued at £4,537.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the average value during the last five years amounted to £309,800. 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 five years 1928-29 to 1932-33 were as follow :—

**CATTLE HIDES.—IMPORTS, AUSTRALIA.**

Particulars.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average for 5 Years.
Number ..	363,400	340,150	(a)	(a)	(a)	(a)
Value (b) £	570,416	401,793	169,165	157,057	250,569	309,800

(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 £366.

5. *Other Skins.*—The exports of skins other than those mentioned in the preceding sub-sections are valued as follow :—

**OTHER SKINS.—EXPORTS, AUSTRALIA.**

Description.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average for Five Years ended 1932-33.
	£	£	£	£	£	£
Rabbit and Hare	2,630,295	1,526,242	570,240	488,736	460,182	1,135,139
Opossum ..	166,059	681,472	215,711	333,209	29,177	285,125
Kangaroo ..	207,532	193,385	127,932	96,997	74,389	140,047
Fox ..	132,771	115,241	47,787	56,435	105,356	91,518
Wallaby ..	87,299	38,714	25,012	7,848	6,826	33,140
Other ..	20,839	19,281	7,230	2,509	2,238	10,420
<b>Total ..</b>	<b>3,244,795</b>	<b>2,574,335</b>	<b>993,912</b>	<b>985,734</b>	<b>678,168</b>	<b>1,695,389</b>

The United States of America and the United Kingdom were the chief purchasers of these skins, as shown below :—

**OTHER SKINS.—AVERAGE EXPORTS TO UNITED STATES AND UNITED KINGDOM 1928-29 TO 1932-33.**

Description.	United Kingdom.	United States of America.
	£	£
Rabbit and Hare .. .. .	448,465	587,865
Opossum .. .. .	225,425	34,422
Kangaroo .. .. .	14,776	123,352
Fox .. .. .	60,968	26,231
Wallaby .. .. .	24,898	6,572
Other .. .. .	2,736	3,852
<b>Total .. .. .</b>	<b>777,268</b>	<b>782,294</b>

## CHAPTER XIX.

### 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	..	..	8,313,666
1910-1	3,386,017	3,952,070	667,113	2,746,334	855,024	286,920	360	..	11,893,838
1920-21	4,465,143	4,486,503	779,497	3,231,083	1,804,987	297,383	296	1,966	15,069,858
1927-28	4,998,272	4,942,258	1,066,613	4,192,167	3,720,100	296,875	570	2,539	19,219,394
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	5,500,346	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	5,219,870	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	1,043	6,525	22,408,489

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 in 1919-20. 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 planted 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. In 1931-32, however, the area planted dropped to 21,166,900 acres, a decrease of 4 million acres or 16 per cent. on the previous year, increasing again in 1932-33 to 22.4 million acres, an expansion of 1.2 million acres, of which wheat accounted for 11 million acres. Wheat is by far the most extensively grown crop in Australia, representing 70 per cent. of the total area under crop in 1932-33. 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, it was decided that a permanent organization to be known as the Australian Agricultural Council should be formed. The Council will consist 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 stated to be, (i) the promotion of the welfare and development of agricultural industries generally; (ii) the improvement of the quality of agricultural products and the maintenance of high grade standards; (iii) to ensure, as far as possible, balance between production and available markets; and (iv) organized marketing, etc.

In addition a permanent technical committee known as the Standing Committee on Agriculture was formed to act in an advisory capacity to the Council and to undertake the following duties, viz.—(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 will consist 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 1932-33 :—

DISTRIBUTION OF CROPS, 1932-33.

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 ..	4,803,943	3,230,955	250,049	4,066,782	3,389,352	20,985	..	3,438	15,765,504
Oats ..	163,809	368,846	3,733	174,244	285,850	30,652	..	128	1,027,262
Maize ..	113,333	16,425	98,487	5	8	..	..	2	228,260
Barley—									
Maltng ..	4,596	75,425	3,275	299,492	8,707	8,177	..	59	399,731
Other ..	3,140	18,130	1,515	14,794	5,065	418	..	40	43,102
Beans and Peas ..	48	12,509	59	8,573	1,918	29,123	..	..	52,230
Rye ..	2,455	1,480	18	782	446	36	..	..	5,217
Other Cereals ..	22,032	..	..	..	210	123	..	..	22,365
Hay ..	645,609	1,044,523	64,076	461,332	417,435	92,668	..	1,765	2,727,408
Green Forage ..	405,206	107,732	392,762	46,232	115,785	18,522	..	953	1,087,192
Grass and other Seeds ..	..	5,502	2,296	1,620	..	1,727	..	..	11,145
Orchards and other Fruit Gardens ..	83,909	77,173	30,578	29,109	20,026	32,774	..	58	273,627
Vines—									
Productive ..	14,137	36,852	1,586	51,026	4,955	..	..	..	108,556
Unproductive ..	1,307	2,292	282	1,453	556	..	..	..	5,890
Market Gardens ..	6,047	18,249	992	1,896	3,807	804	..	55	31,850
Sugar Cane—									
Productive ..	7,796	..	205,046	..	..	..	..	..	212,842
Unproductive ..	8,349	..	86,090	..	..	..	..	..	94,439
Potatoes ..	20,855	69,783	11,534	6,454	4,975	35,769	15	11	149,396
Onions ..	209	7,109	971	429	154	..	..	1	8,873
Other Root Crops ..	1,356	3,800	1,047	565	482	6,069	..	..	13,319
Tobacco ..	4,105	13,418	7,239	859	466	171	..	14	26,272
Broom Millet ..	3,096	1,391	210	..	..	..	..	..	4,697
Pumpkins and Melons ..	3,302	999	9,777	341	498	..	..	1	14,918
Hops ..	..	151	..	..	..	801	..	..	952
Cotton—									
Productive ..	..	..	29,995	..	..	..	..	..	29,995
Unproductive ..	..	..	26,113	..	..	..	..	..	26,113
All other Crops ..	14,077	3,001	17,908	668	352	298	1,030	..	37,334
<b>Total Area ..</b>	<b>6,332,716</b>	<b>5,115,745</b>	<b>1,245,638</b>	<b>5,166,656</b>	<b>4,261,047</b>	<b>279,117</b>	<b>1,045</b>	<b>6,525</b>	<b>22,408,489</b>

2. Relative Areas of Crops in States and Territories.—Taking the principal crops, i.e., those cultivated to the extent of over 100,000 acres, the proportion of each in the various States and Territories on the total area under crop for the season 1932-33 is shown in the next table. In four of the States, viz., New South Wales, Victoria, South Australia, and Western Australia, wheat-growing for grain is by far the most extensive whilst hay is second in extent. In Victoria and Western Australia the oat crop occupies third position, while green forage ranks third in New South Wales, and barley in South Australia. In Queensland the most extensive crops are green forage, sugar cane, wheat and maize, and in Tasmania hay, potatoes, orchards and fruit gardens, and oats occupy the greatest area.

As pointed out previously, wheat is the main crop in Australia, the area thereunder for grain and hay representing in 1932-33 74 per cent. of the total area under cultivation.

## RELATIVE AREAS UNDER CROP, 1932-33.

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	%	%	%	%	%	%	%	%	%
Wheat ..	75.86	63.16	20.07	78.71	79.54	7.52	..	52.69	70.36
Hay ..	10.19	20.42	5.14	8.93	9.80	33.20	..	27.05	12.17
Oats ..	2.59	7.21	0.30	3.37	6.71	10.98	..	1.96	4.58
Green Forage..	6.40	2.11	31.53	0.89	2.72	6.64	..	14.61	4.85
Maize ..	1.80	0.32	7.91	0.00	0.00	..	..	0.03	1.02
Barley ..	0.12	1.83	0.38	6.08	0.32	3.08	..	1.52	1.98
Orchards and Fruit Gardens	1.33	1.51	2.45	0.56	0.47	11.74	0.00	0.89	1.22
Sugar Cane	0.25	..	23.37	..	..	..	..	..	1.37
Potatoes ..	0.33	1.36	0.93	0.12	0.12	12.82	0.00	0.17	0.67
Vineyards	0.24	0.77	0.15	1.02	0.13	..	..	..	0.51
All other..	0.89	1.31	7.77	0.32	0.19	14.02	100.00	1.08	1.27
<b>Total ..</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

3. Area under Chief Crops, Australia.—The area under the chief crops during each of the last five seasons, together with averages for the decennial periods 1913-23 and 1923-33 are shown hereunder:—

## AREA UNDER CHIEF CROPS.—AUSTRALIA.

Crop.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average, 1913-23.	Average 1923-33.
	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.	1,000 acres.
Barley (a) ..	307	389	328	299	400	177	307
Maize ..	315	298	293	269	228	314	310
Oats ..	1,046	1,516	1,082	1,085	1,027	834	1,098
Rice ..	14.1	19.8	19.9	19.6	22	..	11
Wheat ..	14,840	14,977	18,165	14,741	15,766	9,569	13,302
Green Forage ..	860	977	845	980	1,087	686	960
Hay ..	2,739	2,659	3,323	2,635	2,727	2,925	2,868
Beans and Peas ..	48	50	42	42	52	39	49
Onions ..	8.6	8.9	7.4	6	9	7.8	7.6
Potatoes (b) ..	138	124	142	145	147	138	141
Sugar Beet ..	2.1	2.5	3	3	3	1	2.4
Vineyards ..	115	115	113	113	114	74	114
Hops ..	1.5	1.4	1.2	1	1	1.5	1.4
Sugar Cane ..	299	307	312	326	307	178	293
Cotton ..	26	28	36	50	56	6	47
Tobacco ..	2.2	2.5	3.4	18	26	2	6.4
Market Gardens (c) ..	45	52	54	51	46	42	49
Orchards ..	277	278	276	273	274	259	276
All other Crops ..	106	126	118	110	116	106	104
<b>Total ..</b>	<b>21,190</b>	<b>21,930</b>	<b>25,164</b>	<b>21,167</b>	<b>22,408</b>	<b>15,360</b>	<b>19,945</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 five years ended 1932-33 and averages for the decennia ended 1922-23 and 1932-33:—

**TOTAL AND AVERAGE PRODUCTION, CHIEF CROPS.—AUSTRALIA.**

Crop.	Unit of Quantity.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average 1913-23.	Average 1923-33.
Barley (a) ..	1,000 bushels	5,692	6,439	5,674	5,547	7,837	3,283	5,486
Maize ..	" "	8,323	7,946	8,026	7,062	5,066	7,796	8,277
Oats ..	" "	14,109	14,424	16,658	15,195	16,160	12,917	15,011
Rice ..	" "	1,308	1,829	1,428	1,350	1,901	..	899
Wheat ..	" "	159,679	126,884	213,594	190,612	213,927	108,049	158,772
Hay ..	" tons	3,175	2,725	4,150	3,167	3,571	3,559	3,780
Beans and Peas ..	" bushels	663	813	737	497	1,000	612	756
Onions ..	" tons	34	50	47	24	49	36	39
Potatoes (b) ..	" "	284	343	365	397	384	347	371
Sugar Beet ..	" "	2.1	3.5	5.0	5.4	5.7	1.6	3.4
Grapes ..	" "	393	386	284	324	410	122	315
Wine ..	" gallons	18,600	16,069	13,078	14,191	16,418	7,281	16,031
Raisins and Currants ..	" cwt.	1,444	1,469	1,016	1,207	1,540	348	1,086
Hops ..	" lb.	2,342	2,340	1,973	1,810	1,669	1,958	2,277
Sugar Cane ..	" tons	538	538	536	604	531	236	491
Cotton, Unginned ..	" lb.	12,291	8,024	17,023	15,245	6,276	1,042	12,372
Tobacco ..	" "	1,839	1,702	1,594	10,160	9,723	1,671	3,265
Pumpkins and Melons ..	" tons	37	45	59	58	38	49	51

(a) Malting only.

(b) Not Including Sweet Potatoes.

5. **Average Production per Acre, Chief Crops, Australia.**—Details of the average production for Australia of the principal crops are shown hereunder for the periods indicated:—

**AVERAGE PRODUCTION PER ACRE, CHIEF CROPS.—AUSTRALIA.**

Crop.	Unit of Quantity.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average 1913-23.	Average 1923-33.
Barley (a) ..	bushel	18.53	16.56	17.30	18.55	19.60	18.54	17.88
Maize ..	" "	26.41	26.71	27.34	26.21	22.20	24.81	26.67
Oats ..	" "	13.49	9.52	15.39	14.00	15.73	15.49	13.67
Rice ..	" "	93.02	92.44	71.88	68.91	86.30	..	81.03
Wheat ..	" "	10.76	8.47	11.76	12.03	13.57	11.29	11.94
Hay ..	" ton	1.16	1.03	1.25	1.26	1.31	1.22	1.19
Beans and Peas ..	bushel	13.74	16.16	14.32	11.60	19.14	15.79	15.47
Onions ..	" ton	4.03	5.57	6.29	3.67	5.53	4.58	5.07
Potatoes (b) ..	" "	2.06	2.76	2.57	2.74	2.61	2.52	2.63
Sugar Beet ..	" "	0.99	1.39	1.67	1.70	1.80	1.12	1.39
Grapes (c) ..	" "	3.71	3.61	2.67	3.02	3.78	2.12	3.11
Wine (c) ..	" gallon	400	345	281	299	341	238	349
Raisins and Currants (c) ..	" cwt.	27.52	27.77	19.17	22.88	15.80	17.24	22.47
Hops (c) ..	" lb.	1,594	1,708	1,689	1,747	1,753	1,401	1,627
Sugar Cane (c) ..	" ton.	2.42	2.41	2.33	2.50	2.50	2.15	2.48
Cotton, Unginned (c) ..	" lb.	605	535	752	679	209	170	447
Tobacco ..	" "	822	689	475	572	426	825	510
Pumpkins and Melons ..	" ton.	2.79	2.76	2.96	3.13	2.54	3.73	3.13

(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 estimated on recorded agricultural production at the wholesale prices prevailing in the principal markets of each State for the years 1925-26 to 1932-33.



## GROSS VALUE OF AGRICULTURAL PRODUCTION.—AUSTRALIA.

Crops.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
Barley (a) .. .. .	1,126	1,109	1,006	1,096	1,059	685	829	911
Maize .. .. .	1,878	2,317	2,799	1,665	2,085	1,617	1,193	1,234
Oats .. .. .	2,334	2,165	2,321	2,137	2,097	1,437	1,448	1,550
Rice .. .. .	14	52	198	234	335	295	297	352
Wheat .. .. .	35,724	42,453	31,895	38,303	27,299	25,047	33,728	33,316
Green Forage .. .. .	3,381	3,912	2,731	2,680	3,167	2,385	2,642	3,046
Hay .. .. .	17,078	17,252	15,120	14,137	12,721	14,397	8,145	9,520
Beans and Peas .. .. .	267	337	333	256	257	199	220	302
Onions, .. .. .	457	221	319	314	193	139	253	218
Potatoes (b) .. .. .	3,639	3,116	2,327	3,424	2,375	1,690	2,073	1,791
Sugar Beet .. .. .	42	20	54	33	58	82	86	73
Grapes .. .. .	3,866	5,590	3,786	4,022	4,145	3,496	3,495	3,918
Hops .. .. .	207	171	258	189	132	157	144	128
Sugar Cane .. .. .	6,789	6,568	7,469	7,444	7,476	7,340	7,649	7,098
Tobacco .. .. .	168	123	108	97	92	187	1,115	961
Cotton, Unginned .. .. .	380	190	145	214	186	355	308	125
Market Gardens (c) .. .. .	2,331	2,680	2,374	2,384	2,640	2,259	2,152	1,965
Orchards .. .. .	8,043	8,198	9,109	8,807	8,469	7,086	7,030	7,414
Other Crops .. .. .	1,543	1,821	1,976	2,004	2,323	1,647	1,682	1,640
<b>Total, Gross Value</b>	<b>89,267</b>	<b>98,295</b>	<b>84,328</b>	<b>89,440</b>	<b>77,109</b>	<b>70,500</b>	<b>74,489</b>	<b>75,562</b>

(a) Malting only. (b) Not including Sweet Potatoes. (c) Including Pumpkins and Melons.

7. Value of Production—Gross and Net.—The following table shows the value of agricultural produce in its various relations to the farmer computed in accordance with the methods determined at Conferences of Australian Statisticians in 1924 and subsequent years. It is apparent, however, that the methods of the several States in determining the net values of production are not yet in complete harmony.

The figures in column 2 show the estimated value of all agricultural production on the assumption that it was sold at metropolitan wholesale market prices. From the gross value so computed, marketing costs—which include freight, handling charges, commission, and cost of containers—are deducted. The net result shown in column 4 gives the farm parity of the values in column 2. From this value, however, the value of produce retained or bought for seed, also, of fodder used for farm live-stock must be deducted. The remainder shown in column 6, shows, as nearly as practicable from information available, the value at the farm of all produce actually marketed. This value is, however, still too large, since it includes agricultural produce which was not sold, but fed to live-stock and eventually marketed, in the form of milk, butter, eggs, poultry, meat, &c., as the produce of a branch of farming other than agriculture. To ascertain the net result to the agricultural industry the figures in column 6 must be reduced by the cost of the materials used and by an allowance for depreciation. The principal items under the heading—Column 7—are (i) seed pickling; (ii) manures; (iii) spraying; (iv) power and water used in irrigation; and (v) depreciation of farm implements and machinery. The sum of these items is subtracted from column 6, leaving the net value of production (column 8). It is from the sum appearing in the last column that such items as wages, interest, rent and profit are met. The net value of agricultural production is, therefore, in fair harmony with that given for manufacturing production. Owing to the lack of complete data for all States, the value of materials used in maintenance of buildings, fences, etc., and an allowance for the depreciation of stock used for draught purposes have been omitted in arriving at the amount shown in column 7.

## GROSS, FARM AND NET VALUES OF AGRICULTURAL PRODUCTION.—AUSTRALIA.

(AS ESTIMATED BY STATE STATISTICIANS IN ACCORDANCE WITH CONFERENCE RESOLUTIONS.)

Year.	Gross Production valued at Metropolitan wholesale Prices.	Marketing Costs. (c)	Gross Production valued at Farm.	Seed used, and Fodder for Farm Stock.	Marketed Production valued at Farm.	Value of Principal Materials used and allowance for Depreciation.	Net Value of Production.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
1926-27 ..	98,295	17,556	80,739	(b) 18,578	..	(a)	62,161
1927-28 ..	84,328	15,819	68,509	(b) 19,731	..	(a)	48,778
1928-29 ..	89,440	15,480	73,960	(b) 18,444	..	(a)	55,516
1929-30 ..	77,109	15,637	61,472	12,182	49,290	9,562	39,728
1930-31 ..	70,500	18,487	52,013	11,756	40,257	9,029	31,228
1931-32 ..	74,489	15,391	59,098	6,960	52,138	7,758	44,380
1932-33 ..	75,562	15,186	60,376	8,721	51,655	7,352	44,303

(a) Not available separately, included with seed used, &amp;c. (b) See Note (a). (c) For details see ante.

On account of the fall in prices, and in spite of a greater volume of production, the gross value of agricultural production fell from £98 million in 1926-27 to £70 million in 1930-31, a fall of £28 millions or 29 per cent. In 1931-32, prices rose approximately 15 per cent. with an increased return in the gross value of production. In 1932-33 prices again fell by approximately 7 per cent., but this was more than offset by the increase in the quantities produced, with the result that the total gross value increased by £1 million. The net value of production advanced from £31 million in 1930-31 to £44 million in 1931-32 and remained at that level in 1932-33, but is still far below that of 1926-27, when it reached £62 million. Production and marketing costs, which had risen from £36 million in 1926-27 to £39 million in 1930-31, declined to £30 million in 1931-32, rising in 1932-33 to £31 million. The cost of seed and fodder for farm stock was responsible for this increase. Marketing and other production costs showed a slight fall.

## § 4. Wheat.

1. Progress of Wheat-growing.—(i) Area and Production. (a) Seasons 1928-29 to 1933-34. Wheat is the principal crop raised in Australia, and since 1895, when the area under this crop amounted to 3½ million acres, an average of 322,000 acres has been added annually, until in 1932-33 when 15.8 million acres were cut for grain. The area and yield of wheat for grain are given below for each State for the five years ended 1932-33, and are shown from the year 1860 onwards in the graphs hereinafter. The figures in the table include also an estimate for the 1933-34 crop :—

## WHEAT.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
AREA.								
1928-29 ..	Acres. 4,090,083	Acres. 3,718,004	Acres. 218,069	Acres. 3,445,563	Acres. 3,343,530	Acres. 22,570	Acres. 1,394	Acres. 14,840,113
1929-30 ..	3,974,064	3,566,135	204,116	3,645,764	3,568,225	76,805	1,435	14,976,564
1930-31 ..	5,734,960	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 ..	4,803,943	3,230,955	250,049	4,066,782	3,389,352	20,985	3,438	15,765,504
1933-34(a)	4,584,092	3,052,931	232,053	3,821,795	3,182,830	24,100	3,087	14,900,888

(a) Final estimate.

WHEAT.—AREA AND PRODUCTION—*continued.*

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
PRODUCTION.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1928-29 ..	49,257,000	46,818,833	2,515,561	26,826,094	33,700,040	455,336	16,557	159,679,421
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	34,871,526	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	190,612,188
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(a)	57,057,000	42,613,106	4,361,614	35,373,466	37,533,177	561,000	66,852	177,566,215

(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.

Commencing with 1920-21, when 9 million acres were sown, there was a steady expansion of the area under wheat, reaching almost 15 million acres in 1929-30; an increase of 6 million acres in ten years. In the following year (1930-31) in response to the urge of Commonwealth and State Governments, and influenced by favourable seasonal conditions, farmers increased their sowings to the maximum of more than 18 million acres. This represents an increase of 3 million acres or 20 per cent. over the previous year. In 1931-32 sowings reverted to their normal area when 14.7 million acres were sown. In 1932-33 there was an expansion of 1 million acres to 15.8 million acres. During the following year sowings were again reduced but complete details are not yet available.

The season 1932-33 was very satisfactory and resulted in over average yields in all States with the exception of Queensland and Tasmania. The average for Australia amounted to 13.57 bushels per acre, as compared with 12.93 bushels for the previous year, and 11.94 bushels the average for the decennium ending 1932-33. The total production of grain for the year amounted to 213.9 million bushels and is the greatest quantity garnered in Australia in any year. It is interesting to note that 213.6 million bushels were reaped from 18.2 million acres in 1930-31 and 213.9 million bushels were obtained from 15.8 million acres in 1932-33.

The annual production of wheat over the fourteen seasons ending with 1933-34 has exceeded 100 million bushels, and during the last four seasons 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 1933-34 indicate the area sown to wheat for grain in Australia to be about 14,900,888 acres, a decrease of approximately 865,000 acres or 5.6 per cent. on that of 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 first that has been recorded since 1918-19, and is probably the commencement of a considerable decrease in Australia of wheat acreages. There are several factors contributing to this decrease (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. Production according to the final estimate amounted to 177 million bushels, or 11.92 bushels per acre, compared with 214 million bushels or 13.57 bushels per acre for the previous year.

(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 10
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 1923-33 :—

**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.
1928-29 ..	12.04	12.59	11.54	7.79	10.10	20.17	11.88	10.76
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
Average 10 seasons, 1923-33	12.92	12.47	14.63	10.12	11.86	21.43	16.26	11.94

The great variations in the average yields were chiefly due to the vagaries of the seasons. Considerable improvement has been shown in the averages for the last three decades, the figures being 11.37, 11.29, and 11.94 bushels per acre respectively, the increased yields in the later years 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 in exchange it ships wheat which produces a flour particularly suitable for making 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 fourth 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, Argentina and the United States. The quantity exported is approximately 14½ per cent. of the total quantity shipped by exporting countries.

2. *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 Algeria and Greece of barely 8 bushels per acre.

## WHEAT.—YIELD PER ACRE, VARIOUS COUNTRIES.

Country.	Average Yield in Bushels per acre.		Country.	Average Yield in Bushels per acre.	
	Average, 1929-1931.	1932.		Average, 1929-1931.	1932.
Denmark ..	41.87	44.84	Brazil ..	(b) 16.90	(a) 12.94
Netherlands ..	40.92	43.27	Chile ..	16.26	19.61
Belgium ..	35.07	39.84	Rumania ..	15.99	7.83
United Kingdom ..	32.14	32.47	Canada ..	14.76	16.30
Sweden ..	30.77	35.54	Syria ..	14.56	8.81
Switzerland ..	30.57	29.29	United States of America ..	14.52	13.01
Germany ..	30.49	32.63	Spain ..	13.19	16.38
Egypt ..	27.39	29.85	Argentina ..	12.80	13.23
New Zealand ..	27.04	36.54	Peru ..	12.55	10.67
Japan ..	24.94	25.14	<b>Australia ..</b>	<b>11.09</b>	<b>13.57</b>
Finland ..	24.06	25.29	Soviet Union ..	11.06	8.70
Czechoslovakia ..	24.00	26.03	India ..	11.02	9.94
Norway ..	23.25	26.92	Portugal ..	10.81	12.82
Austria ..	22.45	22.81	Uruguay ..	10.45	5.71
France ..	21.01	24.84	Cyprus ..	10.10	6.95
Italy ..	20.09	22.73	Korea ..	10.10	10.81
Hungary ..	19.48	17.00	French Morocco ..	9.74	10.31
Lithuania ..	19.42	18.49	Mexico ..	9.73	8.75
Poland ..	19.14	11.60	Union of South Africa ..	9.11	6.83
Latvia ..	18.16	20.75	Algeria ..	7.97	7.83
Bulgaria ..	17.58	16.43	Greece ..	7.83	11.40
Yugoslavia ..	17.41	11.09			
Estonia ..	17.03	16.30			

(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:—

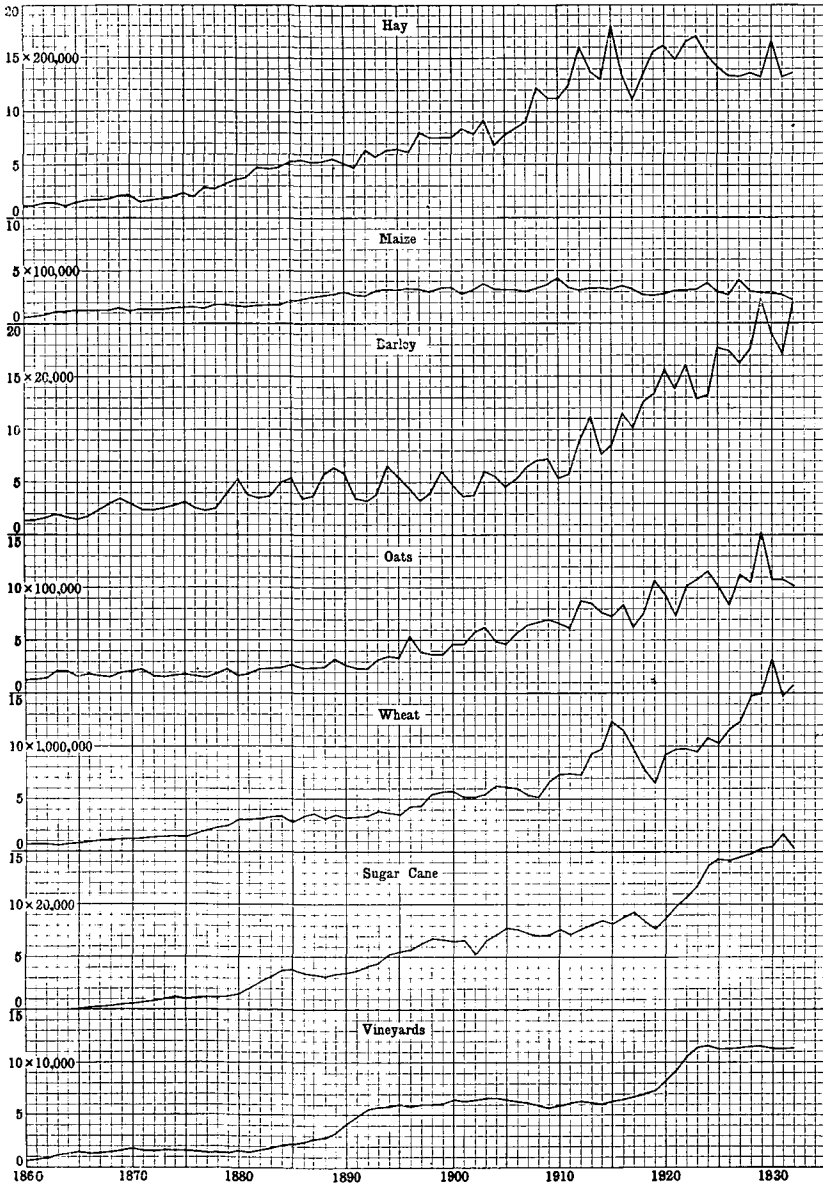
## WHEAT.—TOTAL PRODUCTION, VARIOUS COUNTRIES.

Country.	Yield in Bushels (,000 omitted).		Country.	Yield in Bushels (,000 omitted).	
	Average, 1929-1931.	1932.		Average 1929-1931.	1932.
Soviet Union ..	927,618	744,060	Syria ..	16,625	9,849
United States of America ..	856,733	744,088	Belgium ..	13,426	15,376
Canada ..	375,135	443,068	Mexico ..	13,002	9,658
India ..	351,941	336,896	Portugal ..	12,544	18,757
France ..	271,703	333,527	Tunis ..	12,223	17,453
Italy ..	238,359	276,924	Austria ..	11,525	12,193
Argentina ..	197,700	235,380	Union of South Africa ..	11,525	10,626
<b>Australia ..</b>	<b>177,030</b>	<b>213,927</b>	Denmark ..	10,680	10,997
Spain ..	145,125	184,209	Uruguay ..	10,623	5,407
Germany ..	139,276	183,831	Greece ..	10,593	17,068
Rumania ..	121,942	55,537	Lithuania ..	9,664	9,423
Yugoslavia ..	91,372	53,445	Korea ..	8,549	8,576
Hungary ..	77,292	64,463	New Zealand ..	6,753	11,055
Poland ..	77,135	49,473	Netherlands ..	6,091	12,838
Bulgaria ..	50,569	50,554	Brazil ..	(a) 4,759	..
Czechoslovakia ..	48,247	53,737	Peru ..	4,154	3,117
Egypt ..	43,685	52,587	Switzerland ..	4,009	4,001
United Kingdom ..	43,272	43,615	Latvia ..	3,262	5,292
Algeria ..	30,465	29,237	Cyprus ..	1,897	1,182
Japan ..	30,309	31,336	Estonia ..	1,544	2,085
French Morocco ..	27,617	27,970	Finland ..	917	1,483
Chile ..	26,476	28,743	Norway ..	687	749
Sweden ..	19,516	26,500			

(a) Average 1924-28.

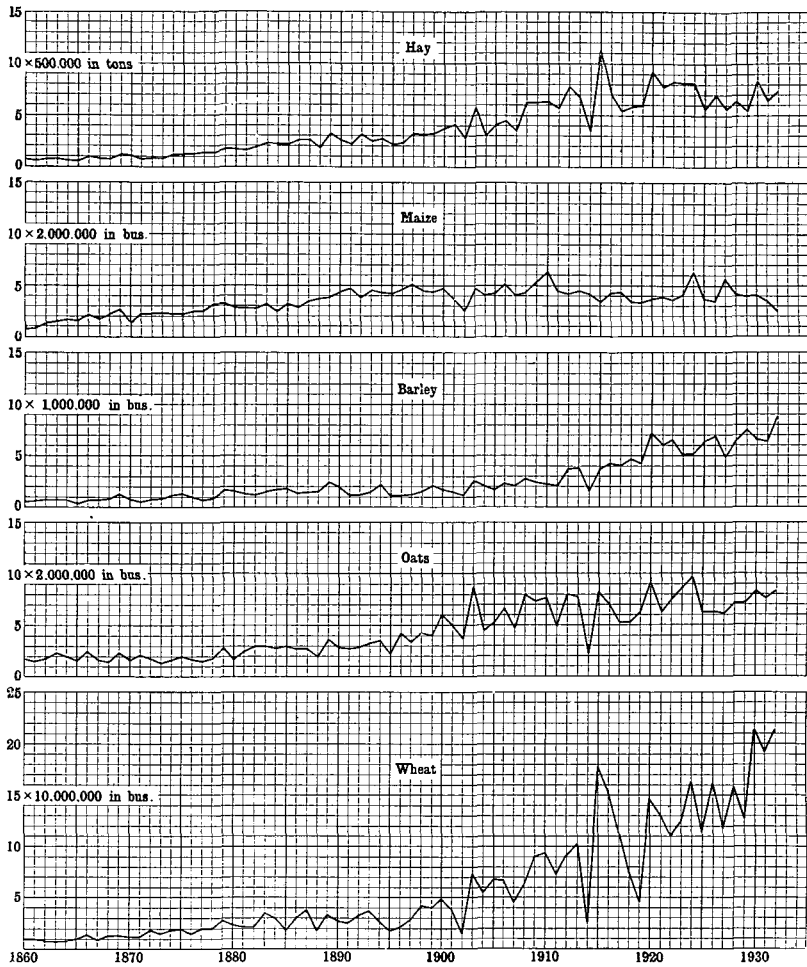
NOTE.—The harvests reported above for 1932 relate to the year 1932 for the Northern, and 1932-33 for the Southern Hemisphere.

## AREA UNDER PRINCIPAL CROPS—AUSTRALIA 1860 TO 1932-33.



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 1932-33.



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.

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
1928 .. ..	..	322,070,000	4,848,331,000	15.05
1929 .. ..	..	324,640,000	4,305,627,000	13.26
1930 .. ..	..	341,739,300	4,881,400,000	14.28
1931 .. ..	..	347,941,500	4,827,645,000	13.87
1932 .. ..	..	345,445,800	4,577,898,000	13.25
Average, 1928-1932 ..		336,367,320	4,688,180,200	13.94

(a) From countries reporting.

The Report of the Institute mentions that if all countries for which data are lacking were taken into account, the world's total production of wheat may be approximately estimated at 5,000 million bushels.

The total area harvested in 1932 shows a decrease on the figures for the previous year. This decrease was due principally to the Soviet Union, but a slight drop in Europe was noted. In other great divisions of the world there was a slight upward tendency but not sufficient to counterbalance the decreases above mentioned. In comparison with the average for the period 1924-28, areas sown to wheat throughout the world 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. 5½d. in 1931, a decrease of 53 per cent. In 1932, however, the price increased to 3s. 1d., but in 1933 declined to 2s. 10d., and to 2s. 7½d. in 1934.

The Australian contribution to the world's production during the last five years amounted to more than 3½ per cent.

3. 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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Price per bushel ..	s. d. 5 0	s. d. 2 5½	s. d. 3 0½	s. d. 2 11½	s. d. 2 9½

The export prices here shown are the averages for the successive years in the principal markets of Australia in Australian currency.



4. Exports of Wheat and Flour.—(i) *Quantities.* The table appended shows the exports, and net exports of wheat and flour from 1928-29 to 1932-33. 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 so 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 were 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 124,533,172 bushels :—

## WHEAT AND FLOUR.—EXPORTS, AUSTRALIA.

Year.	Exports.			Net Exports.
	Wheat.	Flour.	Total.	
	Bushels.	Eq. Bushels.(a)	Bushels.	Bushels.
1928-29 ..	81,896,245	27,062,544	108,958,789	108,954,924
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

(a) Equivalent in bushels of wheat.

(ii) *Destination.* The following table gives the exports of wheat to various countries for each of the five years ended 1932-33, together with averages for the pre-war period 1909-13 and for the five years 1929-33 :—

## EXPORTS OF WHEAT.—AUSTRALIA.

Country to which Exported.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average, 1909-13.	Average, 1929-33.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
United Kingdom ..	20,564,650	21,488,415	39,995,488	49,219,354	50,939,947	30,305,384	36,441,571
Italy .. ..	5,861,552	3,261,455	12,697,635	8,195,049	3,656,230	581,309	6,734,384
Japan .. ..	5,626,298	2,811,142	17,676,232	21,464,248	17,896,367	330,131	13,094,857
France .. ..	1,967,455	186,682	350,638	163,495	..	1,681,918	533,654
Union of South Africa ..	4,143,328	1,540,482	956,317	461,706	19,730	2,992,355	1,424,313
Belgium ..	994,923	408,990	2,016,002	1,892,016	826,517	1,218,131	1,227,810
Egypt .. ..	4,943,383	1,178,230	3,143,433	1,640,116	1,019,218	135,377	2,384,876
Germany ..	1,001,897	..	193,935	204,084	46,125	286,822	289,208
Netherlands ..	1,834,132	490,358	2,158,470	2,073,363	527,462	(a)	1,416,757
Other Countries ..	34,958,627	9,024,953	40,034,540	42,087,574	44,624,342	4,465,847	34,146,007
<b>Total ..</b>	<b>81,896,245</b>	<b>40,390,707</b>	<b>119,223,290</b>	<b>127,401,005</b>	<b>119,555,938</b>	<b>41,997,274</b>	<b>97,693,437</b>

(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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average, 1909-13.	Average, 1929-33.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Egypt .. ..	243,468	125,963	145,694	106,526	28,589	(a)	130,047
United Kingdom ..	57,945	85,364	134,547	191,963	121,995	27,699	118,363
Netherlands East Indies ..	79,040	82,595	74,765	85,570	73,179	26,099	79,030
Malaya (British) ..	52,176	51,160	41,841	43,664	43,965	15,492	46,561
Union of South Africa ..	24,558	18,256	9,051	1,230	228	30,714	10,665
Ceylon .. ..	21,705	21,252	21,630	19,441	19,239	3,389	20,653
New Zealand .. ..	3,556	3,823	5,168	4,833	2,716	3,221	4,019
Philippine Islands ..	8,436	8,707	8,949	11,762	11,484	13,680	9,868
Hong Kong .. ..	2,972	2,933	5,947	53,557	50,874	2,672	23,257
Mauritius .. ..	9,395	5,988	4,896	13,231	10,905	2,221	8,883
Portuguese East Africa ..	5,917	5,410	5,747	6,199	5,896	13,462	5,834
Other Countries ..	54,635	54,282	66,008	72,882	626,389	28,463	102,039
<b>Total .. ..</b>	<b>563,803</b>	<b>465,733</b>	<b>524,243</b>	<b>610,858</b>	<b>631,459</b>	<b>167,112</b>	<b>559,219</b>

(a) Included with other Countries.

(b) Includes China 160,062 tons.

5. Exports—Principal Countries.—The following table shows the net quantities of wheat exported from the chief exporting countries for the years 1928 to 1932, 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 1928-32 and 1909-13 shows that the world's supply of wheat in the later years has been obtained from North America, Canada supplying 35 per cent., and the United States 15 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 5 per cent. for the years 1928-32. Under Government stimulus, however, the area sown to wheat in the Soviet Union is increasing rapidly. In 1932 the total amounted to 85 million acres, which produced 744 million bushels, an average of 8.70 bushels per acre. While Australian production was only 3½ per cent. of the world's total, the exports accounted for 14.5 per cent. of the quantities exported in the years 1928-32:—

## WHEAT.(a)—NET EXPORTS, PRINCIPAL COUNTRIES.

Country.	Average, 1909-13.		1928.	1929.
	Bushels.	Per cent.	Bushels.	Bushels.
Soviet Union (b) ..	157,109,000	23.71	..	..
Canada .. ..	89,919,000	13.57	411,760,521	250,485,790
United States of America ..	100,864,000	15.22	131,835,470	137,914,928
Argentina .. ..	95,041,000	14.34	202,868,949	249,708,054
British India .. ..	50,886,000	7.68	2,776,563	..
Australia .. ..	49,417,000	7.46	79,670,093	99,150,188
All other Countries ..	119,351,000	18.02	76,736,892	71,425,641
<b>Total .. ..</b>	<b>662,587,000</b>	<b>100.00</b>	<b>905,648,488</b>	<b>808,684,601</b>
<b>World's Production ..</b>	<b>3,779,479,000</b>		<b>4,848,331,000</b>	<b>4,305,627,000</b>
Percentage of Australian Net Exports on Total Net Exports ..	7.46		8.80	12.26
Percentage of Australian Production on World's Production ..	2.39		3.30	2.95

(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.

WHEAT.(a)—NET EXPORTS, PRINCIPAL COUNTRIES—*continued.*

Country.	1930.	1931.	1932.	Average, 1928-32.	
	Bushels.	Bushels.	Bushels.	Bushels.	Per cent.
Soviet Union (b) ..	93,500,338	93,294,187	16,441,600	40,647,225	5.24
Canada ..	240,076,983	219,380,719	250,412,350	274,423,273	35.39
United States of America ..	127,484,281	109,348,836	74,044,725	116,125,648	14.97
Argentina ..	86,434,936	137,917,662	91,014,145	153,588,749	19.80
British India ..	4,376,075	..	1,500,921	1,730,712	0.23
Australia ..	75,115,330	156,306,844	151,065,123	112,261,516	14.47
All other Countries	78,525,402	100,566,335	56,428,288	76,736,512	9.90
<b>Total ..</b>	<b>705,513,345</b>	<b>816,814,583</b>	<b>640,907,152</b>	<b>775,513,635</b>	<b>100.00</b>
World's Production	4,881,400,000	4,827,645,000	4,577,898,000	4,688,180,200	
Percentage of Australian Net Exports on Total Net Exports ..	10.65	19.14	23.57	14.48	
Percentage of Australian Production on World's Production ..	4.38	3.95	4.67	3.86	

For footnotes see preceding page.

6. 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 should prove 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.		1928.	1929.
	Bushels.	Per cent.	Bushels.	Bushels.
Germany ..	89,731,507	12.44	92,748,503	79,779,402
Belgium ..	73,962,974	10.26	44,514,982	44,654,975
France ..	38,681,717	5.36	38,356,333	52,592,676
Great Britain ..	219,365,265	30.42	215,560,947	232,781,569
Italy ..	57,156,174	7.93	101,033,230	65,030,081
Netherlands ..	76,340,387	10.59	29,519,980	30,187,874
Brazil ..	20,774,307	2.88	35,798,744	35,397,705
China ..	5,525,863	0.77	19,731,378	47,929,460
Japan ..	3,713,840	0.52	24,568,194	27,530,853
Egypt ..	7,914,626	1.10	8,162,124	12,656,077
Union of South Africa ..	6,519,097	0.90	8,749,311	7,634,672
All other Countries ..	121,409,356	16.83	266,606,749	280,693,876
<b>Total ..</b>	<b>721,095,113</b>	<b>100.00</b>	<b>885,350,475</b>	<b>916,869,220</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.

## WHEAT.(a)—IMPORTS, PRINCIPAL COUNTRIES.(b)

Country Importing.	1930.	1931.	1932.	Average, 1928-32.	
	Bushels.	Bushels.	Bushels.	Bushels.	Per cent.
Germany ..	45,076,168	29,833,110	37,934,262	57,074,289	6.76
Belgium ..	44,876,382	54,100,975	46,775,358	46,984,174	5.56
France ..	39,331,044	87,744,709	78,226,077	59,250,168	7.02
Great Britain ..	224,793,731	249,672,560	218,384,873	228,238,736	27.03
Italy ..	71,417,907	55,225,990	39,394,648	66,420,371	7.87
Netherlands ..	33,835,932	34,050,398	29,407,321	31,400,301	3.72
Brazil ..	31,279,111	32,247,550	28,625,653	32,669,753	3.87
China ..	21,501,395	65,067,217	53,162,869	41,478,464	4.91
Japan ..	18,756,906	26,846,094	28,158,858	25,172,181	2.98
Egypt ..	10,225,853	8,867,699	4,229,181	8,828,187	1.04
Union of South Africa	2,794,289	3,408,764	1,095,763	4,736,560	0.56
All other Countries	227,141,083	229,453,123	207,001,803	242,179,327	28.68
<b>Total ..</b>	<b>771,029,801</b>	<b>876,517,289</b>	<b>772,396,666</b>	<b>844,432,511</b>	<b>100.00</b>

For footnotes see preceding page.

7. 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, 1928-29 TO 1932-33.

Flour Milled .. .. .	1,215,557 tons
Less Net exports of flour .. .. .	559,165 tons
Less Net exports of flour in Biscuits .. .. .	1,115 "
	560,280 "
Net quantity available for home consumption .. .. .	655,277 "
Equivalent in terms of wheat .. .. .	31,453,296 bushels
Net quantity available per head of population—	
As flour .. .. .	202 lb.
As wheat .. .. .	4.848 bushels

## AVERAGE USED FOR SEED, 1928-29 TO 1932-33.

Average area sown for grain, hay and green forage .. .. .	16,848,631 acres
Average quantity of seed used .. .. .	16,536,762 bushels
Average quantity of seed used per acre .. .. .	59 lb.
Average quantity per head of population .. .. .	2.549 bushels

In addition to the above, allowance must be made for wheat fed to poultry and other live stock. The quantities so used vary from year to year according to the price of wheat and the nature of the season, and sufficient data are not available on which to base an annual estimate, but, taken over a period, the amount so consumed has been estimated to range from one half to one bushel per head of population per annum. The average quantity of flour consumed per annum for the five years under consideration was 202 lb. per head of population, which, expressed in terms in wheat, represents 4.848 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 2.549 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, 52,099,600 bushels, or 8.03 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 .. .. .	5.4	0.2	5.6
Australia (a) .. .. .	4.8	0.6	5.4
Canada .. .. .	4.5	3.3	7.8
New Zealand (b) .. .. .	4.9	1.1	6.0
United Kingdom .. .. .	4.8	1.0	5.8
United States .. .. .	4.2	0.6	4.8

(a) Average for five years ended 1932-33.

(b) Average for five years ended 1932.

8. **Value of the Wheat Crop.**—The estimated value of the wheat crop in each State and in Australia during the season 1932-33 is shown below:—

**WHEAT.—VALUE OF CROP(a), 1932-33.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
Aggregate value..	£ 12,159,130	£ 7,369,707	£ 447,169	£ 6,473,802	£ 6,777,190	£ 78,120	£ 10,397	£ 33,315,515
Value per acre ..	£2/10/8	£2/2/11	£1/15/9	£1/11/10	£2/0/0	£3/14/6	£3/0/6	£2/2/3

(a) Gross value of total crop, including seed used on farm, valued at metropolitan prices; but exclusive of value of straw.

9. **Stocks of Wheat and Flour.**—Stocks of wheat and flour held by each State at 30th November, 1933, 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, 1933.**

State.	Wheat.	Flour.	Total in terms of wheat.(a)
	Bushels.	Tons.	Bushels.
New South Wales .. .. .	4,390,320	35,825	6,109,920
Victoria .. .. .	7,366,733	31,763	8,891,331
Queensland .. .. .	441,749	449	463,301
South Australia .. .. .	1,251,616	10,388	1,750,240
Western Australia .. .. .	290,154	7,111	631,482
Tasmania .. .. .	123,485	1,102	176,381
<b>Total, 30th November, 1933 ..</b>	<b>13,864,057</b>	<b>86,638</b>	<b>18,022,655</b>
.. .. . 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
.. .. . 1929 ..	11,085,059	93,825	15,588,659

(a) One ton of flour treated as equivalent to 48 bushels of wheat.

10. **Voluntary Wheat Pools.**—Reference to the operations of the voluntary Wheat Pools in the various States during 1933-34 will be found in the Appendix at the end of this volume.

### § 5. Oats.

**i. Progress of Cultivation.**—(i) *Area and Production.* Oats is usually next in importance to wheat amongst the grain crops cultivated in Australia, but while wheat grown for grain accounted for 70.36 per cent., oats represented only 4.58 per cent. of the area under crop in 1932-33. 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.
AREA.								
	Acres.	Acres.	Acros.	Acres.	Acres.	Acres.	Acres.	Acres.
1928-29	126,743	347,021	916	207,266	325,827	37,602	295	1,045,670
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	368,816	3,733	174,244	285,850	30,652	128	1,027,262

#### PRODUCTION.

	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1928-29	2,183,880	5,602,409	13,737	1,740,515	3,554,609	1,011,367	2,160	14,108,677
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	3,241,980	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	823,239	2,868	16,159,628

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 15,010,942 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 1923 to 1933 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.
1928-29 .. ..	17.23	16.14	15.00	8.40	10.91	26.90	7.32	13.49
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
Average for 10 seasons 1923-33	17.46	14.30	16.65	9.60	11.84	26.96	15.60	13.67

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 1932, as computed by the International Institute of Agriculture, amounted to 3,550 million bushels. This quantity was harvested from 141 million acres, and represents an average yield of 25.18 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 quinquennia 1924-1928 and 1928-1932:—

**OATS.—WORLD'S PRODUCTION.**

Year.	Area.	Production.	Average Yield per Acre.
		Million Bushels.	Bushels.
Average 1924-28	145	3,677	25.36
1928 .. .. .	146	3,970	27.19
1929 .. .. .	150	3,781	25.21
1930 .. .. .	146	3,787	25.94
1931 .. .. .	145	3,539	24.41
1932 .. .. .	141	3,550	25.18
Average 1928-32	146	3,725	25.51

3. **Prices of Oats.**—The average wholesale prices in the Metropolitan markets for the year 1932-33 are given in the following table:—

**OATS.—AVERAGE WHOLESALE PRICES, 1932-33.**

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Average price per bushel ..	2 4½	1 11¼	3 5¼	1 7	1 10½	2 2

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 1927-8 there was a net import of 460,581 bushels. The quantities and values of oats imported into and exported from Australia during the years 1928-29 to 1932-33 are given hereunder:—

**OATS.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1928-29 ..	38,993	8,045	90,463	18,833	51,470	10,788
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

(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, and Netherlands East Indies. 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 1932-33 amounted to 312,074 cwt., practically the whole of which is consumed locally, the quantity of oats used for oatmeal being 1,832,318 bushels, or 11 per cent. of the total production. Oversea trade in this and similar products is small, the imports of oatmeal, wheatmeal and rolled oats during 1932-33 amounted to 1,601 cwt., and exports to 13,792 cwt.

6. *Value of Oat Crop.*—The estimated value of the oat crop for the season 1932-33 was, as follows :—

OATS.—VALUE OF CROP,(a) 1932-33.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
Aggregate value..	£ 351,380	£ 609,869	£ 10,400	£ 160,239	£ 334,970	£ 82,820	£ 287	£ 1,549,965
Value per acre ..	£2/2/11	£1/13/1	£2/15/9	£0/18/5	£1/3/5	£2/14/1	£2/4/10	£1/10/2

(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 1932-33 being 211,820 acres, or 93 per cent. of the total for Australia. Of the balance, Victoria contributed 16,425 acres, Western Australia 8 acres, and South Australia 5 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 1932-33 decreased by more than 41,000 acres. The greatest area grown was in 1910-11 when it amounted to 414,914 acres. The average for the decennium 1923-33 was 310,000 acres.

The area and production of maize for grain in each State for the last five years 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.
1928-29	106,835	16,077	192,173	..	55	..	..	315,140
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
PRODUCTION.								
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1928-29	2,506,470	679,810	5,135,607	..	831	..	..	8,322,718
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



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 1932-33 amounted to 5,066,321 bushels, and the average for the last decennium was 8,276,502 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 1928-29 to 1932-33, and for the decennium 1923-1933:—

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.
1928-29 .. ..	23.46	42.28	26.72	..	15.11	..	..	26.41
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
Average for 10 seasons 1923-33	26.84	39.01	22.41	17.47	12.79	5.19	19.25	26.67

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 26.7 bushels per acre. The United States of America shows an average of 26.3 bushels, Argentina 31.9 bushels, Rumania 15.9 bushels, and the Soviet Union 17.2 bushels per acre during the period 1924-28.

3. *World's Production.*—The following table furnishes particulars of the world's acreage under maize, production and average yield per acre 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
1928 .. ..	201	4,386	21.82
1929 .. ..	202	4,484	22.20
1930 .. ..	206	4,027	19.55
1931 .. ..	213	4,514	21.19
1932 .. ..	215	4,897	22.76
Average 1928-32 .. ..	207	4,462	21.56

The United States is the most important maize-producing country in the world. Approximately 100,000,000 acres are planted there annually, and nearly 2,500 million bushels are reaped, representing about 75 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Average price per bushel ..	s. d. 4 11½	s. d. 6 0½	s. d. 4 1	s. d. 3 9	s. d. 4 11

5. Overseas Imports and Exports.—The decline in production has necessitated an average annual import of more than 15,000 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 1928-29 to 1932-33 are as follow:—

MAIZE.—IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Imports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
1928-29.. ..	773	539	278,289	50,451	— 277,516	— 49,912
1929-30.. ..	66,068	13,809	2,339	824	64,629	13,075
1930-31(a) ..	3,945	709	1,498	377	2,447	392
1931-32(a) ..	229	307	2,586	554	— 2,357	— 247
1932-33(a) ..	5,064	878	1,370	377	3,694	501

NOTE.—(—) 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 in 1931-32 and 1932-33 they were negligible. Exports from Australia are small, and in 1932-33 amounted to 14,899 lb., valued at £367.

7. Value of Crop.—The value of the crop for the season 1932-33 was as follows:—

MAIZE.—VALUE OF CROP, 1932-33.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	F.C.T.	Australia.
Aggregate value	£ 733,790	£ 110,340	£ 389,345	£ 39	£ 15	£ 2	£ 1,233,531
Value per acre	£6/9/6	£6/14/4	£3/19/1	£7/16/0	£1/17/7	£1/0/0	£5/8/1

§ 7. Barley.

1. Progress of Cultivation.—(i) Area and Production. The area under barley has fluctuated considerably, but results for the last ten years show a tendency towards an increase. The average annual area sown for the decennium 1923-1933 amounted to 356,115 acres, as compared with an average of 247,889 acres for the previous ten years. Victoria was originally the principal barley-growing State, but since 1913-14, South Australia has been the chief producing State, accounting for nearly 71 per cent. of the Australian acreage in 1932-33. Victoria was next in importance with 21 per cent., leaving a small balance of about 8 per cent. distributed among the other States. The figures here given relate to the areas harvested for grain; small areas only are cropped 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 are shown in the following table for the last five years, 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.
1928-29 ..	5,024	75,451	7,654	247,348	14,429	4,613	4354,539
1929-30 ..	7,947	97,678	9,754	305,316	23,649	6,935	4451,339
1930-31 ..	11,526	87,518	8,434	251,957	17,236	6,192	4382,887
1931-32 ..	8,349	66,381	2,223	242,339	14,533	8,377	4342,396
1932-33 ..	7,736	93,555	4,790	314,286	13,772	8,595	4442,833
PRODUCTION.							
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1928-29 ..	80,910	1,556,118	107,593	4,583,715	189,560	99,085	46,617,341
1929-30 ..	113,850	2,183,325	205,567	4,656,254	261,870	166,984	47,588,852
1930-31 ..	188,610	1,983,130	173,563	3,960,929	185,301	168,625	46,660,911
1931-32 ..	137,430	1,256,678	36,397	4,572,941	164,580	119,725	46,290,672
1932-33 ..	154,530	1,995,446	101,033	6,070,161	135,243	211,570	48,670,077

(a) Including Federal Capital Territory, 20 acres, 360 bushels.

(b) " " " " 60 acres, 1,002 bushels.

(c) " " " " 24 acres, 753 bushels.

(d) " " " " 194 acres, 2,921 bushels.

(e) " " " " 99 acres, 2,044 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 4,196,589 and 1,712,275 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 1932-33. Particulars for the season 1932-33 are as follow:—

**BARLEY, MALTING AND OTHER.—AREA AND PRODUCTION, 1932-33.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Malting barley ..	4,596	75,425	3,275	299,492	8,707	8,177	a 399,731
Other barley ..	3,140	18,130	1,515	14,794	5,065	418	b 43,102
<b>Total</b> ..	<b>7,736</b>	<b>93,555</b>	<b>4,790</b>	<b>314,286</b>	<b>13,772</b>	<b>8,595</b>	<b>c 442,833</b>
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
Malting barley ..	97,950	1,581,814	67,792	5,803,974	82,797	201,545	a7,837,111
Other barley ..	56,580	413,632	33,241	266,187	52,446	10,025	b 832,966
<b>Total</b> ..	<b>154,530</b>	<b>1,995,446</b>	<b>101,033</b>	<b>6,070,161</b>	<b>135,243</b>	<b>211,570</b>	<b>c8,670,077</b>

(a) Including Federal Capital Territory, 59 acres, 1,239 bushels.

(b) " " " " 40 acres, 855 bushels.

(c) " " " " 99 acres, 2,094 bushels.

Taking Australia as a whole, about 90 per cent. of the area under barley in 1932-33 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 1932-33 was as follows: Malt works, 1,960,423 bushels; Distilleries, 60,682 bushels; exports, 3,051,138 bushels; leaving a balance of approximately 3,600,000 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.
1928-29 ..	307,154	47,385	354,539	5,691,673	925,668	6,617,341	18.53	19.53	18.66
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
1931-22 ..	299,074	43,322	342,396	5,547,111	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
Average 10 seasons 1923-33	306,902	49,214	356,116	5,486,323	925,358	6,411,681	17.88	18.80	18.00

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 1923-33, 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.
1928-29 ..	16.10	20.62	14.06	18.53	13.14	21.48	18.66
1929-30 ..	14.33	22.35	21.08	15.25	11.07	24.08	16.81
1930-31 ..	16.36	22.60	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
Average for 10 seasons 1923-33	16.37	21.14	18.25	17.29	11.35	22.32	18.00

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 1932 are as follow:—United States, 290 million bushels; Soviet Union, 221 million bushels; Germany, 142 million bushels; India, 107 million bushels; and Canada, 78 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	
1928 .. .. .				91.0		1,820		20.00	
1929 .. .. .				97.6		1,979		20.28	
1930 .. .. .				92.9		1,891		20.36	
1931 .. .. .				88.8		1,653		18.61	
1932 .. .. .				90.3		1,798		19.91	
Average 1928-32 .. .. .				92.1		1,828		19.85	

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.			1928-29.		1929-30.		1930-31.		1931-32.		1932-33.	
			<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>		<i>s. d.</i>	
Malting barley .. .. .			4 7		4 1		2 11		2 11½		2 9	
Cape barley .. .. .			3 6		3 3½		2 2		2 3		2 4	

5. *Imports and Exports.*—Australian exports of barley during the last five years averaged 2,324,291 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.	£
1928-29 .. .. .	150	58	1,279,014	228,707	1,278,864	228,649
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

(a) Australian currency values.

In some years there is an export of Australian pearl and Scotch barley, the total for 1932-33 reaching 44,043 lb., valued at £362 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 1932-33 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.	£
1928-29 .. ..	508	186	4,958	1,897	4,450	1,711
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

(a) Australian currency values.

7. **Value of Barley Crop.**—The estimated value of the barley crop for the season 1932-33 and the value per acre are shown in the following table:—

**BARLEY.—VALUE OF CROP(a), 1932-33.**

Value.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total ..	21,940	237,367	15,155	675,183	19,867	28,830	294	998,636
Per acre ..	£2/16/9	£2/10/9	£3/3/3	£2/3/0	£1/8/10	£3/7/1	£2/19/5	£2/5/1

(a) Exclusive of the value of straw.

**§ 8. Rice.**

Experimental rice cultivation has been carried on at the Yanco Experimental Farm for some 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.

Figures relating to area, production, etc., since 1928-29 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.
1928-29 ..	14,058	1,307,641	93.02	237,493	7,250	3.74
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

The area and production shown in the table refer chiefly to the Murrumbidgee Irrigation Area. The production from several small experimental plots in other States is also included, but the quantity is negligible. According to the report of the Irrigation Commission of New South Wales, there are about 53,000 acres of land in the irrigation settlements suitable for rice-growing, and it is estimated that at least 40,000 acres could be so used, of which, probably, 20,000 acres would be under fallow each year and 20,000 under crop. Annual local requirements are computed at 1,100,000 bushels, but the production during the last three years has exceeded consumption and the surplus has been exported chiefly to the United Kingdom, Canada, New Zealand, and the Pacific Islands.

### § 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 1932-33 was 52,230 acres, giving a yield of 999,843 bushels, or an average of 19.14 bushels per acre, being above the average yield for the decennium ended 1932-33, which was 15.47 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 1932-33 was 5,217 acres, yielding 68,651 bushels, giving an average of 13.16 bushels per acre, as compared with the average for the last ten seasons, i.e., 16.69 bushels per acre. Nearly 47 per cent. of the rye grown during the season was produced in New South Wales, 28 per cent. in South Australia, and 15 per cent. in Victoria.

### § 10. Potatoes.

1. Progress of Cultivation.—(i) *Area and Production.* Victoria possesses peculiar advantages for the growth of potatoes, as the rainfall is generally satisfactory, and the climate is unfavourable to the spread of Irish blight, consequently the crop is grown in nearly every district except in the wheat belt. Tasmania comes next in order of importance, followed by New South Wales.

The area and production of potatoes in each State during the last five years are given hereunder:—

#### POTATOES.—AREA AND PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
AREA.								
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1928-29 ..	14,830	68,412	8,154	4,518	4,819	37,299	16	138,068
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	9,783	6,454	4,971	35,769	11	147,485
PRODUCTION.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1928-29 ..	26,339	140,158	9,687	13,859	18,774	75,222	11	284,050
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

(a) Includes Northern Territory, 20 acres.

(b) " " " " 15 acres.

The acreage grown during the last few years was fairly uniform, except in 1927-28, when the acreage was increased to 163,231, chiefly owing to larger planting in Victoria and Tasmania. The production in 1932-33 amounted to 384,271 tons, as compared with an average of 370,900 tons for the last ten years and 346,994 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 1932-33, 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.
1928-29 ..	1.78	2.05	1.19	3.07	3.90	2.02	0.69	2.06
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
Averages for 10 seasons 1923-33	2.18	2.73	1.59	3.80	3.94	2.63	2.73	2.63

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 1932-33 averaged 5.25 tons per acre from an area of 24,605 acres, as compared with 2.61 tons per acre from 147,485 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 almost 9 cwt. Details for each State for the five seasons ended 1932-33 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.
1928-29 ..	11	80	11	24	46	347	1	45
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

(iv) *Consumption.* Oversea trade in potatoes is comparatively small, and the consumption in Australia averages between 50 and 60 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.	£
1928-29 .. ..	4	82	1,766	19,948	1,762	19,866
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

(a) Australian currency values.

3. **Value of Potato Crop.**—The estimated value of the potato crop of each State for the season 1932-33 is given in the following table :—

**POTATOES.—VALUE OF CROP, 1932-33.**

Value.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£
Total .. ..	194,520	775,502	108,630	132,054	137,572	442,000	115	1,790,693
Per acre .. ..	£9/7/7	£11/2/3	£11/3/0	£20/9/3	£27/13/6	£12/9/2	£10/9/1	£12/2/10

**§ 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 1932-33 being only 24,103 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 1932-33 was 8,873 acres, giving a yield of 49,101 tons, and averaging 5.53 tons per acre. The area in 1932-33 under root crops other than potatoes and onions was 15,230 acres, from which a production of 108,731 tons was obtained, or an average of 7.14 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 9,332 tons, valued at £71,613, were imported, principally from Japan, the United States of America, and New Zealand, while during the same period the exports which amounted to 14,249 tons, valued at £105,157 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 1932-33 averaged more than 12 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.	Aus- tralia.
AREA.									
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1928-29	684,730	1,005,063	55,498	497,538	414,866	80,190	..	788	2,738,673
1929-30	698,395	865,015	49,745	544,438	418,698	80,153	..	2,217	2,058,661
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	2,034,680
1932-33	645,609	1,044,523	64,076	461,332	417,435	92,668	..	1,765	2,727,408
PRODUCTION.									
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1928-29	793,255	1,267,437	85,651	486,593	421,504	119,427	..	971	3,175,238
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

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, i.e., 3,597,771 acres, was the largest on record, whilst the average during the last decennium amounted to 2,867,937 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 1928-29 to 1932-33 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.	Aus- tralia.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1928-29	1.16	1.26	1.54	0.98	1.02	1.49	..	1.23	1.16
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
Average for 10 seasons 1923-1933	1.25	1.20	1.42	1.11	1.11	1.43	1.75	1.21	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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>NEW SOUTH WALES—</b>	Acres.	Acres.	Acres.	Acres.	Acres.
Wheaten .. ..	375,270	381,071	520,993	292,234	290,556
Oaten .. ..	214,137	226,025	278,865	222,212	248,222
Barley .. ..	817	1,294	1,081	740	955
Lucerne .. ..	94,275	89,385	95,181	96,396	105,246
Other .. ..	231	620	650	568	630
<b>Total .. ..</b>	<b>684,730</b>	<b>698,395</b>	<b>896,770</b>	<b>612,150</b>	<b>645,609</b>
<b>VICTORIA—</b>					
Wheaten .. ..	135,718	165,564	188,360	139,683	89,549
Oaten .. ..	845,731	675,256	1,049,019	781,932	860,854
Lucerne, etc. .. ..	23,014	24,195	40,019	34,224	94,120
<b>Total .. ..</b>	<b>1,005,063</b>	<b>865,015</b>	<b>1,277,398</b>	<b>955,839</b>	<b>1,044,523</b>
<b>QUEENSLAND—</b>					
Wheaten .. ..	4,585	3,811	10,645	5,282	5,498
Oaten .. ..	2,192	2,608	4,280	1,617	2,724
Lucerne .. ..	45,476	40,013	34,845	47,547	52,925
Other .. ..	3,245	3,313	2,458	5,155	2,929
<b>Total .. ..</b>	<b>55,498</b>	<b>49,745</b>	<b>52,228</b>	<b>59,601</b>	<b>64,076</b>
<b>SOUTH AUSTRALIA—</b>					
Wheaten .. ..	270,805	318,239	321,295	250,285	205,372
Oaten .. ..	218,140	212,956	275,526	273,375	243,015
Lucerne .. ..	4,833	5,447	6,390	5,660	3,704
Other .. ..	3,760	7,796	9,724	9,756	9,241
<b>Total .. ..</b>	<b>497,538</b>	<b>544,438</b>	<b>612,935</b>	<b>539,076</b>	<b>461,332</b>
<b>WESTERN AUSTRALIA—</b>					
Wheaten .. ..	250,786	209,893	192,345	197,982	173,327
Oaten .. ..	160,675	198,529	192,243	167,326	224,006
Lucerne .. ..	184	293	234	190	106
Other .. ..	3,221	9,983	13,589	15,949	19,996
<b>Total .. ..</b>	<b>414,866</b>	<b>418,698</b>	<b>398,411</b>	<b>381,447</b>	<b>417,435</b>

Wheat is most largely used for hay in New South Wales, South Australia, and Western Australia, oats in Victoria and Tasmania, and lucerne in Queensland. For all States the proportions of the principal kinds of hay produced average about 61.0 per cent. for oaten, 28.0 per cent. for wheaten, 7.1 per cent. for lucerne, and 3.9 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 1932-33, 148 tons were imported, while the exports amounted to 2,597 tons, valued at £14,451, the principal purchases being made by Malaya (British), India, Ceylon, New Zealand, 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 1932-33 :—

HAY.—VALUE OF CROP, 1932-33.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Fed. Cap. Ter.	Australia.
Total Value	£ 3,166,710	£ 3,002,040	£ 413,961	£ 1,046,340	£ 1,496,309	£ 388,130	£ 6,212	£ 9,519,702
Value per acre	£4/18/1	£2/17/6	£6/9/2	£2/5/5	£3/11/9	£2/15/0	£3/10/5	£3/9/10

### § 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.	Nor. Ter.	Fed. Cap. Ter.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1928-29	264,699	107,351	180,524	155,460	125,311	25,402	..	837	859,584
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

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 1932-33 may be taken approximately as £3,046,395, or about £2 16s. od. 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 307,281 acres under sugar-cane in Australia for the season 1932-33, there were 291,136 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 1932-33 only 16,145 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 1931-32 being the highest on record, while that of 1932-33 declined by 18,700 acres. The area under sugar-cane in Australia from 1928-29 is 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.		Total.
	Productive.	Unproductive.	Productive.	Unproductive.	Productive.	Unproductive.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
1928-29 ..	6,783	9,055	215,674	67,802	222,457	76,857	299,314
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

(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 1923-24, when, although the total acreage was greater, the area cut was less than in the previous year.

(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 4,213,453 tons in 1931-32. The average production of cane during the decennium ended 1932-33 was 3,686,478 tons. The three highest yields of sugar were in 1931-32, 1929-30, and 1928-29, the quantities being 603,735 tons, 538,084 tons, and 537,574 tons respectively. The decennial average was 490,264 tons of sugar. Particulars relative to the total production of cane and sugar for the last five years are as follow :—

## ° 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.
1928-29 ..	147,414	16,954	3,736,311	520,620	3,883,725	537,574
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	3,703,188	532,594

The production of raw sugar in Australia in 1932-33 amounted to 532,594 tons manufactured from 3,703,188 tons of cane, compared with the record quantities of 603,735 tons and 4,213,453 tons respectively for the previous year. The assistance mentioned hereafter given by the Commonwealth and State Governments during recent years has greatly benefited the sugar industry. In 1922-23 the area cultivated in Queensland was 202,303 acres and the number of cane farmers was 4,971, whereas in 1932-33 291,136 acres were under cultivation and the number of growers had risen to 7,231, or an increase of 2,260 in ten years. Official data are not available regarding the total number engaged in the sugar industry in Queensland, but the average number of persons employed in sugar mills is 6,600. In addition, it is unofficially estimated that 15,000 persons are engaged as cane cutters and field workers. The total number of persons directly engaged in the industry in Queensland may therefore be estimated as approximately 28,800.

Final figures for the 1933-34 season are not yet complete, but it is anticipated from the information available that the production of raw sugar will amount to 665,726 tons from 4,898,040 tons of cane crushed. Early indications point to a slightly reduced crop in 1934-35, and it is anticipated that the production will amount to about 648,000 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 1932-33 was for New South Wales, 13.22 tons, and 16.27 tons for Queensland. Similarly, the production of sugar per acre for the same period is estimated at 1.51 tons and 2.18 tons respectively. Leaving aside the consideration mentioned above, the yield of cane and sugar per acre crushed for Australia for the ten years ended 1932-33 was 17.89 tons and 2.38 tons respectively, as compared with 17.95 tons and 2.15 tons for the decennium ended 1922-23.

(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 1932-33 averaged 7.52 tons, the average production of sugar being 13.30 per cent. of the weight of cane crushed. As the result of the systematic study of cane culture in Queensland, the sugar content of the cane has been considerably increased in recent years, and in 1930 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 1922-23 it required on the average 8.34 tons of cane to produce one ton of sugar, whereas the average figure for the last decennium was reduced to 7.52 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.
1928-29 .. ..	Tons. 21.73	Tons. 2.50	Tons. 8.69	Tons. 17.32	Tons. 2.41	Tons. 7.18	Tons. 17.46	Tons. 2.42	Tons. 7.22
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 .. ..	21.66	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	6.97
Average 10 seasons, 1923-33 .. ..	24.24	2.77	8.76	17.63	2.36	7.46	17.89	2.38	7.52

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 sugar in Australia during the last five years was more than sufficient to supply local requirements, the average production during the period amounting to 191 lb. per head of population. Details for the period 1928-29 to 1932-33 are as follow :—

SUGAR.—PRODUCTION PER HEAD OF POPULATION.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	lb.	lb.	lb.	lb.	lb.
New South Wales ..	16	18	19	20	16
Queensland .. ..	1,272	1,248	1,221	1,351	1,221
Australia .. ..	190	188	185	207	181

(vii) *Consumption.* The average annual consumption of raw sugar during the five years ended 1931-32 is estimated at 340,666 tons, equal to 119 lb. of raw sugar or 114 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 :—

SUGAR.—CONSUMPTION IN FACTORIES, AUSTRALIA.

Factories.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	Tons.	Tons.	Tons.	Tons.	Tons.
Aerated Waters and Cordials	11,063	8,958	6,316	5,665	5,639
Bacon Factories .. ..	125	113	102	96	706
Bakeries—including Cakes and Pastry .. ..	8,575	8,815	7,267	5,920	5,789
Biscuits .. ..	5,837	5,385	4,359	4,207	5,158
Breweries .. ..	15,264	13,836	10,939	9,170	9,117
Condensed and Concentrated Milk .. ..	8,975	7,503	6,133	6,731	6,796
Confectionery .. ..	24,275	23,166	16,940	16,277	18,101
Jams, Jellies and Preserved Fruit .. ..	27,779	29,186	22,786	26,329	28,667
Jelly Crystals .. ..	1,269	1,177	896	556	541
<b>Total .. ..</b>	<b>103,162</b>	<b>98,139</b>	<b>75,738</b>	<b>74,951</b>	<b>80,514</b>

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 five years are incorporated in the table below :—

SUGAR-BEET.—AREA AND PRODUCTION, VICTORIA.

Particulars.		1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Area harvested ..	acres	2,130	2,500	3,045	3,173	3,155
Production ..	tons	15,237	26,525	38,291	43,209	36,740
Average per acre ..	„	7.15	10.61	12.58	13.62	11.65
Sugar produced ..	„	2,096	3,472	5,095	5,428	5,701

Seasonal conditions were particularly favourable during 1932-33, the production amounted to 36,740 tons of beet, from which 5,701 tons of sugar were obtained. The quantity of beet required to produce one ton of sugar was 6.46 tons, as compared with 7.96 tons for the previous year. The average production of beets per acre was 11.65 tons, and the average for the ten years ended 1932-33 was 11.23 tons.

(ii) *Encouragement of Beet-growing.* During recent years efforts have been made to expand the industry, and the Victorian Government has advanced its irrigation scheme on the Macalister River to provide an increased water supply for the district. 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 has, however, been 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 were arranged between the Commonwealth Government and representatives of the industry. It was decided that the Sugar Agreement of 1931-36 should



be amended to provide for a reduction in the retail price of sugar by  $\frac{1}{2}$ d. per lb. from 1st January, 1933, and that the reduced retail price of 4d. per lb. should continue until the end of the period of the agreement (31st August, 1936). It was recommended also that the amount of assistance to the fruit industry should be reduced by £115,000 to £200,000. Legislation for the ratification of these proposals was assented to on 5th December, 1932.

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. (a)	Net Value of Exports per Ton. (a)			Average Price per Ton for Whole Crop. (a)			Estimated Value of Crop. £
		Per cent.			£	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

(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.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
1928-29 .. ..	11	241	199,497	2,391,469	199,486	2,391,228
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	187,039	1,489,639	187,026	1,489,374

(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 XXIII.—**Manufacturing.** A distillation plant erected at the Plane Creek Central Sugar Mill, Mackay, was opened during 1927 and produces power alcohol of excellent quality.

A 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 587:—

#### SUGAR.—PRICES FOR CONSUMPTION IN AUSTRALIA.

Date of Determination.	Raw Sugar.		Refined Sugar.	
	Price to Grower and Miller per Ton.	Wholesale Price per Ton.	Wholesale Price per Ton.	Retail Price per lb.
19.7.15 to 15.1.16 .. .. .	£ s. d.	£ s. d.	£ s. d.	d.
16.1.16 to 30.6.17 .. .. .	18 0 0	25 10 0	25 10 0	3
1.7.17 to 24.3.20 .. .. .	18 0 0	29 5 0	29 5 0	3½
1.7.17 to 24.3.20 .. .. .	21 0 0	29 5 0	29 5 0	3½
25.3.20 to 30.6.20 .. .. .	21 0 0	49 0 0	49 0 0	6
1.7.20 to 31.10.22 .. .. .	30 6 8	49 0 0	49 0 0	6
1.11.22 to 30.6.23 .. .. .	30 6 8	42 0 0	42 0 0	5
1.7.23 to 21.10.23 .. .. .	27 0 0	42 0 0	42 0 0	5
22.10.23 to 31.8.25 .. .. .	26 0 0	37 11 4	37 11 4	4½
1.9.25 to 31.8.31 .. .. .	(a)26 10 0	37 6 8	37 6 8	4½
1.9.31 to 4.1.33 .. .. .	26 0 0	37 6 8	37 6 8	4½
5.1.33 to 31.8.36 .. .. .	24 0 0	33 4 0	33 4 0	4

(a) The price of raw sugar for the years 1925 to 1931 is estimated at £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.; and in 1933-34 £16 6s. 3d.

### § 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 is 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.
1928-29..	15,200	41,565	1,787	51,802	4,943	There are no vineyards in Tasmania.	115,297
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

The area under vines in Australia amounted to 65,673 acres in 1904-5. From that year onwards a gradual decline set in, and at the end of 1914-15 the acreage had decreased to 60,985. Since that date, however, as a result of extensive plantings, particularly of varieties suitable for drying, the 1904-5 figure was soon exceeded, and the area for 1928-29 i.e., 115,297 acres was the highest on record. In 1930-31, and 1931-32 a fall of 2,300 acres from 1928-29 was recorded, but in 1932-33 the area again increased and now stands at 114,446 acres.

(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, while the Commonwealth bounty on the export of fortified wine of specified strength has greatly stimulated the industry. Particulars of the Wine Export Bounty are shown in § 18 hereafter. The bounty was increased to 1s. 9d. per gallon from 13th March, 1930, under the *Wine Export Bounty Act 1930* which provides that this rate will be paid until the 28th February, 1935. Commencing on 1st March, 1935, the rate of bounty will vary according to year as provided in the *Wine Export Bounty Act* of 1934.

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 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 produc- tion of wine in Tasmania.	Gallons.
1928-29 ..	1,481,846	1,942,701	37,210	14,828,968	309,524		18,600,249
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

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.	£	£	£
1928-29 ..	20,212	56,171	76,383	50,576	32,948	83,524
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

(a) Australian currency values.

(ii) *Exports.* Wine is exported from Australia chiefly to the United Kingdom and New Zealand, although the share of the latter country is comparatively small. 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.	£	£	£
1928-29 ..	2,932	1,738,047	1,740,979	5,685	495,299	500,984
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

(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.
1928-29 .. ..	4,278	3,909	1,535	899	2,811	13,432
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	13,033
1932-33 .. ..	5,401	4,003	2,165	957	2,679	15,210

(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.
1928-29 .. ..	3,004	488	38,556	9,499	10,527	8,207	602	1,311	52,689	19,505
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 .. ..	3,013	497	29,702	7,832	9,234	7,320	797	1,428	42,776	17,577
1923-33 .. ..	4,909	670	42,568	7,814	12,434	6,390	704	1,536	60,615	16,410
Average 10 seasons 1923-33	2,405	424	28,325	7,130	8,024	6,222	602	1,168	39,356	14,944

(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.	£
1928-29 .. ..	148	7,002	33,575	1,620,307	33,427	1,613,305
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
CURRANTS.						
	(a)					
1928-29 .. ..	(a)	30	13,326	597,917	13,326	597,887
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

(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 1932-33 exceeded 54,300 tons, of which 12,500 tons satisfied local requirements, leaving a surplus averaging 41,800 tons available for export. The production has reached 77,000 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 77 per cent., 17 per cent. and 4 per cent. respectively of the average quantity exported during the last five years. Exports to Canada have increased from 4,500 tons in 1928-29 to 9,800 tons in 1932-33. 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 77 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.**—The Dried Fruits Control Board appointed under the *Dried Fruits Export Control Act* has power to regulate the export, and sale and distribution after export, of Australian sultanas, lexias and currants. The Board, with an agency in London, is financed by an export levy charged on all dried fruits exported.

The regulation of sales and fixation of prices in Australia is in the hands of the Australian Dried Fruits Association, which has, in addition, power to regulate interstate transfers. The prices fixed for home consumption are somewhat higher than those realized on exports overseas, as will be seen from the next table.

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.
1928-29 ..	d. 6½	d. 7½	d. 4	d. 4½	d. 4	d. 4½
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

### § 16. Orchards and Fruit Gardens.

1. **Progress of Cultivation.**—(i) *Total Area.* The greatest area under orchards and fruit gardens was 281,149 acres in 1921-22. Since that year the area has declined slightly owing to difficulty in disposing of the surplus production. 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.
1928-29 ..	76,009	79,322	38,452	30,836	18,735	34,087	35	277,476
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

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 1932-33 :—

## ORCHARDS AND FRUIT GARDENS.—AREA, 1932-33.

Fruit.	New South Wales.	Victoria. (b)	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Apples ..	15,241	31,662	4,741	10,446	11,958	26,224	37	100,309
Apricots ..	1,799	4,097	137	3,035	678	1,431	..	11,180
Bananas ..	11,275	..	10,589	..	29	..	3	21,893
Cherries ..	3,674	1,327	8	739	(a)	63	..	5,813
Lemons ..	2,780	1,891	155	430	506	..	2	5,762
Nectarines and Peaches ..	6,893	11,925	1,646	2,023	978	65	4	23,534
Nuts ..	656	531	..	1,259	201	..	3	2,650
Oranges ..	22,407	5,837	3,622	4,953	2,831	..	..	39,650
Pineapples ..	115	..	5,862	..	(a)	..	..	5,977
Pears ..	3,817	10,696	255	1,997	1,033	2,121	3	19,922
Plums ..	2,695	3,739	1,345	2,822	969	640	5	12,215
Small fruits ..	26	865	114	369	58	2,172	..	3,604
Other fruits ..	12,531	4,603	2,104	1,036	785	58	1	21,118
<b>Total ..</b>	<b>83,909</b>	<b>77,173</b>	<b>30,578</b>	<b>29,109</b>	<b>20,026</b>	<b>32,774</b>	<b>58</b>	<b>273,627</b>

(a) Included with "Other Fruits."

(b) Estimated.

(iii) *Production—(a) Quantities.* The production in 1932-33 is shown in the next table:—

ORCHARDS AND FRUIT GARDENS.—PRODUCTION, 1932-33.

Fruit.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Australia.
Apples .. bushel	1,251,815	3,217,074	233,565	881,139	804,048	4,410,000	897	10,798,538
Apricots .. ..	158,861	303,730	6,275	331,700	55,437	150,000	201	1,006,204
Bananas .. ..	853,696	..	1,402,412	..	412	..	..	2,256,520
Cherries .. ..	100,152	30,597	215	25,216	..	2,200	..	158,380
Lemons .. ..	261,508	165,335	11,148	40,102	58,067	..	..	536,160
Nectarines and Peaches .. ..	486,356	1,365,201	87,355	153,449	70,950	4,000	..	2,167,311
Nuts .. .. lb.	340,032	159,889	..	803,152	106,330	..	..	1,409,403
Oranges .. bushel	2,129,210	566,398	321,995	575,046	251,272	..	..	3,843,921
Pineapples .. dozen	25,204	..	1,175,870	..	..	..	..	1,201,074
Pears .. bushel	336,300	1,172,204	18,200	219,576	121,574	285,000	33	2,152,887
Plums .. ..	133,068	263,819	61,942	182,278	72,696	130,000	180	843,983
Small Fruits .. cwt.	307	24,275	1,496	5,949	328	101,216	..	133,571

(b) *Values.* The value of production for the various classes of fruit for the year 1932-33 is given in the following table:—

ORCHARDS AND FRUIT GARDENS.—VALUE OF PRODUCTION, 1932-33.

Fruit.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Federal Capital Territory.	Australia.
	£	£	£	£	£	£	£	£
Apples .. ..	469,900	562,988	94,337	153,396	370,755	615,000	337	2,266,713
Apricots .. ..	83,460	83,525	4,262	77,350	31,010	37,500	106	317,213
Bananas .. ..	480,200	..	427,208	..	412	..	..	907,820
Cherries .. ..	93,720	26,772	227	18,597	(a)	1,100	..	140,416
Lemons .. ..	90,610	62,000	8,477	12,031	27,138	..	..	200,256
Nectarines and Peaches .. ..	208,130	408,867	38,551	36,879	35,672	900	..	728,999
Nuts .. ..	10,300	5,965	..	25,833	4,873	..	..	46,971
Oranges .. ..	573,380	198,239	122,808	161,395	122,087	..	..	1,177,909
Pineapples .. ..	5,780	..	196,914	..	..	..	..	202,694
Pears .. ..	117,980	234,441	6,977	39,949	48,275	57,000	12	504,634
Plums .. ..	53,520	69,645	34,842	32,442	26,201	29,250	72	245,942
Small Fruits .. ..	1,160	52,782	7,038	11,277	3,268	138,540	..	214,065
Other Fruits .. ..	289,570	75,865	53,234	19,728	20,567	1,100	..	460,064
Total .. ..	2,477,710	1,781,089	994,875	588,847	690,258	830,390	527	7,413,696

(a) Included with "Other Fruit."

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	9,657	8,410
1928-29 .. ..	98,338	21,681	54,286	23,722	21,268	17,433
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	12,215



(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
1928-29 ..	5,519,341	2,571,616	4,642,142	1,765,818	1,516,253	794,488
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	4,873,738	2,090,584	2,152,887	843,983

(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
1928-29 ..	2,707,273	1,042,305	2,056,830	702,602	543,940	295,240
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	1,508,395	699,296	504,634	245,942

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 centials of bananas will 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 1932-33 amounted to £4,648,829. Apples constitute the bulk of the fresh fruit exported, although the exports of citrus fruits and pears are fairly considerable, and experiments are being conducted in regard to the dispatch of other fruits. Shipments of raisins and currants have increased greatly since 1914-15, and are mainly responsible for the growth in the dried fruits exports. Dried apricots also figure amongst the exports.

(ii) *Fresh Fruits.* Information with regard to the Australian oversea trade in fresh fruits is given hereunder:—

**FRESH FRUITS.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1928-29 ..	6,350,000	69,011	82,706,700	942,960	76,356,700	873,949
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

(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.	£
1928-29 ..	644,183	703,037	55,006	68,290	71,932	76,023
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

(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 87 per cent. of the total imports consisted of dates obtained chiefly from Iraq :—

**DRIED FRUITS(a).—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Oversea Imports.		Oversea Exports.		Net Imports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1928-29 ..	11,098,182	146,078	2,096,416	81,106	9,001,766	64,972
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	2,001,187	51,027	7,414,364	11,254

(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 1932-33 amounted to only £47,682. Particulars relative to imports and exports during each of the last five years are as follow :—

**JAMS AND JELLIES.—IMPORTS AND EXPORTS, AUSTRALIA.**

Year.	Oversea Imports.		Oversea Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1928-29 ..	325,422	13,133	1,947,786	58,204	1,622,364	45,071
1929-30 ..	300,805	10,811	1,535,720	44,398	1,234,915	33,587
1930-31(a)	6,423	471	1,445,520	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

(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 1932-33 was £18,108. Overseas exports in 1932-33 were as follow :—Apricots, 5,238,543 lb., £97,303; peaches, 16,079,554 lb., £284,682; pears, 12,926,655 lb., £239,994; pineapples, 2,971,177 lb., £56,353; and other 1,939,270 lb., £44,334; or a total shipment valued at £722,666.

## § 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 decline in area under cultivation from 82,409 acres in 1924-25 to 56,108 acres in 1932-33 was due to poor seasons and difficulty in marketing the product. The total area in Australia during the season 1932-33 devoted to crops not dealt with in previous sections was 183,577 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.	Acres.	Acres.	Acres.
1928-29 ..	7,709	18,630	918	1,408	2,924	546	11	32,146
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

3. *Grass Seed.*—The area under this crop during 1932-33, exclusive of New South Wales and Western Australia, for which States complete figures as to area are not available, was 11,145 acres, of which 5,502 acres were in Victoria, 1,727 acres in Tasmania, 2,296 acres in Queensland, and 1,620 acres in South Australia. The production for 1932-33, including New South Wales and Western Australia, was 179,344 bushels, valued at £115,498. In addition to the areas planted above, 7,886 acres were sown to canary seed in Queensland during 1932-33, returning a yield of 49,339 bushels, valued at £31,660.

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 imports of tobacco in its various forms are an index of the market for a satisfactory product. The net imports of tobacco into Australia during the year 1932-33 were valued at £632,001, while the net quantity of unmanufactured tobacco imported was 14,372,805 lb. valued at £830,753.

It has been proved that suitable leaf can be grown, and research is in progress with a view to improvement in 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. In addition, 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 agreement was made for the season 1932-33 and the production was considerably below that of 1931-32. The decline was due chiefly to climatic conditions, i.e., frosts in Victoria, floods in Northern Queensland, and dearth of rain in Central Queensland, while in some districts the plants were badly affected by disease.

The following table furnishes details of the average area, production, etc., in quinquennial periods from 1901 to 1930, and annually from 1928-29 to 1932-33 :—

## 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	164,978	487
1921-25 .. .. .	2,677	1,962,576	158,748	925
1926-30 .. .. .	2,478	1,632,243	121,589	666
1928-29 .. .. .	2,238	1,838,592	97,438	632
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

(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 the amount was included in the Budget for 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. The Council for Scientific and Industrial Research is to investigate diseases affecting the tobacco plant, including work on disease resisting varieties, and to make tests of smoking quality. The States will carry out field investigations on disease resistance, selection, yield and quality improvement, and will conduct instructional, demonstrational and field experimental work.

5. Pumpkins and Melons.—The total area under this crop in Australia during 1932-33 was 14,918 acres, of which 3,302 acres were in New South Wales, 999 acres in Victoria, 9,777 acres in Queensland, 341 acres in South Australia, and 498 acres in Western Australia. The production for Australia amounted to 37,914 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 1932-33 being 952 acres, of which 801 acres were in Tasmania and 151 acres in Victoria. The Tasmanian area, though still small, has increased considerably during the past 31 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 151 in 1932-33. 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 1932-33 the exports of hops exceeded the imports by 21,761 lb., valued at £1,197. The value of the production in Australia in 1932-33 amounted to £128,353.

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 decreased to 958 acres in 1931-32 and to 509 acres in 1932-33.

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 is payable on flax and linseed grown in Australia for a period of five years, commencing on the 1st March, 1930. The rates of bounty payable are 15 per cent. of the market value of the flax or linseed for the first two years, 10 per cent. for the next two years, and 7½ per cent. for the last year. The total amount paid shall not exceed £20,000 in any financial year. During the year 1932-33 the sum of £412 was paid on 37 tons of flax and 143 tons of linseed, and in 1933-34 £205 was paid on 31 tons of flax and 30 tons of linseed.

8. Millet.—Millet figures in the statistical returns of three of the States. The total area devoted thereto in 1932-33 was 4,697 acres, of which 3,096 acres were in New South Wales, 1,391 in Victoria, and 210 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 1932-33 the areas in those States were 717, 1,205, 158, and 178 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 1883, 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 1½d. per lb. The rise in price enabled the Government to offer a guarantee of 5½d. per lb. for seed 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 ½d. 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 rates payable to growers for seed cotton vary from 1½d. per lb. for the first year for the higher grades and ¾d. per lb. for the lower grades to ½d. and ¼d. per lb. respectively for the year ending 30th September, 1936. The amount of bounty payable in any financial year is limited to £260,000. The number of growers were:—1930, 1,461; 1931, 1,988; and 1932, 1,989.

The area under cultivation and the production in Queensland since the year 1921 are shown hereunder:—

## COTTON.—AREA AND PRODUCTION, QUEENSLAND.

Year.						Area(a).	Yield of Unginned Cotton.
						Acres.	lb.
1921	..	..	..	..	..	1,944	940,126
1922	..	..	..	..	..	8,716	3,956,635
1923	..	..	..	..	..	40,821	12,543,770
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

(a) Area picked.

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 serious decline in world prices, however, affected local prices and has resulted in a smaller return to the growers.

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 1932-33 only 9 acres were recorded with a production of 4,200 lb.

12. **Other Crops.**—Miscellaneous small crops grown in Australia include tomatoes, rhubarb, artichokes, arrowroot, chicory, and flowers.

### § 18. Bounties.

The bounties paid by the Commonwealth Government during the year ended 30th June, 1934, amounted to £338,746. 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. For purposes of convenience particulars regarding bounties in operation in Australia on all commodities during the years 1929-30 to 1933-34 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.				
			1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
<b>Iron and Steel Products Bounty Act—</b>			£	£	£	£	£
*Fencing Wire ..	£2 12s. per ton (d) ..	(e) 6th Nov., 1930	114,141	39,913	..	..	..
*Galvanized Sheets ..	£2 12s. per ton (b) ..	e) 27th Mar., 1931	89,561	79,429	..	..	..
*Wire Netting ..	£3 8s. per ton (c) ..	..	56,486	22,696	6,334	8,947	9,838
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	..	199	1,974	1,058	894	5,152
<b>Sulphur Bounty Act—</b>							
Sulphur from Australian Pyrites and other Sulphide Ores or Concentrates	£2 5s. per ton ..	..	55,018	48,520	30,962	46,245	47,955
<b>Flax and Linseed Bounties Act 1930</b>	Rates vary according to year	28th Feb., 1935	..	..	1,561	412	205
<b>Wine Export Bounty Act—</b>							
Fortified Wine, containing not less than 34 per centum of proof spirit, exported from Australia from 1st September, 1924, to 28th February, 1935	4s. per gallon to 31st August, 1927 1s. 9d. per gallon from 1st September, 1927, to 8th March, 1928 1s. per gallon from 9th March, 1928 1s. 9d. per gallon from 13th March, 1930(f)	28th Feb., 1935	83,210	165,009	201,268	178,491	183,981

(a) All bounties are subject to 20 per cent. reduction from 20th July, 1931, excepting that paid on gold 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, 1930, owing to increase in Customs duty. (e) Date Bounty ceased. (f) Actual rate for the period 5th October, 1932, to 30th June, 1933, is 1s. 4. 2d. per gallon and for the year 1933-34, 1s. 4. 8d. per gallon.

BOUNTIES.—AUSTRALIA—*continued.*

Articles on which Bounty was Paid.	Rate of Bounty Payable. (c)	Date of Expiry of Bounty.	Amount Paid.				
			1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
			£	£	£	£	£
Cotton Bounty Act— Seed Cotton grown in Australia and delivered and graded as prescribed	Varies on Higher Grades from 1½d. per lb. up to 1932, to ½d. per lb. in 1936	30th Sept., 1936	70,307	100,848	64,206	56,182	87,268
Cotton Yarn manufactured in Australia	Varies according to count and year	(e) 30th June, 1932	48,660	57,085	94,395	36,985	2,287
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	1,059	(b) 946	(b) 830	(b) 632	(b) 844
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—(h) 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 (f)	132,807	(g)
Total			518,641	516,460	3,777,982	557,707	338,746

(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. (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) In addition a sum of £2,250,000 was paid under the *Financial Relief Act 1932*, to the States for the relief of wheat growers and other primary producers. (g) Under the *Wheat Growers Relief Act 1933*, £3,000,000 was paid to the States for the assistance of wheat growers. (h) Includes Administrative expenses amounting to £14,087.

## § 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 1932-33 the value of rock phosphate imported represented more than 74 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.	1928-29.	1929-30.	1930-31. (b)	1931-32. (b)	1932-33. (b)
Bonedust .. .. cwt.	(a)	(a)	(a)	(a)	(a)
" .. .. £	(a)	(a)	(a)	(a)	(a)
Guano .. .. cwt.	52,018	1,000	..	..	130
" .. .. £	6,438	462	..	..	13
Superphosphate .. cwt.	2,560	4,572	511	..	..
" .. .. £	1,834	3,331	398	..	..
Rock phosphate .. cwt.	12,349,710	10,579,094	8,614,718	5,948,490	9,569,006
" .. .. £	1,291,583	1,126,531	642,006	463,496	731,454
Soda nitrate .. cwt.	152,747	256,457	27,434	13,041	64,388
" .. .. £	75,888	123,635	14,782	8,052	40,604
Other .. .. cwt.	308,425	402,188	341,023	203,892	467,664
" .. .. £	112,232	205,574	166,491	103,186	209,488
Total .. .. cwt.	12,865,460	11,243,311	8,983,686	6,165,423	10,101,188
" .. .. £	1,487,975	1,459,533	823,677	574,734	981,559

(a) Now included with other fertilizers. (b) Australian currency values.

4. Exports.—The subjoined table shows the exports of manures for the years 1928-29 to 1932-33: 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Bonedust .. .. cwt.	39	6,426	6	1,140	5,470
" .. .. £	27	2,756	4	162	770
Superphosphate .. cwt.	316	168	144	66	294
" .. .. £	83	54	52	28	89
Rock phosphate .. cwt.	..	4	..	..	..
" .. .. £	..	1	..	..	..
Soda nitrate .. cwt.	6	34	7	88	65
" .. .. £	9	27	14	69	49
Ammonia sulphate .. cwt.	18,610	972	3,882	1,715	1,035
" .. .. £	11,255	440	1,470	546	423
Other .. .. cwt.	66,429	31,474	12,935	41,399	11,811
" .. .. £	30,097	13,766	4,186	11,453	1,664
Total .. .. cwt.	85,400	39,078	16,974	44,408	18,675
" .. .. £	41,471	17,044	5,726	12,258	2,995

5. Quantities Locally Used.—Information regarding quantities, etc., of manures used in each State during the year 1932-33 is given in the table hereunder:—

FERTILIZERS USED 1932-33.

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 ..	6,332,716	3,238,716	51.14	185,710	87,607
Victoria ..	5,115,745	(a) 4,764,641	93.14	97,978	199,557
Queensland ..	1,245,638	142,808	11.46	166,817	35,505
South Australia ..	5,166,656	4,413,560	85.42	43,873	150,800
Western Australia ..	4,261,047	(a) 4,647,985	(b) 98.64	52,333	199,337
Tasmania ..	279,117	232,370	83.25	13,002	20,496
Northern Territory ..	1,045	..	..	..	..
Fed. Cap. Territory ..	6,525	4,010	61.46	58	128
Total ..	22,408,489	17,444,090	77.85	559,831	693,430

(a) Includes area under sown grasses and manure used.

(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.
1928-29 ..	21,189,557	18,701,389	88.26	450,474	813,656	86
1929-30 ..	21,929,721	19,925,988	90.86	405,812	852,925	87
1930-31 ..	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

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, followed by a decrease in 1930-31 to 79 lb., a further fall to 64 lb. in 1931-32 and increasing in 1932-33 to 69 lb. The 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 88.26 to 77.85 during the last five years, while the use of artificial manures has decreased by 120,000 tons during the same period. As a measure of relief to primary producers other than wheat growers the Commonwealth Government provided for the States' 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 1932-33 was 33, made up as follows:—New South Wales, 4; Victoria, 7; Queensland, 4; South Australia, 7; Western Australia, 5; and Tasmania, 6. The production of superphosphates in Australia during 1932-33 amounted to 638,983 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 1928-29 to 1932-33, is given in the following table:—

ENSILAGE MADE.

State or Territory.	1928-29.		1929-30.		1930-31.		1931-32.		1932-33.	
	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 ..	350	27,177	338	28,155	669	60,172	628	54,885	738	62,435
Victoria ..	89	7,775	74	4,783	99	6,373	96	5,792	197	11,642
Queensland ..	72	4,037	43	2,933	60	4,880	79	5,819	112	6,305
South Australia ..	12	2,808	22	1,319	21	3,656	92	5,640	132	9,470
Western Australia ..	93	7,022	105	7,966	209	10,509	396	16,999	469	21,655
Tasmania ..	5	115	6	75	14	840	23	687	37	1,336
Australia ..	621	48,934	588	45,231	1,072	86,430	1,314	89,822	1,685	112,843

(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 1932-33 amounted to 112,843 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 1932-33 will be found in the Production Bulletin No. 27 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.

## CHAPTER XX.

## FARMYARD, DAIRY, AND BEE PRODUCTS.

## § 1. Introductory.

1. **General.**—The introduction of cattle into Australia, and the early history of the dairying industry are referred to in some detail in earlier issues of this work (see Official Year Book No. 6, p. 430). It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossings of strains has 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 *matériel*, prevails. Financial assistance of a temporary nature is also given.

The export trade is regulated by the terms of the Commonwealth *Commerce Act* 1905 and regulations thereunder. The provisions of this Act are set out in detail in Official Year Book No. 6, pp. 431-2. It will be sufficient to state here that the true trade description, etc., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector.

3. **Stabilization Scheme.**—(i) *Voluntary Plan.* During the period from January, 1926, to May, 1934, a voluntary scheme known as the "Paterson Plan" was in operation, and had the effect of stabilizing the price of butter in Australia. The scheme provided for the payment of a levy on all butter produced in Australia sufficient to pay a bounty on export of 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.

(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.

To assure that the legislation will 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 2½ gallons.

6. *Butter and Cheese Factories.*—The factories in Australia for the manufacture of butter, cheese, and condensed milk numbered 520 in 1932-33, as compared with 563 in 1927-28. The factories were distributed among the States as follow:—New South Wales, 131; Victoria, 174; Queensland, 118; South Australia, 44; Western Australia, 18; and Tasmania, 35. Fuller details regarding numbers of factories, output, etc., are given in Chapter XXIII.

7. *Ottawa Conference.*—The agreement reached at the Imperial Economic Conference at Ottawa in August, 1932, should materially assist 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. to 1s. 9d. per great hundred; honey, 7s. per cwt.; milk powder, 5s. 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 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.

## § 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 1932 there were 3.1 million; showing that in seventeen years the number of dairy cattle in Australia have almost been doubled. 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. In Southern Queensland, however, dairying has developed greatly during the last decennium, and the progress in that area and in New South Wales has been largely responsible for the Australian increase previously mentioned. The number of dairy cows shown in the following table includes heifers intended for milking and being within three months of calving. Details however are not collected for Victoria or Tasmania, but the total of such heifers in the other States amounted to 109,227:—

### CATTLE AND DAIRY CATTLE.—NUMBER.

State.		1928.	1929.	1930.	1931.	1932.
New South Wales	All Cattle ..	2,784,615	2,686,132	2,840,473	2,993,586	3,141,174
	Dairy Cows ..	907,774	913,555	964,739	1,020,947	1,068,605
Victoria	All Cattle ..	1,304,426	1,335,242	1,429,920	1,637,530	1,900,922
	Dairy Cows ..	615,092	619,416	669,132	775,538	887,996
Queensland	All Cattle ..	5,128,341	5,208,588	5,463,724	5,550,399	5,535,065
	Dairy Cows ..	670,805	680,577	724,323	775,301	792,943
South Australia	All Cattle ..	263,016	204,516	218,985	265,324	312,932
	Dairy Cows ..	108,969	104,255	109,672	127,756	149,172
Western Australia	All Cattle ..	837,527	836,646	812,844	826,532	857,473
	Dairy Cows ..	69,047	74,223	85,725	99,287	114,022
Tasmania	All Cattle ..	208,812	214,643	230,254	232,444	250,807
	Dairy Cows ..	94,268	72,235	76,825	81,800	87,854
Northern Territory	All Cattle ..	768,751	711,607	720,476	749,745	780,121
	Dairy Cows ..	(a)	(a)	(a)	(a)	(a)
Federal Capital Territory	All Cattle ..	5,269	4,760	4,240	5,395	4,643
	Dairy Cows ..	704	679	788	643	411
Australia ..	All Cattle ..	11,300,757	11,202,134	11,720,916	12,260,955	12,723,137
	Dairy Cows ..	2,466,659	2,464,940	2,631,204	2,881,272	3,101,003

(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 seven 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.	Australa. (b)
1928-29—								
Dairy Cows (a) .. No.	849,769	620,616	606,637	105,800	65,982	67,491	567	2,316,862
Production 1,000 gals.	277,378	279,032	186,307	35,701	18,252	24,444	245	821,359
Aver. per cow .. gal.	326	450	307	337	277	362	432	354
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	33,034	33,847	255	1,080,740
Aver. per cow .. gal.	323	477	315	477	334	399	554	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 211,500,000 lb. for the triennium 1918-1922 to 350,000,000 lb. for the latest five years. The largest production of butter in Australia was recorded in 1932-33, when, as a result of a specially favourable season, 419,675,000 lb. were manufactured. The previous highest figure was in 1931-32 when the total amounted to 390,654,000 lb. It is anticipated that this record will be broken by the return for the season 1933-34. Preliminary data indicate a total production for the season of 452,000,000 lb.

The output of cheese is also largely dependent upon seasonal conditions. The production in 1932-33 was 36,933,306 lb. as compared with 31,423,000 lb., produced during the previous year and is 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 on pages 526-7. The butter and cheese production for the last five years was as follow :—

BUTTER AND CHEESE PRODUCTION.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>BUTTER.</b>					
	lb.	lb.	lb.	lb.	lb.
New South Wales .. .. .	95,337,240	104,175,340	113,237,295	123,252,722	128,210,092
Victoria .. .. .	93,728,516	90,639,652	110,006,619	132,131,812	144,564,666
Queensland .. .. .	77,044,859	78,796,483	95,719,316	98,013,043	103,032,474
South Australia .. .. .	11,315,714	10,789,706	12,961,231	17,663,029	21,310,000
Western Australia .. .. .	5,051,088	6,179,489	8,666,399	10,109,795	11,469,661
Tasmania .. .. .	7,395,689	8,488,932	9,802,261	9,462,866	11,071,631
Federal Capital Territory .. .. .	10,094	10,943	11,983	20,803	16,273
<b>Australia .. .. .</b>	<b>289,883,200</b>	<b>299,080,545</b>	<b>350,405,104</b>	<b>390,654,070</b>	<b>419,674,803</b>



## BUTTER AND CHEESE PRODUCTION—continued.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>CHEESE.</b>					
	lb.	lb.	lb.	lb.	lb.
New South Wales .. ..	6,339,052	6,345,785	6,516,065	6,590,357	7,193,806
Victoria .. .. .	5,505,932	6,953,949	8,064,463	7,723,328	9,189,018
Queensland .. .. .	14,391,910	12,380,882	13,648,038	11,021,963	13,083,959
South Australia .. ..	2,975,095	3,536,943	3,901,159	5,096,731	6,093,170
Western Australia .. ..	7,526	998	528	909	138,051
Tasmania .. .. .	997,586	954,463	969,528	989,685	1,235,302
<b>Australia .. .. .</b>	<b>30,217,101</b>	<b>30,173,020</b>	<b>33,099,781</b>	<b>31,422,973</b>	<b>36,933,306</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 this State amounted in 1928-29 to 53,948,559 lb.; in 1929-30 to 51,581,802 lb.; in 1930-31 to 45,665,474 lb.; in 1931-32 to 41,409,540 lb.; and in 1932-33 to 44,186,979 lb. Imports of milk into Australia consist almost entirely of malted or otherwise medicated milk. 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.

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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
<b>IMPORTS.</b>					
Butter .. .. . lb.	3,947	3,016	1,525	2,359	2,471
" .. .. . £	287	(a) 201	(a) 110	(a) 150	(a) 199
Cheese .. .. . lb.	458,481	30,356	13,695	86,892	58,453
" .. .. . £	34,462	(a) 2,729	(a) 1,482	(a) 8,205	(a) 5,283
Milk—concentrated and preserved lb.	1,177,593	524,865	393,953	312,730	260,311
" .. .. . £	36,219	(a) 22,016	(a) 11,162	(a) 12,016	(a) 9,408
<b>EXPORTS.</b>					
Butter .. .. . lb.	107,663,264	163,180,695	201,639,404	226,329,334	244,299,732
" .. .. . £	7,001,556	a 8,120,165	a 9,812,827	a 9,264,665	a 8,194,220
Cheese .. .. . lb.	3,094,092	8,595,019	7,267,727	11,799,265	9,314,529
" .. .. . £	123,102	(a) 244,107	(a) 212,871	(a) 320,084	(a) 229,388
Milk—concentrated and preserved lb.	16,498,819	12,351,714	15,906,464	24,452,610	19,773,041
" .. .. . £	997,756	(a) 610,705	(a) 642,036	(a) 927,533	(a) 739,031

## NET EXPORTS.

Butter .. .. . lb.	107,659,317	163,177,679	201,637,879	226,326,975	244,297,261
" .. .. . £	7,001,269	a 8,119,964	a 9,812,717	a 9,264,515	a 8,194,021
Cheese .. .. . lb.	2,635,611	8,564,663	7,254,032	11,712,373	9,256,076
" .. .. . £	90,640	(a) 241,378	(a) 211,389	(a) 311,879	(a) 224,105
Milk—concentrated and preserved lb.	15,321,226	11,826,849	15,602,511	24,139,880	19,512,730
" .. .. . £	961,537	(a) 588,689	(a) 630,874	(a) 915,542	(a) 729,623

(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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	lb.	lb.	lb.	lb.	lb.
Butter .. Total ..	187,441,321	191,421,228	187,227,425	189,016,191	193,347,828
.. .. Per head of population ..	29.58	29.84	28.91	28.96	29.27
Cheese .. Total ..	22,397,280	27,537,409	24,535,118	24,168,941	25,220,933
.. .. Per head of population ..	3.53	4.29	3.79	3.70	3.82

Consumption in 1932-33 averaged 29½ lb. of butter and 3¾ lb. of cheese per head of population. The consumption of butter in the United Kingdom, Canada, and New Zealand is given at 21.8 lb., 30.0 lb., and 40.0 lb. per head per annum respectively, while that of cheese amounted to 9.5 lb., 3.3 lb., and 7.0 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 four years slightly more than 1,000,000 pigs have been maintained but it is still slightly below the record of 1,169,000 of 1917. The distribution of pigs among the States and Territories in 1932 was—New South Wales, 388,273; Victoria, 287,627; Queensland, 213,249; South Australia, 113,831; Western Australia, 117,529; Tasmania, 41,391; Northern Territory, 449; Federal Capital Territory, 58; Total, 1,162,407. The figures for New South Wales, Victoria and the Federal Capital Territory represent the number as on the 31st March, 1933.

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 1932-33 was as follows :—New South Wales, 20,476,555 lb.; Victoria, 18,181,958 lb.; Queensland, 16,976,595 lb.; South Australia, 7,328,314 lb.; Western Australia, 3,742,942 lb.; Tasmania, 1,737,665 lb.; Federal Capital Territory, 1,505 lb.; Total, 68,365,534 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 10.7 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 1932-33 of 8.49 lb. per head of population, as compared with 13 lb. per head in New Zealand, 74.58 lb. in Canada and 70 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.

Particulars.		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Pigs.						
Imports	No.	59	7	4	6	12
"	£	2,603	(a) 252	(a) 159	(a) 242	(a) 291
Exports	No.	325	280	274	28	201
"	£	1,365	(a) 1,186	(a) 1,074	(a) 192	(a) 800
Net Exports	No.	266	273	270	22	189
"	£	-1,238	(a) 934	(a) 915	(a) -50	(a) 518

BACON AND HAM.

Imports	lb.	209,021	25,245	1,191	7,135	11,014
"	£	12,325	(a) 1,595	(a) 97	(a) 468	(a) 803
Exports	lb.	1,481,897	2,100,290	1,429,367	1,598,106	1,664,501
"	£	116,709	(a) 115,278	(a) 87,213	(a) 95,128	(a) 96,579
Net Exports	lb.	1,272,876	2,075,045	1,428,176	1,590,971	1,653,487
"	£	104,384	(a) 113,683	(a) 87,116	(a) 94,660	(a) 95,776

LARD.

Imports	lb.	206,037	101,391	15,244	24,644	17,973
"	£	5,157	(a) 2,972	(a) 492	(a) 694	(a) 481
Exports	lb.	969,512	1,043,930	2,924,492	1,620,590	1,483,680
"	£	26,664	(a) 26,189	(a) 43,498	(a) 27,385	(a) 25,969
Net Exports	lb.	763,475	942,539	2,909,248	1,595,946	1,465,707
"	£	21,507	(a) 23,217	(a) 43,006	(a) 26,691	(a) 25,488

FROZEN PORK.

Imports	lb.	413,949	46,695	706	180	..
"	£	13,486	(a) 1,684	(a) 32	(a) 10	..
Exports	lb.	934,149	8,629,901	7,383,355	6,703,234	8,663,864
"	£	32,735	(a) 235,999	(a) 173,373	(a) 154,163	(a) 210,793
Net Exports	lb.	520,200	8,583,206	7,382,649	6,703,054	8,663,864
"	£	19,249	(a) 234,315	(a) 173,341	(a) 154,153	(a) 210,793

NOTE.—The minus sign (—) signifies net imports.

(a) Australian currency values.

Hitherto the output of pig products in Australia was usually sufficient to meet local requirements and provide a small surplus for export. During the four years ended 1933-34, however, overseas exports of frozen pork showed a remarkable increase averaging 7.8 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 10 million cwt., valued at £33,000,000, 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 by the British Government of a Bacon Marketing scheme. This 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 1932-33 is shown below :—

PRINCIPAL DAIRY PRODUCTION.—1932-33.

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	251,537,871	322,922,673	210,776,700	44,715,448	24,630,210	26,041,036	70,998	880,694,936
Cheese		8,966,129		5,690,667		1,132,490		
Condensing and concentrating	10,614,701	13,826,740	12,891,517		558,180			53,780,414
Other purposes	58,506,701	51,000,666	13,461,927	8,092,925	8,445,147	6,573,340	184,092	146,264,798
<b>Total</b>	<b>320,659,273</b>	<b>396,716,208</b>	<b>237,130,144</b>	<b>58,499,040</b>	<b>33,633,537</b>	<b>33,846,866</b>	<b>255,090</b>	<b>1,080,740,158</b>

<b>BUTTER.</b>								
In Factories On Dairy and other Farms	lb.	lb.	lb.	lb.	lb.	b.	lb.	lb.
	122,904,421	139,920,159	100,027,594	17,161,664	9,461,462	8,478,449	..	397,953,749
	5,305,671	4,644,507	3,004,880	4,148,342	2,008,199	2,593,182	16,273	21,721,054
<b>Total</b>	<b>128,210,092</b>	<b>144,564,666</b>	<b>103,032,474</b>	<b>21,310,006</b>	<b>11,469,661</b>	<b>11,071,631</b>	<b>16,273</b>	<b>419,674,803</b>

<b>CHEESE.</b>								
In Factories On Dairy and other Farms	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
	7,053,566	9,073,827	13,080,003	6,091,924	135,410	1,106,972	..	36,541,702
	140,240	115,191	2,956	1,246	2,641	128,330	..	391,604
<b>Total</b>	<b>7,193,806</b>	<b>9,189,018</b>	<b>13,083,959</b>	<b>6,093,170</b>	<b>138,051</b>	<b>1,235,302</b>	<b>..</b>	<b>36,933,306</b>

CONDENSED, CONCENTRATED, OR POWDERED MILK.

In Factories	lb. (a)	lb. 44,186,979	lb. (a)	lb. ..	lb. (a)	b. ..	lb. ..	lb. 44,186,979
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BACON AND HAM.

In Factories On Dairy and other Farms	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
	19,250,875	16,425,732	16,701,874	6,593,717	3,453,994	1,108,954	..	63,535,146
	1,225,680	1,676,226	274,721	734,597	288,948	628,711	1,505	4,830,388
<b>Total</b>	<b>20,476,555</b>	<b>18,101,958</b>	<b>16,976,595</b>	<b>7,328,314</b>	<b>3,742,942</b>	<b>1,737,665</b>	<b>1,505</b>	<b>68,365,534</b>

(a) Figures not available for publication.

Particulars in regard to the production of other milk products are not available for all the States, but casein amounting to 1,766,125 lb., valued at £26,407 was manufactured in Victoria during 1932-33.

## § 5. 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. **Poultry Products.**—Difficulty is experienced in obtaining complete figures for the yield of poultry products. The following values relate to poultry and eggs:—

## POULTRY AND EGGS.—VALUE OF PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania. (a)	Australia.
	£	£	£	£	£	£	£
1928-29 ..	3,329,000	4,348,000	619,329	1,053,939	456,242	300,000	b10,109,695
1929-30 ..	3,471,000	4,638,000	635,145	950,542	542,291	300,000	b10,541,053
1930-31 ..	2,886,000	3,926,000	556,620	831,020	399,430	300,000	b 8,904,600
1931-32 ..	2,806,000	3,653,000	510,031	761,612	498,957	300,000	b 8,535,482
1932-33 ..	2,949,000	3,541,276	544,811	757,979	504,804	250,000	b 8,555,047

(a) Estimated. (b) Includes Federal Capital Territory, 1928-29 £3,185; 1929-30 £4,075; 1930-31 £5,530; 1931-32 £5,882; and 1932-33 £7,177.

3. **Overseas Trade in Poultry Products.**—The Australian overseas 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 1932-33 amounted to £1,018,614 and £1,066,648 in 1933-34. The levying in accordance with the Ottawa Conference Agreement of a customs duty varying between 1s. and 1s. 6d. 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 slightly more than 1 million dozen valued at £85,000 in 1927-28 to nearly 10 million dozen valued at £494,000 in 1931-32, and to nearly 17 million dozen valued at £958,000 in 1932-33, while in 1933-34 19.6 million dozen valued at more than £1 million were exported. The exports of frozen poultry have increased considerably in recent years as the following table shows. The overseas trade during the last five years was as follows:—

## POULTRY PRODUCTS, TRADE.—AUSTRALIA.

Particulars.	1929-30.	1930-31.	1931-32	1932-33.	1933-34.
LIVE POULTRY.					
Imports ..	No.	424	176	164	253
..	£	1,512 (a)	582	292 (a)	788 (a)
Exports ..	No.	2,165	1,526	2,067	1,742
..	£	1,821 (a)	1,147 (a)	1,039 (a)	896 (a)
Net Exports ..	No.	1,741	1,350	1,903	1,489
..	£	309 (a)	565 (a)	747 (a)	108 (a)

(a) Australian currency values.

## POULTRY PRODUCTS, TRADE.—AUSTRALIA—continued.

Particulars.		1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
FROZEN POULTRY.						
Imports	.. lb.	1,097	1,695	49	20,486	13,290
"	.. £	86	(b) 121	(b) 2	(b) 809	(b) 919
Exports	.. pair	13,908	14,553	32,597	60,921	33,538
"	.. £	17,118	(b) 11,729	(b) 33,366	(b) 40,266	(b) 16,798
Net Exports	.. ..	(a)	(a)	(a)	(a)	(a)
"	.. £	17,032	(b) 11,608	(h) 33,364	(b) 39,457	(b) 15,879
Eggs.						
Imports	.. doz.	16,568	10,828	8,513	6,722	6,003
"	.. £	873	(b) 458	(b) 443	(b) 397	(b) 333
Exports	.. doz.	3,570,219	5,970,696	9,921,829	16,844,288	19,617,032
"	.. £	255,571	(b) 321,627	(b) 494,032	(b) 958,065	(b) 1,058,164
Net Exports	.. doz.	3,553,651	5,959,868	9,913,316	16,837,566	19,611,029
"	.. £	254,698	(b) 321,169	(b) 493,589	(b) 957,668	(b) 1,057,831
EGG-CONTENTS.						
Imports	.. lb.	29,693	11,108	13,219	9,470	24,173
"	.. £	3,901	(b) 1,007	(b) 1,706	(b) 1,755	(b) 3,491
Exports	.. lb.	(a)	(a)	(a)	(a)	(a)
"	.. £	354	(b) 5,116	(b) 60,926	(b) 60,549	(b) 8,484
Net Exports	.. lb.	(a)	(a)	(a)	(a)	(a)
"	.. £	-3,547	(b) 4,109	(b) 59,220	(b) 58,794	(b) 4,993

(a) Quantity not available. (b) Australian currency values.  
NOTE.—The Minus (-) signifies net imports.

## § 6. 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 1932-33 gave an average of 68.96 lb. per hive, while the average quantity of wax was 0.85 lb. per hive.

2. Production of Honey and Beeswax.—The number of hives and the production of honey and beeswax during the year 1932-33 are given in the following table:—

## BEE-HIVES, HONEY, AND BEESWAX, 1932-33.

State.	Bee Hives.			Honey Produced.		Beeswax Produced.	
	Pro- ductive.	Unpro- ductive.	Total.	Quantity.	Value.	Quantity.	Value.
	No.	No.	No.	lb.	£	lb.	£
New South Wales ..	46,523	13,442	59,965	2,921,242	50,148	38,715	2,178
Victoria ..	48,649	17,847	66,496	3,543,103	66,433	41,827	2,353
Queensland ..	10,415	2,619	13,034	531,075	9,264	9,948	566
South Australia ..	59,104	13,589	72,693	4,791,526	49,912	52,273	2,723
Western Australia ..	10,052	1,654	11,706	438,209	6,740	7,343	379
Tasmania ..	4,399	1,472	5,871	127,896	2,660	2,741	240
Fed. Cap. Territory ..	38	1	39	2,976	50	50	3
Australia ..	179,180	50,624	229,804	12,356,027	185,207	152,897	8,442

The table hereunder gives the production of honey and beeswax for the latest available five years:—

## HONEY AND BEESWAX PRODUCTION.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Fed. Cap. Ter.	Australia.
HONEY.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1928-29	2,354,845	4,181,571	667,846	3,047,421	509,415	89,969	12,900	10,863,967
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
BEESWAX.								
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1928-29	30,064	49,675	13,629	28,041	6,555	1,465	162	129,591
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

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 12,144,810 lb. of honey and 168,665 lb. of beeswax, while the Victorian figures amounted to 15,786,435 lb. and 177,901 lb. respectively for honey and beeswax. These States together accounted for 61.89 per cent. of the total Australian production of honey, and 61.29 per cent. of the beeswax. Next in order of importance were South Australia, Queensland, and Western Australia.

3. *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 1932-33 the value of the exports amounted to only £23,779, or an annual average of £4,756, 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 1932-33 the imports of honey amounted to 5,193 lb. and the exports to 406,851 lb. The imports of beeswax for the same year amounted to 38,545 lb. and the exports to 2,081 lb.

## § 7. Value of Farmyard, Dairy, and Bee Products.

The value of the farmyard, dairy and bee products raised in each State in 1932-33 was as follows:—

## FARMYARD, DAIRY, AND BEE PRODUCTS.—VALUE, 1932-33.

Products.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. Cap. Ter.	Australia.
	£	£	£	£	£	£	£	£	£
Milk, consumed as such ..	2,072,308	1,806,444	476,821	286,651	299,127	232,828	..	6,522	5,180,700
Butter ..	5,775,424	6,734,334	4,647,526	1,074,279	655,623	523,904	..	733	19,411,823
Cheese ..	238,663	327,196	321,485	164,834	4,494	30,234	..	..	1,086,906
Condensed & concentrated milk	886,074	1,031,307	612,457	244,055	175,621	62,389	..	..	3,683,438
Bacon and ham	374,492	671,485	383,148	150,860	121,049	44,293	403	1,301	1,439,436
Pork ..	10,677	30,558	17,374	5,813	3,604	2,587	..	..	70,613
Lard ..	2,949,000	3,541,276	544,811	757,979	504,804	250,000	..	7,177	8,555,047
Poultry and eggs	52,326	68,786	9,830	52,635	7,119	2,900	..	53	193,649
Honey and wax	..	..	..	..	..	..	..	..	..
Total ..	12,358,964	14,575,276	7,013,452	2,737,106	1,771,441	1,149,135	403	15,835	39,621,612

§ 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.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
QUANTITY.					
Beeswax .. .. .	lb. 1,411	1,020	2,888	2,081	1,451
Butter .. .. .	107,663,114	163,180,695	201,639,404	226,329,334	244,299,732
Cheese .. .. .	3,089,382	8,594,693	7,267,719	11,785,156	9,313,714
Egg albumen and yolk .. .. .	(a)	(a)	(a)	(a)	(a)
Eggs .. .. .	doz. 3,570,219	5,970,696	9,921,829	16,844,288	19,617,032
Feathers undressed .. .. .	(a)	(a)	(a)	(a)	(a)
Honey .. .. .	lb. 122,524	138,491	251,857	406,851	351,674
Lard .. .. .	969,512	1,043,930	2,924,492	1,620,590	1,483,456
Meats—					
Bacon and Ham .. .. .	1,473,036	2,100,290	1,429,367	1,596,706	1,664,501
Frozen Poultry .. .. .	pair 13,888	14,553	32,597	60,921	33,538
Frozen Pork .. .. .	lb. 932,297	8,623,651	7,383,355	6,703,234	8,663,864
Milk, concentrated and preserved .. .. .	16,493,546	12,351,024	15,996,318	24,452,509	19,771,958
Pigs, living .. .. .	No. 325	280	274	28	201
Poultry, living .. .. .	2,158	1,526	2,067	1,738	2,047
VALUE.					
	£	£	£	£	£
Beeswax .. .. .	115	77	178	143	94
Butter .. .. .	7,001,540	8,120,165	9,812,827	9,264,665	8,194,220
Cheese .. .. .	124,716	244,066	212,870	318,895	229,313
Egg albumen and yolk .. .. .	198	5,099	60,896	60,549	8,484
Eggs .. .. .	255,571	321,627	494,032	958,065	1,058,164
Feathers, undressed .. .. .	1,132	1,036	229	400	694
Honey .. .. .	3,631	3,632	5,642	8,014	6,458
Lard .. .. .	26,664	26,189	43,497	27,385	25,993
Meats—					
Bacon and Ham .. .. .	116,159	115,278	87,213	95,093	96,579
Frozen Poultry .. .. .	17,109	11,729	33,366	40,266	16,798
Frozen Pork .. .. .	32,683	235,857	173,373	154,163	210,793
Milk, concentrated and preserved .. .. .	997,512	610,653	642,016	927,546	739,000
Pigs, living .. .. .	1,365	1,186	1,074	192	809
Poultry, living .. .. .	1,801	1,147	1,039	846	986
Total .. .. .	8,580,196	9,697,741	11,568,252	11,856,222	10,588,355

(a) Quantity not available.

Butter figures most largely in the list of exports shown above, the United Kingdom being the principal country of destination, exports thereto amount to 226,929,716 lb., or 93 per cent. of the total during the year 1933-34. Exports to the principal Eastern countries were 13,006,031 lb., or 5 per cent. of the total. Consignments to the countries mentioned accounted for 98 per cent. of the total exports of butter for the year specified.

§ 9. British Imports of Dairy Products.

I. Quantities and Values.—The following table gives the quantities and values of the principal dairy products imported into the United Kingdom during the years 1929 to 1933 :—

DAIRY PRODUCTS.—IMPORTS, UNITED KINGDOM.

Products.	1929.	1930.	1931.	1932.	1933.
Butter .. .. .	cwt. 6,397,266	6,821,620	8,060,068	8,364,367	8,834,514
" .. .. .	£ 54,706,404	46,869,697	46,297,585	41,055,142	34,437,081
Cheese .. .. .	cwt. 2,994,038	3,112,316	2,885,794	3,003,113	3,039,667
" .. .. .	£ 13,912,535	12,602,974	9,062,707	9,089,757	7,612,100
Milk, concentrated and preserved .. .. .	cwt. 2,935,151	2,869,229	3,164,618	3,073,980	(b)
" .. .. .	£ 5,608,354	5,033,570	5,093,616	4,252,202	(b)
Bacon and ham .. .. .	cwt. 9,306,909	10,194,208	11,964,825	12,192,188	9,954,416
" .. .. .	£ 49,215,508	46,112,307	36,346,943	32,913,045	33,001,715
Pork (a) .. .. .	cwt. 359,134	436,739	432,513	375,259	644,132
" .. .. .	£ 1,305,804	1,641,860	1,282,774	982,548	1,621,507

(a) Frozen, chilled, and salted.

(b) Not yet available.



2. *Butter.*—(i) *Imports.* Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity shipped in 1932 amounted to 1,795,465 cwt., or 21 per cent. of the total importation. The Australian contribution was valued at £8,618,438 and was exceeded only by that shipped from Denmark and New Zealand. Preliminary figures for the year 1933 show that the total imports into the United Kingdom amounted to 8.8 million cwt. of which Denmark and New Zealand each supplied 2.5 million cwt. followed by Australia with 1.7 million cwt. or 19 per cent. These three countries combined supplied 76 per cent. of the total imports:—

**BUTTER IMPORTS.—UNITED KINGDOM, 1932.**

Country from which Imported.	Quantity.	Value.	Country from which Imported.	Quantity.	Value.
	cwt.	£		cwt.	£
Denmark ..	2,583,664	13,432,387	Netherlands ..	46,990	248,867
New Zealand ..	2,140,280	10,857,148	Canada ..	19,299	95,981
<b>Australia ..</b>	<b>1,795,465</b>	<b>8,618,438</b>	Norway ..	14,938	72,228
Argentina ..	391,027	1,664,763	Germany ..	3,974	15,666
Soviet Union ..	322,887	1,234,886	Poland ..	3,004	11,400
Irish Free State ..	314,663	1,433,878	France ..	1,752	6,020
Finland ..	216,620	1,080,170	British Possessions,		
Sweden ..	175,771	892,011	n.e.i. ..	7,744	34,701
Latvia ..	112,556	450,432	Foreign Countries,		
Estonia ..	83,153	337,916	n.e.i. ..	3,343	15,379
Lithuania ..	68,130	263,049			
Union of South Africa ..	59,107	289,822	<b>Total ..</b>	<b>8,364,367</b>	<b>41,055,142</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

The surplus output of Australian butter was sold under contract to the British Government from 1st July, 1918, to 31st March, 1921, but thereafter it has been sold in the open market.

3. *Cheese.*—The value of cheese imported into the United Kingdom in 1933 was £7,612,100, of which £4,888,002 was received from New Zealand, and £1,665,669 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 1933 amounted to £219,776.

4. *Bacon and Ham.*—Of a total import of bacon and ham valued in 1933 at £33,001,715, the United Kingdom received imports to the value of £19,123,933 from Denmark, £2,539,335 from Poland, and £2,678,234 from the Netherlands. The import from Australia was small, experimental shipments only having been made hitherto.

5. *Pork.*—The value of the United Kingdom imports of pork (frozen and salted only) was £1,621,507 in 1933. 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, or honey in 1933 were unimportant, but frozen rabbits to the value of £465,528 and eggs in shell to the value of £1,024,547 representing 91 per cent. and 14 per cent. respectively of the total imports were imported during the year.

## CHAPTER XXI.

## FORESTRY.\*

## § 1. General.

1. **Objects of Forestry.**—Scientific forestry aims at the preservation and development of existing forest areas by safeguarding them against fire, pests and destructive agencies generally by expert supervision of the removal of timber, by judicious thinning and by reforestation of denuded areas with suitable forest growths of local or exotic origin. It provides also for the continuance of this indispensable form of national wealth by the afforestation of available bare lands proved capable of producing various timbers. Only small areas of virgin forests still remain in Australia, as extensive inroads have been made by timber-getters, by agriculturists, 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.

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\* 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).

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, &c.

The drier wooded area of the continent contains a large number of xerophilous trees and woody shrubs which thrive in regions receiving less than 10 inches of rain per annum. Country devoid of tree growth is rare. Unsuitable soil conditions such as basalt formations, clay pans, rock exposures or sand dunes are as a rule more responsible for treeless areas than lack of rainfall. The 300-mile stretch of the Nullarbor Plain is a treeless area where the non-retentive limestone foundation accentuates the effects of a low rainfall. While, however, the major portion of Australia carries trees, and may be said to be wooded (the term "desert" applying to relatively small areas only), dense forest is confined to a very narrow fringe. The savannah forests of the interior yield minor products such as sandalwood and tan barks, but do not produce timber. These open, park-like formations carry scattered trees of low habit only. Practically the whole of Papua and New Guinea carry or has carried dense forests, the exceptions being certain small dry belts where the rainfall is less than 70 inches. Norfolk Island was, originally, covered with a thick jungle.

Special articles relating to Australian Eucalyptus timbers and the chemical products of Eucalypts will be found in Official Year Book No. 10, pp. 85-98.

Scientific surveys of the forests of the various States have not yet been completed, and there are, in consequence, conflicting reports regarding the total forest area of Australia. At the Interstate Conference on Forestry, held at Hobart in April, 1920, an area of 24,500,000 acres was endorsed by the Conference and subsequently adopted at the Premiers' Conference held in May of that year. Expert foresters, however, estimate the forest area possible for permanent reservation at approximately 19,500,000 acres, distributed throughout the States as follows:—

#### ESTIMATED FOREST AREA.

State.	Total Forest Area.	Percentage on Total Area.
	Acres.	Per cent.
New South Wales .. .. .	4,000,000	2.02
Victoria .. .. .	5,500,000	9.78
Queensland .. .. .	6,000,000	1.40
South Australia .. .. .	500,000	0.21
Western Australia .. .. .	3,000,000	0.48
Tasmania .. .. .	500,000	2.98
Australia .. .. .	19,500,000	1.02

(ii) *Comparison with other countries.* The table hereunder shows the absolute and relative forest areas of Australia and other countries, and the 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	(a)	(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
France .. ..	39,873	18.74	(a)	(a)
Poland .. ..	34,531	23.0	11,603	22,928
<b>Australia (b)</b> .. ..	<b>30,469</b>	<b>1.08</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	17.81	(a)	(a)
New Zealand .. ..	20,778	20.2	15,033	5,745
Spain .. ..	18,965	9.74	(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. The figure 19,500,000 acres represents the total area that in the estimation of foresters should be reserved for forestry, and, taking the factor of 0.86, then, provided that the whole of the forest area of Australia has been brought under sylvicultural treatment, is yielding its maximum of hard and soft woods, and that there are no imports, the timber supply of Australia should be sufficient for a population of 22½ millions.

## § 2. Forestry Activities of the Commonwealth Government.

Forestry was not included amongst the matters transferred from the States to the control of the Commonwealth, and federal supervision, therefore, is restricted to the forests in the Commonwealth Territories. These territories (including Papua, New Guinea and Norfolk Island) cover a large area, and, with the exception of the Northern Territory, are capable of sound forestry development. It is only within comparatively recent years, however, that any attempt has been made to take stock of the forestry position. The Commonwealth Forestry Bureau was instituted in 1925 to initiate sylvicultural and other forest research work and to take charge of the education and

training of the professional staffs required by the Commonwealth and the State services. The Bureau received statutory powers under an Act passed in 1930. In the meantime, the Australian Forestry School was established in 1926, and not only was the training of the State forest officers begun, but a nucleus of qualified officers was sent abroad to undergo special courses of instruction with the object of staffing the research side of the Bureau. The financial situation since 1930 has delayed progress on the research side, and the educational work of the Australian Forestry School is at present the Bureau's main activity.

The forest resources of the Territories of Papua, New Guinea, Norfolk Island, and the 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 to include such measures for silvicultural treatment (i.e., regeneration treatment, thinnings, improvement, fellings, etc.), as are necessary; (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, 1933, is set out in the following table:—

AREA OF FOREST RESERVATIONS, 30th JUNE, 1933.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Dedicated State forests ..	5,128,305	3,956,962	2,038,114	(a) 265,343	3,095,660	1,461,730	15,946,114
Timber and fuel reserves ..	1,420,082	735,848	3,609,559	..	1,856,461	950,000	8,571,950
Total ..	6,548,387	4,692,810	5,647,673	265,343	4,952,121	2,411,730	24,518,064

(a) Includes Timber and Fuel Reserves.

In addition to the work of permanently reserving their respective quotas, the State foresters are concerned with the surveying of all timbered lands and the excising of those unsuitable for forestry. Considerable areas have been revoked in certain States, while dedications of new areas have resulted in gains to the permanent forest estate.

The area of State forests reserved in perpetuity amounted in June, 1933, to 15,946,114 acres, or 81 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 quota 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 of accessible timber.

The Forestry Departments also control 8,571,950 acres of temporary timber and fuel reserves, but, while these areas contain some land of high value for forestry purposes, the greater proportion thereof is not adapted for 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 employment are given hereunder :—

#### FORESTRY.—AREAS AND EMPLOYMENT, 1932-33.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
Total area of indigenous forest improved or regenerated .. acres	1,012,399	657,477	89,683	8,255	217,727	..	1,985,541
Total area of Effective Plantations—							
Softwoods .. acres	36,026	35,236	8,637	52,779	6,771	1,170	140,619
Hardwoods .. acres	..	2,500	860	9,110	..	..	12,470
Number of persons employed in Forestry Departments—							
Office Staff .. No.	43	34	56	24	34	3	194
Field Staff .. No.	70	139	297	(a)916	(a)1,349	14	2,785

(a) Including casual hands.

4. Revenue and Expenditure.—The revenue and expenditure of State Forestry Departments from 1928-29 to 1932-33 are given below :—

#### STATE FORESTRY DEPARTMENTS.—REVENUE AND EXPENDITURE.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
REVENUE.					
	£	£	£	£	£
New South Wales ..	210,743	128,795	88,548	104,674	139,211
Victoria ..	129,684	128,645	74,583	77,189	126,058
Queensland ..	414,515	336,762	174,106	162,246	235,440
South Australia ..	34,666	48,423	33,437	83,714	62,766
Western Australia ..	191,023	173,219	94,895	57,267	65,875
Tasmania ..	14,810	10,545	10,616	8,584	13,229
Total ..	995,441	826,389	476,185	493,674	642,579
EXPENDITURE.					
	£	£	£	£	£
New South Wales ..	194,069	183,720	121,009	(a) 114,151	(a) 132,814
Victoria ..	240,191	220,875	267,055	152,820	136,677
Queensland ..	174,407	209,170	140,800	(a) 160,311	(a) 175,073
South Australia ..	166,903	141,633	111,759	117,882	183,866
Western Australia ..	157,827	142,376	93,974	(a) 93,151	(a) 158,748
Tasmania ..	8,895	10,091	13,480	8,764	6,777
Total ..	942,292	907,865	748,077	647,079	793,955

(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.

#### § 4. The Australian Forestry School.

The Australian Forestry School 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 courses. In the first case, the youth is helped through 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 1932-33 are shown in the following table:—

## SAWMILL OUTPUT OF NATIVE TIMBER, 1932-33.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
<b>LOGS MILED.</b>							
Hardwood— Quantity cub. ft.	5,683,878	(a)	4,813,582	1,086,051	15,049,509	(a)	(a)
Value .. £	191,802	(a)	290,520	11,710	73,033	(a)	(a)
Softwood— Quantity cub. ft.	3,801,591	(a)	4,240,377	(b)	(b)	(a)	(a)
Value .. £	140,469	(a)	329,300	(b)	(b)	(a)	(a)
Total— Quantity cub. ft.	9,485,469	(a)	9,053,959	1,086,051	15,049,509	(a)	(a)
Value .. £	332,271	(a)	619,820	11,710	73,033	(a)	(a)
<b>SAWN TIMBER PRODUCED.</b>							
Hardwood— Quantity sup. ft.	42,753,943	67,868,382	22,147,556	6,757,741	46,730,141	33,428,958	219,686,721
Value .. £	402,286	409,765	314,089	71,099	385,060	189,787	1,772,086
Softwood— Quantity sup. ft.	29,157,708	..	37,685,677	(b)	82,323	733,186	67,658,894
Value .. £	274,760	..	549,036	(b)	1,047	12,560	837,403
Unspecified— Quantity sup. ft.	..	1,088,836	7,226,621	(b)	..	11,414,112	19,729,569
Value .. £	..	9,818	158,443	(b)	..	66,917	235,178
Total— Quantity sup. ft.	71,911,651	68,957,218	67,059,854	6,757,741	46,812,464	45,576,256	307,075,184
Value .. £	677,046	419,583	1,021,568	71,099	386,107	269,264	2,844,667

(a) Not available.

(b) Included with Hardwood.

(c) Including logs unspecified.

The next table gives the sawmill output of native timber in each State for the five years ended 1932-33:—

## SAWMILL OUTPUT OF NATIVE TIMBER.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.	1,000 sup. feet.
New South Wales .. ..	136,051	119,021	57,532	52,102	71,912
Victoria .. ..	79,018	86,145	42,274	49,413	68,957
Queensland .. ..	106,862	92,248	58,770	52,405	67,060
South Australia .. ..	3,219	3,613	3,412	5,782	6,758
Western Australia .. ..	145,043	123,572	74,324	40,859	46,812
Tasmania .. ..	46,195	60,038	30,578	36,146	45,576
Total .. ..	516,388	484,637	266,890	236,707	307,075

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 in agencies other than 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 :—1928–29, 29,281,146 sup. feet; 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. 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.

At the Conference of Statisticians in August, 1932, it was agreed that the computation of satisfactory statistics of timber production other than sawn timber necessitates a preliminary investigation which might with propriety be undertaken by the Forestry Departments. In the meantime, efforts are being made by the Statisticians to obtain more comprehensive information.

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 1928–29 to £85,009; in 1929–30 to £63,388; in 1930–31 to £47,090; in 1931–32 to £40,977; and in 1932–33 to £40,075; 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 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. Overseas exports of essential oils from Western Australia amounted in 1928–29 to £63,307; in 1929–30 to £77,510; in 1930–31 to £56,170; in 1931–32 to £59,301; and in 1932–33 to £26,331. The bulk of the product consisted of sandalwood oil which was shipped principally to the United Kingdom, Eastern States of Australia, Germany, etc.

(iii) *Tan Barks.* The forests of Australia are capable of yielding a wealth of tanning materials, many species of eucalyptus and other genera containing varying proportions of tannin, chiefly in the bark, but in the wood and twigs also. 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. During the last six years, however, the excess of exports over imports averaged 3,585 tons, valued at £36,357, the chief exporting States being South Australia and Western Australia. The other valuable tan bark, mallet (*Eucalyptus astringens*) of Western Australia, is not extensively used in Australian tanneries, but 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 recently started production on a commercial scale. The experimental work in kino impregnated marri (*Eucalyptus calophylla*) bark is not yet complete. The production of tan bark in Australia is estimated at about 27,000 tons per annum.

3. Value of Production.—Owing to the lack of complete information concerning hewn timber, referred to on a previous page, coupled with the difficulty in arriving at accurate values in respect of firewood, the figures showing total value of forest production inserted in the next table must be regarded as estimates :—

VALUE OF FOREST PRODUCTION.—AUSTRALIA.

Production.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
Total ..	9,450,000	9,103,000	6,488,000	7,703,000	6,791,000

§ 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 1929-30 to 1932-33 inclusive are shown according to countries of origin in the following tables :—

DRESSED TIMBER.—IMPORTS, AUSTRALIA.

Country of Origin.	Quantity.				Australian Currency Values.			
	1929-30.	1930-31.	1931-32.	1932-33.	1929-30.	1930-31.	1931-32.	1932-33.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ..	3,693	1,848	264	4,814	131	201	38	735
Canada ..	8,952,360	3,920,447	2,105,195	229,291	96,132	43,238	26,899	2,558
Other British Countries	104,437	92,498	25,116	35,454	898	982	248	370
Norway ..	22,459,088	3,200,306	1,712,394	5,457,889	212,565	34,836	15,936	44,446
Sweden ..	43,501,713	2,389,990	1,308,711	4,647,179	406,001	25,988	14,756	42,226
United States	8,022,251	3,952,219	53,001	763	88,836	34,973	1,359	41
Other Foreign Countries	1,278,267	285,008	165,327	709,255	17,154	5,902	3,524	9,203
Total ..	84,321,809	13,842,316	5,370,008	11,084,645	821,717	146,125	62,760	99,579

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 £64,011 in 1932-33, including plywood, veneered or otherwise, £10,088.

The bulk of the imports of dressed timber comes from Norway, Sweden, and the United States. 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 1928-29 to 1932-33 are given hereunder:—

UNDRESSED TIMBER, INCLUDING LOGS.(a)—IMPORTS, AUSTRALIA.

Country of Origin.	Quantity.					Value(b).				
	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	£	£	£	£	£
United Kingdom	502	97	1,635	72	131	10,496	9,501	13,283	8,211	13,931
Canada	12,200	43,716	21,300	75,835	135,016	97,384	305,569	95,504	352,720	569,313
India	443	62	30	38	42	14,246	2,647	2,124	1,695	2,124
Malaya (British)	149	169	101	93	131	2,113	1,452	878	849	1,128
New Zealand	37,321	37,173	15,918	23,177	25,653	484,856	459,095	215,809	296,538	314,909
Other British Countries	2,926	3,541	2,239	1,280	1,751	28,567	31,806	23,238	12,843	4,795
Japan	7,513	7,345	978	312	672	146,576	149,085	16,914	3,371	14,778
Netherlands East Indies	1,583	1,270	..	..	..	9,301	9,921	..	..	..
Norway	565	153	88	28	170	6,676	1,262	1,036	169	1,395
New Caledonia	1,461	1,182	912	140	..	12,719	11,622	11,710	1,557	..
Philippine Islands	3,944	5,780	433	93	716	60,056	79,219	6,620	670	6,432
Sweden	3,512	4,147	67	538	1,872	33,576	38,184	801	4,452	14,076
United States	250,804	233,538	61,562	18,586	20,841	2,144,665	1,811,759	312,623	110,034	159,233
Other Foreign Countries	166	288	1,235	1,408	1,668	3,366	4,407	9,596	9,161	5,611
Total	323,089	338,461	106,498	121,600	188,663	3,054,597	2,915,619	710,136	802,270	1,107,725

(a) Exclusive of timber not measured in super. feet. (b) Australian currency values.

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, teak from India, and furniture woods from the Pacific Islands.

2. Exports.—The quantity and value of undressed timber exported from 1928-29 to 1932-33 are given below, the countries of destination being also shown:—

UNDRESSED TIMBER, INCLUDING LOGS.(a)—EXPORTS, AUSTRALIA.

Country to which Exported.	Quantity.					Value(b).				
	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	'000. sup. ft.	£	£	£	£	£
United Kingdom	9,191	11,722	12,399	13,173	8,020	104,314	127,469	141,740	153,315	110,640
Canada	529	212	125	40	33	10,226	5,087	2,498	682	560
Ceylon	4,069	12,013	10,328	6,700	2,454	46,051	120,673	104,668	65,952	21,930
Hong Kong	478	28	820	355	2,766	5,813	440	7,307	2,126	20,343
India	6,124	1,391	32	..	..	70,202	15,607	316	..	..
Malaya (British)	574	39	103	23	..	5,745	410	1,147	473	..
Mauritius	1,240	382	1,017	408	624	12,434	3,840	10,160	4,093	4,575
New Zealand	23,041	24,256	22,671	7,675	3,192	308,057	318,671	271,244	83,467	40,342
Pacific Islands—										
Fiji	1,155	1,297	813	510	494	18,932	21,834	12,987	7,408	6,913
Territory of New Guinea	650	356	92	429	109	10,898	6,269	1,293	4,772	1,237
Other Islands	1,003	840	624	316	400	16,515	14,496	9,284	4,848	5,811
Papua	136	149	80	105	190	2,709	3,197	1,223	1,932	2,312
Union of South Africa	24,981	17,447	5,843	8,646	3,403	269,522	188,678	65,972	83,187	38,092
Other British Countries	..	..	..	129	288	..	..	..	1,287	3,078
Africa, Portuguese East	..	..	..	193	1,096	..	..	..	2,343	11,844
Belgium	1,230	1,246	528	615	573	12,579	12,460	5,713	6,132	5,746
China	2,006	89	5,292	3,670	684	20,521	1,018	51,703	23,513	5,308
Egypt	..	1,039	..	176	138	..	10,385	..	..	1,378
Germany	..	..	..	176	142	..	..	..	1,869	1,462
Japan	219	50	..	38	..	3,380	768	..	801	..
Netherlands	..	..	..	1,036	716	..	..	..	10,491	6,942
Pacific Islands—										
New Caledonia	33	23	..	..	..	642	378	..	..	..
Other Islands	309	144	68	88	42	4,674	2,364	1,212	1,673	523
U.S. of America	6,427	5,737	1,332	3,039	406	105,532	85,860	22,897	42,453	6,464
Other Foreign Countries	..	..	..	..	..	..	..	..	..	..
Total	9,211	3,901	1,000	54	1,125	96,928	42,569	11,581	421	11,320
	92,606	82,361	63,167	47,418	26,895	1,125,494	982,673	722,951	503,178	306,820

(a) Exclusive of timber not measured in super. feet.

(b) Australian currency values.

The bulk of the exports of undressed timber was consigned to South Africa, New Zealand, India, 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 1932-33 are given in the next table:—

**TIMBER, VARIETIES IMPORTED AND EXPORTED.—QUANTITIES, AUSTRALIA, 1932-33.**

Description.	Unit of Quantity.	Imports.	Exports.	Excess of Imports over Exports.
Dressed	Sup. ft.	11,084,645	750,456	10,334,189
Undressed, including logs	.. ..	188,663,281	26,895,109	161,768,172
Architraves, mouldings, etc.	lin. ft.	5,073	90,124	85,051
Plywood, veneered or otherwise	sq. ft.	1,401,131	(b)	(a)
Palings	No.	..	44,170	-44,170
Shingles	.. ..	92,000	..	92,000
Staves—				
Dressed, etc.	.. ..	737,703	..	737,703
Undressed	.. ..	1,305,410	..	1,305,410
Laths—				
For blinds	.. ..	(a)	..	(a)
Other	.. ..	229,946	158,700	71,246
Doors	.. ..	9	(a)	(a)
Wood pulp	ton	34,102	(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 1932-33 are shown hereunder:—

**TIMBER, VARIETIES IMPORTED AND EXPORTED.—VALUES, (b) AUSTRALIA, 1932-33.**

Description.	Imports.	Exports.	Excess of Imports over Exports.
	£	£	£
Dressed	99,579	8,344	91,235
Undressed, including logs	1,107,725	306,820	800,905
Architraves, mouldings, etc.	24	522	-493
Plywood, veneered or otherwise	10,088	(a)	10,088
Palings	..	452	-452
Shingles	217	..	217
Staves—			
Dressed, etc.	35,672	..	35,672
Undressed	9,644	..	9,644
Laths—			
For blinds	4	..	4
Other	344	130	214
Doors	31	1,170	-1,139
Wood pulp	309,362	(a)	309,362
Veneers	16,040	(a)	16,040
Spokes, rims, felloes, etc.	61	1,045	-984
Other	1,519	..	1,519
<b>Total</b>	<b>1,590,310</b>	<b>318,483</b>	<b>1,271,827</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)				
	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	ton.	ton.	ton.	ton.	ton.	£	£	£	£	£
Hong Kong ..	5,432	2,482	2,510	1,286	3,481	156,086	57,688	62,741	38,068	95,575
India ..	352	288	81	209	144	12,310	9,437	2,585	6,270	4,311
Malaya (British) ..	150	63	26	115	99	4,418	1,716	770	3,370	2,623
Other British Countries ..	17	15	11	7	15	594	424	330	213	450
China ..	3,486	737	330	649	715	103,485	19,521	6,363	12,651	20,413
Other Foreign Countries ..	33	37	6	78	(b)400	1,345	641	180	2,342	(b)9,285
<b>Total</b> ..	<b>9,470</b>	<b>3,622</b>	<b>2,964</b>	<b>2,344</b>	<b>4,854</b>	<b>278,238</b>	<b>89,427</b>	<b>72,969</b>	<b>62,914</b>	<b>132,657</b>

(a) Australian currency values.

(b) Includes 386 tons £8,865 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)				
	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
United Kingdom	11,153	..	1,138	2,298	..	5,488	..	510	978	..
New Zealand ..	17,934	22,038	14,415	41,260	35,795	12,496	14,109	8,100	19,570	17,777
Other British Possessions ..	20	2	..	20	2	12	3	..	9	1
Germany ..	26,466	41,567	30,059	35,441	21,333	15,256	21,266	14,097	17,133	10,041
Other Foreign Countries ..	1,231	6,433	24,745	10,042	19,464	546	3,226	10,527	4,599	8,073
<b>Total</b> ..	<b>56,804</b>	<b>70,040</b>	<b>70,357</b>	<b>89,061</b>	<b>76,594</b>	<b>33,798</b>	<b>38,604</b>	<b>33,234</b>	<b>42,289</b>	<b>35,892</b>

(a) Australian currency values.

The exports of tan bark from Australia during the last five 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. 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 last five years Germany has taken 42 per cent. of the total exports, New Zealand 36 per cent. and the Netherlands 14 per cent., the chief exporting States being Western Australia 60 per cent., and South Australia 24 per cent. 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	cwt.	cwt.	cwt.	cwt.	cwt.
<b>QUANTITIES—</b>					
Imports .. .. .	1,562	1,936	596	21	200
Exports .. .. .	56,804	70,040	70,357	89,061	76,594
Excess of exports over imports	55,242	68,104	69,761	89,040	76,394
	£	£	£	£	£
<b>VALUES—</b>					
Imports .. .. .	755	950	(a) 266	(a) 13	(a) 101
Exports .. .. .	33,798	38,604	33,234	42,289	35,892
Excess of exports over imports	33,043	37,654	32,968	42,276	35,791

(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 decurrèns*, 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 1932-33 was £52,752, and was composed as follows:—Wattle bark extract, £443; quebracho extract, £15,001; other extract, £12,638; and valonia, myrobalans, catch, etc., £24,670.

## CHAPTER XXII.

## FISHERIES.\*

## § 1. General.

1. **Fish Stocks.**—Australia possesses an abundant and varied fish fauna, which embraces both tropical and temperate varieties and includes destructive as well as valuable species. In rivers and lakes both indigenous and imported varieties thrive. The latter have been introduced and acclimatized for industrial and sporting purposes by Governments and angling societies. Exploitation of the fishing areas is controlled by governmental authority. In some cases the minimum size of the fish to be taken is fixed, and in other cases the taking of some kinds is prohibited during periods prescribed according to the necessity.

2. **Progress of Industry.**—(i) *Transport and Marketing.* Despite the abundance of edible fish, the progress of the fishery industry in Australia has been slow, and transport and marketing of the proved supplies have not been satisfactorily dealt with.

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 steps now being taken to implement this recommendation are (i) procuring an up-to-date

\* A specially contributed article dealing with the Marine and Fresh Water Fisheries of Australia appeared as § 6 of this Chapter in Official Year Book No. 17 (vide pp. 752 to 767 therein).

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. Plans and specifications of a suitable vessel are now being obtained and tenders will be called for its early construction. It is proposed to appoint an experienced Marine Biologist who will be responsible for the study of the biological aspects of the investigation and for the co-ordination of similar work by independent scientists and institutions in Australia. A sum of £15,000 has been placed on the Estimates for 1934-35 for the construction and equipment of the trawler and £5,000 for the development of the industry. 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 Commonwealth Director of Development 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 distributing 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 £71,714, £44,515, £44,682, £32,532 and £49,525 was exported from Australia during 1928-29, 1929-30, 1930-31, 1931-32 and 1932-33 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 now 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 at present 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, 1932.

State or Territory.	No. of Boats Engaged.	Value of Boats and Equipment.	No. of Men Employed.	Total Take of—		Value of Take.	
				Fish.	Spiny Lobster (Crayfish).	Fish.	Spiny Lobster (Crayfish).
	No.	£	No.	cwt.	doz.	£	£
New South Wales ..	1,343	165,459	3,140	205,688	8,731	575,925 (c)	70,966
Victoria ..	755	116,937	1,448	102,923	13,523	144,093	7,438
Queensland ..	846	71,812	1,658	71,700 (d)	9,964	133,954 (e)	7,622
South Australia ..	900	150,000	1,500	(b)125,000	(a)	180,000	(f)
Western Australia..	257	55,974	571	38,034	11,442	106,495	4,747
Tasmania ..	243	59,000	335	24,849	60,918	42,250	27,410
Northern Territory	4	800	4	130	..	364	..
<b>Total ..</b>	<b>4,348</b>	<b>619,982</b>	<b>8,656</b>	<b>568,324</b>	<b>104,578</b>	<b>1,183,081</b>	<b>118,183</b>

(a) Not available. (b) Estimate. (c) Including £57,870, the value of 13,697 cwt. of prawns and 3,420 dozen crabs. (d) Crabs. (e) Including 736 turtles valued at £904. (f) Included with fish.

Returns for Australia for the last five years are given in the table below :—

## GENERAL FISHERIES.—AUSTRALIA.

Particulars.	1928.	1929.	1930.	1931.	1932.
No. of boats engaged ..	5,213	4,546	4,681	4,657	4,348
No. of men employed ..	8,600	8,979	9,293	9,076	8,656
Fish obtained—					
Quantity ..	cwt. 546,949	650,518	613,859	562,230	568,324
Value ..	£ 1,435,427	1,439,355	1,269,735	1,166,338	1,183,081
Lobsters obtained—Value	£ 155,890	151,208	133,950	118,129	118,183

(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 1932, the available returns show the following takes :—New South Wales, 48,375 cwt., value £69,108; Queensland, 15,022 cwt., value £19,740. In Tasmania the scallop is far more important than the oyster. In 1932, the scallops taken in Tasmania were valued at £5,495.

Returns for Australia for the last five years are given in the appended table :—

## EDIBLE OYSTER FISHERIES.—(a) AUSTRALIA.

Particulars.	1928.	1929.	1930.	1931.	1932.
No. of boats engaged ..	835	808	790	724	727
No. of men employed ..	833	804	741	681	716
Oysters obtained—					
Quantity ..	cwt. 64,991	70,773	55,214	50,350	63,825
Value (b) ..	£ 121,358	134,223	106,422	76,108	94,641

(a) Exclusive of South Australia. (b) Including scallops in Tasmania valued at £4,500 in 1928; £5,625 in 1929; £5,750 in 1930; £4,530 in 1931; and £5,495 in 1932.

(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 1932 are as follow :—

## PEARL, PEARL-SHELL, AND BÈCHE-DE-MER FISHERIES, (a) 1932.

State or Territory.	Number of Boats Engaged.	Value of Boats and Equip-ment.	Number of Men Em-ployed.	Quantity of Pearl-shell obtained.	Value of Pearl-shell obtained.	Value of Pearls obtained. (b)	Value of Bêche-de-mer obtained.	Value of Tortoise-shell obtained.
	No.	£	No.	Tons.	£	£	£	£
Queensland (c) ..	91	84,790	1,141	416	69,083	..	19,265	120
Western Australia	122	58,307	779	733	97,664	6,171	..	..
Northern Territory	18	18,000	144	270	48,000	2,000	..	14
Australia ..	231	161,097	2,064	1,419	214,747	8,171	19,265	134

(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 £40,433 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 BÈCHE-DE-MER FISHERIES.—AUSTRALIA.

Particulars.	1928.	1929.	1930.	1931.	1932.
No. of boats engaged ..	307	289	258	241	231
No. of men employed ..	2,407	2,334	1,977	2,109	2,064
Pearl-shell obtained—					
Quantity .. tons	2,212	3,112	1,295	1,310	1,419
Value .. .. £	345,227	455,578	251,448	219,887	214,747
Pearls obtained (a)—					
Value .. .. £	29,615	23,017	8,672	7,415	8,171
Bêche-de-mer obtained—					
Quantity .. tons	(b)	(b)	(b)	(b)	(b)
Value .. .. £	17,893	24,706	14,784	48,291	19,265
Tortoise-shell exported—					
Value .. .. £	3,113	693	921	1,112	210
Trochus-shell exported—					
Value .. .. £	71,714	44,515	44,682	32,532	49,525

(a) Incomplete; as returned.

(b) Not returned.

2. *Fish Preserving.*—To encourage the industry, the Federal Parliament provided a bounty of ½d. 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.

3. State Revenue from Fisheries.—The revenue from fisheries in each State during the year 1932 is given hereunder :—

## FISHERIES.—REVENUE, 1932.

State or Territory.	Licences.	Leases.	Fines and Forfeitures.	Other Sources.	Total.
	£	£	£	£	£
New South Wales ..	1,446	10,243	181	122	11,992
Victoria .. ..	1,101	102	461	100	1,764
Queensland .. ..	2,886	1,795	158	60	4,899
South Australia ..	1,409	..	..	..	1,409
Western Australia ..	1,604	260	160	157	2,181
Tasmania .. ..	761	107	..	119	987
Northern Territory ..	221	1	..	..	222
<b>Total .. ..</b>	<b>9,428</b>	<b>12,508</b>	<b>960</b>	<b>558</b>	<b>23,454</b>

Similar particulars for Australia for the last five years are given in the following table :—

## FISHERIES.—REVENUE, AUSTRALIA.

Particulars.	1928.	1929.	1930.	1931.	1932.
	£	£	£	£	£
Licences .. ..	12,864	11,614	11,177	10,334	9,428
Leases .. ..	16,498	16,332	14,681	12,842	12,508
Fines and Forfeitures ..	1,216	1,105	877	648	960
Other Sources .. ..	760	942	557	537	558
<b>Total .. ..</b>	<b>31,338</b>	<b>29,993</b>	<b>27,292</b>	<b>24,361</b>	<b>23,454</b>

## § 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Fresh (oysters) .. {	cwt. 1,308	508	3,793	140	956
	£ 958	420	(c) 2,049	(c) 60	(c) 519
Fresh, or preserved by cold process {	cwt. 72,866	67,503	43,370	33,277	35,843
	£ 221,999	206,357	(c) 127,907	(c) 97,364	(c) 96,410
Potted .. .. {	(a) ..	(a) ..	4,515	4,448	3,380
	£ 158,797	137,046	(c) 85,959	(c) 84,431	(c) 62,616
Preserved in tins .. {	cwt. 252,379	250,306	117,198	129,275	141,326
	£ 1,265,510	1,342,016	(c) 565,594	(c) 563,789	(c) 586,516
Smoked, dried, and n.e.i. {	cwt. 14,007	13,280	9,702	5,345	6,922
	£ 48,430	46,556	(c) 30,643	(c) 18,485	(c) 20,066
<b>Total .. .. {</b>	<b>cwt. (b) 340,560</b>	<b>(b) 331,597</b>	<b>178,578</b>	<b>172,485</b>	<b>188,427</b>
	<b>£ 1,695,694</b>	<b>1,732,395</b>	<b>(c) 812,152</b>	<b>(c) 764,129</b>	<b>(c) 766,127</b>

(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 1932-3; the bulk of the remainder coming 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 1932-33, they were as follow :—Fresh or preserved by cold process 148,415 lb. £7,455; oysters, fresh, 18 cwt. £51; potted or concentrated, £226; preserved in tins, 3,288 lb., £168; smoked or dried, 68,645 lb., £861; other including salted, 264 cwt., £326.

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 1928-29 to 1932-33 :—

PEARL, TORTOISE, AND TROCHUS-SHELL.—EXPORTS, AUSTRALIA.

Article.		1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Pearl-shell	cwt.	45,058	58,503	48,353	26,779	32,975
	£	339,016	450,615	354,992	194,351	233,786
Tortoise-shell	lb.	4,311	1,541	2,160	1,949	519
	£	3,113	693	921	1,112	210
Trochus-shell	cwt.	18,814	11,184	14,056	10,228	13,421
	£	71,714	44,515	44,682	32,532	49,525

The bulk of the pearl-shell exported during 1932-33 was consigned to the United States of America and the United Kingdom, the respective values of the shipments amounted to £170,875 and £61,840, while trochus-shell to the value of £49,291 was dispatched to Japan.

§ 4. The Commonwealth Department of Fisheries.

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, financial provision is being made in the Estimates of 1934-35.

§ 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 XXIII.**  
**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.**

1. Number of Factories in each State.—The following table gives the number of factories in each State for the years specified :—

**FACTORIES.—NUMBER.**

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1928-29 ..	8,465	8,197	2,156	1,844	1,469	785	22,916
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

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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>I. Treatment of Non-metalliferous Mine and Quarry Products</b> .. .. .	362	374	361	349	374
II. Bricks, Pottery, Glass, &c. .. .. .	530	520	368	313	362
III. Chemicals, Dyes, Explosives, Paint, Oils, and Grease .. .. .	495	493	515	544	547
IV. Industrial Metals, Machines, Implements, and Conveyances .. .. .	5,452	5,469	5,362	5,376	5,529
V. Precious Metals, Jewellery and Plate .. .. .	273	204	242	240	242
VI. Textiles and Textile Goods .. .. .	546	557	520	515	555
VII. Skins and Leather .. .. .	444	451	460	485	487
VIII. Clothing .. .. .	4,337	4,186	3,915	3,822	3,917
IX. Food, Drink and Tobacco .. .. .	4,304	4,274	4,251	4,344	4,421
X. Woodworking and Basketware .. .. .	2,508	2,444	2,144	2,077	2,198
XI. Furniture, Bedding, &c. .. .. .	1,139	1,071	954	910	947
XII. Paper, Stationery, Printing, Bookbinding, &c. .. .. .	1,562	1,592	1,601	1,611	1,624
XIII. Rubber .. .. .	219	245	267	279	304
XIV. Musical Instruments .. .. .	56	54	46	41	35
XV. Miscellaneous Products .. .. .	249	256	274	285	312
XVI. Heat, Light and Power .. .. .	440	450	471	466	476
<b>Total</b> .. .. .	<b>22,916</b>	<b>22,700</b>	<b>21,751</b>	<b>21,657</b>	<b>22,330</b>

The number of factories in operation declined each year from 1928-29 to 1931-32, but the figures for 1932-33 show a recovery in every State and in all classes of industry except the manufacture of musical instruments. The greatest increase has occurred in Victoria where the number of factories was greater than ever before. The same cannot be said of the number of persons employed though the increase in these numbers has been considerable.

CLASSIFICATION OF FACTORIES ACCORDING TO NUMBER OF EMPLOYEES. 641

3. Classification of Factories, States, 1932-33.—The following table shows the number of factories in each State in 1932-33, classified according to the nature of the industry :—

FACTORIES.—CLASSIFICATION, 1932-33.

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 ..	123	147	31	32	25	16	374
II. Bricks, Pottery, Glass, &c. ..	150	100	29	36	35	12	362
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	224	203	28	45	26	21	547
IV. Industrial Metals, Machines, Im- plements and Conveyances ..	1,957	2,216	386	399	411	160	5,529
V. Precious Metals, Jewellery and Plata ..	64	125	18	17	12	6	242
VI. Textiles and Textile Goods ..	145	319	36	29	16	10	555
VII. Skins and Leather ..	180	213	40	25	21	8	487
VIII. Clothing ..	1,345	1,844	221	267	180	60	3,917
IX. Food, Drink and Tobacco ..	1,283	1,390	701	465	335	247	4,421
X. Woodworking and Basketware ..	707	638	306	125	143	274	2,198
XI. Furniture, Bedding, &c. ..	287	374	97	66	71	52	947
XII. Paper, Stationery, Printing, Book- binding, &c. ..	598	640	154	109	100	23	1,624
XIII. Rubber ..	99	123	14	31	27	10	304
XIV. Musical Instruments ..	12	15	1	3	4	..	35
XV. Miscellaneous Products ..	108	141	29	13	18	3	312
XVI. Heat, Light, and Power ..	162	124	64	48	70	8	476
<b>Total</b> .. ..	<b>7,444</b>	<b>8,612</b>	<b>2,155</b>	<b>1,710</b>	<b>1,499</b>	<b>910</b>	<b>22,330</b>

§ 2. Classification of Factories according to Number of Employees.

1. States, 1932-33.—The following table shows, for each State, the number of factories classified according to the number of hands employed in 1932-33 :—

FACTORIES.—CLASSIFICATION ACCORDING TO NUMBER OF EMPLOYEES, 1932-33.

No. of Persons Employed in each Factory.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>NUMBER OF FACTORIES.</b>							
Under 4 ..	2,769	3,523	611	482	757	296	8,438
4 ..	693	703	235	199	95	120	2,045
5 to 10 ..	1,817	2,033	621	561	355	342	5,729
11 to 20 ..	949	978	318	210	135	81	2,671
21 to 50 ..	736	837	223	164	107	46	2,113
51 to 100 ..	252	293	72	64	34	13	728
Over 100 ..	228	245	75	30	16	12	606
<b>Total</b> ..	<b>7,444</b>	<b>8,612</b>	<b>2,155</b>	<b>1,710</b>	<b>1,499</b>	<b>910</b>	<b>22,330</b>

A marked change has taken place, during the last decade, in the distribution of factories according to the number of employees. In 1922-23 of a total of 19,173 factories reported, 5,891 or 30.7 per cent. employed less than five persons whereas in 1932-33 the number of factories employing less than five persons had increased to 10,483 representing 47 per cent. of a total of 22,330 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 number of employees—in dismissals because of business depression. The figures for 1932-33, however, show a gratifying recovery in the larger factories the number of factories employing upwards of 100 hands having risen to 606 factories employing 163,462 hands from 547 factories employing 145,886 persons. 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, 1932-33—continued.**

No. of Persons Employed in Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>AVERAGE NUMBER EMPLOYED DURING PERIOD WORKED.</b>							
Under 4 ..	5,420	6,162	1,275	1,037	1,382	627	15,903
4 ..	2,772	2,812	940	796	380	480	8,180
5 to 10 ..	12,443	13,933	4,258	3,837	2,375	2,335	39,181
11 to 20 ..	13,962	14,478	4,634	3,045	1,913	1,181	39,213
21 to 50 ..	23,303	26,407	7,046	5,150	3,327	1,454	66,687
51 to 100 ..	17,597	20,069	5,103	4,320	2,430	815	50,334
Over 100 ..	67,301	63,672	16,092	9,205	3,500	3,692	163,462
Total ..	142,798	147,533	39,348	27,390	15,307	10,584	382,960
Av. per F'cty.	19.18	17.13	18.26	16.02	10.21	11.63	17.15

2. Australia, 1928-29 to 1932-33.—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 had declined to 40.8 per cent. but recovered to 42.7 per cent. in 1932-33 :—

**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.
1928-29—								
Number ..	18,714	115,457	3,477	144,127	725	201,607	22,916	461,191
Average per establishment ..	6.17	..	..	41.45	..	278.08	..	20.13
Percentage on total ..	81.66	25.03	15.17	31.25	3.17	43.72	100.00	100.00
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

## § 3. Power used in Factories.

1. States, 1932-33.—The following table shows the number of factories using steam, gas, oil, electricity, or water power, and the horse-power used in 1932-33:—

## FACTORIES.—HORSE-POWER USED, 1932-33.

State.	Number of Establishments.			Horse-power Used.					
	Using Power.	Others.	Total.	Steam.	Gas.	Oil.	Electricity.	Water.	Total.
	No.	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
N.S.W. ..	7,097	347	7,444	389,997	9,775	42,453	268,338	14,675	725,238
Victoria ..	8,023	589	8,612	211,938	9,062	14,919	169,678	31,428	436,965
Queensland ..	1,890	265	2,155	96,905	10,657	13,059	40,937	307	161,865
S. Australia ..	1,569	141	1,710	116,690	5,706	11,259	45,892	..	179,547
W. Australia ..	1,398	101	1,499	57,143	3,804	18,771	27,149	..	106,867
Tasmania ..	849	61	910	4,491	26	1,775	56,889	80,055	143,236
<b>Australia ..</b>	<b>20,826</b>	<b>1,504</b>	<b>22,330</b>	<b>877,164</b>	<b>38,970</b>	<b>102,236</b>	<b>608,883</b>	<b>126,465</b>	<b>1,753,718</b>

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, 1928-29 to 1932-33.—The following table shows the horse-power used in connexion with factories in Australia in each of the last five years:—

## FACTORIES.—HORSE-POWER USED, AUSTRALIA.

Year.	Number of Establishments.			Horse-power Used.					
	Using Power.	Others.	Steam.	Gas.	Oil.	Electricity.	Water.	Total (a).	
	No.	No.	H.P.	H.P.	H.P.	H.P.	H.P.	Gross.	Less Heat Light and Power Works.
1928-29 ..	20,304	2,612	932,483	49,781	50,197	537,670	109,183	1,679,314	753,991
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	41,413	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

(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 19,000 horse-power per annum or about 2.5 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 1932-33 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 horse-power used in factories in each State during the year 1932-33 :—

**FACTORIES.—HORSE-POWER USED IN EACH CLASS, 1932-33.**

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
<b>I. Treatment of Non-metallic Mine and Quarry Products</b> ..	19,773	24,053	1,498	2,631	2,095	6,165	56,215
<b>II. Bricks, Pottery, Glass, &amp;c.</b> ..	10,638	10,306	1,091	2,533	1,470	483	26,521
<b>III. Chemicals, Dyes, Explosives, Paints, Oils and Grease</b> ..	10,990	11,685	1,697	4,993	2,517	497	32,379
<b>IV. Industrial Metals, Machines, Implements and Conveyances</b> ..	136,449	39,204	14,187	14,786	7,187	41,723	253,536
<b>V. Precious Metals, Jewellery and Plate</b> ..	550	1,089	58	159	17	22	1,895
<b>VI. Textiles and Textile Goods</b> ..	13,399	24,603	2,655	2,147	753	2,453	46,010
<b>VII. Skins and Leather</b> ..	6,085	6,414	891	405	367	179	14,341
<b>VIII. Clothing</b> ..	5,719	8,174	929	793	585	116	16,316
<b>IX. Food, Drink and Tobacco</b> ..	72,142	54,423	65,327	16,004	12,691	5,081	225,668
<b>X. Woodworking and Basketware</b> ..	21,875	17,177	11,803	4,819	6,030	5,058	66,762
<b>XI. Furniture, Bedding, etc.</b> ..	5,105	4,573	1,710	1,784	1,007	585	14,764
<b>XII. Paper, Stationery, Printing, Bookbinding, etc.</b> ..	12,445	14,860	2,814	1,657	1,622	517	33,915
<b>XIII. Rubber</b> ..	16,703	13,116	652	118	139	63	30,791
<b>XIV. Musical Instruments</b> ..	1,396	223	5	93	8	..	1,625
<b>XV. Miscellaneous Products</b> ..	1,171	1,553	91	214	151	103	3,283
<b>Total less Class XVI.</b> ..	334,440	231,353	105,408	53,136	36,639	63,045	824,021
<b>XVI. Heat, Light and Power</b> ..	390,798	205,612	56,457	126,411	70,228	80,191	929,697
<b>Grand Total</b> ..	725,238	436,965	161,865	179,547	106,867	143,236	1,753,718

**§ 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* subsection 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 1928-29 to 1932-33 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. Allowing for the increase in the population the relation of the factory employees in 1932-33 to the number in 1928-29 was:—New South Wales, 73.6 per cent.; Victoria, 89.5 per cent.; Queensland, 78.6 per cent.; South Australia, 67.5 per cent.; Tasmania, 83.7 per cent.; and Australia 79.1 per cent.:—

FACTORIES.—EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
AVERAGE NUMBER EMPLOYED DURING FULL YEAR (52 WEEKS).							
1928-29 ..	180,806	156,568	45,031	36,807	20,804	10,466	450,482
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

PERCENTAGE ON AUSTRALIAN TOTAL.

	%	%	%	%	%	%	%
1928-29 ..	40.14	34.76	9.99	8.17	4.62	2.32	100.00
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

PER 10,000 OF POPULATION.

1928-29 ..	727	889	505	643	592	484	709
1929-30 ..	647	849	472	562	461	493	652
1930-31 ..	501	703	413	416	339	395	521
1931-32 ..	492	711	385	413	309	398	514
1932-33 ..	535	796	397	455	339	405	561

2. Rates of Increase, 1928-29 to 1932-33.—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.
	%	%	%	%	%	%	%
1928-29 ..	1.52	0.14	0.72	5.73	1.88	5.81	0.17
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

NOTE.—The minus sign (-) denotes decrease.

3. Employees in Classes of Industry, Australia, 1928-29 to 1932-33.—The table hereunder gives the average number of persons employed in factories under each industrial group in Australia in the years 1928-29 to 1932-33 inclusive:—

FACTORY EMPLOYEES.—CLASSES, AUSTRALIA.

Class of Industry.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
I. Treatment of non-metalliferous mine and quarry products ..	7,692	6,889	4,336	3,885	4,534
II. Bricks, pottery, glass, etc. ..	12,990	11,085	5,684	5,200	6,816
III. Chemicals, dyes, explosives, paint, oils and grease ..	14,079	13,364	11,784	12,058	12,655
IV. Industrial metals, machines, implements and conveyances ..	130,321	116,869	89,506	82,688	94,598
V. Precious metals, jewellery and plate ..	2,191	2,073	1,701	1,670	2,029
VI. Textiles and textile goods ..	28,117	29,383	26,228	30,553	34,974
VII. Skins and leather ..	7,879	7,663	6,588	7,346	8,865
VIII. Clothing ..	81,770	74,002	60,069	61,864	67,311
IX. Food, drink and tobacco ..	68,617	67,189	62,294	62,455	64,670
X. Woodworking and basketware ..	26,775	24,169	15,628	14,319	17,044
XI. Furniture, bedding, etc. ..	13,852	11,899	7,770	7,249	8,108
XII. Paper, stationery, printing, book-binding etc. ..	33,837	33,095	29,441	29,052	29,955
XIII. Rubber ..	7,223	6,804	4,592	5,051	5,822
XIV. Musical Instruments ..	1,895	1,658	1,067	800	749
XV. Miscellaneous products ..	2,929	3,172	3,388	3,827	4,488
XVI. Heat, light and power ..	10,324	9,880	8,567	8,141	8,109
Total .. ..	450,482	419,194	338,843	336,658	370,727

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. Compared with 1931-32 it represented an increase of 34,000 persons or 10 per cent. 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 1932-33 and 1928-29 reveals that the decline in employment was more severe in the industries connected with building i.e., Class II. Bricks, etc., Class X. Woodworking, and Class XI. Furniture, Bedding etc.—where the employment declined approximately 41 per cent. Those least affected were connected with Food, Drink, etc., Chemicals, Dyes, etc., and Paper, Stationery, etc. Class VI. Textile and Textile Goods which showed a considerable improvement in 1931-32, again improved its position in 1932-33. The increase in employment being 4,400. Class VII. Skins and Leather and Class XV. were the other two classes showing slight increases since 1928-29.

4. Employees in Classes of Industry, States, 1932-33.—The following table gives a classification of employees in manufacturing industries in each State in 1932-33:—

FACTORY EMPLOYEES.—CLASSES, 1932-33.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
I. Treatment of non-metalliferous mine and quarry products ..	1,779	1,511	415	304	304	221	4,534
II. Bricks, pottery, glass, etc. ..	3,122	2,341	396	411	441	105	6,816
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,377	5,017	333	1,126	679	123	12,655
IV. Industrial metals, machines, implements and conveyances ..	43,907	28,782	6,848	9,128	3,805	2,128	94,598
V. Precious metals, jewellery and plate ..	550	1,229	87	99	41	23	2,029
VI. Textiles and textile goods ..	10,820	20,213	1,039	925	459	1,518	34,974
VII. Skins and leather ..	3,595	3,914	636	455	211	54	8,865
VIII. Clothing ..	21,353	34,620	5,003	3,559	2,169	607	67,311
IX. Food, drink, and tobacco ..	20,813	21,013	13,095	4,751	2,915	2,083	64,670
X. Woodworking and basketware ..	5,067	5,146	3,324	1,097	1,307	1,103	17,044
XI. Furniture, bedding, etc. ..	2,890	2,904	1,026	633	412	243	8,108
XII. Paper, stationery, printing, bookbinding, etc. ..	11,833	10,943	3,360	1,857	1,331	631	29,955
XIII. Rubber ..	1,945	3,040	559	146	81	51	5,822
XIV. Musical Instruments ..	486	191	12	39	21	..	749
XV. Miscellaneous products ..	2,003	1,621	266	264	159	175	4,488
XVI. Heat, light and power ..	2,975	1,943	989	1,554	480	163	8,109
Total .. ..	138,515	144,428	37,388	26,348	14,815	9,233	370,727

5. *Employees According to Nature of Employment.*—(i) *General.* In the following table the average number of persons employed in each State in 1932-33 are classified according to the nature of their employment :—

## FACTORY EMPLOYEES.—NATURE OF EMPLOYMENT, 1932-33.

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 ..	6,013	5,535	8,739	2,115	114,237	1,876	138,515
Victoria ..	7,097	5,372	6,585	1,612	122,286	1,476	144,428
Queensland ..	1,639	1,635	2,571	1,634	27,721	2,188	37,388
South Australia ..	1,312	1,143	1,953	396	20,969	575	26,348
Western Australia	862	720	940	396	11,494	493	14,815
Tasmania ..	538	486	680	186	7,058	285	9,233
Australia ..	17,461	14,891	21,468	6,339	303,765	6,803	370,727

(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.
1928-1929 ..	288	240	44	41	2	22	637
1929-1930 ..	217	182	49	28	2	31	509
1930-1931 ..	122	136	29	15	3	23	328
1931-1932 ..	108	140	27	12	3	2	292
1932-1933 ..	131	178	25	18	3	7	362

(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 five 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 85.67 per cent. of the total number of female employees as shown in sub-section 5 hereinafter.

(ii) *Average Number of Males and Females Employed, 1928-29 to 1932-33.* The next table shows the average number of male and female employees in factories in each State for the five years ended 1932-33:—

#### FACTORIES.—MALES AND FEMALES EMPLOYED.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>MALES.</b>					
New South Wales .. ..	135,813	122,006	93,868	90,682	99,721
Victoria .. ..	104,648	100,135	82,949	81,618	91,899
Queensland .. ..	37,107	35,141	31,144	29,149	30,099
South Australia .. ..	30,385	26,485	19,332	18,932	20,901
Western Australia .. ..	16,993	15,921	11,729	10,535	11,748
Tasmania .. ..	8,164	8,547	6,922	6,999	7,147
<b>Australia .. ..</b>	<b>333,110</b>	<b>308,235</b>	<b>245,944</b>	<b>237,915</b>	<b>261,515</b>
<b>FEMALES.</b>					
New South Wales .. ..	44,993	40,907	33,723	35,686	38,794
Victoria .. ..	51,920	50,874	43,067	46,647	52,529
Queensland .. ..	7,924	7,483	6,757	6,650	7,289
South Australia .. ..	6,422	5,700	4,554	4,902	5,447
Western Australia .. ..	3,811	3,722	2,891	2,857	3,067
Tasmania .. ..	2,302	2,273	1,907	2,001	2,086
<b>Australia .. ..</b>	<b>117,372</b>	<b>110,959</b>	<b>92,899</b>	<b>98,743</b>	<b>109,212</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 1932-33 represent 77.5 per cent. of the maximum for males and 95.1 per cent. for females, or 82 per cent. for all persons. In 1931-32 the male employees had been as low as 70.5 per cent. of the maximum and in 1930-31 the females were only 81 per cent.

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.	1927-28— 1928-29.	1928-29— 1929-30.	1929-30— 1930-31.	1930-31— 1931-32.	1931-32— 1932-33.
MALES.					
	%	%	%	%	%
New South Wales .. ..	0.99	-10.17	-23.06	- 3.42	9.97
Victoria .. ..	-0.68	- 4.31	-17.16	- 1.60	12.60
Queensland .. ..	-0.79	- 5.30	-11.37	- 6.41	3.26
South Australia .. ..	-5.68	-12.84	-27.01	- 2.07	10.40
Western Australia .. ..	1.69	- 6.31	-26.33	-10.18	11.51
Tasmania .. ..	-6.48	4.69	-19.01	1.10	2.11
Total .. ..	-0.53	- 7.47	-20.21	- 3.26	9.92
FEMALES.					
	%	%	%	%	%
New South Wales .. ..	3.18	- 9.08	-17.56	5.82	8.71
Victoria .. ..	1.84	- 2.01	-15.35	8.31	12.61
Queensland .. ..	8.10	- 5.57	- 9.70	- 1.58	9.61
South Australia .. ..	-5.97	-11.24	-20.11	7.64	11.12
Western Australia .. ..	2.72	- 2.36	-22.33	- 1.18	7.35
Tasmania .. ..	-3.32	- 1.26	-16.10	4.93	4.25
Total .. ..	2.20	- 5.46	-16.28	6.29	10.60

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 1928-29 to 1932-33 :—

MASCULINITY(a) OF FACTORY EMPLOYEES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1928-29 .. ..	302	202	468	473	446	355	284
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

(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 2 ante.

5. Employment of Females in Particular Industries.—The greater number of females engaged in manufacturing industries are employed in four classes, viz. :—VI., Textiles; VIII., Clothing; IX., Food and Drink; and XII., Paper, Stationery, etc. In 1932-33, these industries, accounted for 85.67 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, there were 163 females to every 100 males and in Class VIII., Clothing, there were 259 females per 100 males. The following tables show the average number of males and females employed in each of these classes in 1932-33 :—

## MALES AND FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, 1932-33.

Class.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aus- tralia.
AVERAGE NUMBER EMPLOYED—MALES.							
VI. Textiles and textile goods ..	4,006	7,392	539	595	237	531	13,300
VIII. Clothing ..	6,210	9,638	1,280	899	532	195	18,754
IX. Food and drink ..	14,372	15,752	11,806	3,904	2,399	1,665	49,898
XII. Paper, stationery, etc. ..	8,145	7,840	2,541	1,356	1,013	500	21,395
All other classes ..	66,988	51,277	13,933	14,147	7,567	4,256	158,168
Total ..	99,721	91,899	30,099	20,901	11,748	7,147	261,515

AVERAGE NUMBER EMPLOYED—FEMALES.							
VI. Textiles and textile goods ..	6,814	12,821	500	330	222	987	21,674
VIII. Clothing ..	15,143	24,982	3,723	2,660	1,637	412	48,557
IX. Food and drink ..	6,441	5,261	1,289	847	516	418	14,772
XII. Paper, stationery, etc. ..	3,688	3,103	819	501	318	131	8,560
All other classes ..	6,708	6,362	958	1,109	374	138	15,649
Total ..	38,794	52,529	7,289	5,447	3,067	2,086	109,212

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., 1932-33.

Industry.	New South Wales.			Victoria.			Other States.		
	Males	Females.	Femi- ninity. (a)	Males.	Females.	Femi- ninity. (a)	Males.	Females.	Femi- ninity. (a)
Tailoring and slop clothing ..	1,484	5,721	386	1,577	5,137	326	1,128	3,634	322
Waterproof and oil- skin clothing ..	8	7	88	72	186	258	4	12	300
Dressmaking ..	40	1,240	3,100	501	6,783	1,354	40	1,692	4,230
Millinery ..	64	778	1,216	106	1,582	1,492	29	600	2,069
Shirts, collars and underclothing ..	265	2,980	1,125	428	4,338	1,014	132	1,465	1,110
Stays and corsets ..	33	534	1,618	89	682	766	4	29	725
Handkerchiefs, ties and scarves ..	76	518	682	62	426	687	..	..	..
Hats and caps ..	569	1,030	181	670	725	108	43	44	102
Gloves ..	..	..	..	30	100	333	..	..	..
Boots and shoes ..	2,234	1,958	88	4,767	4,258	89	1,014	724	71
Boot repairing (in- cluding bespoke work) ..	951	38	4	552	9	2	337	20	6
Boot accessories ..	89	29	33	414	153	37	..	..	..
Umbrellas and walk- ing sticks ..	26	54	208	29	74	255	11	12	109
Dyeworks and clean- ing (including re- novating and repairing) ..	342	199	58	290	236	81	161	196	122
Other ..	29	57	197	51	293	575	3	4	133
Total ..	6,210	15,143	244	9,638	24,982	259	2,906	8,432	290

(a) Number of females per 100 males.

## § 6. Child Labour in Factories.

1. Conditions of Child Labour.—The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. 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, 1928-29 to 1932-33.**—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 1928-29 to 1932-33:—

## CHILDREN EMPLOYED IN FACTORIES.

State.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
<b>MALES.</b>					
New South Wales .. ..	3,983	3,322	1,851	1,924	2,366
Victoria .. ..	4,209	3,748	2,543	2,615	3,441
Queensland .. ..	1,254	1,212	950	920	903
South Australia .. ..	883	654	411	509	611
Western Australia .. ..	647	575	324	344	351
Tasmania .. ..	290	261	203	185	263
Australia .. ..	11,266	9,772	6,282	6,497	7,935
<b>FEMALES.</b>					
New South Wales .. ..	5,085	4,196	2,757	3,263	3,561
Victoria .. ..	4,298	4,019	3,361	4,089	4,643
Queensland .. ..	921	906	619	631	849
South Australia .. ..	679	529	399	453	523
Western Australia .. ..	276	226	149	161	202
Tasmania .. ..	265	252	205	169	209
Australia .. ..	11,524	10,128	7,490	8,766	9,987
<b>TOTAL.</b>					
New South Wales .. ..	9,068	7,518	4,608	5,187	5,927
Victoria .. ..	8,507	7,767	5,904	6,704	8,084
Queensland .. ..	2,175	2,118	1,569	1,551	1,752
South Australia .. ..	1,562	1,183	810	962	1,134
Western Australia .. ..	923	801	473	505	553
Tasmania .. ..	555	513	408	354	472
Australia .. ..	22,790	19,900	13,772	15,263	17,922

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 1932-33 the number of children employed was 17,922 or 4.83 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	%	%	%	%	%
New South Wales .. ..	5.02	4.61	3.61	4.10	4.28
Victoria .. ..	5.43	5.14	4.69	5.23	5.60
Queensland .. ..	4.81	4.97	4.14	4.33	4.69
South Australia .. ..	4.24	3.68	3.39	4.04	4.30
Western Australia .. ..	4.44	4.08	3.24	3.77	3.73
Tasmania .. ..	5.30	4.74	4.62	3.93	5.11
Australia .. ..	5.06	4.75	4.06	4.53	4.83



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 1932-33 :—

## CHILDREN EMPLOYED.—VARIOUS INDUSTRIES, 1932-33.

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 ..	18	..	35	12	7	2	8	..	1	1	..	..	69	15
III.	Chemicals, Drugs and Medicines ..	28	69	9	29	..	1	5	14	1	..	..	..	43	113
IV.	Smelting, Converting, Refining and Rolling of Iron and Steel ..	182	5	153	16	33	2	47	..	..	..	..	..	415	23
..	Engineering (not Marine or Electrical) ..	83	1	114	15	18	..	27	1	17	..	7	..	266	17
..	Electrical Installations, Cables and Apparatus ..	56	17	89	30	..	..	6	..	4	..	..	..	155	47
..	Motor Vehicles and Cycles. (ii) Repairs ..	65	2	78	1	28	1	33	..	20	1	17	..	241	5
..	Galvanized Ironworking and Tinsmithing ..	108	22	181	35	20	2	16	..	19	..	3	..	347	59
VI.	Cotton ..	33	64	16	78	1	..	..	..	..	..	..	..	50	142
..	Wool, Worsted and Shoddy ..	129	317	367	684	13	47	63	30	5	5	42	92	619	1175
..	Hosiery and Other Knitted Goods ..	21	237	134	638	5	8	..	6	2	7	2	13	164	909
..	Rope and Cordage ..	19	18	83	46	3	..	4	..	..	..	..	..	109	64
VII.	Tanning, Currying and Leather Dressing ..	38	1	104	5	30	..	2	..	5	..	..	..	179	6
..	Bags, Trunks and Other Leather Goods ..	25	69	21	44	7	7	6	19	1	..	..	..	60	139
VIII.	Tailoring and Slop Clothing ..	38	544	56	410	30	191	9	81	4	21	2	22	139	1269
..	Dressmaking ..	1	128	16	632	1	39	1	87	..	..	..	8	19	925
..	Millinery ..	7	104	6	137	1	26	..	68	..	31	..	..	14	341
..	Shirts, Collars and Underclothing ..	11	510	21	348	15	185	..	41	1	30	..	13	48	1127
..	Hats and Caps ..	31	93	69	63	..	3	..	..	..	..	..	..	100	159
..	Boots and Shoes ..	17	212	168	379	19	51	22	34	26	16	3	7	355	699
..	Boot Repairing ..	18	3	22	..	8	..	5	1	4	1	4	..	61	5
IX.	Bakeries (including Cakes and Pastry) ..	30	8	53	11	37	17	10	1	6	..	38	42	174	79
..	Biscuits ..	53	132	43	46	2	7	18	18	13	7	..	..	129	210
..	Sugar Confectionery (including Chocolate) ..	40	181	30	112	9	28	17	39	2	19	..	..	98	379
..	Butter Factories, Creameries, etc. ..	6	2	31	20	17	1	6	3	..	..	3	..	63	26
..	Condiments, Coffee and Spices ..	22	42	12	8	2	11	24	9	6	..	..	..	66	70
..	Tobacco, Cigars, Cigarettes and Snuff ..	10	6	..	9	..	..	1	..	5	21	..	..	16	36
X.	Sawmills (Town and Forest) ..	31	1	23	1	78	2	9	..	5	..	12	..	158	4
XI.	Billiard Tables, Cabinet and Furniture making and Upholstery ..	49	5	110	6	34	5	24	4	18	2	8	..	243	22
XII.	Papermaking, etc. ..	48	237	3	..	..	..	..	..	..	..	..	..	51	237
..	Envelopes, Stationery, Paper Boxes, Bags, etc. ..	..	..	66	167	13	23	7	19	3	9	..	..	89	218
..	Newspapers and Periodicals ..	55	1	19	2	48	3	..	..	10	1	5	2	137	9
..	General Printing and Bookbinding (not including Government) ..	97	79	168	78	37	28	18	15	15	2	3	2	338	204
XIII.	Tyres, Motor and Cycle ..	10	11	17	21	5	..	4	..	7	..	1	..	44	32

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 1932–33 was £304,697,868 of which amount the sum of £175,148,548 represents the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £10,477,073 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., £119,072,247 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 1932–33 was £59,416,436. This figure which is exclusive of amounts drawn by working proprietors shows an increase of £3,484,618 or 6.2 per cent., as compared with the total for the previous year.

2. Salaries and Wages Paid.—(i) *Total Amount, 1932–33.* The total amount of salaries and wages paid in the year 1932–33 in various classes of factories in each State is shown in the following table:—

SALARIES AND WAGES PAID IN FACTORIES, 1932–33.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	
I. Treatment of Non-metalliferous Mine and Quarry Products ..	408,680	274,307	73,057	56,224	57,494	40,411	910,173
II. Bricks, Pottery, Glass, etc. ..	555,751	386,984	58,341	75,171	72,801	16,483	1,165,531
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	1,037,682	894,108	65,144	204,018	138,581	21,298	2,360,831
IV. Industrial Metals, Machines, Implements and Conveyances ..	8,488,601	4,835,679	1,243,440	1,564,451	695,942	401,990	17,230,103
V. Precious Metals, Jewellery and Plate ..	80,196	167,861	12,564	14,831	6,509	2,788	284,749
VI. Textiles and Textile Goods ..	1,482,626	2,399,251	146,177	110,306	60,254	178,205	4,376,819
VII. Skins and Leather ..	611,933	597,896	93,561	55,451	31,172	7,233	1,396,346
VIII. Clothing ..	2,312,656	3,654,334	454,702	314,818	216,903	54,200	7,007,613
IX. Food, Drink and Tobacco ..	3,879,827	3,794,300	2,514,935	778,533	549,127	327,680	11,844,402
X. Woodworking and Basketware ..	808,620	851,426	541,195	174,411	230,785	148,771	2,755,208
XI. Furniture, Bedding, etc. ..	423,151	357,340	148,419	77,801	60,907	26,844	1,094,462
XII. Paper, Stationery, Printing, Book-binding, etc. ..	2,195,355	1,859,795	630,991	313,383	269,405	126,866	5,395,795
XIII. Rubber ..	361,288	461,500	57,242	15,342	9,250	4,669	909,291
XIV. Musical Instruments ..	96,421	26,806	1,599	4,907	4,755	..	134,488
XV. Miscellaneous Products ..	282,972	219,805	31,270	27,738	22,308	18,618	602,711
XVI. Heat, Light and Power ..	757,989	436,879	248,384	349,472	115,235	39,955	1,947,914
<b>Total ..</b>	<b>23,782,848</b>	<b>21,218,271</b>	<b>6,321,021</b>	<b>4,136,857</b>	<b>2,541,428</b>	<b>1,416,011</b>	<b>59,416,436</b>

(ii) *Totals and Averages, 1928–29 to 1932–33.* 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 1928–29 to 1932–33. 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 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.
		£	£	£	£	£	£	£
1928-29	Total amount paid ..	38,544,687	29,466,767	9,097,624	7,609,813	4,373,090	1,894,927	90,986,908
	Average per employee ..	221.37	197.41	209.45	215.11	220.87	189.80	210.63
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	195.80	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	2,544,428	1,416,011	59,416,436
	Average per employee ..	179.49	154.50	176.82	165.24	182.14	162.85	168.19

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 1932-33 were paid in Western Australia followed by New South Wales despite the fact that highest average wage for each sex is paid in the latter State.

The average rate of salaries and wages reached its maximum in 1927-28 when it amounted to £212.12, as compared with £210.63 in 1928-29; £210.97 in 1929-30; £193.88 in 1930-31; £174.84 in 1931-32; and £168.19 in 1932-33. 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. The average salary and wage fell approximately 4 per cent. in 1932-33 as compared with 1931-32 and is 20.7 per cent. below the peak year of 1927-28.

(iii) *Earnings of Males and Females, 1932-33.* 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 1932-33:—

## SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES, 1932-33.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
<b>MALES.</b>							
I. Treatment of Non-metaliferous Mine and Quarry Products ..	403,598	269,201	71,676	55,893	56,778	39,872	897,018
II. Bricks, Pottery, Glass, etc. ..	540,298	374,981	56,855	74,713	72,091	16,368	1,135,306
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	866,336	733,568	60,007	187,845	130,015	19,645	1,997,416
IV. Industrial Metals, Machines, Implements and Conveyances ..	8,283,724	4,708,935	1,221,568	1,530,712	688,185	396,168	16,829,292
V. Precious Metals, Jewellery and Plate ..	71,667	151,806	11,813	14,212	6,261	2,788	258,547
VI. Textiles and Textile Goods ..	783,842	1,326,346	105,375	83,928	41,823	99,294	2,440,608
VII. Skins and Leather ..	559,678	506,181	87,046	41,630	27,283	6,997	1,228,815
VIII. Clothing ..	976,938	1,485,016	192,394	113,305	75,328	26,437	2,869,418
IX. Food, Drink and Tobacco ..	3,219,507	3,270,980	2,405,354	715,042	505,083	295,794	10,411,760
X. Woodworking and Basketware ..	793,775	840,603	532,477	170,540	229,915	146,764	2,714,074
XI. Furniture, Bedding, etc. ..	371,280	305,478	138,557	72,335	56,424	26,005	970,079
XII. Paper, Stationery, Printing, Book-binding, etc. ..	1,854,067	1,569,939	547,133	270,784	235,742	114,739	4,592,404
XIII. Rubber ..	306,299	374,362	33,565	14,219	8,614	4,373	741,432
XIV. Musical Instruments ..	84,075	25,992	1,599	4,697	4,755	..	121,118
XV. Miscellaneous Products ..	229,816	184,779	27,966	23,071	18,107	18,073	501,812
XVI. Heat, Light and Power ..	754,556	435,850	242,741	336,310	114,499	39,778	1,923,734
<b>Total</b> ..	<b>20,099,456</b>	<b>16,564,017</b>	<b>5,736,126</b>	<b>3,709,236</b>	<b>2,270,903</b>	<b>1,253,095</b>	<b>49,632,833</b>

SALARIES AND WAGES.—MALE AND FEMALE FACTORY EMPLOYEES,  
1932-33—continued.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	5,082	5,106	1,381	331	716	539	13,155
II. Bricks, Pottery, Glass, etc. ..	15,453	12,003	1,486	458	710	115	30,225
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	171,346	160,540	5,137	16,173	8,566	1,653	363,415
IV. Industrial Metals, Machines, Implements and Conveyances ..	204,877	126,744	21,872	33,739	7,757	5,822	400,811
V. Precious Metals, Jewellery and Plate ..	8,529	16,055	751	619	248	..	26,202
VI. Textiles and Textile Goods ..	698,784	1,072,905	40,802	26,378	18,431	78,911	1,936,211
VII. Skins and Leather ..	51,355	91,715	6,515	13,821	3,889	236	167,531
VIII. Clothing ..	1,335,718	2,169,318	262,308	201,513	141,575	27,763	4,138,195
IX. Food, Drink and Tobacco ..	660,320	523,320	109,581	63,491	44,044	31,886	1,432,642
X. Woodworking and Basketware ..	14,845	10,823	8,718	3,871	870	2,007	41,134
XI. Furniture, Bedding, etc. ..	51,871	51,862	9,862	5,466	4,483	839	124,383
XII. Paper, Stationery, Printing, Book-binding, etc. ..	341,288	289,856	83,858	42,599	33,663	12,127	803,391
XIII. Rubber ..	54,989	87,138	23,677	1,123	636	296	167,859
XIV. Musical Instruments ..	12,346	814	..	210	..	..	13,370
XV. Miscellaneous Products ..	53,156	35,026	3,304	4,667	4,201	545	100,899
XVI. Heat, Light and Power ..	3,433	1,029	5,643	13,162	736	177	24,180
Total ..	3,683,392	4,654,254	584,895	427,621	270,525	162,916	9,783,603

(iv) Total and Average Earnings of Males and Females, 1928-29 to 1932-33.

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.
MALES.							
1928-29. Amount paid ..	£ 33,508,975	23,684,594	8,351,045	6,955,931	3,970,744	1,678,420	78,149,709
Per cent. on total ..	86.94	80.38	91.79	91.41	90.80	88.57	85.89
Average per employee ..	£ 258.68	241.51	234.71	239.74	247.57	217.89	247.35
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	3,951,464	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	217.40	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 ..	£ 20,099,456	16,564,017	5,736,126	3,709,236	2,270,903	1,253,095	49,632,833
Per cent. on total ..	84.51	78.06	90.75	89.66	89.36	88.49	83.53
Average per employee ..	£ 213.72	193.84	201.02	188.62	208.05	188.75	202.37

**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>							
1928-29. Amount paid .. £	5,035,712	5,782,173	746,579	653,882	402,346	216,507	12,837,199
Per cent. on total ..	13.06	19.62	8.21	8.59	9.20	11.43	14.11
Average per employee £	112.96	112.94	95.05	102.78	107.01	94.92	110.63
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	8.85	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	4,654,254	584,895	427,621	270,525	162,916	9,783,603
Per cent. on total ..	15.49	21.94	9.25	10.34	10.64	11.51	16.47
Average per employee £	95.78	89.71	81.08	79.62	89.05	79.24	90.58

(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, 1932-33.**

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 ..	174,795	10,058	722,223	3,097	897,018	13,155	910,173
II. Bricks, pottery, glass, etc. ..	197,697	14,550	937,609	15,675	1,135,306	30,225	1,165,531
III. Chemicals, dyes, explosives, paint, oils and grease ..	525,257	94,607	1,472,159	268,808	1,997,416	363,415	2,360,831
IV. Industrial metals, machines, implements and conveyances ..	2,352,258	214,561	14,477,034	186,250	16,829,292	400,811	17,230,103
V. Precious metals, jewellery and plate ..	28,956	7,100	229,591	19,102	258,547	26,202	284,749
VI. Textiles and textile goods ..	522,452	107,399	1,918,156	1,828,812	2,440,608	1,936,211	4,376,819
VII. Skins and leather ..	157,652	17,907	1,071,163	149,624	1,228,815	167,531	1,396,346
VIII. Clothing ..	451,682	266,345	2,417,736	3,871,850	2,869,418	4,138,195	7,007,613
IX. Food, drink and tobacco ..	2,194,028	310,420	8,217,732	1,122,222	10,411,760	1,432,642	11,844,402
X. Woodworking and basketware ..	380,174	33,158	2,333,900	7,976	2,714,074	41,134	2,755,208
XI. Furniture, bedding, etc. ..	123,203	24,397	846,876	99,986	970,079	124,383	1,094,462
XII. Paper, stationery, printing and book-binding, etc. ..	859,394	193,262	3,733,010	610,129	4,592,404	803,391	5,395,795
XIII. Rubber ..	149,275	25,012	592,157	142,847	741,432	167,859	909,291
XIV. Musical instruments ..	32,518	7,366	88,600	6,004	121,118	13,370	134,488
XV. Miscellaneous products ..	97,516	19,801	404,296	81,098	501,812	100,899	602,714
XVI. Heat, light and power ..	460,102	23,465	1,463,632	715	1,923,734	24,180	1,947,914
<b>Total .. ..</b>	<b>8,706,959</b>	<b>1,369,408</b>	<b>40,925,874</b>	<b>8,414,195</b>	<b>49,632,833</b>	<b>9,783,603</b>	<b>59,416,436</b>
<b>Average paid per employee</b>	<b>338.40</b>	<b>128.84</b>	<b>186.43</b>	<b>86.40</b>	<b>202.37</b>	<b>90.58</b>	<b>168.19</b>

3. Value of Power, Fuel and Light Used.—(i) *Total Amount, 1932-33.* The expenditure by factories on power, fuel and light is of considerable importance; in 1932-33 it amounted to £10,477,073, an increase of £1,012,363 as compared with the previous year. Though the value of power, fuel and light has actually fallen during the depression it represented 8.8 per cent. of the value of production in 1932-33 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 1932-33 :—

VALUE OF POWER, FUEL AND LIGHT USED(a) IN FACTORIES, 1932-33.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metalliferous Mine and Quarry Products ..	128,856	133,097	23,665	23,285	35,369	38,070	382,342
II. Bricks, Pottery, Glass, etc. ..	180,605	136,938	16,443	29,309	20,326	7,227	390,848
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	176,160	160,420	11,243	40,369	28,763	4,378	421,333
IV. Industrial Metals, Machines, Implements and Conveyances ..	1,526,614	376,281	181,967	262,883	48,294	280,789	2,676,828
V. Precious Metals, Jewellery and Plate ..	4,741	9,795	780	1,242	189	116	16,863
VI. Textiles and Textile Goods ..	161,630	327,160	21,378	22,388	11,402	42,125	586,083
VII. Skins and Leather ..	77,378	80,113	7,366	2,523	2,095	1,302	170,777
VIII. Clothing ..	76,895	120,383	13,087	11,430	5,931	2,027	229,753
IX. Food, Drink and Tobacco ..	753,976	700,991	354,375	165,268	115,875	56,160	2,146,645
X. Woodworking and Basketware ..	51,667	52,830	31,047	11,182	12,688	17,243	176,657
XI. Furniture, Bedding, etc. ..	22,025	22,151	7,957	5,404	2,626	1,567	61,730
XII. Paper, Stationery, Printing, Book-binding, etc. ..	119,423	151,463	31,709	14,639	11,511	6,137	334,882
XIII. Rubber ..	75,619	116,539	6,862	2,052	1,497	666	203,255
XIV. Musical Instruments ..	7,846	789	16	136	28	..	8,815
XV. Miscellaneous Products ..	20,016	19,817	936	1,672	1,048	421	43,910
XVI. Heat, Light and Power ..	1,407,930	545,364	197,062	171,148	300,446	4,402	2,626,352
<b>Total ..</b>	<b>4,791,381</b>	<b>2,954,131</b>	<b>905,893</b>	<b>764,930</b>	<b>598,088</b>	<b>462,650</b>	<b>10,477,073</b>

(a) Including lubricants and water.

(ii) *Total Amount, 1928-29 to 1932-33.* 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.
	£	£	£	£	£	£	£
1928-29 .. ..	6,773,214	3,641,148	1,006,627	1,287,720	624,031	550,657	13,883,406
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	537,777	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	2,954,131	905,893	764,930	598,088	462,650	10,477,073

4. Value of Materials Used.—(i) *Total Amount, 1932-33.* 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 1932-33 was £175,148,548, representing 57.48 per cent. of the value of the final output. (See next sub-section.) The table

hereunder shows the value of the materials used in various classes of industry in each State:—

VALUE OF MATERIALS USED IN FACTORIES, 1932-33.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I Treatment of Non-metalliferous Mine and Quarry Products ..	939,373	532,732	112,729	77,351	101,576	70,655	1,834,416
II. Bricks, Pottery, Glass, etc. ..	365,639	206,014	30,286	50,940	48,678	10,585	712,142
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,852,612	3,595,268	305,573	952,833	1,304,500	116,845	11,127,631
IV. Industrial Metals, Machines, Implements and Conveyances ..	19,348,790	6,158,897	1,596,602	3,271,793	598,438	877,502	31,852,022
V. Precious Metals, Jewellery and Plate ..	61,549	226,955	6,442	11,319	3,088	281	309,634
VI. Textiles and Textile Goods ..	3,636,087	5,579,505	1,386,206	488,821	248,975	375,795	11,715,359
VII. Skins and Leather ..	3,065,913	2,036,933	378,254	120,266	77,081	16,067	6,294,514
VIII. Clothing ..	4,224,379	7,836,014	687,586	387,356	335,030	85,103	13,555,468
IX. Food, Drink and Tobacco ..	24,979,104	23,963,442	18,359,365	5,559,250	3,026,721	1,280,385	77,168,267
X. Woodworking and Basketware ..	2,124,762	1,362,840	935,747	558,404	399,821	208,840	5,590,414
XI. Furniture, Bedding, etc. ..	828,762	738,157	219,133	143,978	117,526	35,667	2,083,223
XII. Paper, Stationery, Printing, Book-binding, etc. ..	3,103,432	2,897,549	494,247	410,120	247,427	84,212	7,236,987
XIII. Rubber ..	999,526	1,112,629	87,234	41,469	17,053	4,261	2,262,172
XIV. Musical Instruments ..	114,077	34,046	1,064	3,946	338	..	153,441
XV. Miscellaneous Products ..	553,226	502,416	30,484	54,811	35,713	22,104	1,198,754
XVI. Heat, Light and Power ..	887,725	697,640	141,661	188,641	105,653	32,784	2,054,104
Total ..	70,084,956	58,081,097	24,772,613	12,321,268	6,667,618	3,220,996	175,148,548

(ii) *Total Amount, 1928-29 to 1932-33.* 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.
	£	£	£	£	£	£	£
1928-29 ..	104,897,920	71,231,036	29,882,434	19,821,262	8,736,849	4,369,065	238,938,566
1929-30 ..	93,931,937	67,837,059	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

5. *Total Value of Output.*—(i) *Total, 1932-33.* The value of the output of new goods manufactured and of repairs effected in factories of various classes in each State in 1932-33 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 subsection 6 hereof) is the real value of factory production.

TOTAL VALUE OF OUTPUT OF FACTORIES, 1932-33.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	1,919,273	1,349,749	284,842	232,260	266,209	242,777	4,295,110
II. Bricks, pottery, glass, etc. ..	1,537,626	1,054,693	155,231	215,355	183,411	40,478	3,186,794
III. Chemicals, dyes, explosives, paint, oils, and grease ..	9,467,553	6,382,992	512,864	1,492,163	1,712,226	173,922	19,741,720
IV. Industrial metals, machines, implements and conveyances ..	33,774,163	14,069,424	3,727,347	5,717,060	1,681,212	1,842,473	60,811,679
V. Precious metals, jewellery and plate ..	206,123	523,765	28,650	39,920	14,776	4,047	817,281
VI. Textiles and textile goods ..	6,325,897	10,282,202	1,677,319	659,494	370,053	817,366	20,132,325
VII. Skins and leather ..	4,146,436	3,859,066	573,419	198,194	135,402	27,266	8,939,783
VIII. Clothing ..	7,998,161	13,961,676	1,449,235	875,172	692,023	172,441	25,148,708
IX. Food, drink and tobacco ..	36,437,474	33,481,795	24,463,990	7,634,388	4,584,695	1,989,020	108,591,362
X. Woodworking and basketware ..	3,527,357	2,792,163	1,782,219	869,252	785,609	462,792	10,219,392
XI. Furniture, bedding, etc. ..	1,521,803	1,411,764	464,240	272,226	229,008	77,672	3,976,713
XII. Paper, stationery, printing, book-binding, etc. ..	7,249,759	6,537,980	1,540,239	969,260	721,892	275,206	17,294,336
XIII. Rubber ..	1,772,022	2,382,523	197,380	73,860	39,755	14,095	4,479,635
XIV. Musical instruments ..	241,589	69,329	3,748	10,670	6,874	..	332,210
XV. Miscellaneous products ..	1,143,485	1,005,673	83,269	126,242	77,103	61,501	2,497,273
XVI. Heat, light and power ..	7,177,046	2,820,635	1,491,351	1,555,182	827,300	362,033	14,233,547
<b>Total ..</b>	<b>124,445,767</b>	<b>101,985,429</b>	<b>38,435,343</b>	<b>20,940,698</b>	<b>12,327,548</b>	<b>6,563,083</b>	<b>304,697,868</b>

(ii) Total 1928-29 to 1932-33. The following statement shows the value of output of factories in each State in the five years ended 1932-33 :-

TOTAL VALUE OF OUTPUT OF FACTORIES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1928-29 ..	185,298,575	127,897,463	47,641,536	33,677,368	17,454,430	8,475,916	420,445,288
1929-30 ..	167,250,618	122,811,099	45,085,938	30,312,784	16,891,482	8,560,452	300,912,371
1930-31 ..	118,483,536	93,425,795	40,422,858	19,997,455	12,353,353	6,115,567	290,798,564
1931-32 ..	114,439,507	93,388,617	36,915,173	19,292,370	11,186,941	6,423,177	281,645,783
1932-33 ..	124,445,767	101,985,429	38,435,343	20,940,698	12,327,548	6,563,083	304,697,868

6. Value of Production.—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 £18,100,000 in 1932-33. Many miscellaneous expenses, also, such as insurance and advertising, were not 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.



(i) *Total in Classes, 1932-33.* The following table shows the value of production in 1932-33 in each State for the various classes of factories :—

VALUE OF PRODUCTION, 1932-33.

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of Non-metaliferous Mine and Quarry Products ..	851,044	683,920	148,448	131,624	129,264	134,052	2,078,352
II. Bricks, Pottery, Glass, etc. ..	991,382	711,741	108,502	135,106	114,407	22,666	2,083,804
III. Chemicals, Dyes, Explosives, Paint, Oils and Grease ..	4,438,781	2,627,304	196,048	498,961	378,963	52,699	8,192,756
IV. Industrial Metals, Machines, Implements and Conveyances ..	12,898,759	7,534,246	1,948,778	2,182,384	1,034,480	684,182	26,282,829
V. Precious Metals, Jewellery and Plate ..	139,833	287,015	21,428	27,359	11,499	3,650	490,784
VI. Textiles and Textile Goods ..	2,528,180	4,375,477	269,735	148,285	109,676	399,530	7,830,883
VII. Skins and Leather ..	1,003,145	1,142,020	187,799	75,405	56,226	9,897	2,474,492
VIII. Clothing ..	3,696,887	6,005,279	748,562	476,386	351,062	85,311	11,363,487
IX. Food, Drink and Tobacco ..	10,704,394	8,817,362	5,750,250	1,909,870	1,442,099	652,475	29,276,450
X. Woodworking and Basketware ..	1,350,928	1,376,493	815,425	299,666	373,100	236,709	4,452,321
XI. Furniture, Bedding, etc. ..	671,016	651,456	237,150	122,844	108,856	40,438	1,831,760
XII. Paper, Stationery, Printing, Book-binding, etc. ..	4,026,904	3,488,968	1,014,283	544,501	462,954	184,857	9,722,467
XIII. Rubber ..	696,877	1,153,355	103,284	30,339	21,205	9,148	2,014,208
XIV. Musical Instruments ..	119,666	34,494	2,668	6,618	6,508	..	169,954
XV. Miscellaneous Products ..	570,243	483,440	51,849	69,759	40,342	38,976	1,254,609
XVI. Heat, Light and Power ..	4,881,391	1,577,631	1,152,628	1,195,393	421,201	324,847	9,553,091
<b>Total</b> ..	<b>49,569,430</b>	<b>40,950,201</b>	<b>12,756,837</b>	<b>7,854,500</b>	<b>5,061,842</b>	<b>2,879,437</b>	<b>119,072,247</b>

(ii) *Total and Averages, 1928-29 to 1932-33.* 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.							
	£	£	£	£	£	£	£
1928-29 ..	73,627,441	53,025,279	16,752,475	12,568,377	8,093,550	3,556,194	167,623,316
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 ..	49,533,773	39,413,968	13,528,662	7,755,112	5,281,111	2,807,497	118,310,123
1931-32 ..	46,653,481	37,819,628	12,133,356	6,961,848	4,605,134	2,808,383	110,981,830
1932-33 ..	49,569,430	40,950,201	12,750,837	7,854,500	5,061,842	2,879,437	119,072,247
PER EMPLOYEE.(a)							
	£	£	£	£	£	£	£
1928-29 ..	407	339	372	341	389	340	372
1929-30 ..	410	339	378	341	366	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
PER HEAD OF POPULATION.							
	£	£	£	£	£	£	£
1928-29 ..	29.64	30.11	18.79	21.97	19.52	16.43	26.39
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	22.55	13.56	13.55	11.59	12.63	18.03

(a) Including Working Proprietors.

7. Value of Output and Cost of Production.—As the total value of the output for Australia for 1932-33 was estimated at £304,697,868, there remained, after payment of £175,148,548, the value of the materials used, of £59,416,436 for salaries and wages, and of £10,477,073 for fuel, the sum of £59,655,811 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 1932-33 :—

**FACTORIES.—VALUE OF OUTPUT AND COST OF PRODUCTION, 1932-33.**

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 ..	70,084,956	4,791,381	23,782,848	25,786,582	124,445,767
Victoria ..	58,081,097	2,954,131	21,218,271	19,731,930	101,985,429
Queensland ..	24,772,613	905,893	6,321,021	6,435,816	38,435,343
South Australia ..	12,321,268	764,930	4,136,857	3,717,643	20,940,698
Western Australia ..	6,667,618	598,088	2,541,428	2,520,414	12,327,548
Tasmania ..	3,220,996	462,650	1,416,011	1,463,426	6,563,083
<b>Australia ..</b>	<b>175,148,548</b>	<b>10,477,073</b>	<b>59,416,436</b>	<b>59,655,811</b>	<b>304,697,868</b>

**PERCENTAGE OF COSTS, ETC., ON TOTAL VALUE.**

	%	%	%	%	%
New South Wales ..	56.32	3.85	19.11	20.72	100.00
Victoria ..	56.95	2.90	20.81	19.34	100.00
Queensland ..	64.45	2.36	16.45	16.74	100.00
South Australia ..	58.84	3.65	19.76	17.75	100.00
Western Australia ..	54.09	4.85	20.62	20.44	100.00
Tasmania ..	49.08	7.05	21.57	22.30	100.00
<b>Australia ..</b>	<b>57.48</b>	<b>3.44</b>	<b>19.50</b>	<b>19.58</b>	<b>100.00</b>

(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 £226,386,729 in 1932-33.

The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1932-33:—

**VALUE OF LAND, BUILDINGS, PLANT, AND MACHINERY, 1932-33.**

Value of—	N.S.W.	Victoria.	Q'land.	S.A.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Land and buildings	45,873,565	34,804,987	9,075,596	7,915,965	5,537,227	2,629,532	105,836,872
Plant and machinery	49,903,177	33,022,441	16,408,197	9,450,517	5,733,638	6,031,887	120,549,857
Total	95,776,742	67,827,428	25,483,793	17,366,482	11,270,865	8,661,419	226,386,729

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, 1928-29 to 1932-33.* The appended table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries from 1928-29 to 1932-33 inclusive:—

**VALUE OF LAND AND BUILDINGS.—AUSTRALIA.**

Class of Industry	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	2,545,729	2,565,373	2,561,418	2,392,522	2,396,967
II. Bricks, pottery, glass, etc. ..	3,019,723	3,020,979	2,405,960	1,992,755	2,214,761
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,687,978	5,986,996	5,866,714	5,779,483	5,832,064
IV. Industrial metals, machines, implements and conveyances ..	28,293,793	28,957,846	27,679,331	25,582,740	25,632,777
V. Precious metals, jewellery and plate ..	659,734	658,936	557,662	510,746	490,511
VI. Textiles and textile goods ..	4,879,036	5,065,228	4,884,218	4,739,366	4,993,710
VII. Skins and leather ..	1,862,509	1,936,107	1,873,402	1,778,219	1,768,577
VIII. Clothing ..	13,094,838	12,539,163	10,697,755	9,334,049	8,894,673
IX. Food, drink and tobacco ..	26,385,520	26,996,483	26,760,444	26,676,269	26,645,408
X. Woodworking and basketware ..	4,633,459	4,514,789	3,866,980	3,601,684	3,506,606
XI. Furniture, bedding, etc. ..	2,955,609	2,733,336	2,283,528	1,978,384	1,869,195
XII. Paper, stationery, printing, bookbinding, etc. ..	9,526,079	9,974,734	9,764,623	9,187,481	9,048,534
XIII. Rubber ..	1,878,848	2,250,302	2,213,432	2,078,335	1,853,590
XIV. Musical instruments ..	466,710	444,875	391,144	313,313	212,112
XV. Miscellaneous products ..	895,617	923,403	1,037,221	1,028,693	1,014,793
XVI. Heat, light and power ..	7,870,879	9,499,679	9,366,777	9,616,285	9,462,594
Total ..	114,656,061	118,068,229	112,210,609	106,590,324	105,836,872

(ii) *Value in each State, 1932-33.* The following table gives similar information for each State for 1932-33 :—

VALUE OF LAND AND BUILDINGS, 1932-33.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	1,099,589	781,670	111,070	152,880	61,764	189,994	2,396,967
II. Bricks, pottery, glass, etc. ..	1,203,620	648,700	76,225	154,567	117,662	13,987	2,214,761
III. Chemicals, dyes, explosives, paint, oils and grease ..	2,205,831	2,336,537	124,266	436,727	636,851	91,852	5,832,064
IV. Industrial metals, machines, implements and conveyances ..	12,646,570	7,131,439	1,652,651	2,326,255	1,212,164	663,698	25,632,777
V. Precious metals, jewellery and plate ..	155,028	251,994	24,826	27,443	16,605	14,615	490,511
VI. Textiles and textile goods ..	1,619,945	2,692,795	175,071	139,547	91,507	283,845	4,993,710
VII. Skins and leather ..	654,260	879,347	73,825	55,573	91,297	14,275	1,768,577
VIII. Clothing ..	3,263,046	4,127,764	475,597	548,791	360,030	119,445	8,894,672
IX. Food, drink and tobacco ..	9,797,549	7,971,288	4,230,630	2,262,877	1,529,277	853,787	26,645,408
X. Woodworking and basketware ..	1,448,060	955,135	417,184	264,859	287,604	133,764	3,506,606
XI. Furniture, bedding, etc. ..	697,680	711,243	184,278	128,505	110,797	36,692	1,869,195
XII. Paper, stationery, printing, book-binding, etc. ..	3,848,763	2,926,629	908,049	639,599	614,378	111,116	9,048,534
XIII. Rubber ..	890,586	760,920	76,288	65,860	43,916	16,020	1,853,590
XIV. Musical instruments ..	119,175	71,284	1,560	13,023	7,070	..	212,112
XV. Miscellaneous products ..	482,603	365,076	57,223	65,510	35,114	9,267	1,014,793
XVI. Heat, light and power ..	5,741,260	2,193,166	486,853	642,949	321,191	77,175	9,462,594
Total ..	45,873,565	34,804,987	9,075,596	7,915,965	5,537,227	2,629,532	105,836,872

(iii) *Value in each State, 1928-29 to 1932-33.* The total value of factory land and buildings for each year from 1928-29 to 1932-33 is given hereunder :—

VALUE OF LAND AND BUILDINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
1928-29 ..	51,375,003	36,184,460	9,665,239	8,934,405	5,808,539	2,688,415	114,656,061
1929-30 ..	53,785,319	36,988,485	9,690,313	8,937,039	5,702,214	2,996,859	118,068,229
1930-31 ..	49,822,312	36,218,384	9,355,106	8,418,702	5,656,333	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

The decline of £750,000 during 1932-33 was not as marked as that shown for the two years immediately preceding. 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 last three years, however, there was a decline of £13 million, i.e., to £105.8 million.

3. Value of Plant and Machinery.—(i) *Total, Australia, 1928-29 to 1932-33.* 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
	£	£	£	£	£
I. Treatment of non-metaliferous mine and quarry products ..	5,029,438	4,926,370	5,959,537	5,773,446	5,517,010
II. Bricks, pottery, glass, etc. ..	3,158,347	3,093,832	2,331,332	1,974,507	2,291,788
III. Chemicals, dyes, explosives, paint, oils and grease ..	5,566,514	5,814,275	5,738,555	5,729,195	5,537,025
IV. Industrial metals, machines, implements and conveyances ..	26,528,636	26,797,812	25,385,254	24,665,290	24,916,610
V. Precious metals, jewellery and plate ..	136,632	150,733	139,827	139,441	141,446
VI. Textiles and textile goods ..	5,986,828	6,181,931	5,935,393	5,638,054	5,743,596
VII. Skins and leather ..	783,886	902,544	862,012	916,685	905,709
VIII. Clothing ..	2,456,949	2,399,668	2,174,238	2,211,284	2,054,915
IX. Food, drink and tobacco ..	28,281,311	28,261,873	28,948,702	28,176,453	27,618,639
X. Woodworking and basketware ..	4,650,821	4,384,656	3,762,029	3,498,591	3,318,657
XI. Furniture, bedding, etc. ..	895,732	898,333	898,333	672,169	645,200
XII. Paper, stationery printing, bookbinding, etc. ..	8,422,027	8,317,935	7,768,633	7,310,058	7,111,322
XIII. Rubber ..	1,871,976	2,275,808	2,175,851	2,029,401	1,749,634
XIV. Musical instruments ..	218,124	210,365	189,854	162,496	93,230
XV. Miscellaneous products ..	326,758	349,512	493,597	507,754	545,511
XVI. Heat, light and power ..	30,378,809	32,662,044	31,900,293	32,124,553	32,359,565
Total .. ..	124,692,788	127,627,691	124,497,697	121,529,377	120,549,857

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. In 1930-31, however, there was a decrease of £3.2 million, and in 1931-32 a further decline of £2.9 million, while that of 1932-33 was reduced to £1.0 million.

(ii) *Value in each State, 1928-29 to 1932-33.* 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 three years, however, as pointed out above a total decrease of £7.1 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.
	£	£	£	£	£	£	£
1928-29 ..	51,365,710	33,724,910	16,719,349	10,382,257	6,154,115	6,346,447	124,692,788
1929-30 ..	53,515,368	35,022,535	15,723,983	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	9,624,637	5,945,468	6,455,746	121,529,377
1932-33 ..	49,903,177	33,022,441	16,408,197	9,450,517	5,733,638	6,031,887	120,549,857

(iii) *Value according to Industry, 1932-33.* The following table shows the value of plant and machinery used in factories in each State during 1932-33, classified according to industry :—

VALUE OF PLANT AND MACHINERY.—1932-33.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
I. Treatment of non-metalliferous mine and quarry products ..	3,057,738	1,522,115	181,389	352,607	137,841	265,320	5,517,010
II. Bricks, pottery, glass, etc. ..	1,240,491	613,330	93,864	192,657	120,662	30,784	2,291,788
III. Chemicals, dyes, explosives, paint, oils and grease ..	1,491,438	2,346,017	94,383	798,623	750,206	56,358	5,537,025
IV. Industrial metals, machines, implements and conveyances ..	14,577,288	4,739,410	1,549,705	2,180,235	777,872	1,092,100	24,916,610
V. Precious metals, jewellery and plate ..	46,149	77,022	4,956	9,082	2,346	1,891	141,446
VI. Textiles and textile goods ..	1,808,224	3,161,604	189,481	174,295	99,474	310,518	5,743,596
VII. Skins and leather ..	331,397	456,028	56,231	21,638	33,341	7,074	905,709
VIII. Clothing ..	694,490	1,084,070	121,437	85,481	56,428	13,009	2,054,915
IX. Food, drink and tobacco ..	8,330,910	6,342,582	9,382,162	1,630,706	1,504,813	427,466	27,618,639
X. Woodworking and basketware ..	892,806	892,121	588,158	177,588	572,490	195,494	3,318,657
XI. Furniture, bedding, etc. ..	225,964	203,807	86,637	69,330	38,650	20,812	645,200
XII. Paper, stationery, printing, book-binding, etc. ..	2,954,811	2,507,379	603,869	550,593	394,004	100,666	7,111,322
XIII. Rubber ..	728,884	969,814	23,600	12,516	9,764	5,056	1,749,634
XIV. Musical instruments ..	74,361	13,601	113	4,312	843	..	93,230
XV. Miscellaneous products ..	215,165	278,634	14,480	16,971	13,900	6,361	545,511
XVI. Heat, light and power ..	13,233,061	7,814,907	3,417,732	3,173,883	1,221,004	3,498,978	32,359,565
Total ..	49,903,177	33,022,441	16,408,197	9,450,517	5,733,638	6,031,887	120,549,857

### § 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, 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, 1932-33.* 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, 1932-33.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. ..	62	53	15	9	6	2	147
Number of employees .. ..	1,250	1,956	318	121	86	35	3,766
Actual horse-power of engines used .. ..	3,114	4,371	615	356	(a)	(a)	8,945
Approx. value of land and buildings .. ..	£ 243,663	435,737	32,758	19,961	(a)	(a)	776,532
Approx. value of plant and machinery .. ..	£ 153,439	274,604	30,622	16,062	(a)	(a)	506,920
Wages paid .. ..	£ 233,199	333,954	46,332	19,599	(a)	(a)	652,574
Value of fuel used .. ..	£ 29,964	41,786	4,992	1,074	(a)	(a)	81,116
Value of materials used .. ..	£ 953,761	1,200,988	185,532	45,164	(a)	(a)	2,451,725
Total value of output .. ..	£ 1,395,781	1,841,544	277,989	68,959	(a)	(a)	3,688,550
Value of production .. ..	£ 412,056	598,770	87,765	22,121	(a)	(a)	1,155,709

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Total for Australia, 1928-29 to 1932-33.* The development of the tanning industry during the years stated is shown in the following table:—

### TANNING, CURRYING AND LEATHER DRESSING.—AUSTRALIA.

Items.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Number of factories .. ..	142	143	148	146	147
Number of employees .. ..	3,688	3,572	2,885	3,336	3,766
Actual horse-power of engines used .. ..	8,379	8,224	7,948	8,312	8,945
Approx. value of land and buildings .. ..	£ 835,135	824,415	804,063	763,950	776,532
Approx. value of plant and machinery .. ..	£ 628,295	603,083	545,250	519,579	506,920
Wages paid .. ..	£ 828,078	812,772	595,155	609,305	652,574
Value of fuel used .. ..	£ 82,788	81,660	68,733	74,653	81,116
Value of materials used .. ..	£ 4,027,700	3,071,761	2,132,437	2,359,842	2,451,725
Total value of output .. ..	£ 5,593,756	4,467,175	3,183,138	3,509,078	3,688,550
Value of production .. ..	£ 1,483,268	1,313,754	981,968	1,074,583	1,155,709

A slight improvement is recorded for the years 1931-32 and 1932-33 as compared with 1930-31. The number employed increased by 450 and 430 respectively, while the value of output and production also showed small advances.

(iii) *Raw Material Used and Production, 1932-33.* 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, 1932-33.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Hides .. No.	454,631	754,828	104,565	40,544	40,496	6,600	1,401,664
Skins—							
Calf .. ..	464,414	573,040	120,951	1,478	362	..	1,160,245
Goat .. ..	405,079	380,200	16,660	616	636	..	803,191
Sheep .. ..	1,767,741	661,759	193,074	173,809	4,597	7,513	2,808,493
Marsupial .. ..	..	97,182	50,050	3,636	16,645	..	167,513
Reptile .. ..	9,820	49,992	..	..	..	..	59,812
Other .. ..	2,032,734	253,138	6	72	4,240	..	2,290,190
Bark used—							
Wattle .. ton	9,271	8,614	1,644	652	194	170	20,545
Other .. ..	114	2,167	61	107	482	..	2,931
Tanning extract used .. lb.	1,780,618	865,254	(a)	72,559	531,085	(a)	3,249,516
Leather made—							
Sole .. ..	9,092,689	12,674,369	2,634,064	836,187	1,110,967	252,190	26,600,466
Harness .. ..	1,096,160	470,052	613,713	301,013	153,830	..	2,634,768
Upholstery .. sq. ft.	..	1,162,206	..	8,735	..	..	1,170,941
Patent and other ..	6,275,183	11,529,905	1,410,528	276,783	48,240	..	19,540,639
Waxed kip and other lb.	52,335	68,292	89,271	99,870	88,799	..	358,567
Dressed from skins—							
Calf .. sq. ft.	3,528,796	4,472,125	978,501	7,446	1,404	..	8,988,272
Goat .. ..	1,671,402	1,389,524	89,488	2,066	4,610	..	3,157,090
Sheep .. ..	9,203,362	3,742,863	542,430	121,663	17,112	..	13,627,430
Marsupial .. ..	..	390,058	209,404	4,386	115,000	..	718,848

(a) Not available.

(b) Incomplete.

3. Soap and Candle Factories.—(i) *Details for each State, 1932-33.* 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 1932-33 :—

SOAP AND CANDLE FACTORIES, 1932-33.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. .. .	25	19	10	4	4	2	64
Number of employees .. .. .	938	657	166	163	56	30	2,010
Actual horse-power of engines used .. .. .	1,251	677	156	278	(a)	(a)	b 2,453
Approx. value of land and buildings .. .. .	£ 322,868	206,815	38,135	60,722	(a)	(a)	b 656,181
Approx. value of plant and machinery .. .. .	£ 253,555	242,830	24,063	68,148	(a)	(a)	b 618,337
Wages paid .. .. .	£ 184,281	111,949	30,724	27, 62	(a)	(a)	b 309,397
Value of fuel used .. .. .	£ 24,565	30,045	2,399	2,937	(a)	(a)	b 62,545
Value of materials used .. .. .	£ 682,601	469,737	87,258	93,413	(a)	(a)	b 1,408,015
Total value of output .. .. .	£ 1,259,828	962,194	164,120	173,292	(a)	(a)	b 2,664,778
Value of production .. .. .	£ 552,662	462,412	74,463	76,942	(a)	(a)	b 1,194,218

(a) Particulars not available for publication. (b) Including Western Australia and Tasmania.

(ii) *Total for Australia, 1928-29 to 1932-33.* The next table gives similar particulars for the last five years for Australia :—

SOAP AND CANDLE FACTORIES.—AUSTRALIA.

Items.	1928-29. <sup>a</sup>	1929-30. <sup>a</sup>	1930-31. <sup>b</sup>	1931-32.	1932-33.
Number of factories .. .. .	67	62	56	68	64
Number of employees .. .. .	2,333	2,148	1,985	2,106	2,010
Actual horse-power and engines used .. .. .	3,550	2,595	2,202	2,579	2,453
Approx. value of land and buildings .. .. .	£ 701,125	681,818	650,000	667,948	656,181
Approx. value of plant and machinery .. .. .	£ 718,611	654,647	604,717	617,932	618,337
Wages paid .. .. .	£ 489,341	426,603	388,558	384,410	369,397
Value of fuel used .. .. .	£ 100,555	82,239	71,395	72,439	62,545
Value of materials used .. .. .	£ 2,133,004	1,797,688	1,448,411	1,486,457	1,408,015
Total value of output .. .. .	£ 3,661,958	3,143,838	2,768,214	2,875,670	2,664,778
Value of production .. .. .	£ 1,428,399	1,263,911	1,248,408	1,316,774	1,194,218

(a) Including other small establishments in Western Australia. (b) Excluding Western Australia.

(iii) *Raw Material Used and Production, 1928-29 to 1932-33.* 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Tallow used .. .. . cwt.	548,112	491,603	467,446	505,501	499,188
Alkali used .. .. . "	226,156	219,648	187,408	245,858	236,937
Coconut oil used .. .. . "	83,470	75,908	74,646	79,147	74,362
Soap made .. .. . "	1,130,947	1,026,373	976,771	964,476	924,403
Candles made .. .. . "	70,526	49,812	51,582	55,110	49,562



The output for the year 1932-33 comprised the following quantities of soap :— Household, 755,283 cwt. ; toilet, 88,574 cwt. ; sand, 58,558 cwt. ; soft, 12,992 cwt. ; and other, 8,996 cwt.

4. Saw-mills, etc.—(i) *Details for States, 1932-33.* 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, 1932-33.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	377	286	225	36	86	219	1,229
Number of employees ..	2,320	2,759	2,588	572	1,050	813	10,102
Actual horse-power of engines used ..	13,513	10,473	9,848	2,143	5,170	3,953	45,100
Approximate value of land and buildings ..	£ 696,860	444,910	312,771	151,452	222,951	68,989	1,897,933
Approximate value of plant and machinery ..	£ 541,505	602,965	503,254	109,165	540,350	152,669	2,449,908
Wages paid ..	£ 360,638	456,575	421,290	101,781	196,337	106,580	1,643,210
Value of fuel used ..	£ 26,808	25,072	22,870	5,144	10,181	12,386	103,361
Value of materials used ..	£ 1,134,356	594,449	750,515	343,933	320,124	141,825	3,285,202
Total value of output ..	£ 1,789,706	1,333,061	1,375,991	509,423	639,598	320,301	5,968,080
Value of production ..	£ 628,542	712,640	602,606	160,346	309,293	166,090	2,579,517

(ii) *Total for Australia, 1928-29 to 1932-33.* The development of forest and other saw-mills, etc., since 1928-29 is shown in the following table. Joinery works have been excluded for the last three years :—

**SAW-MILLS, FOREST AND OTHER.—AUSTRALIA.**

Items.	1928-29. (a)	1929-30. (a)	1930-31.	1931-32.	1932-33.
Number of establishments ..	2,164	2,109	1,160	1,161	1,229
Number of employees ..	24,975	20,957	9,079	8,338	10,102
Actual horse-power of engines used ..	68,330	69,301	44,024	42,557	45,100
Approx. value of land and buildings ..	£ 3,877,292	3,802,885	1,989,580	1,902,367	1,897,933
Approx. value of plant and machinery ..	£ 4,184,260	3,950,279	2,821,431	2,611,864	2,449,908
Wages paid ..	£ 5,017,539	4,477,491	1,675,640	1,358,351	1,643,210
Value of fuel used ..	£ 10,139,429	202,329	99,321	95,573	103,361
Value of materials used ..	£ 18,178,153	8,471,366	2,955,028	2,651,895	3,285,202
Total value of output ..	£ 78,334,691	15,605,706	5,512,150	4,820,537	5,968,080
Value of production ..	£ 7,834,691	6,932,011	2,457,801	2,073,089	2,579,517

(a) Including joinery works.

The returns for 1932-33 show a slight improvement but the effect of the depression is reflected in the decreases in the returns for the previous four years. The saw-mill output of native timber declined from 740 million super. feet in 1925-26 to 485 million super. feet in 1929-30; to 267 million super. feet in 1930-31; and to 237 million super. feet in 1931-32; recovering in 1932-33 to 307 million super. feet. Further reference is made to the saw-milling industry in Chapter XXI.—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, 1932-33.* The following table gives details respecting agricultural implement works in each State for the year 1932-33:—

AGRICULTURAL IMPLEMENT WORKS, 1932-33.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	27	72	5	31	7	..	142
Number of employees .. ..	460	2,426	194	623	67	..	3,770
Actual horse-power of engines used ..	426	2,857	23	1,237	249	..	4,792
Approx. value of land and buildings £	101,851	285,085	41,325	142,737	42,221	..	613,219
Approx. value of plant and machinery £	54,536	295,095	12,022	180,174	10,469	..	552,296
Wages paid .. ..	£ 87,687	407,403	32,200	85,315	13,609	..	626,214
Value of fuel used .. ..	£ 4,384	37,066	3,522	7,633	629	..	53,234
Value of materials used .. ..	£ 101,538	537,588	52,393	83,527	4,913	..	779,959
Total value of output .. ..	£ 227,838	1,129,500	105,911	208,234	28,040	..	1,699,523
Value of production .. ..	£ 121,916	554,846	49,996	117,074	22,498	..	866,330

(iii) *Total for Australia, 1928-29 to 1932-33.* 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 as compared with 1928-29. Details for the last five years are as follow:—

AGRICULTURAL IMPLEMENT WORKS.—AUSTRALIA.

Items.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Number of factories .. ..	150	148	148	139	142
Number of employees .. ..	5,480	4,463	3,043	2,634	3,770
Actual horse-power of engines used ..	4,808	4,737	4,349	4,094	4,792
Approx. value of land and buildings £	771,805	756,954	694,049	632,971	613,219
Approx. value of plant and machinery £	662,119	640,800	602,018	571,277	552,296
Wages paid .. ..	£ 1,227,720	985,369	607,421	441,102	626,214
Value of fuel used .. ..	£ 77,642	68,320	44,280	38,781	53,234
Value of materials used .. ..	£ 1,266,128	919,842	596,002	506,074	779,959
Total value of output .. ..	£ 3,167,332	2,397,562	1,473,173	1,146,849	1,699,523
Value of production .. ..	£ 1,823,562	1,409,406	832,891	601,994	866,330

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) 1932-33.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	256	329	44	52	84	19	784
Number of employees .. .	4,399	4,732	847	745	751	163	11,637
Actual horse-power of engines used .. .	7,661	7,710	1,480	1,288	608	336	19,083
Approximate value of land and buildings .. .	£ 1,262,428	£ 1,185,685	£ 185,811	£ 110,938	£ 204,620	£ 61,560	£ 3,011,042
Approximate value of plant and machinery .. .	£ 1,121,858	£ 1,238,609	£ 242,641	£ 127,609	£ 188,469	£ 35,217	£ 2,954,403
Wages paid .. .	£ 842,471	£ 868,433	£ 162,941	£ 99,474	£ 144,075	£ 25,025	£ 2,142,419
Value of fuel used .. .	£ 53,711	£ 61,098	£ 10,718	£ 10,092	£ 19,045	£ 3,259	£ 157,923
Value of materials used .. .	£ 811,070	£ 1,030,530	£ 167,339	£ 133,827	£ 148,249	£ 13,765	£ 2,309,780
Total value of output .. .	£ 2,120,938	£ 2,432,998	£ 445,887	£ 302,525	£ 391,279	£ 59,205	£ 5,752,832
Value of production .. .	£ 1,256,157	£ 1,341,370	£ 267,830	£ 158,606	£ 223,983	£ 37,181	£ 3,285,129

(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 the classification noted in the preceding sub-section 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 1932-33 are as follow:—

## SMELTING, CONVERTING, REFINING, AND ROLLING OF IRON AND STEEL, 1932-33.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	154	191	32	28	..	..	405
Number of employees .. .	6,018	3,207	506	780	..	..	10,511
Actual horse-power of engines used .. .	70,992	9,530	962	1,887	..	..	83,371
Approximate value of land and buildings .. .	£ 1,820,440	£ 630,331	£ 74,266	£ 118,090	..	..	£ 2,643,127
Approximate value of plant and machinery .. .	£ 5,246,766	£ 602,605	£ 128,147	£ 93,341	..	..	£ 6,070,859
Wages paid .. .	£ 1,372,105	£ 520,162	£ 80,439	£ 111,813	..	..	£ 2,084,519
Value of fuel used .. .	£ 849,985	£ 75,562	£ 11,699	£ 12,028	..	..	£ 949,274
Value of materials used .. .	£ 6,647,996	£ 642,750	£ 91,697	£ 129,775	..	..	£ 7,512,218
Total value of output .. .	£ 9,973,079	£ 1,562,820	£ 223,091	£ 281,606	..	..	£ 12,040,596
Value of production .. .	£ 2,475,098	£ 844,508	£ 119,695	£ 139,803	..	..	£ 3,579,104

8. Railway and Tramway Workshops.—(i) *Details for each State, 1932-33.* 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 1932-33, have, however, been excluded :—

**TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC.,(a) 1932-33.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	35	21	12	14	20	5	107
Number of employees ..	11,631	5,226	2,735	2,529	1,563	285	23,969
Actual horse-power of engines used ..	12,922	5,493	3,177	3,620	4,260	360	29,832
Approximate value of land and buildings ..	£ 2,859,698	1,454,147	573,119	874,874	479,791	17,733	6,259,362
Approximate value of plant and machinery ..	£ 2,357,494	1,104,044	373,155	709,775	391,350	88,233	5,024,051
Wages paid ..	£ 2,351,277	1,068,850	532,047	471,328	319,086	60,356	4,802,944
Value of fuel used ..	£ 95,132	71,779	16,220	21,928	12,936	4,457	222,452
Value of materials used ..	£ 1,616,365	1,274,194	286,371	366,520	173,682	16,028	3,733,160
Total value of output ..	£ 4,468,937	2,777,045	924,912	945,754	585,061	76,549	9,778,258
Value of production ..	£ 2,757,440	1,431,072	622,321	557,306	398,443	56,064	5,822,646

(a) Government and Municipal.

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, 1928-29 to 1932-33.* The following table shows the development of railway and tramway workshops in Australia since 1928-29 :—

**TRAMCARS, RAILWAY ROLLING-STOCK AND CARRIAGES, ETC.—  
AUSTRALIA.**

Items.	1928-29.	1929-30.	1930-31. (a)	1931-32. (a)	1932-33. (a)
Number of factories ..	122	120	112	108	107
Number of employees ..	31,658	29,339	26,055	24,017	23,969
Actual horse-power of engines used ..	32,316	31,600	31,952	34,050	29,832
Approx. value of land and buildings ..	£ 5,836,151	6,230,511	6,393,435	6,027,378	6,259,362
Approx. value of plant and machinery ..	£ 5,726,039	5,872,138	5,329,478	4,939,144	5,024,051
Wages paid ..	£ 8,058,200	7,599,005	6,033,954	5,095,173	4,802,944
Value of fuel used ..	£ 322,936	295,415	239,782	218,795	222,452
Value of materials used ..	£ 6,667,634	5,709,328	3,930,083	3,476,207	3,733,160
Total value of output ..	£ 17,072,699	15,615,590	11,626,861	9,782,847	9,778,258
Value of production ..	£ 10,082,129	9,610,847	7,456,996	6,087,839	5,822,646

(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, 1932-33.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A. (a)	Tas.	Australia.
Number of factories .. ..	9	8	9	1	..	2	29
Number of employees .. ..	738	55	450	951	..	1,017	3,211
Actual horse-power of engines used .. ..	7,924	76	6,736	(b)	..	(b)	c 58,119
Approx. value of land and buildings £ .. ..	201,427	20,595	176,602	(b)	..	(b)	c 846,128
Approx. value of plant and machinery £ .. ..	511,149	9,025	513,762	(b)	..	(b)	c 2,507,091
Wages paid .. ..	£ 200,767	8,028	120,017	(b)	..	(b)	c 827,706
Value of fuel used .. ..	£ 172,683	1,697	122,636	(b)	..	(b)	c 744,939
Value of materials used .. ..	£ 3,528,584	98,214	668,066	(b)	..	(b)	c 6,943,476
Total value of output .. ..	£ 4,312,357	122,230	1,107,568	(b)	..	(b)	c 9,533,090
Value of production .. ..	£ 611,090	22,319	316,866	(b)	..	(b)	c 1,844,675

(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, 1932-33.* The table hereunder gives particulars of factories engaged in bacon-curing in each State for the year 1932-33 :—

**BACON-CURING FACTORIES, 1932-33.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	21	20	8	8	7	7	71
Number of employees .. ..	296	516	575	205	57	39	1,688
Actual horse-power of engines used .. ..	991	2,162	1,122	437	440	143	5,295
Approximate value of land and buildings .. ..	£ 119,107	232,415	168,946	59,987	24,758	11,732	616,945
Approximate value of plant and machinery .. ..	£ 41,196	115,395	97,353	31,185	10,861	6,789	302,779
Wages paid .. ..	£ 75,689	106,334	119,561	40,843	12,476	6,101	361,054
Value of fuel used .. ..	£ 12,646	19,297	17,296	3,943	2,459	2,496	58,137
Value of materials used .. ..	£ 585,721	564,829	565,323	237,275	110,637	32,918	2,096,703
Total value of output .. ..	£ 743,075	812,793	819,847	322,415	138,795	48,156	2,885,081
Value of production .. ..	£ 144,708	228,667	237,228	81,197	25,699	12,742	730,241

(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 1932-33 are given hereafter :—

**BACON-CURING FACTORIES.—PIGS KILLED, AND PRODUCTION, 1932-33.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>PIGS KILLED.</b>							
Number .. ..	216,975	196,937	235,187	76,856	45,133	13,360	784,448
<b>PRODUCTS.</b>							
Bacon and ham .. lb.	19,250,875	16,425,732	16,701,874	6,593,717	3,453,994	1,108,954	63,535,146
Lard .. ..	519,978	905,067	893,216	243,630	161,760	67,851	2,791,502
<b>VALUE.</b>							
Bacon and ham .. £	636,595	609,306	601,413	219,591	109,770	39,816	2,216,431
Lard .. ..	10,038	27,728	17,093	5,230	3,341	1,651	65,081
Other products .. £	78,261	79,032	201,341	97,594	11,853	6,442	474,523

Bacon and ham and other pig products are dealt with more fully in Chapter XX.—Farmyard, Dairy and Bee Products.

**II. Butter, Cheese, and Condensed Milk Factories.—(i) Details for each State, 1932-33.** The subjoined table gives particulars of butter, cheese and condensed milk factories in each State during the year 1932-33 :—

**BUTTER, CHEESE, AND CONDENSED MILK FACTORIES, 1932-33.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. ..	131	174	118	44	18	35	520
Number of employees .. ..	1,335	2,455	1,164	383	170	196	5,703
Actual horse-power of engines used .. ..	10,647	7,963	7,791	1,284	748	595	29,023
Approximate value of land and buildings .. .. £	646,729	1,033,145	542,878	171,459	87,499	51,760	2,533,470
Approximate value of plant and machinery .. .. £	777,147	1,028,545	683,378	120,230	83,766	56,152	2,749,218
Wages paid .. .. £	312,675	506,057	231,278	67,424	33,826	27,147	1,179,007
Value of fuel used .. .. £	83,156	145,473	45,741	17,079	10,178	9,627	311,254
Value of materials used .. .. £	5,426,582	6,730,394	4,170,204	887,452	436,546	345,040	17,996,264
Total value of output .. .. £	6,090,490	7,998,432	4,860,442	1,049,495	604,923	432,186	21,035,968
Value of production .. .. £	580,752	1,122,565	644,497	144,964	158,199	77,513	2,728,490

(ii) *Total for Australia, 1928-29 to 1932-33.* The progress of this industry during the last five years is set out hereunder :—

**BUTTER, CHEESE, AND CONDENSED MILK FACTORIES.—AUSTRALIA.**

Items.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Number of factories .. ..	523	509	506	513	520
Number of employees .. ..	5,441	5,276	5,129	5,488	5,703
Actual horse-power of engines used .. ..	24,219	25,223	26,843	29,131	29,023
Approx. value of land and buildings .. .. £	2,366,789	2,538,589	2,530,661	2,545,245	2,533,470
Approx. value of plant and machinery .. .. £	2,598,702	2,735,185	2,766,227	2,715,729	2,749,218
Wages paid .. .. £	1,289,000	1,291,259	1,228,100	1,202,209	1,179,007
Value of fuel used .. .. £	334,556	355,811	328,229	303,547	311,254
Value of materials used .. .. £	22,023,740	21,791,835	19,925,013	19,920,816	17,996,224
Total value of output .. .. £	26,305,690	25,153,846	23,200,709	22,743,620	21,035,968
Value of production .. .. £	3,407,394	3,006,200	2,947,467	2,519,257	2,728,490

(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 1932-33:—

**BUTTER, CHEESE AND CONDENSED MILK FACTORIES.—PRODUCTION, 1932-33.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
<b>MILK USED (,000 OMITTED).</b>							
Butter factories .. gals.	233,551	317,382	204,271	33,791	19,256	19,942	828,193
Cheese factories ..	7,478	8,854	12,860	5,689	150	1,105	36,136
Condensed milk factories ..	(a)	13,827	(a)	..	(a)	..	(b) 17,316

<b>PRODUCTS (,000 OMITTED).</b>							
Butter .. .. lb.	123,625	139,920	100,028	17,162	9,461	8,479	398,675
Cheese .. .. "	7,054	9,074	13,080	6,092	135	1,107	36,542
Condensed and concentrated milk .. .. lb.	(a)	31,888	(a)	..	(a)	..	(b) 40,793
Powdered milk .. "	..	12,299	..	..	..	..	12,299

<b>VALUE (,000 OMITTED).</b>							
Butter .. .. £	5,569	6,518	4,512	865	541	401	18,406
Cheese .. .. £	234	323	322	165	4	27	1,075
Condensed and concentrated milk .. .. £	(a)	662	(a)	..	(a)	..	(b) 916
Powdered milk .. £	..	332	..	..	..	..	332

(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 XX.—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 attempt to export chilled meat instead of frozen meat has already been referred to in Chapter XVIII.—Pastoral Production.

**MEAT AND FISH PRESERVING WORKS,(c) 1932-33.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	6	24	8	1	4	2	45
Number of employees ..	275	1,221	1,550	(a)	237	2	3,285
Actual horse-power of engines used ..	278	5,242	6,543	(a)	637	(a)	(b) 12,705
Approximate value of land and buildings .. £	56,865	726,115	1,019,515	(a)	368,562	(a)	(b) 2,172,323
Approximate value of plant and machinery .. £	19,519	398,460	566,862	(a)	383,529	(a)	(b) 1,368,017
Wages paid .. £	57,810	255,163	453,350	(a)	60,368	(a)	(b) 826,661
Value of fuel used .. £	7,992	49,987	72,902	(a)	6,724	(a)	(b) 137,661
Value of materials used .. £	173,624	2,058,357	2,348,688	(a)	86,656	(a)	(b) 54,668,848
Total value of output .. £	264,098	2,536,899	3,211,597	(a)	184,667	(a)	(b) 66,200,914
Value of production .. £	83,382	428,555	790,007	(a)	91,287	(a)	(b) 51,394,405

(a) Not available for publication.

(b) Including South Australia and Tasmania.

(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 XVIII.—Pastoral Production.

13. Bakeries.—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1932-33 is given in the table below :—

**BAKERIES (INCLUDING CAKES AND PASTRY), 1932-33.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories .. ..	427	509	226	106	81	66	1,415
Number of employees .. ..	2,938	2,843	1,498	697	367	842	9,185
Actual horse-power of engines used .. ..	3,164	2,078	869	697	441	589	7,838
Approximate value of land and buildings .. ..	£ 1,600,295	£ 1,049,848	£ 387,591	£ 238,675	£ 126,329	£ 321,956	£ 3,724,694
Approximate value of plant and machinery .. ..	£ 491,932	£ 378,451	£ 160,416	£ 81,501	£ 41,566	£ 56,645	£ 1,210,541
Wages paid .. ..	£ 545,809	£ 424,851	£ 222,567	£ 100,363	£ 56,082	£ 113,043	£ 1,462,715
Value of fuel used .. ..	£ 96,898	£ 81,792	£ 27,020	£ 15,108	£ 8,094	£ 15,665	£ 244,577
Value of materials used .. ..	£ 1,661,160	£ 1,425,518	£ 611,879	£ 298,654	£ 161,238	£ 250,592	£ 4,409,041
Total value of output .. ..	£ 2,819,752	£ 2,382,547	£ 1,216,775	£ 507,308	£ 296,336	£ 450,094	£ 7,672,812
Value of production .. ..	£ 1,061,694	£ 875,237	£ 577,876	£ 193,546	£ 127,004	£ 183,837	£ 3,019,194

(a) Includes Biscuits and Confectionery.

14. Jam and Fruit Preserving, Pickles, Sauces, and Vinegar Factories.—(i) *Details for each State, 1932-33.* The subjoined table gives particulars of factories included in this class for the year 1932-33 :—

**JAM AND FRUIT PRESERVING, PICKLES, ETC., FACTORIES, 1932-33.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	33	42	11	14	7	8	115
Number of employees .. ..	1,100	2,141	582	427	58	478	4,786
Actual horse-power of engines used .. ..	1,764	2,150	251	305	43	1,217	5,730
Approximate value of land and buildings .. ..	£ 275,141	£ 484,350	£ 37,372	£ 110,982	£ 16,232	£ 101,233	£ 1,025,310
Approximate value of plant and machinery .. ..	£ 128,070	£ 276,690	£ 28,856	£ 56,601	£ 4,283	£ 30,557	£ 525,057
Wages paid .. ..	£ 180,264	£ 327,027	£ 46,644	£ 55,014	£ 8,044	£ 92,579	£ 709,572
Value of fuel used .. ..	£ 18,386	£ 30,617	£ 2,888	£ 5,605	£ 603	£ 8,132	£ 66,231
Value of materials used .. ..	£ 707,414	£ 1,560,175	£ 269,066	£ 248,577	£ 33,874	£ 366,179	£ 3,185,285
Total value of output .. ..	£ 1,197,482	£ 2,360,398	£ 409,242	£ 364,005	£ 50,987	£ 536,923	£ 4,919,037
Value of production .. ..	£ 471,682	£ 769,606	£ 137,288	£ 109,823	£ 16,510	£ 162,612	£ 1,667,521

(ii) *Total for Australia, 1928-29 to 1932-33.* 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Number of factories .. ..	121	121	111	121	115
Number of employees .. ..	5,478	4,780	3,803	4,130	4,786
Actual horse-power of engines used .. ..	5,198	6,101	5,308	5,711	5,730
Approx. value of land and buildings .. ..	£ 1,058,445	£ 1,064,661	£ 984,464	£ 1,037,911	£ 1,025,310
Approx. value of plant and machinery .. ..	£ 601,229	£ 567,833	£ 546,362	£ 548,062	£ 525,057
Wages paid .. ..	£ 869,144	£ 873,508	£ 627,209	£ 617,912	£ 709,572
Value of fuel used .. ..	£ 78,422	£ 83,634	£ 61,588	£ 61,832	£ 66,231
Value of materials used .. ..	£ 3,030,762	£ 3,290,268	£ 2,354,034	£ 2,785,669	£ 3,185,285
Total value of output .. ..	£ 5,054,595	£ 5,178,438	£ 3,686,333	£ 4,210,988	£ 4,919,037
Value of production .. ..	£ 1,945,411	£ 1,804,536	£ 1,270,711	£ 1,363,487	£ 1,667,521



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 loss of this trade on the termination of the war, production declined considerably, and in 1932-33 amounted to only 78,994,633 lb., compared with 142,290,204 lb. in 1918-19. The output of preserved fruit has greatly increased, and in 1932-33, 104,206,650 lb., a record quantity, were processed. 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 1932-33 :—

#### JAMS, PRESERVED FRUIT, PICKLES AND SAUCES.—OUTPUT, 1932-33.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Jams .. .. lb.	14,834	34,983	6,561	7,046	671	14,900	78,995
Pulp .. .. ..	1,346	19,027	690	4,958	399	5,573	31,993
Fruit, preserved .. ..	18,954	67,807	8,273	5,122	7	4,044	104,207
Pickles .. .. pints	708	855	236	636	(a)	(a)	(b) 2,596
Sauces .. .. ..	5,591	6,105	476	1,930	(a)	(a)	(b) 14,619

#### VALUE.

Jams .. .. £	405,503	668,312	144,356	145,497	13,348	334,026	1,711,042
Pulp .. .. £	8,505	85,749	4,369	35,580	1,661	80,872	216,736
Fruit, preserved .. ..	323,905	1,093,375	209,695	84,328	140	104,453	1,815,896
Pickles .. .. £	28,719	28,333	8,924	22,569	(a)	(a)	(b) 94,014
Sauces .. .. £	258,878	194,518	14,694	61,521	(a)	(a)	(b) 544,932

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

15. *Confectionery Factories.*—(i) *Details for each State, 1932-33.* 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 1932-33 given hereunder show the remarkable development since 1900 :—

#### SUGAR CONFECTIONERY FACTORIES,(b) 1932-33.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories .. ..	66	114	10	18	9	4	221
Number of employees .. ..	2,718	2,624	436	350	231	16	6,375
Actual horse-power of engines used .. ..	3,968	5,952	886	579	249	57	11,691
Approximate value of land and buildings .. .. £	999,998	417,120	160,063	93,057	56,612	10,700	1,737,550
Approximate value of plant and machinery .. .. £	947,731	555,591	79,971	76,839	71,747	6,618	1,738,497
Wages paid .. .. £	375,967	355,673	54,694	36,197	34,061	911	857,503
Value of fuel used .. .. £	44,945	44,436	5,989	9,112	3,718	289	108,489
Value of materials used .. ..	£ 1,137,951	975,725	119,030	106,764	67,122	2,553	2,409,145
Total value of output .. ..	£ 2,194,652	1,687,066	249,274	171,054	166,210	4,819	4,473,075
Value of production .. ..	£ 1,011,756	666,905	124,255	55,178	95,370	1,977	1,955,441

(a) Ice Cream factories—Other Confectionery included in Bakeries.

(b) Including Chocolate and Ice Cream.

(ii) *Total for Australia, 1928-29 to 1932-33.* Particulars of the confectionery industry during the last five years are exhibited in the following table :—

**SUGAR CONFECTIONERY FACTORIES.—AUSTRALIA.**

Items.	1928-29. (a)	1929-30. (b)	1930-31. (c)	1931-32. (c)	1932-33. (c)
Number of factories .. ..	320	254	220	223	221
Number of employees .. ..	8,386	7,260	6,241	6,270	6,375
Actual horse-power of engines used .. ..	12,737	12,432	11,014	12,574	11,691
Approx. value of land and buildings £	2,201,885	2,007,492	1,788,358	1,797,490	1,737,550
Approx. value of plant and machinery	2,368,208	2,248,470	1,987,197	1,882,742	1,738,497
Wages paid .. ..	£ 1,335,997	1,167,654	931,991	861,562	857,503
Value of fuel used .. ..	£ 183,787	167,526	118,245	111,789	108,489
Value of materials used .. ..	£ 3,998,006	3,549,673	2,590,032	2,276,592	2,409,145
Total value of output .. ..	£ 7,455,428	6,567,759	4,832,952	4,398,656	4,473,075
Value of production .. ..	£ 3,272,735	2,850,560	2,124,675	2,010,275	1,955,441

(a) Including Biscuits and Bakeries in Tasmania. (b) Figures for Tasmania included in Bakeries. (c) 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 1932-33 was less by 12 per cent., than in 1929-30. A similar comparison with the year 1928-29 is not possible because in this year bakeries and confectionery establishments in Tasmania were combined 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, 1932-33.* The following table shows the position of the flour-milling industry in each State in 1932-33 :—

**GRAIN MILLING, 1932-33.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas. (a)	Australia.
Number of factories .. ..	52	39	10	37	21	9	168
Number of employees .. ..	1,251	1,049	358	404	389	104	3,553
Actual horse-power of engines used .. ..	7,676	6,066	1,530	3,352	3,452	540	22,616
Approximate value of land and buildings .. ..	£ 785,345	489,920	175,688	205,902	232,390	55,847	1,945,092
Approximate value of plant and machinery .. ..	£ 752,760	497,825	227,664	243,037	266,205	39,427	2,026,918
Wages paid .. ..	£ 288,993	227,850	81,512	76,185	77,552	23,096	775,188
Value of fuel used .. ..	£ 80,286	60,738	16,005	24,069	21,690	4,295	207,083
Value of materials used .. ..	£ 3,947,751	3,168,112	887,304	927,868	941,768	213,879	10,086,682
Total value of output .. ..	£ 4,979,890	3,800,975	1,176,470	1,157,273	1,162,560	264,274	12,541,442
Value of production .. ..	£ 951,853	572,125	273,161	205,336	199,102	46,100	2,247,677

(a) The manufacture of cornflour, oatmeal, etc., was also carried on in some of these establishments.

(ii) *Production of Flour and By-products, 1928-29 to 1932-33.* 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)
1928-29 .. ..	449,011	390,286	54,433	137,202	119,550	21,277	1,171,759
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

(a) Tons of 2,000 lb.

The production of flour in Australia for the last year, viz., 1,319,250 tons, was valued at £9,747,770. In addition, 554,773 tons of bran and pollard, valued at £2,704,288, were made. The quantity of wheat ground was 63,139,635 bushels.

17. Sugar Mills.—(i) *Details for 1932-33.* The following table shows the position of the cane-crushing branch of the sugar-making industry in New South Wales and Queensland in 1932-33. Sugar-cane is not grown in the other States. Details regarding the area, yield, etc., of sugar-cane will be found in Chapter XIX.—Agricultural Production.

## SUGAR MILLS, 1932-33.

Items.	N.S.W.	Queensland.	Australia.
Number of factories .. .. .	3	33	36
Number of employees .. .. .	118	4,916	5,034
Actual horse-power of engines used .. .. .	2,879	39,177	42,056
Approximate value of land and buildings £ .. .. .	134,000	806,574	940,574
Approximate value of plant and machinery £ .. .. .	535,823	6,625,262	7,161,085
Wages paid .. .. . £ .. .. .	54,989	999,369	1,054,358
Value of fuel used .. .. . £ .. .. .	8,324	82,778	91,102
Value of materials used .. .. . £ .. .. .	254,676	7,470,533	7,725,209
Total value of output .. .. . £ .. .. .	391,417	9,531,404	9,922,821
Value of production .. .. . £ .. .. .	128,417	1,978,093	2,106,510

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 compared with 1911:—

## SUGAR MILLS.—NEW SOUTH WALES.

Items.	1911.	1929-30.	1930-31.	1931-32.	1932-33.
Number of factories .. .. .	4	3	3	3	3
Number of employees .. .. .	469	170	135	124	118
Cane crushed .. .. . tons	147,799	174,110	160,209	179,153	156,818
Sugar produced .. .. . „	17,299	19,568	18,841	22,459	18,567
Molasses produced .. .. . gals.	796,440	1,064,405	918,800	940,600	899,100

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, differ therefore from those given in Chapter XIX.—Agriculture, which refer to harvest years.

(b) *Queensland.* Details for Queensland from 1911 and for the last four years are given hereunder:—

## SUGAR MILLS.—QUEENSLAND, 1911 TO 1932-33.

Items.	1911.	1929-30.	1930-31.	1931-32.	1932-33.
Number of factories ..	49	35	35	35	33
Number of employees ..	4,295	5,459	5,138	5,114	4,916
Cane crushed .. tons	1,534,451	3,572,068	3,539,475	4,033,889	3,546,373
Sugar produced ..	173,296	513,551	514,296	579,222	512,781
Molasses—					
Sold to distillers and others .. gals.	2,393,669	5,854,398	4,529,352	3,282,351	2,904,242
Used as fodder ..	789,564	2,382,192	2,342,609	2,940,551	2,988,905
Used as manure ..	223,000	298,395	714,670	1,753,086	1,414,338
Run to waste ..	1,847,333	2,253,083	1,311,453	910,418	1,402,483
Burnt as fuel ..		4,202,588	4,354,350	7,075,905	6,182,769
In stock ..		1,197,626	871,292	1,206,050	1,350,769
Total Molasses ..	6,451,192	15,861,948	14,458,484	17,313,140	15,791,261

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 1932-33 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 325,974 tons, for a yield of 324,812 tons of refined sugar, valued at £11,105,297.

19. *Breweries.*—(i) *Details for each State, 1932-33.* The following table gives particulars concerning breweries in each State:—

## BREWERIES, 1932-33.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of breweries ..	5	9	8	7	8	4	41
Number of employees ..	778	1,081	328	236	384	81	2,888
Actual horse-power of engines used ..	5,489	4,011	1,652	1,497	2,023	643	15,315
Approx. value of land and buildings .. £	848,827	715,975	292,644	183,006	171,422	166,543	2,378,417
Approx. value of plant and machinery .. £	834,484	906,130	273,627	167,477	234,090	119,623	2,535,431
Wages paid .. £	211,132	349,544	91,515	75,157	109,909	21,114	858,371
Value of fuel used .. £	63,006	56,945	23,702	16,388	16,178	7,209	183,428
Value of materials used .. £	558,424	784,754	171,711	139,597	208,970	41,691	1,905,147
Total value of output .. £	1,931,357	1,809,977	468,222	356,009	536,830	133,528	5,235,923
Value of production .. £	1,309,927	968,278	272,809	200,024	311,682	84,628	3,147,348

(1) Includes Malt Works.

(ii) *Total for Australia, 1928-29 to 1932-33.* The next table shows the extent of this industry for the last five years :—

### BREWERIES.—AUSTRALIA.

Items.	1928-29.	1929-30.	1930-31.	1931-32. (a)	1932-33. (a)
Number of breweries .. .. .	45	45	43	41	41
Number of employees .. .. .	3,874	3,590	3,109	2,882	2,888
Actual horse-power of engines used .. .. .	14,217	14,800	15,558	15,347	15,315
Approx. value of land and buildings £	2,476,207	2,457,428	2,447,642	2,400,715	2,378,417
Approx. value of plant and machinery £	2,912,078	2,956,907	2,805,987	2,639,383	2,535,431
Wages paid .. .. .	£ 1,208,699	1,105,380	992,698	889,639	858,371
Value of fuel used .. .. .	£ 295,908	276,199	230,938	187,452	183,428
Value of materials used .. .. .	£ 3,310,659	2,887,251	2,146,331	1,889,023	1,905,147
Total value of output .. .. .	£ 7,921,010	7,258,933	5,828,193	5,133,025	5,235,923
Value of production .. .. .	£ 4,314,443	4,095,483	3,450,904	3,055,650	3,147,348

(a) Includes Malt Works in Tasmania.

During the period embraced in the above table, the reduction in the number of establishments was mainly due to amalgamations. The value of the output of breweries in Australia decreased from £7,921,010 in 1928-29 to £5,235,923 in 1932-33, and the quantity of ale and stout brewed fell from 73,723,234 to 52,519,329 gallons during the same period. During 1932-33 the industry slightly improved its position compared with the previous year. The consumption of ale and stout per head of the population remained fairly steady for several years at about 11.25 gallons. In 1929-30 the average fell to 10.25 gallons, in 1930-31 to 8.12 gallons, in 1931-32 to 7.32 gallons, and in 1932-33 increased slightly to 7.43 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 1932-33.

### BREWERIES.—MATERIALS USED AND PRODUCTION, 1932-33.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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#### RAW MATERIAL USED.

Malt .. bushels	593,238	631,945	176,692	125,913	181,832	35,012	1,744,632
Hops .. lb.	542,768	600,744	148,968	126,724	152,843	26,134	1,598,181
Sugar .. cwt.	62,320	70,835	18,720	15,282	11,827	3,362	182,346

#### RAW MATERIAL USED PER 1,000 GALLONS OF ALE AND STOUT PRODUCED.

Malt .. bushels	32.86	31.51	33.74	32.82	41.39	37.24	33.22
Hops .. lb.	30.06	29.95	28.45	33.03	34.79	27.80	30.43
Sugar .. cwt.	3.45	3.53	3.57	3.98	2.69	3.58	3.47

#### ALE AND STOUT BREWED.

Quantity gallons	18,055,029	20,057,330	5,236,646	3,836,832	4,393,262	940,230	52,519,329
Value (a) £	1,931,187	1,844,416	468,222	351,565	498,628	124,197	5,218,215

(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 1932-33:—Materials used: barley 60,682 bushels; rye 1,179 bushels; molasses 602,350 cwt.; wine 8,904,671 gallons; raisins and currants 11,024 cwt.; spirits distilled from barley, malt and grain 445,545 gallons; from molasses 3,033,068 gallons; and from wine 1,492,582 gallons; Total 4,976,195 gallons. The quantity of spirits denatured during the year was 1,913,472 gallons.

21. Tobacco, etc., Factories.—(i) *Details for each State, 1932-33.* During the year 1932-33 there were thirty establishments in which the manufacture of tobacco, cigars, or cigarettes was carried on. There were no factories engaged in this industry in Tasmania.

TOBACCO, CIGAR, AND CIGARETTE FACTORIES, 1932-33.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
Number of factories .. ..	8	13	6	2	1	30
Number of employees .. ..	2,232	1,685	60	14	151	4,142
Actual horse-power of engines used .. ..	1,164	904	(a)	(a)	(a)	2,145
Approx. value of land and buildings £	564,174	322,855	(a)	(a)	(a)	910,547
Approx. value of plant and machinery £	425,623	217,000	(a)	(a)	(a)	663,069
Wages paid .. ..	455,805	330,849	(a)	(a)	(a)	812,220
Value of fuel used .. ..	13,185	9,255	(a)	(a)	(a)	23,088
Value of materials used .. ..	3,392,469	1,365,769	(a)	(a)	(a)	4,823,564
Total value of output .. ..	4,342,083	2,123,016	(a)	(a)	(a)	6,659,780
Value of production .. ..	936,429	747,992	(a)	(a)	(a)	1,745,128

(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 1932-33 comprised—manufactured tobacco 53,340 lb., cigars 4,455 lb., and cigarettes 31,861 lb., while the quantities manufactured in Australian factories were respectively 14,788,145 lb., 253,985 lb., and 4,362,198 lb. The following tables show the extent of the industry in Australia for the last five years:—

TOBACCO, CIGAR, AND CIGARETTE FACTORIES.—AUSTRALIA.

Items.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Number of factories .. ..	23	33	22	24	30
Number of employees .. ..	4,137	4,096	4,154	4,110	4,142
Actual horse-power of engines used .. ..	1,946	1,986	2,009	2,133	2,145
Approx. value of land and buildings £	794,421	857,787	857,540	912,541	910,547
Approx. value of plant and machinery £	543,462	565,556	618,377	656,862	663,069
Wages paid .. ..	808,865	818,342	807,348	800,702	812,220
Value of fuel used .. ..	24,115	24,941	24,685	26,013	23,088
Value of materials used .. ..	4,427,806	5,111,443	4,831,775	5,448,396	4,823,564
Total value of output .. ..	6,812,701	7,523,114	6,842,394	7,299,324	6,591,780
Value of production .. ..	2,360,870	2,386,730	1,985,934	1,824,915	1,745,128

LEAF USED AND PRODUCTION.

Leaf used	Australian	Imported	Total	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Leaf used	.. ..	.. ..	1,000 lb.	978	1,192	3,129	2,349	2,722
Tobacco made	.. ..	.. ..	.. ..	18,158	17,983	13,327	14,076	14,103
Cigars made	.. ..	.. ..	.. ..	15,678	16,064	14,242	14,084	14,788
Cigarettes made	.. ..	.. ..	.. ..	339	307	224	225	234
	.. ..	.. ..	.. ..	5,358	5,371	4,225	4,191	4,362

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, however, the quantity of local leaf used fell to 2.7 million lb. In this connexion, see item "Tobacco" in Chapter XIX.—Agricultural Production. The respective quantities of Australian and imported leaf used during 1932-33 were 2,721,893 lb., and 14,103,436 lb.

22. **Woollen and Tweed Mills.**—(i) *Details for each State, 1932-33.* 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 1932-33:—

**WOOLLEN AND TWEED (INCLUDING WOOLSCOURING) MILLS, 1932-33.**

Items.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W.A.	Tas.	Australia.
Number of factories .. ..	18	35	16	9	5	6	89
Number of employees .. ..	4,777	8,417	698	712	172	1,430	16,206
Actual horse-power of engines used	8,213	16,726	1,897	1,788	555	2,407	31,586
Approx. value of land and buildings .. ..	£ 647,859	1,144,705	83,755	86,676	49,580	261,379	2,273,954
Approx. value of plant and machinery .. ..	£ 1,058,863	1,630,507	143,566	146,884	77,084	297,820	3,354,724
Wages paid .. ..	£ 701,125	1,106,309	103,124	86,953	28,249	170,402	2,196,162
Value of fuel used .. ..	£ 104,864	231,594	18,832	20,552	9,267	41,222	426,331
Value of materials used .. ..	£ 1,702,393	2,459,563	1,097,349	341,658	122,955	360,720	6,084,638
Total value of output .. ..	£ 2,968,106	4,600,520	1,300,988	470,469	181,102	786,740	10,307,925
Value of production .. ..	£ 1,160,849	1,909,363	184,807	108,259	48,880	384,798	3,796,956

(a) Woolscouring not included.

(ii) *Total for Australia, 1928-29 to 1932-33.* 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.	1928-29. (a)	1929-30. (a)	1930-31.	1931-32.	1932-33.
Number of factories .. ..	53	58	92	81	89
Number of employees .. ..	11,430	11,843	11,551	13,607	16,206
Actual horse-power of engines used	24,748	26,407	27,453	30,298	31,586
Approx. value of land and buildings	£ 1,984,124	2,124,486	2,305,858	2,232,015	2,273,954
Approx. value of plant and machinery	£ 3,487,795	3,553,493	3,567,670	3,381,308	3,354,724
Wages paid .. ..	£ 1,766,820	1,780,514	1,633,432	1,945,879	2,196,162
Value of fuel used .. ..	£ 270,995	298,212	301,428	322,532	426,331
Value of materials used .. ..	£ 4,363,482	3,758,577	3,756,418	4,893,757	6,084,638
Total value of output .. ..	£ 7,477,295	6,964,160	6,758,788	8,452,209	10,307,925
Value of production .. ..	£ 2,842,818	2,907,371	2,700,942	3,235,740	3,796,956

(a) Excluding Woolscouring.

(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 1932-33 was 21,127,415 yards. In New South Wales 7,177,751 yards, and in Victoria 12,756,182 yards of tweed and cloth were manufactured. The production of flannel amounted to 9,610,272 yards, while blankets, shawls, and rugs to the number of 1,141,008 were made. The output of yarn reported was 10,186,903 lb., most of which was produced in Victoria.

In addition to the woollen and tweed factories, there were 290 hosiery and knitting mills operating in Australia in 1932-33. These establishments provided employment for 13,884 persons, of whom 10,099 were females, and the value of their output amounted to £6,272,318.

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 1932-33, and these employed 1,783 hands, while the value of the output was £1,187,246.

23. *Boot Factories.*—(i) *Boot and Shoe Factories, 1932-33.* 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, 1932-33.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	92	172	18	14	8	4	308
Number of employees ..	4,192	9,025	881	433	323	101	14,955
Actual horse-power of engines used ..	1,675	2,862	272	296	226	52	5,383
Approx. value of land and buildings ..	£ 381,309	702,380	66,380	72,585	37,011	11,495	1,271,160
Approx. value of plant and machinery ..	£ 228,326	395,145	39,943	23,193	18,750	4,153	709,510
Wages paid ..	£ 549,676	1,160,032	107,015	51,909	40,436	12,698	1,921,766
Value of fuel used ..	£ 14,357	32,806	2,117	1,461	1,145	572	52,458
Value of materials used ..	£ 929,561	1,978,374	125,671	79,620	85,150	21,899	3,220,275
Total value of output ..	£ 1,711,463	3,718,635	278,099	146,472	138,654	39,524	6,032,847
Value of production ..	£ 767,545	1,707,455	150,311	65,391	52,359	17,053	2,760,114

(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 1932-33 the number amounted to 1,210, in which 1,907 hands were employed. The sum of £103,664 was distributed in salaries and wages, and the output was valued at £597,322.



(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, 1932-33.**

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
QUANTITY (,000 OMITTED).							
Boots and shoes pairs	3,826	8,057	548	395	346	68	13,240
Slippers .. ..	1,819	2,666	3	31	71	1	4,591
Uppers (a) .. ..	50	29	132	5	..	..	216
. VALUE.							
Boots and shoes	£ 1,516,266	3,345,555	262,106	138,536	127,290	38,122	5,427,875
Slippers .. ..	£ 171,901	313,744	840	3,170	10,413	778	506,846
Uppers (a) .. ..	£ 12,451	8,661	14,853	2,446	280	52	38,743

(a) Made for other than factory use.

24. *Tailoring, and Slop Clothing Factories.*—(i) *Details for each State, 1932-33.* The importance of this industry in the several States is shown in the following table :—

**TAILORING AND SLOP CLOTHING FACTORIES, 1932-1933.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	321	400	98	106	69	25	1,019
Number of employees .. ..	7,205	6,714	2,240	1,406	809	307	18,681
Actual horse-power of engines used .. ..	737	652	203	157	79	19	1,847
Approx. value of land and buildings .. ..	£ 1,029,584	812,956	207,538	221,278	148,106	73,718	2,493,180
Approx. value of plant and machinery .. ..	£ 93,052	101,074	28,636	19,354	11,654	3,646	257,416
Wages paid .. ..	£ 764,890	689,490	195,059	128,082	88,192	29,636	1,895,349
Value of fuel used .. ..	£ 16,600	19,662	5,641	4,155	1,968	805	48,831
Value of materials used .. ..	£ 1,313,437	1,707,164	307,289	143,783	121,104	42,996	3,635,773
Total value of output .. ..	£ 2,398,612	2,895,060	661,610	337,149	271,039	89,786	6,653,256
Value of production .. ..	£ 1,068,575	1,168,234	348,680	189,211	147,967	45,985	2,968,652

(ii) *Total for Australia, 1928-29 to 1932-33.* Details for the last five years are as follow :—

**TAILORING, AND SLOP CLOTHING FACTORIES.—AUSTRALIA.**

Items.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Number of factories .. ..	1,440	1,327	1,112	1,006	1,019
Number of employees .. ..	26,953	23,016	17,664	17,470	18,681
Actual horse-power of engines used .. ..	1,802	2,062	1,683	1,647	1,847
Approx. value of land and buildings .. ..	£ 4,389,473	4,151,355	3,272,248	2,654,382	2,493,180
Approx. value of plant and machinery .. ..	£ 337,057	328,676	278,696	236,976	257,416
Wages paid .. ..	£ 3,524,994	3,190,686	2,058,597	1,859,268	1,895,349
Value of fuel used .. ..	£ 65,100	63,011	50,717	47,798	48,831
Value of materials used .. ..	£ 5,092,739	4,473,949	3,119,083	3,253,800	3,635,773
Total value of output .. ..	£ 10,602,874	9,222,505	6,307,261	6,158,613	6,653,256
Value of production .. ..	£ 5,445,035	4,685,545	3,137,461	2,852,035	2,968,652

25. Dressmaking and Millinery Establishments.—(i) *Details for each State, 1932-33.* Particulars of dressmaking and millinery establishments are given separately in the following tables :—

## DRESSMAKING ESTABLISHMENTS, 1932-33.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australia.
Number of factories .. ..	87	417	28	44	30	15	621
Number of employees .. ..	1,280	7,284	496	682	449	105	10,296
Actual horse-power of engines used .. ..	66	674	29	56	46	8	879
Approx. value of land and buildings .. ..	£ 191,061	£ 966,273	£ 42,968	£ 66,152	£ 57,954	£ 13,965	£ 1,338,373
Approx. value of plant and machinery .. ..	£ 10,528	£ 96,859	£ 8,312	£ 7,145	£ 5,599	£ 1,075	£ 129,518
Wages paid .. ..	£ 118,433	£ 667,171	£ 37,216	£ 48,476	£ 33,837	£ 5,775	£ 910,908
Value of fuel used .. ..	£ 1,654	£ 13,693	£ 584	£ 1,209	£ 737	£ 181	£ 18,058
Value of materials used .. ..	£ 122,172	£ 1,572,750	£ 49,069	£ 57,132	£ 48,207	£ 6,333	£ 1,855,663
Total value of output .. ..	£ 296,792	£ 2,640,861	£ 103,229	£ 130,334	£ 102,077	£ 15,392	£ 3,288,685
Value of production .. ..	£ 172,966	£ 1,054,418	£ 53,576	£ 71,993	£ 53,133	£ 8,878	£ 1,414,964

(a) Includes Millinery.

## MILLINERY ESTABLISHMENTS, 1932-33.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	42	72	12	9	8	(a)	143
Number of employees .. ..	842	1,688	219	340	70	(a)	3,159
Actual horse-power of engines used .. ..	75	148	15	17	5	(a)	260
Approx. value of land and buildings .. ..	£ 131,425	£ 185,198	£ 21,346	£ 26,140	£ 8,000	(a)	£ 372,109
Approx. value of plant and machinery .. ..	£ 8,113	£ 24,955	£ 6,100	£ 2,002	£ 439	(a)	£ 41,609
Wages paid .. ..	£ 77,976	£ 148,475	£ 20,054	£ 23,580	£ 6,882	(a)	£ 276,967
Value of fuel used .. ..	£ 1,789	£ 3,850	£ 257	£ 645	£ 118	(a)	£ 6,559
Value of materials used .. ..	£ 155,717	£ 274,422	£ 26,639	£ 31,114	£ 10,589	(a)	£ 384,478
Total value of output .. ..	£ 292,179	£ 515,294	£ 53,584	£ 68,878	£ 19,839	(a)	£ 949,824
Value of production .. ..	£ 134,673	£ 237,022	£ 26,688	£ 37,122	£ 9,182	(a)	£ 444,687

(a) Included in Dressmaking.

(ii) *Total for Australia, 1928-29 to 1932-33.* 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.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Number of factories .. ..	807	816	724	731	764
Number of employees .. ..	14,778	12,709	10,306	11,347	13,455
Actual horse-power of engines used .. ..	1,182	971	907	1,049	1,139
Approx. value of land and buildings .. ..	£ 2,570,963	£ 2,310,358	£ 1,904,843	£ 1,667,553	£ 1,710,482
Approx. value of plant and machinery .. ..	£ 175,151	£ 157,051	£ 151,460	£ 163,200	£ 171,217
Wages paid .. ..	£ 1,532,734	£ 1,399,256	£ 1,066,438	£ 1,045,554	£ 1,187,875
Value of fuel used .. ..	£ 24,056	£ 23,842	£ 20,657	£ 22,508	£ 24,747
Value of materials used .. ..	£ 2,724,974	£ 2,501,600	£ 1,993,968	£ 2,061,912	£ 2,354,141
Total value of output .. ..	£ 5,227,620	£ 4,753,906	£ 3,680,918	£ 3,770,217	£ 4,238,509
Value of production .. ..	£ 2,478,590	£ 2,228,464	£ 1,666,293	£ 1,685,797	£ 1,859,651

26. **Printing and Binding Works.**—(i) *Details for each State, 1932–33.* Printing and binding works rank high in importance among the industries of Australia, and in 1932–33 afforded employment for about 22,000 employees, and paid more than £4,153,000 in salaries and wages, while the value of output amounted to £12,021,000.

The following table gives particulars of establishments engaged in general printing and bookbinding in each State for the year 1932–33. Government printing works are included, but establishments producing newspapers and periodicals are shown separately in the next table:—

**GENERAL PRINTING AND BOOKBINDING ESTABLISHMENTS, 1932–33.**

Items.	N.S.W.	Victoria.	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Australia.
Number of factories .. ..	258	371	68	89	60	16	862
Number of employees .. ..	5,087	5,135	1,542	1,402	637	253	14,056
Actual horse-power of engines used .. ..	3,882	4,033	705	1,304	609	184	10,717
Approx. value of land and buildings .. ..	£ 1,216,472	£ 1,332,215	£ 335,538	£ 511,244	£ 199,980	£ 39,458	£ 3,634,907
Approx. value of plant and machinery .. ..	£ 1,072,464	£ 953,317	£ 183,720	£ 430,927	£ 164,264	£ 35,133	£ 2,839,825
Wages paid .. ..	£ 853,957	£ 798,406	£ 260,227	£ 242,732	£ 106,315	£ 41,661	£ 2,303,298
Value of fuel used .. ..	£ 31,011	£ 29,621	£ 8,570	£ 10,414	£ 3,493	£ 1,886	£ 84,995
Value of materials used .. ..	£ 992,032	£ 982,397	£ 192,886	£ 305,451	£ 102,511	£ 24,154	£ 2,599,431
Total value of output .. ..	£ 2,489,585	£ 2,427,643	£ 601,158	£ 723,727	£ 285,055	£ 90,915	£ 6,618,083
Value of production .. ..	£ 1,466,542	£ 1,415,625	£ 399,702	£ 407,862	£ 179,051	£ 64,875	£ 3,933,657

(a) Includes Newspapers and Periodicals.

**ESTABLISHMENTS PRODUCING NEWSPAPERS AND PERIODICALS, 1932–33.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust. (a)	W.A.	Tas.	Australia.
Number of establishments .. ..	216	121	68	..	29	7	441
Number of employees .. ..	3,127	2,044	1,480	..	536	378	7,565
Actual horse-power of engines used .. ..	5,473	3,012	1,861	..	934	333	11,613
Approx. value of land and buildings .. ..	£ 1,624,745	£ 763,765	£ 489,033	..	£ 381,219	£ 71,658	£ 3,330,420
Approx. value of plant and machinery .. ..	£ 1,200,919	£ 764,137	£ 375,866	..	£ 216,397	£ 65,533	£ 2,622,852
Wages paid .. ..	£ 787,441	£ 514,227	£ 322,954	..	£ 140,493	£ 85,205	£ 1,850,320
Value of fuel used .. ..	£ 40,268	£ 23,306	£ 20,338	..	£ 7,328	£ 4,251	£ 95,491
Value of materials used .. ..	£ 922,321	£ 748,081	£ 245,796	..	£ 128,202	£ 60,058	£ 2,104,458
Total value of output .. ..	£ 2,367,117	£ 1,680,901	£ 790,631	..	£ 380,056	£ 184,291	£ 5,402,996
Value of production .. ..	£ 1,404,528	£ 909,514	£ 524,497	..	£ 244,526	£ 119,982	£ 3,203,047

(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 1932-33 :—

**ASSEMBLING AND REPAIRING OF MOTOR VEHICLES AND CYCLES, 1932-33.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	840	841	128	118	192	88	2,207
Number of employees ..	3,430	3,480	713	716	530	362	9,231
Actual horse-power of engines used	3,093	2,658	531	564	643	275	7,764
Approx. value of land and buildings ..	£ 1,644,524	£ 1,292,305	£ 310,283	£ 324,812	£ 263,237	£ 180,078	£ 4,015,239
Approx. value of plant and machinery ..	£ 326,355	£ 286,191	£ 60,156	£ 63,955	£ 63,637	£ 24,335	£ 824,629
Wages paid ..	£ 491,557	£ 504,330	£ 109,195	£ 90,661	£ 76,428	£ 40,953	£ 1,313,124
Value of fuel used ..	£ 33,382	£ 34,315	£ 6,471	£ 6,373	£ 5,568	£ 3,282	£ 89,391
Value of materials used	£ 506,466	£ 71,986	£ 21,064	£ 90,341	£ 76,126	£ 39,462	£ 805,445
Total value of output	£ 1,410,427	£ 937,883	£ 237,112	£ 252,252	£ 231,950	£ 116,970	£ 3,186,594
Value of production ..	£ 870,579	£ 831,582	£ 209,577	£ 155,538	£ 150,256	£ 74,226	£ 2,291,785

Particulars in regard to motor body building for the year 1932-33 are as follow :—

**MOTOR BODY BUILDING, 1932-33.**

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	46	64	14	11	24	..	159
Number of employees ..	524	1,243	187	1,596	124	..	3,654
Actual horse-power of engines used	539	1,261	136	1,785	164	..	3,885
Approx. value of land and buildings ..	£ 195,713	£ 444,915	£ 44,516	£ 401,342	£ 44,776	..	£ 1,131,262
Approx. value of plant and machinery ..	£ 22,499	£ 184,590	£ 5,755	£ 303,920	£ 11,469	..	£ 528,233
Wages paid ..	£ 78,460	£ 233,755	£ 26,198	£ 297,460	£ 17,316	..	£ 653,189
Value of fuel used ..	£ 3,177	£ 7,387	£ 728	£ 13,124	£ 1,160	..	£ 25,576
Value of materials used	£ 85,800	£ 256,676	£ 27,962	£ 321,912	£ 18,304	..	£ 710,654
Total value of output	£ 195,426	£ 601,755	£ 67,134	£ 707,766	£ 51,277	..	£ 1,623,358
Value of production ..	£ 106,449	£ 337,692	£ 38,444	£ 372,730	£ 31,813	..	£ 887,128

The output of motor bodies for Australia is shown in the next table :—

**MOTOR BODIES PRODUCED IN AUSTRALIA.**

Items.	1927-28. (a)	1928-29. (a)	1929-30. (a)	1930-31. (a)	1931-32. (b)	1932-33. (b)
Motor Bodies—						
Number .. ..	58,955	72,193	46,499	10,417	6,323	13,532
Value .. ..	£ 3,436,674	£ 4,357,841	£ 3,118,987	£ 864,209	£ 450,510	£ 1,100,504

(a) Excluding Queensland and Tasmania.

(b) Excluding Tasmania.

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, 1932-33.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	205	300	72	50	64	41	732
Number of employees .. ..	1,995	2,074	852	544	354	211	6,030
Actual horse-power of engines used .. ..	4,183	3,343	1,429	1,532	858	489	11,834
Approx. value of land and buildings .. ..	£ 468,432	£ 515,525	£ 148,212	£ 98,484	£ 100,760	£ 29,618	£ 1,361,111
Approx. value of plant and machinery .. ..	£ 180,522	£ 143,555	£ 71,764	£ 63,701	£ 33,338	£ 17,512	£ 510,392
Wages paid .. ..	£ 312,490	£ 253,981	£ 128,906	£ 70,364	£ 52,591	£ 23,797	£ 842,129
Value of fuel used .. ..	£ 17,006	£ 14,728	£ 6,659	£ 4,556	£ 2,204	£ 1,294	£ 46,447
Value of materials used .. ..	£ 488,690	£ 433,541	£ 181,675	£ 125,004	£ 91,777	£ 28,868	£ 1,349,495
Total value of output .. ..	£ 985,090	£ 896,012	£ 390,174	£ 237,024	£ 185,633	£ 64,172	£ 2,758,105
Value of production .. ..	£ 479,394	£ 447,743	£ 201,840	£ 107,464	£ 91,652	£ 34,070	£ 1,362,163

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 1928-29 the production of electric light and power has increased from 2,286,000,000 to 2,715,000,000 British units, or by more than 18 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 1932-33. Particulars for the year 1932-33 are as follow :—

ELECTRIC LIGHT AND POWER WORKS, 1932-33.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories .. ..	116	87	48	42	66	6	365
Number of employees .. ..	1,890	1,244	705	1,019	382	92	5,332
Actual horse-power of engines used .. ..	385,692	202,656	55,576	124,508	70,014	80,013	918,459
Approx. value of land and buildings .. ..	£ 4,858,498	£ 1,833,246	£ 341,095	£ 600,009	£ 238,111	£ 27,427	£ 7,898,386
Approx. value of plant and machinery .. ..	£ 10,204,219	£ 6,262,802	£ 2,906,355	£ 1,987,175	£ 1,053,534	£ 3,340,195	£ 25,754,280
Wages paid .. ..	£ 504,071	£ 275,249	£ 179,708	£ 223,068	£ 92,761	£ 21,515	£ 1,296,372
Value of fuel used .. ..	£ 1,186,426	£ 424,145	£ 183,020	£ 135,965	£ 284,498	£ 256	£ 2,214,310
Total value of output .. ..	£ 5,097,863	£ 1,422,938	£ 920,412	£ 1,015,152	£ 698,264	£ 296,221	£ 9,450,850

30. Gas Works.—(i) *Details for each State, 1932-33.* 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 1932-33 :—

## GAS WORKS, 1932-33.

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	46	37	16	6	4	2	111
Number of employees ..	1,085	699	284	535	98	76	2,777
Actual horse-power of engines used ..	5,106	2,956	881	1,903	(a)	(a)	b. 11,238
Approx. value of land and buildings ..	£ 882,762	359,920	145,758	42,940	(a)	(a)	b1,564,208
Approx. value of plant and machinery ..	£ 3,028,842	1,552,105	511,377	1,186,708	(a)	(a)	b6,605,285
Wages paid ..	£ 253,918	161,630	68,676	126,404	(a)	(a)	b 651,542
Value of fuel used ..	£ 221,504	122,219	14,042	35,183	(a)	(a)	b 412,042
Value of materials used ..	£ 719,136	629,789	118,129	143,295	(a)	(a)	b1,698,758
Total value of output ..	£ 2,079,183	1,397,697	570,939	540,030	(a)	(a)	b4,782,697
Value of production ..	£ 1,138,543	646,689	438,768	361,552	(a)	(a)	b2,671,897

(a) Particulars not available for publication.

(b) Including Western Australia and Tasmania.

(ii) *Coal Used and Production, 1932-33.* The following table gives details for the year 1932-33 :-

## GAS WORKS.—COAL USED AND PRODUCTION, 1932-33.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
COAL USED.							
Coal .. .. tons	502,252	298,536	78,979	73,887	19,772	10,966	984,392
PRODUCTS.							
Gas .. 1,000 cubic feet	9,366,507	5,550,860	1,224,747	1,120,686	389,157	172,750	17,824,707
Coke .. .. tons	325,322	180,950	45,876	40,556	10,555	3,304	612,623
VALUE.							
Gas .. .. £	1,403,580	991,125	522,361	422,065	107,912	54,147	3,501,190
Coke .. .. £	352,804	273,716	33,607	77,493	16,119	6,181	759,920

The production of gas increased from 20,618,915,000 cubic feet in 1928-29 to 20,929,569,000 cubic feet in 1929-30, fell to 17,761,521,000 cubic feet in 1931-32, and rose slightly to 17,825,000,000 cubic feet in 1932-33.

## CHAPTER XXIV.

## WATER CONSERVATION AND IRRIGATION.

## § 1. Artesian Water.

1. **General.**—In every country subject to droughts, the provision of adequate systems of water conservation is a matter of prime importance. Much has been done in Australia so far as the supply of water to centres of population is concerned, and a description of the principal water-works in each State will be found in Chapter 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 691–2.

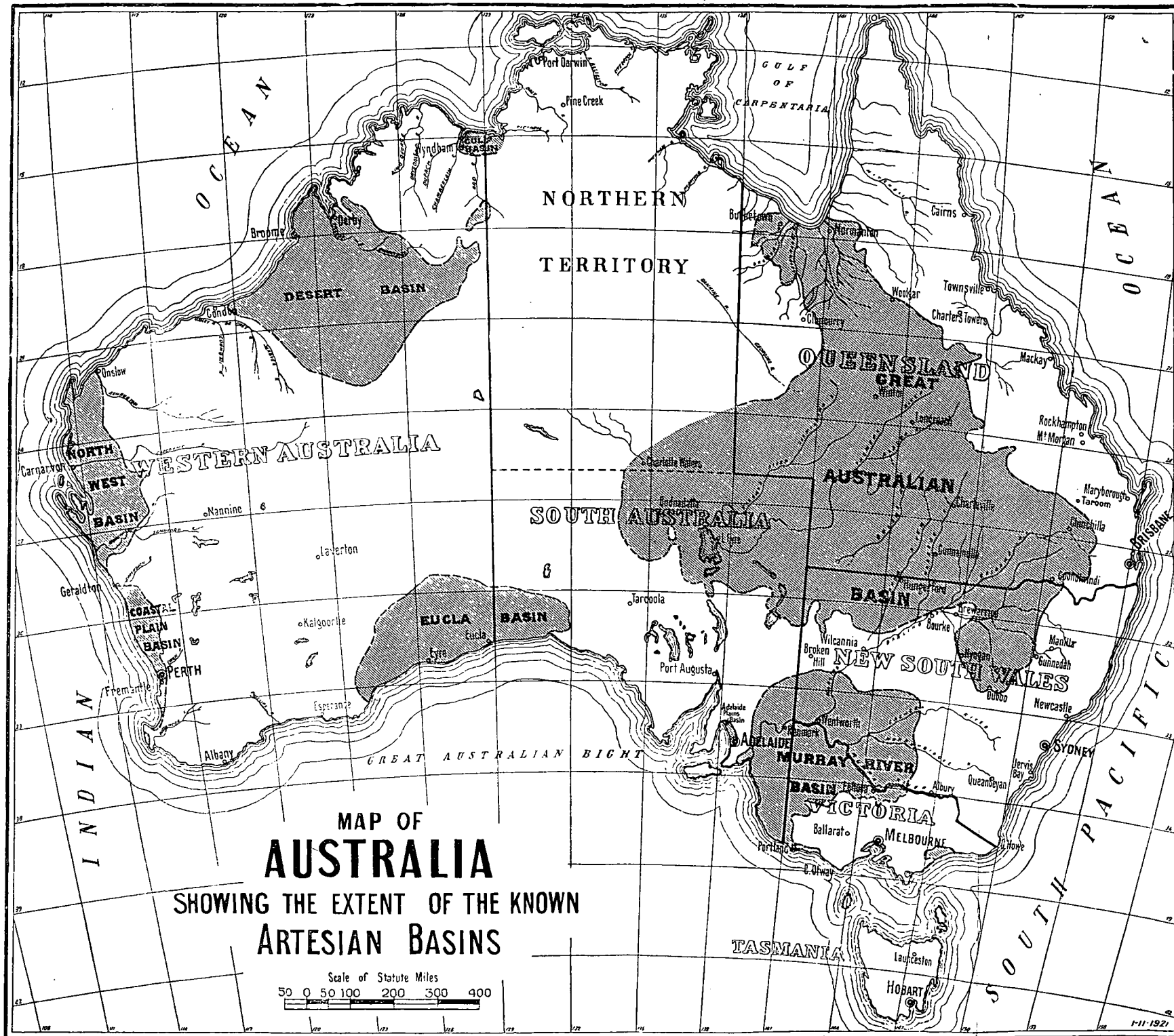
2. **The Great Australian Artesian Basin.**—The area known as the “Great Australian Artesian Basin,” includes (a) considerably more than one-half of Queensland, taking in practically all that State lying west of the Great Dividing Range, with the exception of an area in the north-west contiguous to the Northern Territory; (b) a considerable strip of New South Wales along its northern boundary and west of the Great Dividing Range; and (c) the north-eastern part of South Australia proper, together with the extreme south-eastern corner of the Northern Territory. This basin (shown approximately by the map on page 691) 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 Basin, west of the Darling Range; the North-West Basin, between the Murchison and Ashburton Rivers; the Gulf Basin, between Cambridge Gulf and Queen’s Channel; and the Desert Basin, between the De Grey and Fitzroy Rivers.

The Recent and Tertiary strata which enter Western Australia at its eastern border, and which have a prevailing dip towards the Great Australian Bight, form the Eucla artesian water area. Where boring operations have been undertaken, the water has been found to be salt or brackish, and there are other conditions affecting the supply, such as local 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 aozoic and palæozoic rocks of the Mount Lofty and other



This map was included in the Report of the Third Interstate Conference on Artesian Water held in Adelaide during September, 1921. The area has been slightly extended since the year named. See also letterpress on page 600.



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, 1932-33.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust. (c)	W. Aust.	N. Ter.	Total.
Bores existing . . . . . No.	575	380	41,426	207	233	191	3,032
Total depth of existing bores . . . . . feet	940,484	104,000	41,179,722	122,657	231,863	62,375	5,641,101
Daily flow . . . . . 1,000 gals.	475,795	(b)	4177,776	412,971	75,252	7,723	4449,518
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 1932-33. 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, subdividing 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 1923-24 to 1932-33. Victoria shows the largest irrigated acreage, the area so returned in 1932-33 amounted to 474,716 acres, or 68.4 per cent. of the total for Australia. New South Wales for the same year returned an area of 130,977 acres, or 18.9 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.
1923-24 ..	57,242	324,558	18,417	27,866	3,035	7,402	438,520
1924-25 ..	73,432	375,593	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	35,413	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	7,954	(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	31,409	42,556	6,434	7,605	693,697

(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 1932-33, 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 18 per cent., and root crops, market gardens, &c., for about 8 per cent. of the total area under irrigation in 1932-33:—

## IRRIGATION.—CROPS ON IRRIGATED AREAS, 1932-33, 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 ..	74,279	(a)40,767	..	..	21	..	115,067	142,205
Lucerne, Grasses and Green Forage ..	21,956	355,361	934	11,668	3,166	5,311	398,396	364,686
Orchards and Vineyards ..	24,807	67,451	2,497	27,313	2,079	943	125,090	126,882
Root Crops, Market Gardens and other Crops	9,935	11,137	(b)27,978	3,575	1,168	(c)1,351	55,144	44,740
Total ..	130,977	474,716	31,409	42,556	6,434	7,605	693,697	678,513

(a) Including Fallow, 8,275 acres.  
acres; and Tobacco, 1,328 acres.

(b) Including Sugar Cane, 23,112 acres; Cotton, 1,310 acres.  
(c) Including Hops, 784 acres.

## CHAPTER XXV.—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. Agricultural 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
1905 ..	772	850	804	980	942	1,209	801	859	910
1906 ..	882	978	916	972	923	1,110	896	864	948
1907 ..	1,037	1,017	973	1,020	948	1,294	968	961	1,021
1908 ..	1,033	901	1,312	1,198	968	1,335	935	891	1,115
1909 ..	1,014	907	1,000	1,119	978	1,088	911	815	993
1910 ..	1,004	1,052	969	1,100	999	1,008	996	898	1,003
1911 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1912 ..	1,021	991	1,370	1,206	1,052	1,357	1,057	978	1,172
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	2,686	3,225	1,934
1919 ..	2,125	2,363	1,985	1,651	1,516	2,348	2,851	2,898	2,055
1920 ..	2,298	2,624	2,439	2,209	1,918	3,279	3,226	2,825	2,480
1921 ..	2,173	1,362	1,767	2,000	1,976	2,158	2,733	2,303	1,903
1922 ..	1,942	1,681	1,628	1,648	1,869	1,787	2,005	1,965	1,758
1923 ..	1,826	2,148	1,778	1,837	1,746	2,579	2,025	1,933	1,944
1924 ..	1,835	2,418	1,647	1,655	1,721	2,223	1,815	1,806	1,885
1925 ..	1,852	1,967	1,797	1,636	1,723	2,212	1,711	1,790	1,844
1926 ..	1,938	1,582	2,001	1,784	1,731	1,931	1,665	1,816	1,832
1927 ..	1,962	1,650	1,826	1,823	1,724	2,111	1,624	1,866	1,817
1928 ..	1,912	1,781	1,726	1,751	1,707	2,015	1,744	1,923	1,792
1929 ..	1,912	1,556	1,792	1,853	1,690	2,246	1,754	1,942	1,803
1930 ..	1,866	1,127	1,484	1,627	1,666	2,025	1,875	1,982	1,506
1931 ..	1,826	1,039	1,121	1,309	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

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 course of the forthcoming year.

## § 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 Knibbs.

**2. Index-Numbers.**—There are several "series" of index-numbers of retail prices, covering different ranges of commodities. They may be grouped as follow :—

(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) chiefly 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.	1929.	1930.	1931.	1932.	1933.
Sydney .. .. .	523	553	646	1,062	1,090	984	876	852	800
Melbourne .. .. .	517	523	610	1,063	1,004	913	791	758	713
Brisbane .. .. .	530	569	603	1,014	951	844	778	738	699
Adelaide .. .. .	532	570	679	1,055	1,055	937	789	761	731
Perth .. .. .	670	753	728	1,116	1,084	961	836	804	757
Hobart .. .. .	565	592	678	1,133	1,025	952	816	797	757
Weighted Average (a) ..	533	559	640	1,064	1,044	941	826	796	751

(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.	1929.	1930.	1931.	1932.	1933.
Sydney .. .. .	593	701	760	989	1,162	1,197	1,026	894	864
Melbourne .. .. .	455	569	628	820	1,094	1,011	867	816	801
Brisbane .. .. .	283	373	466	630	841	775	680	641	681
Adelaide .. .. .	510	706	655	809	986	916	755	691	694
Perth .. .. .	458	524	539	739	955	979	881	810	795
Hobart .. .. .	405	452	518	881	932	914	901	868	860
Weighted Average (b) ..	497	612	662	862	1,073	1,047	901	817	804

(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.	1929.	1930.	1931.	1923.	1933.
Sydney .. .. .	548	606	687	1,036	1,115	1,059	929	867	822
Melbourne .. .. .	495	539	616	977	1,036	948	818	778	742
Brisbane .. .. .	442	500	554	877	912	819	743	704	690
Adelaide .. .. .	524	618	671	975	1,030	929	777	736	716
Perth .. .. .	594	672	679	982	1,038	968	852	805	768
Hobart .. .. .	508	542	621	1,044	992	939	846	822	792
Weighted Average (b) ..	520	578	648	992	1,054	978	852	803	768

(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 1934 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.
FOOD AND GROCERIES (46 COMMODITIES).*							
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
1929 .. ..	21 10	20 1	19 0	21 1	21 8	20 6	20 11
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
1933 { 1st Quarter..	15 11	13 9	13 10	14 3	14 9	14 9	14 9
2nd " ..	16 0	14 1	13 11	14 7	15 6	15 0	15 0
3rd " ..	16 2	14 6	14 1	14 10	15 2	15 7	15 2
4th " ..	15 11	14 8	14 1	14 10	15 1	15 3	15 2
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

HOUSING ACCOMMODATION (WEIGHTED AVERAGE—4 AND 5 ROOMED HOUSES).

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
1929 .. ..	23 3	21 11	16 10	19 9	19 1	18 8	21 6
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
1933 { 1st Quarter..	17 6	16 1	13 2	13 10	15 11	17 1	16 1
2nd " ..	17 3	16 0	13 11	13 10	15 11	17 2	16 1
3rd " ..	17 1	16 0	13 8	13 11	15 11	17 3	16 1
4th " ..	17 2	16 0	13 9	13 11	15 11	17 3	16 1
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

FOOD, GROCERIES, AND HOUSING (4 AND 5 ROOMS ONLY) COMBINED.

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
1929 .. ..	22 4	20 9	18 3	20 7	20 9	19 10	21 1
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
1933 { 1st Quarter..	16 5	14 7	13 7	14 1	15 1	15 6	15 2
2nd " ..	16 5	14 8	13 10	14 4	15 7	15 9	15 4
3rd " ..	16 6	15 0	13 10	14 6	15 5	16 2	15 6
4th " ..	16 4	15 1	13 11	14 6	15 4	15 11	15 5
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

\* 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. **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- em- ber, 1921. *	Year 1926.	Year 1927.	Year 1928.	Year 1929.	Year 1930.	Year 1931.	Year 1932.	Year 1933.	1934.	
										1st Qtr.	2nd Qtr.
<b>NEW SOUTH WALES—</b>											
Sydney ..	1,046	1,033	1,029	1,042	1,073	1,026	922	867	832	837	842
Newcastle ..	1,041	1,010	1,015	1,014	1,028	991	888	840	819	826	836
Broken Hill ..	975	988	1,000	997	1,018	973	882	834	806	813	821
Goulburn ..	1,013	1,050	1,062	1,074	1,108	1,039	922	877	843	847	855
Bathurst ..	947	978	952	964	979	959	867	820	801	810	809
Weighted Average ..	1,042	1,030	1,027	1,038	1,067	1,022	918	863	830	836	841
<b>VICTORIA—</b>											
Melbourne ..	1,003	998	990	992	1,017	956	846	813	789	790	801
Ballarat ..	992	931	922	929	957	909	808	776	760	774	784
Bendigo ..	1,002	933	940	936	969	926	833	808	789	804	814
Geelong ..	1,019	984	985	973	980	917	822	794	772	773	785
Warrnambool ..	1,034	946	945	941	960	939	860	838	812	816	830
Weighted Average ..	1,003	992	985	987	1,011	951	843	811	787	790	801
<b>QUEENSLAND—</b>											
Brisbane ..	923	950	922	917	923	859	798	764	751	761	764
Toowoomba ..	949	945	914	906	916	885	816	788	778	787	793
Rockhampton ..	972	947	929	903	904	868	806	779	752	758	768
Charters Towers ..	1,025	925	918	925	939	883	827	794	762	761	762
Warwick ..	994	951	946	914	931	882	815	777	757	759	762
Weighted Average ..	941	949	923	915	922	863	801	768	753	763	766
<b>SOUTH AUSTRALIA—</b>											
Adelaide ..	989	1,026	1,018	1,027	1,037	952	837	802	789	804	816
Kadina, etc. ..	998	935	932	927	943	885	801	772	747	757	766
Port Pirie ..	1,025	988	970	960	980	927	834	791	762	772	786
Mount Gambier ..	1,029	956	945	948	963	918	831	816	800	799	804
Peterborough ..	948	1,016	1,023	1,017	1,043	980	884	848	832	829	837
Weighted Average ..	992	1,020	1,012	1,019	1,030	948	836	801	787	801	813
<b>WESTERN AUSTRALIA—</b>											
Perth, etc. ..	1,008	992	984	1,012	1,026	977	885	840	811	820	837
Kalgoorlie, etc. ..	1,048	1,002	984	995	1,032	986	937	940	937	948	985
Northam ..	1,030	998	988	1,003	1,022	969	878	844	814	817	832
Bunbury ..	1,045	978	963	963	978	966	877	842	824	834	850
Geraldton ..	1,056	1,012	1,010	1,029	1,051	1,029	951	904	851	851	872
Weighted Average ..	1,020	994	985	1,009	1,026	979	891	852	825	834	848
<b>TASMANIA—</b>											
Hobart ..	1,070	1,035	998	980	1,000	956	875	844	825	821	838
Launceston ..	1,067	973	953	957	967	949	865	832	817	816	832
Burnie ..	1,003	957	936	941	966	918	837	811	775	762	786
Devonport ..	904	948	925	909	948	920	831	800	773	776	785
Queenstown ..	1,031	956	932	934	972	949	881	875	867	867	879
Weighted Average ..	1,057	1,007	977	966	986	951	869	838	820	817	833
Weighted Average for 30 Towns ..	1,013	1,006	997	1,003	1,026	971	870	829	803	809	818
Weighted Average for 6 Capital Cities ..	1,013	1,011	1,002	1,009	1,033	975	873	830	804	810	818
Townsville (Q.) (a) ..	..	1,073	1,050	1,023	1,026	966	914	878	850	853	857
Port Augusta (S.A.) (a) ..	1,035	1,035	1,037	1,050	1,061	1,026	914	853	814	819	831

(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	1,166



5. 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.	1932.					1933.				
	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 .. .. .	330	190	177	170	867	309	184	171	168	832
Newcastle .. .. .	323	170	194	153	840	309	165	189	156	819
Broken Hill .. .. .	368	132	166	168	834	340	134	164	168	806
Goulburn .. .. .	321	179	227	150	877	303	173	218	149	843
Bathurst .. .. .	317	166	184	153	820	301	166	184	150	801
Weighted Average ..	330	186	179	168	863	310	180	173	167	830
<b>VICTORIA—</b>										
Melbourne .. .. .	293	173	189	153	813	276	170	187	156	789
Ballarat .. .. .	297	133	196	150	776	283	135	193	140	760
Bendigo .. .. .	301	137	215	155	808	283	136	216	154	789
Geelong .. .. .	301	157	185	151	794	285	153	183	151	772
Warrnambool .. .. .	310	171	215	142	838	288	169	214	141	812
Weighted Average ..	294	170	190	157	811	276	167	188	156	787
<b>QUEENSLAND—</b>										
Brisbane .. .. .	286	136	187	155	764	270	145	182	154	751
Toowoomba .. .. .	282	138	212	156	788	262	151	210	155	778
Rockhampton .. .. .	312	124	192	151	779	290	121	191	150	752
Charters Towers .. .. .	339	115	175	165	794	310	110	176	166	762
Warwick .. .. .	298	131	195	153	777	280	130	194	153	757
Weighted Average ..	290	134	189	155	768	273	141	185	154	753
<b>SOUTH AUSTRALIA—</b>										
Adelaide .. .. .	295	147	192	168	802	283	148	191	167	789
Kadina, &c. .. .. .	328	80	202	162	772	310	80	196	161	747
Port Pirie .. .. .	316	133	182	160	791	290	128	183	161	762
Mount Gambier .. .. .	298	130	223	165	816	286	130	221	163	800
Peterborough .. .. .	316	149	220	163	848	299	151	219	163	832
Weighted Average ..	297	143	193	168	801	284	144	192	167	787
<b>WESTERN AUSTRALIA—</b>										
Perth, &c. .. .. .	311	172	194	163	840	292	169	189	161	811
Kalgoorlie, &c. .. .. .	377	158	240	165	940	362	174	238	163	937
Northam .. .. .	330	171	190	153	844	312	167	182	153	814
Bunbury .. .. .	321	161	208	152	842	307	164	201	152	824
Geraldton .. .. .	333	208	198	165	904	294	200	192	165	851
Weighted Average ..	319	172	200	161	852	300	170	194	161	825
<b>TASMANIA—</b>										
Hobart .. .. .	308	184	204	148	844	293	183	203	146	825
Launceston .. .. .	301	162	222	147	832	285	164	221	147	817
Burnie .. .. .	321	149	200	141	811	295	144	195	141	775
Devonport .. .. .	318	148	193	141	800	296	144	192	141	773
Queenstown .. .. .	349	143	246	137	875	337	149	244	137	867
Weighted Average ..	309	173	210	146	838	292	173	209	146	820
Weighted Average for 30 Towns .. .. .	310	170	187	162	829	291	167	184	161	803
Weighted Average 6 Capital Cities .. .. .	308	174	185	163	830	290	171	181	162	804
TOWNSVILLE (Q.) (a) .. .. .	332	172	213	161	878	312	170	207	161	850
PORT AUGUSTA (S.A.) (a) .. .. .	340	133	216	164	853	317	129	206	162	814

(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 specified in § 2.5 *ante*, 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, 1931 to 1933.**—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.	1931. November.			1932. November.			1933. 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 .. .. .	873	1,343	1,461	811	1,290	1,340	788	1,263	1,340
Arncliffe .. .. .	885	1,290	1,363	854	1,212	1,295	768	1,122	1,209
Ballina .. .. .	880	1,226	1,364	870	1,227	1,339	850	1,177	1,282
Bathurst .. .. .	879	1,213	1,300	826	1,174	1,234	816	1,180	1,233
Bega .. .. .	954	1,322	1,427	890	1,241	1,311	832	1,183	1,247
Berry .. .. .	899	1,215	1,288	893	1,209	1,282	857	1,173	1,252
Blackheath .. .. .	943	1,321	1,425	869	1,238	1,340	843	1,209	1,258
Bourke .. .. .	1,018	1,380	1,478	878	1,230	1,338	879	1,208	1,339
Bowral .. .. .	938	1,320	1,431	872	1,247	1,333	846	1,202	1,298
Broken Hill .. .. .	1,031	1,339	1,459	938	1,257	1,385	920	1,253	1,362

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1931. November.			1932. November.			1933. 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—<i>continued.</i></b>									
Casino .. .. .	888	1,327	1,414	832	1,240	1,358	817	1,225	1,344
Cessnock .. .. .	874	1,179	1,254	817	1,120	1,202	799	1,063	1,102
Cobar .. .. .	1,008	1,224	1,293	944	1,160	1,229	1,060	1,228	1,297
Cooma .. .. .	1,026	1,335	1,473	957	1,230	1,401	900	1,203	1,335
Coolambule .. .. .	984	1,302	1,408	895	1,175	1,269	888	1,173	1,248
Cootamundra .. .. .	900	1,383	1,510	846	1,289	1,369	770	1,175	1,291
Corrimal .. .. .	929	1,350	1,447	863	1,262	1,324	808	1,200	1,269
Cowra .. .. .	889	1,262	1,362	851	1,191	1,306	784	1,210	1,278
Cronulla .. .. .	934	1,390	1,480	806	1,327	1,422	831	1,247	1,340
Deniliquin .. .. .	893	1,274	1,380	846	1,181	1,272	867	1,193	1,324
Dubbo .. .. .	868	1,441	1,549	752	1,258	1,380	722	1,218	1,256
Forbes .. .. .	879	1,301	1,459	851	1,309	1,393	829	1,272	1,413
Glacandra .. .. .	912	1,223	1,295	838	1,134	1,200	824	1,120	1,186
Glen Innes .. .. .	877	1,243	1,366	814	1,176	1,274	798	1,160	1,245
Goulburn .. .. .	852	1,288	1,355	856	1,297	1,344	811	1,241	1,294
Grafton .. .. .	873	1,294	1,461	806	1,234	1,378	790	1,218	1,363
Grenfell .. .. .	918	1,326	1,428	848	1,234	1,336	813	1,208	1,340
Griffith .. .. .	1,011	1,807	1,998	806	1,692	1,883	901	1,663	1,826
Guilford .. .. .	893	1,169	1,241	836	1,134	1,225	705	1,040	1,116
Gunnedah .. .. .	861	1,246	1,336	799	1,159	1,283	771	1,140	1,267
Hay .. .. .	966	1,297	1,489	938	1,270	1,416	912	1,260	1,436
Inverell .. .. .	943	1,351	1,463	871	1,309	1,410	811	1,236	1,301
Junee .. .. .	943	1,495	1,584	832	1,316	1,441	814	1,265	1,393
Katoomba .. .. .	984	1,537	1,641	873	1,429	1,512	854	1,350	1,448
Kempsey .. .. .	866	1,227	1,361	829	1,182	1,306	821	1,236	1,333
Kiama .. .. .	983	1,279	1,509	802	1,182	1,353	862	1,152	1,329
Kurri Kurri .. .. .	884	1,176	1,273	811	1,102	1,177	792	1,046	1,143
Leeton .. .. .	965	1,571	1,656	909	1,496	1,593	854	1,413	1,512
Lismore .. .. .	877	1,282	1,483	831	1,247	1,393	814	1,249	1,421
Lithgow .. .. .	898	1,237	1,289	858	1,186	1,225	812	1,156	1,162
Maitland .. .. .	870	1,201	1,315	808	1,141	1,240	770	1,058	1,247
Moree .. .. .	977	1,515	1,573	941	1,467	1,521	880	1,406	1,505
Moss Vale .. .. .	804	1,250	1,399	844	1,187	1,323	824	1,173	1,260
Mudgee .. .. .	888	1,305	1,415	803	1,197	1,329	720	1,122	1,240
Narrabri .. .. .	920	1,309	1,395	866	1,238	1,324	811	1,206	1,245
Narrandera .. .. .	1,010	1,486	1,598	916	1,376	1,486	844	1,304	1,409
Newcastle .. .. .	880	1,277	1,388	852	1,230	1,348	845	1,223	1,335
Nowra .. .. .	972	1,323	1,410	917	1,246	1,391	875	1,267	1,338
Orange .. .. .	892	1,303	1,407	792	1,192	1,297	790	1,200	1,354
Parkes .. .. .	903	1,284	1,386	855	1,239	1,323	824	1,182	1,275
Penrith .. .. .	851	1,179	1,269	820	1,119	1,251	782	1,065	1,186
Port Kembla .. .. .	952	1,355	1,478	850	1,267	1,401	839	1,256	1,313
Portland .. .. .	941	1,204	1,270	850	1,114	1,179	846	1,110	1,175
Queanbeyan .. .. .	950	1,363	1,476	883	1,155	1,242	838	1,117	1,196
Quirindi .. .. .	984	1,258	1,450	883	1,157	1,283	878	1,208	1,314
Richmond .. .. .	847	1,233	1,329	844	1,239	1,305	802	1,196	1,262
Scone .. .. .	943	1,371	1,466	846	1,274	1,350	808	1,235	1,312
Singleton .. .. .	913	1,222	1,370	871	1,196	1,302	795	1,131	1,221
Sydney .. .. .	913	1,375	1,471	865	1,307	1,385	826	1,200	1,346
Tamworth .. .. .	848	1,231	1,337	809	1,169	1,258	780	1,142	1,227
Taree .. .. .	924	1,393	1,475	841	1,283	1,393	787	1,230	1,331
Temora .. .. .	932	1,458	1,590	850	1,343	1,444	803	1,297	1,397
Teutlerfield .. .. .	858	1,222	1,313	825	1,160	1,251	775	1,120	1,211
Tumut .. .. .	926	1,420	1,552	846	1,307	1,439	834	1,311	1,402
Umarra .. .. .	939	1,378	1,405	894	1,355	1,421	815	1,210	1,342

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1931. November.			1932. November.			1933. 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—<i>continued.</i></b>									
Wagga Wagga .. .. .	898	1,424	1,560	825	1,315	1,403	793	1,247	1,423
Walcha .. .. .	921	1,250	1,379	867	1,198	1,295	841	1,170	1,279
Wellington .. .. .	900	1,229	1,308	815	1,114	1,223	794	1,104	1,202
Weston .. .. .	868	1,159	1,257	811	1,103	1,155	804	1,095	1,148
Windsor .. .. .	881	1,341	1,440	855	1,282	1,381	822	1,250	1,348
Wollongong .. .. .	928	1,376	1,457	799	1,241	1,326	795	1,254	1,311
Wyalong .. .. .	892	1,205	1,260	849	1,156	1,217	843	1,166	1,205
Yass .. .. .	912	1,306	1,394	826	1,187	1,262	798	1,143	1,242
Young .. .. .	908	1,350	1,457	852	1,313	1,376	816	1,224	1,319
Weighted Average for State (74 Towns) .. .. .	912	1,354	1,453	861	1,286	1,370	827	1,244	1,334
<b>VICTORIA—</b>									
Ararat .. .. .	871	1,216	1,378	813	1,142	1,302	819	1,138	1,266
Bacchus Marsh .. .. .	887	1,316	1,423	773	1,108	1,260	775	1,119	1,254
Bairnsdale .. .. .	912	1,209	1,401	860	1,135	1,289	882	1,124	1,247
Ballarat .. .. .	834	1,095	1,279	769	1,064	1,213	771	1,074	1,227
Beechworth .. .. .	923	1,219	1,285	867	1,163	1,229	826	1,122	1,175
Benalla .. .. .	859	1,242	1,306	836	1,189	1,290	799	1,125	1,298
Bendigo .. .. .	853	1,149	1,268	786	1,097	1,206	785	1,072	1,200
Camperdown .. .. .	891	1,286	1,424	806	1,217	1,319	806	1,197	1,333
Casterton .. .. .	880	1,235	1,340	847	1,209	1,288	834	1,196	1,261
Castlemaine .. .. .	867	1,120	1,228	801	1,073	1,157	787	1,082	1,178
Colac .. .. .	851	1,318	1,453	803	1,237	1,367	801	1,216	1,317
Creswick .. .. .	842	974	1,000	827	958	985	782	914	996
Daylesford .. .. .	831	1,087	1,175	811	1,031	1,119	806	1,016	1,094
Dunolly .. .. .	854	1,002	1,058	812	973	1,013	780	960	1,006
Echuca .. .. .	843	1,189	1,294	779	1,079	1,199	785	1,085	1,210
Ennora .. .. .	850	1,416	1,238	828	1,161	1,237	810	1,113	1,170
Geelong .. .. .	813	1,181	1,368	783	1,140	1,307	771	1,124	1,298
Hamilton .. .. .	864	1,287	1,410	840	1,255	1,376	803	1,189	1,318
Healesville .. .. .	822	1,105	1,194	799	1,089	1,141	804	1,070	1,146
Horsham .. .. .	875	1,265	1,401	849	1,176	1,308	807	1,155	1,267
Kerang .. .. .	842	1,306	1,434	807	1,201	1,267	793	1,187	1,253
Koroit .. .. .	880	1,143	1,209	851	1,114	1,180	808	1,071	1,130
Korumburra .. .. .	855	1,223	1,364	778	1,099	1,242	776	1,089	1,252
Kyneton .. .. .	847	1,163	1,294	780	1,060	1,194	743	1,035	1,146
Lilydale .. .. .	874	1,240	1,361	833	1,183	1,280	826	1,158	1,240
Maffra .. .. .	851	1,240	1,323	812	1,185	1,259	801	1,172	1,252
Maldon .. .. .	888	1,019	1,072	833	945	998	832	944	1,017
Maryborough .. .. .	847	1,123	1,222	775	1,006	1,101	770	1,025	1,095
Melbourne .. .. .	812	1,246	1,360	754	1,160	1,282	759	1,163	1,287
Mildura .. .. .	915	1,458	1,652	879	1,398	1,526	887	1,419	1,555
Morwell .. .. .	848	1,279	1,371	802	1,237	1,296	839	1,260	1,352
Nhill .. .. .	884	1,213	1,345	866	1,166	1,307	840	1,143	1,256
Orbost .. .. .	917	1,272	1,373	874	1,229	1,311	877	1,219	1,333
Portland .. .. .	886	1,217	1,325	833	1,169	1,241	831	1,160	1,226
Port Fairy .. .. .	895	1,154	1,270	849	1,108	1,224	801	1,091	1,196
St. Arnaud .. .. .	866	1,225	1,357	869	1,212	1,290	847	1,164	1,278
Sale .. .. .	867	1,217	1,355	802	1,121	1,256	826	1,169	1,253
Seymour .. .. .	915	1,247	1,375	873	1,202	1,301	824	1,153	1,258
Shepparton .. .. .	856	1,266	1,432	792	1,186	1,313	777	1,156	1,300
Stawell .. .. .	900	1,199	1,314	865	1,142	1,244	844	1,103	1,228

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1931. November.			1932. November.			1933. November.		
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<b>VICTORIA—continued.</b>									
Swan Hill .. .. .	845	1,371	1,592	812	1,338	1,536	782	1,292	1,473
Terang .. .. .	937	1,304	1,439	876	1,200	1,338	840	1,163	1,281
Traralgon .. .. .	842	1,197	1,367	780	1,153	1,277	773	1,111	1,256
Warragaratta .. .. .	854	1,316	1,418	814	1,268	1,380	824	1,267	1,378
Warracknabeal .. .. .	875	1,220	1,362	827	1,130	1,251	790	1,109	1,199
Warragul .. .. .	830	1,344	1,513	760	1,286	1,454	751	1,285	1,451
Warrnambool .. .. .	850	1,259	1,420	812	1,207	1,369	779	1,173	1,341
Wonthaggi .. .. .	842	1,232	1,359	773	1,155	1,227	776	1,105	1,212
Weighted Average for State (48 Towns) .. .. .	822	1,235	1,356	765	1,156	1,279	767	1,155	1,280
<b>QUEENSLAND—</b>									
Ayr .. .. .	967	1,423	1,481	873	1,317	1,439	846	1,293	1,416
Barealdine .. .. .	1,078	1,447	1,543	911	1,283	1,346	874	1,249	1,308
Bowen .. .. .	982	1,344	1,432	932	1,283	1,384	860	1,215	1,287
Brisbane .. .. .	815	1,125	1,235	748	1,050	1,151	733	1,071	1,161
Rundaberg .. .. .	875	1,167	1,212	817	1,105	1,160	761	1,039	1,085
Cairns .. .. .	937	1,421	1,574	888	1,360	1,575	857	1,370	1,548
Charleville .. .. .	968	1,435	1,626	904	1,326	1,474	894	1,324	1,438
Charters Towers .. .. .	937	1,222	1,286	900	1,137	1,232	820	1,070	1,136
Chillagoe .. .. .	1,194	1,392	1,451	1,126	1,330	1,383	960	1,157	1,210
Cloncurry .. .. .	1,059	1,469	1,591	1,045	1,462	1,624	955	1,340	1,429
Cooktown .. .. .	1,050	1,247	1,313	972	1,170	1,236	934	1,079	1,131
Cunnamulla .. .. .	982	1,399	1,464	911	1,306	1,393	966	1,301	1,433
Dalby .. .. .	872	1,240	1,370	799	1,161	1,263	783	1,141	1,253
Gayndah .. .. .	971	1,287	1,373	859	1,135	1,241	803	1,073	1,132
Gladstone .. .. .	878	1,192	1,289	837	1,151	1,247	783	1,112	1,204
Goondwindl .. .. .	938	1,333	1,373	863	1,258	1,324	836	1,230	1,318
Gympie .. .. .	878	1,185	1,269	790	1,117	1,212	776	1,107	1,220
Hughenden .. .. .	1,069	1,494	1,595	979	1,374	1,486	953	1,361	1,446
Innisfail .. .. .	990	1,576	1,681	969	1,525	1,680	898	1,450	1,582
Ipswich .. .. .	838	1,094	1,183	769	980	1,110	767	990	1,109
Longreach .. .. .	1,092	1,408	1,566	962	1,282	1,405	914	1,226	1,356
Mackay .. .. .	951	1,368	1,478	850	1,222	1,331	813	1,208	1,339
Maryborough .. .. .	887	1,216	1,347	815	1,144	1,254	754	1,083	1,192
Mount Morgan .. .. .	903	1,128	1,161	877	1,044	1,092	833	1,017	1,026
Nambour .. .. .	911	1,240	1,319	794	1,092	1,200	761	1,065	1,158
Rockhampton .. .. .	892	1,178	1,261	816	1,120	1,162	772	1,074	1,119
Roma .. .. .	922	1,253	1,373	850	1,179	1,298	848	1,085	1,214
Stanthorpe .. .. .	901	1,335	1,434	879	1,281	1,359	807	1,162	1,228
Toowoomba .. .. .	791	1,102	1,173	734	1,103	1,133	700	1,103	1,128
Townsville .. .. .	984	1,399	1,460	868	1,283	1,358	827	1,228	1,315
Warwick .. .. .	827	1,156	1,222	788	1,095	1,153	759	1,052	1,131
Winton .. .. .	1,063	1,374	1,503	1,010	1,306	1,438	953	1,216	1,368
Weighted Average for State (52 Towns) .. .. .	859	1,178	1,276	790	1,102	1,196	763	1,096	1,182
<b>SOUTH AUSTRALIA—</b>									
Adelaide .. .. .	793	1,152	1,274	754	1,079	1,227	772	1,107	1,249
Freeling .. .. .	832	1,095	1,161	773	1,036	1,102	770	1,033	1,099
Gawler .. .. .	831	1,114	1,182	782	1,053	1,134	771	1,017	1,096
Kadina, etc. .. .. .	879	1,068	1,112	840	1,024	1,091	840	1,022	1,094
Kapunda .. .. .	813	1,008	1,080	803	1,031	1,092	756	958	1,052

INDEX-NUMBERS.—COST OF FOOD, GROCERIES, AND HOUSING IN 200 TOWNS, ETC.—*continued.*

State and Town.	1931. November.			1932. November.			1933. November.		
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	A	B	C	A	B	C	A	B	C
<b>SOUTH AUSTRALIA—<i>continued.</i></b>									
Koorunga .. ..	891	1,194	1,251	851	1,084	1,180	812	1,141	1,207
Millcent .. ..	842	1,207	1,280	801	1,087	1,200	797	1,071	1,174
Mount Gambier .. ..	802	1,047	1,192	783	1,045	1,174	765	1,022	1,158
Murray Bridge .. ..	791	1,054	1,153	723	976	1,055	747	988	1,122
Peterborough .. ..	872	1,188	1,329	808	1,155	1,256	811	1,180	1,250
Port Augusta .. ..	941	1,278	1,298	883	1,185	1,311	868	1,159	1,283
Port Pirie .. ..	862	1,207	1,310	802	1,122	1,231	777	1,084	1,196
Quorn .. ..	871	1,156	1,210	828	1,111	1,173	819	1,115	1,194
Renmark .. ..	951	1,345	1,477	946	1,341	1,472	801	1,169	1,222
Victor Harbour .. ..	869	1,329	1,467	825	1,273	1,418	885	1,280	1,345
Weighted Average for State (15 Towns) .. ..	805	1,150	1,266	765	1,081	1,219	777	1,100	1,234
<b>WESTERN AUSTRALIA—</b>									
Albany .. ..	961	1,289	1,349	858	1,179	1,213	834	1,132	1,224
Beverley .. ..	921	1,256	1,342	910	1,239	1,348	893	1,268	1,382
Bridgetown .. ..	1,042	1,359	1,437	905	1,234	1,332	925	1,226	1,319
Broome .. ..	1,276	1,752	1,934	1,243	1,704	1,901	1,217	1,678	1,875
Bunbury .. ..	881	1,300	1,341	852	1,267	1,330	822	1,239	1,307
Carnarvon .. ..	1,117	1,606	1,670	1,062	1,511	1,605	1,023	1,477	1,587
Collie .. ..	906	1,277	1,375	825	1,189	1,285	762	1,168	1,236
Geraldton .. ..	951	1,462	1,629	838	1,347	1,480	804	1,288	1,421
Greenbushes .. ..	1,020	1,197	1,243	958	1,123	1,156	908	1,073	1,112
Kalgoorlie and Boulder .. ..	1,038	1,475	1,509	997	1,453	1,554	975	1,466	1,544
Katanning .. ..	891	1,252	1,391	846	1,200	1,324	810	1,132	1,256
Leonora and Gwalla .. ..	1,135	1,398	1,464	1,079	1,343	1,395	1,083	1,346	1,412
Meekatharra .. ..	1,098	1,467	1,592	1,102	1,562	1,760	1,080	1,541	1,738
Narrogin .. ..	884	1,315	1,421	862	1,326	1,401	845	1,249	1,379
Northam .. ..	907	1,341	1,453	852	1,251	1,379	833	1,237	1,346
Perth and Fremantle .. ..	839	1,259	1,358	800	1,202	1,296	779	1,174	1,273
Wagin .. ..	970	1,282	1,367	914	1,169	1,243	857	1,112	1,186
York .. ..	874	1,193	1,272	817	1,146	1,225	807	1,123	1,176
Weighted Average for State (18 Towns) .. ..	875	1,292	1,384	832	1,235	1,330	810	1,209	1,308
<b>TASMANIA—</b>									
Beaconsfield .. ..	871	977	1,003	795	914	953	784	902	942
Burnie .. ..	881	1,267	1,348	843	1,212	1,299	787	1,155	1,239
Campbelltown .. ..	884	1,116	1,151	855	1,091	1,151	820	1,029	1,087
Deloraine .. ..	823	1,113	1,218	820	1,143	1,222	796	1,119	1,188
Devonport .. ..	844	1,265	1,329	833	1,251	1,307	803	1,212	1,274
Franklin .. ..	952	1,162	1,215	900	1,137	1,229	860	1,097	1,156
Hobart .. ..	834	1,281	1,419	809	1,251	1,379	797	1,237	1,370
Launceston .. ..	826	1,212	1,359	789	1,187	1,290	760	1,163	1,271
New Norfolk .. ..	832	1,148	1,214	856	1,171	1,224	825	1,141	1,167
Queenstown .. ..	961	1,288	1,369	942	1,304	1,393	916	1,311	1,357
Scottsdale .. ..	787	1,090	1,151	808	1,071	1,163	767	1,030	1,123
Ulverstone .. ..	841	1,150	1,269	866	1,142	1,228	811	1,052	1,126
Zeelion .. ..	1,002	1,200	1,233	994	1,192	1,225	987	1,185	1,217
Weighted Average for State (13 Towns) .. ..	843	1,246	1,371	817	1,220	1,330	796	1,200	1,310
<b>Federal Capital Territory(a)</b>									
Canberra .. ..	963	1,528	1,638	899	1,459	1,573	902	1,465	1,574
<b>Weighted Averages—</b>									
Australia (200 Towns) .. ..	864	1,271	1,378	811	1,200	1,304	794	1,182	1,288
Thirty Towns .. ..	855	1,269	1,377	805	1,199	1,304	790	1,185	1,292
Six Capitals .. ..	851	1,276	1,383	800	1,202	1,307	786	1,188	1,295

(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 1933 :—

#### AWARDS AND DETERMINATIONS MADE AND INDUSTRIAL AGREEMENTS FILED.

State.	1929.		1930.		1931.		1932.		1933.	
	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 .. .. .	55	27	31	16	46	40	38	25	30	24
Victoria .. .. .	46	..	83	..	204	..	103	..	138	..
Queensland .. .. .	21	16	14	44	48	28	21	4	55	21
South Australia .. .. .	13	9	17	1	64	15	18	8	16	1
Western Australia .. .. .	15	29	8	38	7	10	5	4	10	9
Tasmania .. .. .	4	2	10	1	31	3	11	3	9	3
Commonwealth Court .. .. .	29	26	17	10	11	16	21	9	8	6
Commonwealth Public Service Arbitrator .. .. .	4	..	5	..	1	..	1	..	1	..
Total .. .. .	187	109	185	110	412	112	218	53	267	64

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 had 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

(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 1933, the number of awards or determinations and industrial agreements\* in force had increased by 788 and 252 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 1933.**

Particulars.	Commonwealth.									
	At 31st Dec.	Court.	Pub. Ser. Arb.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
<i>Industrial and Wages—</i>										
Boards authorized ..	{ 1913 ..	..	..	216	135	75	56	..	23	505
	{ 1933 ..	..	..	(a) 319	189	2	75	19	53	657
Boards which have made Determinations ..	{ 1913 ..	..	..	123	123	74	47	..	19	386
	{ 1933 ..	..	..	279	167	2	65	17	53	583
<i>Awards and Determinations—</i>										
In force ..	{ 1913 ..	17	..	265	127	73	54	18	21	575
	{ 1933 ..	167	44	490	173	275	75	85	54	1,303
<i>Industrial Agreements—</i>										
In force ..	{ 1913 ..	228	..	75	..	5	11	82	..	401
	{ 1933 ..	147	..	148	..	149	33	166	10	653
<i>Commonwealth Court Awards—</i>										
Number in force in each State ..	{ 1913 ..	..	..	13	17	15	16	9	13	..
	{ 1933 ..	..	..	100	115	33	86	35	67	..
<i>Commonwealth Agreements—</i>										
Number in force in each State ..	{ 1913 ..	..	..	132	129	68	62	57	61	..
	{ 1933 ..	..	..	37	68	20	25	14	37	..
<i>Commonwealth Public Service Arbitrator—</i>										
Number of Determinations in force in each State ..	1933 ..	..	..	39	36	30	32	29	29	..

(a) Under Industrial Arbitration Act, (1926), Conciliation Committees have been appointed, and at the end of 1933, 286 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, 1929 to 1933.**—(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.	Australia. (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, 1929 ..	102 11	101 1	101 2	97 2	100 7	94 8	101 2
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 March, 1933 ..	84 9	76 5	88 1	71 11	81 1	77 8	81 3
30th June, 1933 ..	84 11	77 5	88 2	73 2	81 1	78 0	81 9
30th September, 1933 ..	84 3	76 11	88 2	73 2	81 2	77 7	81 4
31st December, 1933 ..	81 11	77 0	88 1	73 5	81 4	78 0	80 6

**INDEX-NUMBERS.**

31st December, 1929 ..	2,007	1,972	1,975	1,896	1,963	1,848	1,974
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 March, 1933 ..	1,653	1,492	1,718	1,404	1,582	1,516	1,585
30th June, 1933 ..	1,657	1,511	1,721	1,428	1,583	1,523	1,595
30th September, 1933 ..	1,644	1,501	1,721	1,428	1,583	1,513	1,587
31st December, 1933 ..	1,598	1,502	1,718	1,433	1,587	1,522	1,570

(a) Weighted average.

The results show that at the 31st December, 1933, the weighted average nominal weekly rate of wage was highest in Queensland, followed in the order named by New South Wales, Western Australia, Tasmania, Victoria and South Australia. The average rates of wage declined rapidly during 1931, the results at the end of each quarter in all States showing lower average rates than those for the previous quarter. The weighted average nominal rate of wage for Australia at the end of 1933 was 80s. 6d., as compared with 81s. 10d. at 31st December, 1932, a reduction of 1s. 4d. per week. The greatest fall occurred in New South Wales where the average wage declined 3s. per week. The highest weighted average rate for Australia was recorded during the third quarter of 1929 when the average wage was 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., 1929.	31st Dec., 1930.	31st Dec., 1931.	31st Dec., 1932.	31st March, 1933.	30th June, 1933.	30th Sept., 1933.	31st Dec., 1933.
I. Wood, Furniture, etc.	Wage ..	s. d. 104/10	s. d. 100/3	s. d. 85/7	s. d. 83/4	s. d. 82/8	s. d. 83/8	s. d. 83/1	s. d. 82/8
	Index-No.	2,046	1,956	1,669	1,627	1,612	1,632	1,621	1,613
II. Engineering, etc.	Wage ..	s. d. 103/6	s. d. 99/1	s. d. 86/3	s. d. 81/6	s. d. 80/10	s. d. 82/0	s. d. 81/5	s. d. 81/4
	Index-No.	2,019	1,933	1,683	1,589	1,577	1,600	1,588	1,587
III. Food, Drink, etc.	Wage ..	s. d. 100/10	s. d. 97/1	s. d. 88/6	s. d. 84/2	s. d. 83/9	s. d. 84/2	s. d. 83/9	s. d. 83/3
	Index-No.	1,967	1,894	1,727	1,642	1,634	1,642	1,633	1,625
IV. Clothing, Boots, etc.	Wage ..	s. d. 99/6	s. d. 99/5	s. d. 83/11	s. d. 77/3	s. d. 76/0	s. d. 76/9	s. d. 76/10	s. d. 76/7
	Index-No.	1,942	1,949	1,638	1,507	1,498	1,498	1,499	1,494
V. Books, Printing, etc.	Wage ..	s. d. 119/1	s. d. 116/5	s. d. 102/0	s. d. 98/3	s. d. 97/2	s. d. 98/5	s. d. 97/7	s. d. 97/6
	Index-No.	2,323	2,271	1,991	1,918	1,895	1,920	1,904	1,902
VI. Other Manufacturing	Wage ..	s. d. 102/2	s. d. 97/10	s. d. 85/4	s. d. 80/7	s. d. 79/6	s. d. 80/0	s. d. 79/7	s. d. 79/5
	Index-No.	1,994	1,909	1,664	1,572	1,551	1,560	1,552	1,549
VII. Building ..	Wage ..	s. d. 113/0	s. d. 109/8	s. d. 98/9	s. d. 93/11	s. d. 93/2	s. d. 93/3	s. d. 92/9	s. d. 92/3
	Index No.	2,205	2,139	1,926	1,833	1,818	1,820	1,809	1,800
VIII. Mining, etc. ..	Wage ..	s. d. 110/7	s. d. 107/10	s. d. 102/5	s. d. 98/2	s. d. 97/6	s. d. 97/4	s. d. 97/3	s. d. 97/0
	Index-No.	2,157	2,104	1,999	1,916	1,903	1,899	1,897	1,893
IX. Railways, etc. ..	Wage ..	s. d. 105/2	s. d. 100/2	s. d. 86/7	s. d. 80/11	s. d. 80/4	s. d. 81/1	s. d. 80/11	s. d. 80/4
	Index-No.	2,052	1,955	1,690	1,579	1,567	1,582	1,578	1,567
X. Other Land Transport	Wage ..	s. d. 96/9	s. d. 92/10	s. d. 83/11	s. d. 78/3	s. d. 77/6	s. d. 78/8	s. d. 77/5	s. d. 76/9
	Index-No.	1,888	1,812	1,638	1,527	1,511	1,535	1,510	1,497
XI. Shipping, etc.(a)	Wage ..	s. d. 107/0	s. d. 99/6	s. d. 81/10	s. d. 79/6	s. d. 78/2	s. d. 80/5	s. d. 80/6	s. d. 80/9
	Index-No.	2,087	1,941	1,596	1,552	1,525	1,569	1,571	1,575
XII. Agricultural, etc.(b)	Wage ..	s. d. 95/6	s. d. 87/5	s. d. 80/3	s. d. 74/9	s. d. 74/0	s. d. 74/9	s. d. 74/9	s. d. 71/11
	Index-No.	1,863	1,706	1,566	1,458	1,460	1,458	1,458	1,404
XIII. Domestic, etc.(b)	Wage ..	s. d. 92/6	s. d. 91/3	s. d. 85/3	s. d. 76/5	s. d. 76/0	s. d. 76/3	s. d. 75/5	s. d. 74/30
	Index-No.	1,804	1,780	1,663	1,492	1,483	1,488	1,471	1,460
XIV. Miscellaneous ..	Wage ..	s. d. 96/8	s. d. 93/7	s. d. 83/11	s. d. 78/11	s. d. 77/11	s. d. 78/8	s. d. 78/0	s. d. 77/5
	Index-No.	1,886	1,826	1,637	1,540	1,520	1,534	1,521	1,511
All Industrial Groups (c)	Wage ..	s. d. 101/2	s. d. 96/9	s. d. 86/10	s. d. 81/10	s. d. 81/3	s. d. 81/9	s. d. 81/4	s. d. 80/6
	Index-No.	1,974	1,887	1,694	1,597	1,585	1,595	1,587	1,570

(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, 1933, was recorded in Group V. (Books, Printing, etc.), 97s. 6d. per week, followed by Groups VIII. (Mining), 97s. 0d. per week; VII. (Building), 92s. 3d. per week; III. (Food, Drink, etc.), 83s. 3d. per week; I. (Wood Furniture, etc.), 82s. 8d. per week; and II. (Engineering), 81s. 4d. per week. The lowest average rate was recorded in Group XII. (Agricultural, etc.), 71s. 11d. per week. During the year, rates of wage declined in all groups, except "Shipping, etc." which showed an increase of 1s. 3d. per week, the greatest decreases occurring in the following groups :—Agricultural, etc., by 2s. 10d. per week; Building, by 1s. 8d. per week; Domestic, etc., by 1s. 7d. per week; Miscellaneous, by 1s. 6d. per week; Other Land Transport, by 1s. 6d. per week; Other Manufacturing, by 1s. 2d. per week; and Mining, etc., by 1s. 2d. per week. The decrease during the year in the weighted average rate for all groups was 1s. 4d. 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 1933 showed a decrease of 20s. 8d. 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, 1929 ..	53 11	54 1	54 10	51 4	58 10	53 9	54 1
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 March, 1933 ..	44 5	42 9	46 6	40 8	48 4	43 2	43 10
30th June, 1933 ..	44 6	42 11	46 7	40 8	48 2	43 2	43 11
30th September, 1933 ..	44 0	42 8	46 9	41 0	48 4	43 2	43 9
31st December, 1933 ..	43 2	42 9	46 9	41 0	48 4	43 1	43 5

INDEX-NUMBERS.

31st December, 1929 ..	1,983	1,990	2,020	1,888	2,165	1,978	1,990
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 March, 1933 ..	1,634	1,574	1,713	1,496	1,779	1,588	1,614
30th June, 1933 ..	1,637	1,579	1,713	1,497	1,772	1,590	1,616
30th September, 1933 ..	1,619	1,572	1,720	1,510	1,778	1,590	1,609
31st December, 1933 ..	1,589	1,573	1,720	1,510	1,778	1,587	1,599

(a) Weighted average.

There was an increase in the nominal rates of wage in all States during 1928, with the result that the average wage for females for Australia increased from 52s. 10d. at 31st December, 1927, to 53s. 10d. by the end of 1928. Increases were recorded in four States during the third quarter of 1929, raising the average nominal wage for Australia to 54s. 2d. per week, the highest average rate recorded. There was very little movement in the average rates of wage for female employees during 1930, the average nominal rate at the end of the year being 53s. 7d. as compared with 54s. 1d. per week at the end of the year 1929. Wages for female employees showed a steady decline during 1931 and 1932, and at the end of the latter year the weighted average for Australia was 44s. 2d., as compared with 47s. 5d. per week at the end of 1931, a decrease of 3s. 3d. per week. During 1933 wages again declined, but only slightly in comparison with previous years, and at the end of the year the weighted average for Australia was 43s. 5d. per week, a decrease of 9d. per week on the average at the end of the previous year.

(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)
RATES OF WAGE.						
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
31st December, 1929	49 4	54 4	53 11	54 9	53 10	54 1
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 March, 1933	40 11	42 0	43 8	45 11	47 0	43 10
30th June, 1933	41 2	41 11	44 2	46 0	47 0	43 11
30th September, 1933	40 8	42 1	43 10	45 8	46 4	43 9
31st December, 1933	40 6	41 11	43 5	43 4	45 11	43 5

INDEX-NUMBERS.

31st December, 1929	1,815	1,999	1,984	2,015	1,982	1,990
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 March, 1933	1,507	1,544	1,608	1,689	1,730	1,614
30th June, 1933	1,515	1,544	1,625	1,695	1,730	1,616
30th September, 1933	1,497	1,550	1,612	1,681	1,706	1,609
31st December, 1933	1,491	1,542	1,599	1,594	1,691	1,599

(a) Including the value of board and lodging, where supplied. (b) Weighted average.

During the year 1933 rates of wage for female employees in all industrial groups showed a decline as compared with those for the previous year, the greatest decreases occurring in Group XIII. (Domestic, etc.), by 2s. 10d. and Group XIV. (Miscellaneous) by 1s. 1d. per week. The weighted average for all groups decreased by 9d. per week.

3. **Relative Hours of Labour and Hourly Rates of Wage, 1929 to 1933.**—(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 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 1929 to 1933. 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.
MALE WORKERS.								
31st Dec., 1929	Weekly Wage (a)	102/11	101/7	101/2	97/2	100/7	94/8	101/2
	Working Hours (b)	44.14	46.83	43.96	46.83	45.58	47.09	45.34
	Hourly Wage (b)	2/4	2/2½	2/4	2/1½	2/2½	2/0½	2/3
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
FEMALE WORKERS.								
31st Dec., 1929	Weekly Wage	53/11	54/1	54/10	51/4	58/10	53/9	54/1
	Working Hours	43.93	45.40	44.01	46.03	45.57	46.07	44.79
	Hourly Wage	1/2½	1/2½	1/3	1/1½	1/3½	1/2	1/2½
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

(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 has been 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. The reduction in the average number of hours of work per week in New South Wales in 1931 was due to the restoration of the 44 hours per week by an Act which came into operation on 5th January, 1931. 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 = 0/6 $\frac{1}{2}$ .)

Date.	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
<b>MALE WORKERS.</b>								
31st Dec., 1929	Weekly Wage ..	1,866	1,834	1,836	1,763	1,825	1,718	1,835
	Hourly Wage (a) ..	2,011	1,895	2,001	1,808	1,923	1,751	1,940
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
<b>FEMALE WORKERS.</b>								
31st Dec., 1929	Weekly Wage ..	1,983	1,990	2,020	1,888	2,165	1,978	1,990
	Hourly Wage ..	2,218	2,154	2,252	2,015	2,333	2,108	2,182
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

(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, 1929 to 1933.

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., 1929	Weighted average weekly hours of labour (a) ..	44.14	46.83	43.96	46.83	45.58	47.09	45.34
	Index-numbers ..	902	957	898	957	932	962	927
31st Dec., 1930	Weighted average weekly hours of labour (a) ..	45.64	46.83	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

(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.

During the five years, 1929 to 1933, the average number of hours of labour per week showed little variation, the figure at the end of the year 1929 being 45.34 as compared with 45.36 at 31st December, 1933. In 1930, increases were recorded in New South Wales and Queensland, but in the other States the hours remained practically constant, the result of the changes being that the weighted average hours of labour for all States increased to 45.98 per week. At the end of 1931 the weighted average for Australia had declined to 45.51 per week, due to the reduction in hours in New South Wales caused by the restoration of the 44 hours of work per week. In Queensland, average hours increased slightly owing to revision by the Industrial Court of the standard hours in some industries and callings. The position at the end of 1932 with the average at 45.49 was practically unaltered, but at the end of 1933 the weighted average for Australia had declined to 45.36 hours per week due to the return to 44 hours per week in Queensland.

5. Nominal and Real Wages, 1901 to 1933.—(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.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
	1901 to 1912.	1913 to 1930.												
New South Wales	158	874	858	1,003	1,093	1,862	1,909	1,974	2,003	2,012	1,983	1,851	1,734	1,638
Victoria ..	150	909	796	985	1,062	1,803	1,926	1,951	1,956	1,964	1,937	1,683	1,552	1,502
Queensland ..	87	627	901	997	1,035	1,879	1,955	1,953	1,971	1,976	1,898	1,769	1,731	1,720
South Australia	134	567	819	1,013	1,061	1,697	1,871	1,869	1,884	1,891	1,857	1,580	1,434	1,423
Western Australia	69	489	1,052	1,152	1,223	1,832	1,910	1,925	1,938	1,960	1,955	1,745	1,611	1,584
Tasmania ..	54	482	719	799	1,027	1,745	1,844	1,835	1,825	1,840	1,829	1,625	1,533	1,519
Australia (a)	652	3,948	848	1,000	1,081	1,827	1,914	1,946	1,963	1,972	1,930	1,752	1,630	1,584

(a) Weighted average.

During the period 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 1933 nominal wages declined in all States during the period, South Australia showing the greatest fall with 24.7 per cent., followed by Victoria, 23.5 per cent., and Western Australia, 19.2 per cent. The smallest decline was recorded in Queensland, i.e. 12.9 per cent. The weighted average weekly rate for Australia declined 19.7 per cent. Compared with 1911 the average weekly nominal wage for Australia was 58.4 per cent. higher in 1933.

(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 only 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 1933.

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, as the movement in wages during any one year prior to 1914 was very slight, the December figures may stand for the yearly average without appreciable error:—

#### "REAL" WEEKLY WAGE INDEX-NUMBERS.—ADULT MALES.

States.	1901.	1911.	1914.	1921.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	
New South Wales	..	961	973	906	1,079	1,035	1,079	1,089	1,050	1,107	1,160	1,150	1,138
Victoria	..	915	1,037	961	1,038	1,069	1,095	1,120	1,084	1,158	1,162	1,126	1,139
Queensland	..	1,172	1,090	1,038	1,244	1,183	1,222	1,236	1,220	1,317	1,345	1,376	1,417
South Australia	..	948	957	929	1,027	1,076	1,073	1,089	1,067	1,166	1,178	1,133	1,152
Western Australia	..	1,024	1,023	1,070	1,139	1,165	1,199	1,156	1,143	1,229	1,232	1,212	1,246
Tasmania	..	827	838	942	977	1,037	1,072	1,099	1,064	1,111	1,104	1,067	1,094
Australia (a)	..	964	1,000	948	1,076	1,072	1,102	1,115	1,082	1,152	1,185	1,168	1,178

(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 1933 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
1907	893	5.7	884	897	996	986
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

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.

Nominal wages and retail prices fell less rapidly during 1933 than in 1932, but as wages declined to the lesser extent, the "real" wage index for full work increased to 1178 from 1168. For the first time since it began its upward course in 1928 from 7.0 per cent. in the preceding year, to reach in 1932 the highest percentage (29.0) yet recorded for Australia for a whole year, unemployment during 1933 showed a marked decline, with the result that the index allowing for unemployment improved from 870 to 926. Comparison with 1911 shows that the "real" wage for full time work was 17.8 per cent. higher, but allowing for unemployment was 7.4 per cent. lower during 1933.

### § 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 the two preceding issues of the Official Year Book 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, the transcript of the evidence covering 865 pages exclusive of "exhibits" not incorporated. Very few witnesses were called, and as the Court declined to hear evidence on the domestic requirements of typical families, the case submitted by the Unions, in addition to traversing the general principles followed by State tribunals in determining the basic wage for their respective States, was mainly directed to prove that the national finances

\* 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.

† Awarded by Mr. Justice Powers in the Gas Workers' case.

had improved substantially; that commerce and industry had revived, and that balance sheets, enhanced prices of stocks and shares, increased productivity, and other ready means of measuring prosperity had proved the ability of industry to bear complete restoration of former wage standards; that the continuation of the reduction was hampering progress towards complete recovery; and that had the conditions prevailing in 1930 been similar to those of 1934, the Court would not have made the reduction. The employers denied generally the position as stated by the Unions, and submitted that the alleged improvement was more psychological than real; that although Commonwealth finances had apparently improved, the condition of State finances was still parlous; that the position of the railways and tramways was desperate, and that State deficits were largely due to the losses in those services.

(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 difference 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 this column 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.; Warnambool 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 \$4s. 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

\* See *New South Wales Industrial Gazette*, No. 2, Vol. XXVIII., 1925, page 154.

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.

(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 appropriate 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 of 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 the 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 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 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 August, 1934, the rates declared were

£3 11s. for males and £1 18s. 4d. 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 August, 1934 were—Agricultural areas, etc., adult male employees, £3 11s. 6d. per week; adult female employees, £1 18s. 7d. per week; Gold-fields area, etc., adult male employees, £4 2s. per week; adult female employees, £2 4s. 3d. 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, 1934. 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. These rates were reduced 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. These rates were still operative on the 30th June, 1934, notwithstanding intervening exhaustive reviews by the Board of Industry. These 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 7 6	1 16 6	1.5.34	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 3 0	(d) 1 11 6	..	..
Western Australia..	(e) 3 11 0	1 18 4	1.8.34	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 17th August, 1931. (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 2s.; females, £2 4s. 3d.; Agricultural Areas and S.W. Land Division—males, £3 11s. 6d.; females, £1 18s. 7d. Under the provisions of the "Financial Emergency Act," the Court of Arbitration may make orders, on the application of employers in a number of industries and callings, reducing the wages rate by 18, 20, or 22½ per cent. according to total salary received.



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	1
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

\* 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.

was fixed at 2 per cent, and from 1st January, 1932, at the rate of 5d. in the £1 on all wages above £3 per week. The 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, 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.

## 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, 1933.**—The following tables give particulars of industrial disputes which either commenced or were current during the year 1933, 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, 1933.

Class.	Industrial Group.	Number.	Estab- lish- ments In- volved.	Workpeople Involved.			Working Days Lost.	Esti- mated Loss in Wages.
				Directly.	In- directly.	Total.		
NEW SOUTH WALES.								
II.	Engineering, metal works, etc.	1	1	150	..	150	450	375
III.	Food, drink, etc. .. ..	3	85	1,685	..	1,685	1,485	1,000
VI.	Other manufacturing .. ..	3	10	1,120	40	1,160	15,501	11,391
VIII.	(a) Coal-mining .. ..	42	42	9,388	1,568	10,956	27,438	27,793
	(b) Other mining, quarries, etc. .. ..	2	2	908	55	963	7,913	7,958
XIV.	Miscellaneous .. ..	3	3	155	..	155	317	243
Total .. ..		54	143	13,406	1,663	15,069	53,104	48,760
VICTORIA.								
I.	Wood, sawmill, timber, etc. ..	1	1	60	..	60	120	104
II.	Engineering, metal works, etc.	1	1	196	..	196	980	845
III.	Food, drink, etc. .. ..	1	17	795	162	957	10,456	7,581
IV.	Clothing, hats, boots, etc. ..	1	1	133	132	265	265	100
VIII.	Coal-mining .. ..	5	5	5,150	..	5,150	14,050	11,300
XIV.	Miscellaneous .. ..	3	3	822	..	822	822	486
Total .. ..		12	28	7,156	294	7,450	26,693	20,416
QUEENSLAND.								
II.	Engineering, metal works, etc.	1	1	48	..	48	48	34
III.	Food, drink, etc. .. ..	2	2	820	..	820	1,200	1,130
VIII.	(a) Coal-mining .. ..	1	1	71	..	71	71	74
	(b) Other mining, quarries, etc. .. ..	2	2	1,269	873	2,142	9,972	7,295
XII.	Pastoral, agricultural, etc. ..	1	1	180	..	180	180	163
XIV.	Miscellaneous .. ..	4	4	248	11	259	2,405	1,381
Total .. ..		11	11	2,636	884	3,520	13,876	10,077
SOUTH AUSTRALIA.								
IX.	Railway and tramway services	1	1	50	..	50	100	90
Total .. ..		1	1	50	..	50	100	90

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO INDUSTRIAL  
GROUPS, 1933—*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.		
WESTERN AUSTRALIA.								£
II.	Engineering, metal works, etc.	2	2	19	1	20	1,120	847
VIII.	(a) Coal-mining .. .. .	3	3	1,169	40	1,209	5,769	4,710
	(b) Other mining, quarries, etc. .. .. .	2	2	2,080	230	2,310	9,100	8,430
XIV.	Miscellaneous .. .. .	3	3	376	5	381	907	543
	Total .. .. .	10	10	3,644	276	3,920	16,896	14,530
TASMANIA.								
VIII.	Coal-mining .. .. .	1	1	75	..	75	1,200	1,050
NORTHERN TERRITORY.								
XIV.	Miscellaneous .. .. .	1	1	21	8	29	87	125
AUSTRALIA.								
I.	Wood, sawmill, timber, etc. ..	1	1	60	..	60	120	104
II.	Engineering, metal works, etc.	5	5	413	1	414	2,598	2,101
III.	Food, drink, etc., manufacturing and distribution .. .. .	6	104	3,300	162	3,462	13,141	9,711
IV.	Clothing, hats, boots, etc. ..	1	1	133	132	265	265	100
VI.	Other manufacturing .. .. .	3	10	1,120	40	1,160	15,501	11,391
VIII.	(a) Coal-mining .. .. .	52	52	15,853	1,608	17,461	48,528	44,927
	(b) Other mining, quarries, etc. .. .. .	6	6	4,257	1,158	5,415	26,985	23,683
IX.	Railway and tramway services	1	1	50	..	50	100	90
XII.	Pastoral, agricultural, etc. ..	1	1	180	..	180	180	163
XIV.	Miscellaneous .. .. .	14	14	1,622	24	1,646	4,538	2,778
	Total—Australia .. .. .	90	195	26,988	3,125	30,113	111,956	95,048

3. Industrial Disputes, Australia, 1929 to 1933.—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 1929 to 1933, 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 1933 disputes in the coal-mining industry represented 43 per cent. of the total, as compared with 61 per cent. during 1932. During the past five years working days lost through dislocations involving work-people engaged in coal-mining amounted to 4,127,941, representing 63 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.

1929 ..	29	8	193	11	9	9	259
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
1929 to 1933 ..	107	16	527	37	30	76	793

## WORKPEOPLE INVOLVED.

1929 ..	25,364	732	68,751	8,015	1,286	456	104,604
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
1929 to 1933 ..	50,000	1,011	169,439	18,898	6,642	13,533	259,523

## WORKING DAYS LOST.

1929 ..	1,896,091	4,456	2,496,028	31,748	30,237	2,918	4,461,478
1930 ..	77,732	..	1,328,142	3,798	46,427	55,642	1,511,241
1931 ..	29,032	1,006	124,089	36,012	19,861	35,091	245,091
1932 ..	50,692	1,561	131,154	21,402	1,038	6,471	212,318
1933 ..	31,625	..	48,523	26,985	100	4,718	111,956
1929 to 1933 ..	2,081,672	7,023	4,127,941	119,945	97,663	105,740	6,542,984

## ESTIMATED LOSS IN WAGES.

	£	£	£	£	£	£	£
1929 ..	1,680,629	5,060	2,810,623	36,468	33,971	2,554	4,569,305
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
1929 to 1933 ..	1,829,907	7,395	4,496,198	114,202	96,638	105,668	6,650,008

4. Summary of Disputes (involving Stoppage of Work), 1929 to 1933.—The following table gives particulars of the number of industrial disputes in each State in the years 1929 to 1933, 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 ..	1929	231	513	75,197	4,152	79,349	3,146,038	3,421,412
	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
Victoria ..	1929	11	320	8,893	12,719	21,612	1,296,676	1,130,565
	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
Queensland ..	1929	4	23	1,691	8	1,699	3,443	3,379
	1930	10	31	1,561	70	1,631	9,881	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	18,341
	1933	11	11	2,636	884	3,520	13,876	10,077
South Australia ..	1929	2	21	532	40	572	9,040	7,910
	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
Western Australia ..	1929	4	8	827	50	877	2,672	2,771
	1930	2	26	468	..	468	27,072	34,378
	1931	13	26	3,878	50	3,928	24,022	15,829
	1932	8	16	2,531	162	2,693	11,203	9,538
	1933	10	10	3,644	276	3,920	16,896	14,530
Tasmania ..	1929	6	40	333	142	475	3,409	3,068
	1930	3	3	270	..	270	400	394
	1931	2	2	155	6	161	5,409	5,278
	1932	2	4	1,163	..	1,163	15,562	6,516
	1933	1	1	75	..	75	1,200	1,050
Northern Territory ..	1929	..	..	..	..	..	..	..
	1930	..	..	..	..	..	..	..
	1931	2	2	245	..	245	910	675
	1932	1	3	177	..	177	354	304
	1933	1	1	21	8	29	87	125
Fed. Cap. Territory ..	1929	1	1	20	..	20	200	200
	1930	..	..	..	..	..	..	..
	1931	..	..	..	..	..	..	..
	1932	..	..	..	..	..	..	..
	1933	..	..	..	..	..	..	..
Australia ..	1929	259	926	87,493	17,111	104,604	4,461,478	4,569,305
	1930	183	695	51,972	2,250	54,222	1,511,241	1,592,342
	1931	134	616	34,521	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

Detailed information in regard to the disputes during the years 1929 to 1933 and previous years is given in the Labour Reports issued by this Bureau.

The number of industrial disputes recorded during 1933 was 90, as compared with 127 during the previous year. In New South Wales 54 disputes occurred. Of this number 42 involved workpeople engaged in mining and quarrying. Working days lost during 1933 numbered 111,956 for all disputes in Australia, as compared with 212,318 working days lost during 1932. The estimated loss of wages was £95,048 in 1933 as compared with £165,582 for the year 1932.

5. Particulars of Principal Disputes in 1933.—(i) *General*. The preceding tables show the number and effect of all disputes for the year 1933 classified according to Industrial Groups. The figures show large decreases compared with those of the previous year as regards number of working days and amount of wages lost. The number of disputes is the lowest recorded for any year during the period covered by the investigations. The tables show that of the total number of disputes (90) which occurred in 1933 no less than 52 were in connexion with the coal-mining industry, and of these 42 occurred in New South Wales. The total loss in wages through all disputes in Australia was £95,048, the lowest annual loss yet recorded. The loss through disputes in the coal-mining industry in New South Wales was £27,793 or 29 per cent. of the total loss in wages for Australia. Compared with earlier years there was no dispute of outstanding magnitude but in the following paragraphs particulars are given of the largest which occurred in the States mentioned.

(ii) *Details regarding Principal Disputes.*—(a) *New South Wales*. A demand for the immediate restoration of the 10 per cent. "cut" was the reason given for a stoppage of work in September, 1933. Several firms engaged in the Wool and Basil industry were involved, and after a stoppage of about three weeks, the members of the unions concerned were instructed by their Executives to return to work, pending a compulsory conference ordered by the Commonwealth Court of Conciliation and Arbitration.

A dispute involving persons engaged in metalliferous mining occurred at Broken Hill in October, 1933. The employees demanded increased rates for breaking and filling ore underground. Negotiations between the parties concerned resulted in a resumption of work on the old conditions after a stoppage of about two weeks.

(b) *Victoria*.—Operations in the Meat Export industry were held up by a dispute which occurred in Victoria in September, 1933. Several firms in various parts of the State were involved, the cause of the trouble being the inability of the employees to agree to certain clauses in a new agreement between employers and employees which was being drafted.

The principal matters in dispute were the "institution of the 'team' system of killing", and "a reduction of approximately 10 per cent. in wages". Negotiations between the parties having failed to effect an amicable settlement of the dispute, the employers decided to employ non-union labour; and operations were resumed under these conditions, a number of unionists being ultimately re-engaged.

A dispute involving coal-miners occurred at the State Coal Mine, Wonthaggi, in December, 1933, owing to the objection of the miners to certain working conditions. Negotiations between the management and representatives of the miners resulted in work being resumed after a few days' stoppage.

(c) *Queensland*.—A demand that two men who had been suspended for an infringement of rules should be reinstated caused a stoppage of metalliferous mining operations at Mount Isa in October, 1933.

Negotiations having failed to effect a settlement, the operations of the company concerned were suspended indefinitely.

(d) *Western Australia*.—Alleged misinterpretations of clauses of an award caused a stoppage of work at the Lake View and Star Gold Mine, Boulder, in September, 1933. Negotiations between employers and employees resulted in a general agreement on all points, and work was resumed after a stoppage of about one week.

Operations at two collieries in the Collie district were suspended for several days in September, 1933, owing to a dispute. The cause of the stoppage was a demand by the employees for increased pay for "dip work". The dispute was referred to the Board of Reference constituted under the Coal Mining Award, with the result that an extra payment of sixpence per ton was granted on coal won from developmental headings worked to the dip of the seam.

6. Duration of Industrial Disputes, 1933.—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 1933, classified under the adopted limits of duration:—

#### INDUSTRIAL DISPUTES.—DURATION, AUSTRALIA, 1933.

Limits of Duration.	Number.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
		Directly.	Indirectly.	Total.		
1 day and less .. .. .	43	10,465	1,202	11,667	11,467	£ 10,664
2 days and more than 1 day	11	3,812	270	4,082	8,158	7,220
3 days and more than 2 days	14	4,820	930	5,750	15,550	14,073
Over 3 days and less than 1 week (6 days) .. .. .	4	667	22	689	3,435	3,320
1 week and less than 2 weeks	9	5,296	501	5,797	41,762	36,648
2 weeks and less than 4 weeks	6	1,883	199	2,082	29,762	21,771
4 weeks and less than 8 weeks	1	26	..	26	702	505
8 weeks and over .. .. .	2	19	1	20	1,120	847
<b>Total .. .. .</b>	<b>90</b>	<b>26,988</b>	<b>3,125</b>	<b>30,113</b>	<b>111,956</b>	<b>95,048</b>

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.

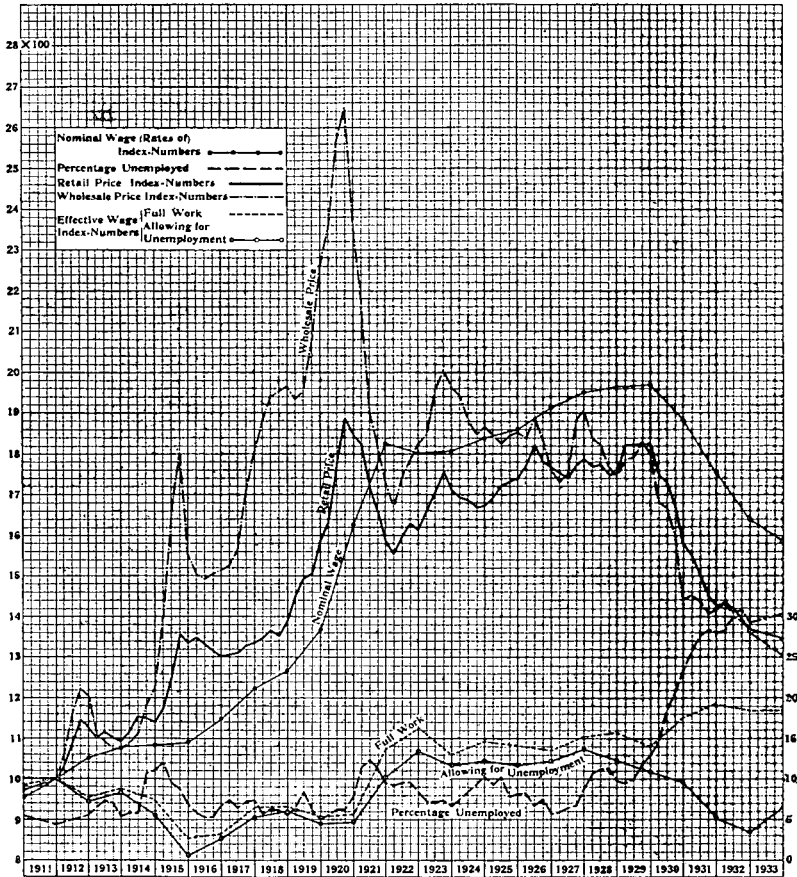
7. Causes of Industrial Disputes, 1913 to 1933.—The following table shows the number of disputes, workpeople involved, and the working days lost in disputes during the years 1913 and 1928 to 1933, classified according to principal cause:—

#### INDUSTRIAL DISPUTES.—CAUSES, AUSTRALIA.

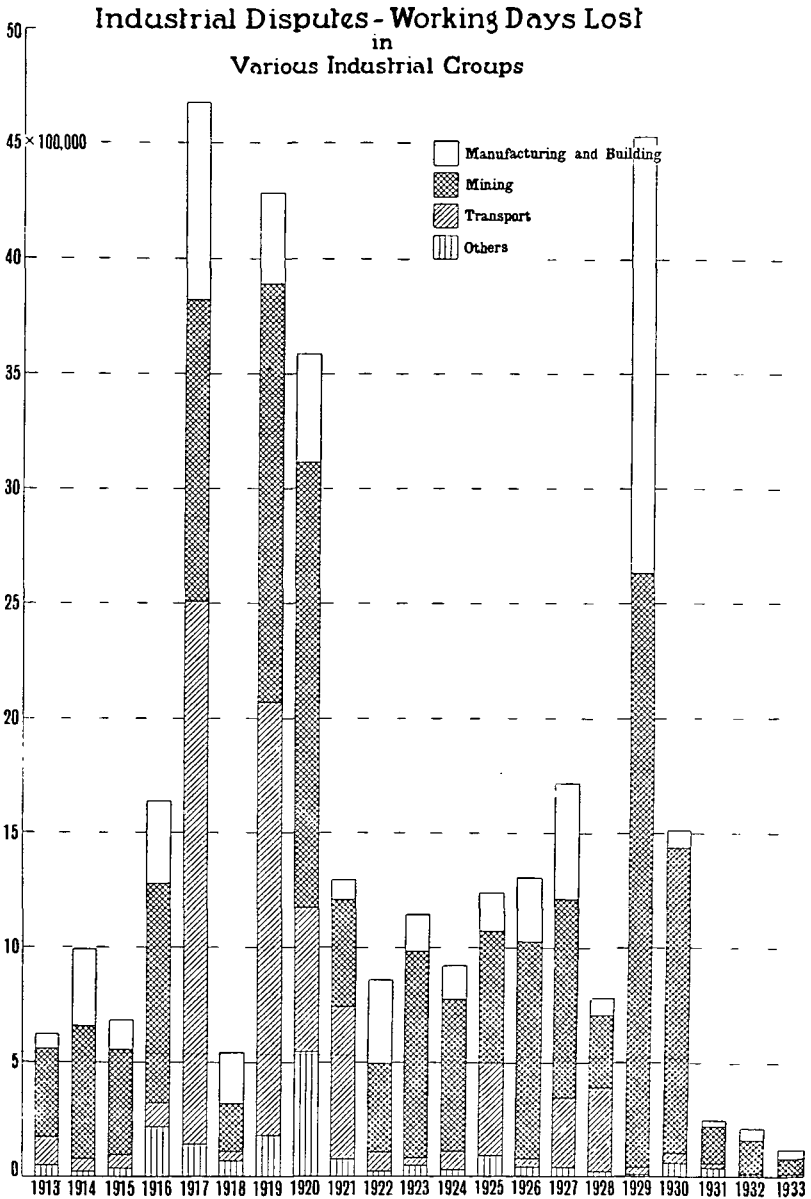
Causes of Dispute.	1913.	1928.	1929.	1930.	1931.	1932.	1933.
<b>NUMBER.</b>							
1. Wages—							
(a) For increase .. .. .	42	8	8	..	4	5	1
(b) Against decrease .. .. .	4	3	6	9	17	11	4
(c) Other wage questions	31	39	45	44	16	26	14
2. Hours of Labour—							
(a) For reduction .. .. .	3	2	6	4	2	2	..
(b) Other disputes re hours	7	2	2	..	..	..	7
3. Trades Unionism—							
(a) Against employment of non-unionists ..	8	6	3	..	1	2	1
(b) Other union questions	5	11	12	20	4	3	3
4. Employment of particular Classes or Persons .. .. .	44	105	87	48	50	50	35
5. Working Conditions .. .. .	51	48	31	27	22	11	9
6. Sympathetic .. .. .	5	9	6	11	5	2	..
7. Other Causes .. .. .	8	54	53	20	13	15	16
<b>Total .. .. .</b>	<b>208</b>	<b>287</b>	<b>259</b>	<b>183</b>	<b>134</b>	<b>127</b>	<b>90</b>



**RETAIL AND WHOLESALE PRICES, NOMINAL AND EFFECTIVE OR REAL WAGE INDEX NUMBERS, AND PERCENTAGE OF UNEMPLOYED.—AUSTRALIA, 1911 TO 1933.**



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 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. Average nominal wage for adult males, and *real* wage (full work) and (allowing for unemployment) for adult males.



**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.

## INDUSTRIAL DISPUTES.—CAUSES, AUSTRALIA—continued.

Causes of Dispute.	1913.	1928.	1929.	1930.	1931.	1932.	1933.
<b>WORKPEOPLE INVOLVED.</b>							
1. Wages—							
(a) For increase ..	8,633	2,775	1,414	..	2,053	1,295	29
(b) Against decrease ..	563	1,317	10,532	12,824	7,108	7,327	2,178
(c) Other wage questions ..	7,160	17,057	8,742	12,686	3,999	5,417	4,336
2. Hours of Labour—							
(a) For reduction ..	460	61	21,646	4,334	192	198	..
(b) Other disputes re hours ..	1,819	1,005	2,067	..	..	..	2,620
3. Trades Unionism—							
(a) Against employment of non-unionists ..	5,370	193	103	..	9	17	89
(b) Other union questions ..	1,418	2,311	4,367	4,160	2,240	501	705
4. Employment of particular Classes or Persons ..	11,370	35,379	22,933	7,751	12,023	12,556	11,803
5. Working Conditions ..	10,785	14,169	4,672	4,276	6,659	2,804	4,503
6. Sympathetic ..	947	6,123	11,604	4,010	1,053	316	..
7. Other Causes ..	1,758	16,032	16,524	4,181	2,331	2,486	3,850
<b>Total .. ..</b>	<b>50,283</b>	<b>96,422</b>	<b>104,604</b>	<b>54,222</b>	<b>37,667</b>	<b>32,917</b>	<b>30,113</b>

**WORKING DAYS LOST.**

1. Wages—							
(a) For increase ..	100,069	6,548	7,433	..	15,425	5,990	87
(b) Against decrease ..	9,438	3,824	2,332,157	1,227,808	111,258	123,571	17,431
(c) Other wage questions ..	78,183	80,755	47,261	113,102	43,746	17,631	18,736
2. Hours of Labour—							
(a) For reduction ..	2,774	725	1,887,196	63,583	152	2,894	..
(b) Other disputes re hours ..	15,111	2,667	3,183	..	..	..	8,895
3. Trades Unionism—							
(a) Against employment of non-unionists ..	91,002	2,137	424	..	99	59	89
(b) Other union questions ..	32,388	8,900	49,924	50,225	11,752	6,261	1,421
4. Employment of particular Classes or Persons ..	191,723	423,555	78,492	24,683	38,567	36,054	31,799
5. Working Conditions ..	73,562	98,852	8,545	8,551	17,106	14,902	22,865
6. Sympathetic ..	24,066	106,358	23,482	17,648	4,070	1,096	..
7. Other Causes ..	5,212	42,957	23,381	5,641	3,816	3,860	10,633
<b>Total .. ..</b>	<b>623,528</b>	<b>777,278</b>	<b>4,461,478</b>	<b>1,511,241</b>	<b>245,991</b>	<b>212,318</b>	<b>111,956</b>

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. During 1933 the number of disputes concerning "Wages" represented 21 per cent. of the total number for the 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. 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 decreased during 1928 to 1933. "Sympathetic" disputes have not been numerous during the past five years, none being recorded during 1933.

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 1928 to 1933, 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.
1928 ..	39	228	14	1	7,362	85,306	2,814	178	55,757	674,076	16,309	178
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(a)	17	58	13	1	4,778	20,697	4,361	213	12,301	84,697	14,468	426

(a) The following are the particulars of a dispute which was incomplete at 31st December, 1933, which should be added to the above figures to effect a balance with those published in the preceding tables, viz., :—

State.	Number.	Establishments Involved.	Workpeople.	Working Days Lost.
New South Wales .. .. .	1	1	64	64
Total .. .. .	1	1	64	64

The figures for the year 1929 in the above, and also in the following table, include the number of workpeople involved and the working days lost in 1929 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 1928 to 1933, classified according to the adopted schedule of methods of settlement :—

## INDUSTRIAL DISPUTES.—METHODS OF SETTLEMENT, AUSTRALIA.

Methods of Settlement.	1913.	1928.	1929.	1930.	1931.	1932.	1933. (a)
NUMBER.							
Negotiations—							
Direct between employers and employees or their representatives	119	138	130	134	88	87	64
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act .. .. .	17	8	8	3	3	4	1
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference .. .. .	19	10	3	6	11	5	3
By reference to Board or Court ..	22	8	1	2	1	2	3
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference .. .. .	4	6	6	..	4	3	2
By filling places of workpeople on strike or locked out .. .. .	13	10	7	9	2	7	2
By closing-down establishment permanently .. .. .	1	3	3	1	2	1	3
By other methods .. .. .	13	99	96	23	21	18	11
Total .. .. .	208	282	254	178	132	127	89(a)

(a) See footnote to preceding table.

INDUSTRIAL DISPUTES.—METHODS OF SETTLEMENT, AUSTRALIA—continued.

Methods of Settlement.	1913.	1928.	1929.	1930.	1931.	1932.	1933.
<b>WORKPEOPLE INVOLVED.</b>							
Negotiations—							
Direct between employers and employees or their representatives	23,357	37,708	32,393	40,804	22,292	22,595	19,703
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	3,172	1,242	19,161	196	1,885	1,800	1,100
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference	6,505	2,009	487	3,476	3,871	1,640	1,290
By reference to Board or Court	12,774	2,975	56	184	42	416	1,390
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	659	1,497	511	..	1,083	1,839	1,096
By filling places of workpeople on strike or locked out	658	11,047	5,411	2,940	222	460	986
By closing-down establishment permanently	170	266	144	40	52	11	1,271
By other methods	2,988	38,916	45,350	5,560	8,058	4,156	3,213
Total	50,283	95,660	103,513	53,200	37,505	32,917	430,049

WORKING DAYS LOST.

Negotiations—							
Direct between employers and employees or their representatives	94,400	273,254	2,417,171	1,289,487	109,601	87,650	54,774
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	26,335	36,937	1,279,258	2,893	2,625	79,872	6,600
Under State Industrial Acts—							
By intervention, assistance, or compulsory conference	187,871	38,878	5,261	56,648	25,257	7,423	3,510
By reference to Board or Court	221,769	29,533	56	1,272	252	3,408	6,330
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, or compulsory conference	2,105	3,962	1,882	..	30,317	18,596	15,437
By filling places of workpeople on strike or locked out	14,139	266,369	610,686	34,612	27,042	6,874	10,543
By closing-down establishment permanently	20,400	750	9,861	80	5,355	44	8,627
By other methods	56,509	96,637	100,004	24,726	37,970	8,451	6,071
Total	623,528	746,320	4,424,179	1,409,718	238,419	212,318	411,892

(a) See footnote to preceding table.

The majority of the disputes were settled by direct negotiations between employers and employees, the proportion so settled ranging between 47 per cent. in 1924 and 76 per cent. in 1921. Of the 89 disputes settled during 1933, 64 or 72 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 2 per cent. in 1923 to 15 per cent. in 1920. The proportion in 1933 was 9 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 415,000. 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.—1933.

State.	Unions Reporting.		Unemployed.	
	Number.	Members.	Number.	Percentage.
New South Wales .. .. .	114	186,202	53,839	28.9
Victoria .. .. .	81	115,096	25,726	22.3
Queensland .. .. .	46	50,395	7,705	15.3
South Australia .. .. .	58	29,370	8,799	29.9
Western Australia .. .. .	61	25,278	6,257	24.8
Tasmania .. .. .	34	8,964	1,709	19.1
<b>Australia .. .. .</b>	<b>394</b>	<b>415,305</b>	<b>104,035</b>	<b>25.1</b>

(ii) *Summary for Australia.* The appended table gives a summary for Australia for the last five years and quarterly for years, 1930 to 1933 :—

UNEMPLOYMENT.—AUSTRALIA.

Period.				Unions.	Membership.	Unemployed.	
						Number.	Percentage.
1929	..	..	..	382	424,093	47,359	11.1
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
1930	1st Quarter	..	..	392	432,464	63,144	14.6
	2nd "	..	..	394	435,239	80,595	18.5
	3rd "	..	..	396	439,971	90,379	20.5
	4th "	..	..	399	447,822	104,951	23.4
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

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 1929 to 1933 :—

UNEMPLOYMENT.—PERCENTAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	%	%	%	%	%	%	%
1929 Year	11.5	11.1	7.1	15.7	9.9	13.4	11.1
1930 "	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
1931 1st Quarter	29.2	24.4	14.1	30.6	26.1	26.6	25.8
2nd "	30.7	26.5	16.1	32.4	27.1	27.3	27.6
3rd "	31.6	26.8	16.9	33.3	27.9	27.3	28.3
4th "	31.5	25.6	17.5	33.7	28.1	28.4	28.0
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

(iv) *Industrial Groups.* The next table shows the percentages unemployed in industrial groups. Industries or occupations in which employment is stable, such as railways, and those which are subject to exceptional fluctuations, such as wharf labour, agricultural, pastoral, etc., are not included. Other occupations—domestic, hotel employees, etc., are included in the "Other and Miscellaneous" group, as their returns are not sufficiently representative:—

UNEMPLOYMENT IN INDUSTRIAL GROUPS.—AUSTRALIA, 1933.

Industrial Group.	Number Reporting.		Unemployed.	
	Unions.	Members.	Number.	Percentage.
<b>Manufacturing:—</b>				
I. Wood, Furniture, etc. ..	16	18,580	6,466	34.8
II. Engineering, Metal Works, etc. ..	63	71,640	20,517	28.6
III. Food, Drink, Tobacco, etc. ..	51	35,777	6,076	17.0
IV. Clothing, Hats, Boots, etc. ..	22	32,957	5,743	17.4
V. Books, Printing, etc. ..	13	18,582	2,798	15.1
VI. Other Manufacturing ..	65	38,038	13,039	34.3
VII. Building .. ..	47	48,879	17,412	35.7
VIII. Mining, Quarrying, etc. ..	21	25,901	7,459	28.8
X. Land Transport other than Rail- way and Tramway Services ..	12	17,738	4,446	25.1
IX., XL., XII., XIII., and XIV. Other and Miscellaneous ..	84	107,213	20,079	18.7
<b>All Groups .. ..</b>	<b>394</b>	<b>415,305</b>	<b>104,035</b>	<b>25.1</b>

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 all States with the exception of Western Australia. 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 and Western Australia special taxation was not imposed, the moneys for relief of unemployed being voted by Parliament. In Tasmania special legislation was enacted authorizing the raising of certain sums of money for purposes of affording relief to unemployed persons.

Further references to the special legislation relating to unemployment, rates of tax and sustenance payments will be found in Labour Reports, Nos. 22 to 24.



### § 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, 168 industrial unions of employers and 157 industrial unions of employees, the membership of the latter being 281,390; Queensland, 10 industrial unions of employers with 10,489 members, and 77 industrial unions of employees with approximately 118,305 members; South Australia, 24 organizations of employees with 18,297 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. In December, 1932, there were on the register 27 organizations of employers with approximately 20,000 persons, firms or corporations affiliated, and 137 organizations of employees with approximately 630,000 members. On the 31st December, 1933, the registered organizations numbered 136 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 1933 :—

## TRADE UNIONS, BRANCHES, AND MEMBERS, 1933.

State or Territory.	Number of Separate Unions.	Number of Branches.	Number of Members.
New South Wales .. .. .	198(c)	580	303,046(c)
Victoria .. .. .	149	406	195,089
Queensland .. .. .	107	320	121,331
South Australia .. .. .	109	177	54,197
Western Australia .. .. .	128	188	51,399
Tasmania .. .. .	80	78	13,630
Northern Territory .. .. .	4	..	706
Total .. .. .	775	1,749	739,398
Australia (a) .. .. .	356(a)	2,168(b)	739,398

(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. (c) Includes 15 unions with a membership of 1,022 in the Federal Capital Territory.

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, 356 distinct organizations and interstate groups of organizations in Australia, having 2,168 State branches and sub-branches, and a total of 739,398 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.	1929.	1930.	1931.	1932.	1933.
NUMBER OF UNIONS.					
Manufacturing :—					
I. Wood, Furniture, etc.	18 (a)	18 (a)	18 (a)	18 (a)	18 (a)
II. Engineering, Metal Works, etc.	61 (22)	63 (22)	63 (22)	63 (22)	63 (22)
III. Food, Drink, Tobacco, etc.	65 (33)	65 (32)	63 (34)	63 (34)	62 (34)
IV. Clothing, Hats, Boots, etc.	25 (12)	24 (12)	24 (12)	24 (12)	24 (11)
V. Books, Printing, etc.	14 (8)	15 (9)	15 (10)	15 (10)	15 (10)
VI. Other Manufacturing	79 (42)	79 (41)	76 (38)	77 (37)	77 (37)
VII. Building	50 (28)	51 (28)	51 (28)	51 (28)	51 (28)
VIII. Mining, Quarrying, etc.	18 (14)	18 (14)	16 (13)	16 (13)	16 (13)
IX. Railway and Tramway Services	52 (31)	52 (30)	51 (29)	51 (29)	51 (29)
X. Other Land Transport	11 (5)	12 (5)	11 (4)	11 (4)	11 (4)
XI. Shipping, etc.	59 (28)	59 (26)	57 (24)	57 (24)	55 (22)
XII. Pastoral, Agricultural, etc.	8 (3)	8 (3)	9 (4)	9 (4)	9 (4)
XIII. Domestic, Hotels, etc.	24 (19)	20 (15)	20 (15)	20 (16)	20 (16)
XIV. Miscellaneous :—					
(i) Banking, Insurance and Clerical	30 (20)	30 (20)	31 (19)	31 (19)	30 (19)
(ii) Public Service	143 (50)	143 (45)	145 (46)	145 (45)	145 (45)
(iii) Retail and Wholesale	9 (7)	9 (7)	8 (7)	8 (7)	8 (7)
(iv) Municipal, Sewerage and Labouring	14 (13)	14 (13)	14 (13)	14 (13)	13 (12)
(v) Other Miscellaneous	91 (35)	100 (36)	108 (40)	108 (40)	107 (39)
Total .. .. .	771 (374) <sup>a</sup>	780 (362) <sup>a</sup>	781 (362) <sup>a</sup>	781 (361) <sup>a</sup>	775 (356) <sup>a</sup>

NUMBER OF MEMBERS.

Manufacturing :—					
I. Wood, Furniture, etc.	35,898	39,944	26,700	27,054	27,164
II. Engineering, Metal Works, etc.	85,425	79,081	74,316	72,883	69,244
III. Food, Drink, Tobacco, etc.	71,948	71,437	63,582	61,183	62,103
IV. Clothing, Hats, Boots, etc.	56,300	50,625	47,707	51,154	50,173
V. Books, Printing, etc.	19,817	19,822	18,703	18,128	18,113
VI. Other Manufacturing	44,693	44,742	42,553	40,578	42,577
VII. Building	61,191	59,629	52,041	52,582	52,936
VIII. Mining, Quarrying, etc.	43,098	42,405	36,037	32,846	30,166
IX. Railway and Tramway Services	13,281	106,968	92,292	91,889	90,521
X. Other Land Transport	18,817	18,211	17,595	17,158	16,408
XI. Shipping, etc.	38,308	38,050	36,039	32,994	32,691
XII. Pastoral, Agricultural, etc.	50,266	43,639	28,668	21,237	20,997
XIII. Domestic, Hotels, etc.	29,767	25,504	23,611	20,993	20,849
XIV. Miscellaneous :—					
(i) Banking, Insurance and Clerical	30,440	31,140	30,222	28,420	27,884
(ii) Public Service	79,773	81,275	81,395	80,889	79,809
(iii) Retail and Wholesale	31,887	28,859	26,630	24,983	26,426
(iv) Municipal, Sewerage and Labouring	46,577	41,027	32,541	30,639	30,261
(v) Other Miscellaneous	43,682	42,399	38,374	35,221	41,076
Total .. .. .	901,168	855,757	769,006	740,831	739,398

(a) Allowing for interstate duplication.

(iv) *Trade Unions—Numbers and Percentages of Male and Female Members.—Australia.* The census of 1921 gives 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, 1929 to 1933. 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.	1929.	1930.	1931.	1932.	1933.
<b>MALES.</b>					
Estimated No. of Adult Employees (20 years of age and over) .. .. .	1,302,400	1,313,000	1,321,000	1,330,000	1,344,290
No. of Members of Unions .. .. .	774,031	735,767	656,105	630,688	626,266
Percentage of Members on Estimated Number of Adult Employees .. .. .	59.4	56.0	49.7	47.4	46.6
Junior Workers (under 20) .. .. .	241,000	243,400	244,850	246,500	249,010
<b>FEMALES.</b>					
Estimated No. of Adult Employees (20 years of age and over) .. .. .	308,200	311,600	314,600	317,250	321,500
No. of Members of Unions .. .. .	127,137	119,990	112,901	110,143	113,132
Percentage of Members on Estimated Number of Adult Employees .. .. .	41.3	38.5	35.9	34.7	35.2
Junior Workers (under 20) .. .. .	136,000	137,500	138,870	139,980	141,960
<b>TOTAL.</b>					
Estimated Number of Adult Employees (20 years of age and over) .. .. .	1,610,600	1,624,600	1,635,600	1,647,250	1,665,790
Number of Members of Unions .. .. .	901,168	855,757	769,006	740,831	739,398
Percentage of Members on Estimated Number of Adult Employees .. .. .	56.0	52.7	47.0	45.0	44.4
Junior Workers (under 20) .. .. .	377,000	380,900	383,720	386,480	390,970

(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, 1933.

Particulars.	Unions Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States. (a)	
Number of Unions .. .. .	20	12	19	21	43	115
Number of Members .. .. .	31,792	33,609	99,293	183,227	264,319	612,240

(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 115 out of the 356 separate associations and groups of associations in Australia are organized on an interstate basis. The membership of these 115 unions reaches 612,240 or 83 per cent. of the membership (739,398) of all unions.

3. *Central Labour Organizations.*—In each of the capital cities and in a number of industrial centres elsewhere, delegate organizations consisting of representatives from a group of trade unions have been established. Their revenue is raised by means of a

per capita tax on the members of each affiliated union. In most of the towns where such central organizations exist, the majority of the local unions are affiliated with the central organization, which is usually known as the Labour or the Trades Hall Council, or the Labour Federation. In Western Australia a unified system of organization extends over the industrial centres throughout the State. In this State there is a provincial branch of the Australian Labour Party, having a central council and executive, and metropolitan and branch district councils, to which the local bodies are affiliated. The central council, on which all district councils are represented, meets periodically. In the other five States, however, the organization is not so close, and, while provision usually exists in the rules of the central council at the capital city of each State for the organization of district councils or for the representation of the central council on the local councils in the smaller industrial centres of the State, the councils in each State are, as a matter of fact, independent bodies.

A new Central Labour Organization, called the Australasian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the Trade Unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May, 1927. The Australasian Council is based on the Metropolitan Trades and Labour Councils in each State, such bodies having the right to appoint two representatives to act on the Executive of the Council. The Metropolitan Trades and Labour Councils are the branches of the Australasian Council. In addition to the representatives from the Metropolitan Councils, the Executive consists of four officers, 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 choosing 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 1933:—

**CENTRAL LABOUR ORGANIZATIONS.—NUMBER, AND UNIONS AFFILIATED, 1933.**

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	60	11	678

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 1929 to 1933:—

### EMPLOYERS' ASSOCIATIONS.

Year.	N.S.W.	Victoria.	Q'land.	S.A.	W.A.	Tas.	Total.
NUMBER OF ASSOCIATIONS.							
1929	146	154	80	56	62	29	527
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

### NUMBER OF BRANCHES.

1929	921	526	191	12	301	6	1,957
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

### MEMBERSHIP.

1929	57,839	36,357	20,113	6,871	11,410	2,752	135,342
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

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 1932 and 1933 :—

**EMPLOYERS' ASSOCIATIONS.—INDUSTRIAL GROUPS, AUSTRALIA.**

Class.	Number of Associations.		Number of Branches.		Membership.	
	1932.	1933.	1932.	1933.	1932.	1933.
<b>Manufacturing :—</b>						
I. Wood, Furniture, etc. ..	20	20	7	4	1,297	1,272
II. Engineering, etc. ..	16	14	12	12	3,000	3,439
III. Food, Drink, etc. ..	118	108	81	87	19,697	18,982
IV. Clothing, Hats, etc. ..	21	20	2	2	1,890	1,739
V. Books, Printing, etc. ..	45	40	2	3	2,873	2,805
VI. Other Manufacturing ..	51	51	2	2	3,537	3,720
VII. Building .. ..	30	30	13	12	2,591	2,637
VIII. Mining, Quarrying, etc. ..	12	11	..	..	228	276
X. Other Land Transport ..	19	16	21	21	2,365	2,178
XI. Shipping, etc. ..	16	16	7	3	263	254
XII. Pastoral, Agricultural, etc.	47	48	1,700	1,727	74,008	77,675
XIII. Domestic, Hotels, etc. ..	17	15	..	..	1,413	1,722
XIV. Miscellaneous .. ..	137	132	31	32	16,553	15,489
<b>Total .. ..</b>	<b>549</b>	<b>521</b>	<b>1,878</b>	<b>1,905</b>	<b>129,625</b>	<b>132,188</b>

The female membership of these associations was 5,589 for 1932, and 4,927 for 1933.

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 1929 to 1933:—

**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>						
1929	3	4	4	10	16	37
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
<b>NUMBER OF MEMBERS.</b>						
1929	201	1,066	594	60,729	43,166	105,756
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	66,144	35,299	104,205

The above table shows that associations having 79 per cent. of the total membership (132,188) of employers' organizations are grouped together on an interstate basis.



## CHAPTER XXVI.

### 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 revised 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.

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. Censuses, 1881 to 1933.

1. *Census of 1933.*—In accordance with the provisions of the *Census and Statistics Act 1905-1930*, the third Commonwealth Census would have been taken in 1931. Owing to the necessity for economy in government expenditure, however, 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 was taken as for the night between the 29th and the

30th of June, 1933, and was the third Census under the provisions of the Commonwealth *Census and Statistics Act 1905-1930*, which provides for the enumeration being dealt with from one centre, instead of each State being responsible for its own count as on previous occasions. The numbers recorded in the several States and Territories were as follow :—

POPULATION.—CENSUS 1921, AND CENSUS 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

States and Territories.	4th April, 1921.			30th June, 1933. (a)		
	Males.	Females.	Persons.	Males.	Females.	Persons.
<b>States—</b>						
New South Wales ..	1,071,501	1,028,870	2,100,371	1,318,728	1,282,376	2,601,104
Victoria .. .. .	754,724	776,556	1,531,280	903,399	916,961	1,820,360
Queensland .. ..	398,969	357,003	755,972	497,394	450,395	947,789
South Australia ..	248,267	246,893	495,160	290,970	290,017	580,987
Western Australia ..	177,278	155,454	332,732	234,000	204,948	438,948
Tasmania .. .. .	107,743	106,037	213,780	115,141	112,464	227,605
<b>Territories—</b>						
Northern .. .. .	2,821	1,046	3,867	3,376	1,484	4,860
Federal Capital ..	1,567	1,005	2,572	4,807	4,140	8,947
<b>Australia .. .. .</b>	<b>2,762,870</b>	<b>2,672,864</b>	<b>5,435,734</b>	<b>3,367,815</b>	<b>3,262,785</b>	<b>6,630,600</b>

(a) Preliminary figures. Subject to revision.

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 1,194,866, of which 604,945 were males and 590,011 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 Censuses 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, AND AT 31st MARCH, 1931.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

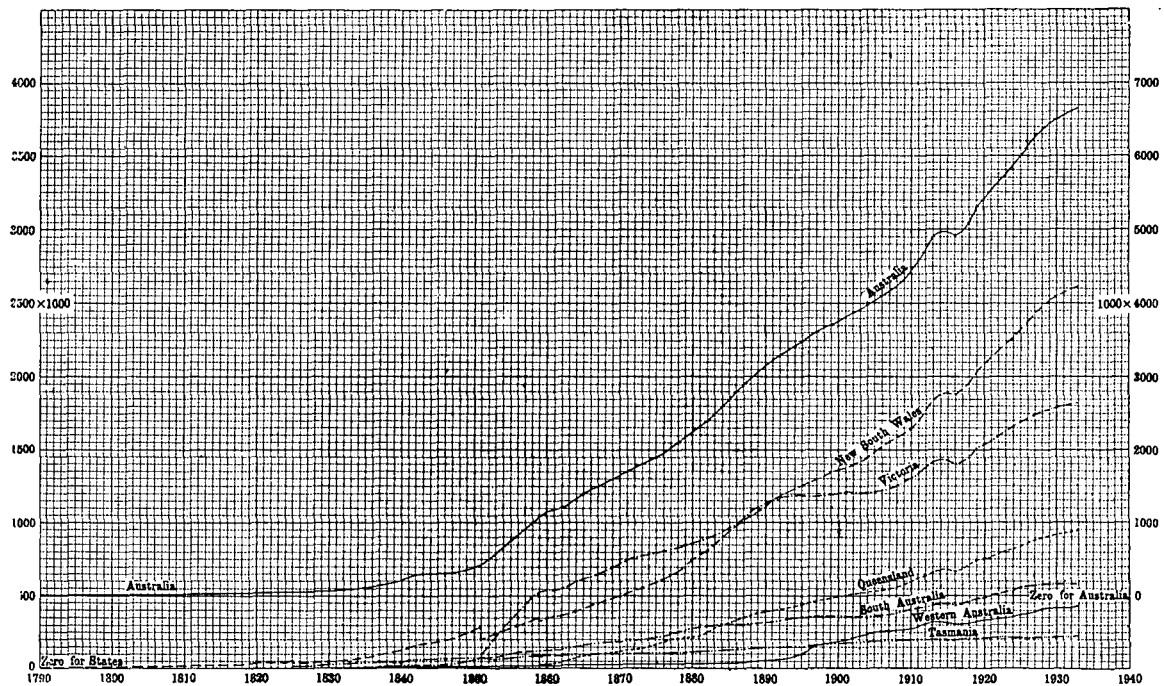
Date of Census.	Males.	Females.	Persons.	(a) Masculinity.
3rd April, 1881 .. ..	1,214,913	1,035,281	2,250,194	117.35
5th April, 1891 .. ..	1,704,039	1,470,353	3,174,392	115.89
31st March, 1901 .. ..	1,977,928	1,795,873	3,773,801	110.14
3rd April, 1911 .. ..	2,313,035	2,141,970	4,455,005	107.99
4th April, 1921 .. ..	2,762,870	2,672,864	5,435,734	103.36
31st March, 1931 (b)	3,317,027	3,197,750	6,514,777	103.72
30th June, 1933 .. ..	3,367,815	3,262,785	6,630,600	103.22

(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 of the Census which ordinarily would have been taken in 1931 till 1933 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

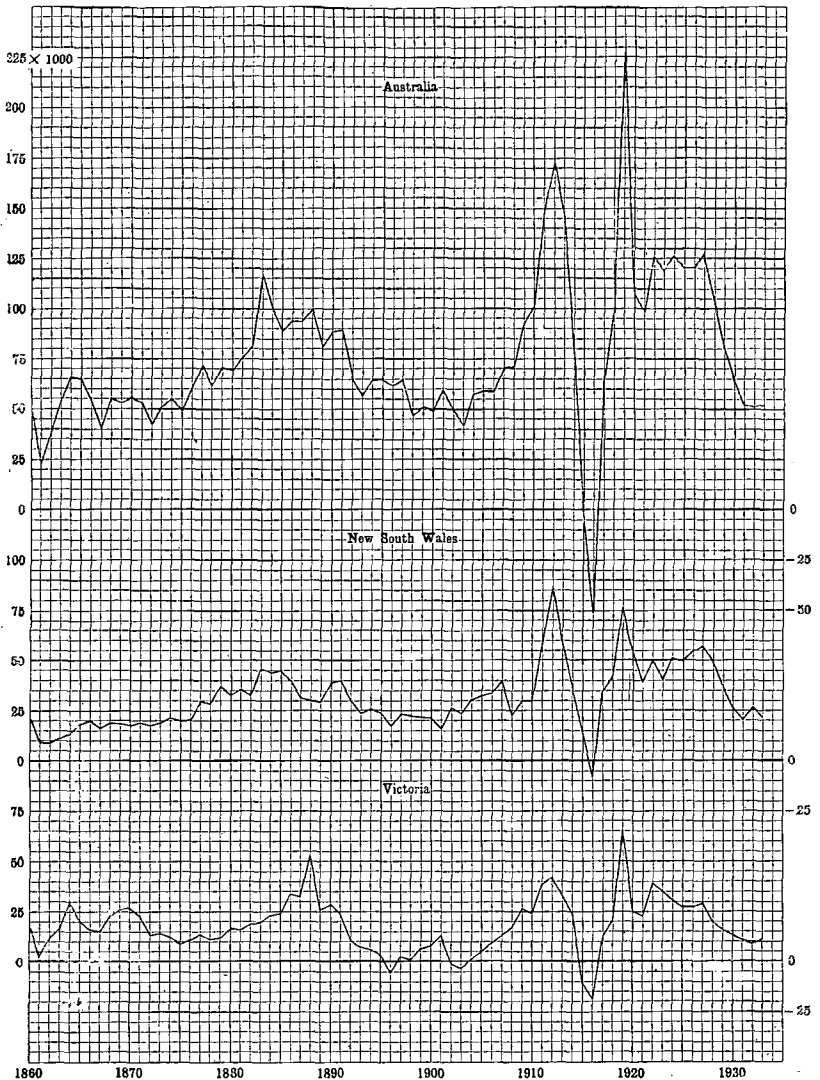
TOTAL POPULATION, 1788 TO 1933.



(See page 757.)

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.  
 Where the population falls suddenly, the fall denotes the creation of a new colony, e.g., New South Wales in 1825 lost the whole population of Tasmania.

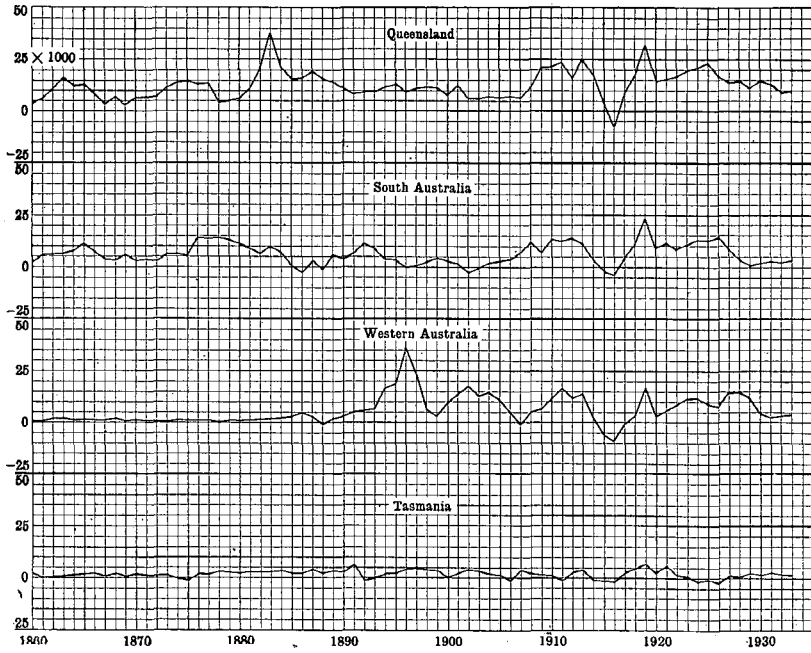
TOTAL INCREASE OF POPULATION—AUSTRALIA, AND NEW SOUTH WALES AND VICTORIA, 1860 TO 1933.



**EXPLANATION.**—The base for each small square represents an interval of a 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 753 four zero lines are taken (i) for Queensland, (ii) for South Australia, (iii) for Western Australia, and (iv) for Tasmania.

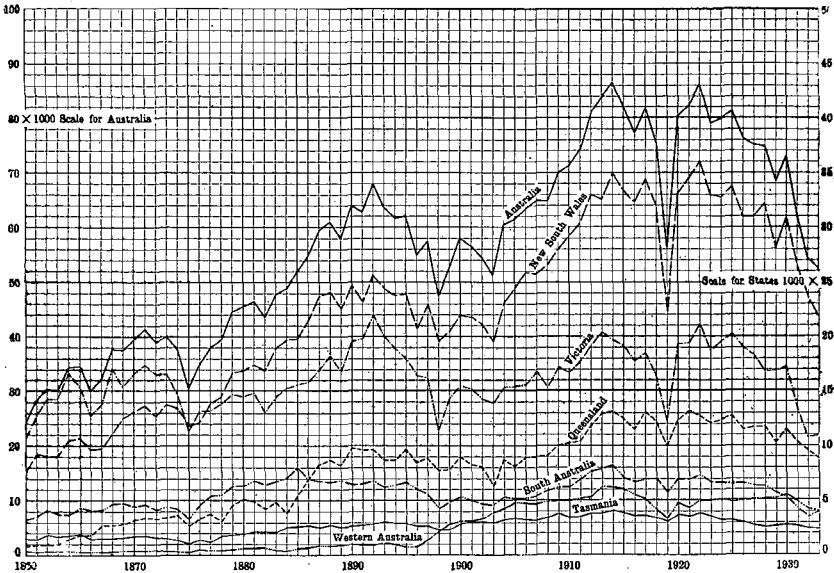
DECREASES in population are shown by carrying the curve in such cases below the zero line, the distance below the zero line indicating the extent of the decrease.

TOTAL INCREASE OF POPULATION—QUEENSLAND, SOUTH AUSTRALIA, WESTERN AUSTRALIA, AND TASMANIA, 1860 TO 1933.



(For explanation see previous page).

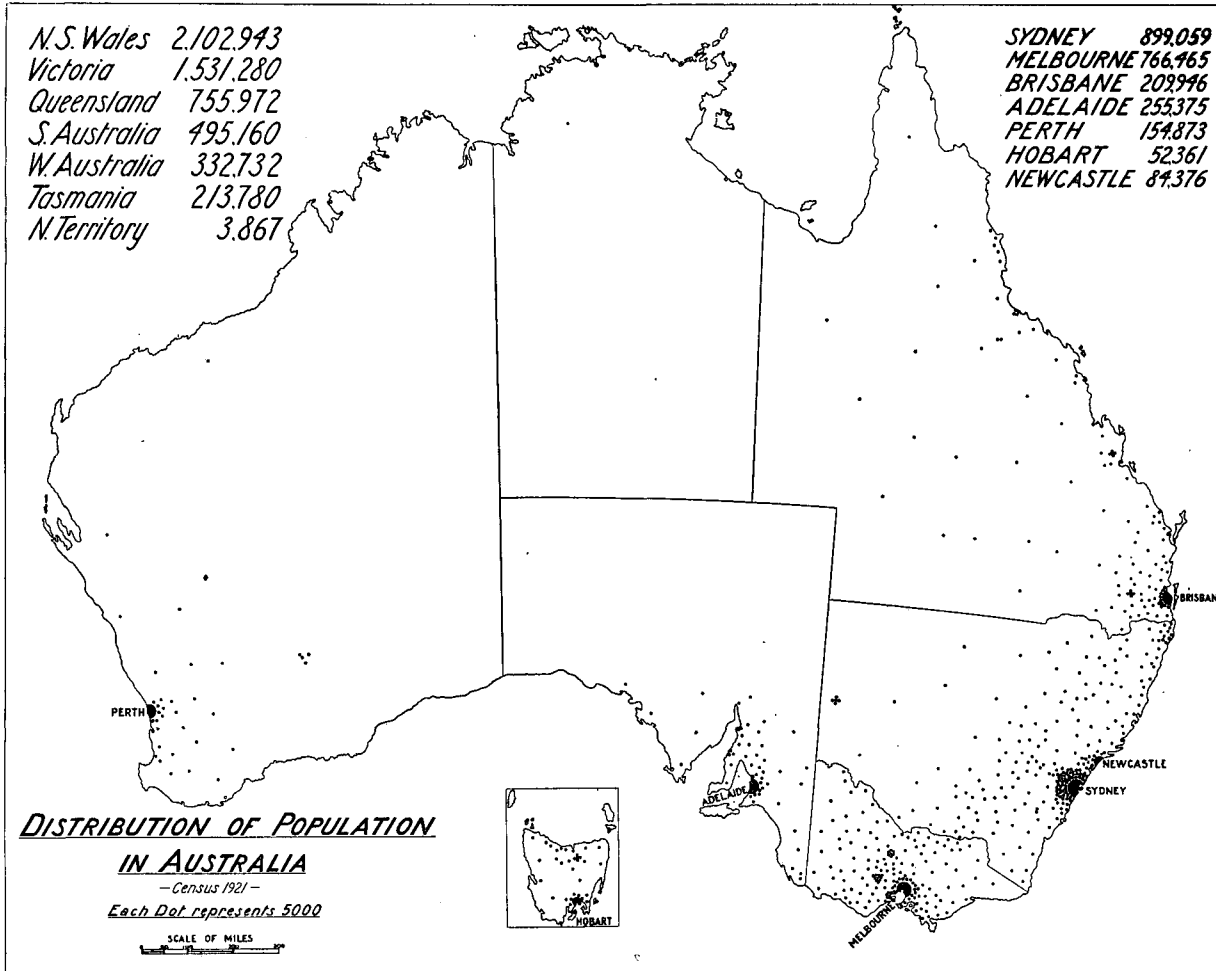
NATURAL INCREASE OF POPULATION, 1860 TO 1933.



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* 2,102,943  
*Victoria* 1,531,280  
*Queensland* 755,972  
*S. Australia* 495,160  
*W. Australia* 332,732  
*Tasmania* 213,780  
*N. Territory* 3,867

*SYDNEY* 899,059  
*MELBOURNE* 766,465  
*BRISBANE* 202,946  
*ADELAIDE* 255,375  
*PERTH* 154,873  
*HOBART* 52,361  
*NEWCASTLE* 84,376



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	451,153	500,733
	Per cent.	49.90	20.54	21.67	27.55	21.48	23.84
Victoria ..	Number	278,274	61,230	114,481	215,729	266,265	289,080
	Per cent.	32.30	5.37	9.53	16.40	17.39	18.88
Queensland ..	Number	180,193	104,411	107,684	150,139	164,598	191,817
	Per cent.	81.39	26.52	21.62	24.79	21.77	25.37
South Australia ..	Number	39,119	42,813	50,212	86,602	80,057	85,827
	Per cent.	14.15	13.57	14.01	21.20	16.17	17.33
Western Australia ..	Number	20,074	134,342	97,990	50,618	98,758	106,216
	Per cent.	67.57	269.86	53.22	17.94	29.68	31.92
Tasmania ..	Number	30,962	25,808	18,736	22,569	10,682	13,825
	Per cent.	26.76	17.60	10.86	11.80	5.00	6.47
Northern Territory	Number	1,447	<i>b</i>	-87	-1,501	557	993
	Per cent.	41.93	<i>b</i>	-1.78	-31.20	16.83	25.68
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	1,079,043	1,194,866
	Per cent.	41.07	18.88	18.05	22.01	19.85	21.98

(a) Included in New South Wales. (b) Decrease.

For Australia as a whole, the increase during the period 1921-1931 was greater by 98,314 than that for the period 1911-1921, the percentage increase being 19.85 for 1921-1931, as against 22.01 for 1911-1921. 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 Number.—The population of Australia on the 31st December, 1933, was estimated at 6,656,912 persons, of whom 3,379,483, or 50.76 per cent., were males and 3,277,429, or 49.24 per cent., were females. The increase during the year 1933 was 52,395, equal to 0.79 per cent., males having increased by 23,341, or 0.70 per cent., and females by 29,054, or 0.89 per cent. Of the increase referred to, 52,152 was due to the excess of births over deaths and 243 to excess of arrivals over departures. The year 1933 was the first since 1929 to show an excess of arrivals over departures, the intervening years each having disclosed excess departures.

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 :—

## GROWTH OF POPULATION.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.)

Year.	Estimated Population at end of Year.								
	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land	S. Aust.	W. Aust.	Tas.	Northern.	Federal Capital.	
(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	595,199	223,252	166,049	28,854	76,453	..	..	1,692,831
1900	716,047	601,773	274,684	180,349	110,088	89,763	(c)4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	(b)1,062	2,751,730
1921	1,086,475	765,317	403,269	251,170	178,971	110,357	2,765	1,138	2,799,462
1922	1,112,359	789,541	411,975	255,181	184,478	110,268	2,652	1,467	2,867,921
1923	1,134,502	807,919	422,292	261,681	191,142	110,772	2,703	1,445	2,932,456
1924	1,160,872	825,967	431,892	268,615	197,692	110,253	2,781	1,696	2,999,768
1925	1,184,564	840,878	444,390	276,266	202,574	110,194	2,859	2,298	3,064,023
1926	1,212,168	855,109	453,044	285,014	206,822	108,920	3,145	2,902	3,127,124
1927	1,241,909	870,805	460,410	289,306	215,881	110,040	3,568	3,322	3,195,241
1928	1,266,424	879,580	468,431	289,643	225,108	110,781	3,230	4,670	3,247,867
1929	1,283,435	886,587	474,073	288,603	231,403	112,279	3,495	4,736	3,284,611
1930	1,294,636	892,552	481,701	288,626	232,918	113,544	3,598	4,732	3,312,307
1931	1,303,127	896,570	488,089	289,405	232,454	115,216	3,461	4,891	3,333,213
1932	1,315,252	900,812	492,686	290,262	233,110	116,109	3,351	4,560	3,356,142
1933	1,325,096	905,205	497,645	291,730	234,505	116,935	3,368	4,999	3,379,483

## MALES.

## FEMALES.

(a)1800	1,437	..	..	..	..	..	..	..	1,437
1810	3,981	..	..	..	..	..	..	..	3,981
1820	9,759	..	..	..	..	..	..	..	9,759
1830	10,688	..	..	..	295	(b) 6,171	..	..	17,154
1840	41,908	..	..	6,358	877	13,959	..	..	63,102
1850	111,924	..	..	27,798	2,310	24,641	..	..	166,673
1860	150,695	(b) 207,932	(b) 11,239	61,242	5,749	40,168	..	..	477,025
1870	225,871	326,695	46,051	89,652	9,624	47,369	..	..	745,262
1880	336,190	408,047	87,027	128,955	12,576	54,222	..	..	1,027,017
1890	510,571	538,209	168,864	152,898	19,648	68,334	..	..	1,458,524
1900	644,258	594,440	219,163	176,901	69,879	83,137	(c) 569	..	1,788,347
1910	785,674	654,926	273,593	200,311	118,861	94,937	563	..	2,128,775
1920	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	(b) 910	2,659,567
1921	1,045,236	785,418	362,467	250,573	157,581	108,322	995	940	2,711,532
1922	1,069,198	800,749	370,433	256,423	161,075	109,503	962	1,124	2,769,467
1923	1,088,435	817,560	379,597	260,535	165,731	109,645	950	1,231	2,823,684
1924	1,112,229	831,217	390,257	266,337	170,654	109,425	950	1,378	2,882,447
1925	1,137,875	843,215	400,538	270,792	174,981	109,179	965	1,736	2,939,281
1926	1,164,632	856,828	409,550	275,923	178,447	108,663	957	2,137	2,997,237
1927	1,191,892	871,085	416,104	280,341	184,059	109,119	1,033	2,548	3,056,181
1928	1,216,875	882,323	422,598	282,965	189,566	109,546	1,033	3,567	3,103,383
1929	1,236,452	891,757	428,239	284,396	195,297	111,007	1,295	3,711	3,152,154
1930	1,251,934	900,137	435,237	285,873	198,767	111,761	1,376	3,987	3,189,072
1931	1,263,421	907,091	441,860	287,708	201,317	113,255	1,396	4,030	3,220,078
1932	1,276,728	912,670	446,654	289,067	203,302	114,505	1,445	4,004	3,248,375
1933	1,288,680	919,373	451,641	290,985	205,855	115,181	1,460	4,254	3,277,429

(a) Details as to sex not available for earlier years.

(b) Previously included with New South Wales.

(c) Previously included with South Australia.



GROWTH OF POPULATION—continued.

Year.	Estimated Population at end of Year.								
	States.					Territories.			Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern.	Federal Capital.	
<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	..	..	3,131,355
1900	1,360,305	1,196,213	493,847	357,250	179,967	172,900	(c)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	2,131,711	1,550,735	765,736	501,743	336,552	218,679	3,760	2,078	5,510,994
1922	2,181,557	1,590,290	782,408	511,604	345,553	219,771	3,614	2,591	5,637,388
1923	2,222,937	1,625,479	801,889	522,216	356,873	220,417	3,653	2,676	5,756,140
1924	2,273,101	1,657,184	822,149	531,952	368,346	219,678	3,731	3,074	5,882,215
1925	2,322,439	1,684,093	844,928	547,058	377,555	219,373	3,824	4,034	6,003,304
1926	2,376,800	1,712,037	862,594	560,937	385,269	217,583	4,102	5,039	6,124,361
1927	2,433,801	1,741,890	876,514	569,647	399,940	219,159	4,601	5,870	6,251,422
1928	2,483,299	1,761,813	891,020	572,608	414,674	220,327	4,263	8,237	6,356,250
1929	2,519,887	1,778,344	902,312	572,999	426,700	223,286	4,790	8,447	6,436,765
1930	2,546,570	1,792,689	916,938	574,499	431,685	225,305	4,974	8,719	6,501,379
1931	2,566,548	1,803,661	929,949	577,113	433,771	228,471	4,857	8,921	6,553,291
1932	2,591,980	1,813,482	939,340	579,329	436,412	230,614	4,796	8,564	6,604,517
1933	2,613,776	1,824,578	949,286	582,715	440,360	232,116	4,828	9,253	6,656,912

(a) Details as to sex not available for earlier years. (b) Previously included with New South Wales. (c) Previously included with South Australia.

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.

3. Mean Population.—(i) *Calendar Years.* The following table shows the mean population for each State and Territory for the calendar years 1921 to 1933 :—

MEAN POPULATION, EXCLUSIVE OF FULL-BLOOD ABORIGINALS, CALENDAR YEARS.

Year ended 31st Dec.	States.					Territories.		Australia.	
	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern.		Fed. Cap.
1921 ..	2,108,493	1,537,045	762,078	497,001	334,085	213,404	3,915	2,437	5,458,508
1922 ..	2,155,553	1,570,896	776,827	504,912	341,382	215,383	3,698	2,838	5,571,489
1923 ..	2,201,581	1,607,872	795,141	515,376	350,784	216,423	3,691	3,360	5,694,228
1924 ..	2,244,471	1,641,973	814,135	526,654	363,172	216,280	3,719	3,912	5,814,316
1925 ..	2,295,605	1,671,575	836,920	539,929	372,996	215,559	3,832	4,809	5,941,250
1926 ..	2,347,014	1,696,803	857,170	553,811	380,963	213,808	3,950	6,215	6,059,734
1927 ..	2,404,016	1,727,789	870,762	565,299	392,112	213,059	4,455	7,469	6,184,961
1928 ..	2,460,568	1,752,037	884,958	570,883	407,625	215,479	4,467	8,198	6,304,215
1929 ..	2,503,208	1,770,204	897,734	572,482	420,814	217,760	4,476	8,541	6,395,219
1930 ..	2,532,497	1,786,296	910,510	573,272	429,148	220,941	4,989	8,961	6,466,614
1931 ..	2,556,097	1,799,329	925,039	575,751	432,428	224,819	4,969	8,801	6,527,233
1932 ..	2,579,083	1,808,712	935,800	578,046	435,130	227,092	4,928	8,925	6,578,625
1933 ..	2,602,037	1,820,667	945,706	581,056	438,783	228,440	4,870	9,056	6,630,625

(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, 1901 to 1934:—

MEAN POPULATION, EXCLUSIVE OF FULL-BLOOD ABORIGINALS,  
FINANCIAL YEARS.

Year ended 30th June.	States.						Territories.		Australia.
	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australai.	Tasmania.	Northern.	Fed. Cap.	
1901 ..	1,355,968	1,197,438	495,036	357,155	180,856	172,591	4,845	..	3,763,889
1902 ..	1,375,994	1,207,236	506,550	357,086	195,791	173,550	4,672	..	3,820,879
1903 ..	1,402,321	1,206,498	512,622	355,101	212,968	177,869	4,469	..	3,871,848
1904 ..	1,426,102	1,203,347	517,880	355,960	226,471	181,970	4,261	..	3,915,991
1905 ..	1,455,128	1,203,846	525,373	358,409	240,896	183,834	4,190	..	3,971,676
1906 ..	1,487,509	1,209,319	532,290	361,289	251,112	184,630	4,049	..	4,030,198
1907 ..	1,523,399	1,219,304	539,147	365,310	255,840	184,024	3,902	..	4,090,926
1908 ..	1,561,439	1,232,489	547,810	371,939	255,933	186,433	3,738	..	4,159,781
1909 ..	1,583,627	1,249,987	560,800	384,052	260,355	188,839	3,584	..	4,231,244
1910 ..	1,616,514	1,271,500	580,252	392,074	266,686	190,792	3,487	..	4,321,395
1911 ..	1,644,700	1,301,138	602,659	404,729	278,042	190,825	3,333	..	4,425,426
1912 ..	1,699,947	1,337,796	625,171	417,690	294,364	189,880	3,302	1,916	4,570,066
1913 ..	1,783,981	1,378,226	643,438	430,789	307,145	192,433	3,431	2,216	4,741,659
1914 ..	1,845,353	1,412,176	667,785	441,693	319,014	195,668	3,672	2,614	4,887,975
1915 ..	1,882,648	1,433,971	688,212	447,236	322,996	196,320	3,908	2,573	4,977,864
1916 ..	1,892,609	1,424,896	690,494	444,643	317,867	195,303	4,644	2,496	4,972,952
1917 ..	1,892,972	1,408,480	680,772	440,103	308,756	193,700	4,836	2,604	4,932,228
1918 ..	1,922,629	1,416,900	688,946	446,304	306,804	196,144	4,863	2,406	4,984,996
1919 ..	1,965,568	1,442,619	707,731	457,336	311,835	200,727	4,713	2,437	5,092,966
1920 ..	2,038,279	1,497,806	737,464	479,864	327,152	208,599	4,552	2,181	5,295,897
1921 ..	2,089,331	1,524,498	754,374	491,833	331,973	211,719	3,977	2,339	5,400,047
1922 ..	2,130,318	1,552,609	769,192	500,993	337,273	214,690	3,833	2,591	5,511,499
1923 ..	2,180,369	1,589,690	785,495	510,160	345,899	216,031	3,661	3,138	5,634,443
1924 ..	2,221,826	1,625,728	804,488	520,698	356,765	216,359	3,701	3,593	5,753,158
1925 ..	2,270,102	1,657,144	825,379	533,467	368,547	216,002	3,770	4,312	5,878,723
1926 ..	2,320,284	1,683,766	847,844	546,523	376,962	214,801	3,878	5,443	5,999,501
1927 ..	2,375,326	1,711,905	864,611	560,191	385,816	213,220	4,156	6,873	6,122,098
1928 ..	2,432,878	1,741,490	877,882	568,703	399,821	214,081	4,562	7,912	6,247,389
1929 ..	2,484,241	1,761,279	891,589	572,049	414,541	216,418	4,378	8,419	6,352,914
1930 ..	2,518,747	1,778,835	903,879	572,603	425,848	219,276	4,772	8,836	6,432,796
1931 ..	2,544,908	1,792,887	918,032	574,415	431,097	222,827	5,020	8,877	6,498,063
1932 ..	2,567,873	1,804,105	930,679	576,927	433,680	226,051	4,942	8,961	6,553,218
1933 ..	2,591,089	1,814,891	940,872	579,458	436,890	227,933	4,876	8,740	6,604,749
1934 ..	2,613,320	1,825,042	950,605	582,432	440,459	229,047	4,894	9,294	6,655,993

4. Proportion of Area and Population, Masculinity, and Density—States, 1933.—

A previous table showed the estimated number of persons on the 31st December, 1933, in each of the States and Territories. In the following table the proportions 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, 1933.

State or Territory.	Percentage on Total Area.	Per Cent. Estimated Population 31st December, 1933.			Masculinity (a)	Density. (b)
		Males.	Females.	Persons.		
New South Wales ..	10.40	39.21	39.32	39.26	102.83	8.45
Victoria ..	2.96	26.79	28.05	27.41	98.46	20.76
Queensland ..	22.54	14.72	13.78	14.26	110.19	1.42
South Australia ..	12.78	8.63	8.88	8.75	100.26	1.53
Western Australia ..	32.81	6.94	6.28	6.62	113.92	0.45
Tasmania ..	0.88	3.46	3.51	3.49	101.52	8.85
Northern Territory ..	17.60	0.10	0.05	0.07	230.68	0.008
Federal Capital Territory ..	0.03	0.15	0.13	0.14	117.51	9.84
Australia ..	100.00	100.00	100.00	100.00	103.11	2.24

(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 divisions include the capital city and the adjoining urban 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; while those persons classed as migratory were mostly on board ships in Australian ports.

The results obtained at the Census for each State and Territory are shown in the following table, viz. :—

URBAN AND RURAL POPULATION.—CENSUS 30th JUNE, 1933.

(EXCLUSIVE OF FULL-BLOOD ABORIGINALS.) (PRELIMINARY FIGURES—SUBJECT TO REVISION.)

Division.	Males.	Females.	Total.	Percentage on Total Population of State.		Percentage of Increase since the 1921 Census.
				Census 1933.	Census 1921.	
NEW SOUTH WALES.						
Urban—				%	%	%
Metropolitan	591,234	644,133	1,235,367	47.50	42.80	37.41
Provincial ..	283,480	282,001	565,481	21.74	25.00	7.71
Rural ..	439,572	355,647	795,219	30.57	31.64	19.66
Migratory ..	4,442	595	5,037	0.19	0.56	—57.00
Total ..	1,318,728	1,282,376	2,601,104	100.00	100.00	23.84

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	Males.	Females.	Total.	Percentage on Total Population of State.		Percentage of Increase since the 1921 Census.
				Census 1933.	Census 1921.	
<b>VICTORIA.</b>						
Urban—				%	%	%
Metropolitan	464,886	527,162	992,048	54.50	50.05	29.43
Provincial ..	94,802	103,391	198,193	10.89	12.24	5.71
Rural ..	342,265	286,276	628,541	34.52	37.33	9.97
Migratory ..	1,446	132	1,578	0.09	0.38	-72.55
<b>Total ..</b>	<b>903,399</b>	<b>916,961</b>	<b>1,820,360</b>	<b>100.00</b>	<b>100.00</b>	<b>18.88</b>
<b>QUEENSLAND.</b>						
Urban—						
Metropolitan	143,545	156,237	299,782	31.63	27.77	42.79
Provincial ..	97,860	101,305	199,165	21.01	24.30	8.41
Rural ..	252,510	192,281	444,791	46.93	47.49	23.89
Migratory ..	3,479	572	4,051	0.43	0.44	23.06
<b>Total ..</b>	<b>497,394</b>	<b>450,395</b>	<b>947,789</b>	<b>100.00</b>	<b>100.00</b>	<b>25.37</b>
<b>SOUTH AUSTRALIA.</b>						
Urban—						
Metropolitan	147,939	164,690	312,629	53.81	51.57	22.42
Provincial ..	25,291	26,162	51,453	8.86	8.41	23.58
Rural ..	115,913	98,880	214,793	36.97	39.39	10.12
Migratory ..	1,827	285	2,112	0.36	0.63	-31.74
<b>Total ..</b>	<b>290,970</b>	<b>290,017</b>	<b>580,987</b>	<b>100.00</b>	<b>100.00</b>	<b>17.33</b>
<b>WESTERN AUSTRALIA.</b>						
Urban—						
Metropolitan	99,299	108,165	207,464	47.26	46.55	33.96
Provincial ..	23,069	21,735	44,804	10.21	12.79	5.25
Rural ..	108,773	74,712	183,485	41.80	39.10	41.04
Migratory ..	2,859	336	3,195	0.73	1.56	-38.44
<b>Total ..</b>	<b>234,000</b>	<b>204,948</b>	<b>438,948</b>	<b>100.00</b>	<b>100.00</b>	<b>31.92</b>

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	Males.	Females.	Total.	Percentage on Total Population of State.		Percentage of Increase since the 1921 Census.
				Census 1933.	Census 1921.	
<b>TASMANIA.</b>						
Urban—				%	%	%
Metropolitan	28,356	32,052	60,408	26.54	24.49	15.37
Provincial ..	26,984	29,801	56,785	24.95	26.03	2.05
Rural ..	59,164	50,599	109,763	48.23	49.17	4.41
Migratory ..	637	12	649	0.28	0.31	-0.46
Total ..	115,141	112,464	227,605	100.00	100.00	6.47
<b>NORTHERN TERRITORY.</b>						
Urban—						
Provincial ..	909	657	1,566	32.22	36.18	11.94
Rural ..	2,392	827	3,219	66.24	62.14	33.96
Migratory ..	75	..	75	1.54	1.68	15.38
Total ..	3,376	1,484	4,860	100.00	100.00	25.68
<b>FEDERAL CAPITAL TERRITORY.</b>						
Urban—						
Provincial ..	3,841	3,484	7,325	81.87	..	..
Rural ..	966	656	1,622	18.13	99.65	..
Migratory ..	..	..	..	..	0.35	..
Total ..	4,807	4,140	8,947	100.00	100.00	247.86
<b>AUSTRALIA.</b>						
Urban—						
Metropolitan	1,475,259	1,632,439	3,107,698	46.87	43.01	32.92
Provincial ..	556,236	568,536	1,124,772	16.96	19.09	8.31
Rural ..	1,321,555	1,059,878	2,381,433	35.92	37.35	17.35
Migratory ..	14,765	1,932	16,697	0.25	0.55	-43.90
Total ..	3,367,815	3,262,785	6,630,600	100.00	100.00	21.98

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 (54.50) but is closely followed by South Australia (53.81) in this respect. 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 35.92 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 46.93 per cent. Since the Census of 1921, however, the greatest percentage of increase in rural population has occurred in Western Australia (41 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 of females 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.	Population.	Percentage on Total of State or Country.
				%
Australia .. ..	Canberra .. ..	} 31st Dec., 1933	7,500	0.11
New South Wales ..	Sydney .. ..		1,240,520	47.46
Victoria .. ..	Melbourne .. ..		995,800	54.58
Queensland .. ..	Brisbane .. ..		301,252	31.73
South Australia ..	Adelaide .. ..		313,261	53.76
Western Australia ..	Perth .. ..		208,131	47.26
Tasmania .. ..	Hobart .. ..		60,600	26.11
Australia .. ..	(7 Cities) .. ..		3,127,064	46.97
England .. ..	London (a) .. ..	1933	4,298,600	10.65
Scotland .. ..	Edinburgh .. ..	1933	451,900	9.19
Northern Ireland ..	Belfast .. ..	1929	415,000	33.20
Irish Free State ..	Dublin .. ..	1933	419,800	14.03
Canada .. ..	Ottawa .. ..	1931	126,872	1.22
South Africa .. ..	Capetown (c) ..	1931	159,914	8.25
New Zealand .. ..	Wellington .. ..	1.4. 1933	145,900	9.50
Austria .. ..	Vienna .. ..	1934	1,875,000	27.75
Belgium .. ..	Brussels .. ..	1932	887,623	10.81
Czechoslovakia ..	Prague .. ..	1932	881,000	(d) 5.76
Denmark .. ..	Copenhagen .. ..	1932	788,000	21.95
France .. ..	Paris .. ..	1931	2,891,020	6.91
Germany .. ..	Berlin .. ..	1933	4,190,847	6.43
Greece .. ..	Athens .. ..	1931	473,200	7.30
Hungary .. ..	Budapest .. ..	1932	1,019,907	11.61
Italy .. ..	Rome .. ..	1933	1,045,088	2.48
Japan .. ..	Tokio (b) .. ..	1932	2,100,418	3.17
Netherlands .. ..	Amsterdam .. ..	1932	772,364	9.44
Norway .. ..	Oslo .. ..	1930	253,124	9.55
Portugal .. ..	Lisbon .. ..	1932	599,000	(d) 8.93
Russia (Soviet Union)	Moscow .. ..	1932	3,572,000	2.15
Spain .. ..	Madrid .. ..	1932	993,646	4.14
Sweden .. ..	Stockholm .. ..	1932	519,711	8.40
United States .. ..	Washington .. ..	1930	486,869	0.40

(a) Population of Greater London in 1933 was 8,360,500.

(b) Greater Tokyo 5,311,926.

(c) European population.

(d) Percentage in 1930.

7. **Principal Urban Areas.**—The following table gives particulars of the population of the principal urban incorporated areas in each State at the 30th June, 1933 :—

**POPULATION OF PRINCIPAL URBAN INCORPORATED AREAS.—AUSTRALIA,  
30th JUNE, 1933.**

Town.	Population.	Town.	Population.
<b>New South Wales—</b>		<b>Queensland—</b>	
Sydney and Suburbs .. .. .	1,235,367	Brisbane and Suburbs .. .. .	299,782
Newcastle and Suburbs .. .. .	104,191	Rockhampton .. .. .	29,373
Broken Hill .. .. .	26,921	Toowoomba .. .. .	26,430
Goulburn .. .. .	14,851	Townsville .. .. .	25,872
Cessnock .. .. .	14,387	Ipswich .. .. .	22,499
Lithgow .. .. .	13,444	Cairns .. .. .	12,004
Lismore .. .. .	11,763	Bundaberg .. .. .	11,466
Wagga Wagga .. .. .	11,631	Maryborough .. .. .	11,414
Wollongong .. .. .	11,402	Mackay .. .. .	10,660
Albury .. .. .	10,542	Gympie .. .. .	7,749
Bathurst .. .. .	10,415	Charters Towers .. .. .	6,982
Tamworth .. .. .	9,918	Warwick .. .. .	6,664
Orange .. .. .	9,632		
Fairfield .. .. .	8,705	<b>South Australia—</b>	
Dubbo .. .. .	8,344	Adelaide and Suburbs .. .. .	312,629
West Maitland .. .. .	8,190	Port Pirie .. .. .	11,680
Armidale .. .. .	6,794	Mount Gambier .. .. .	5,539
Katoomba .. .. .	6,439	Murray Bridge .. .. .	3,651
Grafton .. .. .	6,412	Port Augusta .. .. .	3,270
Liverpool .. .. .	6,315	Peterborough .. .. .	3,057
Cabramatta and Canley Vale .. .. .	6,108	Port Lincoln .. .. .	3,006
Parke .. .. .	5,848		
Forbes .. .. .	5,356	<b>Western Australia—</b>	
Glen Innes .. .. .	5,356	Perth and Suburbs .. .. .	(a) 207,464
Inverell .. .. .	5,304	Kalgoorlie .. .. .	9,091
Casino .. .. .	5,293	Boulder .. .. .	5,809
Cowra .. .. .	5,056	Bunbury .. .. .	5,139
		Geraldton .. .. .	4,985
<b>Victoria—</b>		Northam .. .. .	4,816
Melbourne and Suburbs .. .. .	992,048	Albany .. .. .	4,076
Geelong and Suburbs .. .. .	39,225	Collie .. .. .	3,785
Ballarat and Suburbs .. .. .	37,409		
Bendigo and Suburbs .. .. .	29,131	<b>Tasmania—</b>	
Warrnambool .. .. .	8,909	Hobart and Suburbs .. .. .	60,408
Mildura .. .. .	6,614	Launceston and Suburbs .. .. .	32,841
Hamilton .. .. .	5,786	Devonport .. .. .	5,153
Shepparton .. .. .	5,699	Queenstown .. .. .	3,808
Maryborough .. .. .	5,631	Burnie .. .. .	3,390
Wonthaggi .. .. .	5,593	Ulverstone .. .. .	2,701
Horsham .. .. .	5,272		
Castlemaine and Suburbs .. .. .	5,221		

(a) Includes the City of Fremantle, 25,233.

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.)

City.	Date.	Population. (ooo omitted).	City.	Date.	Population. (ooo omitted).
New York .. ..	1932	7,346	Canton .. ..	1930	812
Tokyo .. ..	1/10/33	5,486	Peiping .. ..	1930	811
<i>London</i> .. ..	<i>Mid-1933</i>	5,299 (a)	Marseilles .. ..	1932	803
Berlin .. ..	1/11/33	4,167	Boston .. ..	1932	788
Moscow .. ..	1/10/33	3,663	Copenhagen .. ..	1/2/32	788
Chicago .. ..	Mid-1933	3,589	Amsterdam .. ..	1/2/34	780
Shanghai .. ..	22/10/30	3,156	Hankau .. ..	1930	778
Paris .. ..	8/3/31	2,891	<i>Manchester</i> .. ..	<i>Mid-1933</i>	758
Leningrad .. ..	1/1/33	2,776	Köln .. ..	1/12/33	745
Osaka .. ..	1/10/33	2,654	Santiago (Chile) .. ..	1932	740
Buenos Aires .. ..	1/12/33	2,212	München .. ..	1/4/34	738
Philadelphia .. ..	1932	1,979	Leipzig .. ..	1/1/34	714
Vienna .. ..	22/3/34	1,875	Baku .. ..	1/1/33	709
Rio de Janeiro .. ..	1933	1,736	Yokohama .. ..	1/10/33	683
Detroit .. ..	1932	1,495	Pittsburg .. ..	1932	681
Tientsin .. ..	1931	1,387	Montevideo .. ..	1/2/34	667
Los Angeles .. ..	1932	1,294	Alexandria .. ..	1932	663
<i>Sydney</i> .. ..	<i>31/12/33</i>	<i>1,241</i>	San Francisco .. ..	1932	662
Cairo .. ..	1932	1,233	Charkov .. ..	1/1/33	654
<i>Calcutta</i> .. ..	<i>26/2/31</i>	<i>1,194</i>	Essen .. ..	1/11/33	654
Warsaw .. ..	1932	1,181	Dresden .. ..	1/1/34	649
<i>Rombay</i> .. ..	<i>26/2/31</i>	<i>1,161</i>	<i>Madras</i> .. ..	<i>26/2/31</i>	<i>647</i>
Hamburg .. ..	1/1/34	1,123	Bucharest .. ..	1932	636
Mexico City .. ..	1932	1,117	Genoa .. ..	1/1/34	629
<i>Glasgow</i> .. ..	<i>1/7/33</i>	<i>1,112</i>	<i>Hong Kong</i> .. ..	<i>1932</i>	<i>627</i>
Rome .. ..	1/1/34	1,093	Breslau .. ..	1/4/34	624
Milan .. ..	1/4/34	1,044	<i>Toronto</i> .. ..	<i>1932</i>	<i>624</i>
Barcelona .. ..	1932	1,042	Turin .. ..	1/4/34	615
Kyoto .. ..	1/10/33	1,027	Milwaukee .. ..	1932	605
Budapest .. ..	1/4/34	1,027	Lodz .. ..	1932	604
<i>Birmingham</i> .. ..	<i>Mid-1933</i>	<i>1,012</i>	Lisbon .. ..	1932	599
Sao Paulo .. ..	1932	1,000	Buffalo .. ..	1932	594
<i>Melbourne</i> .. ..	<i>31/12/33</i>	<i>996</i>	Rotterdam .. ..	1/11/33	587
Madrid .. ..	1932	994	Havana .. ..	1/6/31	581
Nagoya .. ..	1/10/33	990	Lyons .. ..	8/3/31	580
Cleveland .. ..	1932	923	Bangkok .. ..	1932	569
Prague .. ..	1/1/33	881	Frankfort on Maine .. ..	16/6/33	551
Brussels .. ..	1/1/32	880	Kew .. ..	1/1/33	539
Naples .. ..	1/1/34	867	Dortmund .. ..	16/6/33	535
<i>Liverpool</i> .. ..	<i>Mid-1933</i>	<i>860</i>	Nanking .. ..	1930	523
Montreal .. ..	1/7/33	847	Stockholm .. ..	1/1/33	529
Kobe .. ..	1/10/33	837	Rostov .. ..	1/1/33	518
St. Louis .. ..	1932	833	<i>Sheffield</i> .. ..	<i>Mid-1933</i>	<i>512</i>
Baltimore .. ..	1932	820			

(a) Greater London, 8,361,000.

### § 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 thirteen 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 1933 inclusive was 4,196,425, consisting of 1,948,442 males and 2,247,983 females, and represented 76.14 per cent. of the total increase in population. During the present century, the rate of natural increase grew until the year 1914, since when it has declined steadily. A graph showing the natural increase to the population of each State and of Australia, from year to year since 1860, accompanies this chapter.



## POPULATION.—NATURAL INCREASE. (a)

Period.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
MALES.									
1921 ..	16,515	9,626	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	9,637	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
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
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

(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.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
RATE OF NATURAL INCREASE (b)—PERSONS.									
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	15.46
1923 ..	15.00	11.60	15.20	13.06	14.04	16.26	9.21	2.68	13.87
1924 ..	14.64	11.96	15.20	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	13.47	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 ..	11.39	9.54	11.34	9.83	12.17	12.04	-2.68	13.35	10.73
1930 ..	12.20	9.61	12.61	8.95	12.64	12.85	-1.20	14.73	11.30
1931 ..	10.35	7.39	11.14	7.28	11.26	12.03	0.40	14.20	9.49
1932 ..	9.13	5.89	10.21	6.17	9.77	10.87	1.22	13.67	8.24
1933 ..	8.41	6.01	9.30	6.88	9.31	10.34	2.67	10.27	7.87

(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 comparatively low birth-rate, Australia has a 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 for some of the principal countries of the world for which such information is available, and those for the several States of Australia and the Dominion of New Zealand. 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.	1929-33.	Country.	1909-13.	1929-33.
<b>Australasia—</b>			<b>Europe—continued.</b>		
Tasmania ..	18.8	11.5	Irish Free State ..	6.3	5.1
Western Australia	18.1	11.0	Germany ..	12.8	4.9
Queensland ..	17.9	10.9	Switzerland ..	9.3	4.9
New South Wales	18.0	10.3	Belgium ..	7.8	4.3
New Zealand ..	17.1	9.6	England and Wales	10.7	3.3
Australia ..	16.7	9.5	Sweden ..	10.4	2.9
South Australia ..	16.8	7.8	France ..	0.8	1.1
Victoria ..	13.6	7.7	<b>Asia—</b>		
<b>Europe—</b>			Japan ..	13.1	13.9
Soviet Union ..	15.8	(a) 22.3	<b>Africa—</b>		
Netherlands ..	15.1	12.7	Union of South		
Spain ..	9.3	11.0	Africa (whites only)	(b)	15.0
Italy ..	12.8	10.2	<b>America—</b>		
Denmark ..	13.9	7.1	Canada ..	(b)	12.5
Northern Ireland..	6.3	5.7	United States ..	(b)	6.7
Norway ..	12.4	5.6			
Scotland ..	10.7	5.2			

(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 thirteen years in the case of males and females, and for quinquennial periods from 1901 to 1930 in the case of persons. The figures have been adjusted for the years 1921 to 1933 in accordance with the preliminary results of the Census of the 30th June, 1933, and supersede all similar figures previously published for those years:—

## POPULATION.—INCREASE BY NET IMMIGRATION.

Year.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
MALES.									
1921 ..	2,015	1,888	473	2,403	297	1,320	115	64	8,345
1922 ..	8,680	13,673	2,815	398	3,338	2,000	99	317	27,122
1923 ..	6,399	8,948	4,853	3,251	4,557	1,244	46	18	26,792
1924 ..	10,907	8,411	3,990	3,637	4,374	2,042	91	247	29,615
1925 ..	7,758	4,901	6,763	4,556	2,829	1,612	93	589	25,847
1926 ..	13,957	4,793	3,544	5,518	2,073	2,818	303	596	27,066
1927 ..	14,916	6,610	2,015	1,200	6,808	321	460	407	32,095
1928 ..	9,010	354	2,522	2,708	6,963	522	311	1,311	16,619
1929 ..	3,965	1,250	1,212	3,765	4,219	164	290	10	4,839
1930 ..	3,306	2,583	2,373	2,468	964	154	128	65	7,039
1931 ..	4,163	2,424	1,738	1,199	2,516	262	112	95	8,319
1932 ..	1,115	836	325	804	1,161	286	88	391	2,186
1933 ..	228	790	1,087	545	213	307	30	397	569

## FEMALES.

1921 ..	3,364	1,512	1,452	1,342	605	1,049	113	19	9,230
1922 ..	5,162	4,749	1,022	2,070	699	728	57	170	13,087
1923 ..	1,960	7,583	2,539	630	1,839	1,630	41	94	12,974
1924 ..	6,387	3,657	3,889	2,377	2,061	1,957	26	125	16,513
1925 ..	7,787	1,923	3,278	1,072	1,510	1,885	31	336	14,018
1926 ..	10,347	4,124	2,572	1,755	690	2,048	34	375	17,781
1927 ..	10,995	4,942	150	1,146	2,774	903	47	399	19,550
1928 ..	8,354	2,779	186	592	2,707	869	39	983	13,509
1929 ..	4,534	900	106	1,470	2,686	174	249	86	7,053
1930 ..	904	240	769	1,165	523	665	62	205	1,415
1931 ..	2,310	97	965	378	266	199	7	18	1,718
1932 ..	765	2	488	484	448	40	21	88	764
1933 ..	151	950	63	65	77	552	11	199	812

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.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
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..	60,419	57,245	31,074	21,736	22,109	10,759	224	1,943	183,543
1926-30..	70,968	20,423	15,237	2,549	28,479	7,962	1,155	4,307	130,058
1921 ..	5,379	3,400	1,925	3,745	902	2,369	228	83	17,575
1922 ..	13,842	18,422	3,837	2,468	4,037	2,728	156	487	40,209
1923 ..	8,359	16,531	7,392	3,881	6,396	2,874	5	76	39,766
1924 ..	17,294	12,068	7,879	6,014	6,435	3,999	65	372	46,128
1925 ..	15,545	6,824	10,041	5,628	4,339	3,527	90	925	39,865
1926 ..	23,404	8,917	6,116	7,273	2,763	4,866	269	971	44,847
1927 ..	25,911	11,552	2,165	2,346	9,582	1,224	507	806	51,645
1928 ..	17,364	3,133	2,708	3,300	9,670	1,391	350	2,294	30,128
1929 ..	8,499	356	1,106	5,235	6,905	338	539	96	11,892
1930 ..	4,210	2,823	3,142	3,633	441	819	190	14	8,454
1931 ..	6,473	2,327	2,703	1,577	2,782	461	119	77	10,037
1932 ..	1,880	838	163	1,348	1,609	326	67	479	2,950
1933 ..	77	160	1,150	610	136	859	19	596	243

NOTE.—Minus sign (—) indicates the excess of departures over arrivals.

(a) Part of New South Wales prior to 1911.

From 1861 to 1933 the increment to the population arising from net immigration amounted to 1,314,902, or 23.86 per cent. of the total increase in population. During the 33 years of the present century the total increase to the population was made up of 2,342,660 or 81.02 per cent. by natural increase, and 548,913 or 18.98 per cent. by net immigration.

Rates of increase by migration from 1901 to 1933 may be found for each State and Territory of Australia in Australian Demography Bulletin No. 51, p. 147.

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 1861 to 1933 was 5,511,327 while that from 1900 to 1933 was 2,891,573. The results for the last thirteen 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 preliminary 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.

## POPULATION.—TOTAL INCREASE.

Period.	States.						Territories.		Australia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-ern.	Fed. Cap.	
MALES.									
1921 ..	18,530	11,514	6,714	5,870	2,076	3,098	- 146	76	47,732
1922 ..	25,884	24,224	8,706	4,011	5,507	- 89	113	329	68,459
1923 ..	22,143	18,378	10,317	6,500	6,664	504	51	- 22	64,535
1924 ..	26,370	18,048	9,600	6,934	6,550	- 519	78	251	67,312
1925 ..	23,692	14,911	12,498	7,651	4,882	- 59	78	602	64,255
1926 ..	27,604	14,231	8,654	8,748	4,248	- 1,274	286	604	63,101
1927 ..	29,741	15,696	7,366	4,292	9,059	1,120	423	420	68,117
1928 ..	24,515	8,775	8,021	337	9,227	741	- 338	1,348	52,626
1929 ..	17,011	7,007	5,642	- 1,040	6,295	1,498	265	66	36,744
1930 ..	11,201	5,965	7,628	23	1,515	1,265	103	- 4	27,696
1931 ..	8,491	4,018	6,388	779	- 464	1,672	- 137	159	20,906
1932 ..	12,125	4,242	4,597	857	656	893	- 110	- 331	22,929
1933 ..	9,844	4,393	4,959	1,468	1,395	826	17	439	23,341

## FEMALES.

1921 ..	21,459	11,312	8,398	4,867	3,153	2,829	- 83	30	51,965
1922 ..	23,962	15,331	7,966	5,850	3,494	1,181	- 33	184	57,935
1923 ..	19,237	16,811	9,164	4,112	4,656	142	- 12	107	54,217
1924 ..	23,794	13,657	10,660	5,802	4,923	- 220	..	147	58,763
1925 ..	25,646	11,998	10,281	4,455	4,327	- 246	15	358	56,834
1926 ..	26,757	13,713	9,012	5,131	3,466	- 516	- 8	401	57,956
1927 ..	27,260	14,157	6,554	4,418	5,612	456	76	411	58,944
1928 ..	24,983	11,148	6,494	2,624	5,507	427	..	1,019	52,202
1929 ..	19,577	9,521	5,641	1,431	5,731	1,461	262	144	43,771
1930 ..	15,482	8,380	6,998	1,477	3,470	754	81	276	36,918
1931 ..	11,487	6,954	6,623	1,835	2,550	1,494	20	43	31,006
1932 ..	13,307	5,579	4,794	1,359	1,985	1,250	49	- 26	28,297
1933 ..	11,952	6,703	4,987	1,918	2,553	676	15	250	29,054

## 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..	230,717	156,184	94,304	56,052	46,232	6,621	- 165	2,062	592,007
1926-30..	224,131	108,596	72,010	27,441	54,130	5,932	1,150	4,685	498,075
1921 ..	39,989	22,826	15,112	10,737	5,229	5,927	- 229	106	99,697
1922 ..	49,846	39,555	16,672	9,861	9,001	1,092	- 146	513	126,394
1923 ..	41,380	35,189	19,481	10,612	11,320	646	39	85	118,752
1924 ..	50,164	31,705	20,260	12,736	11,473	- 739	78	398	126,075
1925 ..	49,338	26,909	22,779	12,106	9,209	- 305	93	960	121,089
1926 ..	54,361	27,944	17,666	13,879	7,714	- 1,790	278	1,005	121,057
1927 ..	57,001	29,853	13,920	8,710	14,671	1,576	499	831	127,061
1928 ..	49,498	19,923	14,515	2,961	14,734	1,168	- 338	2,367	104,828
1929 ..	36,588	16,531	11,283	391	12,026	2,959	527	210	80,515
1930 ..	26,683	14,345	14,626	1,500	4,985	2,019	184	272	64,614
1931 ..	19,978	10,972	13,011	2,614	2,086	3,166	- 117	202	51,912
1932 ..	25,432	9,821	9,391	2,216	2,641	2,143	- 61	- 357	51,226
1933 ..	21,796	11,096	9,946	3,386	3,948	1,502	32	689	52,395

(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 in population for Australia, and its component States, and for other countries. The Australian rates for the periods 1921–26 and 1926–31, have been adjusted in accordance with the preliminary results of the Census of 30th June, 1933 :—

## POPULATION.—RATES OF INCREASE (VARIOUS COUNTRIES).

Country.	Annual Rate of Increase in Population during period—							
	1891 to 1896.	1896 to 1901.	1901 to 1906.	1906 to 1911.	1911 to 1916.	1916 to 1921.	1921 to 1926. (d)	1926 to 1931. (d)
AUSTRALASIA—	%	%	%	%	%	%	%	%
Australia ..	1.86	1.49	1.38	2.03	1.95	1.99	2.09	1.60
New South Wales a	1.99	1.57	1.99	2.03	2.61	2.17	2.11	1.86
Victoria ..	0.37	0.52	0.18	2.17	1.38	1.68	1.96	1.26
Queensland ..	2.49	2.25	1.35	2.76	2.20	2.21	2.39	1.65
South Australia b	1.63	0.77	0.27	2.46	1.52	2.34	2.18	0.98
Western Australia	20.81	7.25	6.22	2.43	1.76	1.27	2.64	2.72
Tasmania ..	1.06	1.83	1.33	0.65	0.58	1.84	0.62	0.53
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. (d) Australian figures subject to revision.

NOTE.—The minus sign (—) denotes decrease.

(ii) *Variations in the Rates.* The fluctuations in the rates of increase in the population of Australia are, for the greater part due to variations in the volume of immigration.

The progress of population in Australia during the present century may be gathered from the following table :—

Year.	Interval.	Population at 31st December.		Increase.	Average Annual Increase.	Average Annual Rate of Increase.
		Years.	Millions.			
1900 .. ..	.. ..	.. ..	3.77	.. ..	.. ..	.. ..
1913 .. ..	.. ..	.. ..	4.89	1.12	86	2.02
1923 .. ..	.. ..	.. ..	5.76	0.87	87	1.65
1928 .. ..	.. ..	.. ..	6.36	0.60	120	2.00
1933 .. ..	.. ..	.. ..	6.66	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 88,000 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 1933 (0.79 per cent.) were maintained, the time required would be extended to 88 years.

Rates of increase from 1901 to 1933 may be found for each State and Territory of Australia in Australian Demography Bulletin No. 51, p. 147.

### § 6. Seasonal Variations of Population.

1. *Variations in Natural Increase.*—The following notes are based on the experience of the ten years 1924-1933. For Australia as a whole, the rate of natural increase was greatest in the quarter ended 31st March, and least in the quarter ending 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, and South Australia in the September quarter, in Western Australia in the December quarter, and in Tasmania in the June quarter.

2. *Variations in Net Immigration.*—For the decade 1924-1933 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 loses heavily during the December quarter, but gains in the June quarter by tourists seeking the warmer climate. The June quarter has been most favourable to Queensland and Western Australia. The increase to Tasmania during the December quarter is from 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, 1932, of 6,664,517 including aboriginals, has a density of only 2.24 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, 117; Asia, 70; Africa, 12; North and Central America, 20; and South America, 12. The population of Australia has thus about 18 per cent. of the density of South America and of that 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 2.24 in 1933. Victoria's density, however, has grown from 13.77 to 20.76, and that of New South Wales from 4.43 to 8.45 in the same period.

A map showing the density of population throughout Australia at the Census of 1921 accompanies this chapter.

Particulars concerning the number and density of the population of the most important countries of the world at the 31st December, 1932, are given in the following table. These figures have been taken, with the exception of those for China, India, Afghanistan, Persia

and Australia, from the Statistical Year Book of the League of Nations 1933-34. 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, figures must be considered as rough approximations only.

## POPULATION, WORLD'S.—NUMBER AND DENSITY.—1932.

Country.	Population. (000 omitted)	Density. (a)	Country.	Population. (000 omitted)	Density. (a)
<b>EUROPE.</b>			<b>AFRICA.</b>		
Russia (European Terr.)	130,700	56.4	Nigeria and Protectorate (c)	20,082	53.9
Germany	65,950	359.2	Egypt	15,070	39.0
Great Britain and Northern Ireland	46,440	492.0	French West Africa	14,600	8.2
France	41,860	196.8	Belgian Congo	10,000	10.6
Italy	41,814	349.3	Union of South Africa	8,310	17.7
Poland	32,638	217.9	Algeria	6,700	8.0
Spain (Including Canary and Balearic Islands)	24,012	123.7	Anglo-Egyptian Sudan	5,580	5.6
Rumania	18,540	162.8	Abyssinia	5,500	15.8
Czechoslovakia	14,925	276.2	Other	58,458	10.8
Yugoslavia	14,296	148.7	<b>Total Africa</b>	<b>144,300</b>	<b>12.5</b>
Hungary	8,784	244.6	<b>NORTH AND CENTRAL AMERICA.</b>		
Belgium	8,213	699.6	United States of America	125,200	41.3
Netherlands	8,183	620.1	Mexico	17,320	22.8
Portugal	7,000	192.9	Canada	10,590	2.8
Austria	6,740	207.9	Cuba	4,000	90.9
Greece	6,548	130.5	Other	15,090	13.3
Sweden	6,190	35.8	<b>Total North and Central America</b>	<b>172,200</b>	<b>19.9</b>
Bulgaria	5,950	149.7	<b>SOUTH AMERICA.</b>		
Switzerland	4,115	260.0	Brazil	44,002	13.7
Denmark	3,610	217.4	Argentina	11,847	11.0
Finland	3,516	23.5	Colombia	8,828	19.8
Irish Free State	2,983	112.0	Peru	6,600	12.4
Norway	2,845	22.8	Chile	4,402	15.4
Other	9,768	63.6	Other	11,621	8.2
<b>Total Europe</b>	<b>514,720</b>	<b>116.7</b>	<b>Total South America</b>	<b>87,300</b>	<b>12.4</b>
<b>ASIA.</b>			<b>OCEANIA, ETC.</b>		
China and Dependencies	474,787	110.8	Australia (b)	6,665	2.2
British India:			New Zealand	1,534	14.8
British Provinces	289,491	219.8	Territory of New Guinea	520	5.7
Princely States	63,347	129.3	Hawaii	380	57.9
Japan and Dependencies	94,960	362.8	Papua	280	3.1
Dutch East Indies	62,560	85.3	Fiji	189	26.6
Russia in Asia	35,000	6.0	Other	492	17.7
Turkey, including Armenia and Kurdistan (d)	13,800	48.4	<b>Total Oceania, &amp;c.</b>	<b>10,060</b>	<b>3.0</b>
Philippine Islands	12,647	110.7	<b>SUMMARY.</b>		
Siam	12,355	61.8	Europe	514,720	116.7
Afghanistan	12,000	47.8	Asia	1,137,325	70.3
Persia	10,000	15.9	Africa	144,300	12.5
Tonking	8,096	180.8	America, North and Central	172,200	19.9
Arabia	7,000	7.0	America, South	87,300	12.4
Nepal	5,600	103.6	Oceania, etc.	10,060	3.0
Ceylon	5,427	212.9	<b>Total</b>	<b>2,065,905</b>	<b>40.8</b>
Annam	5,122	88.4			
Other	25,133	44.4			
<b>Total Asia</b>	<b>1,137,325</b>	<b>70.3</b>			

(a) Number of persons per square mile.

(b) Including 60,000 aboriginals and corrected in accordance with the results of the Census of 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.	British Empire.
Area in square miles (exclusive of Polar Circles)	50,598,313	13,355,426
Population	2,065,905,000	495,456,000
Population per square mile	40.83	37.10



## § 9. General Characteristics.

**i. 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 (104.55) since when it has gradually fallen. In 1930 it was 103.86.

The following table gives the masculinity of the population for the years 1901 to 1933 :—

## POPULATION—MASCULINITY AT 31st DECEMBER, 1901 TO 1933.

(Males per 100 Females.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. 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	97.69	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	105.66	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	89.96	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	114.40	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	103.95	97.44	111.26	100.24	113.57	101.88	277.88	121.06	103.24
1922	104.04	98.60	111.21	99.52	114.53	100.70	275.67	130.52	103.55
1923	104.23	98.82	111.25	100.44	115.33	101.03	284.52	117.38	103.85
1924	104.37	99.37	110.67	100.86	115.84	100.76	292.73	123.08	104.07
1925	104.16	99.72	110.95	102.02	115.77	100.93	296.26	132.37	104.24
1926	104.08	99.79	110.62	103.29	115.90	100.24	328.63	135.80	104.33
1927	104.20	99.97	110.65	103.20	117.29	100.84	345.40	130.38	104.55
1928	104.07	99.70	110.85	102.36	118.75	101.13	312.88	130.92	104.49
1929	103.80	99.42	110.70	101.48	118.49	101.15	269.88	127.62	104.20
1930	103.41	99.16	110.68	100.96	117.18	101.60	261.48	118.69	103.86
1931	103.14	98.84	110.46	100.59	115.47	101.73	247.92	121.36	103.51
1932	103.02	98.70	110.31	100.41	114.66	101.40	231.90	113.89	103.32
1933	102.83	98.46	110.19	100.26	113.92	101.52	230.68	117.51	103.11

(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 OF VARIOUS COUNTRIES.—MASCULINITY.

Country.	Year.	Number of Males to each 100 Females.	Country.	Year.	Number of Males to each 100 Females.
Argentina .. ..	1928	114.1	Italy .. ..	1931	95.7
Canada .. ..	1931	107.5	Hungary .. ..	1930	95.7
New Zealand .. ..	1933	103.9	Denmark .. ..	1930	95.7
Union of South Africa(a)	1931	103.7	Spain .. ..	1930	95.3
Irish Free State .. ..	1932	103.7	Norway .. ..	1930	94.9
<b>Australia .. ..</b>	<b>1933</b>	<b>103.1</b>	German Empire .. ..	1933	94.3
United States of America	1930	102.5	Northern Ireland .. ..	1932	94.2
Japan .. ..	1930	102.0	Soviet Union .. ..	1926	93.5
Netherlands .. ..	1930	98.8	Poland .. ..	1921	93.4
Belgium .. ..	1930	98.1	Scotland .. ..	1931	92.4
Yugoslavia .. ..	1931	98.0	France .. ..	1931	92.3
Sweden .. ..	1930	97.0	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 data collected at the Census of 1921 have been included in preceding issues of the Official Year Book (See No. 22, p. 912). The preliminary figures for the Census of 1933 are given in the following table:—

## POPULATION OF AUSTRALIA IN AGE GROUPS—CENSUS 1933.

(Preliminary figures.—Subject to revision.)

Age Group.	Males.	Females.	Persons.
Under 5 years .. ..	290,461	278,504	568,965
5 and under 10 .. ..	318,937	308,443	627,380
10 " " 15 .. ..	317,526	307,696	625,222
15 " " 20 .. ..	310,491	302,505	612,995
20 " " 25 .. ..	296,756	285,564	582,320
25 " " 30 .. ..	276,304	255,570	531,874
30 " " 35 .. ..	250,464	236,796	487,260
35 " " 40 .. ..	227,703	236,628	464,331
40 " " 45 .. ..	228,862	225,642	454,504
45 " " 50 .. ..	208,450	198,660	407,110
50 " " 55 .. ..	170,970	162,179	333,149
55 " " 60 .. ..	131,764	128,387	260,151
60 " " 65 .. ..	114,378	113,330	227,708
65 " " 70 .. ..	92,561	90,167	182,728
70 " " 75 .. ..	65,743	64,049	129,792
75 " " 80 .. ..	35,771	36,123	71,894
80 " " 85 .. ..	13,803	15,680	29,483
85 " " 90 .. ..	4,621	6,212	10,833
90 " " 95 .. ..	1,143	1,601	2,744
95 " " 100 .. ..	184	305	489
100 and over .. ..	31	32	63
Not Stated .. ..	10,892	8,712	19,604
<b>Total .. ..</b>	<b>3,367,815</b>	<b>3,262,785</b>	<b>6,630,600</b>

3. Birthplace ; Race and Nationality ; Schooling ; Religion ; Conjugal Condition ; Dependent Children ; Orphanhood ; War Service ; Occupations ; Grade of Employment ; Unemployment and Income.—Data collected at the Census of 1933 are not yet available for Australia, but particulars concerning each State are being issued in Census Bulletins as the tabulations are completed. For information based on the Census of 1921, see Official Year Book No. 25, pp. 486 to 488.

## § 10. Dwellings.

The following table represents a preliminary summary of the information relating to dwellings in each State and Territory which was obtained at the Census of the 30th June, 1933 :—

## D WELLINGS—CENSUS 30th JUNE, 1933.

(Exclusive of Dwellings Occupied Solely by Full-blood Aboriginals.)

(Preliminary figures—Subject to revision.)

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage on Total Dwellings in State.
NEW SOUTH WALES.					
Urban—					%
Metropolitan .. .. .	291,188	10,941	253	302,382	47.72
Provincial .. .. .	127,844	4,701	192	132,737	20.95
Rural .. .. .	185,140	13,095	301	198,536	31.33
<b>Total .. .. .</b>	<b>604,172</b>	<b>28,737</b>	<b>746</b>	<b>633,655</b>	<b>100.00</b>
VICTORIA.					
Urban—					%
Metropolitan .. .. .	237,582	6,669	394	244,645	53.38
Provincial .. .. .	48,044	1,543	103	49,690	10.84
Rural .. .. .	153,144	10,551	253	163,948	35.78
<b>Total .. .. .</b>	<b>438,770</b>	<b>18,763</b>	<b>750</b>	<b>458,283</b>	<b>100.00</b>
QUEENSLAND.					
Urban—					%
Metropolitan .. .. .	69,785	2,270	86	72,141	31.75
Provincial .. .. .	45,196	2,618	77	47,891	21.08
Rural .. .. .	102,612	4,423	138	107,173	47.17
<b>Total .. .. .</b>	<b>217,593</b>	<b>9,311</b>	<b>301</b>	<b>227,205</b>	<b>100.00</b>
SOUTH AUSTRALIA.					
Urban—					%
Metropolitan .. .. .	77,392	2,242	44	79,678	54.76
Provincial .. .. .	12,409	478	22	12,909	8.87
Rural .. .. .	50,190	2,033	94	52,917	36.37
<b>Total .. .. .</b>	<b>139,991</b>	<b>5,353</b>	<b>160</b>	<b>145,504</b>	<b>100.00</b>

DWELLINGS—CENSUS 30TH JUNE, 1933—*continued.*

Division.	Occupied.	Unoccupied.	Being Built.	Total.	Percentage on Total Dwellings in State.
WESTERN AUSTRALIA.					
Urban—					%
Metropolitan .. ..	48,108	1,505	176	49,790	45.39
Provincial .. ..	10,205	270	26	10,501	9.57
Rural .. ..	47,086	2,253	58	49,397	45.04
Total .. ..	105,399	4,029	260	109,688	100.00
TASMANIA.					
Urban—					%
Metropolitan .. ..	14,160	495	23	14,678	26.57
Provincial .. ..	12,906	441	48	13,395	24.25
Rural .. ..	25,627	1,485	58	27,170	49.18
Total .. ..	52,693	2,421	129	55,243	100.00
NORTHERN TERRITORY.					
Urban—					%
Provincial .. ..	452	17	1	470	28.87
Rural .. ..	1,120	38	..	1,158	71.13
Total .. ..	1,572	55	1	1,628	100.00
FEDERAL CAPITAL TERRITORY.					
Urban—					%
Provincial .. ..	1,583	37	5	1,625	77.12
Rural .. ..	416	66	..	482	22.88
Total .. ..	1,999	103	5	2,107	100.00
AUSTRALIA.					
Urban—					%
Metropolitan .. ..	738,215	24,123	976	763,314	46.74
Provincial .. ..	258,639	10,105	474	269,218	16.48
Rural .. ..	565,335	34,544	902	600,781	36.78
Total .. ..	1,562,189	68,772	2,352	1,633,313	100.00

For Australia the average number of inmates per occupied dwelling was less in 1933 at 4.23 than in 1921 at 4.69. In the metropolitan areas it was also less at 4.21 than in 1921 at 4.76.

For Australia the proportion of unoccupied dwellings was practically the same in 1933 (4.21 per cent.) as in 1921 (4.23 per cent.) and for the metropolitan areas the respective percentages were—3.16 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 0.14 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.

## § 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. In earlier pages of this Chapter a summary will be found of the increase of population by net migration by States—from 1901 to 1930 in quinquennial groups and from 1921 to 1933 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 preliminary results of the Census of 1933 :—

### 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	110,552	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	289,095	188,357	477,452	171,974	122,535	294,509	117,721	65,822	183,543
1926-30	266,593	203,887	470,480	193,013	147,409	340,422	73,580	56,478	130,058
1921 ..	53,221	34,717	87,938	44,876	25,487	70,363	8,345	9,230	17,575
1922 ..	58,057	35,456	93,513	30,935	22,369	53,304	27,122	13,087	40,209
1923 ..	56,415	36,444	92,859	29,623	23,470	53,093	26,792	12,974	39,766
1924 ..	62,400	41,267	103,667	32,785	24,754	57,539	29,615	16,513	46,128
1925 ..	59,602	40,473	100,075	33,755	26,455	60,210	25,847	14,018	39,865
1926 ..	62,743	45,181	107,924	35,677	27,400	63,077	27,066	17,781	44,847
1927 ..	69,540	47,883	117,423	37,445	28,333	65,778	32,095	19,550	51,645
1928 ..	55,921	43,871	99,792	39,302	30,362	69,664	16,619	13,509	30,128
1929 ..	44,508	37,740	82,248	39,669	30,687	70,356	4,839	7,053	11,892
1930 ..	33,881	29,212	63,093	40,920	30,627	71,547	-7,039	-1,415	-8,454
1931 ..	21,986	18,428	40,414	30,305	20,146	50,451	-8,319	-1,718	-10,037
1932 ..	22,637	19,360	41,997	24,823	20,124	44,947	-2,186	-764	-2,950
1933 ..	24,157	22,224	47,791	25,026	22,522	47,548	-569	812	243

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 naturally was responsible for a very large increase in the departures during the periods 1911-15 and 1916-20. 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 130,058 persons, the figures for the individual years show the decline which set in after 1927 and which resulted in an actual loss of population in 1930, 1931 and 1932. There was a recovery in 1933 when a small gain of population by migration of 243 was shown.

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:—

Period.	Number.	Year.	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

The number of arrivals of nominated and selected immigrants reached its peak in 1926, and has since diminished each year until only 25 were received in 1933.

At present, assistance is confined to nominees who desire to join their family in Australia.

**2. Country of Embarkation and Destination.**—The countries from which the migrants arrived or to which they departed are shown for 1933 in Demography Bulletin No. 51. Annual averages for the period 1925-29 will be found in Official Year Book No. 25.

**3. Nationality or Race.**—The great 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 preliminary results of the 1933 Census:—

## NATIONALITY OR RACE OF ARRIVALS AND DEPARTURES.—AUSTRALIA.

Nationality or Race.	Arrivals.			Departures.		
	1921-25.	1926-30.	1933.	1921-25.	1926-30.	1933.
British .. ..	404,792	386,669	40,696	249,223	281,311	40,787
French .. ..	2,738	3,394	642	2,289	3,289	648
German .. ..	1,052	3,172	272	847	1,957	220
Greek .. ..	4,247	3,842	281	845	2,036	261
Italian .. ..	17,092	19,170	1,356	3,404	8,587	902
Yugoslav .. ..	(a) 950	4,426	206	(a) 531	2,274	111
United States ..	6,875	8,916	855	4,089	8,096	848
Other European ..	12,659	15,355	793	4,978	6,951	817
<b>Total European ..</b>	<b>450,405</b>	<b>444,944</b>	<b>45,101</b>	<b>266,266</b>	<b>314,501</b>	<b>44,594</b>
Chinese .. ..	17,133	15,649	1,483	18,327	17,449	1,892
Japanese .. ..	2,256	1,762	472	2,712	1,997	286
India and Ceylon ..	2,150	2,790	324	2,148	2,086	337
Other Non-European	6,108	5,335	411	5,056	4,389	439
<b>Total Non-European</b>	<b>27,647</b>	<b>25,536</b>	<b>2,690</b>	<b>28,243</b>	<b>25,921</b>	<b>2,954</b>
<b>Total .. ..</b>	<b>478,052</b>	<b>470,480</b>	<b>47,791</b>	<b>294,509</b>	<b>340,422</b>	<b>47,548</b>

(a) 1925 only.

During the above periods there was a considerable influx of Italian, Greek and Yugoslav settlers, so that although there was also much concurrent emigration of these nationals they provided a large permanent addition to the population of Australia. Arrivals of Non-Europeans each year reach large proportions, but there is always a larger number of departures, so that in the net result the Non-European population decreases each year. 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.	1933.	1921-25.	1926-30.	1933.
				Per cent.	Per cent.	Per cent.
British .. ..	155,569	105,358	— 91	84.76	81.01	—37.45
French .. ..	449	105	— 6	0.25	0.08	— 2.47
German .. ..	205	1,215	52	0.11	0.93	21.40
Greek .. ..	3,402	1,806	20	1.85	1.39	8.23
Italian .. ..	13,628	10,583	454	7.43	8.14	186.83
Yugoslav .. ..	419	2,152	95	0.23	1.65	39.10
United States ..	2,786	820	7	1.52	0.63	2.88
Other European ..	7,681	8,404	— 24	4.18	6.46	— 9.88
<b>Total European ..</b>	<b>184,139</b>	<b>130,443</b>	<b>507</b>	<b>100.33</b>	<b>100.29</b>	<b>208.64</b>
Chinese .. ..	— 1,194	— 1,800	— 409	— 0.65	— 1.38	—168.31
Japanese .. ..	— 456	— 235	186	— 0.25	— 0.18	76.54
India and Ceylon ..	2	704	— 13	0.00	0.54	— 5.35
Other Non-European	1,052	946	— 28	0.57	0.73	—11.52
<b>Total Non-European</b>	<b>— 596</b>	<b>— 385</b>	<b>— 264</b>	<b>— 0.33</b>	<b>— 0.29</b>	<b>—108.64</b>
<b>Total .. ..</b>	<b>183,543</b>	<b>130,058</b>	<b>243</b>	<b>100</b>	<b>100</b>	<b>100</b>

Owing to the depressed conditions in Australia the gain by immigration decreased considerably in the successive periods in the table, and the year 1933 showed a net gain of only 243 persons. The German, Japanese, Greek, Italian, Yugoslav and United States nationalities or races alone showed net immigration in 1933. In those cases it was of small extent. Over 80 per cent. of the net immigration in 1921-30 consisted of persons of British nationality and the remaining 20 per cent. were Europeans. In the year 1933, however, there was a net loss in migration of persons of British nationality.

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. The figures for the quinquennial period 1926-30 and the years 1931, 1932 and 1933 which have been adjusted in accordance with the preliminary results of the 1933 Census are as follow :—

**MIGRANTS CLASSIFIED ACCORDING TO INTENDED RESIDENCE.—AUSTRALIA.**

Classification.	1926-30.	1931.	1932.	1933.
Permanent new arrivals .. ..	224,010	9,441	9,868	10,749
Australian residents returning from abroad .. ..	121,395	13,357	13,098	18,917
Temporary visitors .. ..	125,029	17,610	19,031	18,125
Not stated .. ..	46	..	..	..
<b>Total Arrivals .. ..</b>	<b>470,480</b>	<b>40,414</b>	<b>41,997</b>	<b>47,791</b>
Australian residents departing per- manently .. ..	103,095	21,533	14,459	12,124
Departing temporarily .. ..	111,610	10,181	12,792	17,791
Temporary visitors .. ..	125,639	18,732	17,696	17,633
Not stated .. ..	78	5	..	..
<b>Total Departures .. ..</b>	<b>340,422</b>	<b>50,451</b>	<b>44,947</b>	<b>47,548</b>

Permanent new arrivals have decreased very considerably in recent years, the number for 1933 being only one-seventh of that of 1927. Permanent departures were far more numerous in the years 1928 to 1931 than in the earlier years of the period but decreased during the years 1932 and 1933, the number in the latter year 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 and 1933.

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 for Australia from the United Kingdom :—Children under 12 years, £16 10s. (representing the full fare at half rate); juveniles 12 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 will be carried free; juveniles 12 years of age and under 17 years, who are ordinarily charged for by the shipping companies as adult passengers, will merely require to pay £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 1933 and the total from the earliest years up to the end of 1933 are given in the following table :—

ASSISTED IMMIGRATION.—NUMBER.

Persons.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	F.C. Terr.	Total.
No. 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
Total from earliest years to end of 1933	.. 345,818	255,308	235,993	115,818	86,216	24,957	67	1,064,177

There were no "selected" immigrants during 1933. Of the 25 "nominated" persons who entered in that year 4 were males and 21 were females. The 4 males and 15 of the females were described as dependants, and of the other 6 females 3 were ascribed to the group "Domestic, Hotels, etc.," and 3 to "General Labour and Miscellaneous."

**(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 paragraph (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.

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 very close dependent relatives of persons already settled in Australia, but 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.:—Czechoslovakia, Belgium, Denmark, France, Italy, Liechtenstein, Norway, Sweden, Switzerland, Holland, Germany and Austria.

(ii) *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 1933 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, 1933.**

Nationality or Race.	1933.	Nationality or Race.	1933.
Albanian .. .. .	8	United States of America ..	855
Austrian .. .. .	29	Other Whites .. .. .	40
Belgian .. .. .	49	American Negroes .. .. .	3
British .. .. .	40,696		
Bulgarian .. .. .	9	ASIATICS—	
Czecho-Slovakians .. .. .	30	Arabs .. .. .	1
Danish .. .. .	47	Chinese .. .. .	646
Dutch .. .. .	35	Filipinos .. .. .	5
Estonian .. .. .	31	Japanese .. .. .	250
Finnish .. .. .	8	Javanese .. .. .	3
French .. .. .	642	Koepangers .. .. .	129
German .. .. .	272	Malays .. .. .	37
Greek .. .. .	281	Natives of India and Ceylon	96
Hungarians .. .. .	15	Palestinians .. .. .	30
Italian .. .. .	1,356	Syrians .. .. .	56
Maltese (British) .. .. .	24		
Norwegian and Swedish .. .. .	92	OTHER RACES—	
Polish .. .. .	138	Pacific Islanders .. .. .	16
Russian .. .. .	60	Papuans .. .. .	272
Spanish .. .. .	31	Unspecified .. .. .	28
Swiss .. .. .	97		
Yugoslavian .. .. .	206	Total .. .. .	46,673

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 1933 was 1,852, distributed among the various nationalities as follows:—American Negroes, 1; Chinese, 1,114; Filipinos, 6; Natives of India and Ceylon, 156; Japanese, 231; Javanese, 3; Koepangers, 14; Malays, 37; Papuans, 231; Pacific Islanders, 49; and others 10.

**(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 (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. :—France, Switzerland, Liechtenstein, Italy, Belgium, Denmark, Sweden, Norway, Holland, Germany, Austria and Czechoslovakia.

### § 13. Naturalization.

**I. 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 1933, and the countries from which such recipients had come, are given in the following table :—

#### NATURALIZATION.—COMMONWEALTH CERTIFICATES GRANTED, 1933.

Previous Nationalities of Recipients.	No. of Certificates Granted.	Previous Nationalities of Recipients.	No. of Certificates Granted.	Countries from which Recipients of Commonwealth Certificates had come.	No. of Certificates Granted.	Countries from which Recipients of Commonwealth Certificates had come.	No. of Certificates Granted.
Italian ..	520	Portuguese ..	1	Great Britain ..	68	Belgium ..	..
Swedish ..	19	Austrian ..	10	Italy ..	516	New Zealand ..	3
Danish ..	10	Syrian ..	18	Germany ..	53	Switzerland ..	11
Russian ..	81	Polish ..	83	America (North) ..	16	Spain ..	7
German ..	70	Finnish ..	23	Sweden ..	9	Palestine ..	39
Norwegian ..	16	Yugoslavs ..	138	Denmark ..	6	Poland ..	42
Greek ..	102	Estonians ..	27	Norway ..	6	Syria ..	14
American (North) ..	10	Czechoslovakians ..	3	Greece ..	86	Finland ..	12
Dutch ..	2	Albanians ..	21	France ..	38	Yugoslavia ..	122
Swiss ..	17	Latvians ..	11	Egypt ..	21	China ..	36
French ..	6	Others ..	49	America (South) ..	14	Other Countries ..	86
Spanish ..	13			Holland ..	6		
Belgian ..	..			Russia ..	34		
Rumanian ..	3	Total ..	1,253	South Africa ..	8	Total ..	1,253

(ii) *States*. The certificates of naturalization granted in 1933 were issued in the various States as follow :—New South Wales, 298; Victoria, 249; Queensland, 309; South Australia, 89; Western Australia, 293; Tasmania, 9; Northern Territory, 5; and 1 in the Federal Capital Territory.

### § 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 ..	602	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

**§ 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. Pages 914 to 916 in Official Year Book No. 22 give particulars for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the Continent appeared on pages 687-696 of Official Year Book No. 23.

The aborigines are scattered over the whole of the mainland, but the majority are concentrated chiefly in Western Australia, Queensland and the Northern Territory. At a Census of aborigines taken on the 30th June, 1933, the following particulars were disclosed :—

**ABORIGINAL CENSUS—30th JUNE, 1933.**

State or Territory.	Full-blood.					Half-caste.					Total Full- blood and Half- caste.
	Noma- dic.	Regu- lar Em- ploy- ment.	Super- vised Camps.	Other	Total.	Noma- dic.	Regu- lar Em- ploy- ment.	Super- vised Camps.	Other.	Total.	
New South Wales	177	108	599	345	1,229	959	927	3,015	3,584	8,485	9,714
Victoria ..	2	36	28	20	86	3	108	148	251	510	596
Queensland ..	2,231	2,771	5,912	1,618	12,532	187	937	1,684	1,617	4,425	16,957
South Australia	1,375	272	82	259	1,988	602	329	536	124	1,591	3,579
Western Australia	19,433	3,475	1,640	1,075	25,623	1,279	733	852	811	3,675	29,298
Tasmania	..	..	..	..	..	..	..	..	..	..	..
Northern Territory	13,082	2,563	2,628	370	18,643	41	340	339	61	781	19,424
Federal Capital Territory ..	..	..	..	..	..	..	..	..	..	..	..
<b>Australia ..</b>	<b>36,300</b>	<b>9,225</b>	<b>10,889</b>	<b>3,687</b>	<b>60,101</b>	<b>3,071</b>	<b>3,374</b>	<b>6,574</b>	<b>6,448</b>	<b>19,467</b>	<b>79,568</b>

**§ 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 XXVII.

### 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 preliminary results of the Census of the 30th June, 1933.

#### § 1. Births.

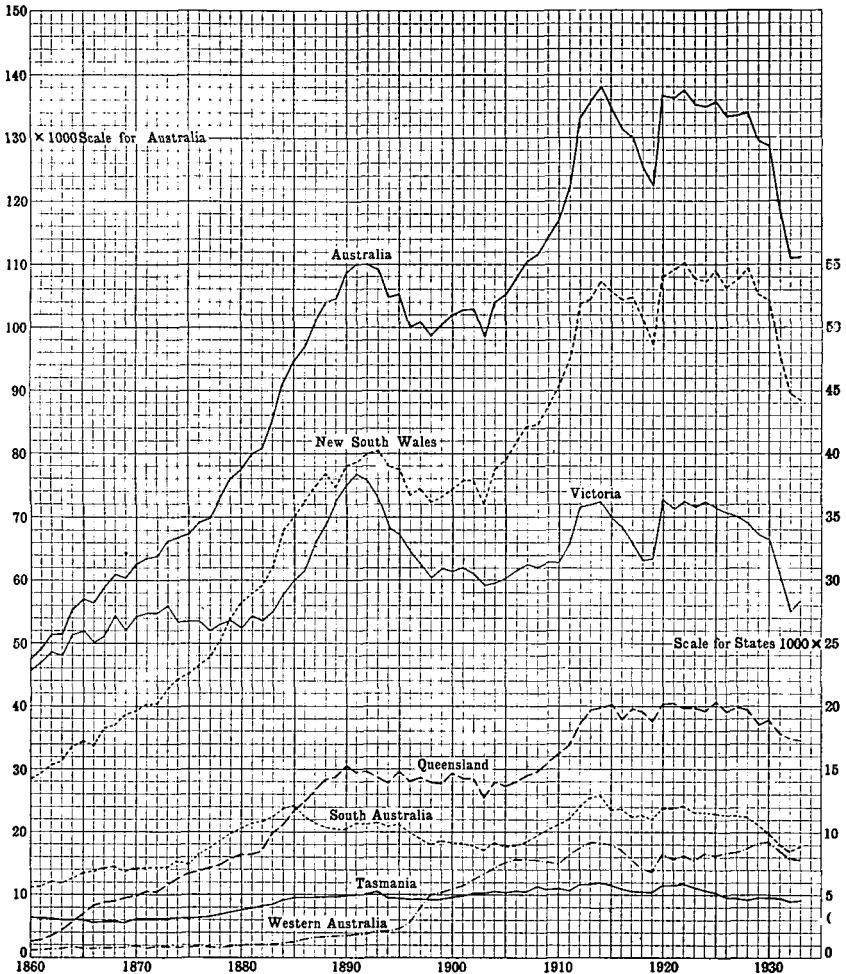
**i. Births, 1933.**—The number of male and female births and the total births registered in Australia during the year ended the 31st December, 1933, are shown in the tables hereunder. The numerical relation which these births bear to the population, and various other associated features, are given in later tables:—

#### BIRTHS, 1933.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North Ter.	Fed. Cap. Ter.	Australia.
<b>MALE BIRTHS.</b>									
Single births	22,319	14,172	8,641	4,588	3,887	2,310	40	67	56,024
Twins ..	469	318	146	63	94	34	..	..	1,124
Triplets ..	11	1	..	..	..	..	..	..	12
<b>Total ..</b>	<b>22,799</b>	<b>14,491</b>	<b>8,787</b>	<b>4,651</b>	<b>3,981</b>	<b>2,344</b>	<b>40</b>	<b>67</b>	<b>57,160</b>
<b>FEMALE BIRTHS.</b>									
Single births	20,919	13,595	8,185	4,172	3,813	2,181	34	60	52,959
Twins ..	461	301	178	77	80	28	..	4	1,129
Triplets ..	16	5	..	..	..	..	..	..	21
<b>Total ..</b>	<b>21,396</b>	<b>13,901</b>	<b>8,363</b>	<b>4,249</b>	<b>3,893</b>	<b>2,209</b>	<b>34</b>	<b>64</b>	<b>54,109</b>
<b>TOTAL BIRTHS.</b>									
Single births	43,238	27,767	16,826	8,760	7,700	4,491	74	127	108,983
Twins ..	(a) 930	(b) 619	(c) 324	140	(d) 174	62	..	4	(e) 2,253
Triplets ..	27	6	..	..	..	..	..	..	33
<b>Total ..</b>	<b>44,195</b>	<b>28,392</b>	<b>17,150</b>	<b>8,900</b>	<b>7,874</b>	<b>4,553</b>	<b>74</b>	<b>131</b>	<b>111,269</b>
<b>TOTAL CONFINEMENTS.</b>									
Nuptial Mothers ..	41,495	26,849	16,128	8,544	7,446	4,285	60	129	104,936
Ex-nuptial Mothers ..	2,224	1,233	861	286	346	237	14	..	5,201
<b>Total Mothers</b>	<b>43,719</b>	<b>28,082</b>	<b>16,989</b>	<b>8,830</b>	<b>7,792</b>	<b>4,522</b>	<b>74</b>	<b>129</b>	<b>110,137</b>

(a) Fourteen stillborn twins not included. (b) Seven stillborn twins not included. (c) Two stillborn twins not included. (d) Ten stillborn twins not included. (e) Thirty-three stillborn twins not included.

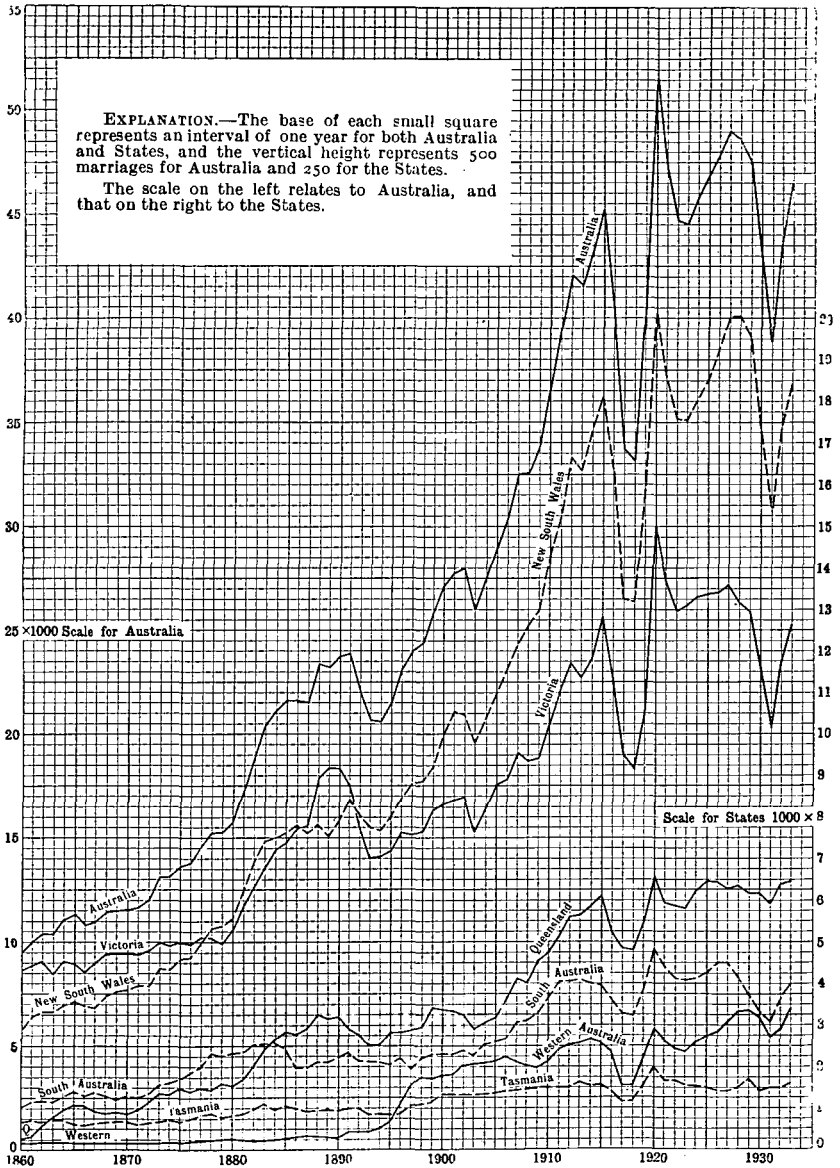
BIRTHS—1860 TO 1933:



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.

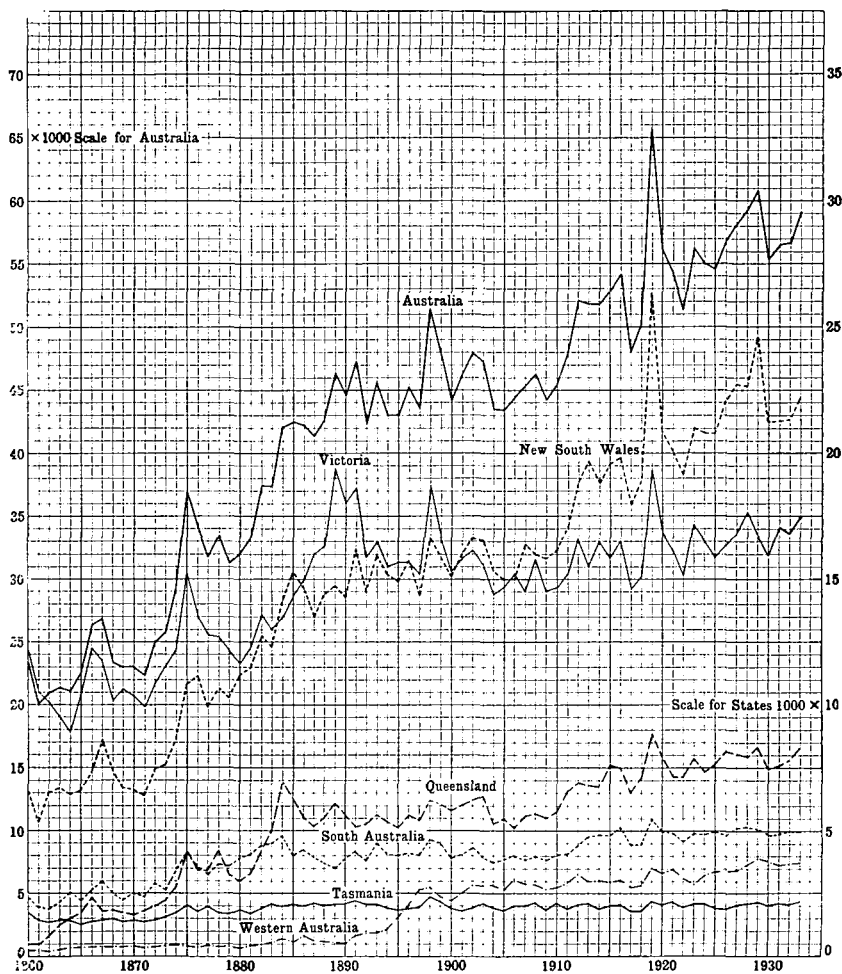
The scale on the left relates to Australia and that on the right to the States.

MARRIAGES, 1850 TO 1933.



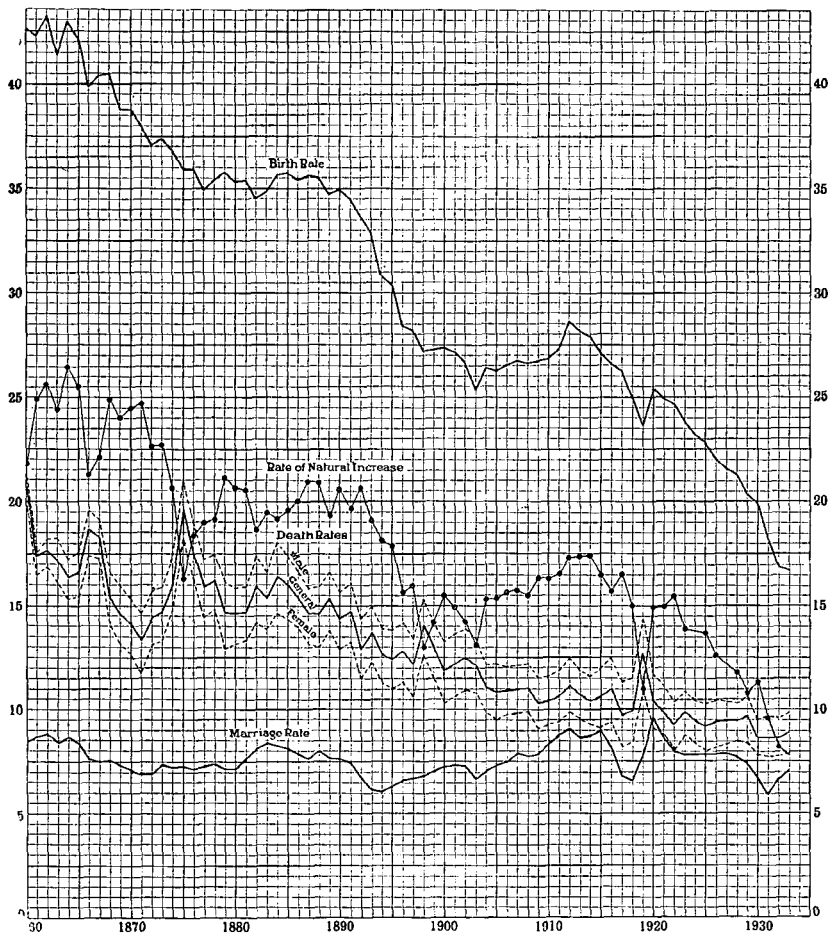


DEATHS, 1860 TO 1933.



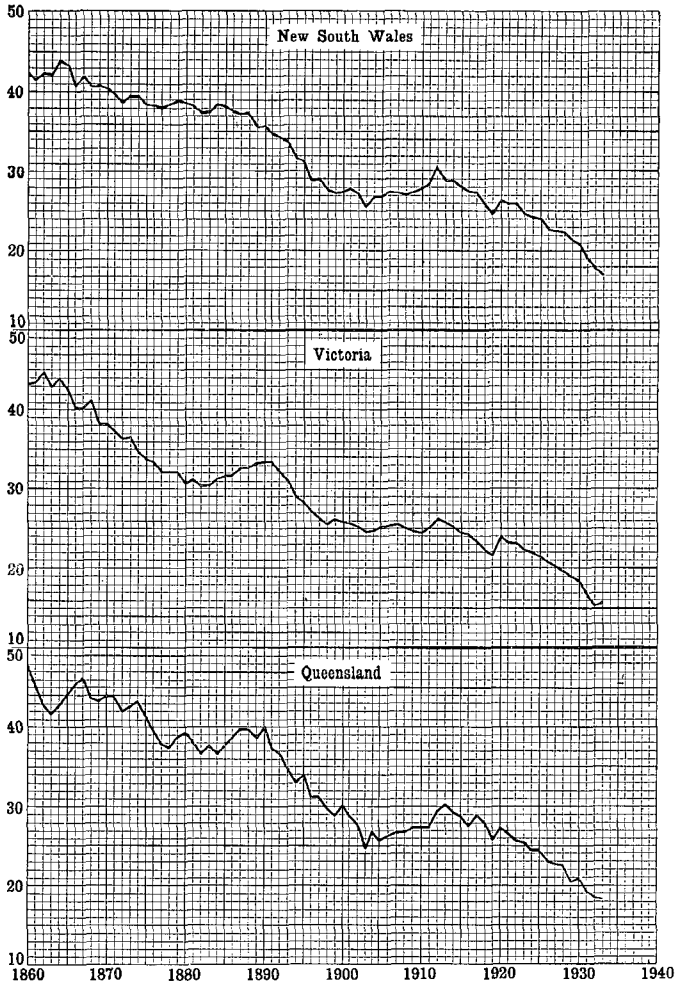
EXPLANATION.—The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 1,000 persons for Australia and 500 for the States. The scale on the left relates to Australia, and that on the right to the States.

RATES—BIRTHS, NATURAL INCREASE, DEATH (MALE GENERAL AND FEMALE) AND MARRIAGE—AUSTRALIA 1860 TO 1933.



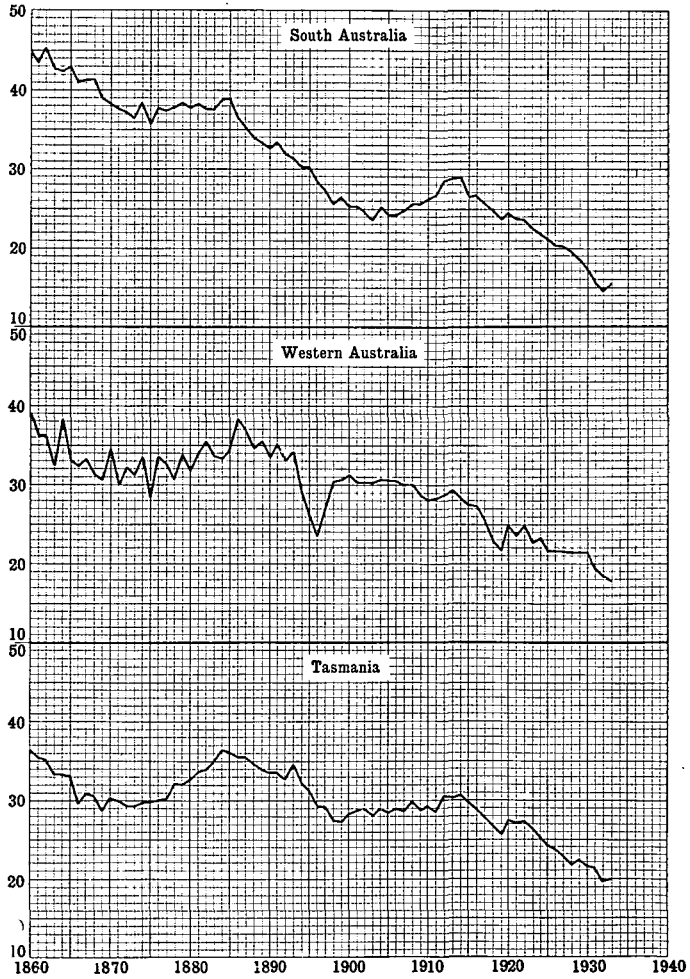
EXPLANATION.—The base of each small square represents one year's interval and the vertical height one-half per thousand of the population.

## BIRTH RATES—STATES, 1860-1933.



## STATE BIRTH-RATE GRAPHS.

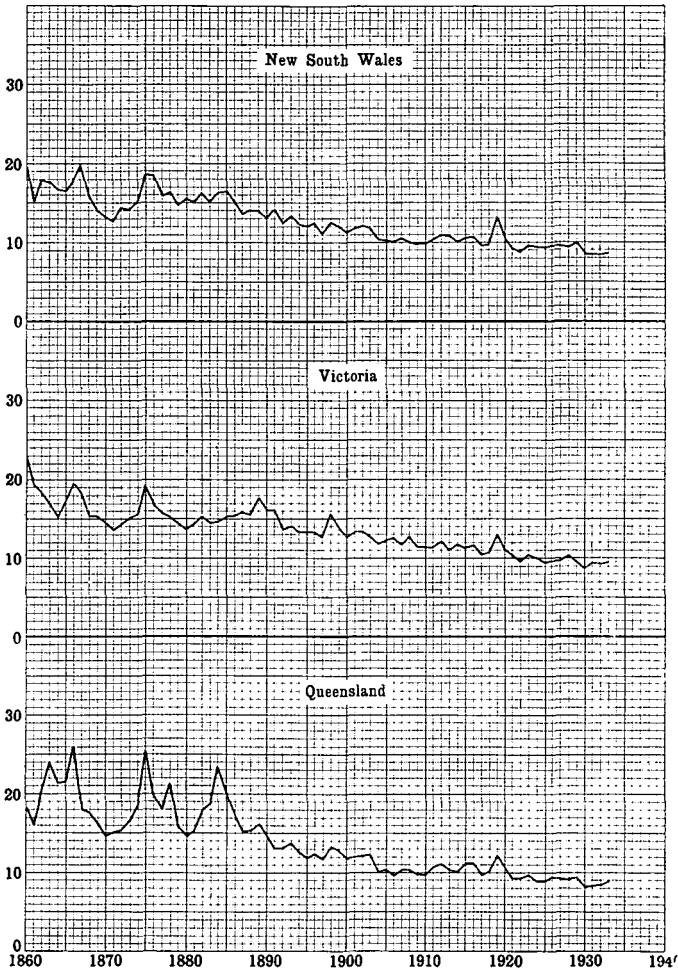
EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being twenty per thousand of the population.

BIRTH RATES—STATES, 1860-1933—*continued.*

STATE BIRTH-RATE GRAPHS.

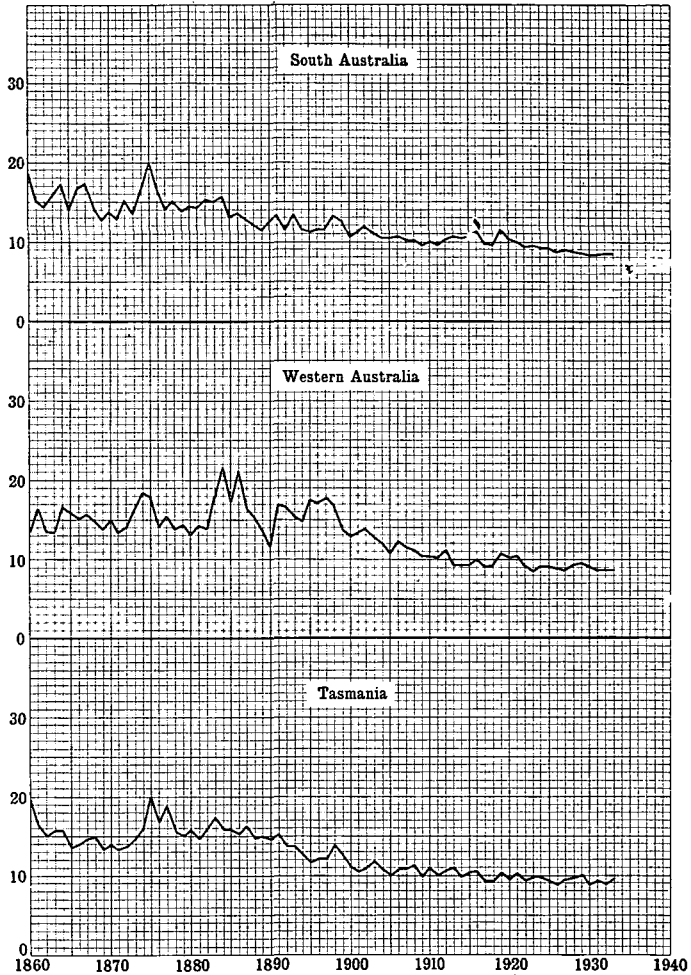
EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being twenty per thousand of the population.

## DEATH RATES—STATES, 1860-1933.



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, 1860-1933—*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.

2. Birth Rates.—The next table gives the crude birth rates from 1901 to 1933:—

CRUDE BIRTH RATE.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory	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	22.31	25.13	22.69	22.39	26.14	19.51	5.65	23.75
1924 ..	23.93	22.01	24.21	22.01	22.86	24.89	15.33	10.48	23.21
1925 ..	23.79	21.49	24.24	21.22	21.94	24.21	16.95	9.77	22.86
1926 ..	22.63	20.84	23.06	20.73	21.79	23.33	18.48	12.07	21.97
1927 ..	22.40	20.30	22.78	20.33	21.63	22.68	15.26	10.31	21.62
1928 ..	22.27	19.69	22.35	19.98	21.35	21.77	18.58	14.64	21.27
1929 ..	21.04	18.98	20.59	18.63	21.51	22.03	11.84	17.91	20.25
1930 ..	20.58	18.55	20.80	17.42	21.44	21.65	14.23	18.35	19.86
1931 ..	18.67	16.86	19.28	15.77	19.77	21.18	14.49	18.29	18.16
1932 ..	17.40	15.18	18.56	14.74	18.30	19.78	16.03	16.92	16.86
1933 ..	16.98	15.59	18.13	15.32	17.95	19.93	15.20	14.47	16.78

(a) Number of births per 1,000 of the mean population for the year. (b) Part of New South Wales.

The preceding table shows a progressive reduction from 1901 to 1933, broken only by a slight rise in 1911 in some of the States and in Australia as a whole. The rate for Australia for 1933 represents only 62 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. Exact information in respect of ages in this table is only available at census dates. An estimate based on a projection of data obtained at the Census of 1921 has, however, been made of married and unmarried women for the period 1930-1932, and the accompanying rates have been calculated thereon.

BIRTH RATES, AND FACTORS AFFECTING THEM.

Particulars.	1920-22. (Age Distribution at Census of 1921.)							1930-1932.
	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.	Australia.
Crude birth rate per 1,000 persons	25.99	23.54	26.72	24.23	24.14	26.99	25.15	18.36
Birth rate per 100 women 15-44 inclusive	11.04	9.79	11.83	10.25	11.05	11.91	10.74	7.92
Birth rate per 100 married women 15-44 incl. (a)	19.39	19.29	21.26	18.71	19.62	21.83	19.65	14.49
Birth rate per 100 married women 15-44 incl. (corrected for age variation)	19.14	19.44	20.77	18.99	20.44	21.24	19.65	14.49
Ex-nuptial births—per cent. on all births	4.82	4.84	5.00	3.28	4.02	5.11	4.69	4.77
Ex-nuptial births per 100 unmarried women 15-44 incl.	1.16	0.92	1.26	0.72	0.92	1.26	1.05	0.79
Women 15-44 incl.—per cent. all persons	23.54	24.02	22.57	23.65	21.83	22.67	23.41	23.19
Average age of all women 15-44 incl.	28.67	28.61	28.09	28.73	28.45	28.10	28.54	29.17
Married women 15-44 incl.—per cent. on all persons	12.75	11.61	11.93	12.53	11.81	11.73	12.20	12.06
Average age of married women 15-44 incl.	32.24	32.74	32.16	32.67	33.02	32.16	32.48	33.20b

(a) Nuptial births only.

(b) Approximate.

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.	1930-32.
Births per 1,000 women aged 15-44 ..	169.7	158.8	117.3	117.2	107.4	79.2
Nuptial births per 1,000 married women 15-44	321.0	332.0	235.8	236.0	196.5	144.9

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.	1933.	Country.	1908 to 1913.	1933.
Egypt .. ..	43.6	42.9(e)	Queensland ..	28.2	18.1
Soviet Union ..	45.6	42.7(e)	Western Australia ..	28.9	18.0
Ceylon .. ..	36.9	38.6	Scotland .. ..	26.2	17.6
Rumania .. ..	43.1	32.0	Denmark .. ..	27.1	17.3
Japan .. ..	32.9	31.6	New South Wales ..	28.2	17.0
Portugal .. ..	34.6	29.0	<b>Australia .. ..</b>	<b>27.4</b>	<b>16.8</b>
Spain .. ..	32.1	27.6	New Zealand .. ..	26.5	16.6
Poland .. ..	37.4	26.5	Belgium .. ..	23.4	16.5
Argentina .. ..	37.1	25.7	U.S. of America(b) ..	(c)	16.4
Union of South Africa			Switzerland .. ..	24.7	16.4
(whites) .. ..	(c)	23.7	France .. ..	19.5	16.3
Italy .. ..	32.4	23.5	Victoria .. ..	25.3	15.6
Canada .. ..	(c)	20.9	South Australia ..	27.1	15.3
Netherlands ..	29.1	20.8	Norway .. ..	26.0	14.9
Tasmania .. ..	29.6	19.9	Great Britain and		
Finland .. ..	29.5	19.8	Ireland .. ..	24.6	14.9
Northern Ireland ..	23.1	19.4	Germany .. ..	29.5	14.7
Czechoslovakia ..	31.1	19.2	England and Wales..	24.9	14.4
Irish Free State ..	23.1	19.2	Sweden .. ..	24.4	13.7

(a) Number of births per 1,000 of the mean population.

(b) Figures for "existing birth-registration area."

(c) Not available.

(e) For 1932.

(ii) *Nuptial Birth Rates at Child-bearing Ages.* The wide discrepancies between the crude birth rates of the various countries are, to some extent, due to differences in sex and age constitution and in conjugal condition. If the birth rates are calculated per 1,000 women of child-bearing ages, the comparison gives more reliable results. A table of results so calculated 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 1933 the figures ranged from 102.26 in Western Australia to 109.46 in South Australia. 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.	1929.	1930.	1931.	1932.	1933.
Total Births ..	104.11	104.73	105.86	105.99	105.39	106.15	105.59	105.64
Ex-nuptial Births ..	105.50	103.10	106.09	105.61	105.15	102.60	106.47	102.83

(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 1929–1933 it was only 5,681, a decline of 20.8 per cent., whereas the annual average total births for the same period declined by 7.3 per cent., from 129,156 to 119,718; hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.55 to 4.74 per cent. of all births.

The numbers of births and the rates from 1901 to 1933 are shown below :—

## EX-NUPTIAL BIRTHS AND BIRTH RATE, AUSTRALIA.

Particulars.	1901.	1911.	1921.	1929.	1930.	1931.	1932.	1933.
Number ..	6,165	7,074	6,463	6,088	5,935	5,841	5,300	5,239
Percentage on Total Births ..	5.99	5.79	4.75	4.70	4.62	4.93	4.78	4.71

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 1933 are as follow :—

## EX-NUPTIAL BIRTHS AND BIRTH RATE, 1933.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
Number ..	2,238	1,244	869	288	349	237	14	..	5,239
Percentage on Total Births	5.06	4.38	5.07	3.24	4.43	5.21	18.92	..	4.71

(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.

(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.	1929.	1930.	1931.	1932.	1933.
Ex-nuptial	1.62	1.57	1.18	0.95	0.92	0.90	0.80	0.79
Nuptial	25.52	25.64	23.77	19.30	18.94	17.26	16.06	15.99
Total	27.14	27.21	24.95	20.25	19.86	18.16	16.86	16.78

(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 legitimized from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. (During 1933, 831 children were legitimized in Australia.)

7. *Multiple Births.*—Among the total number of 111,269 births registered in Australia in 1933, there were 108,983 single births, 2,253 twins, and 33 triplets. The number of cases of twins was 1,143, there being 33 stillbirths, and there were 11 cases of triplets. The total number of mothers was, therefore, 110,137, the proportion of mothers of twins being one in every 96, of mothers of triplets one in every 10,012, and of mothers of all multiple births one in every 95 mothers. Multiple births occurred in 1.01 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.**

Heading.	1911.	1921.	1929.	1930.	1931.	1932.	1933.
Mothers of Multiple Births..	1,236	1,465	1,320	1,439	1,271	1,107	1,154
Percentage on Total Mothers	1.02	1.09	1.03	1.13	1.08	1.01	1.05
Number of Mothers to each Multiple Birth	98	92	97	88	92	99	95

8. Ages of Parents.—The relative ages of the parents of children registered in 1933 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. 51, 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, 1933.

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	792	..	559	222	11	..	..	..	..	..
	Twins	5	..	4	1	..	..	..	..	..	..
20 to 24	Single	13,684	2	3,646	8,587	1,322	107	18	1	1	..
	Twins	85	..	15	60	8	2	..	..	..	..
	Triplets	..	..	..	..	..	..	..	..	..	..
25 to 29	Single	27,818	1	1,433	11,734	12,473	1,929	226	22	..	..
	Twins	233	..	6	75	132	15	5	..	..	..
	Triplets	5	..	..	2	2	1	..	..	..	..
30 to 34	Single	26,207	..	361	4,133	10,893	9,191	1,508	118	2	1
	Twins	291	..	1	28	123	114	24	1	..	..
	Triplets	..	..	..	..	..	..	..	..	..	..
35 to 39	Single	17,080	..	92	1,018	3,554	6,554	5,204	643	14	1
	Twins	253	..	..	3	35	126	84	5	..	..
	Triplets	4	..	..	..	1	3	..	..	..	..
40 to 44	Single	10,893	..	30	372	1,170	2,867	4,189	2,194	70	1
	Twins	142	..	..	3	15	38	66	20	..	..
	Triplets	1	..	..	..	..	1	..	..	..	..
45 to 49	Single	4,837	..	6	126	401	882	1,663	1,551	207	1
	Twins	58	..	..	..	6	10	25	17	..	..
	Triplets	1	..	..	..	..	..	1	1	..	..
50 to 54	Single	1,722	..	7	42	126	294	577	538	137	1
	Twins	24	..	..	..	2	5	10	5	2	..
	Triplets	..	..	..	..	..	..	..	..	..	..
55 to 59	Single	517	..	2	15	49	70	162	187	41	..
	Twins	8	..	..	..	2	1	2	2	1	..
60 to 64	Single	185	..	1	4	12	26	55	63	24	..
	Twins	3	..	..	..	..	..	2	1	..	..
65 and upwards	Single	36	..	1	3	5	12	32	29	4	..
	Twins	1	..	..	..	..	1	..	..	..	..
Unspecified	Single	1	..	..	..	1	..	..	..	..	..
	Twins	..	..	..	..	..	..	..	..	..	..
Mothers of nuptial children	Single	103,822	3	6,138	26,256	30,008	21,932	13,634	5,346	500	5
	Twins	1,103	..	26	170	323	312	218	51	31	..
	Triplets	11	..	2	2	2	2	4	1	..	..
	Total	104,936	3	6,164	26,428	30,333	22,246	13,856	5,398	503	5
Mothers of ex-nuptial children	Single	5,161	25	1,555	1,779	772	493	353	150	20	14
	Twins	40	..	5	14	7	8	4	2	..	..
	Triplets	..	..	..	..	..	..	..	..	..	..
	Total	5,201	25	1,560	1,793	779	501	357	152	20	14
Total Mothers	Single	108,983	28	7,693	28,035	30,780	22,425	13,987	5,496	520	19
	Twins	1,143	..	31	184	330	320	222	53	3	..
	Triplets	11	..	2	2	2	2	4	1	..	..
Total	..	110,137	28	7,724	28,221	31,112	22,747	14,213	5,550	523	19

9. Birthplaces of Parents.—The birthplaces of the parents of children whose births were registered during the year 1933 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.	1933.	1911.	1933.	1911.	1933.
<b>AUSTRALASIA—</b>						
Australia .. ..	94,834	38,898	102,073	92,726	6,570	4,795
New Zealand .. ..	1,257	671	1,201	573	68	33
<b>EUROPE—</b>						
England and Wales ..	9,849	8,986	6,067	7,061	210	224
Scotland .. ..	2,289	2,451	1,486	2,030	46	73
Ireland .. ..	2,138	1,014	1,374	588	46	18
Other British Possessions ..	49	174	20	100	1	..
Western Europe .. ..	607	218	165	69	9	4
Central Europe .. ..	1,185	350	606	194	8	4
Southern Europe .. ..	360	1,253	203	924	6	8
Eastern Europe .. ..	168	143	81	70	..	1
<b>ASIA—</b>						
British Possessions .. ..	217	167	114	110	2	6
Foreign Countries .. ..	317	165	139	109	3	2
<b>AFRICA—</b>						
British Possessions .. ..	111	164	116	140	2	6
Foreign Countries .. ..	11	17	13	17	..	..
<b>AMERICA—</b>						
Canada .. ..	59	71	34	47	3	1
Other British Possessions ..	8	2	5	4	..	..
United States of America ..	182	115	87	81	3	2
Other Foreign Countries ..	70	18	19	30	1	..
<b>POLYNESIA—</b>						
British .. ..	30	24	21	44	1	1
Foreign .. ..	39	21	13	10	6	2
<b>Indefinite</b> .. ..	159	14	102	9	33	21
<b>Total</b> .. ..	113,939	104,936	113,939	104,936	7,018	5,201

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 1933, and the percentage of each class on the total are given in the following table:—

## OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN.—AUSTRALIA.

Occupation Class.	Number of Fathers.			Percentage on Total.		
	1921.	1931.	1933.	1921.	1931.	1933.
Professional .. ..	6,204	5,991	6,033	4.84	5.37	5.75
Domestic .. ..	2,319	2,146	1,848	1.81	1.93	1.76
Commercial .. ..	18,298	16,030	11,024	14.26	14.38	10.51
Transport and Communica- tion .. ..	15,351	12,302	10,403	11.96	11.04	9.91
Industrial .. ..	53,567	49,902	17,739	41.74	44.76	16.90
Agricultural, Pastoral, Min- ing, etc. .. ..	32,405	24,760	23,516	25.25	22.21	22.41
Indefinite .. ..	182	349	34,373 <sup>a</sup>	0.14	0.31	32.76 <sup>a</sup>
<b>Total</b> .. ..	128,326	111,480	104,936	100.00	100.00	100.00

(a) Includes 34,047 (32.44 per cent.) clerks, labourers, etc., where industry was not given, which were formerly included under "Commercial" or "Industrial".

The outstanding feature of the above table is the rapid decline of the agricultural etc., class as disclosed in both sections of the table. The domestic class also shows a smaller percentage in 1933 than in 1921. On the other hand the industrial class has increased rapidly, while the remaining groups have also grown, but at a slower rate. These results, however, merely reflect the changes which have taken place in the occupations of the people. The figures for 1933 are not comparable in all respects with those for previous years as is indicated in the footnote to the preceding table.

**II. Mother's Age, Duration of Marriage, and Issue.**—(i) *General.* The total number of nuptial confinements in 1933 was 104,936, viz., 103,822 single births, 1,103 cases of twins, and 11 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 extenso*, but the following are their most salient features. More complete tabulations are shown in "Australian Demography," Bulletin No. 51 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 1933 was 2.89, the corresponding figures for 1932 and for 1931 being 2.95; for 1930, 2.92; for 1929, 2.96 :—

**DURATION OF MARRIAGE AND ISSUE OF MOTHERS.—AUSTRALIA, 1933.**

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 ..	18,103	18,215	1.01	18-19 ..	1,080	7,650	7.08
1-2 ..	10,375	13,145	1.27	19-20 ..	854	6,361	7.45
2-3 ..	9,626	17,017	1.77	20-21 ..	717	5,689	7.93
3-4 ..	9,005	18,766	2.08	21-22 ..	521	4,460	8.56
4-5 ..	8,380	20,208	2.41	22-23 ..	419	3,776	9.01
5-6 ..	7,384	20,009	2.71	23-24 ..	270	2,506	9.28
6-7 ..	6,340	19,098	3.01	24-25 ..	184	1,828	9.93
7-8 ..	5,261	17,670	3.36	25-26 ..	116	1,179	10.16
8-9 ..	4,444	16,374	3.68	26-27 ..	60	643	10.72
9-10 ..	4,018	16,055	4.00	27-28 ..	29	290	10.00
10-11 ..	3,475	14,898	4.29	28-29 ..	18	194	10.78
11-12 ..	3,121	14,550	4.66	29-30 ..	10	120	12.00
12-13 ..	2,937	14,572	4.96	30-31 ..	7	62	8.86
13-14 ..	2,459	13,004	5.29	31-32 ..	2	27	13.50
14-15 ..	1,862	10,576	5.68	32-33 ..	1	15	15.00
15-16 ..	1,430	8,563	5.99				
16-17 ..	1,249	7,764	6.22				
17-18 ..	1,179	7,823	6.64				
				Total ..	104,936	303,107	2.89

(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 1933 the average issue of mothers of all ages has fallen by 13.46 per cent.—from 3.34 in 1911 to 2.89 in 1933 :—

## AGES AND ISSUE OF MOTHERS.—AUSTRALIA.

Ages of Mothers.	Average Number of Children.				Ages of Mothers.	Average Number of Children.			
	1911.	1921.	1931.	1933.		1911.	1921.	1931.	1933.
Under 20 years ..	1.18	1.16	1.21	1.20	40-44 years ..	6.97	6.27	6.00	6.11
20-24 years ..	1.77	1.64	1.74	1.74	45 years and over ..	8.52	8.04	7.48	7.57
25-29 " ..	2.64	2.44	2.46	2.42					
30-34 " ..	3.82	3.57	3.44	3.41					
35-39 " ..	5.28	4.95	4.71	4.60	All ages ..	3.34	3.08	2.95	2.89

(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, 1933.

Previous Issue.	Mothers' Ages.							Total.
	Under 20 Years.	20-24 Years.	25-29 Years.	30-34 Years.	35-39 Years.	40-44 Years.	45 Years and Over.	
0	5,053	13,616	9,440	3,620	1,272	306	15	33,322
1	1,000	7,911	9,039	5,077	1,936	385	18	25,366
2	106	3,535	5,768	4,475	2,209	563	30	16,686
3	8	1,063	3,361	3,333	2,130	655	33	10,583
4	..	252	1,659	2,335	1,774	632	50	6,702
5	..	44	709	1,580	1,449	597	57	4,436
6	..	7	253	969	1,108	527	50	2,914
7	..	..	82	507	851	472	57	1,969
8	..	..	20	220	531	415	56	1,242
9	..	..	1	93	310	297	43	744
10	..	..	1	25	141	216	33	416
11	..	..	..	9	82	172	22	285
12	..	..	..	..	33	74	16	123
13	..	..	..	3	17	49	18	87
14	..	..	..	..	6	19	7	32
15	..	..	..	..	6	12	2	20
16	..	..	..	..	1	5	..	6
17	..	..	..	..	..	2	1	3
<b>Total Mothers</b>	<b>6,167</b>	<b>26,428</b>	<b>30,333</b>	<b>22,246</b>	<b>13,856</b>	<b>5,398</b>	<b>508</b>	<b>104,936</b>

(v) *Previous Issue of Mothers of Twins and Triplets.* Figures regarding the previous issue of mothers of twins and triplets show that 235 mothers had twins at their first confinement; 255 at their second; 198 at their third; 144 at their fourth; 90 at their fifth; 63 at their sixth; 39 at their seventh; 26 at their eighth; 21 at their ninth; 14 at their tenth; 8 at their eleventh; 5 at their twelfth; 4 at their thirteenth; and 1 at her seventeenth.

Of the 11 cases of triplets registered during 1933, 2 were first, 2 second, 3 third, 1 was fourth, 1 fifth, 1 seventh and 1 ninth 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 1933 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.	1933.	1911.	1921.	1931.	1933.
Under 1 month ..	562	437	395	316	1.81	1.07	1.15	0.95
1 month ..	608	538	523	419	1.96	1.31	1.52	1.26
2 months ..	817	735	750	661	2.63	1.79	2.17	1.98
3 ..	1,125	1,017	1,135	1,029	3.63	2.48	3.29	3.09
4 ..	1,299	1,336	1,409	1,495	4.19	3.26	4.09	4.49
5 ..	1,651	1,781	1,968	2,107	5.33	4.34	5.71	6.32
6 ..	2,089	2,420	2,517	2,790	6.74	5.90	7.30	8.37
7 ..	1,602	2,231	2,022	2,185	5.17	5.44	5.86	6.56
8 ..	1,529	1,950	1,139	1,275	4.93	4.75	3.30	3.83
9 ..	3,361	4,222	2,272	2,347	10.84	10.29	6.59	7.04
10 ..	2,623	3,630	1,859	1,948	8.46	8.85	5.39	5.85
11 ..	1,893	2,645	1,636	1,434	6.11	6.45	4.74	4.30
Total under 1 year	19,159	22,942	17,625	18,006	61.80	55.93	51.11	54.04
1-2 years ..	7,400	11,149	8,888	7,693	23.87	27.18	25.77	23.08
2-3 ..	2,101	2,923	3,441	2,901	6.78	7.13	9.98	8.70
3-4 ..	908	1,413	1,823	1,759	2.93	3.45	5.29	5.28
4-5 ..	471	837	967	1,048	1.52	2.04	2.80	3.15
5-9 ..	762	1,473	1,424	1,603	2.46	3.59	4.13	4.81
10-14 ..	159	223	262	263	0.51	0.54	0.76	0.79
15-19 ..	31	54	50	45	0.10	0.13	0.14	0.14
20 years and over	9	4	6	4	0.03	0.01	0.02	0.01
Total ..	31,000	41,018	34,486	33,322	100.00	100.00	100.00	100.00

The masculinity of first births was 106.21 as compared with 105.59 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 nuptial first births occurring nine months or more after marriage. 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 5 to 6. At all ages up to and including 21, however, there was a great 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. 51, 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 80 per cent. among mothers under 20 years of age to a minimum among mothers 30 to 34 years and then rises rapidly to mothers 45 years and over. In 1931 the minimum was among mothers 25 to 29 years. There was a very slight increase for the group 30-34 years and a rapid rise thereafter:—

## AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, ETC.—AUSTRALIA.

Age of Mother at Birth of Child.	1933.				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.	1933.
	I.	II.	III.	IV.				
Under 20 years	1,585	3,902	5,487	6,638	83.12	79.23	82.60	82.66
20 to 24 years	1,793	6,034	7,827	15,409	53.91	45.82	48.43	50.79
25 to 29 "	779	1,712	2,491	10,219	32.50	25.60	21.89	24.38
30 to 34 "	501	440	941	4,121	28.06	23.05	22.20	22.83
35 to 39 "	357	154	511	1,629	32.64	29.43	30.86	31.37
40 to 44 "	152	35	187	458	36.56	35.31	38.95	40.83
45 and over ..	20	..	20	35	60.47	54.84	48.89	57.14
Total ..	5,187	12,277	17,464	38,509	48.14	39.74	43.80	45.35

13. Interval between Birth and Registration of Birth.—Information was obtained for the years 1911 to 1921 regarding the period which elapsed between birth and registration. A detailed table giving the results for 1921 is contained in Demography Bulletin No. 39, issued by this Bureau. The payment of the maternity allowance tended to accelerate the registration of births; and during the year under review it was found that approximately 35 per cent. were registered in the first week.

Since the granting of the maternity allowance, the average interval between the dates of birth and registration has been found to be about 13 days for all children.

## § 2. Marriages.

i. Marriages, 1933.—The number of marriages registered in Australia during the year ended the 31st December, 1933, was 46,595, giving a rate of 7.03 per 1,000 of the mean population for the year. The number of marriages in each State during 1933 together with the crude marriage rate for a series of years are given hereunder:—

## MARRIAGES.

—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Australia.
No. 1933..	18,399	12,668	6,471	3,973	3,374	1,629	28	53	46,595
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	7.16	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	7.99	7.50	8.13	7.47	6.71	3.54	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	5.15	3.54	7.71
1929 ..	7.80	7.31	6.87	6.50	8.00	7.86	4.47	5.03	7.43
1930 ..	6.86	6.52	6.81	5.78	7.47	6.56	6.21	3.79	6.69
1931 ..	6.02	5.66	6.43	5.33	6.34	6.68	5.93	4.09	5.96
1932 ..	6.73	6.49	6.86	6.29	6.67	6.64	4.46	4.82	6.63
1933 ..	7.07	6.96	6.84	6.84	7.69	7.13	5.75	5.85	7.03

(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; and years 1920-22, 56.02. For years 1930-32 the figure is estimated at 39.21. 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.	1933.	Country.	1908 to 1913.	1933.
Soviet Union ..	8.6	10.6(f)	New South Wales ..	8.8	7.1
Germany ..	7.8	9.7	Tasmania ..	7.9	7.1
Denmark ..	7.3	8.8	Scotland ..	6.7	7.0
Rumania ..	9.5	8.3	Sweden ..	6.0	7.0
Czechoslovakia ..	7.7	8.3	<b>Australia</b> ..	<b>8.4</b>	<b>7.0</b>
Union of South Africa(c)	(d)	8.3(e)	Victoria ..	8.0	7.0
Poland ..	7.0	8.3	Queensland..	8.2	6.8
United States (b) ..	(d)	7.9(e)	Italy ..	7.7	6.8
Switzerland ..	7.3	7.8	South Australia ..	9.1	6.8
Japan ..	9.3	7.8(e)	Finland ..	6.1	6.6(e)
England and Wales ..	7.6	7.8	Portugal ..	6.9	6.5
Great Britain and Ireland ..	7.3	7.7	Argentina ..	6.8	6.2
Western Australia ..	8.1	7.7	Spain ..	7.0	6.2
Belgium ..	7.9	7.6(e)	Norway ..	6.2	6.2
France ..	7.9	7.5	Canada ..	(d)	6.0
Netherlands ..	7.5	7.2	Northern Ireland ..	5.2	5.8
New Zealand ..	8.5	7.2	Ceylon ..	5.2	5.1
			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 1932. (f) For 1929.

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. 51, 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 2,671 males who were less than twenty-one years of age married during 1933, while the corresponding number of females was 10,881. At the other extreme there were 54 men of sixty-five years and upwards who described themselves as bachelors, and 13 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, 1932 and 1933.

## AGES AND CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1933.

Ages at Marriage.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20..	1,257	..	..	1,257	7,597	4	1	7,602
20-24 years	14,547	18	12	14,577	20,366	31	49	20,446
25-29 "	16,323	101	106	16,530	10,710	164	212	11,086
30-34 "	6,680	285	179	7,144	3,208	213	243	3,664
35-39 "	2,392	339	204	2,935	1,180	268	178	1,626
40-44 "	1,029	349	195	1,573	494	264	127	885
45-49 "	502	364	121	987	261	253	73	587
50-54 "	256	289	79	624	122	177	27	326
55-59 "	118	246	23	387	67	112	13	192
60-64 "	64	175	15	254	29	70	3	102
65 years and over ..	54	268	5	327	13	64	2	79
Total ..	43,222	2,434	939	46,595	44,047	1,620	928	46,595
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
1932 ..	92.36	5.75	1.89	100.00	94.36	3.73	1.91	100.00
1933 ..	92.76	5.22	2.02	100.00	94.53	3.48	1.99	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. 51; a condensation into age-groups of five years is given below:—

## RELATIVE AGES OF PERSONS MARRIED.—AUSTRALIA, 1933.

Ages.	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.	
Ages of Bridegrooms.										
Under 20 years ..	1,257	1	894	338	23	1	..	..	..	6
20 to 24 "	14,577	7	4,410	8,593	1,402	135	19	5	..	13
25 to 29 "	16,530	3	1,710	8,357	5,482	819	122	24	..	20
30 to 34 "	7,144	..	402	2,275	2,780	1,312	289	66	..	20
35 to 39 "	2,935	..	116	582	904	691	461	128	..	53
40 to 44 "	1,573	..	34	176	288	386	343	227	..	119
45 to 49 "	987	..	9	81	119	184	189	198	..	207
50 to 54 "	624	..	7	27	44	80	102	126	..	238
55 to 59 "	387	..	7	7	20	33	61	54	..	205
60 to 64 "	254	..	1	4	17	13	22	24	..	173
65 years and over	327	..	1	6	7	10	18	33	..	252
Total Brides ..	46,595	11	7,591	20,446	11,086	3,664	1,626	885	..	1,286

(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:—1929, 25.62; 1930, 25.49; 1931, 25.30; 1932, 25.41; and 1933, 25.42. 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 1929, 29.18; in 1930, 29.20; in 1931, 28.99; in 1932, 29.06; and in 1933, 29.07 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 1933 has already been given. The following table shows the conjugal condition of the contracting parties:—

**PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1933.**

Conjugal Condition.	Total Bridegrooms.	Brides.			
		Spinsters.	Widows.	Divorced.	
Bridegrooms {	Bachelors ..	43,222	41,691	890	641
	Widowers ..	2,434	1,649	620	165
	Divorced ..	939	707	110	122
Total Brides ..	46,595	44,047	1,620	928	

5. Birthplaces of Persons Married.—The following table shows the birthplaces of persons who were married in 1911, 1921 and 1933. In "Australian Demography," Bulletin No. 51, the relative birthplaces of bridegrooms and brides married in 1933 will be found tabulated in detail:—

**BIRTHPLACES OF PERSONS MARRIED.—AUSTRALIA.**

Birthplace.	Bridegrooms.			Brides.		
	1911.	1921.	1933.	1911.	1921.	1933.
<b>AUSTRALASIA—</b>						
Australia ..	31,298	37,925	39,087	33,922	40,137	41,782
New Zealand ..	450	495	443	303	280	326
<b>EUROPE—</b>						
England and Wales ..	3,023	3,590	4,316	1,675	2,488	2,791
Scotland ..	739	867	1,124	460	656	844
Ireland ..	494	470	383	363	281	221
Other British Possessions ..	16	30	47	9	14	15
Western Europe ..	205	175	114	45	45	33
Central Europe ..	311	149	197	92	61	86
Southern Europe ..	62	139	376	21	56	157
Eastern Europe ..	47	83	77	18	21	32
<b>ASIA—</b>						
British Possessions ..	59	59	101	27	24	61
Foreign Countries ..	83	57	48	16	12	27
<b>AFRICA—</b>						
British Possessions ..	42	58	114	20	39	85
Foreign Countries ..	1	3	5	2	5	12
<b>AMERICA—</b>						
Canada ..	44	45	51	6	11	28
Other British Possessions ..	6	8	5	..	5	..
United States of America ..	58	90	56	16	25	43
Other Foreign Countries ..	44	11	11	15	10	16
<b>POLYNESIA—</b>						
British ..	13	9	17	7	11	18
Foreign ..	25	18	8	7	13	4
<b>Indefinite</b> ..	41	22	15	37	19	14
Total ..	37,061	44,213	46,595	37,061	44,213	46,595

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, c.g., during the five years 1929 to 1933, by the number of marriages registered during the five years 1924 to 1928, 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 2.91—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:—1924–28, 2.81; 1925–29, 2.84; 1926–30, 2.88; 1927–31, 2.80; 1928–32, 2.53; and 1929–33, 2.91.

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 1933 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 1933 are shown in the following table:—

## MARRIAGES IN EACH DENOMINATION, 1933.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.	
									No.	Per Cent.
Church of England ..	7,372	3,454	1,924	914	1,224	639	1	19	15,547	33.37
Roman Catholic ..	3,968	2,304	1,484	439	589	249	6	17	9,056	19.44
Methodist ..	2,133	1,803	1,002	1,205	516	269	6	3	6,998	15.02
Presbyterian ..	2,248	2,155	1,030	157	291	119	..	6	6,006	12.89
Baptist ..	337	587	207	150	53	77	..	3	1,414	3.03
Congregational ..	381	210	109	206	91	58	..	..	1,055	2.26
Church of Christ ..	119	422	76	200	53	14	6	..	890	1.91
Lutheran ..	47	74	147	185	6	..	..	..	459	0.99
Salvation Army ..	97	114	47	41	27	14	..	1	341	0.73
Seventh-Day Adventist ..	39	17	19	8	12	5	..	..	100	0.22
Greek Catholic ..	30	13	6	6	14	..	1	..	70	0.15
Unitarian ..	6	1	..	7	..	..	..	..	14	0.03
Other Christian ..	98	45	180	32	17	30	..	..	402	0.86
Hebrew ..	39	67	5	..	7	..	..	..	118	0.25
Registrar's Office ..	1,485	1,342	235	422	474	155	8	4	4,125	8.85
<b>Total ..</b>	<b>18,399</b>	<b>12,668</b>	<b>6,471</b>	<b>3,973</b>	<b>3,374</b>	<b>1,629</b>	<b>28</b>	<b>53</b>	<b>46,595</b>	<b>100.00</b>
<b>Marriages celebrated by Ministers of Religion</b>										
per cent.	91.93	89.41	96.37	89.38	85.95	90.48	71.43	92.45	91.15	..
<b>Marriages celebrated by Civil Officers</b>										
per cent.	8.07	10.59	3.63	10.62	14.05	9.52	28.57	7.55	8.85	..

## § 3. Deaths.

1. Deaths, 1933.—The following table shows the number of deaths, male and female, registered in each State during the year :—

## DEATHS, 1933.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North Terr.	Fed. Cap. Terr.	Australas.
Male ..	12,727	9,308	4,915	2,638	2,373	1,211	53	25	33,250
Female ..	9,595	8,148	3,439	2,266	1,417	981	8	13	25,867
Total ..	22,322	17,456	8,354	4,904	3,790	2,192	61	38	59,117

2. Crude Death Rates.—The crude death rates for the period 1901 to 1933 show a gratifying decrease in the later years though this decrease is modified somewhat when allowance is made for the altered age composition of the population. (*Vide para 3.*)

## CRUDE DEATH RATES.(a)

Year and Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North 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	20.43	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	8.98	9.82	11.83	3.83	9.46
1925 ..	9.07	9.47	9.02	9.22	8.89	9.26	16.18	2.50	9.18
1926 ..	9.44	9.63	9.58	8.81	8.79	8.94	16.20	6.60	9.40
1927 ..	9.46	9.71	9.28	9.07	8.65	9.54	17.06	6.96	9.42
1928 ..	9.21	10.11	9.01	9.02	8.93	9.89	15.89	5.73	9.42
1929 ..	9.82	9.44	9.26	8.80	9.34	9.99	14.52	4.57	9.52
1930 ..	8.39	8.93	8.19	8.46	8.79	8.82	15.43	3.57	8.56
1931 ..	8.32	9.47	8.13	8.49	8.51	9.15	14.09	4.09	8.67
1932 ..	8.27	9.29	8.35	8.58	8.54	8.90	14.81	3.25	8.63
1933—									
Male ..	9.65	10.30	9.91	9.07	10.14	10.50	15.63	5.12	9.87
Female ..	7.48	8.89	7.65	7.81	6.92	8.68	5.41	3.11	7.93
Total ..	8.58	9.59	8.83	8.44	8.64	9.60	12.53	4.20	8.92

(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 1933, on the basis of the crude rates, there is a range of 1.16 per 1,000 persons between the lowest rate in South Australia (8.44) and the highest rate in Tasmania (9.60), whereas the standardized rates increase the range to 2.28 per 1,000, i.e., between 8.76 in South Australia and 11.04 in Western Australia. In its application to the figures for 1933 the process of adjustment slightly altered the relative positions of Western Australia, Victoria and Tasmania, from those determined by the crude rates. Thus Western Australia which was second in the crude rates became sixth; Victoria which was fifth became third and Tasmania was altered from sixth to fifth in order. The index of mortality for each State for 1933 and previous years is shown in the following table:—

INDEX OF MORTALITY.(a)

Year.	States.						Territories.		Aus- tralia.
	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern.	Federal Capital.	
1921	10.35	10.79	10.24	10.38	11.88	10.83	13.71	1.89	10.58
1929	10.96	9.77	10.52	9.09	11.43	10.78	14.53	5.27	10.35
1930	9.37	9.36	9.33	8.80	10.89	9.47	13.01	4.43	9.34
1931	9.41	9.86	9.36	8.81	10.69	9.92	14.49	4.56	9.52
1932	9.36	9.76	9.65	8.91	10.82	9.64	18.77	8.61	9.50
1933	9.75	10.02	10.28	8.76	11.04	10.39	13.47	6.08	9.86

(a) Amended to allow for adjustments to total population figures made necessary by the preliminary results of the Census of the 30th June, 1933, but not for changed age distribution as revealed by the latter Census.

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.	1933.	Country.	1908-13.	1933.
New Zealand ..	9.3	8.0	Argentina ..	17.5	11.5
South Australia ..	10.1	8.4	England and Wales ..	14.1	12.3
New South Wales ..	10.3	8.6	Great Britain and Ireland ..	14.5	12.5
Western Australia ..	10.3	8.6	Belgium ..	15.7	13.1
Queensland ..	10.3	8.8	Scotland ..	15.5	13.2
Netherlands ..	13.9	8.8	Finland ..	16.4	13.3(e)
<b>Australia</b> ..	<b>10.7</b>	<b>8.9</b>	Italy ..	20.4	13.5
Union of South Africa (Whites) ..	(c)	9.3	Irish Free State ..	16.9	13.6
Tasmania ..	10.7	9.6	Czechoslovakia ..	21.0	13.7
Victoria ..	11.7	9.6	Poland ..	21.0	14.2
Canada (including Quebec) ..	(c)	9.6	Northern Ireland ..	16.9	14.3
Norway ..	13.6	10.2	France ..	18.6	15.8
United States (b) ..	(c)	10.6	Spain ..	22.8	16.3
Denmark ..	13.2	10.6	Japan ..	20.5	17.8
Germany ..	16.5	11.2	Rumania ..	24.7	18.7
Sweden ..	14.0	11.2	Soviet Union ..	28.9	18.8(d)
Switzerland ..	15.2	11.4	Ceylon ..	31.4	21.2
			Egypt ..	25.8	28.8

(a) Number of deaths per 1,000 of mean population. (b) Registration area. (c) Not available. (d) For year 1928. (e) For year 1932.

5. **Infantile Deaths and Death Rates.**—(i) *Australia, 1901 to 1933.* 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 307,662 male infants born from 1929 to 1933, 15,302 (49.74 per 1,000) died during their first year of life, while of 298,928 female infants only 11,351 (39.02 per 1,000) died during the first year.

**INFANTILE DEATHS AND DEATH RATES.—AUSTRALIA.**

Period.	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
1929 ..	3,873	2,743	6,616	58.13	43.64	51.10
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

(a) Number of deaths under 1 year per 1,000 live births registered.

(ii) *States, 1901 to 1933.* For the States and Territories the rates of infantile mortality during the period 1901-33 were as follow :—

**INFANTILE MORTALITY RATES.(a)**

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Aus-tralia.
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
1929 ..	56.44	47.23	46.03	40.88	56.13	53.16	18.87	19.61 <sup>b</sup>	51.10
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

(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.	1933.	1911-15.	1921-25.	1933.
	New South Wales ..	31.75	29.97	27.47	39.30	28.14
Victoria ..	33.07	32.19	27.65	39.16	29.74	12.78
Queensland ..	30.73	27.44	28.63	34.95	23.55	14.11
South Australia ..	29.07	27.83	22.25	38.19	26.36	9.88
Western Australia ..	30.87	27.56	23.11	41.56	31.58	13.72
Tasmania ..	32.68	31.73	27.67	38.23	28.71	13.40
Australia ..	31.69	29.91	27.02	38.63	27.97	12.50

These tables disclose the striking decrease in infantile mortality, the rate for 1933 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 1933 numbered 4,397, the mortality rate being 39.52, which is the lowest recorded in Australia. Among the States in 1933 South Australia had the lowest and Queensland the highest rate.

(iii) *Districts.* The total number of births and of deaths of children under one year of age for 1933 are shown in Australian Demography Bulletin, No. 51, Tables 20 and 79, 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 by New Zealand only. The best of the Australian cities, Adelaide, Perth and Sydney are among the cities having the ten lowest rates in the list shown on the next page. The list is headed by Oslo (28), Amsterdam (31) and Adelaide (32), the next seven cities being Stockholm, Auckland, Perth, Sydney, Wellington, San Francisco, and Cape Town. The highest rate recorded in 1933 was 270 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) 1933.	Country.	Infantile Mortality Rate.(a)		Crude Birth Rate.(b) 1933.
	1906-15.	1933.			1906-15.	1933.	
New Zealand ..	61	32	16.6	Great Britain and Ireland ..	..	66	14.9
South Australia..	68	32	15.3	Denmark ..	103	72(e)	17.3
Western Australia	81	37	18.0	Canada (including Quebec) ..	(c)	73	20.9
New South Wales	74	39	17.0	France ..	122	75	16.3
<b>Australia</b> ..	<b>74</b>	<b>40</b>	<b>16.8</b>	Germany ..	168	76	14.7
Victoria ..	76	40	15.6	Northern Ireland	92	79	19.4
Tasmania ..	77	41	19.9	Scotland ..	113	81	17.6
Queensland ..	68	43	18.1	Belgium ..	139	87(e)	16.5
Netherlands ..	115	44	20.8	Italy ..	144	111(e)	23.5
Norway ..	68	47(e)	14.9	Spain ..	156	112	27.6
Switzerland ..	108	48	16.4	Japan ..	151	118(e)	31.6
Sweden ..	74	50	13.7	Czechoslovakia	(c)	127	19.2
United States (Registration Area)	(c)	58	16.4	Hungary ..	205	139	21.5
Union of South Africa (Whites)	(c)	60	23.7	Ceylon ..	(c)	157	38.6
England and Wales ..	113	63	14.4	Soviet Union ..	(c)	173(d)	42.7(e)
Irish Free State	92	65	19.2	Rumania ..	(c)	174	32.0
				Egypt ..	(c)	175(e)	42.9(e)

(a) Number of deaths under 1 year per 1,000 births registered. (b) Number of births per 1,000 of mean population. (c) Not available. (d) For year 1930. (e) For year 1932.



INFANTILE MORTALITY RATES.(a)—VARIOUS CITIES.

City.	Rate of Infantile Mortality.(a)		City.	Rate of Infantile Mortality.(a)	
	1921.	1933.		1921.	1933.
Oslo .. ..	54	28	Sheffield .. ..	99	63
Amsterdam .. ..	54	31	Hamburg .. ..	95	66
Adelaide .. ..	74	32	Birmingham .. ..	82	66
Stockholm .. ..	61	34	Edinburgh .. ..	96	66
Auckland .. ..	54	35	Washington .. ..	83	67
Perth .. ..	81	35	Berlin .. ..	135	68
Sydney .. ..	62	37	Cologne .. ..	140	70
Wellington .. ..	61	38	Breslau .. ..	170	74
San Francisco .. ..	50	40	Manchester .. ..	94	75
Cape Town .. ..	82	40	Leipzig .. ..	136	75
Melbourne .. ..	74	41	Munich .. ..	126	77
Christchurch .. ..	54	42	Paris .. ..	95	78
Brisbane .. ..	62	43	Aberdeen .. ..	108	79
Copenhagen .. ..	67	43	Leeds .. ..	98	81
Newcastle, N.S.W. .. ..	70	46	Johannesburg .. ..	101	81
Hobart .. ..	75	48	Dublin .. ..	123	83
Antwerp .. ..	98	48	Madrid .. ..	..	84
Philadelphia .. ..	78	49	Glasgow .. ..	106	97
Chicago .. ..	84	50	Liverpool .. ..	105	98
Detroit .. ..	83	51	Montreal .. ..	158	98
New York City .. ..	72	53	Belfast .. ..	115	102
Los Angeles .. ..	68	57	Cairo .. ..	..	201
Toronto .. ..	91	58	Madras .. ..	281	263
London .. ..	80	60	Bombay .. ..	402	270
Dresden .. ..	115	61			

(a) Number of deaths under 1 year per 1,000 births registered.

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.—AUSTRALIA, 1933.

Age at Death.	Measles.	Whooping Cough.	Diphtheria.	Erysipelas.	Meningococcal Meningitis.	Pulmonary Tuberculosis.	Tubercular Meningitis.	Tuberculosis, other forms.	Syphilis.	Meningitis.	Convulsions.	Acute Bronchitis.
Under 1 week .. ..	..	..	..	..	..	..	..	..	5	..	13	2
1 week and under 2 weeks .. ..	..	..	..	..	..	..	..	..	..	1	3	3
2 weeks .. ..	..	..	..	..	..	..	..	..	2	2	..	3
3 .. ..	..	2	..	2	..	..	..	..	1	..	..	5
1 month .. ..	..	12	2	3	..	..	..	..	2	4	1	13
2 months .. ..	..	12	1	1	2	..	..	..	4	3	..	2
3 .. ..	..	12	1	1	..	..	..	3	1	2	2	2
4 .. ..	..	2	2	1	1	..	..	1	1	1	2	2
5 .. ..	..	5	..	1	..	..	..	1	1	1	1	2
6 .. ..	..	3	2	1	..	1	..	..	2	3	2	2
7 .. ..	..	6	3	2	..	..	1	..	1	4	1	1
8 .. ..	..	6	1	..	..	1	..	..	..	..	..	1
9 .. ..	..	4	3	..	..	..	2	1	..	5	2	..
10 .. ..	..	4	3	..	1	1	..	..	..	2	..	2
11 .. ..	..	3	6	..	2	..	1	..	2	2	1	..
Total under 1 year .. ..	6	71	23	12	6	3	7	7	23	30	28	37
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
1933 .. ..	0.05	0.64	0.21	0.11	0.05	0.03	0.06	0.06	0.21	0.27	0.25	0.33
Ex-nuptial deaths under 1 year included in above .. ..	..	1	2	3	..	..	1	1	3	1	1	5
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
1933 .. ..	0.19	0.38	0.57	..	..	..	0.19	0.19	0.57	0.19	0.19	0.96

(a) Rate per 1,000 total births.

(b) Rate per 1,000 ex-nuptial births.

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.—AUSTRALIA,  
1933—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	26	13	1	2	..	291	149	1,324	255	302	54	2,437
1 week and under 2 weeks	11	6	..	2	1	59	20	101	18	32	20	279
2 weeks	12	10	..	4	..	30	12	44	8	17	17	161
3 " " 1 month	22	5	..	3	1	23	10	19	4	14	18	120
1 month " 2 mths	43	24	..	16	3	49	23	21	3	11	36	268
2 months	19	11	1	19	1	25	17	10	1	2	23	155
3 " " 4 "	30	14	1	22	2	13	12	6	1	1	31	155
4 " " 5 "	18	8	1	16	4	18	6	1	1	..	14	102
5 " " 6 "	23	13	..	27	3	5	5	3	..	2	15	110
6 " " 7 "	19	11	1	18	4	5	6	1	1	..	22	104
7 " " 8 "	24	11	..	27	3	7	2	..	..	..	22	115
8 " " 9 "	17	13	1	23	6	6	4	..	..	..	19	97
9 " " 10 "	17	6	1	26	3	7	1	..	..	1	28	107
10 " " 11 "	15	10	..	14	4	9	1	1	..	..	16	84
11 " " 1 year	20	5	..	11	3	5	2	1	..	..	28	94
Total under 1 year	316	160	9	230	38	552	270	1,532	292	382	363	4,397
Infantile Mortality (a)—												
1911	2.86	1.90	0.47	16.99	0.72	2.99	..	22.41	4.07	5.58	68.49	
1921	3.08	2.08	0.71	15.01	0.57	3.74	7.64	15.29	5.53	4.16	65.73	
1931	2.82	1.62	0.13	3.26	0.41	4.23	2.60	14.04	2.81	3.29	3.29	42.14
1933	2.85	1.44	0.08	2.07	0.34	4.96	2.43	13.77	2.62	3.43	3.26	39.52
Ex-nuptial deaths under 1 year included in above	12	15	2	27	..	33	29	128	16	14	49	343
Infantile Mortality (b)—												
1925	8.09	2.38	1.11	19.18	0.47	3.64	9.51	20.93	1.90	2.69	6.98	84.83
1931	5.31	3.43	0.34	8.39	0.17	4.28	7.19	21.92	3.08	3.77	5.82	68.65
1933	2.30	2.86	0.38	5.15	..	16.30	5.54	24.43	3.06	2.67	9.35	65.47

(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 1933. The infantile mortality rates for 1911, 1921, 1931 and 1933, have been added for all births, and for 1925, 1931 and 1933, for ex-nuptial births. Particulars for males and females may be found in Bulletin No. 51 of "Australian Demography."

Pre-natal influences, such as malformation, congenital debility, and premature birth, together with injuries at birth, accounted for 2,646, or 60 per cent. of all deaths under one year; and of these 2,646 deaths, 2,019 or 76 per cent., occurred within a week of birth. Among the survivors of the first week, broncho-pneumonia caused the greatest number of deaths. This disease was responsible for 316 deaths, representing 7 per cent. of all deaths under one year, or 2.85 per 1,000 births. Diarrhoea and enteritis caused 230 deaths representing 5 per cent. of all deaths under one year, or 2.07 per 1,000 births.

(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 1933 and the rates in respect of 1925, 1931 and 1933 are shown as an addendum to the preceding table.



7. Deaths at Single Ages and in Age-Groups.—(i) *General.* The 59,117 deaths registered in Australia in the year 1933 will be found tabulated in groups of five years for each State and Territory in Bulletin No. 51 "Australian Demography, 1933." 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, 1933.

Ages.	Males.	Fe- males.	Total.	Ages.	Males.	Fe- males.	Total.
Under 1 week ..	1,397	1,040	2,437	Total 5-9 years ..	467	360	827
1 week and under 2 ..	159	120	279	" 10-14 " ..	367	264	631
2 weeks and under 3 ..	86	75	161	" 15-19 " ..	525	405	930
3 weeks and under 1 month	71	58	129	" 20-24 " ..	678	573	1,251
Total under 1 month	1,713	1,293	3,006	" 25-29 " ..	688	663	1,351
1 month and under 3 ..	250	173	423	" 30-34 " ..	746	703	1,449
3 months and under 6 ..	206	161	367	" 35-39 " ..	880	908	1,788
6 months and under 12	331	270	601	" 40-44 " ..	1,218	980	2,198
Total under 1 year	2,500	1,897	4,397	" 45-49 " ..	1,682	1,169	2,851
1 year and under 2 ..	413	351	764	" 50-54 " ..	1,991	1,367	3,358
2 years ..	225	183	408	" 55-59 " ..	2,377	1,491	3,868
3 " ..	163	136	299	" 60-64 " ..	3,030	1,991	5,021
4 " ..	126	128	254	" 65-69 " ..	3,755	2,614	6,369
Total under 5 years ..	3,427	2,695	6,122	" 70-74 " ..	4,237	2,984	7,221
				" 75-79 " ..	3,475	2,822	6,297
				" 80-84 " ..	2,184	1,950	4,134
				" 85-89 " ..	1,069	1,266	2,335
				" 90-94 " ..	354	517	871
				" 95-99 " ..	60	125	185
				" 100 and over	11	15	26
				Age Unspecified ..	29	5	34
				Total All Ages ..	33,250	25,867	59,117

(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.

8. Deaths of Centenarians.—Particulars concerning the twenty-six persons—eleven males and fifteen females—who died in 1933 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, 1933.

Age.	Locality where Death occurred.	State.	Cause of Death.	Occupation.	Birthplace.	Length of Residence in Australia.	Conjugal Condition.
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## MALES.

105	Crystal Brook	Sth. Aust.	Senility ..	Farmer ..	England ..	86 years ..	Married
104	Yalgoo ..	West. Aust.	" ..	Old-age ..	" ..	80 years ..	Single
				Pensioner			
103	Liverpool ..	N.S.W. ..	" ..	Gardener ..	China ..	75 years ..	"
102	Wellington ..	" ..	" ..	Labourer ..	Ireland ..	50 years ..	Married
102	Hanson ..	Sth. Aust.	" ..	Farmer ..	" ..	75 years ..	"
101	Launceston	Tasmania	" ..	Taxidermist	Scotland ..	79 years ..	"
101	Cairns ..	Queensland	" ..	Not stated	China ..	50 years ..	Single
100	Hawthorn	Victoria ..	" ..	Merchant	Ireland ..	81 years ..	Married
100	Rockahampton	Queensland	" ..	Not stated	Germany ..	56 years ..	"
100	Ipswich ..	" ..	" ..	Farmer ..	Ireland ..	Unknown	"
100	Burnside ..	Sth. Aust.	" ..	Carpenter	England ..	78 years ..	"

## FEMALES.

106	Moree ..	N.S.W. ..	Senility ..	" ..	N.S.W. ..	Native ..	Single
103	Redfern ..	" ..	Fall ..	" ..	Ireland ..	71 years ..	Married
103	Marrickville	" ..	Senility ..	" ..	N.S.W. ..	Native ..	"
103	Hobart ..	Tasmania	" ..	" ..	Tasmania ..	" ..	Single
102	Newtown ..	Victoria ..	" ..	" ..	England ..	100 years	Married
102	Prahran ..	" ..	" ..	" ..	Tasmania ..	Native ..	"
102	Walgett ..	N.S.W. ..	Pneumonia ..	" ..	N.S.W. ..	" ..	"
101	Latrobe ..	Tasmania	Senility ..	" ..	Ireland ..	80 years ..	"
100	English ..	Sth. Aust.	Arterio-	" ..	Germany ..	84 years ..	"
			Sclerosis				
100	Brisbane ..	Queensland	Fractured Femur (Fall)	" ..	Scotland ..	49 years ..	"
100	Ipswich ..	" ..	Senility ..	" ..	England ..	60 years ..	"
100	Essendon ..	Victoria ..	" ..	" ..	Ireland ..	82 years ..	"
100	Camberwell	" ..	" ..	" ..	" ..	55 years ..	"
100	Orbost ..	" ..	" ..	" ..	Unknown	Unknown	"
100	Lithgow ..	N.S.W. ..	" ..	" ..	N.S.W. ..	Native ..	"

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 1933 is shown in the following table:—

## LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1933.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in Australia ..	22,463	18,835	41,298	Resident 25 to 29 years	303	129	432
Resident under 1 year ..	38	12	50	" 30 to 34 " ..	386	154	540
" 1 year ..	13	4	17	" 35 to 39 " ..	327	132	459
" 2 years ..	20	11	31	" 40 to 44 " ..	843	440	1,283
" 3 " ..	29	16	45	" 45 to 49 " ..	1,206	720	1,926
" 4 " ..	43	27	70	" 50 to 54 " ..	1,537	883	2,420
" 5 " ..	66	37	103	" 55 to 59 " ..	663	416	1,079
" 6 " ..	82	63	145	" 60 to 64 " ..	515	453	968
" 7 " ..	76	50	126	" 65 yrs. and over	1,403	1,753	3,156
" 8 " ..	72	78	150	Length of residence not stated ..	1,490	443	1,933
" 9 " ..	74	52	126				
" 10 to 14 years ..	349	314	663				
" 15 to 19 " ..	239	188	427				
" 20 to 24 " ..	1,013	657	1,670				
				Total ..	33,250	25,867	59,117

10. Birthplaces of Persons who Died.—The following table provides a summary of birthplaces of persons whose deaths were registered in 1911 and 1933. More detailed information in respect of 1933 will be found in "Australian Demography," Bulletin No. 51:—

BIRTHPLACES OF PERSONS WHO DIED.—AUSTRALIA.

Birthplace.	1911.			1933.		
	Males.	Females.	Total.	Males.	Females.	Total.
<b>Australasia—</b>						
Australia .. .. .	14,476	12,279	26,755	22,463	18,835	41,298
New Zealand .. .. .	126	79	205	252	191	443
<b>Europe—</b>						
England and Wales .. .. .	5,639	3,541	9,180	5,164	3,567	8,731
Scotland .. .. .	1,666	1,112	2,778	1,370	1,008	2,378
Ireland .. .. .	2,837	2,528	5,365	1,556	1,448	3,004
Other British Possessions .. .. .	40	26	66	34	29	63
Western Europe .. .. .	365	62	427	379	88	467
Central Europe .. .. .	678	292	970	518	296	814
Southern Europe .. .. .	122	15	137	211	43	254
Eastern Europe .. .. .	71	6	77	95	22	117
<b>Asia—</b>						
British Possessions .. .. .	102	28	130	111	34	145
Foreign Countries .. .. .	470	8	478	259	22	281
<b>Africa—</b>						
British Possessions .. .. .	29	18	47	41	27	68
Foreign Countries .. .. .	2	1	3	8	1	9
<b>America—</b>						
Canada .. .. .	73	15	88	46	13	59
Other British Possessions .. .. .	5	6	11	19	4	23
United States of America .. .. .	72	18	90	76	36	112
Other Foreign Countries .. .. .	35	12	47	18	4	22
<b>Polynesia—</b>						
British .. .. .	47	4	51	18	10	28
Foreign .. .. .	44	10	54	43	7	50
Indefinite .. .. .	692	218	910	569	182	751
<b>Total .. .. .</b>	<b>27,591</b>	<b>20,278</b>	<b>47,869</b>	<b>33,250</b>	<b>25,867</b>	<b>59,117</b>

11. Occupations of Males who Died.—Information as to the main groups of the occupations of the 33,250 males who died in Australia in 1933 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.

Occupations in Classes.	Number of Male Deaths.			Percentage on Total.		
	1921.	1931.	1933.	1921.	1931.	1933.
Professional .. ..	1,307	1,534	1,899	4.26	4.82	5.71
Domestic .. ..	830	846	828	2.71	2.66	2.49
Commercial .. ..	2,739	3,727	2,879	8.94	11.72	8.66
Transport and Communica- tion .. ..	1,841	2,189	2,300	6.01	6.89	6.92
Industrial .. ..	8,613	10,330	4,870	28.10	32.49	14.65
Agricultural, Pastoral, and Mining, &c. .. ..	5,711	6,157	6,780	18.63	19.36	20.39
Indefinite .. ..	1,436	1,802	(a)9,975	4.68	5.67	(a)27.29
Dependent .. ..	8,175	5,211	4,619	26.67	16.39	13.89
<b>Total Male Deaths ..</b>	<b>30,652</b>	<b>31,796</b>	<b>33,250</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(a) Includes clerks, labourers, &c., where industry was not given, which were formerly included under "Commercial" or "Industrial" as follow:—1933, 6,889 (20.72 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, 1929 to 1933, 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 1929 to 1933 will be found in full in *Bulletins Nos. 47 to 51 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 1933. Table D shows the number of persons who died in each of the years 1929 to 1933 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, 1933.

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	17	9	4	1	7	1	..	..	39
2. Typhus Fever .. ..	3	1	..	..	..	1	..	..	..	2
3. Small-pox .. ..	6	..	..	..	..	..	..	..	..	..
4. Measles .. ..	7	20	6	20	6	..	..	..	..	52
5. Scarlet Fever .. ..	8	22	4	1	3	1	1	..	..	32
6. Whooping Cough .. ..	9	9	14	10	5	9	5	..	..	52
7. Diphtheria .. ..	10	76	57	27	10	9	10	..	..	189
8a. Influenza—Pneumonic .. ..	11 (a)	121	67	91	12	17	7	..	1	316
8b. Influenza—Other .. ..	11 (b)	59	25	56	7	11	6	..	..	164
10. Tuberculosis of the Respiratory System .. ..	23	606	401	221	142	149	59	1	..	1,579
11a. Tubercular Meningitis .. ..	24	21	18	3	5	2	..	..	..	49
11b. Other Tuberculous Diseases .. ..	25-32	42	53	15	14	4	8	..	..	136
12. Syphilis .. ..	34	43	37	20	4	18	3	..	..	123
13. Malaria .. ..	38	..	1	6	..	1	..	3	..	11
14. Other Infectious or Parasitic Diseases .. ..	*	107	86	48	33	22	14	1	2	313
15. Cancer and other Malignant Tumours .. ..	45-53	1,394	1,034	499	346	254	128	2	2	3,659
16. Tumours, Non-Malignant or of Unspecified Nature .. ..	54, 55	62	32	26	18	10	1	..	..	149
17. Chronic Rheumatism, Gout .. ..	57, 58	17	19	10	6	5	..	..	..	57
18. Diabetes Mellitus .. ..	59	168	110	57	47	24	10	..	..	416
19. Acute and Chronic Alcoholism .. ..	75	21	7	9	3	1	..	..	..	41
20. Other General Diseases .. ..	0	185	127	77	37	30	17	..	1	474
21. Locomotor Ataxy, General Paralysis of Insane .. ..	80, 83	79	38	18	10	12	1	..	..	158
22. Cerebral Hæmorrhage, Embolism, etc. .. ..	82	566	415	170	150	122	57	..	..	1,480
23. Other Diseases of Nervous System and Sense Organs .. ..	0	273	160	117	60	33	29	..	3	675
24. Diseases of the Heart .. ..	90-95	2,860	1,879	946	450	447	285	2	3	6,872
25. Other Diseases of the Circulatory System .. ..	96-103	577	447	178	115	89	42	1	2	1,451
26a. Acute Bronchitis .. ..	106(a)(c)	59	23	19	9	6	1	..	..	117
26b. Chronic Bronchitis .. ..	106(b)(d)	142	100	46	35	20	16	1	1	361
27. Pneumonia (all forms) .. ..	107-109	803	737	317	164	147	104	..	2	2,270
28. Other Diseases of the Respiratory System .. ..	104, 105, 110-114	145	218	121	63	49	28	1	..	625
29a. Diarrhœa and Enteritis (under two years of age) .. ..	119	82	43	28	7	29	11	..	..	200
29b. Diarrhœa and Enteritis (two years and over) .. ..	120	69	53	23	10	18	13	..	..	186
30. Appendicitis .. ..	121	137	82	60	20	32	11	..	..	342
31a. Cirrhosis of the Liver .. ..	124	52	73	32	16	13	4	..	..	190
31b. Other Diseases of the Liver and Biliary Calculi .. ..	125-127	66	61	27	6	9	6	1	..	176
32a. Hernia, Intestinal Obstruction .. ..	122	112	92	50	22	22	11	2	1	312
32b. Other Diseases of the Digestive System .. ..	0	215	162	82	29	48	20	..	1	557
33. Nephritis .. ..	130-132	809	546	281	161	113	40	3	..	1,953
34. Other Diseases of the Genito-Urinary System .. ..	133-139	280	207	141	62	53	27	1	..	771
37. Diseases of the Skin, Bones, etc. .. ..	151-156	109	51	20	10	16	12	2	..	220
38. Congenital Debility, Malformations, Premature Birth, etc. .. ..	157-161	711	478	279	121	110	72	6	4	1,781
39. Senility .. ..	162	373	490	303	154	132	31	9	..	1,492
40. Suicide .. ..	163-171	262	149	102	48	57	14	..	1	633
41. Homicide .. ..	172-175	23	21	7	5	2	..	2	..	60
42. Accidental or Violent Death (except Suicide and Homicide) .. ..	176-198	864	642	311	155	207	95	7	1	2,282
43. Non-specified and Ill-Defined Causes .. ..	199-200	68	38	37	57	12	11	8	..	231
Total—Males .. ..	..	12,727	9,308	4,915	2,638	2,373	1,211	53	25	33,250

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37, 39-44; No. 20:—56, 60-74, 76, 77; No. 23:—78, 79, 84-89; No. 32b:—115-118, 123, 128, 129.



## B—CAUSES OF DEATH.—FEMALES, 1933.

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	11	7	2	1	1	3	..	..	25
2. Typhus Fever .. ..	3	..	..	..	..	1	..	..	..	1
4. Measles .. ..	7	25	7	16	5	..	..	..	..	53
5. Scarlet Fever .. ..	8	32	8	1	1	..	..	..	..	48
6. Whooping Cough .. ..	9	17	24	19	6	3	..	..	..	72
7. Diphtheria .. ..	10	93	69	28	9	4	2	..	..	216
8a. Influenza—Pneumonic .. ..	11(a)	70	63	82	9	13	7	..	1	245
8b. Influenza—Other .. ..	11(b)	58	40	42	6	5	3	..	..	154
10. Tuberculosis of the Respiratory System .. ..	23	345	336	105	119	58	53	1	..	1,017
11a. Tubercular Meningitis .. ..	24	17	21	3	6	2	..	..	..	51
11b. Other Tuberculous Diseases .. ..	25-32	32	30	9	15	1	5	..	..	92
12. Syphilis .. ..	34	9	9	8	3	2	2	..	..	33
13. Malaria .. ..	38	..	1	..	..	..	..	..	..	1
14. Other Infectious or Parasitic Diseases .. ..	73	71	33	12	9	5	1	..	..	204
15. Cancer and other Malignant Tumours .. ..	45-53	1,226	1,115	358	332	158	122	..	1	3,312
16. Tumours, Non-Malignant or of Unspecified Nature .. ..	54, 55	68	56	33	21	15	5	..	..	198
17. Chronic Rheumatism, Gout .. ..	57, 58	28	42	17	10	3	1	..	..	101
18. Diabetes Mellitus .. ..	59	242	186	84	70	37	25	..	..	644
19. Acute and Chronic Alcoholism .. ..	75	3	1	2	1	..	..	..	..	7
20. Other General Diseases .. ..	216	165	85	54	28	19	..	..	..	567
21. Locomotor Ataxy, General Paralysis of Insane .. ..	80, 83	10	8	2	..	1	..	..	..	21
22. Cerebral Hæmorrhage, Embolism, etc. .. ..	82	615	578	168	190	101	73	1	..	1,726
23. Other Diseases of Nervous System and Sense Organs .. ..	*	183	138	92	52	32	25	1	1	524
24. Diseases of the Heart .. ..	90-95	2,156	1,545	598	368	250	211	1	1	5,130
25. Other Diseases of the Circulatory System .. ..	96-103	475	510	131	99	59	53	..	..	1,327
26a. Acute Bronchitis .. ..	106(a)(c)	70	21	13	10	..	3	..	..	117
26b. Chronic Bronchitis .. ..	106(b)(d)	70	77	35	15	10	9	..	..	216
27. Pneumonia (all forms) .. ..	107-109	593	499	253	161	97	59	1	1	1,664
28. Other Diseases of the Respiratory System .. ..	104, 105, 110-114	90	146	44	39	43	15	..	1	378
29a. Diarrhœa and Enteritis (under two years of age) .. ..	119	57	34	22	5	16	5	..	..	139
29b. Diarrhœa and Enteritis (two years and over) .. ..	120	42	68	33	11	16	8	..	..	178
30. Appendicitis .. ..	121	75	45	23	12	12	8	..	..	175
31a. Cirrhosis of the Liver .. ..	124	21	21	12	5	4	1	..	..	64
31b. Other Diseases of the Liver and Biliary Calculi .. ..	125-127	118	98	40	30	15	9	..	..	310
32a. Hernia, Intestinal Obstruction .. ..	122	83	63	32	19	15	15	..	..	227
32b. Other Diseases of the Digestive System .. ..	*	121	91	44	34	21	14	..	..	325
33. Nephritis .. ..	130-132	585	550	246	129	66	32	..	1	1,609
34. Other Diseases of the Genito-Urinary System .. ..	133-139	100	72	52	11	24	11	..	..	275
35a. Post-Abortive Sepsis .. ..	140(a)	32	7	9	14	5	..	..	1	68
35b. Criminal Abortion .. ..	140(b)	34	28	3	2	3	..	..	..	72
35c. Puerperal Septicæmia .. ..	145	34	30	7	9	8	4	..	..	92
36. Other Diseases of Pregnancy and Labour .. ..	141-144, 146-150	146	61	67	23	26	15	..	1	339
37. Diseases of the Skin, Bones, etc. .. ..	151-156	56	38	15	10	6	4	..	..	129
38. Congenital Debility, Malformations, Premature Birth, etc. .. ..	157-161	534	358	235	90	79	63	..	2	1,361
39. Senility .. ..	162	364	550	193	161	80	47	..	..	1,395
40. Suicide .. ..	163-171	65	37	23	12	16	4	..	..	157
41. Homicide .. ..	172-175	15	9	3	8	..	2	..	..	37
42. Accidental or Violent Death (except Suicide and Homicide) .. ..	176-198	271	192	105	55	55	17	..	2	697
43. Non-specified and Ill-Defined Causes .. ..	199-200	15	23	12	12	7	8	2	..	79
<b>Total—Females</b> .. ..	..	9,595	8,148	3,439	2,266	1,417	981	8	13	25,867

\* No. 14:—4, 5, 12, 13, 13-22, 33, 35-37, 39-44; No. 20:—56, 60-74, 6, 7; No. 23:—78, 79, 81, 84-89; No. 32b:—113-118, 123, 128, 129.

## C—CAUSES OF DEATH.—PERSONS, 1933.

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	28	16	6	2	8	4	..	..	64
2. Typhus Fever .. .. .	3	1	..	..	..	2	..	..	..	3
3. Small-pox .. .. .	6	..	..	..	..	..	..	..	..	..
4. Measles .. .. .	7	45	13	36	11	..	..	..	..	105
5. Scarlet Fever .. .. .	8	54	12	2	4	4	4	..	..	80
6. Whooping Cough .. .. .	9	26	38	29	11	13	7	..	..	124
7. Diphtheria .. .. .	10	169	126	55	19	20	16	..	..	405
8a. Influenza—Pneumonic .. .. .	11(a)	191	130	173	21	30	14	..	2	561
8b. Influenza—Other .. .. .	11(b)	117	65	98	13	16	9	..	..	318
10. Tuberculosis of the Respiratory System .. .. .	23	951	737	326	261	207	112	2	..	2,596
11a. Tubercular Meningitis .. .. .	24	38	39	6	11	4	2	..	..	100
11b. Other Tuberculous Diseases .. .. .	25-32	74	83	21	29	5	13	..	..	228
12. Syphilis .. .. .	34	52	46	28	7	20	5	..	..	158
13. Malaria .. .. .	38	..	2	6	..	1	..	3	..	12
14. Other Infectious or Parasitic Diseases .. .. .	*	180	157	81	45	31	19	2	2	517
15. Cancer and other Malignant Tumours .. .. .	45-53	2,620	2,149	857	678	412	250	2	3	6,971
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	54, 55	130	88	59	39	25	6	..	..	347
17. Chronic Rheumatism, Gout .. .. .	57, 58	45	61	27	16	8	1	..	..	158
18. Diabetes Mellitus .. .. .	59	410	296	141	117	61	35	..	..	1,066
19. Acute and Chronic Alcoholism .. .. .	75	24	8	11	4	1	..	..	..	48
20. Other General Diseases .. .. .	*	401	292	162	91	58	36	..	1	1,041
21. Locomotor Ataxy, General Paralysis of Insane .. .. .	80-83	89	46	20	10	13	1	..	..	179
22. Cerebral Hæmorrhage, Embolism, etc. .. .. .	82	1,181	993	338	340	223	130	1	..	3,206
23. Other Diseases of Nervous System and Sense Organs .. .. .	*	456	298	209	112	65	54	1	4	1,199
24. Diseases of the Heart .. .. .	90-95	5,016	3,424	1,544	818	697	496	3	4	12,002
25. Other Diseases of the Circulatory System .. .. .	96-103	1,052	957	309	214	148	95	1	2	2,778
26a. Acute Bronchitis .. .. .	106(a)(c)	129	44	32	10	6	4	..	..	234
26b. Chronic Bronchitis .. .. .	106(b)(d)	212	177	81	50	30	25	1	1	577
27. Pneumonia (all forms) .. .. .	107-109	1,396	1,232	570	325	244	163	1	3	3,934
28. Other Diseases of the Respiratory System .. .. .	104, 105, 110-114	235	364	163	102	92	43	1	1	1,003
29a. Diarrhœa and Enteritis (under two years of age) .. .. .	119	139	77	50	12	45	16	..	..	339
29b. Diarrhœa and Enteritis (two years and over) .. .. .	120	111	121	56	21	34	21	..	..	364
30. Appendicitis .. .. .	121	212	127	83	32	44	19	..	..	517
31a. Cirrhosis of the Liver .. .. .	124	73	94	44	21	17	5	..	..	254
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	184	159	67	36	24	15	1	..	486
32a. Hernia, Intestinal Obstruction .. .. .	122	195	155	82	41	37	26	2	1	539
32b. Other Diseases of the Digestive System .. .. .	*	336	253	126	63	69	34	..	1	882
33. Nephritis .. .. .	130-132	1,394	1,096	527	290	179	72	3	1	3,562
34. Other Diseases of the Genito-Urinary System .. .. .	133-139	380	279	193	73	77	38	1	..	1,041
35a. Post-Abortive Sepsis .. .. .	140(a)	32	7	9	14	5	..	..	1	68
35b. Criminal Abortion .. .. .	140(b)	34	28	3	2	2	3	..	..	72
35c. Puerperal Septicæmia .. .. .	145	34	30	7	9	8	4	..	..	92
36. Other Diseases of Pregnancy and Labour .. .. .	141-144, 146-150	146	61	67	23	26	15	..	1	339
37. Diseases of the Skin, Bones, etc. .. .. .	151-156	165	89	35	20	22	16	2	..	349
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	157-161	1,245	836	514	211	189	135	6	6	3,142
39. Senility .. .. .	162	737	1,040	496	315	212	78	9	..	2,887
40. Suicide .. .. .	163-171	327	186	125	60	73	18	..	1	790
41. Homicide .. .. .	172-175	38	30	10	13	2	2	2	..	97
42. Accidental or Violent Death (except Suicide and Homicide) .. .. .	176-198	1,135	834	416	210	262	112	7	3	2,979
43. Non-specified and Ill-Defined Causes .. .. .	199-200	83	61	49	69	19	19	10	..	310
Total—Persons .. .. .	..	22,322	17,456	8,354	4,904	3,790	2,192	61	38	59,117

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37; 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, 1929 TO 1933.

Abridged Classification.	General Classification Numbers.	1929.	1930.	1931.	1932.	1933.	1933— Rate per 1,000,000 Population.
1. Typhoid Fever .. .. .	1, 2	106	113	103	81	64	10
2. Typhus Fever .. .. .	3	..	2	1	5	3	1
3. Small-pox .. .. .	6	..	..	..	1	..	..
4. Measles .. .. .	7	143	146	45	35	105	16
5. Scarlet Fever .. .. .	8	101	79	74	106	80	12
6. Whooping Cough .. .. .	9	345	330	304	153	124	19
7. Diphtheria .. .. .	10	460	387	423	425	405	61
8a. Influenza—Pneumonic .. .. .	11(a)	646	137	586	195	501	85
8b. Influenza—Other .. .. .	11(b)	373	141	260	154	318	48
10. Tuberculosis of the Respiratory System .. .. .	23	3,002	2,850	2,823	2,661	2,996	392
11a. Tubercular Meningitis .. .. .	24	185	153	152	138	100	15
11b. Other Tuberculous Diseases .. .. .	25-32	277	255	192	205	228	34
12. Syphilis .. .. .	34	146	166	146	164	158	24
13. Malaria .. .. .	38	17	22	24	16	12	2
14. Other Infectious or Parasitic Diseases .. .. .	45-53	674	562	535	609	517	78
15. Cancer and other Malignant Tumours .. .. .	45-53	6,256	6,120	6,589	6,875	6,971	1,051
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	54, 55	332	349	345	360	347	52
17. Chronic Rheumatism, Gout .. .. .	57, 58	162	139	171	152	158	24
18. Diabetes Mellitus .. .. .	59	823	722	902	999	1,060	160
19. Acute and Chronic Alcoholism .. .. .	75	104	74	52	52	48	7
20. Other General Diseases .. .. .	80-83	1,131	1,093	1,102	1,072	1,041	157
21. Locomotor Ataxy, General Paralysis of Insane .. .. .	80-83	174	142	169	144	179	27
22. Cerebral Hæmorrhage, Embolism, etc. .. .. .	82	3,017	2,810	2,884	3,021	3,206	484
23. Other Diseases of Nervous System and Sense Organs .. .. .	*	1,457	1,149	1,105	1,176	1,199	181
24. Diseases of the Heart .. .. .	90-95	9,281	8,626	10,382	11,074	12,002	1,810
25. Other Diseases of the Circulatory System .. .. .	96-103	2,453	2,646	2,537	2,626	2,778	419
26a. Acute Bronchitis .. .. .	106(a)(c)	307	215	226	211	234	35
26b. Chronic Bronchitis .. .. .	106(b)(d)	821	625	640	551	577	87
27. Pneumonia (all forms) .. .. .	107-109	4,948	3,328	3,795	3,441	3,934	593
28. Other Diseases of the Respiratory System .. .. .	104, 105, 110-114	1,073	956	1,008	960	1,003	151
29a. Diarrhœa and Enteritis (under two years of age) .. .. .	119	963	1,078	530	472	339	51
29b. Diarrhœa and Enteritis (two years and over) .. .. .	120	442	464	413	404	364	55
30. Appendicitis .. .. .	121	481	508	518	491	517	78
31a. Cirrhosis of the Liver .. .. .	124	301	276	252	267	254	38
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	440	462	422	477	486	73
32a. Hernia, Intestinal Obstruction .. .. .	122	583	560	523	550	539	81
32b. Other Diseases of the Digestive System .. .. .	*	843	791	832	871	882	133
33. Nephritis .. .. .	130-132	3,406	3,182	3,306	3,440	3,562	537
34. Other Diseases of the Genito-Urinary System .. .. .	133-139	1,076	1,011	1,027	1,079	1,041	157
35a. Post-Abortive Sepsis .. .. .	140(a)	†	†	76	71	68	10
35b. Criminal Abortion .. .. .	140(b)	†	†	71	88	72	11
35c. Puerperal Septicæmia .. .. .	145	222	242	103	84	92	14
36. Other diseases of Pregnancy and Labour .. .. .	141-144, 146-150	436	438	400	375	339	51
37. Diseases of the Skin, Bones, etc. .. .. .	151-156	384	364	324	339	349	53
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	157-161	3,945	3,742	3,259	3,174	3,142	474
39. Senility .. .. .	162	3,532	3,071	2,750	2,750	2,887	435
40. Suicide .. .. .	163-171	785	943	827	754	790	119
41. Homicide .. .. .	172-175	118	103	128	91	97	15
42. Accidental or Violent Death (except Suicide and Homicide) .. .. .	176-198	3,550	3,356	2,937	3,042	2,979	449
43. Non-specified and Ill-Defined Causes .. .. .	199, 200	536	401	287	276	310	47
Total .. .. .	..	60,857	55,331	56,560	56,757	59,117	8,916

\* No. 14:—4, 5, 12, 13, 15-22, 33, 35-37; 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.	1929-33.	1911-15.	1921-25.	1929-33.
1. Typhoid Fever .. .. .	1, 2	2,848	1,209	467	119	42	14
2. Typhus Fever .. .. .	6	6	4	11	..	..	..
3. Small-pox .. .. .	7	1,595	582	474	63	20	15
4. Measles .. .. .	8	237	235	440	10	8	13
5. Scarlet Fever .. .. .	9	1,637	1,612	1,256	69	57	39
6. Whooping Cough .. .. .	10	3,677	2,565	2,100	154	90	64
7. Diphtheria .. .. .	11(a)	1,894	1,508	2,125	79	64	65
8a. Influenza—Pneumonic .. .. .	11(b)	1,344	1,246	..	47	38	..
8b. Influenza—Other .. .. .	14	1	72	..	3	..	..
9. Plague .. .. .	23	15,737	15,321	13,932	659	538	427
10. Tuberculosis of the Respiratory System .. .. .	24	1,156	876	728	43	31	22
11a. Tubercular Meningitis .. .. .	25-32	1,460	1,404	1,157	61	49	35
11b. Other Tuberculous Diseases .. .. .	34	837	632	780	35	22	24
12. Syphilis .. .. .	38	112	150	91	5	5	3
13. Malaria .. .. .	*	2,820	3,063	2,897	118	108	89
14. Other Infectious or Parasitic Diseases .. .. .	45-53	17,838	25,794	32,811	746	906	1,007
15. Cancer and other Malignant Tumours .. .. .	54, 55	546	633	1,733	23	22	53
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	57, 58	552	862	782	23	30	24
17. Chronic Rheumatism, Gout .. .. .	59	2,322	3,355	4,506	97	118	138
18. Diabetes Mellitus .. .. .	75	920	763	330	38	27	10
19. Acute and Chronic Alcoholism .. .. .	*	4,039	5,355	5,439	169	188	167
20. Other General Diseases .. .. .	80-83	1,074	1,118	808	45	39	25
21. Locomotor Ataxy, General Paralysis of Insane .. .. .	82	10,957	13,637	14,938	458	479	458
22. Cerebral Hæmorrhage, Embolism, etc. .. .. .	*	12,550	10,323	6,086	525	363	187
23. Other Diseases of Nervous System and Sense Organs .. .. .	90-95	24,358	31,588	51,365	1,019	1,109	1,576
24. Diseases of the Heart .. .. .	96-103	7,869	7,191	13,040	329	253	400
25. Other Diseases of the Circulatory System .. .. .	106(a)(c)	2,250	1,580	1,193	94	56	37
26a. Acute Bronchitis .. .. .	106(b)(d)	4,962	4,053	3,214	203	142	99
26b. Chronic Bronchitis .. .. .	107-109	15,201	18,400	19,446	636	646	597
27. Pneumonia (all forms) .. .. .	104, 105	4,583	5,781	5,000	192	203	153
28. Other Diseases of the Respiratory System .. .. .	110-114	..	..	..	..	..	..
29a. Diarrhoea and Enteritis (under two years of age) .. .. .	119	15,207	9,866	3,382	636	346	104
29b. Diarrhoea and Enteritis (two years and over) .. .. .	120	4,027	3,144	2,087	169	110	64
30. Appendicitis .. .. .	121	1,761	2,035	2,515	74	71	77
31a. Cirrhosis of the Liver .. .. .	124	1,932	1,531	1,350	81	54	41
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	1,445	1,796	2,287	60	63	70
32a. Hernia, Intestinal Obstruction .. .. .	122	2,336	2,648	2,755	98	93	85
32b. Other Diseases of the Digestive System .. .. .	*	3,968	4,053	4,219	166	142	129
33. Nephritis .. .. .	130-132	10,751	12,803	16,896	450	450	518
34. Other Diseases of the Genito-Urinary System .. .. .	133-139	3,065	4,146	5,234	128	146	161
35a. Post-Abortive Sepsis .. .. .	140(a)	†	†	215†	†	†	7†
35b. Criminal Abortion .. .. .	140(b)	†	†	231†	†	†	7†
35c. Puerperal Septicæmia .. .. .	145	1,072	1,138	743	45	40	23
36. Other Diseases of Pregnancy and Labour .. .. .	141-144	2,060	2,321	1,988	86	82	61
37. Diseases of the Skin, Bones, etc. .. .. .	146-150	..	..	..	..	..	..
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	151-156	994	1,556	1,760	42	55	54
39. Senility .. .. .	157-161	21,410	21,511	17,262	896	755	530
40. Suicide .. .. .	162	20,904	20,429	14,990	875	717	460
41. Homicide .. .. .	163-171	3,123	3,106	4,099	131	109	126
42. Accidental or Violent Death (except Suicide and Homicide) .. .. .	172-175	446	439	537	19	15	16
43. Non-specified and Ill-Defined Causes .. .. .	176-198	14,842	13,875	15,864	621	487	487
	199, 200	3,026	3,460	1,810	127	122	55
Total .. .. .	..	256,337	271,171	288,622	10,726	9,522	8,854

\* 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. † 1931 to 1933 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 105 in 1929 to 64 in 1933, the rate for the latter year being ten per 1,000,000 living, and much lower than the average of 14 for the last five years. Of the 64 who died, 39 were males and 25 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. 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 105 deaths in 1933 of which 52 were males and 53 females. The death rate for the last five years, viz., 15 per 1,000,000, was slightly less than that for the years 1921 to 1925, but 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 80 in 1933. 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 80 deaths registered in 1933, 54 occurred in New South Wales and 12 in Victoria. The rate per 1,000,000 in 1929-33, viz., 13, was the highest for the three periods reviewed on the previous page. The rate for 1933 was 12.

(vi) *Whooping Cough.* During 1933, deaths from whooping cough numbered only 124 (52 males and 72 females) representing a death rate of 19 per 1,000,000 persons, which is less than half the rate for 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 39 per 1,000,000 in 1929-33.

(vii) *Diphtheria.* The number of deaths due to diphtheria was 405 in 1933. Of these deaths (representing a death rate of 61 per 1,000,000 persons) 189 were males and 216 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 1933 were heavy and were well above the average of the years 1929 to 1933. Of the 879 deaths during 1933 from this disease, 561 were ascribed to pneumonic influenza and 318 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 (824), which shows how both the number of deaths and the death rate have declined since the period 1911 to 1915.

During 1933 there were 2,596 deaths (1,579 males and 1,017 females) from tuberculosis of the respiratory system, which compares favourably with the average of 2,907 for the preceding five years. The deaths in 1933 represented a rate of 392 per 1,000,000 persons.

(xi) *Tuberculosis of the Meninges.* The number of deaths ascribed to this cause in 1933 was 100, which is below the average for the preceding five years.

(xib) *Other Forms of Tuberculosis.* The deaths in 1933 include the following :—Tuberculosis of the intestines and peritoneum, 49; spinal column, 52; other bones and joints, 13; skin, 1; genito-urinary system, 34; other organs, 4; acute disseminated tuberculosis, 61; chronic disseminated tuberculosis, 3; and disseminated tuberculosis not specified as acute or chronic, 11.

(xic) *All Forms of Tuberculosis.*—(a) *General.* The total number of deaths in 1933 was 2,924, viz., 1,764 males and 1,160 females.

(b) *Ages at Death.* The following table shows the ages of the 2,924 persons. Corresponding figures are also given for the year 1911 :—

**TUBERCULAR DISEASES.—DEATHS IN AGE-GROUPS, AUSTRALIA.**

Ages.	1911.			1933.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years .. ..	124	114	238	41	47	88
5 years and under 10 .. ..	30	31	61	15	10	25
10 " " 15 .. ..	44	42	86	15	20	35
15 " " 20 .. ..	70	148	218	46	83	129
20 " " 25 .. ..	168	260	428	101	167	268
25 " " 30 .. ..	219	255	474	118	190	308
30 " " 35 .. ..	220	206	426	148	134	282
35 " " 40 .. ..	187	176	363	172	123	295
40 " " 45 .. ..	246	140	386	184	91	275
45 " " 50 .. ..	223	100	323	208	75	283
50 " " 55 .. ..	164	49	213	198	50	248
55 " " 60 .. ..	140	49	189	182	42	224
60 " " 65 .. ..	89	43	132	133	46	179
65 " " 70 .. ..	64	37	101	106	36	142
70 " " 75 .. ..	42	19	61	69	27	96
75 " " 80 .. ..	15	6	21	22	11	33
80 " " over .. ..	7	6	13	4	8	12
Age unspecified .. ..	3	..	3	2	..	2
<b>Total .. ..</b>	<b>2,055</b>	<b>1,681</b>	<b>3,736</b>	<b>1,764</b>	<b>1,160</b>	<b>2,924</b>

(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 1933 is given hereunder :—

**OCCUPATIONS OF MALES WHO DIED FROM TUBERCULAR DISEASES—  
AUSTRALIA.**

Occupation Class.	Number of Male Deaths.			Percentage on Total.		
	1921.	1931.	1933.	1921.	1931.	1933.
Professional .. ..	167	107	118	7.69	5.83	6.69
Domestic .. ..	95	64	59	4.38	3.48	3.34
Commercial .. ..	292	270	161	13.45	14.71	9.13
Transport and Communication	165	170	141	7.60	9.26	7.99
Industrial .. ..	784	694	291	36.11	37.80	16.50
Agricultural, Pastoral, Mining, etc. .. ..	404	303	315	18.61	16.50	17.86
Indefinite .. ..	80	157	559(a)	3.68	8.55	31.69(a)
Dependent .. ..	184	71	120	8.48	3.87	6.80
<b>Total Male Deaths .. ..</b>	<b>2,171</b>	<b>1,836</b>	<b>1,764</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(a) Includes 433 (24.54 per cent.) clerks, labourers, &c., not specified as belonging to any industry, which 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 1933 is given in the next table:—

**LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1933.**

Length of Residence in Australia.	Male.	Fem.	Total.	Length of Residence in Australia.			
				Male.	Fem.	Total.	
Born in Australia ..	1,314	1,007	2,321	Resident 10 years & under 15	34	26	60
Resident under 1 year ..	3	..	3	"  15 " & over " 20	39	12	51
"  1 year ..	1	..	1	"  20 " & over ..	245	78	323
"  2 years ..	5	1	6	Length of residence not stated	67	3	70
"  3 " ..	1	2	3				
"  4 " ..	8	4	12				
"  5 " and under 10	47	27	74	Total Deaths	1,764	1,160	2,924

(e) *Death Rates.* The preceding table and the table on page 817 show that among persons who have lived less than five years in Australia, 213 deaths occurred, and of these, 25, or 11.7 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 1933 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.			1933.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales ..	85	67	76	51	31	41
Victoria ..	101	97	99	52	42	47
Queensland ..	74	58	67	48	26	38
South Australia ..	81	91	86	55	48	52
Western Australia ..	84	71	78	66	30	49
Tasmania ..	90	82	86	58	53	56
Northern Territory ..	293	..	241	30	68	41
Federal Capital Territory ..	..	131	56	..	..	..
<b>Australia ..</b>	<b>88</b>	<b>78</b>	<b>83</b>	<b>52</b>	<b>36</b>	<b>44</b>

State or Territory.	Proportion per 10,000 Deaths from all Causes.					
	1911.			1933.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales ..	737	737	737	526	411	476
Victoria ..	801	936	862	507	475	492
Queensland ..	613	648	626	486	340	426
South Australia ..	775	995	877	610	618	614
Western Australia ..	718	870	770	653	430	570
Tasmania ..	839	854	846	553	612	579
Northern Territory ..	1,356	..	1,231	187	1,250	328
Federal Capital Territory ..	..	2,000	1,000	..	..	..
<b>Australia ..</b>	<b>745</b>	<b>829</b>	<b>780</b>	<b>531</b>	<b>448</b>	<b>495</b>

(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.
Union of South Africa (Whites) ..	1932	31	37	Egypt .. ..	1927	66	85
Queensland .. ..	1933	35	38	Great Britain and Northern Ire-			
New South Wales ..	1933	37	41	land .. ..	1932	68	85
New Zealand .. ..	1933	32	42	Belgium .. ..	1931	71	94
Australia .. ..	1933	39	44	Italy .. ..	1932	76	103
Victoria .. ..	1933	41	47	Northern Ireland ..	1932	83	112
Western Australia	1933	47	49	Irish Free State ..	1933	91	115
South Australia ..	1933	45	52	Sweden .. ..	1932	(a)	116
Ceylon .. ..	1932	(a)	55	Switzerland .. ..	1932	86	116
Tasmania .. ..	1933	49	56	Spain .. ..	1931	104	130
United States (Registration Area) ..	1933	54	60	Norway .. ..	1932	111	136
Netherlands .. ..	1933	43	60	Czechoslovakia ..	1932	132	150
Canada (including Quebec) .. ..	1933	53	65	France .. ..	1931	131	152
Denmark .. ..	1932	(a)	69	Greece .. ..	1931	130	162
Germany .. ..	1930	68	79	Poland(b) .. ..	1933	148	172
Scotland .. ..	1933	60	80	Japan .. ..	1932	132	180
England and Wales	1932	69	84	Hungary .. ..	1932	165	195
				Finland .. ..	1932	191	223

(a) Not available.

(b) In towns with over 100,000 inhabitants.

(xii) *Syphilis.*—In 1933, 158 persons—125 males and 33 females—died from syphilis. The rate per 1,000,000 persons was 24 in 1933 compared with average rates of 24, 22, and 35 for the year groups 1929–33; 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; 6 out of the 12 deaths registered in 1933 occurred in Queensland, 3 in Northern Territory, 2 in Victoria and 1 in Western Australia. The death rate was 2 per 1,000,000 for the quinquennium 1929–33, 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 517 in 1933, including 43 from dysentery, erysipelas 62, lethargic encephalitis 38, acute poliomyelitis 21, meningococcal meningitis 20, tetanus 102, leprosy 5, purulent infection and septicæmia 109, hydatid cysts 53, and other infectious or parasitic diseases 64.

(xv) *Cancer and other Malignant Tumours.*—(a) *General.* The number of deaths from cancer increased continuously to 6,256 in 1929, but declined slightly to 6,120 in 1930, and rose again to 6,589 in 1931, 6,875 in 1932 and 6,971 in 1933. Of the deaths registered, 3,659 were of males, viz., 1,394 in New South Wales, 1,034 in Victoria, 499 in Queensland, 346 in South Australia, 254 in Western Australia, 128 in Tasmania, 2 in the Northern Territory and 2 in Federal Capital Territory; while 3,312 were of females, viz., 1,226 in New South Wales, 1,115 in Victoria, 358 in Queensland, 332 in South Australia, 158 in Western Australia, 122 in Tasmania and 1 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 1933 will be found in Bulletin No. 51 of "Australian Demography." A summary regarding type and seat of disease for the year 1933 is given on the next page.



## DEATHS FROM CANCER.—TYPE AND SEAT OF DISEASE, AUSTRALIA, 1933.

Type of Disease.	Males.	Females	Persons.	Seat of Disease.	Males.	Females	Persons.
Cancer .. ..	332	287	619	Buccal Cavity and Pharynx ..	348	43	391
Carcinoma—				Digestive Tract and Peritoneum ..	2,182	1,491	3,673
Carcinoma Simplex	2,672	2,463	5,135	Respiratory Organs	215	88	303
Epithelioma ..	171	83	254	Uterus .. ..	..	504	504
Scirrhus .. ..	..	40	40	Other Female Genital Organs ..	..	194	194
Rodent Ulcer ..	37	20	57	Breast .. ..	4	623	627
Adeno-Carcinoma	22	43	65	Male Genito-Urinary Organs ..	..	533	533
Colloid Carcinoma	1	4	5	Skin .. .. .	140	88	228
Paget's Disease ..	..	2	2	Other or Unspecified Organs ..	237	281	518
X-Ray Carcinoma ..	1	..	1				
Sarcoma—							
Sarcoma .. ..	151	110	261				
Myeloma .. ..	2	3	5				
Endothelioma ..	6	6	12				
Melanoma—							
Melanotic Sarcoma	14	18	32				
Melano-Carcinoma	2	7	9				
Embryonic Tumours—							
Hypernephroma	10	12	22				
Teratoma .. ..	1	..	1				
Chorio-Epithelioma	..	3	3				
Malignant Disease..	237	211	448				
Total Deaths	3,659	3,312	6,971	Total Deaths	3,659	3,312	6,971

(c) *Ages at Death.* The ages of the persons who died from cancer in 1911 and 1933 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 1933. 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.			1933.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 15 years .. ..	21	8	29	19	16	35
15 years and under 20 ..	10	6	16	12	6	18
20 " " 25 .. ..	10	7	17	25	9	34
25 " " 30 .. ..	12	17	29	23	29	52
30 " " 35 .. ..	25	35	60	33	43	76
35 " " 40 .. ..	29	59	88	49	105	154
40 " " 45 .. ..	81	100	181	99	195	294
45 " " 50 .. ..	132	173	305	158	266	424
50 " " 55 .. ..	208	203	411	242	350	592
55 " " 60 .. ..	203	179	382	331	368	699
60 " " 65 .. ..	243	177	420	542	429	971
65 " " 70 .. ..	306	194	500	675	453	1,128
70 " " 75 .. ..	203	160	363	730	437	1,167
75 " " 80 .. ..	150	136	286	453	344	797
80 " " 85 .. ..	83	67	150	194	156	350
85 years and over .. ..	44	39	83	74	106	180
Unspecified .. ..	1	..	1	..	..	..
Total Deaths .. ..	1,761	1,560	3,321	3,659	3,312	6,971

(d) *Occupations.* A tabulation in summarized form of occupations of the males who died from cancer in 1921, 1931 and 1933, 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 Class.	Number of Male Deaths.			Percentage on Total.		
	1921.	1931.	1933.	1921.	1931.	1933.
Professional .. .. .	133	188	218	5.45	5.40	5.96
Domestic .. .. .	76	97	121	3.11	2.78	3.31
Commercial .. .. .	275	446	352	11.27	12.80	9.62
Transport and Communica- tion .. .. .	212	295	324	8.69	8.47	8.85
Industrial .. .. .	940	1,346	632	38.52	38.63	17.27
Agricultural, Pastoral, Mining, etc. .. .. .	639	843	855	26.19	24.20	23.37
Indefinite .. .. .	129	130	1,123 <sup>a</sup>	5.29	3.73	30.69 <sup>a</sup>
Dependent .. .. .	36	139	34	1.48	3.99	0.93
<b>Total Male Deaths ..</b>	<b>2,440</b>	<b>3,484</b>	<b>3,659</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

(a) Includes 866 (23.68 per cent.) clerks, labourers, &c., not specified as belonging to any industry, which 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 1933:—

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.			1933.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales .. .. .	77	71	74	106	96	101
Victoria .. .. .	80	85	82	114	122	118
Queensland .. .. .	71	56	64	101	80	91
South Australia .. .. .	70	76	73	119	115	117
Western Australia .. .. .	65	57	62	109	77	94
Tasmania .. .. .	77	60	69	111	108	109
Northern Territory .. .. .	37	..	30	59	..	41
Federal Capital Territory .. .. .	99	..	56	41	24	33
<b>Australia .. .. .</b>	<b>75</b>	<b>72</b>	<b>74</b>	<b>109</b>	<b>102</b>	<b>105</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, 1,179 were due to cancer in 1933, as against 693 per 10,000 total deaths in 1911.

## DEATHS FROM CANCER—PROPORTIONS ON 10,000 DEATHS.

State or Territory.	1911.			1933.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales ..	662	783	713	1,095	1,278	1,174
Victoria .. .. .	637	819	719	1,111	1,368	1,231
Queensland .. ..	586	628	602	1,015	1,041	1,026
South Australia ..	675	828	745	1,312	1,465	1,383
Western Australia ..	557	700	605	1,070	1,115	1,087
Tasmania .. .. .	723	629	680	1,057	1,244	1,141
Northern Territory ..	170	..	154	377	..	328
Federal Capital Territory ..	2,000	..	1,000	800	769	789
<b>Australia .. .. .</b>	<b>638</b>	<b>769</b>	<b>693</b>	<b>1,100</b>	<b>1,280</b>	<b>1,179</b>

(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 41 while the rate for cancer increased by 38 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 1929-33, 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
1929-33 ..	56	41	48	104	97	101

(a) Number of deaths per 100,000 of mean population.

(b) *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	Hungary .. .. .	1932	102
Greece .. .. .	1931	41	<b>Australia .. .. .</b>	<b>1933</b>	<b>105</b>
Japan .. .. .	1932	68	Irish Free State ..	1933	105
Spain .. .. .	1933	68	New Zealand .. ..	1933	111
Italy .. .. .	1932	72	Czechoslovakia ..	1932	119
Finland .. .. .	1932	80	Northern Ireland ..	1932	124
Ceylon .. .. .	1932	83	Sweden .. .. .	1931	125
Union of South Africa			Netherlands .. ..	1933	125
(Whitas) .. .. .	1932	89	Norway .. .. .	1932	129
France .. .. .	1931	96	Germany .. .. .	1930	134
Poland(a) .. .. .	1933	99	Denmark .. .. .	1932	146
Belgium .. .. .	1931	100	Switzerland .. ..	1932	148
Canada (including			Great Britain and		
Quebec) .. .. .	1933	100	Northern Ireland ..	1932	151
United States (Regis-			England and Wales ..	1932	151
tration Area) ..	1933	102	Scotland .. .. .	1933	153

(a) In towns with over 100,000 inhabitants.

(xvi) *Tumours, Non-malignant or of Unspecified Nature.* The number of deaths in 1933 was 347, including 143 deaths from non-malignant tumours, viz.—female genital organs 72, brain 37, other organs 34; and 204 deaths from tumours of undetermined nature, viz.—female genital organs 4, brain 133, other organs 67. The rate per million was 52 for 1933 and 53 for the period 1929–33. 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 1933 numbered 158, viz.—57 males and 101 females. The rate per million for 1929–33 was lower than for 1921–25, but higher than for 1911–15.

(xviii) *Diabetes Mellitus.* Table E, page 824, shows that both the number of deaths and the rate per million persons have been steadily increasing. The rate per million for 1929–33 was 138 as compared with 97 for 1911–15. In 1933, the number of deaths from this cause was 1,060, viz.—416 males, and 644 females—representing a rate of 160 per million persons.

(xix) *Acute and Chronic Alcoholism.* Deaths from this cause have been decreasing rapidly. The number of deaths in 1933 was 48, with a rate per million persons of only 7. 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 842.

(xxi) *Locomotor Ataxy, General Paralysis of the Insane.* The number of deaths in 1933 was 179, viz.—locomotor ataxy 55 males, 5 females; general paralysis of the insane, 103 males, 16 females. The rate per million persons was 25 for the period 1929–33, 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 1933 are made up as follows:—Cerebral hæmorrhage and apoplexy, 1,080 males, 1,239 females; cerebral embolism, 27 males, 43 females; cerebral thrombosis, 253 males, 335 females; softening of the brain, 18 males, 19 females; hemiplegia and paralysis without specified cause, 102 males, 90 females.

Cerebral hæmorrhage, etc., associated with arterio-sclerosis is not now included in this group but forms part of group (xxv.), q.v.

The total of the group, viz., 3,206, ranks sixth in magnitude of the causes shown on p. 823 and corresponds to a death rate of 484 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 187 in 1929–33. The number of deaths in 1933 was 1,199 representing a rate of 181 per million persons.

(xxiv) *Diseases of the Heart.* The number of deaths in 1933 was 12,002, viz., 6,872 males and 5,130 females. Of these deaths, 44 were attributed to pericarditis, 153 to acute infective endocarditis, 31 to other acute endocarditis, 335 to aortic valve disease, 731 to mitral valve disease, 76 to aortic and mitral valve disease, 142 to endocarditis not returned as acute or chronic, 788 to other and unspecified valve disease, 83 to acute myocarditis, 130 to fatty heart, 4,717 to other myocardial degeneration, 1,746 to myocarditis not returned as acute or chronic, 1,065 to diseases of coronary arteries, 652 to angina pectoris, 359 to disordered action of the heart, 77 to cardiac dilatation (cause unspecified), and 873 to heart disease undefined. The sex and territorial distribution of the deaths will be found in the tables on pages 820 to 822. This class is the largest

among causes of death, the death rate having grown from 1,019 per million in 1911-15 to 1,576 in 1929-33. The death rates and proportions per 10,000 deaths in 1933 were as follow :—

**DEATH RATES<sup>(a)</sup> FROM DISEASES OF THE HEART AND PROPORTION OF  
10,000 TOTAL DEATHS, 1933.**

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 ..	217	168	193	2,247	2,247	2,247
Victoria .. .. .	208	169	188	2,019	1,896	1,962
Queensland .. ..	191	133	163	1,925	1,739	1,848
South Australia ..	155	127	141	1,706	1,624	1,668
Western Australia ..	191	122	159	1,884	1,764	1,842
Tasmania .. .. .	247	187	217	2,353	2,151	2,258
Northern Territory ..	59	68	62	377	1,250	492
Federal Capital Territory ..	62	24	44	1,200	769	1,053
<b>Australia .. .. .</b>	<b>204</b>	<b>157</b>	<b>181</b>	<b>2,067</b>	<b>1,983</b>	<b>2,030</b>

(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 1933 the number of deaths from arterio-sclerosis with record of cerebral vascular lesion (i.e., in association with cerebral hæmorrhage, etc.) was 1,340 and without such record, 984. For further particulars see Table F, p. 842.

(xxvii) *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 234 deaths in 1933, viz., 117 males and 117 females.

(xxviii) *Chronic Bronchitis.* (See xxvii) The deaths from this cause in 1933 numbered 577, viz., 361 males and 216 females, which was below the average for the previous four years, and much lower than the average for earlier periods.

(xxix) *Pneumonia (all forms).* The deaths from pneumonia (all forms) during 1933 were 3,934—2,270 males and 1,664 females—and were equivalent to a rate of 593 per million persons. The average rate for 1929-33 was 597, and for 1911-15 636 per million persons. The total of 3,934 deaths is made up of 1,722 from broncho-pneumonia, 19 from capillary bronchitis, 1,270 from lobar pneumonia and 923 from pneumonia, other and unspecified.

(xxviii) *Other Diseases of the Respiratory System.* Deaths under this heading in 1929 numbered 1,073; in 1930, 956; in 1931, 1,008; in 1932, 960; and in 1933, 1,003. For causes of death included under this head see Table F, p. 842.

The experience of deaths from diseases of the respiratory system in 1933 was favourable, the number being 4 per cent. below the average of the previous five years, though somewhat higher than in 1932. The death rate of 866 per million shows a gratifying decrease on those of 886, 1,048, and 1,130 for the respective periods 1929-33, 1921-25, and 1911-15.

(xxixa) *Diarrhœa and Enteritis (Children under two years of age).* The number of deaths due to these causes was 339 in 1933, and was the lowest number recorded for many years. During 1933, 5,161 children died before reaching their second birthday, and of these 339, or 6.6 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 814.

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, 1929-33, and 1933 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
„	1929-33	„ 7.0	„ 5.5	„ 6.3

DEATHS, DEATH RATES(a), ETC., DIARRHŒA AND ENTERITIS (UNDER 2 YEARS OF AGE).—AUSTRALIA, 1933.

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	82	57	139	6	4	5	64	59	62
Victoria ..	43	34	77	5	4	4	46	42	44
Queensland ..	28	22	50	6	5	5	57	64	60
South Australia..	7	5	12	2	2	2	27	22	24
Western Australia	29	16	45	12	8	10	122	113	119
Tasmania ..	11	5	16	9	4	7	91	51	73
Australia, 1933 ..	200	139	339	6	4	5	60	54	57
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	306	364
1929-33 ..	393	283	676	12	9	10	121	112	117

(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., 364, compared favourably with the average of 417 for the period 1929 to 1933.

(xxx) *Appendicitis and Typhlitis*. Deaths under this heading numbered 517 in 1933, including 342 males and 175 females. The death rate has remained fairly constant during the periods under review, being 74 per million in 1911-15, 72 in 1921-25, 77 in 1929-33, and 78 in 1933.

(xxxia) *Cirrhosis of the Liver*. The deaths from this cause during 1933 numbered 254, and included 28 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 14, from other diseases of the liver 46, from biliary calculi 211, and from other diseases of the gall bladder and ducts 215—giving a total of 486 for the group.

(xxxiiia) *Hernia, Intestinal Obstruction*. The deaths under this heading have not varied greatly from year to year, the number registered in 1933 being 539, viz., hernia, 177, and intestinal obstruction, 362.

(xxxiiib) *Other Diseases of the Digestive System*. For causes included, see Table F, p. 842. The total number of deaths in 1933 was 882.

(xxxiiil) *Acute and Chronic Nephritis*. Of the 3,562 deaths registered in 1933, 176 were ascribed to acute nephritis, and 3,111 to chronic nephritis. Nephritis is amongst the most prolific causes of death, and accounted in 1933 for a death rate of 537 per million persons. The death rate for the period 1929-33, viz., 518 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 1,041 deaths in 1933, the most frequent cause being diseases of the prostate with 452 deaths. For further particulars see Table F, p. 842.

(xxxv) *Puerperal Septicæmia (including Post-Abortive Sepsis, 354, but excluding Criminal Abortion, 35B)*. The 160 deaths from puerperal septicæmia during 1933 showed a decrease from the average of the previous five years. The rate was 1.44 per 1,000 live births. The corresponding rates during the preceding five years were:—1928, 2.05; 1929, 1.71, 1930, 1.88; 1931, 1.51; and 1932, 1.40. It is probable that some of the deaths now included under "Criminal Abortion" and excluded from figures affecting the rate for 1933, may have been classified with puerperal septicæmia in previous years. The rate in 1933 per 1,000 live births of 232 deaths from puerperal septicæmia, including criminal abortion, was 2.09. The 232 deaths mentioned above were made up as follow:—Post-abortive sepsis 68, criminal abortion 72, puerperal septicæmia 92. 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.
Japan .. .. .	1932	0.76	1.78	2.54
Norway .. .. .	1932	1.00	1.62	2.62
Sweden .. .. .	1932	1.01	1.65	2.66
France. .. .. .	1931	0.94	1.75	2.69
Italy .. .. .	1932	1.17	1.81	2.98
Netherlands .. .. .	1933	0.94	2.22	3.16
Hungary .. .. .	1932	2.12	1.62	3.74
Spain .. .. .	1931	2.33	1.47	3.80
Egypt .. .. .	1927	1.52	2.28	3.80
Denmark .. .. .	1930	1.18	2.65	3.83
England and Wales .. .. .	1932	1.55	2.49	4.04
Czechoslovakia .. .. .	1932	2.52	1.76	4.28
Irish Free State .. .. .	1933	1.36	2.96	4.32
Switzerland .. .. .	1932	1.57	2.78	4.36
New Zealand .. .. .	1933	1.64	2.80	4.44
Victoria .. .. .	1933	1.31	3.14	4.45
Great Britain and Northern Ireland .. .. .	1932	1.75	2.77	4.52
Tasmania .. .. .	1933	0.88	3.95	4.83
Canada (including Quebec) .. .. .	1933	1.55	3.42	4.97
Belgium .. .. .	1931	1.64	3.33	4.97
Queensland .. .. .	1933	0.93	4.08	5.01
Australia .. .. .	1933	1.44	3.70	5.14
Western Australia .. .. .	1933	1.66	3.55	5.21
Union of South Africa (Whites) .. .. .	1932	2.80	2.51	5.32
Northern Ireland .. .. .	1932	1.55	3.79	5.34
South Australia .. .. .	1933	2.58	2.80	5.38
Germany .. .. .	1930	2.75	2.63	5.38
New South Wales .. .. .	1933	1.49	4.07	5.56
Greece .. .. .	1931	2.97	2.65	5.62
Scotland .. .. .	1933	2.46	3.47	5.93
United States (Registration Area) .. .. .	1933	2.31	3.93	6.24
Ceylon .. .. .	1927	6.48	11.02	17.50

(xxxvi) *Other Diseases of Pregnancy and Labour.* The deaths under this heading numbered 436 in 1929; 438 in 1930; 400 in 1931; 375 in 1932; and 339 in 1933. Included in the 339 deaths in 1933 were the following:—Abortion not returned as septic, 31; ectopic gestation, 27; other accidents of pregnancy, 6; puerperal hæmorrhage, 61; puerperal albuminuria and convulsions, 91; other toxæmias of pregnancy, 30; phlegmasia alba dolens, embolism or sudden death, 40; other accidents of childbirth, 43; other or unspecified conditions of the puerperal state, 10.

(xxxvii) *All Puerperal Causes.* The 571 deaths in 1933 under the two preceding headings correspond to a death rate of 17.5 per 100,000 females. The death rate may be expressed in other terms by stating that 1 of every 193 women confined in 1933 died from puerperal causes. The corresponding ratios for married women were 1 of every 206, and for single women 1 of every 84. More detailed information will be found in a series of tables in Bulletin No. 51 "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 1,466, an average of 2.6 children per mother



Thirty of the mothers who died had been married less than one year, 55 between one and two years, and 27 between two and three years. The duration of marriage ranged up to 29 years, apart from 3 cases in which the date of marriage was not stated. A tabulation, distinguishing the ages at marriage, will be found in Bulletin, No. 51 "Australian Demography," which also includes a table showing in combination the duration of marriage and previous issue.

(xxxvii) *Diseases of the Skin, Bones, etc.* The number of deaths in 1933 was 349, made up as follows:—Carbuncle 47, cellulitis 81, other diseases of the skin and annexe 46, osteomyelitis 123, other diseases of the bones (tuberculosis and rheumatism excepted) 21, diseases of the joints and other organs of locomotion 31.

(xxxviii) *Congenital Malformation, Debility, and Premature Birth.* The deaths under this heading in 1933 numbered 3,142, of which 3,028 were of children under one year of age. Of all deaths of children under one year of age 69 per cent. were due to those causes. The number of deaths for 1933 is given in the following table:—

## DEATHS FROM CONGENITAL DEBILITY, ETC., AND MALFORMATION, 1933.

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	141	122	263	425	323	748	145	89	234
Victoria ..	104	77	181	258	189	447	116	92	208
Queensland ..	64	44	108	161	154	315	54	37	91
South Australia	27	15	42	67	59	126	27	16	43
Western Australia	25	17	42	59	52	111	26	10	36
Tasmania ..	21	8	29	37	36	73	14	19	33
Northern Territory	..	..	..	1	..	1	5	..	5
Federal Capital Territory ..	1	..	1	1	2	3	2	..	2
Australia ..	383	283	666	1,009	815	1,824	389	263	652
Number of deaths under one year	326	226	552	1,009	815	1,824	389	263	652
Number of deaths under one year per 1,000 births	5.70	4.18	4.96	17.65	15.06	16.39	6.81	4.86	5.86

(xxxix) *Senility.* In 1933, 2,887 deaths were attributed to this cause:—1,492 males and 1,395 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 1933 was 435 per million. For the three quinquennia tabulated on page 824 the rate has declined from 875 per million in 1161-15 to 717 in 1921-25 and to 460 in 1929-33, but this decrease is, no doubt, partly due to greater accuracy of classification.

(xl) *Suicide.*—(a) *General.* Deaths by suicide have shown an increase each year since 1922 until 1930 since when they have shown decreases and increases in alternate years. The number of suicides in 1928, was 777—635 males and 142 females; in 1929, 785—644 males and 141 females; in 1930, 943—791 males and 152 females; in 1931, 827—689 males and 138 females; in 1932, 754—598 males and 156 females; and in 1933, 790—633 males and 157 females.

(b) *Modes Adopted.* The modes adopted by persons who committed suicide in the years 1926-30, 1932 and 1933 were as follow :—

**SUICIDES, MODES ADOPTED.—AUSTRALIA.**

Mode of Death.	Males.			Females.			Persons.		
	Average of 5 years, 1926-30.	1932.	1933.	Average of 5 years, 1926-30.	1932.	1933.	Average of 5 years, 1926-30.	1932.	1933.
Poisoning .. .. .	156	127	129	62	70	72	218	197	201
Poisonous gas .. .. .	25	32	40	9	24	18	34	55	58
Hanging or Strangulation .. .. .	93	83	87	22	15	16	115	98	103
Drowning .. .. .	41	45	46	18	23	23	59	68	69
Firearms .. .. .	197	169	196	7	5	9	204	174	205
Cutting or piercing instruments .. .. .	104	97	83	12	9	9	116	106	92
Jumping from a high place .. .. .	9	19	21	4	5	7	13	24	28
Crushing .. .. .	15	14	20	4	1	2	19	15	22
Other Modes .. .. .	10	13	11	3	4	1	13	17	12
<b>Total</b> .. .. .	<b>650</b>	<b>598</b>	<b>693</b>	<b>141</b>	<b>156</b>	<b>157</b>	<b>791</b>	<b>754</b>	<b>790</b>

(c) *Death Rates.* The death rates from suicide and the proportion per 10,000 of total deaths are given in the following table for 1933 : corresponding rates for the periods 1911-15, 1921-25, 1926-30, 1931, and 1932, are shown at the foot of the table :—

**SUICIDE.—DEATHS, DEATH RATES(a), AND PROPORTION OF TOTAL DEATHS, 1933.**

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	262	65	327	20	5	13	206	68	146
Victoria ..	149	37	186	17	4	10	160	45	107
Queensland ..	102	23	125	21	5	13	208	67	150
South Australia	48	12	60	17	4	10	182	53	122
Western Australia	57	16	73	24	8	17	240	113	193
Tasmania ..	14	4	18	12	4	8	116	41	82
Northern Territory	..	..	..	..	..	..	..	..	..
Federal Capital Territory ..	1	..	1	21	..	11	400	..	263
Australia—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	56	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 1933, it will be seen that both extreme youth and extreme old age are represented :—

## AGES OF PERSONS WHO COMMITTED SUICIDE.—AUSTRALIA, 1933.

Ages.	M.	F.	Total.	Ages.		M.	F.	Total.
10 years and under 15	..	..	..	60 years and under 65				
15 .. .. 20	17	11	28	65 .. .. 70	49	2	51	
20 .. .. 25	42	19	61	70 .. .. 75	38	5	43	
25 .. .. 30	57	22	79	75 .. .. 80	24	4	28	
30 .. .. 35	43	19	62	80 .. .. 85	19	..	19	
35 .. .. 40	61	17	78	85 .. .. 90	4	2	6	
40 .. .. 45	58	14	72	90 .. .. 95	..	..	..	
45 .. .. 50	72	16	88	95 .. .. 100	..	..	..	
50 .. .. 55	81	11	92	Not stated	..	..	..	
55 .. .. 60	65	15	80		3	..	3	
				Total Deaths ..	633	157	790	

(e) *Occupations of Males.* The next table gives the occupations of the males who committed suicide in 1921, 1931 and 1933 :—

## OCCUPATIONS OF MALES WHO COMMITTED SUICIDE.—AUSTRALIA.

Occupation Class.	Number of Male Deaths.			Percentage on Total.		
	1921.	1931.	1933.	1921.	1931.	1933.
Professional .. ..	32	29	48	6.27	4.21	7.58
Domestic .. ..	20	22	23	3.92	3.19	3.63
Commercial .. ..	81	106	80	15.88	15.38	12.64
Transport and Communication .. ..	42	52	48	8.24	7.55	7.58
Industrial .. ..	180	256	81	35.29	37.16	12.79
Agricultural, Pastoral, Mining, etc. .. ..	131	182	126	25.69	26.41	19.91
Indefinite .. ..	21	39	225 <sup>a</sup>	4.12	5.66	35.55 <sup>a</sup>
Dependent .. ..	3	3	2	0.59	0.44	0.32
Total Male Deaths ..	510	689	633	100.00	100.00	100.00

(a) Includes 189 (29.86 per cent.) clerks, labourers, etc., not specified as belonging to any industry which 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 .. ..	1933	13.2
Irish Free State .. ..	1932	3.7	Great Britain and Northern Ireland .. ..	1932	13.6
Spain .. ..	1931	3.8	New Zealand .. ..	1933	13.6
Greece .. ..	1931	5.0	England and Wales .. ..	1932	14.3
Northern Ireland .. ..	1932	5.6	United States .. ..	1933	15.9
Norway .. ..	1932	6.5	Sweden .. ..	1931	16.5
Tasmania .. ..	1933	7.9	Western Australia .. ..	1933	16.6
Netherlands .. ..	1933	8.1	Denmark .. ..	1932	17.1
Canada .. ..	1933	9.0	Belgium .. ..	1931	17.7
Italy .. ..	1932	9.7	France .. ..	1931	19.0
Victoria .. ..	1933	10.2	Japan .. ..	1932	22.2
South Australia .. ..	1933	10.3	Poland(b) .. ..	1933	24.0
Scotland .. ..	1933	10.6	Germany .. ..	1930	28.0
<b>Australia</b> .. ..	<b>1933</b>	<b>11.9</b>	Switzerland .. ..	1932	29.6
New South Wales .. ..	1933	12.6	Czechoslovakia .. ..	1932	29.9
Union of South Africa (a) .. ..	1932	13.0	Hungary .. ..	1932	35.8

(a) White population only.

(b) In towns with over 100,000 inhabitants.

(xli) *Homicide.* Deaths from homicide in 1933 numbered 97, equivalent to 88 per cent. of the average for the previous five years. See paragraph (xlii).

(xlii) *Accidental or Violent Deaths (except Suicide and Homicide).* Deaths from accidents in 1933 numbered 2,979, compared with an average of 3,253 for the previous five years. Of the deaths in 1933, 1,135 occurred in New South Wales; 834 in Victoria; 416 in Queensland; 210 in South Australia; 262 in Western Australia; 112 in Tasmania; 7 in Northern Territory; and 3 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 1933.

## DEATHS FROM EXTERNAL VIOLENCE.—AUSTRALIA, 1933.

Cause of Death.	Males.	Females.	Persons.
Suicide (see paragraph (xl)) .. .. .	633	157	790
Infanticide (murder of children under 1 year) ..	4	5	9
Homicide by firearms .. .. .	20	13	33
Homicide by cutting or piercing instruments ..	6	9	15
Homicide by other means .. .. .	30	10	40
Homicide, Total .. .. .	60	37	97
Poisoning by venomous animals—			
(a) Snakebite .. .. .	4	2	6
(b) Other .. .. .	..	3	3
Poisoning by food .. .. .	7	5	12
Accidental absorption of irrespirable or poisonous gas .. .. .	14	5	19
Other acute accidental poisonings (gas excepted) ..	21	13	34
Conflagration .. .. .	13	2	15
Accidental burns (conflagration excepted) ..	107	101	208
Accidental mechanical suffocation .. .. .	30	19	49
Accidental drowning .. .. .	269	54	323
Accidental injury by firearms .. .. .	76	6	82
Accidental injury by cutting or piercing instruments	5	2	7
Accidental injury by falling, crushing, etc.—			
In mines and quarries .. .. .	83	..	83
By machinery .. .. .	51	4	55
Connected with methods of transport—			
Railways .. .. .	114	21	135
Tramways .. .. .	30	17	53
Automobiles .. .. .	614	163	777
Other land vehicles .. .. .	161	23	184
Transport by water .. .. .	14	..	14
Transport by air .. .. .	5	..	5
Fall not otherwise specified .. .. .	204	172	376
Other crushings .. .. .	100	3	103
Cataclysm .. .. .	..	..	..
Injuries by animals (not poisoning) .. .. .	35	3	38
Starvation, thirst, fatigue .. .. .	12	..	12
Excessive cold .. .. .	7	..	7
Excessive heat .. .. .	17	9	26
Lightning .. .. .	8	..	8
Other accidental electric shocks .. .. .	37	6	43
Other and unstated forms of accidental violence—			
Inattention at birth .. .. .	3	1	4
Other .. .. .	93	20	113
Violent deaths of unstated nature (open verdict)—			
Drowning .. .. .	82	22	104
Firearms .. .. .	13	1	14
Cutting or piercing instruments .. .. .	1	..	1
Fall .. .. .	5	2	7
Crushing .. .. .	6	6	12
Other .. .. .	31	12	43
War wounds .. .. .	4	..	4
Capital punishment .. .. .	..	..	..
External Violence, excluding Suicide and Homicide	2,282	697	2,979
Total Deaths from External Violence .. .. .	2,973	891	3,864

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 1931, 1932, and 1933, however, indicate favorable progress.

## 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.	
1933 ..	18	11	15	678	214	449	883	273	583	654
1932 ..	19	9	14	700	220	464	898	277	593	685
1931 ..	25	14	20	690	204	452	923	261	599	688
1926-30 ..	10	15	17	843	240	549	1,070	300	690	746
1921-25 ..	17	13	15	753	211	488	950	260	610	643
1911-15 ..	21	16	19	948	268	621	1,170	330	770	718

(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 536 in 1929, 401 in 1930, 287 in 1931, 276 in 1932, and 310 in 1933, of which 231 were males and 79 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 œdema, etc. In 1933, the number of deaths which came under the first of these categories was 35, and under the second, 275. 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, viz. :—

## F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1933.

Causes.	G.C.N. (a)	M.	F.	Total.
<b>14. OTHER INFECTIOUS OR PARASITIC DISEASES.</b>				
Dysentery—				
Amoebic .. .. .	13a	4	..	4
Bacillary .. .. .	13b	4	6	10
Other .. .. .	13c	17	12	29
Erysipelas .. .. .	15	35	27	62
Acute Poliomyelitis .. .. .	16	14	7	21
Encephalitis Lethargica .. .. .	17	21	17	38
Cerebrospinal Fever .. .. .	18	6	14	20
Anthrax .. .. .	20	..	..	..
Tetanus .. .. .	22	83	19	102
Leprosy .. .. .	33	4	1	5
Other Venereal Diseases .. .. .	35	5	2	7
Purulent Infection and Septicæmia .. .. .	36	58	51	109
Other Diseases due to Protozoa .. .. .	39	2	..	2
Ankylostomiasis .. .. .	40	1	1	2
Hydatid Cysts—				
Liver .. .. .	41a	18	12	30
Other Organs .. .. .	41b	15	8	23
Other Diseases due to Helminths .. .. .	42	2	1	3
Mycoses .. .. .	43	2	4	6
Mumps .. .. .	44a	3	6	9
Other .. .. .	44b	19	16	35
<b>Total .. .. .</b>	<b>..</b>	<b>313</b>	<b>204</b>	<b>517</b>
<b>20. OTHER GENERAL DISEASES.</b>				
Rheumatic Fever .. .. .	56	100	82	182
Scurvy .. .. .	60	1	1	2
Beri-beri .. .. .	61	7	..	7
Pellagra .. .. .	62	..	1	1
Rickets .. .. .	63	..	..	..
Osteomalacia .. .. .	64	..	1	1
Diseases of the Pituitary Gland .. .. .	65	2	2	4
Diseases of the Thyroid and Parathyroid Glands—				
Exophthalmic Goitre .. .. .	66a	22	108	130
Other Diseases of Thyroid Gland .. .. .	66b	9	46	55
Diseases of Parathyroid Gland .. .. .	66c	3	..	3
Diseases of the Thymus Gland .. .. .	67	9	4	13
Diseases of the Adrenals (Addison's Disease) .. .. .	68	11	20	31
Other General Diseases .. .. .	69	11	17	28
Hæmorrhagic Conditions .. .. .	70	25	25	50
Anæmia, Chlorosis—				
Pernicious .. .. .	71a	110	132	242
Others .. .. .	71b	18	20	38
Leucæmia, Lymphadenoma—				
Leucæmia .. .. .	72a	75	50	125
Aleucæmia (Lymphadenoma) .. .. .	72b	47	27	74
Diseases of the Spleen .. .. .	73	11	21	32
Other Diseases of the Blood and Blood-forming Organs .. .. .	74	2	3	5
Chronic Poisoning by Organic Substances .. .. .	76	2	..	2
Chronic Poisoning by Mineral Substances—				
Chronic Lead Poisoning .. .. .	77a	9	7	16
Other .. .. .	77b	..	..	..
<b>Total .. .. .</b>	<b>..</b>	<b>474</b>	<b>567</b>	<b>1,041</b>

(a) G.C.N. — General Classification Number.

F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1933—*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	30	10	40
Others .. .. .	78b	28	27	55
Simple Meningitis—				
Simple Meningitis .. .. .	79a	95	66	161
Non-Epidemic Cerebro-Spinal Meningitis .. .. .	79b	9	6	15
Other Diseases of the Spinal Cord .. .. .	81	104	80	184
Other Forms of Insanity .. .. .	84	37	74	111
Epilepsy .. .. .	85	105	67	172
Convulsions of Infants under Five years of Age .. .. .	86	27	21	48
Other Diseases of the Nervous System—				
Chorea .. .. .	87a	2	4	6
Neuralgia and Neuritis .. .. .	87b	10	4	14
Paralysis Agitans .. .. .	87c	85	62	147
Disseminated Sclerosis .. .. .	87d	44	23	67
Idiocy, Imbecility .. .. .	87e	14	5	19
Other Diseases .. .. .	87f	39	32	71
Diseases of the Eye and Annexa .. .. .	88	4	2	6
Diseases of the Ear and Mastoid Sinus .. .. .	89	42	41	83
Total .. .. .	..	675	524	1,199
<b>25. OTHER DISEASES OF THE CIRCULATORY SYSTEM.</b>				
Aneurysm (other than of Heart) .. .. .	96	132	43	175
Arterio-sclerosis (of coronary arteries excepted)—				
With record of Cerebro-Vascular Lesion .. .. .	97a	617	723	1,340
Without record of Cerebro-Vascular Lesion .. .. .	97b	554	430	984
Gangrene .. .. .	98	36	37	73
Other Diseases of the Arteries .. .. .	99	44	25	69
Diseases of the Veins (Varices, Hæmorrhoids, Phlebitis, etc.) .. .. .	100	13	21	34
Diseases of the Lymphatic System, Lymphangitis, etc. .. .. .	101	6	4	10
Abnormalities of Blood Pressure .. .. .	102	40	35	75
Other Diseases of the Circulatory System .. .. .	103	9	9	18
Total .. .. .	..	1,451	1,327	2,778
<b>28. OTHER DISEASES OF THE RESPIRATORY SYSTEM.</b>				
Diseases of the Nasal Fossæ and Annexa .. .. .	104	16	14	30
Diseases of the Larynx .. .. .	105	10	7	17
Pleurisy .. .. .	110	105	57	162
Congestion, Hæmorrhagic Infarction of Lung .. .. .	111	174	191	365
Asthma .. .. .	112	70	67	137
Pulmonary Emphysema .. .. .	113	13	..	13
Other Diseases of the Respiratory System, Tuberculosis excepted—				
Chronic Interstitial Pneumonia .. .. .	114a	193	16	209
Gangrene of the Lung .. .. .	114b	10	4	14
Other Diseases .. .. .	114c	34	22	56
Total .. .. .	..	625	378	1,003

(a) G.C.N.—General Classification Number.

F.—DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1933—*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	14	14	28
Pharynx and Tonsils .. .. .	115b	40	60	100
Diseases of the Oesophagus .. .. .	116	3	5	8
Ulcer of the Stomach or Duodenum—				
Stomach .. .. .	117a	220	67	287
Duodenum .. .. .	117b	131	28	159
Other Diseases of the Stomach (Cancer excepted) .. .. .	118	39	46	85
Other Diseases of the Intestines .. .. .	123	38	33	71
Diseases of the Pancreas .. .. .	128	32	37	69
Peritonitis (without specified cause) .. .. .	129	40	35	75
Total .. .. .	..	557	325	882
<b>34. OTHER DISEASES OF THE GENITO-URINARY SYSTEM.</b>				
Other Diseases of the Kidney and Annexa .. .. .				
Calculi of the Urinary Passages .. .. .	133	152	127	279
Diseases of the Bladder .. .. .	134	53	27	80
Diseases of the Urethra, Urinary Abscess, etc. .. .. .	135	72	15	87
Diseases of the Prostate .. .. .	136	38	1	39
Diseases of the Male Genital Organs, not stated as Venereal .. .. .	137	452	..	452
Diseases of the Female Genital Organs, not stated as Venereal—	138	4	..	4
Ovary, Fallopian Tubes and Parametrium .. .. .	139a	..	65	65
Uterus .. .. .	139d	..	28	28
Breast .. .. .	139c	..	1	1
Others .. .. .	139d	..	6	6
Total .. .. .	..	771	270	1,041

(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, 1933.

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	3,059	2,212	5,271	91	68	79	920	855	892
2. Cancer and Other Tumours	3,808	3,510	7,318	113	108	110	1,145	1,357	1,238
3. Rheumatism, Diseases of Nutrition, of Endocrine Glands, and Other General Diseases	648	1,027	1,675	19	31	25	195	397	283
4. Diseases of the Blood and Blood-forming Organs	288	278	566	9	9	9	87	108	96
5. Chronic Poisonings and Intoxications	52	14	66	2	..	1	16	5	11
6. Diseases of the Nervous System and of the Organs of Sense	2,313	2,271	4,584	69	70	69	666	878	775
7. Diseases of the Circulatory System	8,223	6,457	14,780	247	198	223	2,503	2,496	2,500
8. Diseases of the Respiratory System	3,373	2,375	5,748	100	73	87	1,014	918	972
9. Diseases of the Digestive System	1,963	1,418	3,381	58	43	51	590	548	572
10. Diseases of the Genito-Urinary System and Annexa	2,724	1,879	4,603	81	58	69	819	726	779
11. Pregnancy, Labour and Puerperal State	..	571	571	..	17	9	..	221	..
12. Diseases of the Skin and of the Cellular Tissue	90	84	174	3	3	3	27	33	33
13. Diseases of the Bones and Organs of Locomotion	130	45	175	4	1	3	39	17	17
14. Congenital Malformations	383	283	666	11	9	10	115	109	113
15. Early Infancy	1,398	1,078	2,476	41	33	37	421	417	419
16. Old Age	1,492	1,395	2,887	44	43	44	449	539	488
17. External Causes	2,075	891	3,866	88	27	58	895	345	654
18. Causes of Death not Determined	231	79	310	7	2	5	69	31	52
<b>Total</b>	<b>33,250</b>	<b>25,867</b>	<b>59,117</b>	<b>987</b>	<b>793</b>	<b>802</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>

(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	261	236	249	248	222	236	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	8
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	39	69
18. Causes of Death not Determined	16	9	13	15	9	12	12	6	9
<b>Total</b>	<b>1,103</b>	<b>742</b>	<b>1,073</b>	<b>1,061</b>	<b>841</b>	<b>953</b>	<b>1,026</b>	<b>827</b>	<b>928</b>

15. Ages at Death of Married Males and Females, and Issue.—Bulletin No. 51 "Australian Demography" contains a number of tables showing the ages at marriage, ages at death, birthplaces, and occupations, in combination with the issue of married

persons who died in Australia in 1933. A summary of those tables is given hereunder. Deaths of married males in 1933 numbered 20,882, and of married females, 18,526. The tabulations which follow deal, however, with only 20,538 males and 18,315 females, the information in the remaining 555 cases being incomplete. The total number of children in the families of the 20,538 males was 89,885, and of the 18,315 females, 85,454. 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.	1933.	1911.	1921.	1933.
Under 20 years .. .. .	0.33	..	0.50	0.94	0.77	0.61
20 to 24 " " " " .. .. .	0.77	0.84	0.97	1.27	1.22	1.13
25 " 29 " " " " " " " .. .. .	1.25	1.29	1.25	1.82	1.86	1.55
30 " 34 " " " " " " " .. .. .	2.05	2.06	1.81	2.74	2.45	2.35
35 " 39 " " " " " " " .. .. .	2.80	2.58	2.36	3.64	3.29	2.95
40 " 44 " " " " " " " .. .. .	3.47	3.23	2.68	4.09	3.66	3.24
45 " 49 " " " " " " " .. .. .	4.09	3.48	3.16	4.54	3.76	3.56
50 " 54 " " " " " " " .. .. .	4.75	3.76	3.26	5.35	4.23	3.63
55 " 59 " " " " " " " .. .. .	5.44	4.41	3.63	5.86	4.69	3.82
60 " 64 " " " " " " " .. .. .	5.95	4.98	3.91	5.99	5.39	4.24
65 " 69 " " " " " " " .. .. .	6.23	5.50	4.39	6.50	5.86	4.64
70 " 74 " " " " " " " .. .. .	6.41	6.06	4.89	6.38	6.30	5.19
75 " 79 " " " " " " " .. .. .	6.75	6.66	5.47	6.72	6.56	5.82
80 " 84 " " " " " " " .. .. .	6.68	6.89	6.02	6.22	6.76	6.02
85 " 89 " " " " " " " .. .. .	6.67	7.18	6.52	5.97	6.93	6.58
90 " 94 " " " " " " " .. .. .	6.03	7.21	6.93	5.69	6.53	6.54
95 " 99 " " " " " " " .. .. .	7.30	6.97	7.00	5.05	6.05	6.37
100 years and upwards .. .. .	9.33	9.20	4.73	5.17	5.11	7.06
Age not stated .. .. .	4.33	5.36	2.25	4.60	5.80	2.67
All ages .. .. .	5.42	4.97	4.38	5.35	5.05	4.67

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, 1933.**

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Males.	Females.	Total.
Living ..	37,262	36,727	73,989	Living ..	33,112	33,469	66,581
Dead ..	9,122	6,774	15,896	Dead ..	10,664	8,209	18,873
Total ..	46,384	43,501	89,885	Total ..	43,776	41,678	85,454

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.	1933.	1911.	1921.	1933.
Under 15 years .. .. .	..	..	..	9.71	7.60	7.33
15 to 19 " .. .. .	6.97	6.32	6.01	7.10	6.97	6.65
20 " 24 " .. .. .	6.34	6.05	5.42	5.77	5.50	5.20
25 " 29 " .. .. .	5.70	5.17	4.63	4.27	4.09	3.81
30 " 34 " .. .. .	4.92	4.45	3.79	3.04	2.66	2.47
35 " 39 " .. .. .	4.05	3.90	3.24	1.68	1.61	1.44
40 " 44 " .. .. .	3.43	2.67	2.25	0.72	0.62	0.53
45 " 49 " .. .. .	2.59	2.20	1.81	0.26	0.03	0.18
50 " 54 " .. .. .	2.45	1.70	1.42	..	..	..
55 " 59 " .. .. .	1.66	1.30	1.20	..	..	..
60 " 64 " .. .. .	2.00	0.33	0.31	..	..	..
65 years and upwards ..	1.00	0.25	0.18	..	..	..
Age unspecified .. .. .	5.40	4.93	3.82	5.23	5.41	3.66
All Ages .. .. .	5.42	4.97	4.38	5.35	5.05	4.67

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 1933, 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 average 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.		1933.		1911.		1933.	
	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.	Deaths.	Average Issue.
Australasia—								
Australia .. .. .	4,074	4.71	12,959	4.30	4,566	4.57	12,224	4.53
New Zealand .. .. .	64	3.89	172	3.42	56	3.84	150	3.61
Europe—								
England and Wales ..	4,079	5.87	4,109	4.44	3,152	5.86	3,195	4.78
Scotland .. .. .	1,133	5.89	1,036	4.48	1,002	6.09	896	4.85
Ireland .. .. .	1,766	6.12	1,016	5.20	2,118	5.83	1,203	5.39
Other British Possessions ..	23	6.52	21	6.38	24	5.75	25	4.96
Western .. .. .	109	4.33	257	4.17	55	5.07	75	4.49
Central .. .. .	484	5.81	381	5.53	270	6.56	272	6.42
Southern .. .. .	58	5.09	115	3.42	12	4.92	40	3.90
Eastern .. .. .	35	4.37	57	4.37	6	4.50	20	5.00
Asia—								
British Possessions ..	32	3.87	62	3.44	17	6.41	26	4.23
Foreign Countries ..	74	2.46	89	3.25	5	2.60	20	5.05
Africa—								
British Possessions ..	16	3.56	30	3.57	15	4.80	19	4.10
Foreign Countries ..	..	..	4	3.50	..	..	..	..
America—								
British Possessions ..	42	5.55	48	3.92	17	6.47	10	5.00
United States .. .. .	40	3.78	53	3.66	17	4.94	33	3.58
Other Foreign Countries ..	17	4.53	9	1.78	10	4.50	3	4.00
Polynesia .. .. .	5	4.00	12	2.59	9	3.33	14	3.42
Indefinite .. .. .	72	4.28	103	3.69	72	4.85	90	5.29
Total .. .. .	12,273	5.42	20,538	4.38	12,423	5.35	12,343	4.67

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 Class.	Deaths of Married Males.			Average Issue.		
	1921.	1931.	1933.	1921.	1931.	1933.
Professional .. ..	926	1,194	1,518	4.04	3.78	3.72
Domestic .. ..	552	621	598	3.55	3.64	3.50
Commercial .. ..	1,977	2,962	2,346	4.18	3.55	3.63
Transport and Communica- tion .. ..	1,254	1,742	1,828	4.63	4.15	4.11
Industrial .. ..	5,086	6,883	3,874	4.95	4.49	4.26
Agricultural, Pastoral, Min- ing, etc. .. ..	3,983	4,495	5,066	5.83	5.31	5.26
Indefinite .. ..	759	936	5,266 <sup>a</sup>	5.49	4.68	4.31 <sup>a</sup>
Dependants .. ..	15	39	42	4.00	3.85	5.24
Total .. ..	14,552	18,872	20,538	4.97	4.44	4.38

(a) Includes clerks, labourers, &c., not specified as belonging to any industry, which were formerly included under "Commercial" or "Industrial" as follow: 1933, 4,134 (average issue 4.24).

#### § 4. Australian Life Tables.

The Official Year Book, No. 20, pp. 952 and 969 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 1890 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. 787 to 794.)

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 preliminary 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 crisis 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 until 1920, the result of war conditions. The figures for the last thirteen years show a tendency to greater stability, though with a general downward tendency, which was very marked in the years 1931 to 1933.

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. The totals for 1921 to 1933 were lower but fairly steady except in the depression years 1930–32 when unusually low figures were recorded.

The characteristic feature of the graph of deaths is its irregular nature. On the whole, however, there is an increase which is 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. There was a recovery to 7.03 per 1,000 in 1933.

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. Epidemics of measles were largely responsible for the high rates in the first five years, while influenza caused the increase during 1919.

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 during the years 1931 to 1933.

## CHAPTER XXVIII.

## MISCELLANEOUS.

## § 1. Patents, Trade Marks, and Designs.

1. Patents.—(i) *General*. The granting of patents is regulated by the Commonwealth *Patents Act* 1903-1933, 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 Australia, Papua and the Territory of New Guinea. 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 1929 to 1933 is given in the following table, which also shows the number of letters patent sealed in each year:—

## PATENTS, AUSTRALIA.—SUMMARY.

Particulars.	1929.	1930.	1931.	1932.	1933.
No. of applications .. .. .	6,806	6,524	5,576	5,148	5,040
No. of applications accompanied by provisional specifications .. .. .	4,021	4,062	3,798	3,783	3,511
Letters patent sealed during each year	2,881	3,330	3,041	2,344	1,701

(iii) *Revenue*. The revenue of the Commonwealth Patents Office during the years 1929 to 1933 is shown hereunder:—

## PATENTS, AUSTRALIA.—REVENUE.

Particulars.	1929.	1930.	1931.	1932.	1933.
	£	£	£	£	£
Fees collected under Patents Act 1903-1933 .. .. .	36,686	38,045	37,136	32,015	30,121
Receipts from publications	1,405	1,486	1,593	1,381	1,311
<b>Total .. .. .</b>	<b>38,091</b>	<b>39,531</b>	<b>38,729</b>	<b>33,396</b>	<b>31,432</b>

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 1932. 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 and 1933, is now cited as the *Designs Act* 1906-1933. 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 1929 to 1933 :—

TRADE MARKS AND DESIGNS, AUSTRALIA.—SUMMARY.

Applications.	1929.	1930.	1931.	1932.	1933.
RECEIVED.					
Trade Marks .. ..	2,904	2,362	1,876	1,976	1,905
Designs .. ..	568	736	661	409	646
REGISTERED.					
Trade Marks .. ..	2,337	1,940	1,546	1,273	1,316
Designs .. ..	547	648	538	470	497

(iv) *Revenue.* The revenue of the Trade Marks and Designs Office during the years 1929 to 1933 is given hereunder :—

TRADE MARKS AND DESIGNS, AUSTRALIA.—REVENUE.

Particulars.	1929.			1930.			1931.			1932.			1933.		
	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 .. ..	£ 12,702	£ 718	£ 259	£ 15,056	£ 903	£ 199	£ 12,241	£ 789	£ 120	£ 11,596	£ 750	£ 21	£ 12,720	£ 814	£ 13

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, details of the principal Act will be found in earlier issues of the *Official Year Book* (see No. 8, p. 1066), while, 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 1929 to 1933.—

**COPYRIGHT, AUSTRALIA.—SUMMARY.**

Particulars.	1929.	1930.	1931.	1932.	1933.
Applications received—					
Literary .. .. . No.	1,142	1,334	1,258	1,469	1,463
Artistic .. .. . "	141	176	143	91	90
International .. .. . "	17	16	..	1	2
Applications registered—					
Literary .. .. . "	1,101	1,267	1,213	1,381	1,350
Artistic .. .. . "	127	165	122	74	72
International .. .. . "	5	16	..	..	..
Revenue .. .. . £	356	406	398	405	382

### § 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 Victoria, where "State Option" is in operation), the States being divided into areas generally conterminous with electoral districts, and a poll of the electors 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-opta 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) minero-graphic 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, but considerations of space preclude its insertion herein.

## § 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.

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. All the University College lectures are 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, both 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. 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 Panel: 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) Bank Cheques and Drafts; (6) Commercial Paper Sizes; (7) Road Gully Gratings; (8) Shovels; (9) Sheet Metal Guttering, Ridging and Downpiping; (10) Laminated Steel Springs for Motor Cars.

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.*—The want of complete uniformity in methods of compilation and presentation of Australian statistics renders it an extremely difficult task to make a satisfactory valuation of the various elements of production. At present there is little accurate statistical knowledge regarding such industries as forestry, fisheries, poultry, and bee-farming, and a valuation of the production therefrom must be regarded as a rough approximation. Due consideration must also be given to the qualifications briefly summarized below in regard to values in the more important classes of production.

The annual value of production as defined by the Conference of Statisticians in 1924 is the sum available each year for distribution among those concerned in industry, i.e., workers, proprietors (including landlords), and providers of capital. At the conference referred to, and at subsequent conferences, it was resolved that a subtraction on identical lines from gross values on account of costs of production was necessary in order to avoid duplication, and to arrive at net values for all States on a comparable basis. Excluding depreciation, the value of manufacturing production has for some time been computed on the lines mentioned, but it has not been possible to extend the new valuation to any primary industries excepting agriculture, particulars concerning which are set out on page 556. The presentation of net values in regard to all branches of production is, however, receiving attention. In the meantime, the values given in the table hereunder, are, with the exception of manufacturing, gross values.

The values for agricultural production are the gross values of recorded production at the wholesale prices prevailing in the principal markets of each State. No deductions have been made for freight, seed, fertilizers or material of any kind used in production. Further, the total is exaggerated by the inclusion therein of the value of hay and other forage which is used on the farm in the production of milk, meat, etc. Particulars of these deductions are shown in the table on page 557.

The values for pastoral production also are gross, but the exaggeration is not great, and on the other hand, there are substantial omissions. In the case of rabbits (meat and skins) and a number of pastoral by-products, the value of exports only is included.

No costs are deducted from dairy production. One large item included, moreover, has, of necessity, been accorded a somewhat artificial value, viz., milk consumed on the farm.

The values for mining are unsatisfactory, as in some cases they represent the gross values of the metal content of ores, though the cost of treatment is substantial. There is, therefore, some duplication with metal refining and ore-reduction included in manufacturing production.

The values for manufacturing are, in accordance with the resolutions of the Conference of Statisticians, obtained by deducting from the value of the output the cost of all materials used, and of fuel, power, light, lubricants, water, &c. Most of the principal costs have, therefore, been allowed for, except depreciation. The value of manufacturing production is, consequently, much nearer a net value than the value of primary production.

For the reasons stated above, the values of different kinds of production are not strictly comparable with one another, and may be added together, only with considerable reserve, to make a rough index of change in the value of total material production.

Butter, bacon, and condensed milk factories, and sawmills for native timber, are included in the tables relating to manufacture shown in Chapter XXIII., but are here excluded and added to dairying and forest production respectively.

The table hereunder shows, subject to the above reservation, the approximate value of the production from all industries during the years specified:—

## ESTIMATED VALUE OF PRODUCTION.—AUSTRALIA.

Year.	Agriculture.	Pastoral.	Dairy, Poultry, and Bee-farming.	Forestry and Fisheries.	Mining.	Manufacturing (a).	Total.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1922-23 ..	84,183	97,127	43,542	11,124	20,281	123,188	379,445
1923-24 ..	81,166	110,216	42,112	11,866	22,184	132,732	400,276
1924-25 ..	107,163	127,301	45,190	12,357	24,592	137,977	454,580
1925-26 ..	89,267	113,556	48,278	12,784	24,529	143,256	431,670
1926-27 ..	98,295	111,716	46,980	12,790	23,939	153,634	447,354
1927-28 ..	84,328	124,554	50,261	12,181	23,015	158,562	452,901
1928-29 ..	89,440	116,733	50,217	11,627	19,539	159,759	447,805
1929-30 ..	77,109	84,563	49,398	11,371	17,912	149,184	389,537
1930-31 ..	70,500	69,499	43,067	8,313	15,356	112,066	319,701
1931-32 ..	74,489	61,540	41,478	7,703	13,352	106,456	305,018
1932-33 ..	75,562	64,851	39,622	8,470	15,583	114,136	318,224

(a) These amounts differ from those given in Chapter XXIII, Manufacturing Industry, which include certain products included under Dairy Farming and Forestry in this table.

2. Productive Activity.—In previous issues, an attempt was made to measure the quantity of material production by means of production price index-numbers. These index-numbers have never been regarded as satisfactory over a long period, and there is a danger in continuing them further in respect to manufacturing production. (See Production Bulletin No. 27, page 127.)

In the absence of a satisfactory measure of the "quantity" of production, the retail price index-numbers have been applied to the value of production in the same manner as 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 relative 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 1931-32 and 1932-33 the corresponding index rose to 79 and 86 representing an increase in "real" production of almost 4 per cent. and 13 per cent. respectively. A further improvement is anticipated in 1933-34 when the index may exceed 92. This figure indicates a rise in "real" production per head of population of nearly 7 per cent. over that of the previous year and of nearly 22 per cent. since 1930-31.

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, as contrasted with about 86 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, although showing a decline in 1932, still maintained 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, so that males alone 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.	Value of Material Production.			Retail Prices Index Number. (a) 1911 = 1,000.	"Real" production per head of population (measured in retail purchasing 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

(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

(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 1933 were as follow:—1,149 films of 2,381,026 feet passed without eliminations, 275 films of 1,547,756 feet passed after eliminations, and 55 films of 313,447 feet rejected in first instance, making a total of 1,479 films of 4,242,229 feet (one copy). The countries of origin were as follow:—United States of America, 980 films of 2,991,532 feet; United Kingdom, 380 films of 985,689 feet; and 119 films of 265,008 feet from other countries.

The above figures relate to standard size films (35 millimeters). There were also imported during 1933, 384 miniature films (16 millimeters and 9.5 millimeters) of 107,816 feet.

3. Export of Films.—The number of films exported for the year 1933 was 1,083 of 1,145,876 feet (one copy), of which 994 films of 1,092,592 feet were sent to places in the British Empire including Mandated Territories.

### § 11. Marketing of Australian Commodities.

Particulars in respect of the various Commonwealth Acts and Regulations, together with the operations of the Boards or Councils appointed to assist or control the marketing of Australian commodities, were published in earlier issues of the Year Book. (See No. 22, p. 1016.)

### § 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. Antarctica.

By Act No. 8 of 1933 (Commonwealth of Australia) that part of the territory in the Antarctic Seas which comprises all the islands and territories, other than Adelie Land, situated south of the 60th degree south latitude and lying between the 160th degree east longitude and the 45th degree east longitude, was declared to be accepted by the Commonwealth as a Territory under the authority of the Commonwealth, by the name of the Australian Antarctic Territory.

### § 14. League of Nations.

Australia was one of the original signatories of the Treaty of Versailles of 28th June, 1919, under which the League of Nations was established, and thus became a Member of the League and its kindred organizations—the International Labour Organization and later the Permanent Court of International Justice.

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.

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 six permanent members of the Council (Great Britain, France, Italy, Japan, Germany and the Union of Soviet Socialist Republics) and ten non-permanent members, viz., Argentina, Australia, Chile, Czechoslovakia, Denmark, Mexico, Poland, Portugal, 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

### § 15. War Service Homes.

The operations of the War Service Homes Commission at 31st March, 1934, may be briefly set out as follow :—Total applications approved, 41,970 ; expenditure on provision of homes, purchase of land for future use, etc., £28,808,637 ; 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 2,583 dwelling-houses. Dual assistance had been approved in respect of 49 applications, making the total number of homes provided under the War Service Homes Act, 36,811. Homes are insured under a comprehensive policy, the total insurances in force, including cover notes, amounting to £19,063,768. The total receipts of the Commission to 31st March, 1934, were £19,874,172, of which £7,024,734 was paid to the National Debt Sinking Fund.

The percentage of arrears of instalments due was 4.9. The total instalments due amounted to £15,540,902 and of arrears to £767,474. The arrears figures do not include amounts due in respect of homes which have been provided by the State Bank of South Australia.

Pursuant to legislation passed by the Commonwealth Government and the State Parliament of Victoria, the control of homes under the State Savings Bank of Victoria was transferred to the Commission as at 9th December, 1932, and the figures quoted cover the activities in respect of homes so transferred. The homes provided by the State Bank of South Australia in accordance with the existing agreement are included in the statement.

## CHAPTER XXIX.

## STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

## § 1. General.

**Development of Australian Statistics.**—(i) *General*: An outline of the history and development of statistics in Australia was published in Year Book No. 19 (see p. 988) and previous issues, particular reference being made to the Crown Colony Blue Books, Statistical Registers, Prominent State Statisticians, Statistical Conferences, the Foundation of the Federal Bureau, and Uniformity of Statistical Control. It is not proposed to repeat this information in this issue.

(ii) *Present Organization*. The organization in respect of the collection, tabulation, etc., of statistical data as between the State and Federal Statistical Bureaux, and State and Federal Government Departments, was described in Official Year Book No. 19, p. 990. Limits of space preclude its repetition in this issue.

## § 2. Statistical Publications of Australia.

**1. General.**—The official statistical publications of Australia may be divided bibliographically into two main divisions, 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, 1934 :—

*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 10. 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 1932-33 annually.

*Labour and Industrial Statistics.*—Memoranda and Reports, various, to 1913.

*Labour Report*, annually, 1913 to 1933.

*Local Government in Australia*—July, 1919.

*Official Year Book of the Commonwealth of Australia*—Annually, 1907 to present issue (1934).

*Oversea Trade*, annually, 1906 to 1932-33.

*Pocket Compendium of Australian Statistics* (formerly *Statistical Digest*), 1913, 1914, 1916, and 1918 to 1934 annually.

*Population and Vital Statistics Bulletins*—Reports, various. Commonwealth Demography, 1911 to 1933 annually.

*Production*—Bulletins, annually, 1906 to 1932-33.

*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 1933.

*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); Vital Statistics (monthly and 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). Vital Statistics (quarterly).

(c) Queensland—Statistical Register (annual); Official Year Book, 1901; A.B.C. of Queensland Statistics (annual); Vital Statistics (annual and monthly).

(d) South Australia—Statistical Register (annual); Official Year Book, 1912 and 1913; Statesman's Pocket Year Book (annual). Circular (Monthly) containing Principal Statistics.

(e) Western Australia—Statistical Register (annual); Statistical Abstracts (quarterly, previously issued monthly to July, 1917); Pocket Year Book of Western Australia (annual); Circular (monthly), containing Principal Statistics.

(f) Tasmania—Statistical Register (annual); Statesman's Pocket Year Book (annual); Statistical Summaries (annual); Vital Statistics (quarterly).

### § 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 selected list of works published between October, 1933, when the last issue of this list was compiled, and December, 1934. 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.

#### GENERAL AND DESCRIPTIVE.

AUSTRALIAN ENCYCLOPEDIA, THE: *editors*, A. W. Jose, H. J. Carter and T. G. Tucker. 2 vols (Angus & Robertson, £5.) 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.

BUCHANAN, G. Packhorse and Waterhole: With the First Overlanders to the Kimberleys. (Angus & Robertson, 6s.). Sydney, 1933.

GENERAL AND DESCRIPTIVE—*continued.*

- FYEH, H. *Taming the North: The Story of Alexander Kennedy and the other Queensland Pathfinders.* (Angus & Robertson, 6s.). Sydney, 1933.
- KIRWAN, Sir J. W. *An Empty Land: Pioneers and Pioneering in Australia.* (Eyre & Spottiswoode, 15s.). London, 1934.
- BITCHIE, P. H. *North of the Never Never: [Melville Island].* (Angus & Robertson, 6s.). Sydney, 1934.
- WARBURTON, K. and ROBERTSON, W. K. *Buffaloes: Adventure and Discovery in Arnhem Land.* (Angus & Robertson, 6s.). Sydney, 1934.
- WOOD, T. *Cobbers: A Personal Record of a Journey from Essex, in England, to Australia.* (Oxford University Press, 7s. 6d.). London, 1934.

## HISTORY.

- BATTYE, J. S. *Western Australia: A History . . . to the Inauguration of the Commonwealth.* (Clarendon Press, 25s.). Oxford, 1924.
- CAMBRIDGE HISTORY OF THE BRITISH EMPIRE, vol. 7, pt. 1: *Australia.* (Cambridge University Press, 30s.). Cambridge, 1933.
- 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.
- OFFICIAL HISTORY OF AUSTRALIA IN THE WAR OF 1914-18: *editor, C. E. W. Bean* (in progress) (Angus & Robertson, 21s. *per vol.*). Sydney, 1921 to date. (Vols. 1-4, 7-10 and 12 have so far appeared.)
- 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.
- CENTENARY COUNCIL OF VICTORIA: *Historical Sub-Committee.* *Victoria: the First Century.* (Robertson & Mullens, 12s. 6d.). Melbourne, 1934.
- DAKIN, W. J. *Whalemen Adventurers: The Story of Whaling in Australian Waters . . . from the Days of Sail to Modern Times.* (Angus & Robertson, 15s.). Sydney, 1934.
- MCCRAE, H. R., *editor.* *Georgiana's Journal: Melbourne a Hundred Years Ago.* (Angus & Robertson, 21s.). Sydney, 1934.
- PRATT, A. *Centenary History of Victoria.* (Robertson & Mullens, 21s.). Melbourne, 1934.
- See also General and Descriptive and Biography.*

## BIOGRAPHY.

- BIOGRAPHICAL HANDBOOK AND RECORD OF ELECTIONS FOR THE PARLIAMENT OF THE COMMONWEALTH. (Commonwealth Parliament Library Committee, 10/6). 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, 10/6). 9th edition. Melbourne, 1934.
- MELBOURNE, A. C. V. *William Charles Wentworth.* (Biggs & Co., 3/6). Brisbane, 1934.
- OLDHAM, J. and STIRLING, A. *Victorian: A Visitors' Book.* (Brown Prior, 5s.). Melbourne, 1934.

## CONSTITUTION AND ADMINISTRATION.\*

- AUSTRALIA:—*Royal Commission on the Constitution of the Commonwealth.* Report. (Government Printer, 16s. 9d.). Canberra, 1929.
- AUSTRALIA:—*Royal Commission on the Constitution of the Commonwealth.* Report of proceedings and minutes of evidence, 2 vols. (Government Printer, £3 12s.). Canberra, 1929.
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- See also Official Publications.*

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\* The works of individual authors have not been included in the first section of this list. References to them will be found in Green and Serle.

† 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.

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# 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.

### § 1. Schemes of Parliamentary Government.

3. Governor-General and State Governors, p. 62. Governor of New South Wales—BRIGADIER-GENERAL THE HON. SIR ALEXANDER GORE ARKWRIGHT HORE-RUTHVEN, V.C., K.C.M.G., C.B., D.S.O.—Assumed office on the 21st February, 1935.

### § 2. Parliaments and Elections.

#### 3. Federal Elections, p. 65.

FEDERAL ELECTIONS HELD ON 15TH SEPTEMBER, 1934.

Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
THE SENATE.								
1,954,339	1,948,338	3,902,677	1,862,749	1,845,829	3,708,578	95.31	94.74	95.03
THE HOUSE OF REPRESENTATIVES. (CONTESTED ELECTORATES.)								
1,930,418	1,934,021	3,864,439	1,843,949	1,833,774	3,677,723	95.52	94.82	95.17

### § 3. Administration and Legislation.

#### 2. Governors-General and Ministers, p. 72.

(c) LYONS GOVERNMENT, FROM 12TH OCTOBER, 1934.

DEPARTMENTS.	MINISTERS (9th November, 1934).
Prime Minister and Treasurer	.. 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.

(c) LYONS GOVERNMENT, FROM 12TH OCTOBER, 1934—*continued*.

DEPARTMENTS.	MINISTERS (9TH November, 1934).
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.
Assistant Treasurer .. ..	The Hon. RICHARD GARDINER CASEY, 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, p. 73.—New South Wales. The Ministry was reconstructed on the 11th February, 1935, the only change being that the portfolios previously held by the Hon. R. W. D. Weaver were allocated as follow :—Secretary for Public Works to the Premier and Colonial Treasurer ; and Minister for Health to the Hon. H. P. Fitzsimons.

## CHAPTER VI.—TRANSPORT AND COMMUNICATION.

### E. MOTOR VEHICLES.

5. Motor Vehicles Registered, p. 200.—Motor vehicles registered at 30th June, 1934, were as follow :—

#### MOTOR VEHICLES REGISTERED AT 30th JUNE, 1934.

State or Territory.	Motor Cars.	Commercial Vehicles.	Motor Cycles.	All Vehicles.	
				No.	Per 1,000 of Population.
New South Wales (a) ..	155,063	50,108	22,571	227,742	86.86
Victoria .. ..	130,495	33,513	24,248	188,256	102.89
Queensland .. ..	(b) 85,333	(c) 7,502	7,502	92,835	96.91
South Australia .. ..	42,417	15,228	8,584	66,229	113.54
Western Australia .. ..	28,499	14,199	6,284	48,982	110.79
Tasmania .. ..	12,050	2,712	3,790	18,552	81.38
North Australia .. ..	234	338	40	612	} 137.78
Central Australia .. ..	44	20	2	66	
Federal Capital Territory ..	1,100	227	88	1,415	152.27
 Australia .. ..	 455,235	 116,345	 73,109	 644,689	 96.55

(a) Number of Vehicles on the road. (b) Includes Commercial Vehicles. (c) Included under Motor Cars.

## CHAPTER VII.—TRADE.

### § 5. Oversea Trade.

#### 3. Balance of Payments, p. 246.

#### Australian Balance of Payments, 1928-29 to 1933-34.

1. **General.**—In the following tables, tentative estimates have been made of the main items entering into the Australian balance of international payments during the six years ending in June, 1934. While insufficient direct statistical data are available to provide a completely accurate presentation of the position, it is possible, by resorting to indirect methods of estimation, to narrow the range of uncertainty. Additional data are constantly becoming available, however, while the methods of estimation adopted are susceptible of gradual improvement. The conclusions reached at this stage of the investigation, therefore, must be regarded as first approximations rather than as final results pretending to a substantial degree of accuracy.

The calculations have been carried out in terms of English sterling throughout. For the more important items, the figures for 1933-34 will require little revision. In a few cases, items of minor significance have been estimated in 1933-34 on the basis of the previous year's figures, with an allowance for known tendencies. Figures thus subject to material revision have been marked with an asterisk.

2. **The Balance of International Payments.**—The form in which the items entering into the balance of payments have been set out approximates fairly closely to that used by the League of Nations in its annual volumes on *Balances of Payments*, though modifications have been introduced, especially in the "Summary Tables", in order to present the results more clearly to the general reader.

The individual credit and debit "current" items appear in the first statement (A), and are followed by a statement (B) of the inward and outward movements of capital, so far as they can be traced. The totals of these statements are then set out in the "Summary Tables", in which is included a statement of monetary gold movements (C). The final statement of the balance of payments brings together A, B and C, at the end of the "Summary Tables".

If the information contained in the primary statements were both accurate and exhaustive, the balances on current account and the monetary movement of gold should be exactly offset by contra balances on capital account each year. In practice, differences inevitably appear, on account of errors of estimation, omissions and time-lags. The discrepancies attributable to time-lags will be greater, of course, the greater are the fluctuations in the total volume of transactions. During the six years at present considered these fluctuations have been unparalleled in their violence.

## A.—CURRENT MOVEMENTS OF GOODS, SERVICES AND GOLD PRODUCTION.

Inward or Credit Movements (Exports).	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
<b>I. MERCHANDISE.</b>						
1. Merchandise, including silver bullion and coins other than gold, exported .. ..	138,645	98,255	77,050	75,813	78,548	91,107
2. Ships' stores exported .. ..	2,316	2,047	1,401	1,225	1,295	1,294
3. Value of gold produced, in all forms .. ..	1,872	1,874	2,157	3,609	4,606	5,659
4. Deduct household effects, prizes, &c., exported .. ..	— 111	— 102	— 92	— 75	— 62	— 61
5. Deduct for over-valuation of wool exported .. ..	— 1,718	— 1,195	— 613	..	..	..
6. Exchange adjustment to official values .. ..	— 1,025	— 2,781	— 48	147	..	..
	139,979	98,098	79,855	80,719	84,387	97,999
<b>II. INTEREST AND DIVIDENDS.</b>						
7. Interest on Commonwealth Government investments overseas .. ..	90	181	161	174	161	86
8. Interest on Sinking Funds investments overseas .. ..	52	45	53	58	66	36
9. Interest on "other" assets overseas .. ..	295	490	610	1,280	935	767
10. Interest on net assets overseas of Australian banks .. ..	2,254	1,554	599	1,085	225	316
11. Interest on New Zealand Government debt domiciled in Australia .. ..	267	284	278	186	127	124
12. Interest on New Zealand Local Bodies' debt domiciled in Australia .. ..	385	424	387	307	245	245*
13. Interest on local investments in Australian Government securities domiciled overseas, n.e.i. .. ..	?	?	?	?	?	?
14. Interest and dividends on other long and short term investments overseas, n.e.i. .. ..	?	?	?	?	?	?
	3,343	2,978	2,088	3,090	1,759	1,574
<b>III. OTHER SERVICES.</b>						
15. Insurance earnings overseas by Australian companies—						
(a) Life .. ..	?	?	?	?	?	?
(b) Fire, marine and general .. ..	— 6	6	21	— 15	13	15*
16. Earnings of Australian ships on account of all oversea freight traffic .. ..	646	663	537	523	538	669
17. Expenditure of foreign ships in Australian ports .. ..	6,297	6,697	4,505	3,891	4,233	4,056
18. Duties collected on ships' stores consumed in Australian waters .. ..	83	78	58	48	41	40
19. Commonwealth land and income taxation paid by oversea interests .. ..	537	592	834	633	547	581
20. Expenditure in Australia by oversea tourists and travellers .. ..	1,409	1,297	853	735	739	776
21. Funds brought in by immigrants and returned emigrants .. ..	1,072	705	360	208	238	239
22. Emigrants' remittances and money gifts from oversea, n.e.i. .. ..	560	578	518	408	363	358
23. Diplomatic, consular and similar expenditure in Australia .. ..	120	120	110	100	100	100
24. War pensions received from oversea .. ..	381	451	446	436	297	333
25. Government receipts in cash on account of reparations .. ..	876	878	1,265	..	..	..
26. Government receipts from oversea, n.e.i. .. ..	37	33	23	26	17	21
	12,012	12,098	9,530	6,993	7,126	7,188

A.—CURRENT MOVEMENTS OF GOODS, SERVICES AND GOLD  
PRODUCTION—*continued.*

Outward or Debit Movements (Imports).	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
<b>I. MERCHANDISE.</b>						
27. Merchandise, including silver bullion and coins other than gold, imported .. .. .	143,300	130,788	60,586	44,059	56,872	59,681
28. Value of outside packages of imports (unrecorded) .. .. .	2,690	1,315	..	..	..	..
29. Add for under-valuation of freight, insurance and sundry charges .. .. .	3,260	5,332	3,229	3,387	4,308	4,681
30. Add for under-valuation of films imported .. .. .	605	1,071	421	147	122	200
31. Deduct household effects, prizes, &c., imported .. .. .	— 202	— 181	— 120	— 111	— 141	— 140
32. Exchange adjustment to official values .. .. .	..	— 45	— 116	— 144	— 194	— 330
	149,653	138,780	64,000	47,338	60,967	64,092
<b>II. INTEREST AND DIVIDENDS.</b>						
33. Interest on Government debt overseas—						
Commonwealth—						
(a) Long-term securities .. .. .	7,952	8,776	8,669	4,858	4,993	4,694
(b) Short-term securities .. .. .	..	44	134	493	256	210
(c) Bank advances or bal- ances, net .. .. .	— 25	171	204	5	— 2	— 4
States—						
(d) Long-term securities .. .. .	18,891	18,555	19,674	18,932	18,386	18,034
(e) Short-term securities .. .. .	..	197	906	1,121	721	570
(f) Bank advances or bal- ances, net .. .. .	174	409	320	— 16	— 2	— 8
34. Interest on Local Bodies' debt overseas .. .. .	1,340	1,404	1,438	1,640	1,643	1,481
35. Interest on other public debt held overseas .. .. .	..	..	..	..	..	31
36. Interest on net assets in Australia of overseas banks .. .. .	421	527	445	305	285	249
37. Interest and dividends on long- term private capital invested in Australia .. .. .	8,830	8,064	4,585	4,106	4,532	5,096*
38. Interest on trade moneys held temporarily in Australia on oversea account .. .. .	..	..	332	337	285	253
39. Deduct contribution of British Government to interest on migration loans .. .. .	— 109	— 126	— 131	— 112	— 110	— 106
	37,474	38,021	36,576	31,669	30,987	30,500
<b>III. OTHER SERVICES.</b>						
40. Insurance earnings in Australia by oversea companies—						
(a) Life .. .. .	— 2	21	24	16	24	26*
(b) Fire, marine and general .. .. .	975	944	459	805	1,043	1,200*
41. Expenditure overseas by Australian tourists and travellers, including fares .. .. .	4,306	3,958	1,853	1,419	2,381	2,871
42. Funds taken out by emigrants and returning immigrants, including fares .. .. .	1,268	1,608	1,514	896	689	663
43. Immigrants' remittances and money gifts sent overseas, n.e.i. .. .. .	801	847	696	327	303	315
44. Other payments to absentees .. .. .	400	263	223	163	176	195
45. Commonwealth contributions to assisted passages .. .. .	133	58	10	..	..	..
46. Diplomatic, consular and similar expenditure overseas .. .. .	227	221	170	119	125	133
47. Expenditure overseas by Depart- ment of Defence, n.e.i. .. .. .	1,285	357	137	81	53	80
48. War pensions paid overseas .. .. .	342	367	374	325	264	253
49. Contributions to upkeep of soldiers' graves .. .. .	95	95	95	..	..	..
50. Oversea mail subsidy .. .. .	130	130	130	110	110	110
51. Loan flotation and management expenses and stamp duties on transfers .. .. .	417	83	42	33	529	1,078
52. Government expenditure overseas, n.e.i. .. .. .	150	138	123	109	125	138
	10,527	9,090	5,850	4,403	5,822	7,062

## B.—CAPITAL MOVEMENTS.

Inward or Credit Movements (Increase of Liabilities).	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
53. Government debt domiciled overseas—						
Commonwealth—						
(a) Long-term securities ..	6,279	7,941	- 1,952	- 103	- 360	- 1,288
(b) Short-term securities ..	..	1,575	8,645	..	..	..
(c) Bank advances or balances, net ..	- 1,665	9,218	- 7,817	- 1,190	8	- 610
States—						
(d) Long-term securities ..	- 4,164	- 11,601	- 610	- 1,674	- 779	- 2,209
(e) Short-term securities ..	..	8,425	19,430	- 751	- 3,199	- 500
(f) Bank advances or balances, net ..	9,580	8,845	- 14,698	5	- 512	- 834
(g) Discounts and cash bonuses on conversion ..	- 672	- 113	..	..	- 309	- 1,407
54. Local Bodies' debt domiciled overseas ..	1,288	1,634	952	- 884	- 95	- 70
55. " Other " public debt held overseas, n.e.i. ..	..	..	..	..	770	..
56. Net assets in Australia of overseas banks ..	1,772	1,704	- 1,538	- 112	349	- 531
57. Net assets in Australia of overseas life insurance companies ..	..	4	9	2	1,801	..
58. Long-term private capital invested in Australia ..	?	?	?	?	?	?
59. Trade moneys held temporarily in Australia on overseas account ..	..	3,916	6,390	557	- 1,673	110
	12,418	31,548	8,811	- 4,150	- 3,999	- 7,339

Outward or Debit Movements (Increase of Assets).	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
60. Commonwealth Government investments overseas ..	- 86	- 172	- 155	- 29	- 699	28
61. Sinking Funds investments in securities domiciled overseas, or bank balances ..	- 7,768	- 33	247	- 84	2,028	- 2,213
62. Net assets overseas of Note Issue Department ..	1,260	14,065	8,820	3,483	16,461	- 1,250
63. Net assets overseas of Australian banks ..	- 5,115	- 18,114	- 3,138	7,369	- 4,258	21,145
64. New Zealand Government debt domiciled in Australia ..	- 1	106	- 86	- 204	- 835	31
65. New Zealand Local Bodies' debt domiciled in Australia ..	314	791	318	- 1,015	- 1,239	..
66. Local investments in Australian Government securities domiciled overseas, n.e.i. ..	?	?	?	?	?	?
67. Other long and short-term investments overseas, n.e.i. ..	?	?	?	?	?	?
	- 11,396	- 3,357	6,006	9,520	11,458	17,741

## 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.
<b>Inward or Credit Movements (Exports)—</b>						
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
<b>Total Credits .. .. .</b>	<b>155,334</b>	<b>113,174</b>	<b>91,473</b>	<b>90,802</b>	<b>93,272</b>	<b>106,761</b>
<b>Outward or Debit Movements (Imports)—</b>						
I. Merchandise .. .. .	149,653	138,780	64,000	47,338	60,967	64,092
II. Interest and Dividends .. .. .	37,474	38,021	36,576	31,069	30,987	30,500
III. Other Services .. .. .	10,527	9,090	5,850	4,403	5,822	7,062
<b>Total Debits .. .. .</b>	<b>197,654</b>	<b>185,891</b>	<b>106,426</b>	<b>83,410</b>	<b>97,776</b>	<b>101,654</b>
<b>Excess of Debits (—) or Credits (+)</b>	<b>-42,320</b>	<b>-72,717</b>	<b>-14,953</b>	<b>+ 7,392</b>	<b>- 4,504</b>	<b>+ 5,107</b>
<b>B. Capital Movements.</b>						
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
<b>Inward or Credit Movements (Increase of Liabilities) .. .. .</b>	<b>12,418</b>	<b>31,548</b>	<b>8,811</b>	<b>- 4,150</b>	<b>- 3,999</b>	<b>- 7,339</b>
<b>Outward or Debit Movements (Increase of Assets) .. .. .</b>	<b>-11,396</b>	<b>- 3,357</b>	<b>6,006</b>	<b>9,520</b>	<b>11,458</b>	<b>17,741</b>
<b>Excess of Debits (—) or Credits (+)</b>	<b>+23,814</b>	<b>+34,905</b>	<b>+ 2,805</b>	<b>-13,670</b>	<b>-15,457</b>	<b>-25,080</b>
<b>C. Monetary Gold Movements.</b>						
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
<b>68. Inward or Credit Movements (Exports in excess of New Production) .. .. .</b>	<b>1,115</b>	<b>24,998</b>	<b>10,119</b>	<b>5,927</b>	<b>13,443</b>	<b>2,015</b>
<b>69. Outward or Debit Movements (Imports) .. .. .</b>	<b>348</b>	<b>294</b>	<b>374</b>	<b>654</b>	<b>1,141</b>	<b>1,211</b>
<b>Excess of Debits (—) or Credits (+)</b>	<b>+ 767</b>	<b>+24,704</b>	<b>+ 9,745</b>	<b>+ 5,273</b>	<b>+12,302</b>	<b>+ 804</b>
<b>Balance of Payments.</b>						
	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.	£000 stg.
<b>Deficiency (—) or Surplus (+) on Current Account .. .. .</b>	<b>-42,320</b>	<b>-72,717</b>	<b>-14,953</b>	<b>+ 7,392</b>	<b>- 4,504</b>	<b>+ 5,107</b>
<b>Deficiency (—) or Surplus (+) on Monetary Gold Account .. .. .</b>	<b>+ 767</b>	<b>+24,704</b>	<b>+ 9,745</b>	<b>+ 5,273</b>	<b>+12,302</b>	<b>+ 804</b>
<b>Total .. .. .</b>	<b>-41,553</b>	<b>-48,013</b>	<b>- 5,208</b>	<b>+12,665</b>	<b>+ 7,798</b>	<b>+ 5,911</b>
<b>Deficiency (—) or Surplus (+) on Capital Account (so far as it has been traced) .. .. .</b>	<b>+23,814</b>	<b>+34,905</b>	<b>+ 2,805</b>	<b>-13,670</b>	<b>-15,457</b>	<b>-25,080</b>
<b>Balance, accounted for by lags, errors and omissions, especially in private capital items</b>	<b>+17,739</b>	<b>+13,108</b>	<b>+ 2,403</b>	<b>+ 1,005</b>	<b>+ 7,659</b>	<b>+19,169</b>

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. It may well be, also, that the inward movement of short-term speculative moneys has been greater than the amounts included above. Taking these facts into consideration, the balances shown do not appear unreasonably large. In 1928-29 the balance not specifically accounted for amounts to approximately



£18 millions. Some part of this discrepancy is possibly due to the actual receipt in 1928-29 of part of the oversea public borrowings of 1927-28, which amounted, for the States and the Commonwealth as a whole, to the huge sum of £54,254,627. Further discussion of the possibilities must await a fuller exploration of the balance of payments in earlier years. A large balance also appears in 1933-34, amounting to about £19 millions. It may seem unduly large at first sight, but there is some evidence that the bulk of it is attributable to the import of private capital. Very large amounts of oversea capital were invested in Australian gold mines, old and new, in this year; certain financial institutions sold off considerable blocks of securities domiciled overseas; and some investment took place in miscellaneous business undertakings such as meat-works, etc. The evidence is not sufficiently definite to be reduced to publishable figures at this stage, but it gives some warrant for the belief that the margin of error in the calculations is rather less than might be feared.

It is important to notice that this is the first statement of the balance of payments incorporating direct records of the net oversea assets of the banks. In previous statements it was necessary to resort to indirect estimates which prove to have been rather unsatisfactory for year-to-year comparisons. The incorporation of the new figures enables much more reliable inferences to be drawn from the general tables.

3. **The Balance of International Indebtedness.**—The annual movements of capital, inward and outward, have already been dealt with. A supplementary statement may now be given setting out the total capital sums outstanding at successive dates. For convenience they have been termed "liabilities" and "assets". Some of the items included, however, are not of the nature of fixed money obligations, and the totals should be accepted with caution. Further qualifications will be found in the notes on capital items.

### BALANCE OF INTERNATIONAL INDEBTEDNESS.

(Approximate.)

Liabilities.	At 30th June—						
	1928.	1929.	1930.	1931.	1932.	1933.	1934.
70. Government debt domiciled overseas—	000.	000.	000.	000.	000.	000.	000.
Commonwealth—							
(a) Long-term securities { (\$4,866 { (£ stg.)	17,291	17,156	17,156	17,156	17,116	16,890	16,711
(b) Short-term securities (£ stg.)	136,216	142,630	150,571	148,619	148,556	148,422	147,313
(c) Bank advances or balances, net (£ stg.)	..	..	1,575	10,220	10,220	10,220	10,220
States—	150	Cr. 1,515	7,703	Cr. 114	Cr. 1 304	Cr. 1,296	Cr. 1,906
(d) Long-term securities { (\$4,866 { (£ stg.)	30,990	30,779	30,687	30,436	29,964	29,581	29,237
(e) Short-term securities (£ stg.)	385,671	381,718	370,209	369,850	368,648	368,252	366,387
(f) Bank advances or balances, net (£ stg.)	..	..	8,425	27,855	27,104	23,905	23,405
71. Local Bodies debt domiciled overseas (mainly £ stg.)	Cr. 3,957	5,623	14,468	Cr. 230	Cr. 225	Cr. 737	Cr. 1,571
72. "Other" public debt held overseas, n.e.i. (£ A.)	24,821	26,109	27,743	28,695	27,811	27,716	27,646
73. Net assets in Australia of oversea banks (£ A.)	..	..	..	..	..	965	965
74. Net assets in Australia of oversea life insurance companies (£ A.)	6,135	7,907	9,661	7,846	7,703	8,140	7,475
75. Long-term private capital invested in Australia (£ A.)	42	42	46	57	59	2,315	2,315*
76. Trade moneys held temporarily in Aus- tralia on oversea account (£ A.)	175,000	175,000	175,000	175,000	175,000	175,000	175,000
Provisional Totals	..	..	4,031	11,571	12,281	10,186	10,324
{ £ stg. ..	772,359	49	580,694	584,895	580,810	576,482	571,494
{ £ A. ..	..	..	188,738	194,474	195,043	196,606	196,079
{ \$4,866 ..	..	..	47,843	47,592	47,080	46,471	45,948

BALANCE OF INTERNATIONAL INDEBTEDNESS—*continued.*

(Approximate.)

Assets.	At 30th June—						
	1928.	1929.	1930.	1931.	1932.	1933.	1934.
	000.	000.	000.	000.	000.	000.	000.
77. Commonwealth Government investments overseas (£ stg.)	3,320	3,234	3,062	2,907	2,878	2,179	2,207
78. Sinking Funds investments in securities domiciled overseas, or bank balances (£ stg.)	8,899	1,131	1,098	1,345	1,261	3,289	1,076
79. Net assets overseas of Note Issue Department (£ stg.)	5,721	6,981	21,046	29,866	33,349	49,810	48,560
80. Net assets overseas of Australian banks (£ stg.)	50,728	45,613	27,499	24,361	31,730	27,472	48,617
81. New Zealand Government debt domiciled in Australia (£ A.)	4,169	4,168	4,277	4,175	3,915	2,869	2,908
82. New Zealand Local Bodies debt domiciled in Australia (£ A.)	7,072	7,386	8,200	8,575	7,282	5,730	5,730*
83. Local investments in Australian Government securities domiciled overseas, n.e.i.	?	?	?	?	?	?	?
84. Other long and short-term investments overseas, n.e.i.	?	?	?	?	?	?	?
Provisional Totals .. {							
£ stg. ..	79,909	68,513	52,705	58,479	69,218	82,750	100,460
£ A. ..	..	..	12,477	12,750	11,197	8,599	8,638

4. Notes on Goods, Services and Gold Production.—The estimates of the current movements of goods, services and gold production presented in the foregoing statements have in some cases been based on conjectural materials, while in others they represent the bald results of lengthy and intricate calculations. A full explanation of the sources of the data and the methods followed in their elaboration must be deferred. Meanwhile some indication of the degree of validity attaching to the less obvious of the estimates may be gained from the following notes:—

*Item 1.*—Includes the recorded (sterling) values of all exports, other than gold in all forms, and ships' stores, which are recorded separately.

*Item 3.*—Since Australia is a gold-producing country, the gold production of the year has been regarded as an export of merchandise. Exports in excess of actual production are entered in Statement C. (In the event of exports falling short of production, it would be necessary, of course, to enter the deficiency, in Statement C, as a debit item.)

*Item 4.*—Since household effects, prizes, etc., are not paid for, they must be deducted from exports at their recorded values.

*Item 5.*—A comparison of the recorded export values of wool per pound with the prices recorded by the wool-selling brokers reveals discrepancies in the earlier years which cannot be satisfactorily accounted for. The adjustment has been made on the basis of the brokers' prices, plus an allowance for charges incurred between store and ship. The recorded export values in 1931-32 and subsequent years are believed to be correct, in consequence of revised methods of valuation.

*Item 6.*—Prior to the year 1930-31 it was not customary to make official estimates of the English sterling currency value of Australian exports, and it has been the general practice to regard the Australian currency value as a fair approximation to the sterling value. In 1929-30, however, the difference was substantial, and it was over a million pounds in 1928-29. The adjustments made in the table above are designed to convert the export values uniformly to an English sterling basis, using the mean of the buying and selling rates for telegraphic transfers throughout. Minor adjustments are also necessary in the two following years.

- Item 7.*—From Commonwealth Budgets.
- Item 8.*—See item 78. Partly estimated.
- Item 9.*—From confidential information received.
- Item 10.*—Estimated at the average rate for 3 months' bankers' acceptances, on the averages of the amounts outstanding at the beginning and end of each year.
- Items 11 and 12.*—Actual amounts paid by the New Zealand Government and amounts payable by New Zealand Local Bodies.
- Item 15 (a).*—Definite information not yet available.
- (b).—Estimated from New Zealand business of Australian companies.
- Item 16.*—Total freight charges on imports have been estimated under item 29. The share earned by Australian ships was allocated in accordance with the tonnage of oversea cargo discharged by Australian ships as compared with the tonnage discharged by foreign ships. The total freight charges on exports were separately estimated by applying actual and estimated freight rates to quantities exported. The total earnings on exports were then allocated according to the tonnage of oversea cargo shipped by Australian ships and foreign ships respectively.
- Item 17.*—Estimated at 22½ per cent. of the total freight earnings of foreign shipping, from data in *Report of the Overseas Shipping Conference (1929)* and sundry sources. The figures so estimated have been regarded as being expressed in terms of Australian currency. The item covers numerous expenses (other than stores, fuel and duties) in Australian ports, and crews' expenditures in Australia.
- Item 19.*—Based on data contained in the annual *Reports* of the Commonwealth Commissioner of Taxation. Partly estimated.
- Item 20.*—Estimated in detail from the numbers of "temporary visitors arriving" from various groups of countries in each year. The average length of stay and average expenditure per head assumed, differ considerably for the various classes of visitor.
- Item 21.*—Estimated at £30 per head for immigrants from British and North American countries, and £20 per head for all other immigrants, in the first three years; and at £25 and £15 respectively in the last three years.
- Item 22.*—Estimated as in Roland Wilson, *Capital Imports and the Terms of Trade*, pp. 22-26.
- Item 23.*—Very rough estimate.
- Item 25.*—No reparations were received in 1931-32, 1932-33 or 1933-34, on account of the Hoover Moratorium and subsequent arrangements.
- Item 26.*—From Commonwealth Budgets and special returns supplied by the State Treasuries.
- Item 27.*—Includes the recorded values of all imports, other than gold. The recorded values of merchandise imports are the sterling f.o.b. values plus an arbitrary addition of 10 per cent. as an allowance for freight and charges.
- Item 28.*—"Outside packages" were not separately recorded until the second half of 1929-30. Previously it is probable that they were excluded almost entirely from the recorded values of dutiable goods and in part from the recorded values of free goods. In 1930-31 they amounted to about 3 per cent. of the value of other merchandise imports. An adjustment of 3 per cent. of the value of dutiable imports has therefore been made.
- Item 29.*—Total freight charges on imports were estimated by applying actual freight rates to quantities imported, in the case of "bulk" imports; and by applying an estimated rate per ton to the remaining tonnage of goods discharged from overseas. The estimated rate per ton on "berth" imports was deduced from the actual average rate per ton earned on inward and outward cargoes in 1927 and 1928 by vessels carrying over one million tons of goods annually between Australia and Europe. (*Report of the*

*Overseas Shipping Conference, 1929*). By calculating the average freight rate per ton on "berth" exports, from actual freight quotations, and estimating the comparative tonnage of inward and outward "berth" cargoes, it was possible to break down the weighted average rate per ton, as given in the *Report*, into its two component rates. The percentage of freight charges, so estimated, on the f.o.b. values of all merchandise imports in 1927-28 was 10.6; in 1928-29, 11.3; in 1929-30, 13.7; in 1930-31, 14.6; in 1931-32, 17.2; in 1932-33, 17.1; and in 1933-34, 17.4 per cent. The rise in the percentage has been due to the much more rapid fall in import prices than in freight rates. For insurance and numerous small charges not included in the recorded values a further adjustment of  $1\frac{1}{2}$  per cent. of the f.o.b. values of merchandise imports was made. The excess of the total charges so estimated, over the 10 per cent. already allowed, is the final adjustment required.

*Item 30.*—Cinematograph films are recorded at official valuations which bear little relation to the sums paid as rentals and purchase price. The total amounts payable overseas have been roughly estimated from data collected by the Royal Commission on the Moving Picture Industry, and from information obtained privately. The excess of these amounts over the recorded values of imports is the adjustment required.

*Item 32.*—Imports are recorded for duty purposes in "British currency values". For the most part British currency, in this context, is synonymous with English sterling; but in those cases where import values are already expressed in terms of £. s. d. they are regarded for duty and statistical purposes as being expressed in terms of "British currency." This exception to the general rule is chiefly important in the case of imports from the Australian territories, and imports from New Zealand and South Africa, when their currencies are not at par with English sterling. Adjustments have been made above to correct the discrepancies in these three cases.

*Item 33 (a), (b) and (c).*—The amounts stated are those actually paid, in sterling, during the financial year, on Commonwealth liabilities only. In 1931-32 and subsequent years the amount paid in interest on Commonwealth Government long-term debt was reduced by £3,919,774, payment of which was originally postponed under the Hoover Moratorium on war debts and reparations. Allowance has been made for the sterling premium or discount on dollar payments during the last three years. Data from Commonwealth Budgets and Commonwealth Treasury.

(*d*) (*e*) and (*f*).—The amounts stated are those actually paid, in sterling, during the financial year, on State liabilities only. Allowance has been made for the sterling premium or discount on dollar payments during the last three years. Data from special returns supplied by the State Treasuries.

*Item 34.*—Partly estimated, but in the main a compilation. Allowance has been made for the sterling premium or discount on dollar payments during the last three years.

*Item 35.*—Based on confidential information received.

*Item 36.*—Estimated at 6 per cent. in the first three years, at 5 per cent. in 1931-32, at  $4\frac{1}{2}$  per cent. in 1932-33, and at 4 per cent. in 1933-34, on the averages of the amounts outstanding at the beginning and end of each year.

*Item 37.*—This item is largely conjectural, but rather more firmly based than in previous statements. The detailed calculations have been based on data contained in the annual *Reports* of the Commonwealth Commissioner of Taxation, and indexes of company profits from *Jobson's Investment Digest*. The estimates are designed to include dividends, interest on debentures, other interest, profits, rents, &c., not elsewhere included.

*Item 38.*—Interest actually paid on the bonds and fixed deposits included in item 76.

*Item 39.*—From Commonwealth Budgets.

*Item 40.*—Excess of receipts over expenditure in Australia, as returned by the companies.

*Item 41.*—Estimated in detail from the numbers of " Australian residents departing temporarily " to various groups of countries in each year. The average length of stay and average expenditure per head assumed, including fares, differ considerably for the various classes and destinations.

*Item 42.*—Estimated at varying amounts per head, allowing for fares, for " Australian residents departing permanently " to various groups of countries.

*Item 43.*—See item 22.

*Item 44.*—Rough estimates, based on data contained in the annual *Reports* of the Commonwealth Commissioner of Taxation. The estimates are designed to include personal exertion income of visitors not spent in Australia, and the incomes of absentees not taxable as such.

*Item 45.*—From Commonwealth Budgets.

*Item 46.*—Includes upkeep of Australia House and Agents-General, and representation at conferences, &c.

*Item 47.*—Estimated by Department of Defence; does not include value of goods imported.

*Items 48 to 50.*—From Commonwealth Budgets.

*Item 51.*—From Commonwealth Budgets and Commonwealth Treasury.

*Item 52.*—Includes expenditure in territories outside Australia, contributions to oversea institutions and scientific bodies, &c. Data from Commonwealth Budgets and special returns supplied by the State Treasuries.

5. *Notes on Capital Items.*—The capital movements stated for each year in the Balance of Payments are based on the corresponding items in the Balance of International Indebtedness. In the latter statement the individual liabilities and assets have been expressed in the currencies in which they are repayable. The increases or decreases from year to year, however, have been converted where necessary into English sterling at the average rates of exchange ruling during the year in question.

*Items 53 and 70.*—Particulars of long-term and short-term securities are published in the *Finance Bulletins* and the Commonwealth Budgets; but for special reasons the figures stated above for short-term securities in 1930 and 1931 include certain amounts previously included as bank overdrafts. Particulars of bank advances and balances have been supplied by the Commonwealth and State Treasuries. The amounts shown under *sub-items 70 (a) and (d)* have been converted into sterling at the par rate of exchange, the formal error thus introduced being regarded as sufficiently off-set by the fall in the dollar market value of the securities repurchased or cancelled. *Sub-item 53 (g)* has been introduced in order to effect a reconciliation between the changes in the nominal amounts of the oversea debt and the actual sums borrowed or repaid. Data from Commonwealth Treasury.

*Items 54 and 71.*—Partly estimated, but in the main a compilation.

*Items 55 and 72.*—Based on confidential information received.

*Items 56 and 73.*—Data from the quarterly banking returns. The figures stated are averages for the quarters ending in June.

*Items 57 and 74.*—From details supplied by the companies. The returns are not complete.

*Items 58 and 75.*—The amount of £175,000,000 has been chosen after consideration of a number of estimates, none of which is very firmly based. Little information on this item has so far become available. Pending further information the amount has not been varied over the period.

*Items 59 and 76.*—The amounts stated consist of short-dated Commonwealth bonds (data from Commonwealth Treasury) and current and fixed deposits with the banks (data from confidential returns furnished by individual banks). The figures are possibly slightly understated.

*Items 60 and 77.*—From Commonwealth Budgets. Includes amounts owing by the British Phosphate Commissioners, White Star Line, and "other administrations".

*Items 61 and 78.*—Data from *Statistical Register of Western Australia and Annual Reports of the National Debt Commission.*

*Items 62 and 79.*—From information supplied by the Note Issue Department of the Commonwealth Bank. Includes estimated sterling value of gold in transit overseas at 30th June, 1931 and 1932.

*Items 63 and 80.*—From information supplied by the Trading Banks and Banking Department of the Commonwealth Bank. (For further details see article on "London Funds and the Australian Economy," by Roland Wilson, *Economic Record Supplement* March, 1935.)

*Items 64 and 81.*—Data from *New Zealand Official Year Books.*

*Items 65 and 82.*—Data from *New Zealand Official Year Books.*

*Items 66 and 83.*—There is much evidence to suggest that Australian securities domiciled overseas have been repurchased by Australian residents, particularly while Australian Government stocks were very low in price overseas. No estimate of the amounts involved, in excess of those already included, has been made.

*Items 67 and 84.*—During the more acute stages of the depression it was common knowledge that capital was being moved out of Australia, for various reasons, even while the exchange was heavily depreciated. No estimate of the amounts involved can be made.

**6. Short-cut Estimation.**—The foregoing tabular statements give us as clear a picture of Australia's international financial dealings over the last six financial years as the data available permit. It will be readily understood by anyone who has taken the trouble to follow out the estimation in detail, that crude inferences from the gross recorded values of imports and exports are scarcely adequate for an intelligent appraisal of the problems on which the balance of payments has a bearing.

The detailed statements presented above, however, relate necessarily to the past; and for the purposes of practical policy it is often necessary to make tentative estimates of results in the current year. In order to facilitate the making of such estimates, the following summary of current items is included:—

Current Movements of Goods, Services, and Gold Production.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35. Approx.
	£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	75,813	78,548	91,107	..
Current gold production .. ..	1,872	1,874	2,157	3,609	4,606	5,659	(6,500)
<b>Total credits from above items</b>	<b>140,517</b>	<b>100,129</b>	<b>79,207</b>	<b>79,422</b>	<b>83,154</b>	<b>96,766</b>	<b>..</b>
Imports of merchandise and silver..	143,300	130,788	60,586	44,059	56,872	59,681	..
Interest on central and local government debt .. ..	28,332	29,556	31,345	27,033	25,995	24,977	(23,300)
<b>Total debits from above items..</b>	<b>171,632</b>	<b>160,344</b>	<b>91,931</b>	<b>71,092</b>	<b>82,867</b>	<b>84,658</b>	<b>..</b>
Deficiency (—) or Surplus (+) on above items .. ..	- 31,115	- 60,215	- 12,724	+ 8,330	+ 287	+ 12,108	..
Deficiency (—) on Surplus (+) on all other current items .. ..	- 11,205	- 12,502	- 2,229	- 938	- 4,791	- 7,001	(- 9,000)
<b>Deficiency (—) or Surplus (+) on all current items .. ..</b>	<b>- 42,320</b>	<b>- 72,717</b>	<b>- 14,953</b>	<b>+ 7,392</b>	<b>- 4,504</b>	<b>+ 5,107</b>	<b>..</b>

Estimation of the prospective balance on current account in 1934-35 with the aid of the above table involves the making of only five individual estimates.

The deficiency or surplus on "all other current items" can be estimated roughly from the figures for 1933-34, making allowance for known tendencies. At the time of writing\* a deficiency of £ stg. 9 millions appears probable. This figure allows for some increase in the return on oversea capital privately invested in Australia, and assumes the maintenance of the present rate of exchange.

Interest on central and local government debt may be estimated much more closely, though the possibility of unexpected alterations in the sterling-dollar rate of exchange must not be overlooked. Taking the amount of interest payable as at 30th June, 1934, and making allowance for savings due to completed and prospective conversions subsequent to that date, the total for the year may be put at approximately £ stg. 23.3 millions.

The prospective sterling value of gold production in 1934-35 may also be estimated fairly closely. Production has averaged 75,700 fine ounces monthly in the past six months, at an average sterling price of about £6 19s. 10d. If the sterling price remains somewhere about its present level of £7 1s. 6d. production in the full year should reach a value of at least £ stg. 6.5 millions.

Estimates of the prospective value of imports and exports of merchandise and silver for the full year are much more problematic. The more important materials for such estimates are to be sought in the monthly returns of oversea trade, the prospects of "the season," the levels of import and export prices, and the general state of business both at home and abroad. Special factors will also be present on occasion. Since the data on which these two estimates must be based are constantly changing, no figures need be suggested here.

It must not be overlooked that the table above refers only to the "current" items in the balance of payments. Monetary movements of gold and capital movements must also be considered to complete the picture.

Monetary movements of gold, i.e., net exports in excess of production, are not likely to be appreciable during the current financial year.

Movements of long-term private capital are more likely to be inwards than outwards, though in what volume it is impossible to say. The direction of movement of short-term trade and speculative moneys is less predictable. It should be noted, however, that over £A 10 millions of trade moneys (see item 76) were being held temporarily in Australia on oversea account on 30th June, 1934. The possibility of the repatriation of these moneys is a factor to be reckoned with. As for capital transactions by governments and local bodies, new borrowings overseas in the current year are not likely to be appreciable. On the other hand, sinking fund requirements will probably be an important item.

## CHAPTER XV.

### PUBLIC FINANCE.

(See pp. 387, 449, 457, 462.)

#### 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

\* December, 1934.

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 £21 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 Niemeier'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, one-quarter and one-quarter of one per cent. on 3, 6 and 12 months' deposits, respectively.

*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 £6,360,000 sterling in 1931-32, as against a debit balance in 1930-31 of approximately £15,626,000 sterling. (See Appendix, Chapter VII.—Trade, p. 873.)

*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  $3\frac{1}{2}$  per cent., issue price £97 $\frac{1}{2}$ , maturing 1936-37, to replace £12,360,000 of  $5\frac{1}{2}$  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  $3\frac{1}{2}$  per cent., for Unemployment Relief and the funding of Treasury Bills. A reduction in the rate of interest on Treasury Bills from 4 per cent. to  $3\frac{1}{2}$  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  $2\frac{1}{4}$ ,  $2\frac{3}{4}$ , 3 and  $3\frac{1}{4}$  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  $3\frac{1}{2}$  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  $3\frac{3}{4}$  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  $2\frac{1}{2}$  per cent. was announced.

8th to 14th June.—*Premiers' Conference, Melbourne.*—By arrangement with the Loan Council, the Commonwealth Bank agreed to finance revenue deficits in 1933–34 by short-term loans to the amount of £8.5 millions, subject to reduction to the extent of any relief obtained by the States from conversion of oversea loans.

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  $3\frac{3}{4}$  per cent., issue price £98, maturing in 1948–53, to replace £20,951,000 of 6 per cent. and  $5\frac{3}{4}$  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  $3\frac{3}{4}$  per cent., issue price £99, maturing in 1946–49, to replace £16,647,000 of  $5\frac{1}{2}$  per cent. and 5 per cent. stock with optional rights of redemption.

The Commonwealth Government provided £3,000,000 for assistance to wheat-growers to be financed partly from a temporary sales tax on flour of £4 5s. a ton, and in part from other sources. The special tax on incomes from property was raised from 5 to 6 per cent. and the customs duty on imported tobacco raised by 6d. a lb.

*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.*—Premiers 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 2½ 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 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 the 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, interest at 3½ 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.

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 £3,545,000, 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 is to be allocated for Defence equipment and £2,000,000 for assistance to the States.

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.
	Deficit Realized for Year.	Estimated Deficit (Prior to Melbourne Conference.)	Deficit Realized for Year. (a)	Deficit realized for Year.	Deficit realized for Year.	Estimated Deficit.
New South Wales (b)	7,850	11,510	(e) 14,228	3,758	3,208	2,910
Victoria ..	2,450	3,060	1,608	842	769	243
Queensland ..	840	1,630	2,075	1,554	1,129	1,002
South Australia ..	1,810	2,400	1,063	1,009	844	518
Western Australia ..	1,420	1,860	1,558	864	789	644
Tasmania ..	240	220	272	55	48	208
Six States ..	14,610	20,680	20,804	8,082	6,787	5,525
Commonwealth ..	10,760	20,400	(+)1,314	(+)3,545	(+)1,302	(+) 14
Grand Total ..	(c) 25,370	(d) 41,080	19,490	4,537	5,485	5,511

(a) Preliminary figures. (b) Exclusive of Metropolitan Board of Water Supply and Sewerage, (c) Excluding interest, &c., £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	..	..	..	32,594	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

Comparing results for the September quarter of the past four years, taxation receipts increased by £4.06 millions in 1932, but fell in 1933 by £1,672,000 and by £1,690,000 in 1934. 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 an increase of £555,000 in 1934.

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	..	..	..	14,218	10,222	3,996

(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 22½ per cent. but it safeguards the capital of the investor.

4. To the Government employee 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 12½ 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 892.

## 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, 1933-34.

Particulars.	See page—	Amount.	Per Head of Population.
Consolidated Revenue Fund—(a)			£
Revenue .. .. .	377, 378	73,941,953	£ s. d. 11 2 2
Expenditure .. .. .	377, 388	(b)73,941,953	11 2 2
Loan Fund—			
Works Expenditure, 1933-34 .. .. .	400	221,748	} 0 1 7
Unemployment Relief .. .. .	"	300,161	
Wheat Bounty .. .. .	"	257	
Total .. .. .	"	522,166	
Aggregate Expenditure to 30th June, 1934	"	89,558,003	..
Public Debt, 31st December, 1934—			
Commonwealth—(c)			
War .. .. .	403	278,695,941	41 11 1
Works and other purposes .. .. .	"	115,796,865	17 5 4
Total (c) .. .. .	"	394,492,806	58 16 5
States(c) .. .. .	441	842,629,587	125 17 11
Grand Total(c) .. .. .	"	1,237,122,393	184 9 1
Place of Maturity—			
Australia (£ Aust.) .. .. .	"	643,898,339	96 0 1
London (£ Stg.) .. .. .	"	547,325,462	81 12 1
New York (d) .. .. .	"	45,898,592	6 16 11
Total (c) .. .. .	"	1,237,122,393	184 9 1

(a) Excludes balance of interest on States' Debts. (b) Includes Balance of Receipts over ordinary expenditure, £1,301,570, appropriated for payment of Invalid and Old-age Pensions in following year. (c) Total "Face" or "Book" value of the Public Debt leaving out of account currency changes since the loans were floated. (d) 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. STATE FINANCE, 1933-34.

## STATE FINANCE, 1933-34 (a).

States.	Revenue. (Page 420.)		Expenditure. (Page 428.)		Net Works Loan Expenditure. (Page 432.)	
	Amount.	Per Head.	Amount.	Per Head.	Amount.	Per Head.
	£	£ s. d.	£	£ s. d.	£	£ s. d.
New South Wales .. .. .	45,508,239	17 8 3	48,762,965	18 13 2	7,003,812	2 13 7
Victoria .. .. .	24,567,739	13 9 3	25,336,797	13 17 8	2,199,550	1 4 0
Queensland .. .. .	13,859,385	14 11 7	14,987,916	15 15 4	1,717,182	1 16 2
South Australia .. .. .	10,187,986	17 9 10	11,031,802	18 18 10	671,466	1 3 1
Western Australia .. .. .	8,481,697	19 5 2	9,270,609	21 0 11	2,563,087	5 16 5
Tasmania .. .. .	2,698,214	11 15 7	2,746,099	11 19 9	118,783	0 10 4
All States .. .. .	105,303,260	15 17 2	112,136,188	16 17 8	14,264,880	2 3 0

(a) Preliminary figures subject to revision.

## CHAPTER XVI.

## PRIVATE FINANCE.

## B. BANKING, p. 447.

## ALL CHEQUE-PAYING BANKS—AVERAGE LIABILITIES AND ASSETS IN AUSTRALIA, QUARTER ENDED 31st DECEMBER, 1934.

Average Liabilities. (Page 453.)		Average Assets. (Page 454.)	
	£		£
Notes in circulation ..	169,865	Coin and Bullion ..	2,621,746
Bills in circulation ..	2,850,214	Australian Notes and Cash with Commonwealth Bank .. ..	50,617,095
Balances due to other Banks	32,726,031	Government and Municipal securities .. ..	100,295,282
Deposits—		Landed and House property Balances due from other Banks .. ..	4,211,097
Not bearing interest ..	113,913,816	Notes and Bills of other Banks .. ..	1,797,418
Bearing interest ..	227,926,234	Discounts, Overdrafts, and all other Assets ..	274,181,945
<b>Total Liabilities (a) ..</b>	<b>377,586,160</b>	<b>Total Assets (a) ..</b>	<b>442,912,963</b>

(a) Government "Set-off" Accounts, Interstate (Commonwealth Bank) deducted.

## § 2. Savings Banks, p. 460.

## SAVINGS BANK DEPOSITS (page 463).

State or Territory.	31st July, 1934.	31st August, 1934.	30th Septem- ber, 1934.	31st October, 1934.	30th Novem- ber, 1934.	31st Decem- ber, 1934.
	£ '000.	£ '000.	£ '000.	£ '000.	£ '000.	£ '000.
New South Wales	75,826	76,091	76,119	76,456	76,287	76,167
Victoria ..	69,888	70,195	70,355	70,587	70,510	70,375
Queensland ..	25,000	25,172	25,455	25,787	25,878	25,809
South Australia ..	23,419	23,540	23,589	23,631	23,583	23,556
Western Australia	10,398	10,532	10,563	10,600	10,629	10,539
Tasmania ..	6,086	6,183	6,196	6,216	6,225	6,198
Federal Capital Territory ..	234	237	234	238	234	228
Northern Territo- ry ..	44	44	45	49	49	50
<b>Total ..</b>	<b>210,895</b>	<b>211,994</b>	<b>212,556</b>	<b>213,564</b>	<b>213,395</b>	<b>212,922</b>

## CHAPTER XVII.

## MINERAL INDUSTRY.

## § 1. The Mineral Wealth of Australia.

3. Value of Production, p. 485.—The following table gives the value of Australian mineral production for the year 1933 :—

MINERAL PRODUCTION.—VALUE, 1933.

Mineral.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
	£	£	£	£	£	£	£	£
Gold ..	226,068	448,228	710,168	49,619	4,915,958	51,579	5,058	6,406,678
Silver and Lead ..	1,783,207	198	708,804	..	6,860	70,795	411	2,570,275
Copper ..	26,775	..	105,031	2,928	1,132	395,286	1	531,153
Iron ..	1,641	..	8,691	829,363	..	1,498	..	841,193
Tin ..	218,244	1,350	123,620	..	4,557	190,041	2,519	540,331
Zinc ..	283,845	..	..	..	..	..	..	283,845
Coal (Black) ..	4,306,799	328,704	693,383	..	289,806	85,848	..	5,704,540
Other ..	118,455	281,957	73,619	194,524	50,889	50,621	10,161	780,226
<b>Total ..</b>	<b>6,965,034</b>	<b>1,060,437</b>	<b>2,423,316</b>	<b>1,076,434</b>	<b>5,269,202</b>	<b>845,668</b>	<b>18,150</b>	<b>17,658,241</b>

## § 12. Oil Shale and Mineral Oil, p. 514.

1. *Shale Oil.*—Early in 1933 the Governments of the Commonwealth and of New South Wales appointed a technical Committee to inquire into the economics of the shale oil industry, with Newnes as the focal point. The Committee recommended that a company be formed for the purpose of carrying out large scale operations at Newnes with an annual production of about 6 million gallons of petrol and 20,000 tons of crude oil. The capital of the company was stated at £600,000 of which £300,000 was to be provided conjointly by the Commonwealth Government and the Government of New South Wales. It is the opinion of both Governments, however, 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 it would be futile to countenance the formation of a company. The matter is being further investigated.

2. *Production of Oil from Coal by the Hydrogenation Process.*—Negotiations were entered into by the Commonwealth Government with Imperial Chemical Industries Ltd., England, with a view to ascertaining the terms and conditions under which that company would be prepared to erect and operate a plant in Australia for the production of oil from coal by the hydrogenation process with a capacity of 1,000 tons of coal per day. The company expressed its willingness to co-operate but suggested that before any definite proposals be formulated it was desirable to wait until it had six months' experience of running its own first plant in England, which was expected to commence operations in January, 1935. Pending these results, matters relating to site, costs, etc., were submitted to a Committee consisting of nominees of the Commonwealth and State Governments (excepting Western Australia, who did not desire representation) and of the Imperial Chemical Industries who was nominated by the Synthetic Coal Oil Products Pty. Ltd. The Committee submitted its report in September 1934, but the replies to the specific terms of reference were inconclusive by reason of the fact sufficient detailed information

was not available covering all items in the terms of reference. Until such times as it became available the Committee considered it would be unwise to make any recommendation which might involve capital expenditure of millions of pounds. The Committee remains in existence and will meet again when it is in possession of additional information based upon the experience of the large scale plant in England and it becomes apparent that decisive answers can be given to the questions submitted to it.

## CHAPTER XIX.

### AGRICULTURAL PRODUCTION.

#### § 4. Wheat.

7. **Voluntary Wheat Pools, p. 568.**—(i) *General.* Voluntary wheat pools operated in the States of New South Wales, Victoria, South Australia, and Western Australia during the season 1933-34. The New South Wales pool had been inactive during 1928-29 and 1929-30. 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, 1933-34.

Particulars.	Unit.	New South Wales.	Victoria.	Queensland. (b)	South Australia.	Western Australia.
Wheat received	Bushel	109,874	6,637,290	3,950,129	5,541,752	12,433,152
Percentage on Total Marketable Wheat	%	0.2	15.6	90.6	18.0	33.1
Estimated average cost of rail freight to sea- board, per bushel	d.	5.58	4.6	4.75	3.27	4.50
Estimated average cost per bushel of Adminis- tration and other ex- penses	d.	2.86	(a)	(c) 4.5	(c) 3.5	2.75

(a) Not yet available.

(b) Compulsory Pool.

(c) Approximate.



(iii) *Finance.* The requisite financial accommodation in New South Wales, Victoria and South Australia was furnished by the Commonwealth Bank. In Western Australia funds were made available by the Co-operative Wholesale Society Ltd. of Great Britain. 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<sup>(a)</sup> PER BUSHEL MADE TO OCTOBER, 1934.**

Particulars.	New South Wales.	Victoria.	South Australia.	Western Australia.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1st Payment .. .. .	} 2 9 $\frac{1}{8}$	{ 1 6 0 7 $\frac{1}{2}$ 0 2 $\frac{1}{2}$	} 1 10 0 2 $\frac{1}{2}$ 0 1 $\frac{1}{2}$	} 2 5
2nd Payment .. .. .				
3rd Payment .. .. .				
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 1933-34 amounted to 4,361,614 bushels, of which 3,950,129 bushels, or 90.6 per cent., was delivered into the pool. Advances were made on No. 1 quality wheat at the rate of 2s. per bushel; other grades bearing 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 has been made and a third at the same rate is contemplated.

## CHAPTER XXV. LABOUR, WAGES, AND PRICES.

### A.—PRICES.

#### § 2. Retail Prices and House Rents, p. 697.

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.	1929.				1930.				1931.				1932.				1933.			
	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 .. .. .	1,916	1,905	1,914	1,929	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
Newcastle .. .. .	1,777	1,758	1,761	1,769	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
Broken Hill .. .. .	1,753	1,761	1,768	1,793	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
Goulburn .. .. .	1,897	1,891	1,901	1,926	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	1,380
Bathurst .. .. .	1,647	1,618	1,620	1,642	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	1,264	1,289	1,282
Weighted Average— New South Wales .. .. .	1,898	1,887	1,895	1,910	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
<b>VICTORIA.</b>																				
Melbourne .. .. .	1,801	1,816	1,816	1,815	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
Ballarat .. .. .	1,604	1,610	1,636	1,655	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
Bendigo .. .. .	1,629	1,621	1,655	1,659	1,577	1,576	1,525	1,428	1,380	1,330	1,297	1,294	1,286	1,274	1,259	1,226	1,196	1,200	1,225	1,224
Geelong .. .. .	1,731	1,717	1,729	1,734	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
Warrnambool .. .. .	1,594	1,600	1,654	1,688	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	1,399
Weighted Average— Victoria .. .. .	1,782	1,795	1,798	1,799	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
<b>QUEENSLAND.</b>																				
Brisbane .. .. .	1,633	1,610	1,615	1,624	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
Toowoomba .. .. .	1,499	1,477	1,488	1,508	1,453	1,427	1,396	1,337	1,324	1,286	1,246	1,251	1,251	1,260	1,239	1,210	1,195	1,188	1,199	1,202
Rockhampton .. .. .	1,579	1,545	1,551	1,559	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
Charters Towers .. .. .	1,580	1,547	1,565	1,539	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
Warwick .. .. .	1,496	1,468	1,476	1,495	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
Weighted Average— Queensland .. .. .	1,613	1,589	1,595	1,608	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

RETAIL PRICE INDEX NUMBERS—FOOD, GROCERIES AND RENT—ALL HOUSES—*continued.*

Weighted Average—Six Capitals in 1911 = 1,000.

Town.	1929.				1930.				1931.				1932.				1933.			
	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 .. .. .	1,766	1,784	1,781	1,755	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
Kadina, &c. . . . .	1,489	1,471	1,497	1,506	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
Port Pirie .. . . .	1,606	1,595	1,618	1,621	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
Mount Gambier .. .	1,439	1,445	1,463	1,466	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
Peterborough .. . .	1,741	1,724	1,758	1,749	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
Weighted Average— South Australia .. .	1,743	1,759	1,759	1,736	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
WESTERN AUSTRALIA.																				
Perth, &c. .. . . .	1,724	1,742	1,716	1,678	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
Kalgoorlie, &c. . . .	1,626	1,667	1,659	1,579	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
Northam .. . . . .	1,664	1,697	1,672	1,633	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
Bunbury .. . . . .	1,578	1,613	1,616	1,586	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
Geraldton .. . . . .	1,627	1,650	1,661	1,629	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
Weighted Average— Western Australia .. .	1,707	1,728	1,706	1,663	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
TASMANIA.																				
Hobart .. . . . . .	1,730	1,721	1,725	1,740	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
Launceston .. . . .	1,618	1,611	1,628	1,668	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	1,310	1,332	1,317
Burnie .. . . . . .	1,640	1,623	1,663	1,669	1,589	1,606	1,563	1,466	1,389	1,365	1,337	1,340	1,370	1,347	1,320	1,297	1,259	1,265	1,255	1,242
Devonport .. . . .	1,609	1,605	1,634	1,635	1,539	1,535	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
Queenstown .. . . .	1,494	1,487	1,492	1,520	1,464	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
Weighted Average— Tasmania .. . . . .	1,681	1,673	1,683	1,704	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
Weighted Average— Thirty Towns .. . . .	1,797	1,797	1,800	1,803	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
Weighted Average— Six Capital Cities .. .	1,820	1,821	1,823	1,825	1,752	1,730	1,668	1,582	1,546	1,501	1,447	1,425	1,435	1,419	1,395	1,363	1,330	1,342	1,355	1,354

*Retail Price Index—Numbers—Capital Cities—Annual Figures—1901 to 1933.*—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 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.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Sydney .. .. .	917	936	989	1,156	1,549	1,783	2,148	1,898	1,703	1,820	1,732	1,785	1,867	1,846	1,826	1,948	1,759	1,567	1,524	1,430
Melbourne .. .. .	965	925	935	1,091	1,466	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
Brisbane .. .. .	965	947	1,018	1,078	1,495	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
Adelaide .. .. .	1,028	951	1,020	1,215	1,554	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
Perth .. .. .	1,184	1,197	1,346	1,302	1,486	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
Hobart .. .. .	1,011	1,010	1,058	1,212	1,635	1,748	2,162	2,025	1,794	1,803	1,849	1,810	1,868	1,788	1,727	1,833	1,702	1,459	1,425	1,354
Weighted Average— Six Capitals .. .. .	972	955	1,000	1,144	1,514	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

**HOUSING—ALL HOUSES.**

Sydney .. .. .	858	911	1,090	1,279	1,252	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
Melbourne .. .. .	733	804	970	1,126	1,180	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
Brisbane .. .. .	488	575	767	882	905	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
Adelaide .. .. .	629	812	1,112	1,040	1,022	1,108	1,216	1,289	1,360	1,424	1,551	1,565	1,553	1,601	1,665	1,607	1,477	1,240	1,134	1,137
Perth .. .. .	801	684	810	914	885	916	996	1,055	1,092	1,150	1,134	1,154	1,316	1,331	1,382	1,395	1,407	1,304	1,177	1,166
Hobart .. .. .	667	708	805	914	956	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
Weighted Average— Six Capitals .. .. .	751	816	1,000	1,135	1,143	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

**FOOD, GROCERIES AND HOUSING—ALL HOUSES—COMBINED.**

Sydney .. .. .	893	926	1,031	1,206	1,427	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
Melbourne .. .. .	870	875	950	1,105	1,349	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
Brisbane .. .. .	769	794	915	997	1,252	1,442	1,645	1,511	1,442	1,510	1,506	1,533	1,653	1,598	1,595	1,620	1,441	1,315	1,258	1,214
Adelaide .. .. .	864	894	1,058	1,143	1,335	1,468	1,756	1,653	1,574	1,670	1,693	1,727	1,739	1,742	1,730	1,772	1,593	1,341	1,266	1,235
Perth .. .. .	1,027	986	1,126	1,143	1,239	1,420	1,617	1,609	1,495	1,538	1,580	1,616	1,640	1,603	1,677	1,715	1,591	1,416	1,329	1,271
Hobart .. .. .	869	886	954	1,090	1,356	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
Weighted Average— Six Capitals .. .. .	880	897	1,000	1,140	1,362	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

## 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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