

CHAPTER VI.

TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 1. System of Record.

In the system of recording statistics of oversea shipping Australia is considered as a unit, and, therefore, only one entry and one clearance are counted for each voyage, without regard to the number of States visited.

On the arrival at, or departure from, a port in Australia, whether from or for an oversea country or from another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month the information so obtained is forwarded to the Commonwealth Bureau of Census and Statistics. Similar documents furnish information regarding oversea migration and interstate migration by sea. This arrangement has been in operation since the 1st July, 1924.

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

In all instances the tonnage quoted in the following tables is net tonnage.

§ 2. Oversea Shipping.

1. **Total Movement.**—The following table gives the number and tonnage of oversea steam and sailing vessels entering Australian ports during the years 1924-25 to 1934-35 :—

TOTAL OVERSEA SHIPPING, ENTERED.—AUSTRALIA.

Year.	Steam.		Sailing.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1924-25	1,675	5,535,871	51	60,529	1,726	5,596,400
1926-27	1,598	5,512,840	26	46,030	1,624	5,558,870
1927-28	1,544	5,373,485	33	45,560	1,577	5,419,045
1928-29	1,564	5,521,725	18	29,858	1,582	5,551,583
1929-30	1,499	5,413,192	23	31,254	1,522	5,444,446
1930-31	1,517	5,562,230	17	19,287	1,534	5,581,517
1931-32	1,497	5,653,731	22	33,167	1,519	5,686,898
1932-33	1,531	5,891,878	23	41,446	1,554	5,933,324
1933-34	1,356	5,308,584	24	43,987	1,380	5,352,571
1934-35	1,559	5,951,226	23	43,024	1,582	5,994,250

The average tonnage per vessel entered has risen from 3,242 tons per vessel in 1924-25 to 3,789 tons in 1934-35.

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.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
TONNAGE ENTERED.						
United Kingdom and European Countries	Cargo	1,632,252	1,524,673	1,549,889	1,644,837	1,668,613
	Ballast	248,998	503,997	946,342	485,391	376,291
New Zealand	Cargo	400,623	426,704	448,684	469,343	539,443
	Ballast	157,029	97,781	110,559	92,913	107,662
Asiatic Countries and Islands in the Pacific	Cargo	1,196,313	1,182,212	1,291,014	1,313,042	1,476,957
	Ballast	765,805	895,825	441,286	149,376	520,769
Africa	Cargo	34,543	7,836	19,129	13,394	22,535
	Ballast	261,442	226,226	144,699	143,275	143,468
North and Central America	Cargo	861,415	802,672	966,985	1,041,000	1,105,873
	Ballast	12,987	..	12,088	..	..
South America	Cargo	2,821	2,821	2,649	..	2,639
	Ballast	7,289	16,151	..	..	..
	Cargo	4,127,967	3,946,918	4,278,350	4,481,616	4,846,060
	Ballast	1,453,550	1,739,980	1,654,974	870,955	1,148,190
Total .. .. .	.. .. .	5,581,517	5,686,898	5,933,324	5,352,571	5,994,250
TONNAGE CLEARED.						
United Kingdom and European Countries	Cargo	2,457,125	2,673,463	2,496,405	2,495,377	2,517,126
	Ballast	..	5,659	11,784	8,447	20,364
New Zealand	Cargo	469,806	385,088	460,037	512,190	512,487
	Ballast	19,121	66,739	93,613	40,816	28,863
Asiatic Countries and Islands in the Pacific	Cargo	1,651,536	1,647,769	1,657,465	1,199,738	1,653,931
	Ballast	311,894	249,981	440,372	440,489	422,053
Africa	Cargo	(a)169,060	42,096	33,567	22,220	35,573
	Ballast	..	56	2,627	2,627	..
North and Central America	Cargo	450,702	488,134	546,663	536,061	615,644
	Ballast	120,786	130,270	146,511	148,268	83,355
South America	Cargo	18,643	19,631	23,272	5,077	5,398
	Ballast	..	..	..	..	..
	Cargo	5,216,872	5,256,181	5,213,409	4,770,663	5,340,159
	Ballast	451,801	452,705	694,907	640,647	554,635
Total .. .. .	.. .. .	5,668,673	5,708,886	5,908,316	5,411,310	5,894,794

(a) Includes 23 vessels of 71,801 tons cleared to Las Palmas and 13 vessels of 40,966 tons cleared to Port Said for orders, all of which were subsequently diverted to ports in the United Kingdom and Europe.

3. Nationality of Oversea Shipping.—The greater part of the shipping visiting Australia is of British nationality. The proportion of British tonnage during 1934-35

as compared with the previous year showed a drop of 1.65 per cent., although there was an increase of 346,493 in tonnage.

The corresponding rise in the proportion of foreign tonnage was accompanied by an increase of 295,186 tons.

A decrease of 2.88 in the percentage of shipping in cargo, and a corresponding increase in that of shipping in ballast, also occurred, but the percentage in cargo is still much higher than in any of the three years prior to 1933-34.

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.				
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
BRITISH—					
Australian	227,550	230,996	264,848	289,172	310,186
United Kingdom	3,086,586	3,138,330	3,218,273	2,788,464	3,137,192
Canadian	38,683	42,032	54,228	79,268	76,101
New Zealand	320,822	260,628	291,329	335,513	321,481
Other British	62,398	59,905	115,681	221,647	215,597
Cargo	2,924,814	2,680,856	2,831,878	3,032,040	3,323,552
Ballast	811,225	1,051,035	1,112,481	682,024	737,005
Total British	3,736,039	3,731,891	3,944,359	3,714,064	4,060,557
Per cent. on total	66.94	65.62	66.48	69.39	67.74
FOREIGN—					
Danish	44,693	46,061	107,052	75,753	48,613
Dutch	147,425	156,617	185,342	164,469	176,424
French	102,641	90,552	108,032	114,715	137,142
German	114,922	116,004	117,589	121,829	134,231
Italian	68,220	68,220	76,674	83,055	62,205
Japanese	671,742	688,712	546,088	333,109	461,400
Norwegian	339,695	395,269	394,470	335,775	426,539
Swedish	114,244	111,196	136,059	110,927	141,265
United States	186,800	205,485	245,530	247,959	240,474
Other Foreign	55,096	76,891	72,129	50,916	105,400
Cargo	1,203,153	1,266,062	1,446,472	1,449,576	1,522,508
Ballast	642,325	688,945	542,493	188,931	411,185
Total Foreign	1,845,478	1,955,007	1,988,965	1,638,507	1,933,693
Per cent. on total	33.06	34.38	33.52	30.61	32.26
Cargo	4,127,967	3,946,918	4,278,350	4,481,616	4,846,060
Per cent. on total	73.96	69.40	72.11	83.73	80.85
Ballast	1,453,550	1,739,980	1,654,974	870,955	1,148,190
Per cent. on total	26.04	30.60	27.89	16.27	19.15
Grand Total	5,581,517	5,686,898	5,933,324	5,352,571	5,994,250

The Australian tonnage which entered Australia from overseas during the year 1934-35 represented 5.17 per cent. of the total tonnage entered and was mainly confined to the New Zealand and Pacific Island trade.

§ 3. Shipping of Ports.

The total shipping tonnage—oversea, interstate and coastwise—which entered the more important ports of Australia during the year 1934-35, together with similar information in regard to some of the ports of New Zealand and of Great Britain for the year 1934, will be found in the next table:—

SHIPPING OF PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM.

Port.	Tonnage Entered.	Port.	Tonnage Entered.
AUSTRALIA—		ENGLAND AND WALES—	
Sydney (N.S.W.) ..	10,056,552	London ..	29,373,605
Melbourne (Vic.) ..	7,612,799	Liverpool (including Birkenhead) ..	16,737,928
Newcastle (N.S.W.) ..	4,532,037	Southampton ..	12,008,811
Adelaide (S.A.) ..	4,496,947	Tyne Ports ..	8,981,298
Brisbane (Qld.) ..	4,170,616	Plymouth ..	6,730,864
Fremantle (W.A.) ..	3,573,536	Cardiff ..	6,534,525
Townsville (Qld.) ..	1,250,934	Hull ..	5,643,708
Hobart (Tas.) ..	991,319	Swansea ..	3,780,980
Geelong (Vic.) ..	877,466	Manchester (including Runcorn) ..	3,747,664
Kembla (N.S.W.) ..	823,936	Bristol ..	3,392,604
Pirie (S.A.) ..	758,367	Blyth ..	2,926,822
Whyalla (S.A.) ..	726,016	Middlesbrough ..	2,839,198
Cairns (Qld.) ..	649,929	Harwich ..	2,785,281
Mackay (Qld.) ..	479,864	Dover ..	2,732,125
Lincoln (S.A.) ..	472,800	Sunderland ..	2,722,066
Wallaroo (S.A.) ..	421,423	Portsmouth ..	2,259,181
Albany (W.A.) ..	408,100	Grimsby (including Immingham) ..	2,226,569
Burnie (Tas.) ..	395,068	Newport ..	2,218,957
Launceston (Tas.) ..	393,487	SCOTLAND—	
Rockhampton (Qld.) ..	367,302	Glasgow ..	5,645,016
Devonport (Tas.) ..	363,740	Greenock (including Port Glasgow) ..	3,268,385
Gladstone (Qld.) ..	321,825	Leith ..	2,127,659
NEW ZEALAND—		NORTHERN IRELAND—	
Wellington ..	3,643,839	Belfast ..	6,584,362
Auckland ..	2,751,813		
Lyttleton ..	1,947,026		
Otago ..	981,134		

Figures relating to ports of the United Kingdom have been obtained from the British Board of Trade's Statement of Navigation and Shipping for the year 1934, and those relating to New Zealand ports from the New Zealand Statistical Report on Trade and Shipping for the same year.

§ 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 1931 to 1935, so far as such information can be ascertained from the Shipping Registers of the various States. The Merchant Shipping Act, under which vessels are registered in Australia, does not, however, make it compulsory to register vessels under 15 tons burthen if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners.

VESSELS BUILT IN AUSTRALIA.

NUMBER AND TONNAGES.

Year.	Motor Vessels.				Sailing.				Pontoons, Dredges, &c.			Total.	
	No.	Tonnages.		No.	Tonnages.		No.	Tonnages.		No.	Tonnages.		
		Gross.	Net.		Gross.	Net.		Gross.	Net.		Gross.	Net.	
1931 ..	4	60	43	..	..	..	..	..	..	4	60	43
1932 ..	10	207	140	2	15	15	..	..	..	12	222	155
1933 ..	4	144	118	2	20	18	1	779	645	7	943	781	
1934 ..	16	489	300	3	25	25	..	..	..	19	514	325
1935 ..	9	247	181	1	16	14	..	..	..	10	263	195

No Steamers were built in Australia during the abovementioned years.

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, 1935 :—

VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1935.

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 ..	42	852	287	54,349	282	8,955	211	6,881	46	12,065	868	83,102
Victoria ..	35	3,244	127	145,938	56	1,269	43	671	57	23,628	318	174,750
Queensland ..	16	2,429	34	5,534	60	955	91	1,318	27	4,002	228	14,238
South Australia ..	11	337	61	8,903	56	2,528	52	3,092	21	4,743	201	19,603
Western Australia ..	9	173	28	5,810	31	604	287	4,425	21	4,370	376	15,382
Tasmania ..	5	530	41	3,906	68	1,734	66	2,455	1	382	181	9,007
Northern Territory ..	..	..	..	..	3	44	15	145	..	..	18	189
Total ..	118	7,565	578	224,440	556	16,089	765	18,987	173	49,190	2,190	316,271

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

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows :—(a) The aggregate of all ships recorded for each State as “Oversea *direct*” gives the oversea shipping for Australia as a whole. (b) The aggregate for all ships recorded in any State as “Oversea *direct*” plus those recorded as “Oversea *via States*” gives the total *oversea shipping* for that State. (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 1930-31 to 1934-35. 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.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
NUMBER.					
New South Wales ..	1,564	1,483	1,656	1,679	1,945
Victoria ..	1,534	1,494	1,678	1,777	1,908
Queensland ..	469	483	485	508	587
South Australia ..	606	598	644	694	842
Western Australia ..	305	311	309	326	347
Tasmania ..	941	933	984	1,008	1,035
Northern Territory ..	21	19	20	23	27
Total ..	5,440	5,321	5,776	6,015	6,691
TONNAGE.					
New South Wales ..	3,996,976	3,917,128	4,583,979	4,664,917	5,334,778
Victoria ..	3,274,609	3,154,197	3,594,992	3,791,069	4,062,750
Queensland ..	1,061,560	1,123,578	1,184,471	1,281,334	1,410,487
South Australia ..	2,143,692	2,176,155	2,191,498	2,335,796	2,761,195
Western Australia ..	1,653,953	1,643,755	1,695,267	1,763,371	1,855,563
Tasmania ..	1,134,113	1,094,767	1,255,877	1,282,947	1,101,544
Northern Territory ..	62,570	51,570	53,553	56,694	59,011
Total ..	13,327,473	13,191,150	14,559,637	15,176,128	16,585,328

3. **Oversea Vessels Moving Interstate.**—(*Oversea via States.*) To ascertain the aggregate movement of shipping between the States during the year 1934-35, 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, 1934-35.

States and Territory.	Entered.		Cleared.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales ..	481	2,471,662	536	2,763,993	1,017	5,235,655
Victoria ..	476	2,586,017	513	2,845,928	989	5,431,945
Queensland ..	247	1,525,839	281	1,696,867	528	3,222,706
South Australia ..	286	1,673,667	310	1,784,235	596	3,457,902
Western Australia ..	23	94,542	10	34,287	33	128,829
Tasmania ..	74	430,934	94	572,800	168	1,003,734
Northern Territory ..	1	1,218	1	2,429	2	3,647
Total ..	1,588	8,783,879	1,745	9,700,539	3,333	18,484,418

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 movements of vessels engaged solely in the interstate trade for Australia as a whole during the years 1930-31 to 1934-35 are shown below :—

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

Year.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
1930-31	4,954	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
1933-34	4,380	5,927,623	4,379	6,095,043
1934-35	4,946	6,884,789	4,955	6,976,104

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 1930-31 to 1934-35 :—

TOTAL INTERSTATE MOVEMENT OF SHIPPING.—AUSTRALIA.

Year.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
1930-31	6,916	20,987,466	6,936	21,065,052
1931-32	6,631	20,475,864	6,672	20,521,452
1932-33	7,226	22,397,933	7,188	22,415,557
1933-34	7,463	23,114,881	7,462	23,282,301
1934-35	8,279	25,369,207	8,288	25,460,522

(ii) *States.* The following table shows the number and tonnage of vessels which entered and cleared each State from and for other States during 1934-35, including the coastal movements of oversea vessels :—

INTERSTATE SHIPPING OF EACH STATE, 1934-35.

States and Territory.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales	2,426	7,806,440	2,419	7,821,297
Victoria	2,384	6,648,767	2,399	6,735,321
Queensland	834	2,936,326	868	3,088,531
South Australia	1,128	4,434,862	1,133	4,409,921
Western Australia	370	1,950,105	339	1,808,193
Tasmania	1,109	1,532,478	1,108	1,541,251
Northern Territory	28	60,229	22	56,008
Total, Australia	8,279	25,369,207	8,288	25,460,522

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 1931 to 1935 :—

INTERSTATE AND COASTAL STEAMSHIP SERVICES.—AUSTRALIA.

Particulars.	1931.	1932.	1933.	1934.	1935.
Number of companies making returns (a)	23	23	22	23	22
Number of steamships	162	154	154	155	156
Tonnage { Gross	319,756	306,878	309,309	302,897	324,891
Net	178,549	171,089	172,334	168,056	180,468
Horse-power (Nominal)	34,357	33,340	34,514	33,510	36,037
Number of passengers for which licensed					
1st class	7,278	7,222	7,230	7,105	7,302
2nd class and steerage	1,775	1,755	1,755	1,755	1,920
Complement of Crew { Masters and officers	524	498	512	505	513
Engineers	538	514	529	419	548
Crew	4,232	4,072	4,193	4,045	4,264

(a) Includes the Australasian Steamship Owners' Federation.

§ 6. Tonnage of Cargo.

1. Oversea and Interstate Cargo.—(i) *Australia*. The table hereunder shows the aggregate tonnage of oversea cargo discharged and shipped and the tonnage of interstate cargo shipped in all ports for the years 1930–31 to 1934–35. 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.
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
1933–34 ..	2,606,101	1,395,291	4,260,182	738,846	4,278,159	1,201,617
1934–35 ..	2,969,914	1,722,485	5,220,757	857,976	5,244,386	1,346,422

(ii) *Principal Ports.* The following table shows the tonnage of Oversea and Interstate Cargo discharged and shipped at principal ports, 1934-35 :—

TONNAGE OF CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1934-35.

Port.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Sydney	1,609,862	950,659	2,560,521	1,398,477	710,550	2,109,027
Newcastle	134,165	1,284,051	1,418,216	311,045	1,845,664	2,156,709
Kembla	27,375	318,124	345,499	89,758	169,086	258,844
Other .. ..	..	..	..	18,625	41,976	60,601
Total, New South Wales	1,771,402	2,552,834	4,324,236	1,817,905	2,767,276	4,585,181
Melbourne	1,385,226	1,911,496	3,296,722	816,204	836,844	1,653,048
Geelong	154,178	157,956	312,134	225,666	49,545	275,211
Other	13,813	9,003	22,816	5,810	4,321	10,131
Total, Victoria	1,553,217	2,078,455	3,631,672	1,047,680	890,710	1,938,390
Brisbane	292,807	403,098	695,905	209,159	177,141	386,300
Cairns	10,617	37,056	47,673	74,885	78,341	153,226
Townsville	51,251	64,354	115,605	109,056	57,630	166,686
Other	17,131	50,348	67,479	196,363	71,512	267,875
Total, Queensland	371,806	554,856	926,662	589,463	384,624	974,087
Adelaide	348,832	630,620	979,452	363,659	299,856	663,515
Pirie	58,039	168,220	226,259	378,873	149,267	528,140
Walleroo	18,722	1,230	19,952	202,425	16,937	219,362
Whyalla .. ..	..	..	..	395,877	1,322,070	1,717,947
Other	9,743	7,216	16,959	180,242	13,225	193,467
Total, South Australia	435,336	807,286	1,242,622	1,521,076	1,801,355	3,322,431
Fremantle	430,501	278,926	709,427	606,103	37,769	643,872
Bunbury	18,593	1,107	19,700	161,684	24,652	186,336
Geraldton	23,847	4,856	28,703	127,897	2	127,899
Other	6,030	8,257	14,287	58,300	16,415	74,715
Total, Western Australia	478,971	293,146	772,117	953,984	78,838	1,032,822
Hobart	59,159	266,394	325,553	122,782	193,684	316,466
Launceston	5,698	88,994	94,692	21,073	69,287	90,360
Devonport	354	25,443	25,797	1,941	278,462	280,403
Other .. ..	..	47,661	47,661	2,467	124,481	126,948
Total, Tasmania	65,211	428,492	493,703	148,263	665,914	814,177
Darwin (Northern Territory)	16,456	11,066	27,522	362	2,091	2,453
Total, AUSTRALIA	4,692,399	6,726,135	11,418,534	6,078,733	6,590,808	12,669,541

2. **Nationality.**—The following table shows the total oversea cargo discharged and shipped according to the nationality of the vessels carrying during the years 1930-31 to 1934-35 :—

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

Vessels Registered at Ports in - -	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
British—					
Australia	219,168	223,841	229,930	257,497	307,410
United Kingdom	5,528,818	5,429,998	5,644,962	4,799,937	5,813,352
Canada	86,775	64,169	88,733	115,125	127,379
New Zealand	357,258	260,988	317,821	357,087	323,630
Other British	98,492	134,739	221,606	403,757	392,606
Total British	6,290,541	6,113,735	6,503,052	5,930,403	6,964,407
Per cent. on Total	63.83	63.39	63.03	65.89	64.66
Foreign—					
Denmark	133,777	137,378	296,265	184,626	154,172
France	92,460	76,666	95,977	108,736	169,802
Germany	241,868	248,983	258,915	276,821	297,020
Italy	90,412	73,962	107,593	103,921	66,319
Japan	1,146,557	1,161,303	1,071,568	635,142	913,552
Netherlands(b)	234,897	234,768	373,188	280,509	308,187
Norway	868,346	876,991	883,810	814,447	1,023,612
Sweden	360,373	313,986	418,101	325,114	408,462
United States of America	282,383	232,182	226,033	246,858	240,271
Other Foreign	113,312	154,714	143,111	93,845	225,328
Total Foreign	3,564,385	3,530,933	3,814,471	3,070,017	3,806,725
Per cent. on Total	36.17	36.61	36.97	34.11	35.34
Grand Total	9,854,926	9,644,668	10,317,523	9,000,420	10,771,132

(a) Tons weight and tons measurement combined.

(b) Includes Netherlands East Indies.

§ 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 31st March, 1936, 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 27s. 6d. per ton weight and 1½d. per lb. plus 5 per cent. less 10 per cent. The charter rate for wheat was 27s. 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, 1936, was included in the Transport and Communication Bulletin No. 26, published by this Bureau.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a Magistrate assisted by skilled assessors, and when necessary are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping casualties reported on or near the coast during the year 1935 are shown in the Transport and Communication Bulletin No. 26. This information also was furnished by the Director of Navigation.

6. **Commonwealth Navigation and Shipping Legislation.**—(i) *General.* An account in some detail of the Commonwealth Navigation and Shipping Legislation was published in Official Year Book No. 17 (pp. 1053-5).

(ii) *Amending Acts.* Under an amendment of the Principal Act made by the Navigation Act 1926 permission may be granted by the Governor-General in Council to unlicensed British ships to engage in the carriage of passengers between any Commonwealth ports where injury is being done to the tourist traffic. By Order in Council under this provision, British vessels of not less than 10,000 tons gross register and of a speed of not less than 15 knots (reduced in December, 1928, to 14 knots) were granted permission—as exempt from the coasting trade provisions of the Act—to engage in the carriage of passengers between the port of Hobart and the ports of Brisbane, Sydney and Melbourne during certain specified periods in the tourist seasons.

The principal Act was further amended by the Navigation (Maritime Conventions) Act 1934 to implement, and to enable the Commonwealth Government to ratify, a number of International Maritime Conventions, the principal of which were the International Convention for the Safety of Life at Sea, 1929, and the International Convention Respecting Load Lines, 1930.

By the Navigation Act of 1935 Section 7 of the Principal Act was amended to permit British ships of not less than 10,000 tons gross tonnage and a sea speed of not less than 14 knots to carry passengers between ports in Australia not connected by rail without being deemed to engage in the coasting trade within the meaning of the Navigation Act, subject to the condition that such carriage of passengers is without break of journey, transhipment or second call at any intermediate port. Section 231 of the Principal Act was also amended by the Act of 1935 to make provision for the carriage of wireless telegraphy installation by the smaller cargo steamships engaged in interstate trade. Provision is also being made in some States for the carriage of wireless equipment on intra-state vessels.

7. **Ports and Harbours.**—A report in two volumes on "Transport in Australia", with special reference to Ports and Harbours facilities, was submitted to the Commonwealth Government by Sir George Buchanan, and published as two Parliamentary Papers (No. 86 printed 14th March, 1927, and No. 108 printed 9th May, 1927).

B. RAILWAYS.

§ 1. General.

1. **Introduction.**—In the following pages statistics relating to State-owned lines are, in the main, dealt with separately from those under the control of the Commonwealth Government. The railways owned by the different States are referred to throughout as "State" and those owned by the Commonwealth as "Federal" railways.

2. **Improvement of Railway Statistics.**—Earlier issues of the Year Book contain a condensation of the report issued in 1909 by the Commonwealth Statistician to the Minister for Home Affairs on the subject of "The Desirability of Improved Statistics of Government Railways in Australia" (see Year Book No. 7, page 598).

Considerable improvement, both as regards the volume of information and the mode of presentation thereof in the statistical tables appearing in the reports of the several Railway Commissioners, has been made during recent years.

3. **Railway Communication in Australia.**—An account of the progress of railway construction in Australia since the opening of the first line in 1854 will be found in Year Book No. 6, p. 681. Further information regarding railway communication in Australia and proposals for unification of gauge in the various systems are given in Year Book No. 22, pp. 259 to 261.

4. **Grafton-South Brisbane (Uniform Gauge) Line.**—The line from Grafton (New South Wales) to Brisbane (Queensland) which was opened for traffic on 27th September, 1930, was constructed to overcome the break of gauge between Sydney and Brisbane, and is the first step towards uniform gauge railway communication between the capitals of the mainland States. It was constructed under agreement between the Commonwealth and the States of New South Wales and Queensland, and is of 4 ft. 8½ in. gauge. The work consisted of regrading and relaying the existing New South Wales line between Grafton and Kyogle and the construction of a new line 94.82 miles in length from Kyogle (New South Wales) to South Brisbane (Queensland). Under the agreement, the Commonwealth in the first instance provided the cost of the work, of which one-fifth was deemed to have been on behalf of the Commonwealth, and four-fifths on behalf of the five mainland States of the Commonwealth collectively on a population basis. The agreement also provides that if in any financial year the earnings from the line exceed the working expenses, the excess shall be applied in paying to the Commonwealth the interest on the money provided by it on behalf of the States and the Commonwealth. The order in which such excess shall be applied is laid down in the agreement, and provides that the interest on the quotas of Victoria, South Australia and Western Australia shall be paid first, then the interest on the quotas of Queensland and New South Wales, and lastly the interest on the quota of the Commonwealth. Any balance remaining after payment of interest will be returned to Queensland and New South Wales. The States of Victoria, South Australia and Western Australia did not enter into the agreement, and the quotas of these States were assumed by the Commonwealth. To 30th June, 1935, the capital cost of construction and equipment was £4,364,000, the interest charge for the year 1934-35 being £202,000. 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 £34,358 being shown on the New South Wales section and a profit of £6,577 on the Queensland section. In addition, the following amounts were paid as interest:—New South Wales £72,204, and Queensland £27,038, the remainder, £102,758, 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 1930-31 to 1934-35. 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.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales	6,159.70	6,208.30	6,246.61	6,246.53	6,246.53
Victoria	4,741.69	4,745.71	4,745.71	4,745.71	4,745.71
Queensland	6,796.81	6,823.31	6,836.41	6,836.55	6,836.54
South Australia	3,759.10	3,775.81	3,775.81	3,775.81	3,775.90
Western Australia	4,911.37	4,966.06	5,068.72	5,090.87	5,089.50
Tasmania	806.45	786.45	786.45	786.45	776.46
Federal Capital Territory	4.94	4.94	4.94	4.94	4.94
Northern Territory	489.73	489.73	489.73	489.73	489.73
Australia	27,669.79	27,800.31	27,954.38	27,976.59	27,965.31

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, 1935 :—

RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE CLASSIFIED, 1934-35.

State or Territory.	Government Lines—		Private Lines available for General Traffic.	Total Open for General Traffic.
	State.	Federal.		
	Miles.	Miles.	Miles.	Miles.
New South Wales	6,163.83	..	82.70	6,246.53
Victoria	4,720.77	..	24.94	4,745.71
Queensland	6,566.65	..	269.89	6,836.54
South Australia	2,529.35	1,196.04	50.51	3,775.90
Western Australia	4,358.51	453.99	277.00	5,089.50
Tasmania	644.89	..	131.57	776.46
Federal Capital Territory .. ..	..	4.94	..	4.94
Northern Territory .. ..	..	489.73	..	489.73
Australia	24,984.00	2,144.70	836.61	27,965.31

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, 1935 :—

RAILWAYS.—GOVERNMENT AND PRIVATE.—COMPARISON OF FACILITIES, 1934-1935.

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	2.36	2.58	7.06	6.46	11.42	3.39	0.53	95.82	4.16
Per 1,000 sq. miles of Territory	20.19	54.00	10.20	9.94	5.22	29.62	5.26	0.94	9.40

7. **Classification of Lines according to Gauge, 1934-35.**—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, 1935, and of private railways open for general traffic to the 31st December, 1935, as nearly as possible.

RAILWAYS.—GOVERNMENT AND PRIVATE.—GAUGES, 1934-35.

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.							
New South Wales .. ..	..	6,124.32	39.51	..	..	..	6,163.83
Victoria	4,599.00	..	..	..	121.77	..	4,720.77
Queensland .. ..	..	68.82	6,467.57	..	..	30.26	6,566.65
South Australia	1,451.24	..	1,078.11	..	..	..	2,529.35
Western Australia .. ..	..	..	4,358.51	..	..	..	4,358.51
Tasmania .. ..	..	..	633.56	..	..	11.33	644.89
Total	6,050.24	6,193.14	12,577.26	..	121.77	41.59	24,984.00

PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.

New South Wales .. ..	..	45.97	36.73	..	..	..	82.70
Victoria	13.94	..	..	11.00	..	..	24.94
Queensland .. ..	..	..	99.50	..	7.50	162.89	269.89
South Australia .. ..	..	..	50.51	..	..	..	50.51
Western Australia .. ..	..	..	277.00	..	..	..	277.00
Tasmania .. ..	..	..	125.07	..	..	6.50	131.57
Total	13.94	45.97	588.81	11.00	7.50	169.39	836.61

ALL RAILWAYS OPEN FOR GENERAL TRAFFIC.

New South Wales .. ..	..	6,170.29	76.24	..	..	..	6,246.53
Victoria	4,612.94	..	..	11.00	121.77	..	4,745.71
Queensland .. ..	..	68.82	6,567.07	..	7.50	193.15	6,836.54
South Australia	1,451.24	597.86	1,726.80	..	..	..	3,775.90
Western Australia .. ..	..	453.99	4,635.51	..	..	..	5,089.50
Tasmania .. ..	..	..	758.63	..	..	17.83	776.46
Federal Capital Territory .. ..	..	4.94	..	..	..	..	4.94
Northern Territory .. ..	..	..	489.73	..	..	..	489.73
GRAND TOTAL	6,064.18	7,295.90	14,253.98	11.00	129.27	210.98	27,965.31

8. **Summary of Operations, 1934-35.**—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, 1935 :—

RAILWAYS.—FEDERAL, STATE AND PRIVATE.—SUMMARY, 1934-35.

Particulars.	Federal Railways.	State Railways.	Private Railways.	Total for Australia.
Mileage open (route) 30th June, 1935 Miles	2,144.70	24,984.00	836.61	27,965.31
Capital cost £	15,672,282	313,510,841	(a) 5,100,595	334,283,718
Cost per mile £	7,307	12,548	6,097	11,954
Gross revenue £	345,685	39,760,857	(b) 610,913	40,717,455
Gross revenue per train mile .. d.	154.75	142.53	133.33	142.48
Working Expenses £	379,668	28,080,537	(b) 352,967	28,813,172
Working Expenses per train mile .. d.	169.96	100.66	77.03	100.83
Net Revenue £	-33,983	11,680,320	(b) 257,946	11,904,283
Net Revenue per train mile .. d.	-15.21	41.87	56.30	41.65
Train miles run Miles	536,116	66,949,275	1,099,664	68,585,055
Passengers carried No.	97,958	355,898,052	1,226,832	357,223,742
Tons of goods, etc., carried .. Tons	87,208	29,821,889	2,773,191	32,682,288
Average number of employees .. No.	(d) 1,393	(d) 95,160	(b) (c) 939	97,492
Average wage £	205	222	226	222

(a) Exclusive of the capital cost of 158.92 miles of private lines for which information is not available.
 (b) Incomplete. (c) Employees at 31st December, 1935. (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, 1932 to 1935, classified according to gauge, together with the percentages on the total :—

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

Gauge.	At 30th June—							
	1932.		1933.		1934.		1935.	
	Miles.	%	Miles.	%	Miles.	%	Miles.	%
5 ft. 3 in. ..	7,860.50	24.88	7,859.71	24.70	7,855.07	24.65	7,840.82	24.60
4 ft. 8½ in. ..	9,205.61	29.14	9,317.75	29.28	9,324.67	29.26	9,331.02	29.27
3 ft. 6 in. ..	14,358.58	45.45	14,478.76	45.50	14,528.97	45.58	14,543.16	45.62
2 ft. 0 in. ..	131.87	0.42	131.87	0.42	131.91	0.41	131.91	0.41
.. ..	33.00	0.11	33.00	0.10	33.00	0.10	33.00	0.10
Total ..	31,589.56	100.00	31,821.09	100.00	31,873.62	100.00	31,879.91	100.00

(a) Exclusive of Tasmania, particulars of which are not available.

§ 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 built in the Federal Capital Territory, connecting Canberra with the New South Wales railway system at Queanbeyan. An extension of the transcontinental line

from Port Augusta to Port Pirie is at present under construction. The North Australia Railway has, since its acquisition by the Commonwealth, been extended twice, first to Emungalan and then to Birdum. The Central Australia Railway has also been extended from Oodnadatta to Alice Springs. In 1917 the Commonwealth Railways Act was passed by which all the Federal railways were vested in the Commonwealth Railways Commissioner.

2. **Northern Territory Railways.**—(i) *North Australia Railway (Darwin to Birdum).*—Provision was made in the Northern Territory Acceptance Act of 1910 for the construction of a line to and from South Australia. The first step was the extension of the existing line—Darwin to Pine Creek—as far as Katherine River, which was completed in 1917. After enquiry the Parliamentary Standing Committee on Public Works recommended a further extension to Daly Waters to form portion of an eventual line through Newcastle Waters to Camooweal in Queensland. The construction of the line from Katherine River to Daly Waters, a distance of 160 miles, was commenced by day labour in 1927. A section as far as Mataranka was opened for public traffic on 1st July, 1928, but owing to the curtailment of loan moneys the line was not taken beyond Birdum, 316 miles from Darwin, which section was opened on 4th September, 1929.

(ii) *Central Australia Railway (Port Augusta to Alice Springs).*—The extension of the southern portion of the North—South line was authorized by the Railways (South Australia) Agreement Act 1926, which ratified the agreement between the Commonwealth and South Australian Governments for the construction of a 3 ft. 6 in. gauge line from Oodnadatta to Alice Springs. The estimated cost, exclusive of rolling stock, of the proposed extension, which comprises 293 miles, was £1,700,000. The first section 21½ miles from Oodnadatta was completed on the 29th August, 1927. The section from Oodnadatta to Rumbalara (169 miles 67 chains) was opened for public traffic on the 23rd December, 1928, and the remaining portion from Rumbalara to Alice Springs was completed and opened for public traffic on the 2nd August, 1929.

3. **Federal Capital Territory Railway (Queanbeyan to Canberra).**—This line was built by the Railway Construction Branch of the Public Works Department, New South Wales, and, when completed, was taken over by the Chief Commissioner of Railways for that State, who worked the line for the Commonwealth Government until 1st July, 1928, on which date the management was taken over by the Commonwealth Railways Commissioner. The line was opened for traffic on 25th May, 1914. It connects with the New South Wales railway system at Queanbeyan, and is 4.94 miles in length.

4. **Trans-Australian Railway (Kalgoorlie to Port Augusta).**—A preliminary survey of a railway line connecting Western Australia with the Eastern States was commenced in 1908 and completed in March, 1909. The estimated cost of construction and equipment of the line on the basis of a 4 ft. 8½ in. gauge from Port Augusta in South Australia to Kalgoorlie in the Western Australian goldfields—a distance of 1,063 miles—was £4,045,000. The construction of the line was commenced at Port Augusta in September, 1912, and operations began at the other end from Kalgoorlie in February, 1913. The line was completed on 17th October, 1917, and five days later the first through train left Port Augusta with an official party on board for Kalgoorlie. Owing to deviations from the original route the length of the line was reduced from 1,063.39 miles to 1,051.85 miles—a saving of 11.54 miles. More detailed reference to the construction of the line and a description of the country through which it passes is given in *Official Year Book No. 11*, pp. 662 and 1213.

On the 29th November, 1935, the Commonwealth and the State of South Australia entered into an agreement to extend the Trans-Australian line by the construction of a 4 ft. 8½ in. gauge railway from Port Augusta to Solomontown, a suburb of Port Pirie, in the State of South Australia, the work to be undertaken by the Commonwealth at a maximum cost of £625,000 inclusive of rolling stock. The State of South Australia agreed to construct a railway of 5 ft. 3 in. gauge from Red Hill to Port Pirie to meet the Commonwealth line at Solomontown.

These proposed lines will reduce the distance and travelling time between Port Augusta and Adelaide and eliminate one break of gauge.

The agreement has been approved by the respective parliaments and work is now proceeding on the Commonwealth line.

5. **Lines Open, Surveyed, etc.**—The following table shows the lines open for traffic under the control of the Commonwealth Government at 30th June, 1935, together with the lines which have been surveyed :—

RAILWAYS, FEDERAL, 30th JUNE, 1935.

Terminals.	Miles.
OPEN FOR TRAFFIC.	
Trans-Australian Railway—Port Augusta (South Australia) to Kalgoorlie (Western Australia)	1,051.85
Central Australia Railway—Port Augusta (South Australia) to Alice Springs (Central Australia)	771.41
Federal Territory Railway—Queanbeyan (New South Wales) to Canberra (Federal Capital Territory)	4.94
North Australia Railway—Darwin to Birdum (Northern Territory)	316.50
Total opened for traffic	2,144.70

SURVEYED.

Birdum to Daly Waters (Northern Territory)	43.50
Kalgoorlie 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 to Red Hill (South Australia)	82.68
Total surveyed or being surveyed	1,083.26

In addition, the following trial surveys were undertaken on behalf of the North Australia Commission, viz. :—

(1) From the proposed deep water port at Rocky Island (Gulf of Carpentaria) to Borroloola; (2) from Borroloola to near Anthony's Lagoon; (3) from Daly Waters to a point on the Queensland Border about 44 miles south of Camooweal; and (4) from a point on the Daly Waters—Queensland Border survey 45 miles south of Daly Waters and near Newcastle Waters to the border of Western Australia.

6. **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 1931 to 1935 :—

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

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
MILES OPEN FOR TRAFFIC.					
	Miles.	Miles.	Miles.	Miles.	Miles.
1931	1,052	771	5	317	2,145
1932	1,052	771	5	317	2,145
1933	1,052	771	5	317	2,145
1934	1,052	771	5	317	2,145
1935	1,052	771	5	317	2,145
AVERAGE MILES WORKED.					
	Miles.	Miles.	Miles.	Miles.	Miles.
1931	1,052	771	5	317	2,145
1932	1,052	771	5	317	2,145
1933	1,052	771	5	317	2,145
1934	1,052	771	5	317	2,145
1935	1,052	771	5	317	2,145
TRAIN MILES RUN.(a)					
1931	403,615	200,051	6,900	40,686	651,252
1932	319,747	154,529	6,865	35,819	516,960
1933	324,173	182,414	6,850	33,809	547,246
1934	328,477	178,916	6,885	36,340	550,618
1935	335,198	158,356	6,885	35,677	536,116

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

7. 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 1931 to 1935 :—

RAILWAYS, FEDERAL.—CAPITAL COST.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.(a)	North Australia.	
TOTAL COST OF CONSTRUCTION AND EQUIPMENT OF LINES OPEN.					
	£	£	£	£	£
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	15,480,464
1933	7,928,876	4,773,301	84,429	2,758,139	15,544,745
1934	7,987,216	4,777,278	84,493	2,758,139	15,607,126
1935	8,045,841	4,782,077	84,592	2,759,772	15,672,282
COST PER MILE OPEN.					
1931	7,454	6,171	17,091	8,691	7,197
1932	7,490	6,187	17,091	8,693	7,221
1933	7,538	6,188	17,091	8,714	7,248
1934	7,593	6,193	17,104	8,714	7,277
1935	7,649	6,199	17,124	8,720	7,307

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

The sum of £1,756,879, of which £113,822 was for surveys, etc., has been provided from revenue for capital purposes to 30th June, 1935, and has been included in the total shown above.

8. **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 1931 to 1935 inclusive :—

RAILWAYS, FEDERAL.—GROSS REVENUE, TOTAL, ETC.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
TOTAL GROSS REVENUE.					
	£	£	£	£	£
1931	187,681	88,479	3,964	29,010	309,134
1932	173,402	79,400	3,810	23,495	280,107
1933	188,168	93,359	4,313	22,612	308,452
1934	206,205	90,566	5,277	27,907	329,955
1935	217,758	83,522	6,132	38,273	345,685
GROSS REVENUE PER AVERAGE MILE WORKED.					
	£	£	£	£	£
1931	179	115	802	92	144
1932	165	103	771	74	131
1933	179	121	873	71	144
1934	196	117	1,068	88	154
1935	207	108	1,241	121	161
GROSS REVENUE PER TRAIN-MILE RUN.					
	d.	d.	d.	d.	d.
1931	111.60	106.15	137.88	171.13	113.92
1932	130.15	123.32	133.20	157.42	130.04
1933	139.31	122.83	151.11	160.51	135.27
1934	150.66	121.49	183.95	184.31	143.82
1935	155.91	126.58	213.75	257.46	154.75

(ii) *Classification and Percentages.* During the year 1934–35 receipts from coaching traffic and goods and live stock represented 53 per cent. and 24 per cent. respectively of the total gross revenue of the Trans-Australian line, similar percentages for the remaining lines being :—Central Australia line 17 per cent. and 78 per cent., Federal Capital Territory line 50 per cent. and 48 per cent., and North Australia line 11 per cent. and 36 per cent. coaching and goods and live stock revenue respectively.

The miscellaneous receipts for the year 1934–35 include an amount of £20,251, revenue from dining cars and refreshment services on the Trans-Australian and Central Australia Railways. A sum of £16,122 was received from this source during the previous year.

9. **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 1931 to 1935.

Details of the annual expenditure on (a) maintenance of ways, works and buildings ; (b) locomotive, carriage and wagon 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.	
TOTAL WORKING EXPENSES.					
	£	£	£	£	£
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
1934	218,506	113,050	4,919	39,693	376,168
1935	197,871	133,896	5,917	41,984	379,668
PERCENTAGE OF WORKING EXPENSES ON REVENUE.					
	%	%	%	%	%
1931	128.67	175.68	160.52	190.73	148.36
1932	113.69	140.49	131.55	187.65	127.74
1933	104.90	114.48	109.43	171.79	112.76
1934	105.97	124.83	93.22	142.23	114.01
1935	90.87	160.31	96.49	109.70	109.83

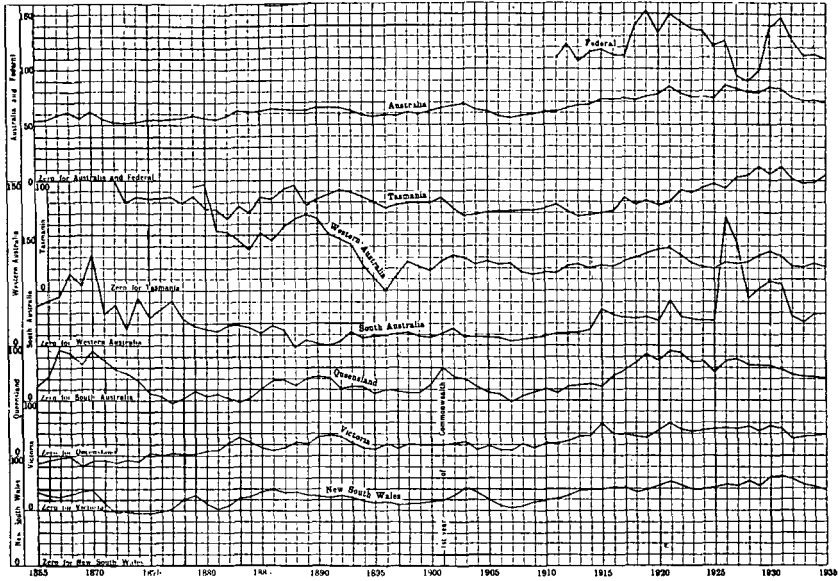
Compared with results for the previous year, the percentage of working expenses on revenue shows decreases for the Trans-Australian and North Australia Railways. Earnings increased on all the railways, with the exception of the Central Australia line, where unfavorable seasons were largely responsible for a decrease in live stock and wheat traffic. The large increase in expenditure on the Central Australia Railway was due to heavy sleeper renewals, storm damages and drift sand.

(ii) *Averages.* The next table gives the working expenses per average mile worked and per train-mile run for each railway for the years 1931 to 1935 :—

RAILWAYS, FEDERAL.—WORKING EXPENSES, AVERAGES.

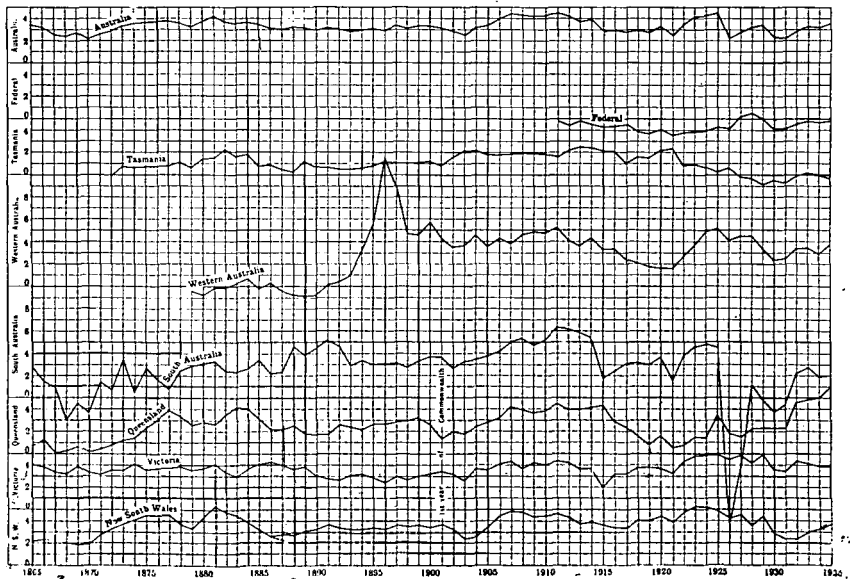
Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Central Australia.	Federal Capital Territory.	North Australia.	
WORKING EXPENSES PER AVERAGE MILE WORKED.					
	£	£	£	£	£
1931	230	202	1,288	175	214
1932	187	145	1,015	139	167
1933	188	139	956	123	162
1934	208	147	996	125	175
1935	188	173	1,198	133	177
WORKING EXPENSES PER TRAIN-MILE RUN.					
	d.	d.	d.	d.	d.
1931	143.60	186.48	221.32	326.38	160.01
1932	147.98	173.26	175.21	295.40	166.11
1933	146.11	140.61	165.37	275.73	152.53
1934	159.65	151.65	171.47	262.14	163.96
1935	141.67	202.93	206.26	282.42	169.96

PERCENTAGES OF WORKING EXPENSES ON GROSS REVENUE OF GOVERNMENT RAILWAYS, 1865 TO 1935.



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.

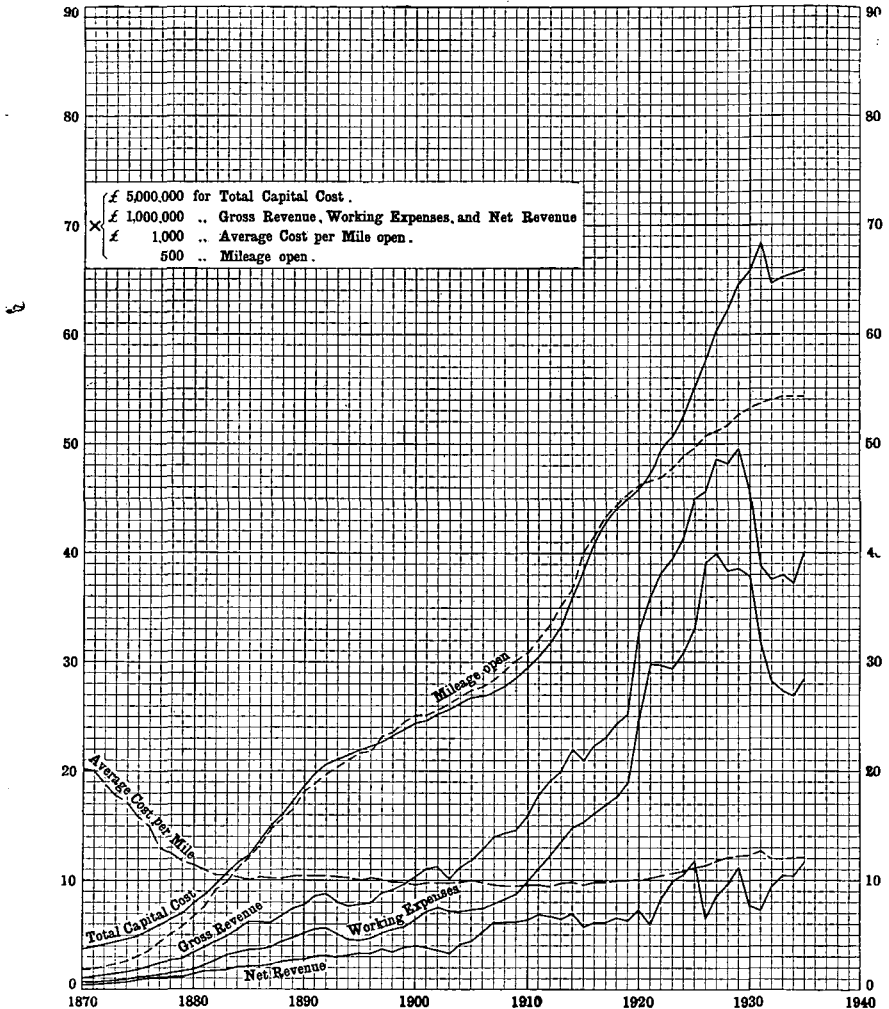
PERCENTAGES OF NET REVENUE ON CAPITAL COST OF GOVERNMENT RAILWAYS, 1865 TO 1935.



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.

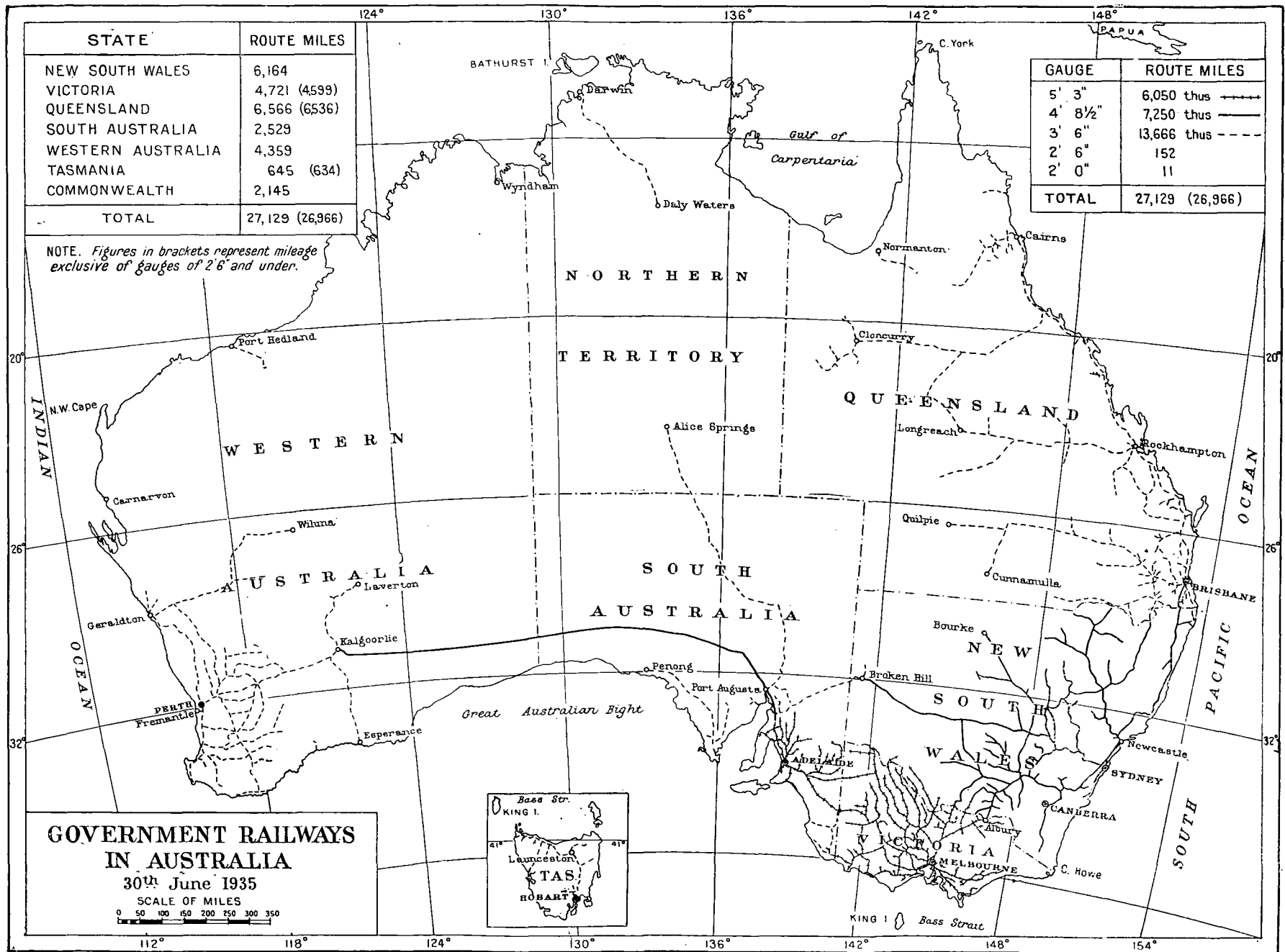
FINANCIAL POSITION OF THE GOVERNMENT RAILWAYS OF AUSTRALIA, 1870 TO 1935



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.



(iii) *Classification and Percentages.* Of the total working expenses of the Federal Railways during the year 1934-35, maintenance expenses represented 40 per cent., locomotive, carriage and wagon charges 36 per cent., and traffic expenses 15 per cent. Details for each line were as follows:—Trans-Australian line 29 per cent., 45 per cent. and 14 per cent.; Central Australia line 57 per cent., 28 per cent., and 10 per cent.; Federal Capital Territory line 38 per cent., 25 per cent. and 32 per cent.; and North Australia line 39 per cent., 24 per cent. and 30 per cent. respectively.

10. *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 1931 to 1935:—

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.
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
1934	19,218	28,493	37,335	3,178	88,224
1935	22,530	32,768	38,963	3,697	97,958

TONNAGE OF GOODS AND LIVE STOCK CARRIED.

	Tons.	Tons.	Tons.	Tons.	Tons.
1931	12,360	38,831	10,077	3,296	64,564
1932	21,316	65,538	7,807	3,039	97,700
1933	19,754	71,710	10,502	3,435	105,401
1934	21,598	47,100	15,930	3,688	88,316
1935	19,073	43,668	18,008	6,459	87,208

(ii) *Passenger-Mileage Summary.* The appended table gives particulars of "Passenger-Mileage" on each of the Federal railways for the year 1934-35:—

RAILWAYS, FEDERAL.—"PASSENGER-MILES" SUMMARY, 1934-35.

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.
							£	s. d.		
Trans-Australian ..	241,012	22,530	20,026	87,570	83	889	1.05	3 17 9	19,039	
Central Australia ..	22,565	32,768	1,887	9,853	84	58	1.25	0 6 0	2,447	
Federal Capital Territory ..	5,522	38,963	194	1,561	35	5	1.93	0 0 10	39,380	
North Australia ..	8,492	3,697	407	3,358	48	110	1.98	0 18 2	1,286	

(iii) *Ton-Mileage Summary.* Particulars of ton-mileage are shown hereunder in respect of each of the Federal railways for the year 1934-35:—

RAILWAYS, FEDERAL.—“TON-MILEAGE” SUMMARY, 1934-35.

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 ..	94,186	19,073	9,146	52,501	97.11	480	1.38	8,695
Central Australia ..	135,791	43,668	8,106	65,410	59.69	186	1.94	10,508
Federal Capital Territory ..	1,363	18,008	90	2,955	66.06	5	7.88	18,236
North Australia ..	27,135	6,459	683	13,674	25.11	106	4.81	2,157

11. Rolling Stock.—The following table shows the numbers of rolling stock in use during the years 1931 to 1935. Further details may be found on page 21 of Transport and Communication Bulletin No. 26.

RAILWAYS, FEDERAL.—ROLLING STOCK.

Railway.	At 30th June—														
	1931.			1932.			1933.			1934.			1935.		
	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.
Trans-Australian ..	68	54	728	68	54	728	68	54	728	68	54	728	68	54	728
Central Australia ..	24	20	313	24	20	313	24	19	313	24	19	313	24	19	313
North Australia ..	13	12	312	13	13	314	13	14	314	13	14	314	13	14	314
Total ..	105	86	1,353	105	87	1,355	105	87	1,355	105	87	1,355	105	87	1,355

New South Wales Government Railway stock is used on the Federal Capital Territory line.

12. Employees.—(i) *General.* The following table shows the number of employees on the Federal railways at 30th June in each year from 1931 to 1935 inclusive, classified according to salaried and wages staffs:—

RAILWAYS, FEDERAL.—EMPLOYEES.

Railway.	At 30th June—									
	1931.		1932.		1933.		1934.		1935.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
Trans-Australian	No. 106	(a) 554	No. 102	(a) 556	No. 99	(a) 718	No. 99	(a) 696	No. 101	(a) 1,017
Central Australia	57	331	55	275	53	(b) 297	53	(b) 311	49	385
Federal Capital Territory	4	5	4	5	4	5	4	7	4	7
North Australia ..	13	100	14	82	15	88	15	95	13	109
Total ..	180	990	175	918	171	1,108	171	1,109	167	1,518

(a) Includes those engaged on construction work, 1931, 4; 1932, 15; 1933, 157; 1934, 91; and 1935, 63. (b) Includes 6 on construction work in 1933 and 4 in 1934.

(ii) *Average Employed throughout Year.* The average number of employees throughout the year 1934-35 was 167 salaried staff and 1,294 wages staff (68 of whom were on construction work).

13. *Accidents.*—The following table shows the number of persons killed and injured in accidents in each of the years 1931 to 1935 :—

RAILWAYS, FEDERAL.—ACCIDENTS.

Railway.	Year ended 30th June—									
	1931.		1932.		1933.		1934.		1935.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Trans-Australian	2	..	3	..	2	1	4	1	5
Central Australia	2	..	1	..	4	..	8	..	5
Federal Capital Territory	1	..	..	..	1	..	..
North Australia	1	..	..	..	..	1	6
Total	4	..	6	..	6	1	13	2	16

Further details are available on page 24 of Transport and Communication Bulletin No. 26.

§ 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, 1931 to 1935.*—The following table shows the length of State railways open for traffic on the 30th June in the years 1931 to 1935 :—

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.
1931 ..	..	..	6,044	4,717	6,529	2,529	4,180	665	24,664
1932 ..	..	..	6,126	4,721	6,558	2,529	4,235	645	24,814
1933 ..	..	..	6,164	4,721	6,566	2,529	4,338	645	24,963
1934 ..	..	..	6,164	4,721	6,566	2,529	4,360	645	24,985
1935 ..	..	..	6,164	4,721	6,566	2,529	4,359	645	24,984

A graph indicating the mileage open in Australia at the end of each of the years 1870 to 1935 accompanies this chapter.

The appended statement shows the actual mileage opened for traffic in the year 1935, also the annual average increase in mileage opened since 1925 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 1934-35 ..	..	..	..	..	..	..	..
Average annual mileage increase for 10 years to 30th June, 1935 ..	50.81	23.72	45.22	7.77	62.59	2.80	187.31

No new mileage was opened for traffic during 1934-35, but minor adjustments increased the length of existing lines in South Australia by 0.09 miles, and decreased that of Western Australia by 1.34 miles.

3. Length and Gauge of Railway Systems in each State.—In all the States the Government railways are grouped, for the convenience of administration and management, into several divisions or systems. A summary showing concisely the gauge and length of the main and branch lines included in each division or system in the different States for the year ended 30th June, 1935, is given in the Transport and Communication Bulletin No. 26 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 1931 to 1935 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.							
1931 ..	6,013	4,710	6,509	2,535	4,123	665	24,555
1932 ..	6,050	4,720	6,550	2,520	4,214	645	24,708
1933 ..	6,159	4,721	6,565	2,520	4,278	645	24,897
1934 ..	6,164	4,721	6,567	2,520	4,351	645	24,977
1935 ..	6,164	4,721	6,567	2,520	4,359	645	24,985

TRAIN-MILES RUN.(a)

1931 ..	25,628,405	15,945,315	10,883,045	4,991,695	5,402,694	1,251,102	64,102,256
1932 ..	25,848,580	15,363,776	10,064,319	4,914,265	5,093,179	1,130,122	63,314,741
1933 ..	25,562,220	15,321,398	10,826,016	4,909,588	5,282,989	1,107,800	63,010,011
1934 ..	25,173,199	15,311,461	11,130,229	4,910,271	5,389,931	1,134,129	63,078,220
1935 ..	26,275,459	15,536,111	12,958,956	5,080,319	5,868,396	1,230,034	66,949,275

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

5. Lines under Construction, and Lines Authorized, 1935.—(i) *General.* The following statement gives particulars at the 30th June, 1935, 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, 1935.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	All States.
Mileage under construction ..	(a)	(b)38.00	(c)	..	..	..	38.00
Mileage authorized but not commenced ..	366.24	39.50	1,130.00	26.25	399.24	..	1,961.23

(a) 127 miles on which work has been suspended. (b) Exclusive of 65.75 miles on which work has been suspended. (c) 186 miles on which work has been suspended.

(ii) *Lines under Construction.* In spite of the great extensions of State railways since the year 1875, there are still, in some of the States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent

settlement has been accomplished. The general policy of the States is to extend the existing lines inland in the form of light railways as settlement increases, and while it is true that lines which were not likely to be commercially successful in the immediate future have been constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting is kept in view.

(a) *New South Wales.* Apart from that shown under (b) below, no railway construction work was in progress in New South Wales at 30th June, 1935. Work has been suspended on the Guyra to Dorriggo (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 Milleva 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 Yarrawonga to Oaklands (38 miles). Work has also been suspended on the former line while traffic on the latter is being conducted by the Constructing Authority pending the transfer to the Railways Commissioners. On completion, these lines, which are of 5 ft. 3 in. gauge, will be taken over and operated by the Victorian Railways Commissioners.

(c) *Queensland.* In previous issues of the Year Book details were given of the scheme of railway construction under the provisions of the North Coast Railway Act 1910 (*see* Year Book No. 15, p. 551). On the 30th June, 1935, no railway construction work was in progress. The following lines are partially constructed, but work thereon is temporarily suspended :—Goondoon to Kalliwa Creek (18 miles); Yaraka to Powell's Creek (27 miles); Dajarra to Moonah Creek (41 miles); Rannes to Monto (63 miles); and Winton to 37-Mile (37 miles); a total of 186 miles.

(d) *Other States.* At 30th June, 1935, no railway construction work was in progress in South Australia, Western Australia or Tasmania.

(iii) *Lines Authorized for Construction.* (a) *New South Wales.* At the 30th June, 1935, the following lines had been authorized for construction but not commenced :—Gilgandra to Collie (21.54 miles); Jerilderie towards Deniliquin (25.00 miles); Rand to Bull Plain (27.55 miles); Canowindra to Gregra (33.87 miles); St. Leonards to Eastwood (9.07 miles); Sandy Hollow via Gulgong to Maryvale (146.48 miles); Inverell to Ashford (32 miles); Bungendore to Captain's Flat (21.18 miles); Gwabegar to Burren Junction (36.25 miles); Eastern Suburbs to Bondi (7.75 miles); and Western Suburbs to Western Road (5.55 miles); a total distance of 366.24 miles.

(b) *Victoria.* The following lines were authorized, but construction had not been commenced up to the end of June, 1935 :—5 ft. 3 in. gauge : La La Siding to Big Pat's Creek (2.50 miles); Casterton to Nangeela (9 miles); and Orbost to Brodribb (6 miles). Under the Border Railways Act, 1922, the following line has been authorized for construction in New South Wales Territory :—Mildura to Gol Gol (22 miles).

(c) *Queensland.* In addition to the new lines upon which work has been commenced, Parliament has authorized the construction of the following parts of the Great Western Railway—Section A, from Quilpie to Eromanga (120 miles); Section B, from Powell's Creek (224 miles); Section C, from 37-Mile to Springvale (324 miles); and Section D from Moonah Creek (216 miles). The following lines were also authorized for construction :—Texas to Silverspur (9 miles); Mount Edwards to Maryvale (28 miles); Lanefield to Roseval (17 miles); Gatton to Mount Sylvia (11 miles); Wandoan to Taroom (42 miles); Dirranbandi extension (52 miles); Yarraman to Nanango (16 miles); Brooloo to Kenilworth (10 miles); Dobbyn to Myally Creek (50 miles); and Peeramon towards Boongee (11 miles).

(d) *South Australia.* Parliament has authorized the construction of a line on the 3 ft. 6 in. gauge from Keilpa to Mangalo Hall (26.25 miles).

(e) *Western Australia.* The following lines were authorized for construction up to the 30th June, 1935 :—Yarramony to Merredin (85 miles); Brookton to Dale River (28.01 miles); Boyup Brook to Cranbrook (95.23 miles); Manjimup to Mount Barker (107 miles); Leighton to Robb's Jetty (4.62 miles); Southern Cross—Southwards (27.38 miles); Yuna to Dartmoor (52 miles); a total distance of 399.24 miles.

(f) *Tasmania.* There were no new railways authorized on which work had not been commenced at 30th June, 1935.

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, 1935, amounted to £313,510,841, representing an average cost of £46.62 per head of population. If the cost of railways owned by the Commonwealth Government is included, the total capital cost (£329,183,123) is equivalent to an amount of £48.95 per head of the population of the Commonwealth, while the total mileage open (27,128.70 miles) per 1,000 of population is 4.03. 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, 1935.

State.	Length of Line Open (Route).	Total Cost of Construction and Equipment.	Average Cost per Mile Open.	Cost per Head of Population.	Mileage per 1,000 of Population.
	Miles.	£	£	£	Miles.
New South Wales (a) ..	(b) 6,163.83	(d) 139,851,912	(d) 22,689	52.69	2.32
Victoria ..	4,720.77	75,454,243	15,983	41.05	2.57
Queensland ..	(b) 6,566.65	(d) 35,010,898	(d) 5,332	36.17	6.78
South Australia (a) ..	2,529.35	27,295,054	10,791	46.27	4.29
Western Australia (a) ..	4,358.51	24,946,843	5,724	55.97	9.78
Tasmania ..	644.89	6,587,891	10,216	28.80	2.82
All States ..	24,984.00	(c) 313,510,841	(c) 12,548	46.62	3.72

(a) Exclusive of Federal railways.

(b) Includes portion of Grafton-South Brisbane uniform gauge line—New South Wales 26 miles, Queensland 68.82 miles (see par. 4, page 154).

(c) Includes Grafton-South Brisbane line, £4,364,000.

(d) Exclusive of Grafton-South Brisbane line.

Excluding Queensland, the lowest average cost (£5,724) per mile open is in Western Australia, and the highest (£22,689) in New South Wales, as compared with an average of £12,548 for all States. There were few costly engineering difficulties in Western Australia, and the fact that contractors were permitted to carry traffic during the term of their contracts considerably reduced expenditure, particularly in respect of all gold-field contracts.

In Queensland a reduction of £28,000,000 in the capital cost of the railways was effected by The Railway (Capital Indebtedness) Reduction Act of 1931, it being considered inequitable to burden the Department with interest charges on capital expended on railways for the purpose of developing the State.

The large increases in the capital cost of the New South Wales railways during the last few years are mainly attributable to the electrification of suburban lines and the construction of the underground city railway.

In the table above, the figures relating to cost of construction and equipment do not include stores advance accounts and the discounts and flotation charges on loans allocated to the railways. This will explain the differences between the amounts shown therein for the various States and those shown in the several Railway Reports.

(ii) *Capital Cost, All Lines. (a) Total.* The increase in the total capital cost of construction and equipment of Government railways for each year from 1931 to 1935 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. £	Tasmaniz. £	All States. £
-----------------------	-------------	----------------	--------------	---------------	---------------	----------------	------------------

TOTAL COST OF LINES OPEN.

1931 ..	130,802,362a	74,302,935	59,497,495a	27,255,643	23,329,093	6,549,065	b326,108,493
1932 ..	137,792,319a	74,415,458	c33,884,190a	27,202,936	23,648,654	6,501,429	b307,875,986
1933 ..	138,921,968a	74,706,736	34,098,724a	27,167,930	24,159,782	6,560,434	b309,986,574
1934 ..	139,058,321a	75,225,403	34,389,657a	27,176,158	24,704,212	6,561,937	b311,486,688
1935 ..	139,851,912a	75,454,243	35,010,898a	27,295,054	24,946,843	6,587,891	b313,510,841

COST PER MILE OPEN.

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
1934 ..	(a) 22,560	15,935	(a) 5,237	10,745	5,666	10,175	(b) 12,467
1935 ..	(a) 22,689	15,983	(a) 5,332	10,791	5,724	10,216	(b) 12,548

(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, 1935 :—

RAILWAYS, STATE.—EXPENDITURE FROM CONSOLIDATED REVENUE FOR CONSTRUCTION AND EQUIPMENT TO 30th JUNE, 1935.

To 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
	£	£	£	£	£	£	£
1935 ..	669,390	5,538,661	..	..	640,908	16,935	6,865,804

(iii) *Loan Expenditure.* The subjoined table shows the total net loan expenditure on Government railways in each State for the years 1931 to 1935 :—

RAILWAYS, STATE.—NET LOAN EXPENDITURE.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	£	£	£	£	£	£	£
1931 ..	2,312,557	455,293	434,350	Cr. 55,467	454,159	44,725	3,645,617
1932 ..	1,052,137	..	50,215	Cr. 127,576	137,025	Cr. 15,008	1,096,853
1933 ..	214,885	..	Cr. 28,829	Cr. 101,622	180,495	Cr. 6,682	258,247
1934 ..	122,203	1,044	341,917	Cr. 79,856	316,081	Cr. 644	700,745
1935 ..	1,237,533	..	785,103	40,043	295,076	39,426	2,397,181

The following statement shows the total loan expenditure on railways to the 30th June, 1935 :—

RAILWAYS, STATE.—TOTAL LOAN EXPENDITURE TO 30th JUNE, 1935.

State.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.(c)	All States.
Expenditure	£ 2144,514,777	£ 274,499,177	£ 62,779,154	£ 33,804,940	£ 24,650,982	£ 7,061,331	£ 347,310,361

(a) Gross expenditure. (b) Includes expenditure on Grafton-South Brisbane Railway. (c) Includes losses funded.

7. **Gross Revenue.**—(i) *General.* The total revenue from all sources, the revenue per average mile worked, and the revenue per train-mile run during each financial year from 1931 to 1935 inclusive were as follows :—

RAILWAYS, STATE.—GROSS REVENUE.

Year ended 30th June—	N.S.W.(a)	Victoria.(b)	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
-----------------------	-----------	--------------	---------	----------	----------	------	-------------

TOTAL GROSS REVENUE.

	£	£	£	£	£	£	£
1931	16,005,741	10,008,358	6,476,979	2,586,132	3,198,913	400,176	38,676,299
1932	15,801,022	9,454,304	5,994,523	2,746,341	2,922,385	381,283	37,299,858
1933	16,205,320	9,446,121	5,992,394	2,734,083	2,932,140	381,483	37,691,541
1934	15,690,186	9,175,111	6,230,188	2,559,939	2,919,315	390,903	36,965,642
1935	16,802,699	9,421,092	7,167,073	2,658,390	3,311,839	399,764	39,760,857

GROSS REVENUE PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£
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
1934	2,546	1,943	949	1,012	671	606	1,480
1935	2,726	1,996	1,092	1,051	760	620	1,591

GROSS REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
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	80.97	141.39
1933	152.15	147.97	132.84	133.65	133.20	82.65	143.56
1934	149.59	143.82	134.23	124.62	129.99	82.72	140.65
1935	153.48	145.54	132.73	125.59	135.44	78.00	142.53

(a) Includes £800,000, contributions from consolidated revenue towards losses on working of country developmental lines. (b) Includes contributions from consolidated revenue in respect of losses on non-paying lines, 1930-31, £158,508; 1931-32, £139,429; 1932-33, £124,288; 1933-34, £134,424; and 1934-35, £140,614.

The amounts of revenue earned per average mile worked and per train-mile run during 1934-35 in respect of (a) passenger and (b) goods and live stock traffic, separately, are given later.

(ii) *Coaching, Goods and Miscellaneous Receipts.* (a) *Totals.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The subjoined table shows the gross revenue from 1931 to 1935, 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.							
1931 ..	5,870,676	4,378,162	2,021,666	635,490	724,989	144,526	13,775,509
1932 ..	5,606,430	3,946,053	1,762,225	631,104	649,890	132,456	12,728,158
1933 ..	5,693,953	3,968,871	1,768,247	655,799	662,444	126,273	12,875,587
1934 ..	5,555,290	3,904,663	1,872,598	646,784	688,480	128,079	12,795,894
1935 ..	5,867,820	4,087,945	1,946,526	653,610	731,449	132,566	13,419,916

GOODS AND LIVE STOCK TRAFFIC RECEIPTS.

1931 ..	7,841,406	4,817,808	4,191,161	1,787,747	2,289,638	241,458	21,169,218
1932 ..	7,853,315	4,805,738	4,008,966	1,948,293	2,106,129	234,986	20,957,427
1933 ..	8,169,056	4,773,699	4,006,279	1,924,982	2,110,065	240,978	21,225,059
1934 ..	7,802,130	4,572,038	4,146,808	1,762,899	2,059,813	248,261	20,591,949
1935 ..	8,582,612	4,555,722	4,987,309	1,853,188	2,405,046	255,428	22,639,305

MISCELLANEOUS RECEIPTS.

	(a)	(b)					
1931 ..	2,293,659	812,388	264,152	162,895	184,286	14,192	3,731,572
1932 ..	2,341,277	702,513	223,332	166,944	166,366	13,841	3,614,273
1933 ..	2,342,311	703,551	217,868	153,302	159,631	14,232	3,590,895
1934 ..	2,332,766	698,410	210,782	150,256	171,022	14,563	3,577,799
1935 ..	2,352,267	777,425	233,238	151,592	175,344	11,770	3,701,636

(a) See note (a) to Gross Revenue table on previous page.

(b) See note (b) to Gross Revenue table on previous page.

(b) *Percentages.* The following table shows for the two years 1933-34 and 1934-35 the percentage which each class of receipts bears to the total gross revenue:—

RAILWAYS, STATE.—PERCENTAGES OF RECEIPTS.

State.	1933-34.			1934-35.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
	%	%	%	%	%	%
New South Wales ..	35.41	49.72	14.87	34.92	51.08	14.00
Victoria ..	42.56	49.83	7.61	43.39	48.36	8.25
Queensland ..	30.06	66.56	3.38	27.16	69.59	3.25
South Australia ..	25.27	68.86	5.87	24.59	69.71	5.70
Western Australia ..	23.58	70.56	5.86	22.09	72.62	5.29
Tasmania ..	32.76	63.51	3.73	33.16	63.89	2.95
All States ..	34.62	55.70	9.68	33.75	56.94	9.31

(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, 1935. Further particulars of passenger-mileage will be found in sub-paragraph 14 (i) hereinafter.

RAILWAYS, STATE.—PASSENGER EARNINGS, AVERAGES, 1934-35.

State.	Number of Passenger-Train-Miles.	Number of Passenger Journeys.	Passenger Earnings.			
			Gross.	Per Average Mile Worked.	Per Passenger-Train-Mile.	Per Passenger Journey.
	No.	No.	£	£	d.	d.
New South Wales ..	16,926,231	160,211,508	5,153,196	836	73.07	7.72
Victoria ..	10,854,456	139,689,012	3,685,978	781	81.50	6.33
Queensland (b) ..	5,081,692	24,249,641	1,448,924	221	68.43	14.34
South Australia ..	3,250,672	16,660,213	524,884	208	38.75	7.56
Western Australia ..	(a) 2,361,259	12,876,378	563,687	129	57.29	10.51
Tasmania ..	(a) 553,592	2,133,541	111,578	173	48.37	12.55
All States ..	39,027,902	355,820,293	11,488,247	460	70.65	7.75

(a) Includes "Assistant" and "Light" mileage. (b) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line.

(d) *Averages for Goods and Live Stock Traffic.* The gross receipts from goods and live stock traffic per average mile worked, per goods-train-mile, and per ton carried, for the year ended the 30th June, 1935, 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, 1934-35.

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 ..	9,349,228	612,665,311	8,582,612	1,392	220.32	162.64
Victoria ..	4,681,655	6,009,961	4,555,722	965	233.54	181.93
Queensland (c) ..	7,788,282	4,840,870	4,939,658	752	152.22	244.90
South Australia ..	1,829,647	2,332,581	1,853,188	733	243.09	190.68
Western Australia ..	(a) 3,663,628	2,903,481	2,405,046	552	157.55	198.80
Tasmania ..	(a) 679,758	678,227	255,428	396	90.18	90.39
All States ..	27,992,198	29,430,431	22,591,654	904	193.70	184.23

(a) Includes "Assistant" and "Light" mileage. (b) Exclusive of 353,309 tons of coal on which way leave charges only were collected. (c) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line.

8. *Working Expenses.*—(i) *General.* In order to make an adequate comparison of the working expenses, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the railways of the different States, but also on different portions of the same systems. When traffic is light, the percentage of working expenses is naturally greater than when traffic is heavy; and this is especially true in Australia, where ton-mile rates are in many cases based on a tapering principle—i.e., a lower rate per ton-mile is charged upon merchandise from remote interior districts—and where on many of the lines there is but little back loading.

The following table shows the total annual expenditure and the percentage thereof on gross revenue in each State for the years 1931 to 1935 :—

RAILWAYS, STATE.—WORKING EXPENSES.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL WORKING EXPENSES.							
	£	£	£	£	£	£	£
1931	12,899,646	7,499,934	5,075,478	2,734,619	2,610,839	448,838	31,269,354
1932	12,532,869	6,181,490	4,429,218	2,130,395	2,123,281	386,929	27,784,182
1933	11,966,648	6,366,838	4,323,655	1,978,545	2,111,588	373,762	27,121,036
1934	11,203,520	6,241,505	4,404,314	2,028,772	2,186,506	385,383	26,540,000
1935	11,565,658	6,505,859	5,086,921	2,121,411	2,382,744	(b) 417,944	28,080,537

PERCENTAGE OF WORKING EXPENSES ON GROSS REVENUE.

	%	%	%	%	%	%	%
1931	80.59	74.94	78.36	105.74	81.62	112.16	80.85
1932	79.32	65.38	73.89	77.57	72.65	101.48	74.49
1933	73.84	67.40	72.15	72.37	72.02	97.97	71.96
1934	71.40	68.03	72.14	79.25	74.90	98.59	71.80
1935	68.83	69.06	70.98	79.80	71.95	104.55	70.62

(a) Exclusive of £120,000 for depreciation charges.

(b) Exclusive of £54,000 for depreciation charges.

The variation in the percentage of working expenses on the gross revenue in each State for the years 1865 to 1935 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 1931 to 1935 :—

RAILWAYS, STATE.—WORKING EXPENSES, AVERAGES.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
WORKING EXPENSES PER AVERAGE MILE WORKED.							
	£	£	£	£	£	£	£
1931	2,145	1,592	780	1,070	633	675	1,273
1932	2,071	1,310	675	842	504	600	1,124
1933	1,943	1,349	659	782	494	580	1,089
1934	1,813	1,322	684	802	503	593	1,003
1935	1,876	1,378	775	839	547	648	1,124

WORKING EXPENSES PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1931	120.80	112.88	111.93	131.48	115.98	86.10	117.07
1932	116.36	96.56	96.95	104.04	100.05	82.17	105.32
1933	112.35	99.73	95.85	96.72	95.93	80.97	103.30
1934	106.81	97.83	96.83	98.76	97.36	81.55	100.08
1935	105.64	100.50	94.21	100.22	97.44	81.55	100.66

(iii) *Distribution.* The subjoined table shows the distribution of working expenses under four chief heads of expenditure for the years 1931 to 1935 :—

RAILWAYS, STATE.—DISTRIBUTION OF WORKING EXPENSES.

Year ended 30th June—	N.S.W. £	Victoria. £	Q'land. £	S. Aust. £	W. Aust. £	Tas. £	All States. £
MAINTENANCE.							
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
1934	2,651,375	1,561,771	1,161,699	367,776	552,907	96,441	6,397,969
1935	2,432,517	1,570,137	1,291,450	(a)386,152	553,090	116,000	6,349,346

LOCOMOTIVE, CARRIAGE AND WAGON CHARGES.

1931	5,642,719	2,840,181	2,068,942	1,382,409	1,218,580	192,911	13,345,742
1932	5,280,630	2,260,152	1,780,463	1,102,292	978,698	168,194	11,570,429
1933	4,991,900	2,231,648	1,764,765	955,698	960,993	167,605	11,072,609
1934	4,193,295	2,156,706	1,851,705	951,529	956,702	176,451	10,286,388
1935	4,573,455	2,181,626	2,180,556	(b)984,904	1,088,138	182,647	11,191,326

TRAFFIC EXPENSES.

1931	3,212,276	2,026,918	1,327,254	564,025	698,463	110,037	7,932,973
1932	3,059,815	1,690,542	1,177,336	457,706	572,101	92,275	7,049,775
1933	2,771,583	1,629,237	1,136,739	450,886	562,000	87,154	6,636,599
1934	2,612,947	1,647,482	1,210,915	457,132	577,981	90,220	6,596,737
1935	2,726,197	1,713,789	1,320,239	484,831	620,975	98,581	6,964,612

OTHER CHARGES.

1931	1,845,304	1,238,650	283,944	349,723	117,073	28,571	3,863,265
1932	1,845,633	1,119,809	249,590	235,117	101,938	24,344	3,576,431
1933	1,742,340	1,042,912	266,107	244,074	94,627	24,247	3,414,307
1934	1,742,903	872,546	269,995	252,285	98,916	22,261	3,258,906
1935	1,833,489	1,040,307	294,676	265,524	120,541	(c)20,716	3,575,253

(a) Exclusive of £8,000 for depreciation charges.

(b) Exclusive of £112,000 for depreciation charges.

(c) Exclusive of £54,000 for depreciation charges.

9. *Salaries and Wages.*—The following table shows the total amount paid in salaries and wages in each State during the years 1931 to 1935 :—

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.							
	£	£	£	£	£	£	£
1931	10,167,293	5,587,539	3,851,295	1,743,574	2,099,947	314,590	23,764,238
1932	9,637,122	4,435,648	3,341,129	1,382,707	1,620,084	260,943	20,677,633
1933	8,462,906	4,417,160	3,244,342	1,376,676	1,675,594	249,856	19,426,534
1934	8,154,378	4,533,562	3,396,671	1,418,788	1,902,457	259,288	19,665,144
1935	8,782,701	4,698,837	3,805,286	1,492,693	2,050,615	287,853	21,117,985

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 1931 to 1935 :—

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.
NET REVENUE.							
	£	£	£	£	£	£	£
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	-5,646	9,515,676
1933	4,238,672	3,079,283	1,668,739	755,538	820,552	7,721	10,570,505
1934	4,486,666	2,933,606	1,735,874	531,167	732,809	5,520	10,425,642
1935	5,237,041	2,915,233	2,080,152	536,979	929,095	-18,180	11,680,320

PERCENTAGE OF NET REVENUE ON CAPITAL EXPENDITURE.

	%	%	%	%	%	%	%
1931	(a) 2.40	3.38	(a) 2.38	0.54	2.52	-0.74	(b) 2.27
1932	(a) 2.37	4.40	(a) 4.62	2.26	3.37	-0.09	(b) 3.09
1933	(a) 3.05	4.12	(a) 4.81	2.78	3.40	0.12	(b) 3.41
1934	(a) 3.23	3.90	(a) 4.99	1.95	2.97	0.08	(b) 3.35
1935	(a) 3.74	3.86	(a) 5.94	1.97	3.72	-0.28	(b) 3.73

(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.
NET REVENUE PER AVERAGE MILE WORKED.							
	£	£	£	£	£	£	£
1931	517	532	215	- 59	143	-73	302
1932	540	693	239	243	190	- 9	385
1933	688	652	254	299	192	12	425
1934	728	621	265	209	168	8	417
1935	850	618	317	212	213	-28	467

NET REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1931	29.09	37.76	30.90	- 7.14	26.12	- 9.33	27.73
1932	30.34	51.12	34.26	30.08	37.65	- 1.20	36.07
1933	39.79	48.24	36.99	36.93	37.28	1.67	40.26
1934	42.78	45.99	37.40	25.86	32.63	1.17	39.67
1935	47.84	45.04	38.52	25.37	38.00	- 3.55	41.87

11. Interest.—The amount of interest payable on expenditure from loans on the construction and equipment of the railways in each State during the five years ended 30th June, 1935, 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.							
	£	£	£	£	£	£	£
1931	a6,790,082	3,596,758	a3,018,355	1,426,741	968,066	285,881	a16,205,274
1932	a6,519,217	3,641,109	a1,589,643	1,217,338	989,173	263,900	a14,328,560
1933	a6,352,581	3,221,710	a1,595,522	1,137,193	996,233	263,861	a13,673,133
1934	a5,971,412	3,181,736	a1,565,313	1,088,627	1,008,153	246,762	a13,165,484
1935	a5,677,540	3,056,766	a1,576,693	1,055,954	1,028,599	247,727	a12,746,007

(a) Including interest charges on the Grafton-South Brisbane line, which for the year 1934-35 amounted to £202,000 and was contributed by New South Wales, £72,204; Queensland, £27,038; and the Commonwealth, £102,758. See B § 1, 4 ante.

The interest payable on the cost of construction and equipment, the expenditure from consolidated revenue (£6,865,894) for that purpose being deducted, was at the rate of 4.16 per cent. in 1934-35. The reduction of £28,000,000 in the Queensland Capital Account referred to on page 172 is reflected in the decrease in the annual interest payable by that State.

Exchange on interest payments abroad is not included in the above table. This item is not charged against the railways in Queensland, Western Australia and Tasmania and the figures for these States are not available. In the remaining States the amounts apportioned since 1930-31 were as follows:—

RAILWAYS, STATE.—EXCHANGE ON OVERSEA INTEREST PAYMENTS.

Year ended 30th June—	New South Wales.	Victoria.	South Australia.
	£	£	£
1931	737,633	183,863	..
1932	1,313,541	440,938	176,913
1933	1,191,937	402,705	180,826
1934	1,103,381	354,335	157,001
1935	843,012	300,302	130,649

12. Profit or Loss.—The following table shows the actual profit or loss after deducting working expenses and interest and all other charges, excepting exchange payments, 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.							
	£	£	£	£	£	£	£
1931	a-3,633,987	-1,083,334	-1,616,834a	-1,575,228	-379,992	-334,543	a-8,798,329
1932	a-3,251,004	-368,295	-24,338a	-601,392	-190,069	-269,546	a-4,812,884
1933	a-2,113,909	-142,427	+73,217a	-381,655	-175,681	-256,140	a-3,102,628
1934	a-1,484,746	-248,130	+170,531a	-557,400	-275,644	-241,242	a-2,739,842
1935	a-440,499	-141,533	+503,459a	-518,975	-99,474	-265,907	a-1,065,687

PERCENTAGE OF PROFIT OR LOSS ON CAPITAL COST OF CONSTRUCTION AND EQUIPMENT.(b)

	%	%	%	%	%	%	%
1931	-2.73	-1.46	-2.64	-5.78	-1.63	-5.11	-2.70
1932	-2.36	-0.49	-0.07	-2.21	-0.80	-4.11	-1.56
1933	-1.52	-0.19	+0.21	-1.40	-0.73	-3.90	-1.00
1934	-1.07	-0.33	+0.53	-2.05	-1.12	-3.68	-0.88
1935	-0.31	-0.19	+1.44	-1.90	-0.40	-4.04	-0.34

(a) See Note (a) paragraph 11 above. (b) The cost of the Grafton-South Brisbane line is excluded from New South Wales and Queensland but is included with "all States."

13. Traffic.—(i) *General.* Reference has already been made to the difference in the traffic conditions on many of the lines. These conditions differ not only in the several States, but also on different lines in the same States, and apply to both passenger and goods traffic. By far the greater part of the population of Australia is confined to a fringe of country near the coast, more especially in the eastern and southern districts. A large proportion of the railway traffic between the chief centres of population is therefore carried over lines in the neighbourhood of the coast, and is thus, in some cases, open to seaborne competition.

The following table gives particulars for the years 1931 to 1935 :—

RAILWAYS, STATE.—TRAFFIC.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
-----------------------	--------	-----------	---------	----------	----------	-----------	-------------

NUMBER OF PASSENGER JOURNEYS.

1931 ..	126,811,993	134,655,220	22,009,473	15,437,440	11,702,741	1,852,145	312,469,012
1932 ..	128,359,419	125,990,585	20,761,976	15,608,245	10,394,311	1,680,897	302,795,433
1933 ..	132,867,221	130,190,013	22,216,409	16,074,221	11,732,291	1,678,483	314,758,638
1934 ..	142,520,429	131,367,215	22,877,900	16,325,004	12,103,104	1,780,329	326,982,981
1935 ..	160,211,508	139,689,012	24,328,300	16,660,213	12,876,378	2,133,541	355,898,952

PER 100 OF MEAN POPULATION.

1931 ..	4,983	7,511	2,397	2,688	2,715	831	4,819
1932 ..	4,999	6,984	2,231	2,705	2,397	744	4,630
1933 ..	5,128	7,173	2,361	2,774	2,685	736	4,775
1934 ..	5,454	7,198	2,407	2,803	2,748	781	4,924
1935 ..	6,060	7,607	2,532	2,828	2,906	931	5,310

PER AVERAGE MILE OF LINE WORKED.

1931 ..	21,089	28,588	3,382	6,091	2,838	2,786	12,725
1932 ..	21,216	26,693	3,170	6,172	2,407	2,606	12,253
1933 ..	21,574	27,577	3,384	6,355	2,742	2,603	12,643
1934 ..	23,122	27,826	3,484	6,454	2,782	2,775	13,092
1935 ..	25,992	29,589	3,705	6,587	2,954	3,308	14,245

TONNAGE OF GOODS AND LIVE STOCK CARRIED.

1931 ..	10,743,109	6,099,310	3,857,766	2,162,709	3,153,525	466,153	26,482,572
1932 ..	10,211,322	6,186,081	3,860,668	2,419,094	2,847,568	449,039	25,973,772
1933 ..	11,147,866	6,244,346	3,685,608	2,387,817	2,840,077	510,585	26,816,299
1934 ..	11,364,235	5,858,377	4,214,382	2,141,646	2,652,247	560,611	26,791,498
1935 ..	13,018,620	6,009,961	4,879,019	2,332,581	2,903,481	678,227	29,821,889

PER 100 OF MEAN POPULATION.

1931 ..	422	340	420	377	732	209	408
1932 ..	398	343	415	419	657	199	397
1933 ..	430	344	392	412	650	224	407
1934 ..	435	321	443	368	602	245	403
1935 ..	492	327	508	396	655	296	445

RAILWAYS, STATE.—TRAFFIC—*continued.*

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
PER AVERAGE MILE OF LINE WORKED.							
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
1934 ..	1,844	1,241	642	847	610	869	1,073
1935 ..	2,112	1,273	743	922	666	1,052	1,194

(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 1934-35 :—

RAILWAYS, STATE.—METROPOLITAN AND SUBURBAN, AND COUNTRY PASSENGER TRAFFIC AND RECEIPTS, 1934-35.

State.	Passenger Journeys.			Revenue.		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
	No.	No.	No.	£	£	£
N.S.W. ..	150,547,849	9,663,659	160,211,508	2,443,950	2,709,246	5,153,196
Victoria ..	134,263,336	5,425,676	139,689,012	2,318,461	1,367,517	3,685,978
Queensland ..	19,207,744	5,120,556	24,328,300	272,466	1,213,676	1,486,142
S. Australia	15,611,588	1,048,625	16,660,213	218,368	306,516	524,884
W. Australia	11,432,891	1,443,487	12,876,378	142,012	421,675	563,687
Tasmania ..	(c)	(c)	2,133,541	(c)	(c)	111,578
Total ..	(d)	(d)	355,898,952	(d)	(d)	11,525,465

(a) Within 20 miles of Melbourne. (b) Within 25 miles of Adelaide. (c) Not available. (d) 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 1934-35 :—

RAILWAYS, STATE.—CLASSIFICATION OF COMMODITIES CARRIED, 1934-35.

State.	Coal, Coke and Shale.	Other Minerals.	Grain and Flour.	Hay, Straw and Chaff.	Wool.	Live Stock.	All other Commodities.	Total.
TONS CARRIED.								
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
New South Wales	6,222,076	1,263,271	1,919,600	208,780	185,079	694,927	2,524,887	13,018,620
Victoria ..	250,973	259,081	1,090,903	184,975	68,083	607,987	3,547,959	6,009,961
Queensland ..	603,415	598,729	1,974,555 ^(a)	(b)	80,624	422,052	1,198,744	4,870,019
South Australia	121,430	509,001	770,015	25,153	29,176	118,047	759,750	2,332,581
Western Australia	239,802	334,302	949,094	45,584	29,040	100,165	1,205,485	2,903,481
Tasmania ..	340,766	(c)	62,512	20,413	3,530	21,394	229,112	678,227
All States ..	7,778,462	2,964,384	6,766,679	484,905	395,541	1,965,972	9,465,946	29,821,889

PERCENTAGE OF TOTAL TONNAGE CARRIED.

	%	%	%	%	%	%	%	%
New South Wales	47.79	9.70	14.75	1.60	1.42	5.34	19.40	100.00
Victoria ..	4.18	4.31	18.15	3.08	1.13	10.12	59.03	100.00
Queensland ..	12.37	12.27	440.47	(b)	1.65	8.67	24.57	100.00
South Australia	5.21	21.82	33.01	1.08	1.25	5.06	32.57	100.00
Western Australia	8.26	11.51	32.69	1.57	1.00	3.45	41.52	100.00
Tasmania ..	50.24	(c)	9.22	3.01	0.52	3.23	33.78	100.00
All States ..	26.08	9.94	22.69	1.63	1.33	6.59	31.74	100.00

(a) Agricultural produce. (b) Included with "All other commodities." (c) Included with coal, coke and shale.

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1934-35 according to a classification which has been adopted by all States :—

RAILWAYS, STATE.—GOODS, ETC., TRAFFIC—REVENUE, 1934-35.

Class.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
General merchandise	5,223,121	2,980,636	3,246,898	907,733	1,443,329	174,214	13,975,931
Wheat ..	(a)	532,359	(a)	364,033	528,880	(d)	1,425,272
Wool ..	679,748	190,307	431,868	66,781	83,380	4,333	1,456,417
Live stock	1,041,035	688,442	732,064	157,199	130,218	18,571	2,767,529
Minerals—							
Coal, coke and shale	1,299,814	80,485	262,615	31,459	135,414	(b) 29,472	1,839,259
Others	338,894	83,493	313,864	325,983	83,825	(c) 28,838	1,174,897
Total ..	8,582,612	4,555,722	4,987,309	1,853,188	2,405,046	255,428	22,639,305

(a) Included with General Merchandise. (b) Native coal. (c) Minerals other than native coal. (d) Incomplete.

In New South Wales and Victoria, electric motor coaches are used for the transfer of parcels from the central stations to suburban stations, and in Victoria to convey luggage and parcels between the two main terminal stations.

14. Passenger-Mileage and Ton-Mileage.—(i) *Passenger-Miles.* The subjoined table gives particulars of passenger-mileage in respect of all States for the years 1930-31 to 1934-35.

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.									
1931	16,496	126,812	1,414,061	5,172,359	85	11.15	0.88	9.79	235,161
1932	17,148	128,359	1,366,764	4,943,790	80	10.64	0.86	9.24	220,768
1933	16,382	132,867	1,422,105	5,025,484	87	10.70	0.85	9.08	230,911
1934	16,326	142,520	1,543,531	4,869,235	95	10.83	0.76	8.20	250,418
1935	16,926	160,212	1,745,075	5,153,196	103	10.89	0.71	7.72	283,115
VICTORIA.									
1931	11,066	134,655	1,134,376	3,890,604	103	8.42	0.82	6.93	240,830
1932	10,534	125,991	1,053,215	3,514,104	100	8.35	0.80	6.69	223,138
1933	10,541	130,190	1,087,543	3,561,588	103	8.35	0.79	6.57	230,363
1934	10,559	131,367	1,079,981	3,502,513	102	8.22	0.78	6.40	228,761
1935	10,854	139,689	1,156,142	3,685,978	107	8.28	0.77	6.33	244,894
QUEENSLAND.									
1931 ^b	4,411	21,955	(a)	1,510,412	(a)	(a)	(a)	16.51	(a)
1932 ^b	4,625	20,695	(a)	1,290,225	(a)	(a)	(a)	14.96	(a)
1933 ^b	4,658	22,147	(a)	1,301,405	(a)	(a)	(a)	14.10	(a)
1934 ^b	4,808	22,806	(a)	1,375,542	(a)	(a)	(a)	14.48	(a)
1935 ^b	5,082	24,250	(a)	1,448,924	(a)	(a)	(a)	14.34	(a)
SOUTH AUSTRALIA.									
1931	3,193	15,437	167,738	499,745	53	10.87	0.72	7.77	66,179
1932	3,140	15,608	166,407	493,933	53	10.66	0.71	7.59	65,792
1933	3,152	16,074	172,106	519,277	55	10.71	0.72	7.75	68,046
1934	3,202	16,325	175,559	516,253	55	10.75	0.71	7.59	69,411
1935	3,251	16,660	177,655	524,884	55	10.66	0.71	7.56	70,237
WESTERN AUSTRALIA.									
1931	(c) 2,062	11,703	(a)	551,347	(a)	(a)	(a)	11.31	(a)
1932	(c) 1,938	10,394	(a)	489,436	(a)	(a)	(a)	11.30	(a)
1933	(c) 2,181	11,732	(a)	503,177	(a)	(a)	(a)	10.29	(a)
1934	(c) 2,290	12,103	(a)	526,756	(a)	(a)	(a)	10.45	(a)
1935	(c) 2,361	12,876	(a)	563,687	(a)	(a)	(a)	10.51	(a)
TASMANIA.									
1931	(c) 590	1,852	28,646	117,339	49	15.46	0.98	15.20	43,083
1932	(c) 506	1,681	27,158	107,587	54	16.16	0.95	15.36	42,111
1933	(c) 498	1,678	26,795	104,978	54	15.09	0.94	15.01	41,549
1934	(c) 500	1,789	27,960	107,097	56	15.62	0.92	14.36	43,356
1935	(c) 554	2,134	31,094	111,578	56	14.57	0.86	12.55	48,217

(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 1930-31 to 1934-35 :-

RAILWAYS, STATE.—SUMMARY OF "TON-MILES."

Year ended 30th June—	Goods-Train-Mileage.	Total Tons Carried.	Total "Ton-miles."	Earnings.	Average Freight-paying Load Carried per "Train."	Average Haul per Ton.	Earnings per "Ton-mile."	Density of Traffic per Average Mile Worked.
	No. (,000 omitted.)	No. (,000 omitted.)	No. (,000 omitted.)	£	Tons.	Miles.	d.	Tons.
NEW SOUTH WALES.								
1931	8,997	d 10,616	1,425,184	7,841,406	158	134.25	1.30	237,260
1932	8,700	d 10,054	1,407,451	7,853,315	162	139.99	1.33	233,030
1933	9,180	d 10,889	1,550,327	8,169,056	169	142.38	1.25	252,129
1934	8,847	d 11,066	1,410,854	7,802,130	159	127.49	1.31	228,892
1935	9,349	d 12,665	1,522,781	8,582,612	163	120.23	1.34	247,051
VICTORIA.								
1931	4,879	6,099	713,022	4,817,808	174	116.90	1.62	151,385
1932	4,830	6,186	769,228	4,805,738	181	124.34	1.49	162,972
1933	4,781	6,244	734,970	4,773,699	178	117.70	1.55	155,681
1934	4,752	5,858	693,741	4,572,038	146	118.42	1.58	146,948
1935	4,682	6,010	693,783	4,555,722	148	115.44	1.58	146,957
QUEENSLAND.								
1931 ^(b)	6,406	3,838	(e) 495,912	4,148,845	(c) 77	c133.20	(c) 2.00	(c) 79,149
1932 ^(b)	6,257	3,835	(e) 516,699	3,968,227	(c) 83	c139.02	(c) 1.83	(c) 82,084
1933 ^(b)	6,073	3,620	(e) 517,502	3,944,275	(c) 85	c147.72	(c) 1.82	(c) 82,101
1934 ^(b)	6,236	4,152	(e) 541,238	4,080,906	(c) 87	c130.34	(c) 1.81	(c) 82,422
1935 ^(b)	7,788	4,841	(e) 684,008	4,939,658	(c) 88	c141.30	(c) 1.73	(c) 104,164
SOUTH AUSTRALIA.								
1931	1,799	2,163	285,639	1,787,747	165	132.07	1.50	112,711
1932	1,774	2,419	287,619	1,948,293	170	118.37	1.63	113,731
1933	1,758	2,388	283,565	1,924,982	161	118.76	1.63	112,114
1934	1,728	2,142	265,682	1,762,899	154	124.06	1.59	105,044
1935	1,830	2,333	281,068	1,853,188	154	120.50	1.58	111,123
WESTERN AUSTRALIA.								
1931	(a) 3,487	3,154	373,405	2,289,638	121	118.41	1.47	90,566
1932	(a) 3,266	2,848	347,492	2,106,129	119	122.03	1.45	82,461
1933	(a) 3,230	2,840	339,007	2,110,065	105	119.37	1.49	79,237
1934	(a) 3,232	2,652	317,870	2,059,813	98	119.85	1.56	73,055
1935	(a) 3,664	2,903	362,252	2,405,046	100	124.77	1.59	83,101
TASMANIA.								
1931	(a) 667	(f) 444	27,253	(f) 220,545	41	61.39	1.94	40,988
1932	(a) 627	(f) 427	26,690	(f) 215,186	43	62.45	1.93	41,386
1933	(a) 613	(f) 490	27,246	(f) 223,262	44	55.63	1.98	42,248
1934	(a) 637	(f) 540	27,623	(f) 230,597	43	51.17	1.08	42,833
1935	(a) 680	(f) 656	30,671	(f) 236,857	45	46.73	1.86	47,561

(a) Includes "Assistant" and "Light" mileage. (b) Exclusive of Queensland portion of Grafton-South Brisbane (uniform gauge) line. (c) Approximate. (d) Exclusive of coal, on which way leave charges only were collected. (e) Exclusive of Cooktown, Normanton, and Innisfail and Mourilyan tramways. (f) Exclusive of live stock.

In New South Wales the tonnages of coal on which way leave charges only have been collected were 127,209 tons (1931), 157,110 tons (1932), 258,893 tons (1933), 297,960 tons (1934) and 353,309 tons (1935).

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.**—The following table shows the numbers of rolling stock in use during the years 1931 to 1935. Further details may be found in the Transport and Communication Bulletin No. 26.

RAILWAYS, STATE—ROLLING STOCK.

State.	At 30th June—														
	1931.			1932.			1933.			1934.			1935.		
	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.
New South Wales ..	1,432	2,757	23,996	1,432	2,713	23,852	1,432	2,710	23,705	1,432	2,676	23,498	1,493	2,657	23,457
Victoria ..	657	2,090	20,997	650	2,023	20,979	650	2,526	20,940	619	2,503	20,940	602	2,476	21,004
Queensland ..	785	1,315	19,213	784	1,313	19,151	776	1,329	19,068	776	1,333	18,957	734	1,356	18,774
South Australia ..	440	674	9,335	438	670	9,202	438	668	9,144	423	620	9,106	400	611	8,836
Western Australia ..	420	493	11,244	420	493	11,241	420	493	11,250	420	493	11,272	420	493	11,173
Tasmania ..	94	224	2,017	94	224	2,025	94	224	2,025	94	223	2,016	94	225	2,036
All States ..	3,828	8,153	86,802	3,818	8,036	86,450	3,810	7,950	86,132	3,764	7,848	85,789	3,653	7,818	85,282

17. **Employees.**—(i) *At 30th June.* The following table gives the number of railway employees in each year from 1931 to 1935 inclusive, classified according to (a) salaried staff, and (b) wages staff:—

RAILWAYS, STATE.—EMPLOYEES.(a)

State.	At 30th June—									
	1931.		1932.		1933.		1934.		1935.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
New South Wales	5,947	34,517	5,948	34,091	5,724	32,982	5,734	33,968	5,830	35,683
Victoria ..	4,051	17,985	3,720	17,456	3,621	18,159	3,533	17,450	3,499	18,278
Queensland ..	3,030	12,970	2,946	12,461	2,917	12,554	2,948	13,854	3,033	14,305
South Australia ..	1,158	5,586	1,137	5,736	1,148	5,784	1,173	5,563	1,213	5,962
Western Australia ..	1,287	5,900	1,204	5,671	1,178	6,135	1,205	7,154	1,249	7,064
Tasmania ..	191	1,234	174	1,137	166	1,133	179	1,156	171	1,296
All States ..	15,664	78,192	15,129	76,552	14,754	76,747	14,772	79,145	14,995	82,588

(a) Exclusive of construction staff.

In the period under review the totals of salaried and wages staffs increased from 93,856 in 1931 to 97,583 in 1935, a rise of 4.0 per cent.

(ii) *Average staff employed, 1934-35.* 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, 1934-35.

State.	Operating Staff.		Construction Staff.		All Employees—Staff.	
	Salaried.	Wages.	Salaried.	Wages..	Salaried.	Wages.
New South Wales ..	5,783	33,854	2	40	5,785	33,894
Victoria ..	3,456	18,346	..	..	3,456	18,346
Queensland ..	2,987	13,978	20	495	3,007	14,473
South Australia ..	1,185	5,753	..	..	1,185	5,753
Western Australia ..	1,221	7,130	8	282	1,229	7,412
Tasmania ..	171	1,296	..	..	171	1,296
All States ..	14,803	80,357	30	817	14,833	81,174

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 1931 to 1935 inclusive:—

RAILWAYS, STATE.—ACCIDENTS.

State.	In year ended 30th June—									
	1931.		1932.		1933.		1934.		1935.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales	44	409	73	308	69	329	53	389	51	421
Victoria ..	57	150	56	227	52	177	49	164	41	121
Queensland ..	15	138	13	124	26	100	21	161	21	143
South Australia ..	13	98	7	104	13	127	11	127	15	119
Western Australia	13	195	23	266	15	236	21	327	13	611
Tasmania ..	2	42	4	16	1	10	1	20	2	22
All States ..	144	1,032	176	1,045	176	979	156	1,188	143	1,437

Further details relating to the number of passengers, employees and other persons affected by railway accidents are published on page 24 of Transport and Communication Bulletin No. 26.

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 1934-35:—

**GOVERNMENT RAILWAYS.—CONSUMPTION AND VALUE OF OIL AND FUEL,
1934-35.**

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	328,460	32,088	1 11	948,464	25,284	0 6	1,293,369	774,469	0 12 0
Victoria ..	186,137	15,970	1 9	1,720,461	59,238	0 8	538,528	421,372	0 15 8
Queensland ..	188,188	19,292	2 1	200,945	9,148	0 11	425,191	359,292	0 16 11
South Australia..	82,974	9,150	2 3	930,518	40,416	0 10	150,643	180,643	1 4 0
Western Australia	76,981	8,160	2 1	307,399	10,187	0 8	314,766	221,658	0 14 1
Tasmania ..	30,780	3,287	2 2	73,578	4,074	1 1	46,174	48,237	1 0 11
Total States ..	893,520	87,947	2 0	4,181,365	148,347	0 9	2,768,671	2,005,671	0 14 6
Federal ..	15,125	1,507	2 0	124,278	4,467	0 9	18,963	28,364	1 9 11
Total, Australia..	908,645	89,454	2 0	4,305,643	152,814	0 9	2,787,634	2,034,035	0 14 7

The range in the average cost per ton of coal from 12s. od. in New South Wales to £1 9s. 11d. 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 1934-35 showed a decrease of os. 3d. on that for 1933-34.

§ 4. Private Railways.

1. **Total Mileage Open, 1934-35.**—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 1934-35 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 1934-35 :—

RAILWAYS, PRIVATE.—SUMMARY, 1934-35.

State.	Companies from which returns were received.	Miles Open (Route).	Capital Cost.	Gross Revenue.	Working Expenses.	Train-Miles.	Passenger Journeys.	Tonnage of Goods, etc.	Number of Employees.	Rolling Stock.		
										No.	Miles.	£
New South Wales ..	6	82.70	1,279,533	322,180	182,347	521,134	1,141,017	641,887	381	44	1	718
Victoria ..	2	24.94	81,384	8,843	8,330	24,148	10,829	39,236	18	5	4	36
Queensland	13	269.89	600,825	42,994	28,370	86,163	6,982	205,257	72	23	14	469
South Australia ..	1	50.51	(a)	(a)	(a)	83,540	260	1,670,976	30	7	1	226
Western Australia	1	277.00	2,242,476	159,574	71,295	250,141	27,332	118,159	253	23	23	523
Tasmania	3	131.57	896,377	77,322	62,625	134,538	40,412	97,676	185	20	18	302
All States (b)	26	836.61	5,100,595	610,913	352,967	1,099,664	1,226,832	2,773,191	939	122	61	2,274

(a) Not available.

(b) Incomplete.

The particulars given in the table are incomplete in respect of the States of New South Wales, Queensland, South Australia and Tasmania. In New South Wales and Queensland several of these lines, although owned by private companies, are operated by the Government Railway Departments, and Government rolling stock is used thereon.

C. TRAMWAYS.

1. Systems in Operation.—(i) *General.* Tramway systems are in operation in all the States, and in recent years considerable extension has been made in the use of electrical traction, the benefit of which is now enjoyed in a number of the larger towns.

In many parts of Australia private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present section.

(ii) *Total Mileage Open and Classification of Lines.* The following tables show for each State the total mileage of tramway lines open for general passenger traffic for the year 1934-35, classified (a) according to the controlling authority, (b) according to the motive power used, and (c) according to gauge, and for Australia according to motive power for the years 1930-31 to 1934-35:—

TRAMWAYS.—ROUTE MILEAGE OPEN, 1934-35.

Controlling Authority, Nature of Motive Power, and Gauge.	N.S. Wales.	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Total Australia.
---	----------------	-----------	---------	---------------------	-----------------------	-----------	---------------------

ACCORDING TO CONTROLLING AUTHORITY.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Government ..	187.70	178.40	..	..	52.51	..	418.61
Municipal ..	..	..	64.18	82.83	9.98	28.41	185.40
Private ..	3.50	..	..	..	11.56	..	15.06
Total ..	191.20	178.40	64.18	82.83	74.05	28.41	619.07

ACCORDING TO MOTIVE POWER.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Electric ..	182.14	154.11	57.53	82.83	65.44	28.41	570.46
Steam ..	9.06	..	6.65	..	6.10	..	21.81
Cable ..	..	24.29	..	..	..	..	24.29
Horse ..	..	..	..	..	2.51	..	2.51
Total ..	191.20	178.40	64.18	82.83	74.05	28.41	619.07

ACCORDING TO GAUGE.

Gauge—							
5 ft. 3 in. ..	..	5.18	..	..	..	..	5.18
4 ft. 8½ in. ..	191.20	173.22	57.53	82.83	..	..	504.78
3 ft. 6 in. ..	..	..	6.65	..	74.05	28.41	109.11
Total ..	191.20	178.40	64.18	82.83	74.05	28.41	619.07

Further details on this subject may be obtained from page 27 of Transport and Communication Bulletin No. 26.

TRAMWAYS.—ROUTE MILEAGE OPEN, AUSTRALIA.

Nature of Motive Power.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
-------------------------	----------	----------	----------	----------	----------

ACCORDING TO MOTIVE POWER.

	Miles.	Miles.	Miles.	Miles.	Miles.
Electric ..	574.52	574.59	571.87	573.59	570.46
Steam ..	29.37	21.97	21.97	21.81	21.81
Cable ..	24.29	24.29	24.29	24.29	24.29
Horse ..	1.50	1.50	1.50	2.51	2.51
Total ..	629.68	622.35	619.63	622.20	619.07

(iii) *Cost of Construction and Equipment.* The table hereunder shows the total cost of construction and equipment of all tramways to the 30th June, 1935, 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. 26.

TRAMWAYS.—COST OF CONSTRUCTION AND EQUIPMENT, 1934-35.

Nature of Motive Power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
ACCORDING TO MOTIVE POWER.							
	£	£	£	£	£	£	£
Electric	8,790,933	7,189,073	2,107,883	4,077,349	1,738,556	635,535	24,539,329
Steam ..	146,483	..	53,235	..	63,196	..	262,914
Cable ..	..	1,255,652	..	..	..	..	1,255,652
Horse ..	..	..	..	..	10,104	..	10,104
Total ..	8,937,416	8,444,725	2,161,118	4,077,349	1,811,856	635,535	26,067,999

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 was completed in 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 1931 to 1935 :—

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 at end of year.
	Miles.	£	£	£	£	£	%	%	No. '000.	No.
1931 ..	203.09	8,090,699	3,059,807	3,124,366	-64,469	475,571	102.11	-0.80	266,393	8,191
1932 ..	197.57	8,155,204	3,306,557	3,049,267	257,290	546,626	92.22	3.15	286,504	8,417
1933 ..	197.47	8,204,065	3,268,200	2,781,968	486,232	484,057	85.12	5.93	295,783	8,033
1934 ..	194.49	8,410,978	3,028,716	2,375,152	653,564	455,986	78.42	7.77	206,639	7,922
1935 ..	191.20	8,937,416	3,323,498	2,717,383	606,115	442,905	81.76	6.78	307,616	8,112

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, acquired from the Melbourne Electric Supply Company on the 1st September, 1930, and 13.14 miles of similar traction at Ballarat and 7.84 miles at Bendigo, taken over from the Electric Supply Company of Victoria on 1st July, 1934.

A short account of the formation of the Melbourne Tramway and Omnibus Company and of the Tramways Board will be found in earlier issues of this work (*see Year Books No. 7 page 652, No. 9 page 679 and No. 15 page 593*).

With the exception of the St. Kilda-Brighton line, which is of 5 ft. 3 in. gauge, all the tramways of the State are of 4 ft. 8½ in. gauge.

(ii) *Particulars of Working.—Electric and Cable Tramways*. The following table gives particulars for all tramways in Victoria during each of the years 1931 to 1935 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 at end of year.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
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	4,732
1934 ..	178.77	8,562,299	2,088,716	1,306,301	782,415	300,015	62.54	9.14	179,779	4,870
1935 ..	178.40	8,444,725	2,163,738	1,341,587	822,151	283,136	62.00	9.74	186,484	4,995

4. Queensland.—(i) *General*. The electric tramways in the city and suburbs of Brisbane were controlled by a private company, with head office in London, until the 31st December, 1922, on which date they were purchased by the Queensland Government which, under the provisions of the Brisbane Tramway Trust Act 1922, appointed a Trust to control and operate the system until 1st December, 1925, when the control passed to the Brisbane City Council. Under the provisions of the Brisbane City Council Act 1925, the Council took over the liabilities of the Tramway Trust to the extent of £2,000,000 which had been incurred in London, and assumed complete control of the system. The total length of the Brisbane tramways was 57.53 route miles at 30th June, 1935, 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 1931 to 1935 :—

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 at end of year.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1931 ..	63.34	2,273,109	716,605	519,738	196,867	109,316	72.53	8.66	70,761	1,404
1932 ..	63.51	2,195,545	688,883	481,186	207,697	106,689	69.85	9.46	69,478	1,431
1933 (a)	63.51	2,162,631	694,611	479,426	215,185	106,651	69.02	9.95	69,646	1,359
1934 (a)	63.51	2,115,460	700,723	501,846	198,877	106,611	71.62	9.40	71,185	1,485
1935 (a)	64.18	2,161,118	746,543	543,571	202,972	106,533	72.81	9.39	78,264	1,735

(a) Year ended 30th June.

5. South Australia.—(i) *General.* The tramways in Adelaide and suburbs are controlled by a Municipal Tramways Trust created in 1907. Prior to that year, the system was run with horse-traction by several private companies. Electric traction was inaugurated in 1909, and at the 31st July, 1935, 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 1931 to 1935 :—

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 at end of year.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1931..	82.84	4,036,396	722,104	445,260	276,844	287,534	61.66	6.86	52,756	1,840
1932..	82.84	4,043,913	659,575	383,400	276,175	264,597	58.13	6.83	48,467	1,777
1933..	82.83	4,068,156	643,274	392,526	250,748	253,930	61.02	6.16	48,154	1,719
1934..	82.83	4,072,007	627,897	388,136	239,761	248,760	61.82	5.89	47,021	1,708
1935..	82.83	4,077,349	639,335	402,258	237,077	239,139	62.92	5.81	48,118	1,688

Figures relating to the working of the motor omnibus services under the control of the Municipal Tramways Trust are also included in the above table, separate particulars not being available.

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, 1935, was 43.90 route miles. Electric tramways with a route mileage at 31st August, 1935, of 9.98 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 1935, the length of line was 11.56 route miles. All the electric tramways of the State are of 3 ft. 6 in. gauge.

In addition to the electric tramways, there are several Government tramways, with a total length of 8.61 miles of 3 ft. 6 in. gauge. The lines are under control of the Department of Works and Labour, and the total mileage of 8.61 miles is made up of several short lengths worked by steam or horses in connexion with the jetties at certain ports and providing communication between the jetties and the goods sheds or warehouses.

(ii) *Particulars of Working.*—*All Tramways.* The following table gives a summary for all tramways in the State for the years 1931 to 1935 :—

**ELECTRIC, STEAM AND HORSE TRAMWAYS.—WESTERN AUSTRALIA.—
SUMMARY.**

Year ended 30th June—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	In-terest. (a)	Per-centage of Work-ing Expen-ses on Gross Reve-nue.	Per-centage of Net Earn-ings on Capital Cost.	Passen-gers carried.	Persons em-ployed at end of year.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1931 ..	69.03	1,793,341	379,240	326,790	52,450	57,432	86.17	2.92	38,292	794
1932 ..	69.03	1,793,651	359,080	288,098	70,982	55,480	80.23	3.96	36,133	761
1933 ..	68.84	1,802,831	354,321	290,448	63,873	55,426	81.97	3.54	36,329	741
1934 ..	74.17	1,818,775	354,552	297,367	57,185	56,347	83.87	3.14	36,595	773
1935 ..	74.05	1,811,856	360,490	291,966	68,524	55,261	80.99	3.78	37,108	737

(a) Exclusive of Kalgoorlie and Boulder electric tramways operated by a private company.

7. *Tasmania.*—(i) *General.* In Hobart there is a system of electric tramways consisting of 16.70 route miles of 3 ft. 6 in. gauge controlled by the Hobart Municipal Council. The Launceston City Council operates a length of 11.71 miles of 3 ft. 6 in. gauge in that City.

There are also several lines of privately-owned steam tramways, which have been included with private railways, as they do not come within the category of street tramways for the conveyance of passengers.

(ii) *Particulars of Working.*—*Electric Tramways.*—The following table gives a summary of the working of the two electric systems for the years 1931 to 1935 :—

ELECTRIC TRAMWAYS.—TASMANIA.—SUMMARY.

Year ended 30th June—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	In-terest.	Per-centage of Work-ing Expen-ses on Gross Reve-nue.	Per-centage of Net Earn-ings on Capital Cost.	Passen-gers carried.	Persons em-ployed at end of year.
	Miles.	£	£	£	£	£	%	%	No. ,000.	No.
1931 ..	30.53	612,632	159,136	127,854	31,282	37,308	80.34	5.11	16,360	388
1932 ..	30.73	628,794	154,812	115,096	39,716	41,485	74.34	6.32	15,493	353
1933 ..	28.31	630,657	161,902	116,112	45,790	42,726	71.72	7.26	14,850	291
1934 ..	28.43	634,192	164,826	123,998	40,828	36,376	75.23	6.44	14,942	308
1935 ..	28.41	635,535	164,639	121,883	42,756	39,055	74.03	6.73	14,934	305

8. Australia.—All Tramways—Summary 1931 to 1935. The following table gives a summary of the working of all tramway systems in Australia for the years 1931 to 1935:—

ALL TRAMWAYS—AUSTRALIA—SUMMARY.

Particulars.	1931.	1932.	1933.	1934.	1935.
Mileage open for traffic .. Miles	629.68	622.35	619.63	622.20	619.07
Cost of Construction and Equipment .. £	25,330,705	25,461,877	25,468,793	25,613,720	26,067,999
Cost per mile .. £	40,228	40,912	41,103	41,166	42,108
Gross Revenue .. £	7,227,991	7,218,605	7,180,549	6,965,430	7,398,243
Working Expenses .. £	6,068,041	5,644,208	5,346,461	4,992,800	5,418,648
Net Earnings .. £	1,159,950	1,574,397	1,834,088	1,972,630	1,979,595
Interest .. £	1,314,737	1,341,127	1,268,202	1,204,095	1,166,029
Percentage of Working Expenses on Gross Revenue .. %	83.95	78.19	74.46	71.68	73.24
Percentage of Net Earnings on Capital Cost .. %	4.58	6.18	7.20	7.70	7.59
Tram-miles run .. ,000 miles	77,308	79,963	80,910	80,757	81,084
Gross revenue per tram mile .. d.	22.44	21.66	21.30	20.70	21.90
Working expenses per tram mile .. d.	18.84	16.94	15.86	14.84	16.04
Net earnings per tram mile .. d.	3.60	4.72	5.44	5.86	5.86
Passengers carried .. ,000	633,014	631,508	641,680	646,161	672,523
Passengers carried per tram mile No.	8.19	7.90	7.93	8.00	8.29
Average revenue per passenger Journey .. d.	2.74	2.74	2.69	2.59	2.64
Persons employed at end of year No.	17,402	17,479	16,875	17,066	17,572

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 objects of this Department will be found in Official Year Book No. 19, p. 299.

3. Aerodromes and Landing Grounds.—Landing grounds have been established over the following approved routes:—Perth to Wyndham (2,067 miles); Perth to Adelaide (1,453 miles); Adelaide to Sydney (790 miles); Sydney to Brisbane (500 miles); Brisbane to Camooweal (1,226 miles); Camooweal to Darwin (802 miles); Katherine to Ord River (375 miles); Cloncurry to Normanton (216 miles); Melbourne to Hobart, via King Island (490 miles) and via Flinders Island (436 miles); Melbourne to Hay (233 miles); Mildura to Broken Hill (189 miles); Melbourne to Charleville, via Cootamundra (900 miles).

Up to the 30th April, 1936, 234 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 Department 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 April, 1936, there were 181 licensed public aerodromes under the control of local authorities. The total number of recognized landing grounds in Australia and New Guinea at the 30th April, 1936, was 415.

4. General Flying Activities, 1935.—During 1935, 1,320,594 miles were flown by the subsidized contractors with one fatal accident. Operators of other regular, but unsubsidized services flew 1,001,915 miles without a fatal accident. The total mileage flown by all Civil Aircraft in Australia and New Guinea during the year was 5,641,281 miles.

5. Air Services.—(i) *General*. Since the year 1920 the grant of financial assistance for the establishment and maintenance of regular air transport services has been part of the Government's policy for the development of civil aviation in Australia.

At the 30th April, 1936, nine subsidized contractors were operating under contracts which provided that such space as is required on each trip must be reserved for mails. On letters within the Commonwealth there is an air mail fee of 3d. per $\frac{1}{4}$ ounce in addition to the ordinary postage rate, and for letters to the United Kingdom the inclusive postage is 1s. 6d. per $\frac{1}{4}$ ounce. The total route mileage of these services is 10,456 miles.

The principal service is that from Brisbane to Darwin, and thence through Netherlands East Indies to Singapore, where a junction is made with Imperial Airways Ltd. which maintains regular air communication with the United Kingdom. Overseas mail correspondence has shown a steady increase since the inception of the service in December, 1934, and has attained such proportions that on occasions prospective passengers have had to be refused. In consequence, the Commonwealth Government has approved of the service being duplicated, and the twice-weekly schedule was inaugurated in May, 1936. This increased frequency also applies to the branch lines Daly Waters-Perth and Charleville-Cootamundra.

Since their inception the various subsidized regular air services over prepared routes have completed 15,638,015 passenger miles, and have carried 78,916 paying passengers over various stages. Approximately 130 tons of mail have also been carried to the 31st December, 1935.

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

(ii) *Regular Air Services at 30th April, 1936*. These services are of three categories, viz. :—(a) subsidized services carrying passengers, mails and freight; (b) unsubsidized services carrying mails (under agreement with the Postmaster-General's Department) passengers and freight; and (c) unsubsidized services carrying passengers and freight.

The total route mileage is 16,876, and the mileage flown weekly is 62,510, but with increased frequency of certain services, as above mentioned, in May, 1936, the latter figure will be considerably augmented. Details of the services are as follows :—

(a) *Subsidized Services*.—Qantas Empire Airways Ltd.—Brisbane-Darwin-Singapore, 4,361 miles; Cloncurry-Normanton, 216 miles. MacRobertson-Miller Aviation Co. Ltd.—Perth-Daly Waters, 2,252 miles; Ord River-Wyndham, 154 miles. Butler Air Transport Co.—Cootamundra-Charleville, 629 miles. Holyman's Airways Pty. Ltd.—Melbourne-Launceston-Hobart, 463 miles. West Australian Airways Ltd.—Perth-Adelaide, 1,453 miles. Aircrafts Pty. Ltd.—Brisbane-Cracow, 250 miles. Rockhampton Aerial Services Ltd.—Rockhampton-Mount Coolon, 330 miles. Commercial Aviation Co. Ltd.—Adelaide-Whyalla, 150 miles. Adastra Airways Ltd.—Sydney-Bega, 205 miles. All these services are operated once weekly in each direction over the routes mentioned, except the Melbourne-Hobart service, which is daily (Sundays excepted) in each direction, and Sydney-Bega, which is twice weekly in each direction.

(b) *Unsubsidized (Mail) Services*. Holyman's Airways Pty. Ltd.—Melbourne-Sydney, 490 miles. Airlines of Australia Ltd.—Sydney-Brisbane, 500 miles; Brisbane-Townsville, 711 miles. T. H. McDonald.—Townsville-Cairns, 190 miles; Cairns-Cooktown, 100 miles. Adelaide Airways Ltd.—Adelaide-Melbourne, 468 miles; Adelaide-Port Lincoln, 165 miles; Adelaide-Broken Hill, 255 miles. Airlines (W.A.) Ltd.—Perth-Wiluna-Kalgoorlie-Perth (round trip), 1,164 miles. W.A.S.P. Airlines Ltd.—Sydney-Narromine-Broken Hill, 635 miles. The frequency of the services varies.

(c) *Unsubsidized Services.* Rockhampton Aerial Services Ltd.—Brisbane-Rockhampton, 325 miles. Airlines of Australia Ltd.—Brisbane-Toowoomba, 75 miles; Townsville-Cairns, 190 miles; Sydney-Newcastle, 80 miles. Aircrafts Pty. Ltd.—Brisbane-Bundaberg, 200 miles. W.A.S.P. Airlines Ltd.—Sydney-Narrromine-Coonamble, 300 miles; Sydney-Griffith, 310 miles. Ansett Airways Pty. Ltd.—Melbourne-Hamilton, 160 miles. Adelaide Airways Ltd.—Adelaide-Kangaroo Island, 95 miles. The frequency of the services varies.

(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 has been extended to Western Australia. From the Wyndham base the service is maintained by the MacRobertson-Miller Aviation Co., which employs a D.H.83 aircraft specially fitted for ambulance work. This aircraft is employed on the regular Ord River-Wyndham air service, and is available for Australian Aerial Medical Service as required. The Victorian Section of the Australian Aerial Medical Service, with the aid of a small Commonwealth monetary grant, provides a doctor and bears the cost of flying operations in this district. A further air ambulance is also available at Port Hedland, Western Australia, under the joint managements of the MacRobertson-Miller Aviation Company and the Western Australian section of the Australian Aerial Medical Service. At Kalgoorlie similar work is undertaken by a local aircraft owner.

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.

With the assistance of a small Governmental subsidy the Far West (New South Wales) Children's Health Scheme maintains an "Aerial Baby Health Clinic" at Bourke and surrounding district. An aeroplane is chartered from a local owner, and is used for the conveyance of the clinic's nurse who interviews mothers and gives lectures at the centres visited. To facilitate its work, the clinic (with the aid of financial assistance from the New South Wales Government) has had aerodromes prepared in the territory over which periodical flights are carried out.

6. *Gliding.*—Activities are carried out in various centres of the Commonwealth, but the sport is confined chiefly to Perth, Queensland and Melbourne where local bodies are assisted in their operations by a small Governmental grant.

7. *Meteorological Aids to Aviation.*—Close co-operation exists between the meteorological authorities and aviation interests, with mutual advantage. Certain of the air transport companies operating regular services compile for the meteorological authorities logs of the weather conditions along their routes. In return, aviation interests obtain from the Weather Bureau regular weather reports and forecasts for the main air routes, while special information may be had at any time on request. Civil Aviation authorities have also made available special apparatus for upper air observations, and special observation flights have been conducted over a long period by the Royal Australian Air Force at Point Cook.

A meteorological station has been erected at Darwin, and regular weather forecasts and reports are supplied to Qantas Empire Airways Ltd. and the MacRobertson-Miller Aviation Company to facilitate the operation of the air services in North Australia, and across the Timor Sea. The information supplied includes upper air observations at Darwin.

Weather reports from Darwin are transmitted by Amalgamated Wireless (A/asia.) Ltd. which maintains a continuous W/T. watch over the movements of aircraft. The meteorological office at Darwin is thus enabled to keep in touch with the aircraft crossing the Timor Sea, and furnish up to date advice of weather conditions.

In June, 1935, agreement was reached between the Commonwealth Government and the Netherlands East Indies authorities for the free interchange of weather reports for the use of air services operating between Darwin and Singapore. Reports of the weather conditions at a number of centres in Netherlands East Indies are broadcast from Koepang (Timor) at 9.30 a.m. daily, the broadcast including also particulars of upper air observations at Koepang. Similarly, reports in respect of Darwin, Daly Waters, Wyndham, Broome and Port Hedland are broadcast from Darwin at 12.30 p.m. daily.

8. **Wireless.**—Increasing use has been made of wireless facilities as aids to navigation in the operation of the Melbourne-Hobart and Singapore-Darwin air services, and in the northern section of the Perth-Daly Waters service. D/F. wireless stations have been established at Essendon, Western Junction and Darwin aerodromes. Continuous wireless touch is now maintained between aircraft and ground stations on the Sydney-Melbourne-Hobart air route, over the whole of the overseas air route, and also whilst aircraft are traversing the sparsely populated section of the route between Cloncurry and Darwin.

9. **Patrol Boat, Darwin.**—A fast petrol-driven motor boat capable of a speed of 20 knots and with a range of 900 miles has been purchased by the Commonwealth Government to render aid in the event of any aircraft being forced to alight in the Timor Sea. The boat will also be employed for patrol duties in connexion with the administration of the Department of the Interior, and it is expected that it will be ready for service in June, 1936.

10. **Aircraft Construction.**—Tugan Aircraft Ltd., Sydney, have successfully developed a new twin-engined, high-wing, commercial monoplane known as the "Gannet", and production has commenced on a series of these machines. Accommodation is provided in the standard model for seven passengers and a pilot, and the first aircraft of the type was delivered to W.A.S.P. Airlines Ltd. for use on their regular services. The second machine was specially equipped to the order of the Royal Australian Air Force, and the third of the series has been sold for use on the W.A.S.P. Airlines Ltd. services. A fourth machine is now under construction.

Another aircraft of new design now nearing completion is a low-wing monoplane. This machine is one of a series of aircraft which may be adopted for a variety of purposes. Two designs, viz., the T.W.A.3 and T.W.A.4, have been completed, and the first aircraft is now ready to undergo tests for issue of Type Certificate. The local manufacture of aircraft materials and components continues to show considerable expansion and many firms and individuals engaged in allied industries are taking advantage of the demand for aircraft products and are expanding their factories to cope with this work.

11. **Aircraft Imports.**—The following table shows the number of aircraft imported into the Commonwealth and Territory of New Guinea during the past four years :—

Year.	1932-33.	1933-34.	1934-35.	1935-36. (To 30th April, 1936.)
Number of aircraft imported	14	15	48	50

The decision of the Commonwealth Government to permit the entry of American and other foreign aircraft into the country under certain conditions has resulted in many orders being placed by Australian operators with American aircraft manufacturers.

The Douglas D.C.2 aircraft, which is used on the Bass Strait Service, is the largest and most costly aeroplane yet imported into Australia. Another type imported is the Stinson Model "A" aircraft, which is in use on the Sydney-Brisbane service.

12. **Training of Air Pilots.**—(i) *The Associated Aero Clubs.* These clubs provide facilities in all States for flying instruction and practice. During the year ended 30th April, 1936, 170 pupils qualified for private ("A") pilot's licences. Many graduates have completed advanced courses of training, gained their commercial ("B") licences and now own aircraft. Other pupils have qualified as instructors.

The Commonwealth Government grants assistance to the clubs by providing hangar accommodation, the free use of aerodromes, suitable club houses which are leased to the clubs, and bonuses for each pupil trained to a standard that will enable him to obtain a private ("A") 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. Included in the aircraft fleets of the several clubs is a number of D.H.60 ("Moth") machines, which were loaned by the Commonwealth Government.

Originally instruction was confined to the capital cities, but operations have now been extended by the clubs to a certain number of provincial centres where aircraft and instructors are made available as required.

Aviation pageants are held from time to time by the various Aero Clubs, both at their base cities and at country centres, and have had a valuable educative effect in stimulating interest in aviation.

(ii) *Other Organizations.* Flying training is also carried out intermittently by companies, clubs, or private owners at various centres throughout the Commonwealth. These do not receive Government subsidy.

During the year ended 30th April, 1936, 105 pupils graduated from all flying training organizations for "A" pilots' licences.

13. **Notable Flights.**—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 April, 1936, there was a number of flights between Australia and Europe, the most outstanding being that of Mr. H. F. Broadbent, who, in a Percival Gull aircraft, flew from England to Australia in 6 days 21 hours. This constitutes a record for a solo flight between the two countries. In October, 1935, Mr. W. M. O'Hara made a successful crossing of the Tasman Sea from Australia to New Zealand, the journey occupying 14 hours. In November, 1935, Sir Charles Kingsford-Smith, accompanied by T. Pethybridge as co-pilot, attempted a record flight from England to Australia in a Lockheed Altair aeroplane in which in 1934 he had flown across the Pacific Ocean from Brisbane to San Francisco. Unfortunately this proved to be the last flight of the famous airman, whose aircraft was not seen after leaving India. A most exhaustive search from Singapore to the Bay of Bengal was carried out for many days by machines of the Royal Air Force, Qantas Empire Airways and Mr. C. J. Melrose, but without result. Thus closed the flying career of Australia's, and perhaps the world's, greatest airman.

14. **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, 1931 to 1935 :—

CIVIL AIRCRAFT.—AUSTRALIA.—SUMMARY.

Particulars.	Year ended 30th June—				
	1931.	1932.	1933.	1934.	1935.
Registered Aircraft Owners					
(a) .. No.	129	115	115	114	123
Registered Aircraft (a) No.	225	189	197	188	208
Licensed Pilots—(a)					
Private .. No.	407	363	370	429	569
Commercial .. No.	209	183	184	201	210
Licensed Flying Instructors					
(a) .. No.	..	..	..	59	35
Licensed Navigators (a) No.	..	..	..	..	13
Licensed Aircraft R/T Operators (a) .. No.	..	..	..	..	7
Licensed Ground Engineers					
(a) .. No.	293	277	272	261	297
Aerodromes—(a)					
Government .. No.	57	58	59	64	65
Public .. No.	66	96	114	126	146
Government Emergency Grounds .. No.	121	121	119	135	138
Flights carried out .. No.	113,340	96,192	85,346	89,894	114,886
Hours flown .. No.	41,507	31,959	31,883	35,487	44,507
Approx. Mileage .. Miles	3,596,930	2,527,700	2,587,389	3,061,449	3,713,718
Passengers carried—					
Paying .. No.	80,651	56,883	58,155	54,119	45,491
Non-paying .. No.	13,699	13,771	12,949	10,117	11,743
Total .. No.	94,350	70,654	71,104	64,236	57,234
Goods, weight carried (b) lb.	204,445	221,552	244,258	296,983	248,396
Mails, weight carried lb.	48,503	29,494	36,212	43,627	43,080
Accidents—					
Persons killed .. No.	29	7	5	10	28
Persons injured .. No.	20	17	6	12	10

(a) At 30th June.
Western Australia.

(b) Stage freight has been included in some instances in South Australia and Western Australia.

Particulars of flying over the Darwin-Singapore Section of the Imperial Airways route, not included in the above table, are shown below for the period 30th November, 1934 to 30th June, 1935.

Period.	Number of Flights. (a)	Hours Flown.	Approximate Mileage.	Total Passengers Carried.	Weight of Goods Carried.	Weight of Mail Carried.
30th November, 1934, to 30th June, 1935	61	1,186	140,706	49	lb. 1,019	lb. 24,828

(a) The distance between Darwin and Singapore is here regarded as a single flight.

15. New Guinea Activities.—The discovery of gold in New Guinea resulted in considerable aviation activity in the vicinity of the gold-fields, which, by ground route, are situated about 70 miles inland from Salamaua, on the north-east coast of the mainland of New Guinea. The value of aircraft as a means of transporting food and stores to the field and of bringing the gold to the seaboard is shown by the fact that, whereas aircraft cover the distance in less than one hour, the nature of the intervening country is such that a journey by other means occupies more than a week. Guinea

Airways Ltd. employs specially constructed freight machines for the transportation of dredging machinery and other heavy material to the Bulolo fields. Horses, cattle, motor cars, building material and various kinds of heavy freight are continually being carried inland from the coast in aircraft, and such activity constitutes one of the most notable feats of transport in the history of aviation. Inward mails are carried by Guinea Airways Ltd., under arrangement with the Postmaster-General's Department, from Port Moresby to Wau, Lae and Bulolo. The air mail fee is 1½d. per ounce in addition to the ordinary postage, plus 3d. per half-ounce (air mail surcharge) if an Australian air service is also used. Mails are carried by W. R. Carpenter and Co. Ltd. under arrangement with the New Guinea Administration from Salamaua to Wau and other inland mining centres. None of the air services operating in the Territory are subsidized by the Commonwealth Government, but the latter Company and the Pacific Aerial Transport Ltd. hold contracts with the New Guinea Administration for the provision of air transport for Administration passengers and goods between the coast and the gold-fields. Several new aerodromes have been prepared in the Territory and there has been an increase in aviation activities generally. The Companies and persons operating in New Guinea are:—Guinea Airways Ltd.; Holden's Air Transport Service Ltd.; Pacific Aerial Transport Ltd.; W. R. Carpenter and Co.; Salamaua Aerial Services; Bulolo Gold Dredging Ltd; E. J. Stephens and N. G. Mendham. The subjoined table gives a summary of operations for the years ended 30th June, 1931 to 1935.

CIVIL AIRCRAFT.—TERRITORY OF NEW GUINEA.—SUMMARY.

Particulars.	Year ended 30th June—				
	1931.	1932.	1933.	1934.	1935.
Registered Aircraft Owners					
(a) No.	5	6	5	10	9
Registered Aircraft (a) No.	15	15	19	26	25
Licensed Pilots—(a)					
Private No.	4	2	1	4	3
Commercial .. No.	13	16	21	24	27
Licensed Flying Instructors					
(a) No.	..	..	..	..	1
Licensed Navigators (a) No.	..	..	..	..	1
Licensed Ground Engineers					
(a) No.	18	30	30	37	42
Aerodromes—(a)					
Government .. No.	2	2	2	3	5
Public No.	..	..	..	3	3
Government Emergency					
Landing Grounds No.	3	3	3	15	3
Flights carried out No.	2,672	4,664	7,228	9,877	14,710
Hours flown .. No.	3,969	5,160	8,499	10,061	13,022
Approximate mileage Miles	325,807	424,232	680,871	811,440	1,094,308
Passengers carried—					
Paying No.	2,992	3,450	6,948	10,799	14,200
Non-paying .. No.	87	31	93	209	203
Total No.	3,079	3,481	7,041	11,008	14,403
Goods, weight carried lb.	3,107,616	9,778,072	10,982,936	14,985,723	17,447,746
Mails, weight carried lb.	24,604	23,394	47,097	90,046	97,889
Accidents—					
Persons killed No.	1	..	2	..	2
Persons injured No.	1	..	..	1	4

(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 1930-31 to 1934-35 :—

MOTOR BODIES BUILT, AND BODIES, CHASSIS AND FUELS IMPORTED—
AUSTRALIA.

Particulars.		1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
Motor bodies built in Australia ..	No.	10,417	6,323	13,532	26,302	45,445
	Value £	864,209	450,510	1,100,594	2,112,439	4,180,586
Motor bodies imported ..	No.	137	61	108	1,116	2,215
	Value £	14,007	7,360	12,233	86,899	179,558
Chassis imported ..	No.	9,367	4,146	15,776	32,924	53,975
	Value £	721,893	355,415	1,306,830	2,528,969	4,096,760
Fuels imported—						
Crude petroleum ..	Million gallons	93	49	58	58	55
	Value £	823,575	448,651	486,302	488,341	460,781
Petroleum spirit, etc. ..	Million gallons	171	156	181	208	212
	Value £	4,054,265	2,622,414	3,218,209	2,852,649	2,706,474

The value of the tyres both locally produced and imported, for which figures are however, not available. must also be taken into consideration, particularly as the prevailing practice is for distributors to retail cars on a five-tyre basis. Spares, batteries, accessories, etc., are additional items for which there is a wide market in Australia.

2. **Registration.**—The arrangements for the registration of motor vehicles and the licensing of drivers and riders thereof are not uniform throughout Australia. Methods of registration, licence fees payable, etc., in each State were referred to in Official Year Book No. 16, pp. 337-340, and later issues up to No. 25.

3. **Public Vehicles.**—In all the capital cities of the States and in many of the most important provincial centres taxi-cabs and other vehicles ply for hire under licence granted either by the Commissioner of Police or the Local Government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. **Motor Omnibuses.**—Motor omnibus traffic, both in urban and provincial centres, has assumed considerable proportions during recent years, and prior to the constitution of Boards empowered to allocate routes over which omnibuses may operate, had a very marked effect on railway and tramway services. The regulation of traffic of motor vehicles has arisen from the belief that the economic waste arising from duplication of services parallel with or contiguous to existing railway and tramway systems is thus avoided. The general principle governing the allocation of routes is that omnibus services should act as feeders to existing transport utilities. Revenue from licence fees is devoted principally to the maintenance or construction of roadways to enable them to withstand the wear and tear caused by the heavy traffic. In some States the various railway and tramway systems have motor services complementary to their main services. Such services are conducted in New South Wales by the Department of Road Transport and Tramways, in Victoria by the Victorian Railways Commissioners, in South Australia by the South Australian Railways Commissioners and by the Municipal Tramways Trust, Adelaide, and in Tasmania by the Municipality of Hobart. In most instances the omnibus service has been provided to meet the competition of private enterprise and to endeavour to protect the existing transport utilities provided by public bodies.

5. **Motor Vehicles Registered, etc.**—(i) *Year 1934-35.* Particulars of the registration of motor vehicles, etc., for the year 1934-35 are contained in the subjoined table :—

MOTOR VEHICLES.—SUMMARY, 1934-35.

State or Territory.	Motor Vehicles Registered.					Drivers' and Riders' Licences Issued.	Gross Revenue derived from—			
	Motor Cars.	Motor Cycles.	Commercial Vehicles.	Total.	Per 1,000 of Population at 30th June, 1935.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources. (e)	Total.
	No.	No.	No.	No.	No.		£	£	£	£
New South Wales (a) ..	616,483	22,777	56,055	243,315	92.0	341,255	1,692,203	173,464	86,418	1,952,085
Victoria ..	140,483	24,968	37,487	202,938	110.4	260,288	1,293,145	65,764	44,225	1,403,134
Queensland ..	65,261	7,807	27,985	101,053	104.4	125,550	569,799	49,761	27,216	646,778
South Australia ..	42,815	8,903	14,450	66,168	113.1	93,258	515,995	45,081	12,775	573,851
Western Australia ..	30,341	6,597	16,279	53,217	119.4	63,539	280,011	15,990	22,795	318,796
Tasmania ..	12,900	3,881	3,010	19,791	86.5	23,475	97,980	11,749	9,802	119,531
Northern Territory ..	303	31	182	516	101.0	773	343	354	..	697
Federal Capital Territory ..	1,098	81	273	1,452	156.4	2,080	7,834	1,031	77	8,942
Australia ..	457,684	75,045	155,721	688,450	102.4	910,218	4,457,310	363,194	203,310	5,023,814

(a) Approximate figures only on account of Annual and Quarterly Registration Certificates. (b) Includes Hire Cars. (c) Includes Taxis and Hire Cars. (d) Certificates of competency (State Transport Act of 1932). (e) Includes Dealers' Plates, Transfers, Duplicates, Fees, Penalties, etc.

(ii) *Quinquennium* 1931-1935. The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1930-31 to 1934-35 :-

MOTOR VEHICLES.—REGISTRATIONS, ETC., AUSTRALIA.

Year.	Motor Vehicles Registered.					Drivers' and Riders' Licences Issued.	(b) Revenue derived from—			
	Motor Cars.	Motor Cycles.	Commercial Vehicles.	Total.	Per 1,000 of Population at 30th June.		Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
							£	£	£	£
1930-31	429,206	76,966	97,933	604,105	92.6	805,626	3,747,726	324,907	..	4,072,633
1931-32	419,970	71,696	96,254	587,920	89.4	754,839	3,717,707	305,175	..	4,022,882
1932-33	438,499	72,896	105,837	617,232	93.1	760,973	3,815,470	303,909	..	4,119,379
1933-34	455,109	73,104	116,341	644,644	96.6	863,982	4,120,305	341,685	132,106	4,603,096
1934-35	457,684	75,045	155,721	688,450	102.4	910,218	4,457,310	363,194	203,310	5,023,814

(a) Incomplete, Queensland commercial vehicles included with motor cars. (b) Prior to the year 1933-34 the figures purporting to show the revenue collected were not uniform throughout the States.

(iii) *Relation to Population*. The table hereunder gives the number of vehicles (exclusive of motor cycles) registered per 1,000 of population at 30th June, in each State for each of the years 1921 and 1931 to 1935 :-

MOTOR VEHICLES (EXCLUSIVE OF MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Federal Capital Territory.	Australia.
31st Dec., 1921	15	16	8	24	12	13	(a)	(a)	15
30th June, 1931	80	86	86	82	92	65	110	155	81
" 1932	79	81	83	85	96	61	119	134	79
" 1933	77	86	86	88	92	62	131	135	82
" 1934	78	90	89	99	97	65	129	143	86
" 1935	83	97	96	98	105	70	95	148	91

(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 1930-31 to 1934-35. 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 or Territory.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales	7 1 7	7 6 8	6 10 5	7 6 5	7 11 0
Victoria	6 19 10	6 17 5	6 17 8	7 0 2	7 3 5
Queensland	5 16 4	5 19 10	5 17 3	6 1 3	5 18 8
South Australia	8 4 5	8 16 8	8 13 1	7 19 2	8 11 11
Western Australia	6 15 7	6 3 8	6 3 4	6 4 10	5 17 5
Tasmania	5 11 0	5 14 1	5 14 3	5 14 3	5 15 0
Northern Territory	1 0 0	1 0 0	1 0 0	1 0 0	1 0 0
Federal Capital Territory	4 19 9	5 8 9	5 4 2	5 3 9	5 12 1
Australia	6 17 9	6 19 10	6 15 7	6 19 6	7 2 2

6. *Comparative Motor Vehicle Statistics, 1936.*—The result of the 1936 World Motor Census, conducted by the "American Automobile" magazine, from which the following particulars have been extracted, shows that there were 37,275,264 motor cars, trucks, and buses registered in various countries of the world at 1st January, 1936. This shows an increase of 5.5 per cent. on the figure for the previous year, and is the highest figure yet attained.

COMPARATIVE MOTOR VEHICLE STATISTICS, 1st JANUARY, 1936.

Country.	Approximate Population in Millions.	Motor Cars, Trucks and Buses.	Motor Cycles.
Australia	7	631,854	76,279
Argentine	12	290,553	..
Belgium	8	162,450	..
Brazil	45	145,000	..
Canada	11	1,161,002	10,463
Cuba	4	34,381	358
Denmark	4	130,599	26,347
France	42	2,182,138	..
Germany	65	1,104,000	1,053,556
Great Britain	47	1,990,650	499,712
India	353	164,706	13,142
Irish Free State	3	52,518	4,035
Italy	43	391,709	114,542
Japanese Empire	97	130,118	51,500
Mexico	18	97,500	1,200
Netherlands	8	143,920	47,390
Netherlands East Indies	64	57,214	13,438
New Zealand	2	190,876	22,392
Spain	24	179,500	14,000
Sweden	6	154,800	46,000
Switzerland	4	90,500	35,000
Union of South Africa	8	238,855	33,148
United States of America	126	26,167,107	95,633

The foregoing figures are in some cases approximations based on estimates furnished by Trade Commissioners or representative motor trade organizations in the several countries, and in other cases are incomplete, especially in relation to motor cycles.

As regards numbers of motor cars in relation to the population, Australia ranks fourth among the countries of the world.

F. POSTS, TELEGRAPHS AND TELEPHONES.

§ 1. General.

1. **The Commonwealth Postal Department.**—In previous issues of the Year Book some account was given of the procedure in connexion with the transfer to the Federal Government of the postal, telegraphic and telephonic facilities of the separate States. (See Year Book No. 15, p. 601.)

Under the provisions of the Commonwealth Post and Telegraph Act, 1901, the Commonwealth Postal Department was placed under the control of a Postmaster-General, being a responsible Minister with Cabinet rank. The Director-General of Posts and Telegraphs controls the Department under the Postmaster-General, whilst the principal officer in each State is the Deputy Director, Posts and Telegraphs.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The subjoined statement shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices) in each State and in Australia at the 30th June, 1935. 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, 1935.

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
Number of post offices (a) ..	2,451	2,536	1,207	779	591	508	8,072
Number of square miles of territory to each office in State ..	127	35	556	1,160	1,651	52	369
Number of inhabitants to each office	1,083	725	802	757	754	450	833
Number of inhabitants per 100 square miles	855	2,091	144	65	46	873	226

(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 1934—

POST OFFICES—NUMBER.

State.	At 31st December—		At 30th June—							
	1901.(b)		1916.(b)		1925.		1934.		1935.	
	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	500	2,140	459	2,205	436	2,013	432	2,019
Victoria ..	224	2,076	293	2,366	280	2,428	275	2,271	273	2,203
Queensland ..	137	1,165	212	1,119	215	1,072	186	1,016	187	1,020
South Australia ..	180	523	147	697	147	660	144	628	144	635
Western Australia ..	181	34	154	459	138	582	124	449	125	466
Tasmania ..	57	315	51	427	48	466	42	466	42	466
Australia ..	1,217	5,883	1,357	7,208	1,287	7,413	1,207	6,843	1,203	6,869

(a) Includes offices previously designated as " Allowance " and " Receiving " Offices.

(b) Figures for 1905 and 1915 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—							
	1905.		1916. (d)		1925.		1934.		1935.	
	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.
Central Office ..	(a)	..	(a)	..	110	..	202	..	226	..
New South Wales ..	5,690	1,029	13,166	1,899	14,413	1,915	13,220	1,053	13,289	2,030
Victoria ..	4,086	912	8,840	1,152	11,140	1,130	9,979	1,070	10,545	1,017
Queensland ..	2,640	(b)	4,162	806	6,322	839	4,908	1,209	5,139	1,253
South Australia ..	1,727	259	2,816	348	3,026	430	3,280	301	3,393	311
Western Australia ..	1,273	154	2,558	284	3,271	319	2,629	342	2,813	385
Tasmania ..	(c) 865	(b)	1,275	224	1,551	243	1,391	242	1,536	218
Australia ..	16,481	2,354	32,817	4,713	40,733	4,885	35,609	5,117	36,941	5,214

(a) Included in Victorian Staff. (b) Included in "employees." Separate particulars are not available. (c) At 31st December, 1901. (d) Figures for 1915 are not available.

3. **Gross Revenue, Postmaster-General's Department.—Branches.** The gross revenue (actual collections) in respect of each branch of the Department during each of the last five years is shown in the table hereunder :—

GROSS REVENUE, POSTMASTER-GENERAL'S DEPARTMENT.—BRANCHES.

Branch and Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£
Postal Branch—							
1930-31 ..	2,355,336	1,642,917	875,705	440,665	394,620	176,915	5,886,158
1931-32 ..	2,305,557	1,583,136	841,602	435,526	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
1933-34 ..	2,431,342	1,673,812	872,013	462,634	402,083	164,640	6,007,414
1934-35 ..	2,556,985	1,765,381	917,172	469,015	433,302	176,576	6,318,431
Telegraph Branch—							
1930-31 ..	404,479	261,355	195,767	141,202	111,118	38,997	1,152,918
1931-32 ..	373,139	242,195	194,508	136,321	103,713	36,084	1,085,960
1932-33 ..	358,214	251,097	195,328	136,145	112,154	38,885	1,001,823
1933-34 ..	378,656	263,904	202,579	131,086	120,318	40,385	1,136,928
1934-35 ..	432,771	301,396	222,020	148,533	141,403	43,773	1,260,388
Wireless Branch—							
1930-31 ..	54,601	63,690	12,789	16,821	4,006	3,675	155,672
1931-32 ..	63,384	65,545	12,600	16,870	5,524	4,274	168,197
1932-33 ..	79,702	77,867	15,728	22,668	8,813	5,596	210,134
1933-34 ..	127,453	118,626	28,169	36,250	17,130	9,229	336,837
1934-35 ..	153,177	110,328	29,929	36,363	19,287	9,509	338,593
Telephone Branch—							
1930-31 ..	2,109,466	1,598,415	814,704	565,992	376,252	139,447	5,644,356
1931-32 ..	2,089,555	1,555,137	792,607	529,700	297,713	131,263	5,399,365
1932-33 ..	2,002,461	1,595,977	787,597	534,157	301,418	134,228	5,445,838
1933-34 ..	2,202,273	1,647,108	818,981	535,158	308,400	135,662	5,647,972
1934-35 ..	2,360,656	1,749,660	884,147	562,999	328,271	141,785	6,027,518
All Branches—							
1930-31 ..	5,013,972	3,566,377	1,899,055	1,164,670	815,996	359,034	12,830,104
1931-32 ..	4,831,635	3,416,313	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	810,668	340,821	12,593,592
1933-34 ..	5,139,724	3,793,750	1,922,646	1,165,128	848,021	340,906	13,129,171
1934-35 ..	5,483,589	3,927,267	2,053,258	1,166,910	922,263	371,643	13,944,930
Total Revenue per head of mean population—							
1930-31 ..	1.96	1.99	2.07	2.01	1.94	1.61	1.98
1931-32 ..	1.88	1.91	1.98	1.92	1.82	1.49	1.89
1932-33 ..	1.87	1.95	1.98	1.98	1.88	1.50	1.91
1933-34 ..	1.96	2.03	2.02	1.98	1.93	1.53	1.97
1934-35 ..	2.07	2.14	2.14	2.01	2.06	1.62	2.08

Compared with the corresponding figures for the previous year, an increase of 6.2 per cent. is shown in the gross revenue earned, the increases in the several branches being as follows:—Postal 5.2 per cent., Telegraph 10.9 per cent., Wireless 0.5 per cent., and Telephone 6.7 per cent.

4. **Expenditure. Postmaster-General's Department.**—(i) *Distribution.* The following table shows, as far as possible, the distribution of actual expenditure on various items in each State during the year ended 30th June, 1935. 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, 1934-35.

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 ..	43,342	1,744,508	1,261,043	660,679	447,325	328,506	169,112	4,655,415
General expenses ..	2,466	116,307	86,924	32,327	31,530	21,680	12,897	304,131
Stores and material ..	1,503	40,353	26,345	22,637	8,404	9,574	4,641	113,757
Mail services ..	110,000	402,226	240,381	201,989	67,809	80,139	34,214	1,136,758
Engineering services (other than New Works) ..	41,638	832,229	569,881	278,692	208,598	142,431	104,222	2,177,691
Other services ..	42,860	..	..	..	..	..	..	42,860
Total ..	241,809	3,135,623	2,185,474	1,196,624	763,666	582,330	325,086	8,430,612
Pensions and retiring allowances ..	..	32,087	35,653	..	..	23,579	..	91,319
Rent, repairs, maintenance, fittings, &c. ..	..	39,249	27,991	15,637	9,393	8,945	1,856	103,071
Proportion of audit expenses ..	..	3,913	2,718	1,420	872	655	342	9,920
Interest on transferred properties ..	..	114,328	61,362	45,575	37,523	21,869	9,924	290,581
New Works—								
Telegraph, telephone and wireless ..	..	584,412	385,293	148,530	88,386	88,783	69,256	1,364,660
New buildings, &c. ..	..	18,231	34,773	14,271	2,471	7,416	1,063	78,225
Other expenditure not allocated to States	3,000,193 (b)	..	..	..	..	..	..	3,090,193
Total ..	3,332,002 (c)	3,927,843	2,733,264	1,422,057	902,311	733,577	407,527	13,458,581 (e)

(a) Orient Steam Navigation Company's Overseas Mail contract. (b) Particulars of apportionment to States not available. (c) Including expenditure not apportioned to States.

(ii) *Total, 1931 to 1935.* 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, 1931 to 1935 inclusive.

EXPENDITURE, POSTMASTER-GENERAL'S DEPARTMENT.

Expenditure.	Year ended 30th June—				
	1931.	1932.	1933.	1934.	1935.
	£	£	£	£	£
Total ..	14,282,984	12,196,307	12,165,210	12,288,173	13,458,581

The total expenditure increased by 9.5 per cent. during 1934-35, but the amount expended was more than £2,000,000 less than that in 1929-30.

5. Profit or Loss, Postmaster-General's Department.—(i) States, 1934-35. 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 follows :—

PROFIT OR LOSS, POSTMASTER-GENERAL'S DEPARTMENT, 1934-35.

Branch.	Profit or Loss.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
		£	£	£	£	£	£	£
Postal ..	Profit	745,813	566,764	288,748	116,558	101,852	7,544	1,282,279
	Loss	..	..	..	..	..	..	..
Telegraph ..	Profit	..	33,198	..	..	3,306	..	15,019
	Loss	4,865	..	272	8,883	..	7,465	..
Wireless ..	Profit	66,408	74,557	5,984	12,755	3,065	..	162,343
	Loss	..	..	..	..	..	426	..
Telephone ..	Profit	264,807	160,551	122,553	..	..	..	402,332
	Loss	..	..	..	74,738	3,708	67,136	..
All Branches	Profit	1,073,163	835,073	417,013	45,692	104,515	..	2,407,973
	Loss	..	..	..	..	..	67,483	..

After providing for depreciation, pensions and retiring allowances and interest on capital, the year 1934-35 closed with a surplus of £2,407,973. For the preceding year a surplus of £2,000,104 was shown.

(ii) Branches, 1931 to 1935. The following statement gives particulars of the operating results of each branch for the period 1931 to 1935 :—

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

Year Ended 30th June—	Branch.									
	Postal.		Telegraph.		Wireless.		Telephone.		All Branches.	
	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.
	£	£	£	£	£	£	£	£	£	£
1931 ..	721,282	..	..	390,514	35,148	..	..	432,920	..	67,004
1932 ..	1,267,534	..	..	183,367	30,932	..	..	379,090	736,009	..
1933 ..	1,471,685	..	..	101,588	22,796	..	..	200,275	1,192,618	..
1934 ..	1,684,608	..	..	41,012	87,235	..	269,273	..	2,000,104	..
1935 ..	1,828,279	..	15,079	..	162,343	..	402,332	..	2,407,973	..

6. Capital Account.—The appended statement shows particulars of the fixed assets of the Postmaster-General's Department at 30th June, 1935 :—

FIXED ASSETS, POSTMASTER-GENERAL'S DEPARTMENT, 30th JUNE, 1935.

Particulars.	Net Value, 1st July, 1934.	Capital Expenditure, 1934-35.	Gross Value, 30th June, 1935.	Less Deprecia- tion, &c. 1934-35. (a)	Net Value, 30th June, 1935.
	£	£	£	£	£
Telephone Lines and equipment	32,276,559	1,228,028	33,504,587	541,612	32,962,975
Telegraph Lines and Trunk Line equipment	10,191,932	199,491	10,391,423	51,339	10,340,084
Telegraph equipment	617,208	36,094	653,302	9,495	643,807
Postal equipment	406,072	6,560	412,632	1,077	411,555
Sites, Buildings, Furniture and Office equipment.	9,298,193	108,646	9,406,839	6,413	9,400,426
Miscellaneous	594,288	64,096	658,384	40,756	617,628
Wireless equipment	155,390	114,240	269,630	851	268,779
Total	53,539,642	1,757,155	55,296,797	651,543	54,645,254

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

During the past quinquennium the value of the fixed assets has increased by 5.8 per cent., the net value at 30th June, 1930, being £51,669,440.

§ 2. Posts.

1. Postal Matter Dealt With.—(i) *Australia*. The following table gives a summary of the postal matter dealt with in Australia during the five years 1931 to 1935. 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, Letter Cards and Packets.		Newspapers.		Parcels.		Registered Articles other than Parcels.	
	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popu- lation.	Number (,000 omitted).	Per 1,000 of Popu- lation.

POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.

1931	701,694	107,985	127,959	19,692	9,769	1,503	6,447	992
1932	677,847	103,437	118,906	18,145	8,841	1,349	6,096	930
1933	699,932	105,974	118,357	17,920	8,661	1,311	6,093	923
1934	733,506	110,217	121,600	18,272	8,549	1,285	6,223	935
1935	764,153	114,012	123,922	18,489	8,456	1,262	6,576	981

TOTAL POSTAL MATTER DEALT WITH.

1931	761,508	117,190	152,326	23,442	10,209	1,571	7,244	1,115
1932	731,134	111,569	139,502	21,288	9,203	1,404	6,731	1,027
1933	751,777	112,953	139,963	21,031	9,044	1,369	6,710	1,016
1934	790,166	118,731	142,040	21,343	8,942	1,344	6,870	1,032
1935	821,770	122,608	146,496	21,857	8,876	1,324	7,273	1,085

(ii) *States.* The next table shows separately for each State the postal matter dealt with in 1934-35.

POSTAL MATTER DEALT WITH—STATES 1934-35. (a)

State.	Letters, Postcards, Letter Cards and Packets.		Newspapers.		Parcels.		Registered Articles, other than Parcels.	
	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.
POSTED FOR DELIVERY WITHIN AUSTRALIA.								
New South Wales	295,175	111,655	60,303	22,811	3,433	1,299	2,485	940
Victoria ..	233,604	127,205	25,773	14,034	1,683	916	1,793	976
Queensland ..	98,016	102,009	20,404	21,235	1,642	1,709	987	1,027
South Australia ..	54,587	92,649	6,696	11,365	886	1,504	515	874
Western Australia	50,900	114,857	5,870	13,246	696	1,571	553	1,248
Tasmania ..	31,871	139,085	4,876	21,279	116	506	243	1,060
Australia ..	764,153	114,012	123,922	18,489	8,456	1,262	6,576	981
OVERSEA DISPATCHED.								
New South Wales	9,653	3,651	2,427	918	94	36	142	54
Victoria ..	9,249	5,036	3,609	1,965	42	23	86	47
Queensland ..	2,597	2,703	781	813	14	15	36	37
South Australia ..	2,477	4,204	405	687	8	14	22	37
Western Australia	2,853	6,438	425	959	10	23	24	54
Tasmania ..	2,821	12,311	183	799	1	4	3	13
Australia ..	29,650	4,424	7,830	1,168	169	25	313	47
OVERSEA RECEIVED.								
New South Wales	12,665	4,791	7,888	2,984	118	45	179	68
Victoria ..	7,242	3,944	2,470	1,345	71	39	121	66
Queensland ..	2,219	2,309	1,297	1,350	21	22	33	34
South Australia ..	1,568	2,661	921	1,563	13	22	17	29
Western Australia	3,218	7,261	1,822	4,111	24	54	27	61
Tasmania ..	1,055	4,604	346	1,510	4	17	7	31
Australia ..	27,967	4,173	14,744	2,200	251	37	384	57

(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 193 to 1935:—

VALUE-PAYABLE PARCEL POST.—SUMMARY.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
-----------------------	--------	-----------	---------	----------	----------	-----------	------------

NUMBER OF PARCELS POSTED.

	No.	No.	No.	No.	No.	No.	No.
1931	248,316	27,786	179,564	18,413	75,977	568	550,624
1932	280,539	37,144	182,902	25,315	80,330	714	606,994
1933	289,975	37,567	210,992	23,559	79,820	1,711	643,624
1934	305,972	40,769	204,459	21,309	79,030	1,782	653,321
1935	309,024	36,959	200,358	19,940	76,174	1,720	644,175

VALUE COLLECTED.

	£	£	£	£	£	£	£
1931	342,786	38,596	242,756	21,108	86,103	764	732,113
1932	331,328	47,481	230,761	26,931	83,973	920	721,394
1933	343,155	49,392	261,183	24,704	81,029	1,980	761,443
1934	377,752	55,305	248,002	22,502	83,524	1,970	789,055
1935	304,750	50,469	244,829	19,965	83,364	1,936	765,313

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

	£	£	£	£	£	£	£
1931	32,791	3,684	23,430	2,294	8,944	68	71,211
1932	36,606	4,787	23,962	3,088	9,450	90	77,983
1933	37,555	4,952	25,723	3,031	9,867	212	81,340
1934	40,356	5,460	26,947	2,827	10,452	213	86,255
1935	39,653	5,012	24,623	3,197	8,912	215	81,612

The number and value of parcels forwarded in New South Wales and Queensland are much higher than in any of the other States, although the system has also found favour in Western Australia. These three States have the largest areas, and consequently more people at long distances from business centres who avail themselves of the value-payable system. Although South Australia also has a large area, the population of that State is, comparatively, not widely spread.

3. *Sea-borne Mail Services.*—(i) *General.* In earlier issues of this work particulars of sea-borne mail services were included, but owing to the restrictions of space the insertion of this information terminated with Year Book No. 22.

(ii) *Amount of Subsidies Paid.* The following table shows the amounts of subsidies paid by the Commonwealth Postal Department for ocean and coastal mail services during the year ended 30th June, 1935:—

MAIL SUBSIDIES.—OCEAN AND COASTAL SERVICES, 1934-35.

Service.	Orient S.N. Co.	Queens- land Ports.	South Australian Ports.	Western Australian Ports.	Tas- manian Ports.
	£	£	£	£	£
Annual subsidy	110,000	1,200	4,800	5,520	50,853(a)

(a) Including £50,000, the amount payable under new contract applying from 13th March, 1935, the annual amount payable under the previous contract being £30,000.

4. **Total Cost of Carriage of Mails.**—During the year 1934-35 the amount paid for conveyance of mails at poundage rates by non-contract vessels and on account of other countries' services was £31,430; by road services, £552,578; and by railway services, £393,956. The total expenditure during the financial year 1934-35 on the carriage of mails, as disclosed by the Profit and Loss Account, amounted to £1,146,946.

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 1934-35, and the methods adopted in the disposal thereof:—

DEAD LETTER OFFICES.—SUMMARY, 1934-35.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
--------------	--------	------	---------	----------	----------	------	------------

LETTERS, POSTCARDS AND LETTER-CARDS.

Returned direct to writers or delivered	1,039,150	228,813	129,715	68,377	113,117	65,958	1,645,130
Destroyed in accordance with Act	79,791	39,592	19,501	8,469	3,382	2,806	153,541
Returned to other States or Countries as unclaimed	44,318	17,215	9,320	3,017	11,381	1,152	86,403
Total	1,163,259	285,620	158,536	79,863	127,880	69,916	1,885,074

PACKETS AND CIRCULARS.

Returned direct to writers or delivered	883,401	114,089	171,054	11,426	64,050	34,614	1,278,634
Destroyed in accordance with Act	89,530	33,631	25,048	12,878	5,735	642	167,464
Returned to other States or Countries as unclaimed	2,119	6,234	5,205	1,688	620	49	15,915
Total	975,050	153,954	201,307	25,992	70,405	35,305	1,462,013
Grand Total (letters, packets, etc.)	2,138,309	439,574	359,843	105,855	198,285	105,221	3,347,087

During the year 1934-35 money and valuables to the amount of £75,390 were found in undeliverable postal articles.

6. **Money Orders and Postal Notes.**—(i) *General.* The issue of money orders and postal notes is regulated by sections 74 to 79 of the Post and Telegraph Act, 1901. A money order may be issued for payment of sums up to £20 within Australia, and not

exceeding £40 (in some cases £20, and in Mauritius £10) in places abroad. A postal note, which is payable only within Australia and in Papua, cannot be issued for a larger sum than twenty shillings.

(ii) *States, 1934-35.* Particulars regarding the business transacted in each State for the year 1934-35 are given hereunder :—

MONEY ORDERS AND POSTAL NOTES.—SUMMARY, 1934-35.

State.	Value of Money Orders Issued.	Value of Money Orders Paid.	Net Money Order Commission Received.	Value of Postal Notes Sold.	Poundage Received on Postal Notes.
	£	£	£	£	£
New South Wales ..	7,160,965	7,215,364	38,482	2,888,930	69,334
Victoria ..	2,915,158	3,188,072	17,642	1,922,979	47,931
Queensland ..	2,450,226	2,259,543	15,807	790,416	18,003
South Australia ..	816,452	804,894	5,163	430,791	10,756
Western Australia ..	1,339,671	1,222,037	8,341	447,159	10,261
Tasmania ..	502,999	478,787	2,858	170,066	4,138
Australia ..	15,185,471	15,168,697	88,293	6,650,341	160,423

The figures in the foregoing table relating to money orders and postal notes show an increase compared with the previous year.

(iii) *Australia, 1931 to 1935.* The next table shows the total number and value of money orders and postal notes issued and paid in Australia from 1930-31 to 1934-35 :—

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).
1931 ..	3,055	15,790	2,989	15,381	14,691	5,343	14,731	5,348
1932 ..	2,781	14,351	2,788	14,367	16,205	5,579	16,132	5,563
1933 ..	2,707	14,257	2,691	14,229	16,717	5,746	16,735	5,729
1934 ..	2,769	14,646	2,762	14,589	19,595	6,397	19,446	6,370
1935 ..	2,859	15,185	2,847	15,169	19,557	6,650	19,489	6,631

(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 1934-35, classified according to the country where payable :—

MONEY ORDERS ISSUED.—COUNTRY WHERE PAYABLE, 1934-35.

Where Issued.	Where Payable.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
NUMBER.					
Australia	2,707,667	20,875	91,894	38,306	2,858,742
VALUE.					
Australia	£ 14,783,532	£ 62,496	£ 198,872	£ 140,571	£ 15,185,471

(b) *Money Orders Paid.* The number and value of money orders paid during the year 1934-35, classified according to the country where issued, are given hereunder:—

MONEY ORDERS PAID.—COUNTRY OF ISSUE, 1934-35.

Where Paid.	Where Issued.				Total.
	In Australia.	In New Zealand.	In Great Britain and Ireland.	In Other Countries.	
NUMBER.					
Australia	2,718,433	54,235	48,312	25,880	2,846,860
VALUE.					
Australia	£ 14,778,899	£ 119,028	£ 193,256	£ 77,514	£ 15,168,697

In the tables above, money orders payable or issued in foreign countries which have been sent from or to Australia through the General Post Office in London are included in those payable or issued in Great Britain and Ireland.

(v) *Classification of Postal Notes Paid.* The subjoined table shows the number and value of postal notes paid during the year 1934-35, 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, 1934-35.

Particulars.	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
NUMBER.							
Issued in same State	7,114,436	3,618,801	1,733,633	765,706	1,008,676	389,043	14,530,295
Issued in other States	859,425	511,899	700,421	91,117	87,199	2,608,598	4,859,659
Total ..	7,973,861	4,130,700	2,434,054	856,823	1,095,875	2,997,641	19,488,954
VALUE.							
Issued in same State	£ 2,438,670	£ 1,271,285	£ 641,404	£ 268,969	£ 362,116	£ 126,980	£ 5,109,544
Issued in other States	262,417	194,462	254,757	36,418	20,789	753,010	1,521,853
Total ..	2,701,087	1,465,747	896,251	305,387	382,905	879,990	6,631,397

The number and value of postal notes paid in Australia during the year showed an increase of 0.2 per cent. and 4.1 per cent. respectively compared with the corresponding figures for the year 1933-34.

§ 3. Telegraphs.

1. General.—(i) *Development of System.* A review of the development of the Telegraph Services in Australia was given in a previous issue of this work (*see* Year Book No. 15, p. 625), 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 five repeating centres, eighteen centres having been abolished.

(iii) *Carrier Wave System.* This system which permits a number of messages to be transmitted simultaneously over the one pair of wires is now in operation between Perth and Adelaide, Adelaide and Melbourne, Melbourne and Sydney, and Sydney and Brisbane. There are now 38,260 miles of one-way telegraph carrier channels in operation.

(iv) *Direct Telegraph Communication over Great Distances.* The telegraph system in Australia provides direct communication between many places separated by great distances as indicated in the following examples:—Sydney-Perth, 2,695 miles; Perth-Wyndham, 1,933 miles; Melbourne-Brisbane, 1,246 miles; Brisbane-Cairns, 1,056 miles; Adelaide-Perth, 1,627 miles; Melbourne-Perth, 2,104 miles; Adelaide-Darwin, 1,940 miles; and Sydney-Adelaide, 1,068 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, Sydney and Canberra, Sydney and Lismore, Sydney and Wagga Wagga, Melbourne and Brisbane, Melbourne and Adelaide, Melbourne and Perth, Melbourne and Canberra, Adelaide and Perth, Brisbane and Rockhampton, and Brisbane and Townsville, providing telegraph outlets which permit the carriage of very heavy loads with a minimum transit time. The operation of the apparatus has been steadily improved, and now is worked so that each channel has an output up to 50 words per minute. Between Melbourne and Mildura, Perth and Fremantle, and Perth and Kalgoorlie, start-stop telegraph printing systems are in operation.

(vi) *Phonogram Service.* Telephone subscribers may now telephone telegrams for onward transmission, or have messages telephoned to them. The fee for the service is small, and the innovation means, in effect, that the telegraph system is brought into the home of every telephone subscriber. The number of telegrams lodged by telephone during the twelve months ended 30th June, 1935, was 2,111,562 or 13.3 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, 1935, 408 picturegrams were transmitted between Sydney and Melbourne, the revenue being £956. 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) *Overseas Phototelegram Service.* An overseas phototelegram service, "via Beam," was inaugurated in October 1934, permitting the transmission in either direction of facsimiles between Sydney or Melbourne and England, of dimensions up to a maximum of ten inches by nine inches. The charges are calculated at the rate of three shillings and three pence per square centimetre with a minimum charge of £16 5s. as for 100 square centimetres.

(x) *Special Telegram Forms.* The use of appropriately designed telegram forms for conveying Christmas and New Year greetings continues to increase in volume and popularity. The increase since the inception of this facility in 1929 represents 102.3 per cent. :—

Year.						No. of Greeting Telegrams.
1929	..	..	..	..	..	144,102
1930	..	..	..	..	..	157,705
1931	..	..	..	..	..	184,142
1932	..	..	..	..	..	191,156
1933	..	..	..	..	..	192,363
1934	..	..	..	..	..	235,252
1935	..	..	..	..	..	291,588

During the year 1933-34 telegram forms of special design and attractive colouring in connexion with Mothers' Day messages, Birthday greetings and Congratulatory telegrams were placed at the disposal of the public. The popularity of these facilities is indicated by the increase in the number of Mothers' Day telegrams from 16,091 in 1934 to 28,950 in 1936. No statistics are available in respect of Birthday greetings and Congratulatory messages, but it is estimated that the number of telegrams in these categories exceeds 500,000 annually. In 1936 two additional greeting facilities employing ornamental telegram stationery were introduced, one for the conveyance of social greetings and the other for use during Easter-tide.

(xi) *Private Wire Teleprinter and Printergram Services.* In conformity with its policy of placing at the service of the public new developments in communication, the Department has now introduced the teleprinter service. This may be briefly defined

as typewriting over electrical circuits, teleprints being similar in performance to typewriters, except that the keyboard and platen are electrically connected by means of a telegraph line.

This facility combines the speed of the telegraph and the flexibility and personal touch of the telephone with the accuracy and permanency of the printed word. It affords the great advantage of direct and instantaneous communication between points within the same building or separated by distances up to thousands of miles. Communications are automatically produced at both ends exactly as sent, and information may be despatched with the utmost privacy even in exposed situations where other means are unsuitable. It affords two-way communication at speeds up to 60 words a minute.

Printergram services connecting any business premises with the local Telegraph Office for the transmission and reception of telegrams are also available. This saves time and labour, while providing a permanent record of each transaction.

Twenty private wire services employing 70 teleprinter units have already been installed, including a stock ticker service enabling the simultaneous communication of information from a single transmitting unit located in the Sydney Stock Exchange to each of 31 printer units installed in the offices of city stock-brokers.

2. *Telegraph Offices, Length of Lines and Wire.*—(i) *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 1931 to 1935 :—

TELEGRAPHS, AUSTRALIA.—SUMMARY.

Particulars for Year ended 30th June.	1931.	1932.	1933.	1934.	1935.
Number of offices	9,189	9,160	9,162	9,199	9,255
Length of wire (miles)—					
Telegraph purposes only	62,009	58,391	55,302	54,655	54,806
Telegraph and telephone purposes	98,140	98,369	101,797	102,953	104,203
Length of line (miles)—					
Conductors in Morse cable	3,789	4,157	4,401	4,538	4,694
Conductors in submarine cable					
(statute miles)	4,859	4,863	4,833	4,764	4,883
Pole routes (miles)	100,596	100,507	99,951	96,395	97,694

(ii) *States.* The following table gives corresponding particulars for each State for the year 1934-35 :—

TELEGRAPHS.—STATES, SUMMARY, 30th JUNE, 1935.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of offices	3,025	2,427	1,504	818	950	531	9,255
Length of wire (miles)—							
Telegraph purposes only	17,165	8,247	12,737	6,877	9,110	670	54,806
Telegraph and telephone purposes	37,530	14,106	29,033	14,691	7,389	1,454	104,203
Length of line (miles)—							
Conductors in Morse cable	2,539	1,452	480	..	199	24	4,694
Conductors in submarine cable							
(statute miles)	3,650	282	323	219	..	409	4,883
Pole routes (miles)	32,789	19,256	15,830	14,822	11,505	3,492	97,694

A total length of 159,009 miles of wire is available for telegraph purposes, of which 104,203 miles are also used for telephone purposes. Compared with those for the previous year, the figures show an increase of 1,401 miles (0.88 per cent.) in the total length and an increase of 1,250 miles (1.21 per cent.) in the length of line used for both telegraph and telephone purposes.

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—				
	1931.	1932.	1933.	1934.	1935.
Number (a) ..	12,985,298	12,679,951	12,778,028	13,303,627	14,617,871

(a) Including interstate cablegrams.

(ii) *States.* The appended table shows the total number of telegrams dispatched in each State in 1934-35 according to the class of message transmitted :—

TELEGRAMS DISPATCHED.—STATES, 1934-35.

Class of Message Transmitted within Australia.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	No.	No.	No.	No.	No.	No.	No.
Paid and Collect—							
Ordinary ..	4,173,309	2,823,576	2,355,702	958,144	1,494,485	266,462	12,071,678
Urgent ..	231,420	77,551	65,978	48,804	49,458	9,873	483,084
Press ..	213,718	126,145	79,807	44,279	39,332	20,982	524,263
Lettergram ..	84,994	64,903	74,841	38,319	96,034	33,183	392,274
Radiogram ..	30,449	4,422	5,642	5,004	2,891	6,030	54,438
Total ..	4,733,890	3,096,597	2,581,970	1,094,550	1,682,200	336,530	13,525,737
Unpaid—							
Service ..	139,646	48,495	55,901	37,164	47,447	16,213	344,866
Shipping ..	28,074	79,386	17,006	3,394	10,409	4,492	142,761
Meteorological ..	187,243	81,954	80,802	100,449	123,858	30,201	604,507
Total ..	354,963	209,835	153,709	141,007	181,714	50,906	1,092,134
Grand Total ..	5,088,853	3,306,432	2,735,679	1,235,557	1,863,914	387,436	14,617,871

The figures in the foregoing table show an increase in the total volume of telegraph business of 1,224,244 messages (9.14 per cent.) as compared with the previous year.

4. *Letter-telegrams.*—Letter-telegrams are accepted at any hour at telegraph offices which are open for business after 7 p.m., subject to the condition that delivery is effected by posting at the letter-telegram office of destination.

5. *Revenue and Expenditure.*—Particulars of the revenue and net operating results of the telegraph systems for the years 1930-31 to 1934-35 are given in earlier pages.

6. **Telegraph Density.**—The latest statistics available disclose that, on a population basis, Australia now occupies a pre-eminent position in the world in the use of the Telegraph Service, with an average of 2.0 messages annually per head of population. The United States of America has the second highest average of 1.2, followed by Great Britain with 1.0 per head of population. 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	3.2	2.0
Austria	0.3	0.2
Belgium	2.3	0.7
Canada	0.4	0.9
Czechoslovakia	1.4	0.3
Denmark	0.3	0.5
Finland	0.3	0.1
France	3.4	0.7
Germany	0.8	0.3
Great Britain	2.7	1.0
Hungary	1.4	0.1
Japan	1.4	0.8
Netherlands	0.8	0.4
Norway	1.3	1.0
Poland	0.4	0.1
Spain	2.9	0.9
Sweden	0.4	0.6
Switzerland	0.8	0.5
Union of South Africa	2.2	0.6
United States of America	0.6	1.2

§ 4. Overseas Cable and Radio Communication.

1. **First Cable Communication with the Old World.**—In earlier issues of the Year Book will be found a detailed account of the connexion of Australia with the old world by means of submarine cables. (See No. 6, p. 770.)

2. **General Cable Services.**—Descriptions of the various cable services between Australia and other countries are given in Year Book No. 22, pp. 335 and 336.

3. **Merging of Cable and Wireless Interests.**—Following upon the recommendations of the Imperial Wireless and Cable Conference in London in 1928 to examine the situation which had arisen as the result of the competition of the Beam Wireless with the Cable services, the Imperial and International Communications Limited was formed and took over the operations of the Pacific Cable Board and the control of the Eastern Extension Cable Company and the Marconi Wireless Company.

4. **Overseas Cable and Radio Business.**—(i) *Australia.* The subjoined table shows the number of cablegrams and radiotelegrams received and dispatched in Australia from 1932-33 to 1934-35 :—

CABLEGRAMS AND RADIOTELEGRAMS.—AUSTRALIA.

Messages.	Number Received.			Number Dispatched.			Total Number Received and Dispatched.		
	1932-33.	1933-34.	1934-35.	1932-33.	1933-34.	1934-35.	1932-33.	1933-34.	1934-35.
Number ..	579,958	608,323	625,842	639,121	656,935	684,761	1,219,079	1,265,258	1,310,603

(ii) *States.* The number of cablegrams and radiotelegrams received and dispatched in each State during the year 1934-35 is given hereunder :—

CABLEGRAMS AND RADIOTELEGRAMS.—STATES, 1934-35.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	Australa.
Number received ..	324,575	205,261	26,525	29,537	31,123	8,821	625,842
Number dispatched	332,859	230,329	34,157	37,893	40,306	9,217	684,761
Total ..	657,434	435,590	60,682	67,430	71,429	18,038	1,310,603

(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 follows :—Ordinary, 2s. 6d. to 2s. ; deferred ordinary, 1s. 3d. to 1s. ; and Government, 1s. 4d. to 1s. 0½d., and substantial reductions were also made on the Canadian service (via Pacific) as from the same date. The rates between Australia and Great Britain "Via Beam" are—Ordinary, 1s. 8d. ; deferred ordinary, 10d. ; Government, 10d. The following are the rates at present operating in regard to traffic with the principal countries :—

CABLEGRAM AND RADIOTELEGRAM RATES, JUNE, 1935.

To—	Rate per Word and Route.	
	Via Cable.	Via Beam.
European Countries	2s. 6d. to 2s. 7½d.	1s. 1½d. to 2s. 5½d.
Asiatic Countries	2s. 5d. to 6s. 3d.	.. .. .
Africa	1s. 8d. to 5s. 4d.	2s. 2½d. to 2s. 11d.
North America	1s. 7d. to 4s. 4d.	1s. 5½d. to 3s. 7d.
Central America	3s. 10d. to 6s. 1d.	3s. 5½d. to 4s. 10d.
West Indies	3s. 0d. to 5s. 8d.	.. .. .
South America	4s. 1d. to 7s. 5d.	3s. 9d. to 6s.

(ii) *Deferred Telegrams (via Cable or Radio).* Under this system a reduction of 50 per cent. in the ordinary cable or radio charges is made under certain conditions. Any such messages which have not reached their destination within 24 hours may be transmitted in turn with full-rate messages. This service, together with the "Daily Letter Telegram" service, has affected the ordinary business to a considerable extent. "Deferred Press" telegrams, subject to a delay of 18 hours, may be exchanged between Australia and (a) Great Britain at the rate of 4½d. per word by cable and 3d. per word via radio ; (b) Canada, at 2½d. per word by cable and 2¼d. per word via radio ; and (c) United States of America, at 3d. to 4d. per word by cable and 3½d. to 4d. per word via radio.

(iii) *Daily Letter Telegrams.* The Daily Letter Telegram service was inaugurated in September, 1923, between Australia and Great Britain and Canada, later being extended to most countries in the British Empire and in Europe, to the United States and to certain other places. In accordance with the decision of the International Telegraph Conference which was held at Madrid in 1932, the charges on Daily Letter Telegrams have, since 1st April, 1933, been based on one-third of the tariff per word for full-rate messages, and are now subject to a minimum charge as for 25 words (in lieu of 20 as previously). These messages are delivered on the morning of the second day following that of lodgment.

(iv) *Week-end Letter Telegrams.* The Week-end Letter Telegram facility which had been in operation for a number of years between Australia and certain other countries was abolished on 1st April, 1933, in accordance with the decision of the Madrid International Telegraph Conference.

(v) *Press Telegrams.* The rate per word ordinary on press messages exchanged with Great Britain is 6d. by cable and 4d. via radio, while that on deferred press is 4½d. and 3d. respectively.

(vi) *Night Letter Telegrams.* A Night Letter Telegram service was introduced between Australia and New Zealand on 1st May, 1924, and was extended to Fiji on 1st December, 1924. As from 1st April, 1933, the minimum charge for messages has been fixed as for 25 words (in lieu of 20 as previously) in accordance with a decision of the Madrid Conference, the minimum charges being—to New Zealand, 3s. 9d. minimum, 2d. for each additional word beyond 25; Suva, 5s. 10d. minimum, 3d. for each additional word; other places in Fiji, 7s. 4d. minimum, and 4d. for each additional word beyond 25. Night Letter Telegrams are accepted at any time and are delivered by first post on the morning following receipt.

§ 5. Telephones.

1. Telephone Services.—(i) *Mileage, etc., Australia.* The following table shows the mileage of lines, etc., for telephone purposes, giving trunk lines separately, on 30th June, 1932 to 1935.

TELEPHONE LINES.—AUSTRALIA.

Particulars.	Year ended 30th June—			
	1932.	1933.	1934.	1935.
Ordinary Lines—				
Conduits duct miles	6,217	6,454	6,733	7,128
“ route miles	3,571	3,776	4,079	4,467
Conductors in aerial and underground cables loop mileage	813,905	826,788	837,094	847,393
Conductors in cables for junction circuits loop mileage	73,779	72,713	71,592	74,849
Open conductors single wire mileage	418,264	418,053	419,015	417,640
Trunk Lines—				
Telephone trunk lines only .. miles	236,209	232,409	228,084	231,125
Telegraph and telephone purposes ..	98,369	101,797	102,953	104,203

(ii) *Comparison with Other Countries.* The number of telephones connected with exchanges at the 30th June, 1935, was higher than any total previously attained. The number reached in June, 1930, prior to the depression period, was 520,169. This number, however, fell to 484,626 in 1932, but increased again to 532,377 at 30th June, 1935. There are 79.2 telephones per 1,000 of population and Australia occupies seventh place among countries with the greatest density of telephones. The average length of wire per telephone in Australia is 5.0 miles, as compared with 5.0 miles in the United States of America, 4.0 miles in Canada and 3.9 miles in New Zealand.

(iii) *Trunk Line System.* Telephone trunk lines are provided in practically every settled area of the Commonwealth. When the submarine cable between the mainland and Tasmania was completed on the 25th March, 1936, the ideal of a nation-wide telephone service was realized.

With the object of still further improving the transmission between widely separated centres additional telephone carrier systems have been installed. There are 59 such systems in service in Australia, giving a total of 101 speech channels with an aggregate mileage of approximately 28,500 miles.

(iv) *Automatic Exchanges.* At the 30th June, 1935, there were 80 automatic or semi-automatic exchanges in operation, providing facilities for 230,931 telephones, 224,806 of which were in the telephone networks of the six State capital cities.

(v) *Rural Automatic Exchanges.* A new type of automatic exchange suitable for installation in rural areas has been developed, the advantage of this particular equipment being that it affords an economical day and night service. There are 29 such exchanges in operation, and the installation of further units is proceeding.

(vi) *Summary for States.* Particulars relating to the telephone service in each State for the years ended 30th June, 1933 to 1935, 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 ..	1933	1,935	1,639	947	554	644	352	6,071
	1934	1,935	1,643	962	556	642	344	6,087
	1935	1,951	1,650	979	556	639	342	6,117
No. of Telephone Offices (including Exchanges)	1933	2,937	2,339	1,415	791	930	512	8,924
	1934	2,950	2,348	1,427	801	947	510	8,983
	1935	2,971	2,363	1,442	814	941	505	9,036
No. of lines connected ..	1933	135,859	110,386	48,170	37,339	20,561	11,461	363,776
	1934	139,485	113,083	49,000	37,713	20,812	11,500	372,621
	1935	150,257	121,631	51,448	38,652	22,129	11,908	396,025
No. of instruments con- nected	1933	182,092	152,603	62,207	48,463	27,220	14,087	487,662
	1934	188,604	157,802	63,762	49,089	27,711	14,324	501,402
	1935	202,363	163,198	67,161	50,512	29,336	14,807	532,377
(a) No. of subscribers' instruments	1933	177,869	149,179	59,859	46,945	25,956	13,255	473,063
	1934	183,378	154,137	61,382	47,517	26,455	13,490	486,188
	1935	196,354	164,373	64,694	48,916	28,042	13,972	516,851
(b) No. of public tele- phones	1933	3,229	2,226	1,534	789	900	549	9,227
	1934	3,353	2,344	1,559	803	900	541	9,500
	1935	3,459	2,408	1,595	824	888	537	9,711
(c) No. of other local instruments	1933	1,894	1,288	814	729	364	283	5,372
	1934	1,961	1,321	821	749	376	284	5,514
	1935	2,050	1,417	872	772	406	298	5,815
Instruments per 100 of population	1933	7.01	8.39	6.56	8.27	6.20	6.19	7.36
	1934	7.17	8.62	6.66	8.34	6.27	6.28	7.51
	1935	7.62	9.15	6.94	8.56	6.58	6.47	7.92
Earnings	1933	£ 2,125,762	£ 1,603,177	£ 799,251	£ 532,090	£ 308,470	£ 136,000	£ 5,504,840
	1934	2,215,139	1,666,633	835,162	538,001	316,772	139,614	5,741,321
	1935	2,400,286	1,792,748	898,346	559,646	341,175	145,212	6,137,413
Working expenses ..	1933	1,330,070	1,037,901	479,664	391,371	226,122	138,224	3,603,352
	1934	1,400,843	1,077,061	493,682	408,115	231,433	143,922	3,764,956
	1935	1,498,546	1,171,206	522,607	433,833	236,182	162,338	4,024,712
Percentage of working ex- penses on earnings	1933	% 62.57	% 64.74	% 60.01	% 73.55	% 73.30	% 101.57	% 65.46
	1934	62.80	64.68	59.11	75.86	71.06	101.09	65.58
	1935	62.43	65.33	58.17	77.52	69.23	111.79	65.58

The number of instruments per 100 of population increased from 7.51 in 1933-34 to 7.92 in 1934-35. The actual number of instruments increased from 501,402 to 532,377, a gain of 6.17 per cent. Of the total instruments connected at 30th June, 1935, 220,379, or 41.4 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, 1933 to 1935 :—

PERCENTAGE OF AUTOMATIC, COMMON BATTERY AND MAGNETO LINES.

System.	30th June.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
		%	%	%	%	%	%	%
Automatic	1933	45.10	37.68	35.99	37.04	41.89	29.43	40.10
	1934	46.14	38.55	36.50	37.51	49.08	30.22	41.35
	1935	48.44	40.66	37.99	38.74	50.86	31.17	43.36
Common Battery	1933	2.83	18.90	..	13.66	6.25	17.05	9.08
	1934	2.84	19.18	..	13.90	..	17.36	8.88
	1935	2.96	18.88	..	14.10	..	17.23	8.82
Magneto	1933	52.08	43.42	64.01	49.30	51.86	53.52	50.82
	1934	51.02	42.27	63.50	48.59	50.92	52.42	49.77
	1935	48.60	40.46	62.01	47.16	49.14	51.60	47.82

(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 1934-35 :—

TELEPHONE.—SUBSCRIBERS' LINES AND DAILY CALLING RATE, 1934-35.

State.	Central Exchanges.		Suburban Exchanges.		Rural Exchanges.		Total.	
	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.
	No.	No.	No.	No.	No.	No.	No.	No.
New South Wales	16,786	11.41	67,453	4.38	59,358	2.24	143,597	4.32
Victoria ..	7,966	10.86	63,474	3.96	45,854	1.67	117,294	3.53
Queensland ..	7,011	9.75	12,662	3.56	30,042	2.54	49,715	3.82
South Australia ..	5,311	8.13	15,041	3.41	17,408	1.60	37,760	3.24
Western Australia	7,441	6.22	4,221	4.08	9,458	1.69	21,120	3.76
Tasmania ..	2,990	4.03	1,064	2.41	7,468	2.04	11,522	2.59
Australia ..	47,505	9.43	163,915	3.91	169,588	2.03	381,008	3.82

A comparison of the daily calling rates for each class of exchange shows that New South Wales registered the greatest number per line at central and suburban exchanges, and Queensland at rural exchanges. For Australia as a whole, the average number of calls per line at central exchanges was approximately two and a third times the number registered at suburban exchanges, while the average for suburban exchanges was almost double the number shown for rural exchanges.

(ix) *Trunk Line Calls and Revenue.* In the next table the number of telephone trunk line calls recorded, the amount of revenue received, and the average revenue per call are shown for each of the States for the years 1932-33 to 1934-35 :—

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.
1932-33 ..	9,851,642	8,157,857	5,329,262	3,115,450	1,559,904	1,196,868	29,210,983
1933-34 ..	10,713,588	8,519,955	5,684,435	3,183,224	1,653,861	1,241,947	30,097,010
1934-35 ..	11,163,557	8,987,751	6,091,847	3,369,281	1,778,511	1,313,679	32,704,626
Total Revenue for Year—	£	£	£	£	£	£	£
1932-33 ..	473,295	357,063	288,681	142,013	81,858	41,454	1,384,364
1933-34 ..	527,651	380,004	317,223	149,272	87,939	41,667	1,503,756
1934-45 ..	552,489	403,206	346,821	152,233	94,328	42,535	1,591,612
Average Revenue per Call—	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1932-33 ..	11.53	10.51	13.00	10.94	12.59	8.31	11.37
1933-34 ..	11.82	10.70	13.40	11.25	12.76	8.05	11.64
1934-35 ..	11.88	10.76	13.60	10.84	12.73	7.77	11.68

The number of trunk line calls during 1934-35 increased by nearly one and three quarter millions, or by 5.51 per cent. compared with the figures for the previous year, and the average revenue per call increased by 0.04d.

2. Revenue from Telephones.—Particulars regarding the revenue from telephone services are included in tables in § 1.

§ 6. Radio Telegraphy and Telephony.

1. General.—A statement in regard to the initial steps taken to establish radio telegraphy in Australia was given in Official Year Book No. 18, p. 343.

2. Wireless Licences.—Under the Wireless Telegraphy Act and Regulations, no wireless station can be installed or operated without a licence from the Postmaster-General. Licences are issued for the following:—(a) Coast Stations, which are operated at various points around the coast and in Papua and New Guinea by Amalgamated Wireless (Australasia) Ltd., under agreement with the Commonwealth; (b) Ship Stations (regulations under the Navigation Act 1935 require that all ships registered in Australia and engaged in interstate traffic shall have an efficient radio telegraph installation, which in the case of cargo vessels of less than 750 tons gross register shall include apparatus for automatically transmitting prescribed signals of distress, these vessels not being required to carry fully qualified operators; similar legislation, designed to ensure the safety of life at sea, has also been introduced by the Governments of New South Wales, Victoria and Queensland); (c) Land Stations to be operated where no telegraph or telephone facilities exist; (d) Broadcasting Stations, other than those of the National Broadcasting Service; (e) Broadcast Listeners' Receiving Sets; (f) Portable Stations on motor cars, etc.; (g) Aircraft Stations; (h) Experimental Stations; and (i) Special Stations, i.e., stations other than those named above.

The following table shows the number of each class of licence issued in each State, etc., during the year 1934-35:—

WIRELESS LICENCES. 1934-35.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	F.C.T.	Total Aust.	Papua and New Guinea	Grand Total.
Coast	2	1	6	1	5	3	1	..	19	9	28
Ship	22	66	6	7	3	1	..	..	105	..	105
Aircraft	6	4	..	..	..	..	1	..	11	1	12
Land (b)	9	3	19	4	4	3	18	..	60	10	70
Broadcasting (a)	17	15	10	5	6	3	..	1	57	..	57
Broadcast listeners'	277,576	236,886	67,351	76,306	41,176	20,088	59	1,072	720,514	18	720,532
Experimental	512	361	176	148	81	33	..	6	1,319	1	1,320
Portable	11	5	4	..	3	..	4	..	25	3	28
Special	29	15	..	..	1	..	..	..	47	..	47
Total Licences Issued	278,184	237,356	67,527	76,471	41,279	20,131	85	1,079	722,157	42	722,199

(a) There are also thirteen stations operated by the National Broadcasting Service, including a short-wave station (3LR, Lyndhurst, Victoria). (b) In addition to the licensed stations there are two operated by the Postmaster-General's Department, viz., Wave Hill (N.T.) and Camooweal (Q.), and fourteen low-powered stations established by the Government of the Territory of New Guinea.

3. **Broadcasting**—(i) *The National Broadcasting Service.* The technical services for the National Service are provided by the Postmaster-General's Department, and the programmes by the Australian Broadcasting Commission, a body consisting of five members, constituted under the provisions of the Australian Broadcasting Commission Act. The fee for a broadcast listener's licence is 21s. per annum for a receiver situated approximately within 250 miles from a station of the National Service, and 15s. per annum in the territory beyond. Licences are issued free to blind persons. The Commission receives 12s. from each fee, the Department retaining the balance.

The National Broadcasting System of the Commonwealth at present comprises 15 transmitting stations, as follows:—2FC Sydney, 2BL Sydney, 2NC Newcastle, 2CO Corowa, 3LO Melbourne, 3AR Melbourne, 3GI Sale, Short Wave station 3LR Lyndhurst, 4QG Brisbane, 4RK Rockhampton, 5CL Adelaide, 5CK Crystal Brook, 6WF Perth, 7ZL Hobart and 7NT Kelso, near Launceston. The regional stations normally radiate the programme from the central studios of the nearest capital city. The whole National system is completely interconnected by programme lines extending over a route mileage of 4,400 miles, whereby items of national interest are conveyed to and simultaneously radiated by all stations, including the short-wave station 3LR.

The following stations, comprising the second group in the constructional programme of the National Broadcasting Service, are scheduled to commence operations during the latter half of 1936:—2NR Lawrence, near Grafton (New South Wales), 2CR Cummoock, near Dubbo (New South Wales), 3WV Dooen, near Horsham (Victoria), 4QN Clevedon, near Townsville (Queensland), 6WA Minding, near Wagin (Western Australia), and 6GF Kalgoorlie (Western Australia).

Some of the new stations will use a new form of transmitting aerial, which has been devised by the Postmaster-General's Department. With this form of aerial, the mast itself is the radiating element and the particular object of the design is to achieve, with masts of 500 to 600 feet in height, results similar to those otherwise only obtainable by masts of 800 to 1,000 feet.

The Department has considerably developed the use of very high frequency radio transmission; the frequencies used range from 40 million to 200 million cycles per second (wave-lengths approximately seven metres to one and a half metres). Apparatus using this high frequency has been employed in the broadcasting system for connecting pick-up points with the fixed programme lines where unusual mobility or freedom from physical connexion was required.

Progress has been made in the facilities for the reception of overseas broadcasting. Programmes from overseas have been regularly received and re-transmitted over the National network. Most of the important programmes from the Empire Broadcasting Station at Daventry have thus been made available to listeners in the Commonwealth.

(ii) *Commercial Broadcasting Stations.* The services of other broadcasting stations are conducted by private enterprise under licence from the Postmaster-General. Licences are granted on conditions which ensure satisfactory alternative programmes for listeners. The fee for a broadcasting station licence is £25 and the maximum period of a licence is three years, although they may be renewed annually at the discretion of the Postmaster-General. Licensees of these stations do not share in the listeners' licence fees, but rely for their income on revenue received from the broadcasting of advertisements and other publicity. The number of these stations in operation at 30th April, 1936, was 70, and there are several stations in prospect.

(iii) *Radio Inductive Interference.* The Postmaster-General's Department takes active measures to suppress, so far as possible, interference with broadcast reception resulting from the radiations of energy from electric machinery and appliances. During the year, the Department received 5,913 complaints of interfering noises, which, in all but a few instances, were satisfactorily disposed of.

(iv) *Prosecutions Under the Wireless Telegraphy Act.* During the year 991 persons were convicted for using unlicensed broadcasting receiving equipment, the total fines amounted to £1,710.

4. **Oversea Communication by Wireless.**—(i) *Beam Wireless.* The Beam wireless stations provided for under the agreement between the Commonwealth

Government and Amalgamated Wireless (Australasia) Ltd. were completed early in 1927, and a direct beam wireless service to England was established on 8th April, 1927. A similar service to North America was opened on 16th June, 1928. Satisfactory communication is maintained daily over a period of hours, and the services are being well patronized by the public. A comparison of the rates charged for "Beam" and Cable messages is given in § 4, Overseas Cable and Radio Communication. Particulars of international traffic via "Beam" are given in par. (iv) (a) following.

(ii) *International Wireless Telephone Service.* Overseas radio telephone services terminating in Australia continue to be well patronized, and from the establishment of the first service in April, 1930, to the 30th June, 1935, 7,305 calls were completed of which 4,290 originated in Australia. Of these calls 6,072 were connected over the Anglo-Australian service, 1,206 on the Australia-New Zealand channel and the remaining 27 were between Australia and Java.

The Australian telephone subscriber now has access to about 32,000,000 telephones, or approximately 93 per cent. of the world's total. The concessional tariff introduced in December, 1933, in respect of calls between Australia and Great Britain on Saturdays, has now been extended to European countries. The charge is £1 per minute, plus, in the case of countries on the Continent, a zone fee to cover the use of land lines from London.

(iii) *Wireless Communication in the Pacific.* New Zealand, the territories of New Guinea and Papua and the various small islands in the Pacific Ocean are served by a comprehensive system of wireless communication. In New Guinea and Papua, nine wireless telegraphy stations are established under an agreement between the Commonwealth and Amalgamated Wireless (Australasia) Ltd. for communication with ships at sea, and for inter-communication. Three of these stations Rabaul (New Guinea) and Port Moresby and Samarai (Papua) also have direct communication with the mainland of Australia. In addition, there are, in New Guinea, fourteen low powered transmitters established by the New Guinea Administration for interior communication, while in both Papua and New Guinea several small stations are operated by gold exploration parties, missionary societies and others.

Direct communication by wireless telegraphy exists between Sydney and Suva (Fiji) and Noumea (New Caledonia), while Wellington (New Zealand) is linked with Sydney by wireless telephone. Other wireless telegraph stations in the Pacific include Auckland, Awarua and Chatham Islands (New Zealand), Port Vila (New Hebrides), Apia (Samoa), Tulagi and Vanikoro (Solomon Islands), Nauru (Marshall Islands), Ocean Island (Gilbert and Ellice Group), Truk and Yappu (Caroline Islands), and Guam (Marian Islands).

(iv) *Radiotelegraphic Traffic.* (a) *International.* The following statement shows particulars of international traffic "via Beam" to and from United Kingdom and other places during the year ended 30th June, 1935 :—

RADIO TRAFFIC.—INTERNATIONAL, YEAR ENDED 30th JUNE, 1935.

Class of Traffic.	Number of Words Transmitted to—			Number of Words Received from—		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary (a) ..	1,630,426	676,947	2,307,373	1,291,469	246,609	1,538,078
Deferred (Ordinary) ..	965,403	380,658	1,346,061	971,939	113,291	1,085,230
Government (a) ..	121,802	15,721	137,523	135,279	6,075	141,354
Press (including deferred press) ..	221,222	11,558	232,780	1,295,853	46,303	1,342,156
Daily letter and greeting telegrams ..	2,611,024	807,608	3,418,632	1,672,979	238,921	1,911,900
Total ..	5,549,877	1,892,492	7,442,369	5,367,519	651,199	6,018,718

(a) Includes Code telegrams.

(b) *Coast Stations.* Particulars of the traffic handled by the several coast stations during the year 1934-35 are as follows:—

RADIO TRAFFIC.—COAST STATIONS, 1934-35.

State or Territory.	Particulars.				
	Total Paying Words.	Messages.			
		Paying.	Service.	Weather.	Total.
No.	No.	No.	No.	No.	
New South Wales ..	1,455,807	75,002	3,697	6,241	84,940
Victoria ..	87,562	8,314	190	2,574	11,078
Queensland ..	203,050	17,809	4,386	3,404	25,599
South Australia ..	64,632	5,335	252	659	6,246
Western Australia ..	149,431	11,424	2,565	3,467	17,456
Tasmania ..	207,834	11,733	1,581	2,753	16,067
Northern Territory ..	49,745	2,538	1,203	1,343	5,084
Australia ..	2,218,061	132,155	13,874	20,441	166,470
Papua ..	263,394	15,357	718	1,123	17,198
Grand Total ..	2,481,455	147,512	14,592	21,564	183,668

(c) *Island Stations.* Particulars of the island radio traffic dealt with during the year 1934-35 are given in the following table:—

RADIO TRAFFIC.—ISLAND STATIONS, 1934-35.

Particulars.	To Australia.	From Australia.	Inter-Island.	Ship.	Total.
No.	No.	No.	No.	No.	No.
Messages ..	27,433	21,770	20,581	1,943	71,727
Words ..	432,940	338,204	263,243	24,238	1,058,625

(v) *Proficiency Certificates.* Every station, in respect of which a licence is issued, must be operated by a person holding a certificate of proficiency.

During the year 1934-35, 297 Operator's Certificates of Proficiency were awarded.

The number of each class was:—Commercial—First Class 37, Second Class 28; Limited—Radiotelegraphy 9, Radiotelephony 48; and Amateur 175.