

CHAPTER VII.

TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 1. System of Record.

So far as oversea vessels are concerned the system of record treats Australia as a unit, and counts, therefore, only one entry and one clearance for each voyage, without regard to the number of States visited.

On the arrival at, or departure from, a port in Australia, whether from or for an oversea country or from another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers, and cargo. At the end of each month the information so obtained is entered on forms which are forwarded to the Commonwealth Bureau of Census and Statistics. These forms, which collectively provide a complete record of the movements of every vessel in Australian waters, furnish the material for the compilation of the Shipping and Migration Returns. The arrangement referred to has been in operation since the 1st July, 1924.

Since the 1st July, 1922, the electric tabulating machinery originally installed for the purposes of the 1921 census has been used in the tabulation of the shipping returns. The results have been very satisfactory, and a considerable saving in time has been effected as compared with the previous manual tabulation.

From the 1st July, 1914, the statistical year for the record of Trade and Shipping of Australia was altered from the calendar year to the fiscal year ending 30th June.

In all instances the tonnage quoted is net tonnage.

§ 2. Oversea Shipping.

1. **Total Movement.**—The following table gives the number and tonnage of oversea steam and sailing vessels entering Australian ports during the years 1920–21 to 1924–25 :—

TOTAL OVERSEA SHIPPING, ENTERED.—AUSTRALIA, 1920-21 TO 1924-25.

Year.	Steam.		Sailing.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1920-21	1,526	4,422,880	304	336,036	1,830	4,758,916
1921-22	1,429	4,466,655	138	93,726	1,567	4,560,381
1922-23	1,341	4,599,021	148	138,833	1,489	4,737,854
1923-24	1,437	4,808,129	109	103,007	1,546	4,911,136
1924-25	1,675	5,535,871	51	60,529	1,726	5,596,400

The average tonnage of vessels entered has risen from 2,600 tons per vessel in 1920–21 to 3,242 tons in 1924–25.

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. **Comparison with other Countries.**—The place of Australia among various countries in regard to oversea shipping is indicated in the following table, which gives the latest available figures for total tonnage and tonnage per head of population.

OVERSEA SHIPPING.—VARIOUS COUNTRIES.

Country.	Calendar Year.	Tonnage Entered and Cleared.	
		Total. ,000 omitted.	Per Inhabitant.
Australia	1925(a)	11,201	1.89
Belgium	1924	44,659	5.57
Brazil	1924	65,818	2.15
Canada	1924	37,018(c)	3.90
France	1925	80,828(b)	2.06
Germany	1924	59,632	0.95
Great Britain	1924	175,836	3.66
India	1924	17,656	0.06
Japan	1924	85,767	1.06
Netherlands	1924	47,498	6.49
New Zealand	1925	4,440	3.22
Norway	1924	11,864	4.48
Spain	1923	45,359	2.06
Sweden	1924	24,569	4.07
Union of South Africa	1923	12,692	1.74
United States	1925	138,868(c)	1.31

(a) To 30th June. (b) With cargoes only. (c) Exclusive of vessels trading on lakes and rivers between Canada and the United States.

3. Shipping Communication with various Countries.—In view of the defects in records purporting to show vessels and tonnage for particular countries (as pointed out on p. 265 of Official Year Book No. 17) it has been decided to restrict the statistics relating to the direction of shipping to and from Australia to the following tables in which countries situated on the main trade routes have been grouped. The grouping into larger geographical divisions to some extent avoids the limitations referred to, except in the case of Africa owing to its geographical situation as a place of call for vessels proceeding to or from other ports.

OVERSEA SHIPPING, AUSTRALIA.—DIRECTION, 1920-21 TO 1924-25.

Countries.	Cargo and Ballast.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
TONNAGE ENTERED.						
United Kingdom and European Countries	Cargo	1,102,994	1,333,469	1,926,907	1,769,446	1,797,322
	Ballast	269,351	204,680	72,819	23,690	186,256
New Zealand	Cargo	518,789	421,365	392,526	500,001	459,252
	Ballast	350,370	213,347	167,187	401,959	393,706
Asiatic Countries and Islands in the Pacific	Cargo	837,195	686,886	821,036	893,179	1,002,634
	Ballast	631,004	794,175	279,043	188,762	390,300
Africa	Cargo	21,298	36,170	32,025	25,036	26,709
	Ballast	236,320	215,841	122,660	24,015	146,216
North and Central America	Cargo	747,599	629,688	911,026	1,059,229	1,138,091
	Ballast	8,747	15,940	2,944	5,403	17,235
South America	Cargo	8,236	1,179	5,470	12,039	18,895
	Ballast	27,013	7,641	4,211	8,377	25,784
Total	Cargo	3,236,111	3,108,757	4,088,990	4,258,930	4,437,903
	Ballast	1,522,805	1,451,624	648,864	652,206	1,158,497
Total		4,758,916	4,560,381	4,737,854	4,911,136	5,596,400

TONNAGE CLEARED.

United Kingdom and European Countries	Cargo	1,864,330	1,819,444	2,193,528	2,127,662	2,786,002
	Ballast	15,421	13,951	11,776	13,699	8,097
New Zealand	Cargo	789,094	542,865	518,972	792,565	768,625
	Ballast	24,254	43,140	49,097	61,943	59,349
Asiatic Countries and Islands in the Pacific	Cargo	1,123,141	1,116,430	922,243	1,066,807	1,093,553
	Ballast	52,374	27,644	100,832	193,982	224,522
Africa	Cargo	387,649	581,359	121,175	105,127	174,697
	Ballast	7,506	..	..	3,558	14,020
North and Central America	Cargo	294,145	345,817	436,800	443,864	408,476
	Ballast	22,673	3,488	35,011	75,201	58,762
South America	Cargo	162,974	26,759	89,816	118,525	64,433
	Ballast	541	..	23,675	8,745	3,583
Total	Cargo	4,621,333	4,432,674	4,282,534	4,654,550	5,235,786
	Ballast	122,769	88,223	220,391	357,128	368,333
Total		4,744,102	4,520,897	4,502,925	5,011,678	5,604,119

4. Nationality of Oversea Shipping.—(i) *General.* The greater part of the shipping visiting Australia is of British nationality, though in 1924-25 the proportion of British tonnage, 76.05 per cent., was the lowest recorded since 1920-21, in which year the percentage was 69.69 per cent.

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,
1920-21 TO 1924-25.**

Nationality.	Tonnage.				
	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
BRITISH—					
Australian	551,100	589,175	645,867	486,170	424,634
United Kingdom	2,541,310	2,802,487	2,754,316	2,939,210	3,209,865
Canadian	38,569	88,526	110,095	95,655	70,165
New Zealand	149,650	103,471	66,521	307,928	488,481
Other British	35,623	54,464	72,438	55,302	62,772
Cargo	2,529,089	2,568,236	3,226,702	3,342,994	3,418,124
Ballast	787,163	1,069,887	422,535	541,271	837,793
Total British	3,316,252	3,638,123	3,649,237	3,884,265	4,255,917
Per cent. on total	69.69	79.78	77.02	79.09	76.05
FOREIGN—					
Danish	24,542	28,416	39,394	54,161	43,311
Dutch	133,613	134,662	141,264	138,716	162,385
French	107,990	69,033	114,102	84,701	104,312
German .. ..	..	..	44,666	44,354	81,213
Italian	128,466	105,159	50,608	61,312	115,931
Japanese	505,989	218,564	243,935	143,954	297,657
Norwegian	132,647	123,218	148,873	173,311	219,258
Swedish	85,405	65,971	82,230	90,641	86,704
United States	273,989	139,686	194,180	191,938	186,089
Other Foreign	50,023	37,549	29,365	43,783	43,623
Cargo	707,022	540,521	862,288	915,936	1,019,779
Ballast	735,642	381,737	226,329	110,935	320,704
Total Foreign	1,442,664	922,258	1,088,617	1,026,871	1,340,483
Per cent. on total	30.31	20.22	22.98	20.91	23.95
Cargo	3,236,111	3,108,757	4,088,990	4,258,930	4,437,903
Per cent. on total	68.00	68.17	86.30	86.72	79.30
Ballast	1,522,805	1,451,624	648,864	652,206	1,158,497
Per cent. on total	32.00	31.83	13.70	13.28	20.70
Grand Total	4,758,916	4,560,381	4,737,854	4,911,136	5,596,400

The Australian tonnage which entered Australia from overseas during the year 1924-25 represented 7.59 per cent. of the total tonnage entered. This figure was less than the average for the quinquennium, which was 11.12 per cent.

(ii) *Proportion of British and Foreign with Cargo. (a) Tonnage of Vessels.* The relative proportions of British and foreign tonnage which entered Australia with cargo during the last five years are given in the next table. These figures may be considered to indicate more accurately the proportion of the actual carrying trade done than does the total tonnage.

**OVERSEA SHIPPING, AUSTRALIA.—PERCENTAGE BRITISH AND FOREIGN
ENTERED WITH CARGO, 1920-21 TO 1924-25.**

Nationality.				1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
British	..	..	..	78.15	82.61	78.91	78.49	77.02
Foreign	..	..	..	21.85	17.39	21.09	21.51	22.98
Total	..	..	..	100.00	100.00	100.00	100.00	100.00

During the period under review the average annual tonnage of foreign vessels entering with cargo was 21.15 per cent.

(b) *Tonnage of Cargo.* In Transport and Communication Bulletin, No. 17 (p. 37) published by this Bureau, a statement is given of the tonnage of oversea cargo discharged and shipped during the year 1924-25 according to the nationalities of the vessels engaged in the carrying trade.

While the tonnage of British vessels entering with cargo represented 77.02 per cent. of the total, the amount of cargo discharged from such vessels was 74.49 per cent. The most important foreign country engaged in the shipping trade with Australia was Japan, its vessels contributing 4.80 per cent. of the total tonnage entered with cargo and 5.68 per cent. of the total cargo discharged and 6.45 per cent. of the cargo shipped.

(iii) *Principal Foreign Countries Engaged.* The following table shows the tonnage entered and cleared in connexion with the principal foreign countries engaged in the oversea carrying trade of Australia :—

OVERSEA SHIPPING, AUSTRALIA.—FOREIGN TONNAGE, 1924-25.

Countries.	Nationality.							
	Japanese.		French.		United States.		Dutch.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
EUROPEAN COUNTRIES—								
United Kingdom ..	..	45,369	..	8,695	542	2,128	..	22,412
France ..	..	3,406	50,967	28,019	..	..	..	4,450
Other European Countries ..	..	10,943	..	20,749	..	..	79,840	65,205
ASIATIC COUNTRIES AND ISLANDS IN THE PACIFIC—								
Netherlands East Indies ..	..	..	..	..	10,260	24,255	33,118	23,738
Japan ..	220,592	225,378	..	..	..	..	..	..
Straits Settlements ..	..	..	..	..	3,430	..	31,615	30,512
Other Asiatic Countries ..	1,283	14,452	1,109	2,218	..	7,899	4,794	3,162
New Zealand ..	..	..	..	..	1,106	1,106	8,773	5,984
New Caledonia ..	..	..	46,147	40,722	..	..	2,060	..
Other Pacific Islands ..	2,884	..	2,890	3,245	..	..	15	15
AFRICAN COUNTRIES ..	..	8,080	3,199	..	..	..	..	2,964
NORTH AMERICAN COUNTRIES—								
United States ..	68,860	..	..	..	165,042	145,469	..	2,789
Canada ..	4,038	..	..	..	5,709	..	..	..
SOUTH AMERICAN COUNTRIES ..	..	..	..	..	..	6,850	2,170	..
With Cargo ..	212,804	307,628	92,315	101,430	184,983	156,247	108,717	149,951
In Ballast ..	84,853	..	11,997	2,218	1,106	31,460	53,668	11,280
Total ..	297,657	307,628	104,312	103,648	186,089	187,707	162,385	161,231

The largest proportion of the foreign tonnage entered is employed between its home ports or the colonies of its own country and Australia, e.g., French shipping is engaged chiefly between Australia, France and New Caledonia, while Dutch ships are employed almost entirely between Australia and the Netherlands, the Netherlands East Indies, or Straits Settlements. The bulk of the Japanese tonnage was recorded as entering from Japan, although there was increased activity recorded in carrying cargoes from the United States of America.

(iv) *Nationality of Steam and Sailing Tonnage.* A further analysis is appended, distinguishing between steam and sailing vessels of British and foreign nationality which entered Australia during the years 1920-21 to 1924-25.

OVERSEA SHIPPING, AUSTRALIA.—NATIONALITY OF STEAM AND SAILING VESSELS ENTERED, 1920-21 TO 1924-25.

Description and Nationality of Vessels.	1920-21.		1921-22.		1922-23.		1923-24.		1924-25.	
	Ton-nage.	Per-cent-age.	Ton-nage.	Per-cent-age.	Ton-nage.	Per-cent-age.	Ton-nage.	Per-cent-age.	Ton-nage.	Per-cent-age.
Steam—										
British ..	3,232,463	73	3,597,388	81	3,634,411	79	3,866,900	80	4,242,511	77
Foreign ..	1,190,417	27	869,267	19	964,610	21	941,229	20	1,293,360	23
Total Steam	4,422,880	100 (93)	4,466,655	100 (98)	4,599,021	100 (97)	4,808,129	100 (98)	5,535,871	100 (99)
Sailing—										
British ..	83,789	25	40,735	43	14,826	11	17,365	17	21,729	36
Foreign ..	252,247	75	52,991	57	124,007	89	85,642	83	38,800	64
Total Sailing	336,036	100 (7)	93,726	100 (2)	138,833	100 (3)	103,007	100 (2)	60,529	100 (1)
Steam and Sailing—										
British ..	3,316,252	70	3,638,123	80	3,649,237	77	3,884,265	79	4,255,917	76
Foreign ..	1,442,664	30	922,258	20	1,088,617	23	1,026,871	21	1,340,483	24
Total	4,758,916	100	4,560,381	100	4,737,854	100	4,911,136	100	5,596,400	100

As might naturally be expected there was a considerable decline in the figures for sailing tonnage during the period under review.

5. *Tonnage in Ballast.*—(i) *Total and Percentage by Nationality.* The following table shows the tonnage according to nationality of oversea vessels which entered and cleared Australia in ballast during the years 1920-21 to 1924-25 :—

OVERSEA SHIPPING, AUSTRALIA.—TONNAGE IN BALLAST, 1920-21 TO 1924-25.

Year.	Entered.			Cleared.		
	British.	Foreign.	Total.	British.	Foreign.	Total.
TOTAL TONNAGE.						
1920-21 ..	787,163	735,642	1,522,805	75,356	47,413	122,769
1921-22 ..	1,069,887	381,737	1,451,624	79,377	8,846	88,223
1922-23 ..	422,535	226,329	648,864	155,605	64,786	220,391
1923-24 ..	541,271	110,935	652,206	254,069	103,059	357,128
1924-25 ..	705,398	453,099	1,158,497	164,972	203,361	368,333
PERCENTAGE.						
1920-21 ..	23.74	50.99	32.00	2.27	3.32	2.59
1921-22 ..	29.41	41.39	31.83	2.22	0.93	1.95
1922-23 ..	11.58	20.79	13.70	4.49	6.23	4.89
1923-24 ..	13.93	10.80	13.28	6.48	9.45	7.13
1924-25 ..	16.57	33.80	20.70	4.41	10.93	6.57

(ii) *Tonnage entered in Ballast—States.* The tonnage which entered each State in ballast during 1924-25 was as follows :—

OVERSEA TONNAGE IN BALLAST ENTERING STATES, 1924-25.

State.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Ter.	Total.
Tonnage ..	555,662	182,377	4,555	138,624	241,954	20,802	14,523	1,158,497
Percentage on total ..	47.96	15.74	0.39	11.97	20.89	1.80	1.25	100.00

In normal times the large exports of coal from New South Wales afford special inducements to vessels in search of freights. The tonnage in ballast into New South Wales is mainly for coal cargo, into Victoria for wheat, into South Australia for wheat and ore, and into Western Australia for timber and wheat.

§ 3. Shipping of Ports.

1. *Tonnage Entered.*—The total shipping tonnage—oversea, interstate, and coast-wise—which entered the more important ports of Australia during the year 1924-25, together with similar information in regard to some of the ports of New Zealand for the year 1924 and of Great Britain for the year 1924—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	9,131,675	London	22,745,073
Melbourne	6,939,642	Liverpool (inc. Birkenhead)	15,502,986
Newcastle	5,120,541	Tyne Ports	10,843,111
Adelaide	4,935,155	Southampton	10,243,992
Brisbane	3,245,938	Cardiff	10,070,558
Fremantle	3,032,845	Hull	6,277,793
Townsville	1,035,706	Plymouth	4,918,739
Hobart	737,633	Swansea	3,846,363
Pirie	730,550	Newport	3,477,260
Albany	648,585	Bristol	3,412,523
Kembla	630,429	Manchester (inc. Runcorn)	3,330,185
Cairns	607,982	Middlesbrough	3,278,221
Geelong	562,379	Sunderland	3,003,029
Mackay	486,953	Grimsby (inc. Immingham)	2,640,946
Bunbury	440,378	Blyth	2,230,249
Rockhampton	436,275	Beaumaris (inc. Holyhead)	2,017,663
Burnie	399,909	Dover	1,756,267
Launceston	380,881	Falmouth	1,364,327
Wallaroo	334,116		
Devonport	326,511		
Bowen	321,990	SCOTLAND—	
Thursday Island	313,985	Glasgow	6,057,273
NEW ZEALAND—		Leith	2,164,263
Wellington	2,985,743		
Auckland	2,355,124	NORTHERN IRELAND—	
Lyttelton	1,867,824	Belfast	4,418,406
Otago	1,077,101		

§ 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 1921 to 1925, so far as such information can be ascertained from the Shipping Registers of the various States. The Merchant Shipping Act, under which vessels are registered in Australia, does not, however, make it compulsory to register vessels under 15 tons burthen if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners. As the Shipping Registers are the source of information, it follows that the figures given below will be subject to additions in the future, inasmuch as vessels already built may be added to the register at some future date.

VESSELS BUILT IN AUSTRALIA, 1921 TO 1925.

NUMBER.

Year.	Steamers built of—					Oil Motor Vessels.	Sailing.	Pontoons, Dredges, etc.	Total.
	Wood.	Iron.	Steel.	Com- posite.	Total.				
1921 ..	2	..	5	..	7	6	3	..	16
1922 ..	4	..	5	..	9	8	8	..	25
1923 ..	..	..	3	1	4	8	1	2	15
1924 ..	2	..	2	..	4	10	..	..	14
1925 ..	..	..	5	..	5	8	1	..	14

TONNAGE.

Year.	Steamers.		Oil Motor Vessels.		Sailing.		Pontoons, Dredges, etc.		Total.	
	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.	Gross.	Net.
1921 ..	14,129	8,044	69	57	27	23	..	..	14,225	8,124
1922 ..	9,239	5,093	197	152	304	251	..	..	9,740	5,496
1923 ..	7,089	4,011	140	101	100	80	414	386	7,743	4,578
1924 ..	19,665	11,480	298	215	..	..	..	..	19,963	11,695
1925 ..	4,074	1,478	197	157	13	13	..	..	4,284	1,648

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, 1925 :—

VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1925.

State.	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 ..	50	1,389	473	152,057	211	2,980	236	11,536	50	13,762	1,020	181,724
Victoria ..	28	3,709	152	134,058	38	1,118	66	3,139	69	28,057	353	170,081
Queensland ..	19	2,799	61	20,572	37	490	101	1,539	32	4,405	250	29,805
South Australia ..	16	662	79	34,894	47	2,906	38	1,051	51	8,804	231	48,317
Western Australia ..	10	191	26	12,106	15	343	328	4,327	23	7,210	402	24,677
Tasmania ..	6	498	54	9,287	49	1,223	71	2,755	2	563	182	14,326
Northern Territory ..	..	..	..	..	1	17	22	217	..	..	23	234
Total ..	129	9,248	845	362,974	398	9,077	862	25,064	227	62,801	2,461	469,164

Particulars of the number of vessels on the registers classified according to tonnage will be found in the Transport and Communication Bulletin issued by this Bureau.

§ 5. Interstate Shipping.

1. **System of Record.**—*Interstate Shipping* comprises two elements, viz.:—(a) Vessels engaged solely in interstate trade: and (b) Vessels trading between Australia and oversea countries and in the course of their voyage proceeding from one State to another. (It should be mentioned that these vessels, except under special circumstances, do not now engage in interstate carrying.) A detailed explanation of the methods adopted in dealing with the returns under each heading will be found on page 272 of Official Year Book No. 17, but limitation of space preclude its repetition in the present volume.

2. **Vessels and Tonnage Entered.**—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 1920-21 to 1924-25. The shipping on 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, 1920-21 TO 1924-25.

State.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
NUMBER.					
New South Wales ..	1,650	1,748	1,848	2,071	1,902
Victoria ..	1,614	1,797	1,886	1,920	1,815
Queensland ..	469	459	548	519	460
South Australia ..	603	724	822	867	798
Western Australia ..	431	484	364	363	421
Tasmania ..	987	1,072	1,169	1,193	1,091
Northern Territory ..	18	19	18	22	24
Total ..	5,772	6,303	6,655	6,955	6,511

TONNAGE.					
New South Wales ..	3,297,358	3,614,744	4,278,072	4,677,576	4,581,395
Victoria ..	2,434,778	3,091,313	3,581,571	3,724,273	3,593,320
Queensland ..	770,233	857,715	1,123,192	1,032,101	1,041,754
South Australia ..	1,554,649	1,949,071	2,453,776	2,501,928	2,348,566
Western Australia ..	1,600,142	1,817,361	1,630,730	1,668,713	1,900,077
Tasmania ..	592,852	937,296	1,023,645	1,200,569	1,098,556
Northern Territory ..	36,269	52,814	52,107	54,347	57,658
Total ..	10,286,281	12,320,314	14,143,093	14,859,507	14,621,326

3. **Oversea Vessels Moving Interstate.**—To ascertain the aggregate movement of shipping between the States during the year 1924-25, 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, 1924-25.

State.	Entered.		Cleared.		Total.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales ..	580	2,615,404	514	2,349,078	1,094	4,964,482
Victoria ..	532	2,454,034	489	2,182,881	1,021	4,636,915
Queensland ..	224	1,217,313	254	1,344,945	478	2,562,258
South Australia ..	323	1,616,982	253	1,308,456	576	2,925,438
Western Australia ..	40	150,024	14	56,649	54	206,673
Tasmania ..	35	142,327	78	418,394	113	560,721
Northern Territory ..	..	..	..	..	..	..
Total ..	1,734	8,196,084	1,602	7,660,403	3,336	15,856,487

Oversea vessels moving interstate are with few exceptions not engaged in the active interstate trade of Australia, but are merely proceeding to the several States in continuation of their oversea voyage.

4. Vessels engaged Solely in Interstate Trade.—Eliminating all interstate movements of oversea vessels, the number and tonnage of vessels engaged solely in the interstate trade for Australia as a whole during the years 1920-21 to 1924-25 were as follows :—

NUMBER AND TONNAGE OF VESSELS ENGAGED SOLELY IN INTERSTATE TRADE, 1920-21 TO 1924-25.

Year.	Entered.		Cleared.	
	No.	Tons.	No.	Tons.
1920-21	4,539	5,406,967	4,566	5,433,856
1921-22	4,897	6,464,999	4,885	6,335,396
1922-23	5,230	7,506,324	5,624	7,624,311
1923-24	5,565	8,228,391	5,546	8,109,094
1924-25	4,909	6,960,923	4,906	6,953,546

5. Total Interstate Movement of Shipping.—(i) *Australia.* The appended table shows the total inward interstate movement of shipping for each of the years 1920-21 to 1924-25 :—

TOTAL INWARD INTERSTATE MOVEMENT OF SHIPPING, 1920-21 TO 1924-25.

Vessels.	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
	Tons.	Tons.	Tons.	Tons.	Tons.
Oversea vessels moving interstate	10,001,668	11,579,340	14,214,800	14,437,674	15,856,487
Vessels solely interstate ..	5,406,967	6,464,999	7,506,324	8,228,391	6,960,923
Total	15,408,635	18,044,339	21,721,124	22,666,065	22,817,410

(ii) *States.* The following table shows the number and tonnage of vessels which entered and cleared each State during 1924-25, including the coastal movements of oversea vessels :—

INTERSTATE SHIPPING OF EACH STATE, 1924-25.

State.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales	2,482	7,196,799	2,403	6,958,302
Victoria	2,347	6,047,354	2,473	6,419,503
Queensland	684	2,259,067	717	2,388,246
South Australia	1,121	3,965,548	1,154	4,085,555
Western Australia	461	2,050,101	343	1,666,883
Tasmania	1,126	1,240,883	1,134	1,239,896
Northern Territory	24	57,658	18	51,648
Total, Australia	8,245	22,817,410	8,242	22,810,033

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 1921 to 1925 :—

AUSTRALIAN INTERSTATE AND COASTAL STEAMSHIP SERVICES, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
Number of companies making returns	(a)39	32	35	39	41
Number of steamships	183	195	205	207	209
Tonnage { Gross	317,019	357,652	384,650	382,822	384,004
{ Net	179,393	204,219	220,042	217,609	216,390
Horse-power (Nominal)	32,801	34,886	36,934	37,841	38,750
Number of { 1st class	4,226	4,647	9,184	9,538	9,110
passengers for which licensed { 2nd class and steerage	4,642	5,016	4,756	4,343	4,204
Complement { Masters and officers	571	667	704	681	684
of Crew { Engineers	551	607	645	631	645
{ Crew	4,613	5,175	5,614	5,336	5,190

(a) In this year a number of small organizations were included for the first time.

§ 6. Tonnage of Cargo.

The table hereunder shows the aggregate tonnage of oversea cargo discharged and shipped in Australian ports, and the tonnage of interstate cargo shipped in all ports for the years 1920-21 to 1924-25. Cargo which was stated in cubic feet has been converted to weight on the basis of 40 cubic feet to the ton.

AUSTRALIAN SHIPPING—CARGO MOVEMENT, 1920-21 TO 1924-25.

Year.	Oversea Cargo.		Interstate Cargo.
	Discharged.	Shipped.	Shipped.
	Tons.	Tons.	Tons.
1920-21	3,201,215	5,925,133	4,993,678
1921-22	2,419,977	5,816,174	5,533,716
1922-23	3,718,795	4,064,196	5,137,651
1923-24	4,377,171	4,981,521	6,358,191
1924-25	4,696,112	6,498,098	6,413,975

More detailed information regarding the volume of trade at each of the principal ports is contained in Transport and Communication Bulletin No. 17 issued by this Bureau.

§ 7. Commonwealth Government Shipping and Shipbuilding Activities.

1. **Local Building Programme.**—The original Commonwealth Government programme of ship construction in Australia provided for 48 vessels, 24 of which were to be wooden sailing vessels, and the remainder steel cargo ships. Owing to certain variations, the programme resulted in the building of 21 steel cargo vessels and 2 five-masted schooners with auxiliary power.

Particulars of the vessels built in Australia to 31st December, 1922, were included in a previous issue of this book (see Year Book Nos. 16, p. 273 and 17, p. 269).

2. **Vessels Built in the United Kingdom.**—In addition to the vessels previously referred to, five steamers each approximately 8,450 tons net were constructed in yards in the United Kingdom.

These vessels have an approximate length of 520 feet by 68 feet beam, and a capacity of 900,000 cubic feet, of which 370,000 cubic feet are insulated.

3. **Australian Commonwealth Line of Steamers.**—(i) *Foundation of Line.* The Commonwealth Shipping Act 1923 provided for the establishment of the Australian Commonwealth Line of Steamers under the control of a Board of Directors consisting of not less than three nor more than five members. The date at which the Act was to come into force was fixed by proclamation as 1st September, 1923.

The whole of the right, title, and interest of the Commonwealth in and to the 50 vessels (155,302 tons net) of the Commonwealth Government Line of Steamers, and appurtenances used for the purposes of such vessels, was vested in the Board, also four other vessels (15,442 tons net) which were under construction at the time of transfer. The valuation of the vessels, tackle, apparel, gear, furniture, stores and equipment was fixed at £4,718,150, office furniture and fittings at £7,500, and stores on hand £23,700, making a total of £4,749,350.

4. **Financial Position.**—(i) *Profit and Loss Account.* The operations of the Australian Commonwealth Line of Steamers as shown by the Profit and Loss Account for the year ended 31st March, 1925, resulted in a net loss of £593,879 after meeting interest and depreciation charges (£384,515). The gross earnings of the fleet were £1,852,415, while the expenditure, other than interest, etc., charges was £2,061,780.

The gross earnings of Cockatoo Island Dockyards were £543,875 and the gross expenditure inclusive of interest, etc., charges (£44,443) was £538,779, thus showing a net profit of £5,096.

(ii) *Balance Sheet.* The balance sheet as at 31st March, 1925, has been taken from the Report of the Commonwealth Auditor-General.

BALANCE-SHEET AS AT 31ST MARCH, 1925.

<i>Liabilities.</i>			<i>Assets.</i>		
	£	s. d.		£	s. d.
To Debentures issued to Commonwealth Treasury ..	5,214,500	0 0	By capital value of fleet and spare gear, etc., less depreciation ..	4,395,976	12 5
Sundry creditors and credit balances ..	665,104	0 5	„ unexpired insurance premiums ..	50,341	19 9
Reserve accounts ..	242,252	16 1	„ insurance and protection claims pending ..	23,057	11 9
			„ Sundry debtors and debit balances, and works in progress ..	546,580	8 7
			„ Investments, cash at bank and in hand ..	173,353	18 7
			„ Realization of assets, account balance ..	104,217	14 10
			„ Profit and loss a/c—		
			Balance— £ s. d.		
			31.3.24 239,545	11 5	
			31.3.25 588,782	19 2	
				828,328	10 7
	£6,121,856	16 6		£6,121,856	16 6

5. Disposal of Vessels.—The position in connexion with the disposal of surplus tonnage during the period 1st September, 1923, to 31st March, 1925, was as follows :—

	£	s.	d.
Capital value of 26 steamers sold	610,150	0	0
Sale price (less commissions, etc.)	648,180	0	0
Excess of sale price over book value	38,030	0	0
Expenses of lay-up, including interest and sale charges on vessels sold	52,233	12	8
Expenses of lay-up, including interest and depreciation on 17 vessels awaiting sale at 31st March, 1925	90,014	2	2
Total	142,247	14	10
Excess on sales as above	38,030	0	0
Deficiency	104,217	14	10

§ 8. World's Shipping Tonnage.

The table hereunder shows the number and gross tonnage of steam and motor, and of sailing vessels owned by the most important maritime countries, together with the proportion of the grand total owned by each country :—

WORLD'S SHIPPING TONNAGE, 1925-26.

Nationality.	Steam and Motor.		Sailing.		Total.		Percentage on Total.	
	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.	No.	Gross Tonnage.
Great Britain and Nthn. Ireland	8,161	19,304,670	398	136,041	8,559	19,440,711	26.52	31.35
Australia and New Zealand	634	826,987	22	9,971	656	836,958	2.03	1.35
Canada(a)	548	838,301	250	105,343	798	943,644	2.47	1.52
Other British	613	679,514	249	61,954	862	741,468	2.67	1.20
Total, British Empire	9,956	21,649,472	919	313,309	10,875	21,962,781	33.69	35.42
Belgium	237	538,193	3	4,390	240	542,583	0.74	0.88
Denmark	652	1,021,617	120	38,229	772	1,059,846	2.39	1.71
France	1,527	3,319,645	301	192,339	1,828	3,511,984	5.67	5.66
Germany	1,947	3,006,270	81	67,443	2,028	3,073,713	6.28	4.96
Greece	448	894,542	11	3,336	459	897,878	1.42	1.45
Holland	1,046	2,587,789	53	13,042	1,099	2,600,831	3.41	4.19
Italy	1,035	2,930,836	318	97,825	1,353	3,028,661	4.19	4.88
Japan	2,087	3,919,807	..	..	2,087	3,919,807	6.47	6.32
Norway	1,745	2,618,445	60	62,197	1,805	2,680,642	5.59	4.42
Spain	789	1,142,924	141	41,797	930	1,184,721	2.88	1.91
Sweden	1,203	1,253,900	186	47,226	1,389	1,301,126	4.30	2.10
United States of America(b)	3,421	11,995,490	936	1,017,070	4,357	13,012,560	13.50	20.98
Other Foreign Countries	2,500	2,966,155	555	273,793	3,055	3,239,948	9.47	5.22
Total, Foreign Countries	18,637	38,195,613	2,765	1,858,687	21,402	40,054,300	66.31	64.58
Grand Total	28,593	59,845,085	3,684	2,171,996	32,277	62,017,081	100.00	100.00

(a) Sea-going. (b) Including Philippine Islands.

The foregoing figures have been compiled from Lloyd's Register of Shipping, and vessels of 100 tons or upwards only have been included.

§ 9. Ferries.

1. **New South Wales.**—The ferry services in Port Jackson are under the control of two companies, which during the year 1925 had 71 vessels in commission, 68 of which were double-ended screw steamers, the remaining three being motor driven. It is claimed for the steamers that they are superior in size and equipment to boats employed on similar service in any other part of the world.

2. **Victoria.**—The Williamstown City Council owns one steamer which is engaged in the transport of passengers between Port Melbourne and Williamstown. There are several other steamers which are engaged during the summer season in the carriage of passengers and goods to the several seaside resorts. Particulars of these services, however, are not included in the table in sub-par. 6 following.

3. **Queensland.**—The Brisbane City Council and the Balmoral Shire Council control the ferry services in the Metropolitan area, but such ferries are really substitutes for bridges and have therefore not been included in the table hereunder.

4. **Western Australia.**—The ferries plying on the Swan River during 1925 were operated by a private company, and consisted of 8 petrol-driven vessels. At South Perth the Western Australian Government employed 4 vessels, 2 of which were steamers.

5. **Tasmania.**—In and around Hobart there were in 1925, 3 ferry services, 2 being controlled by a private company which had 6 steamers in commission, and 1 by the Public Works Department, with 2 motor-propelled vessels.

6. **Particulars of Working.**—The subjoined table shows for the year 1925, so far as returns are available, the most important items in connexion with the operation of the ferry services in the several States :—

FERRIES.—PARTICULARS OF WORKING, 1925.

Particulars.	New South Wales.	Victoria.	Western Australia.	Tasmania.	Total.
Boats in Service—					
Steam .. No.	68	1	2	6	77
Other .. No.	3	..	10	2	15
Total .. No.	71	1	12	8	92
Number of passengers which boats are licensed to carry .. No.	47,656	342	1,757	1,879	51,634
Revenue .. £	721,477	7,001	14,707	18,887	762,072
Working Expenses .. £	661,247	8,323	13,711	14,372	697,653
Passengers carried(b) No.	44,072,000	245,000	1,080,000	1,248,009	46,645,009
Mileage of Boats miles	(a)	21,600	80,937	59,240	(c) 161,777
Accidents—					
Killed .. No.	3	..	..	..	3
Injured .. No.	102	..	2	..	104
Employees—					
Salaried Staff No.	47	..	2	7	56
Wages Staff No.	1,104	6	23	30	1,163

(a) Not Available.

(b) Approximate.

(c) Incomplete.

7. **Other Services.**—In addition to the foregoing there are throughout the several States a number of row-boat ferry services, and on many of the principal inland rivers punts are in operation.

§ 10. 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 are 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, 1926, show that the rate for general merchandise from Australia to United Kingdom and Continent was 70s. per ton weight or measurement, as compared with 55s. per ton in 1915.

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, 1926, has been included in the Transport and Communication Bulletin No. 17, published by this Bureau.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a Magistrate, assisted by skilled assessors, and when necessary are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers found to be at fault. Particulars of shipping casualties reported on or near the coast during the year 1924–25 are shown in the Transport and Communication Bulletin No. 17. This information has also been 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), but considerations of space preclude its repetition in this present volume.

(ii) *Amending Acts.* Under the provisions of the Navigation Act 1925 (March, 1925), permission may be given to unlicensed British ships to engage in passenger tourist traffic between any specified Commonwealth ports. Certain vessels were granted permission to engage in the carriage of passengers between the port of Hobart and the ports of Brisbane, Sydney and Melbourne during the period 6th March, 1926, to 31st May, 1926. This permission may be renewed from time to time as occasion demands. The Navigation Act 1925 (July, 1925), confers authority for the suspension, for any specified time, of the operation of the provisions of that part of the principal Act relating to the engagement of ships in the coasting trade by exempting under certain circumstances any ship or class of ships from compliance with any specified provision or provisions of the Act.

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 State railways are referred to throughout as “State” and the Commonwealth railways as “Federal” railways. A summary in regard to Federal and State railways will, however, be found in § 4 of this section.

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 Railways Commissioners, has been made during recent years.

3. **Railway Communication in Australia.**—(i) *General.* 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. In the eastern, south-eastern and southern parts of Australia there is now a network of railway lines converging from the various agricultural, pastoral and mining districts towards the principal ports, which are themselves connected by systems of lines running approximately parallel to the coast. In the east, lines radiating from Cairns, Townsville, Rockhampton, Brisbane and Sydney extend inland in various directions for distances ranging up to over 600 miles; in the south-east there are numerous lines, those in Victoria converging towards Melbourne, while others in New South Wales have their terminus in Sydney; in the south there are four main lines, with numerous branches, running from Melbourne; while from Adelaide one main line, with several branches to the coastal towns, runs inland in a northerly direction for a distance of nearly 700 miles and another line runs in a south-easterly direction to various ports, meeting the main line from Melbourne on the border of South Australia and Victoria near Serviceton. The South Australian and Victorian railway systems also meet on the

border at two other points, one near Pinnaroo, and the other at Rennick, near Mount Gambier. In Western Australia there is a connected system of main or trunk lines between the ports of the State and the agricultural, pastoral, and mining districts, and two short lines, one on the north-west, the other on the south coast, which are unconnected with the main system. In the northern portion of Queensland there were also several disconnected lines running inland from the more important ports, but during the year 1924-25 an uninterrupted service as far north as Cairns was established. In Tasmania the principal towns are connected by a system of lines, and there are also, more especially in the western districts, several lines which have been constructed for the purpose of opening up mining districts.

By the opening, in 1917, of the Trans-Australian railway from Port Augusta to Kalgoorlie, through communication by rail was established between the eastern States and the Western Australian railway system.

(ii) *The Main Interstate Lines.* The main interstate lines, which permit of direct communication between the five capital cities—Brisbane, Sydney, Melbourne, Adelaide, and Perth—cover a distance from end to end of 3,474.80 miles or 3,479.82 miles via Newcastle. The schedule time for the journey from Brisbane to Perth is six days one hour forty-two minutes and from Perth to Brisbane five days twenty-one hours forty minutes, the time in each case being taken over all.

The longest railway journey which can be undertaken in Australia on one continuous line of railway is from Dajarra in Queensland to Meekatharra in Western Australia, total distance of 5,499.11 miles.

4. *Non-conformity of Gauge.*—(i) *General.* With but few exceptions, all the railway lines in Australia open for general traffic are now owned and managed by the respective States in whose territory they run, or by the Commonwealth Government; but, unfortunately, for the purpose of interstate traffic the construction of the various systems in different parts of Australia has proceeded without uniformity of gauge. A statement giving the reasons for the adoption of the various gauges in the several States appeared in Year Book No. 15, p. 534, but considerations of space preclude its repetition in the present issue.

(ii) *Interstate Junctions.* Connexions at border stations were established as follows:—Victoria and New South Wales, at Albury, 14th June, 1883; Victoria and South Australia, at Serviceton, 19th January, 1887; and New South Wales and Queensland, at Wallangarra, 16th January, 1888. Through trains were unable to run on this latter section until the completion of the Hawkesbury River Bridge on 1st May, 1889. On the 22nd October, 1917, through communication from east to west was made possible by the opening of the Trans-Australian line.

(iii) *Proposals for Unification.* The question of the unification of gauges in the several States has been under consideration for several years, and numerous conferences on the subject have been held from time to time between the several Railways Commissioners and between the Premiers of the States concerned. Reference to these conferences has been made in previous issues of the Year Book.

Some advancement, however, has been made in this connexion by the commencement of a 4 ft. 8½ in. gauge line between Kyogle (New South Wales) and South Brisbane (Queensland), which, when completed, will establish uninterrupted standard gauge communication between Sydney and South Brisbane. The mileage involved in this project is 87.12 miles, of which 60.56 miles is in Queensland Territory.

The construction of this line is under the control of a Council, consisting of the Commonwealth Railways Commissioner, the Chief Railway Commissioner for New South Wales, and the Commissioner for Railways, Queensland. The following further proposals for modifying the disadvantages attending the multiplicity of gauges have been recommended to Parliament by the Commonwealth Parliamentary Standing Committee on Public Works:—

- (a) Extension of the Trans-Australian Railway from Port Augusta to Red Hill, 83 miles of 4 ft. 8½ in. gauge; and
- (b) Laying of a third rail from Red Hill to Adelaide to provide a railway of 4 ft. 8½ in. gauge over the existing 5 ft. 3 in. gauge line from Red Hill to Adelaide, a total distance of approximately 107 miles.

Should these proposals be accepted, through passengers over the Trans-Australian line will not need to change at Port Augusta and Terowie. 1111

(iv) *Estimated Cost of Unification of Gauges.* The scheme advocated by the Royal Commission of 8th February, 1921, and adopted by the Prime Minister and Premiers of the several States in conference during November of the same year, as the first step will provide a standard 4 ft. 8½ in. gauge railway between Brisbane and Fremantle, and the conversion of the whole of the broad-gauge lines of Victoria and South Australia, at an estimated cost of £21,600,000, spread over a period of approximately eight years. The details of the estimate of £21,600,000, which provides for a main trunk line between Fremantle and Brisbane, and the conversion of the 5 ft. 3 in. gauge lines in Victoria and South Australia, together with the quota from each State and the Commonwealth Government in terms of the allocation of cost agreed upon, were given in a previous issue (see Year Book No. 16, p. 278).

The estimated cost of converting the whole of the lines in the States concerned was given as approximately £57,200,000.

5. *Rolling Stock Gauges.*—Allied to the question of the gauges of the railways of Australia is that of the rolling stock gauges in use, the rolling stock gauge being the maximum transverse dimensions to which the rolling stock may be constructed. Particulars in respect of such dimensions have been published in previous issues of this work. (See Official Year Book, No. 18, p. 274.)

6. *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. (See § 5 *Private Railways*, hereinafter.)

The subjoined table shows the mileage of Commonwealth Government, State Government, and private lines open for traffic (exclusive of sidings and cross-overs) in each State for each of the years 1920–21 to 1924–25. The railway mileage given for each State includes both Commonwealth and State Government railways in that State, and in this table and in those immediately following is estimated from the geographic point of view and not from that of ownership. The figures are to the end of the financial year ending on the 30th June, excepting the mileages for private lines, which are in most cases taken for the calendar year :—

RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE OPEN, 1921 TO 1925.

State or Territory.	1920–21.	1921–22.	1922–23.	1923–24.	1924–25.
	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	5,402.08	5,475.44	5,689.18	5,847.13	5,986.39
Victoria ..	4,337.35	4,374.73	4,393.48	4,496.34	4,542.45
Queensland ..	7,012.62	7,063.89	7,180.10	7,341.83	7,433.46
South Australia ..	3,463.35	3,487.37	3,503.40	3,577.01	3,577.01
Western Australia ..	4,905.83	4,867.48	4,844.93	4,908.77	5,040.65
Tasmania ..	877.01	872.49	896.36	908.38	904.08
Federal Capital Territory ..	4.94	4.94	4.94	4.94	4.94
Northern Territory ..	198.68	198.68	198.68	198.68	198.68
Australia ..	26,201.86	26,345.02	26,711.07	27,283.08	27,687.66

In previous issues of the Year Book particulars 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, (b) the length of private lines available for general use by the public, and (c) the length of the private lines not so available. The mileages specified in the case of Government lines are to the 30th June, 1925; those given for private lines are to the same date, with the exception of Western Australia, which are to 31st December, 1925:—

RAILWAYS.—GOVERNMENT AND PRIVATE.—MILEAGE CLASSIFIED, 1924-25.

State or Territory.	Government Lines—		Private Lines available for General Traffic.	Total Open for General Traffic.	Private Lines used for special Purposes only.	Grand Total.
	State.	Federal.				
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales	5,655.75	..	143.90	5,799.65	186.74	5,986.39
Victoria ..	4,483.62	..	24.94	4,508.56	33.89	4,542.45
Queensland ..	6,114.42	..	289.97	6,404.39	1,029.07	7,433.46
South Australia ..	2,451.70	1,075.41	33.80	3,560.91	16.10	3,577.01
Western Australia	3,732.66	453.99	277.00	4,463.65	577.00	5,040.65
Tasmania ..	672.90	..	191.66	864.56	39.52	904.08
Federal Capital Territory ..	..	4.94	..	4.94	..	4.94
Northern Territory	..	198.68	..	198.68	..	198.68
Australia ..	23,111.05	1,733.02	961.27	25,805.34	1,882.32	27,687.66

7. *Comparative Railway Facilities.*—The relations to population and area respectively of the mileage of line open to the public for general traffic (including both Government and private lines) on the 30th June, 1925, are shown in the subjoined statement:—

RAILWAYS.—GOVERNMENT AND PRIVATE.—COMPARISON OF FACILITIES, 1925.

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 ..	2.55	2.70	7.49	6.56	12.13	4.08	1.11	52.73	4.35
Per 100 sq. miles or Territory ..	18.74	51.30	9.55	9.37	4.57	32.98	5.26	0.38	8.67

8. *Classification of Lines according to Gauge, 1924-25.*—The next table gives a classification, according to gauge, of the total mileage, exclusive of sidings and crossovers, of (i) Commonwealth Government railways, given in the State or Territory in which situated; (ii) State Government railways; (iii) Private railways open to the public for general traffic; and (iv) Private lines open for special purposes. Particulars of Government railways are up to the 30th June, 1925; of private railways open for general traffic, to the 31st December, 1925, as nearly as possible; and of private railways open for special purposes to the 30th June, 1925, with the exception of Western Australia, the figures for which State are to the 31st December, 1925.

RAILWAYS.—GOVERNMENT AND PRIVATE.—GAUGES, 1924-25.

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. 3 in.	2 ft. 0 in.	1 ft. 8 in.	

FEDERAL RAILWAYS.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
South Australia	597.46	477.95	..	..	..	..	..	1,075.41
Western Australia	453.99	..	..	..	..	..	..	453.99
Federal Capital Territory	4.94	..	..	..	..	..	..	4.94
Northern Territory	198.68	..	..	..	..	..	198.68
Total	1,056.39	676.63	..	..	..	..	..	1,733.02

STATE RAILWAYS.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	..	5,616.24	39.51	..	..	..	..	..	5,655.75
Victoria ..	4,361.85	..	..	..	121.77	..	..	..	4,483.62
Queensland ..	..	..	6,084.16	..	..	..	30.26	..	6,114.42
South Australia ..	1,190.46	..	1,261.24	..	..	..	..	..	2,451.70
Western Australia ..	..	..	3,732.66	..	..	..	..	..	3,732.66
Tasmania ..	..	..	643.07	..	..	..	24.83	..	672.90
Total ..	5,552.31	5,616.24	11,765.64	..	121.77	..	55.09	..	23,111.05

PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	..	80.90	36.67	..	..	..	26.33	..	143.90
Victoria ..	13.94	..	..	11.00	..	..	..	..	24.94
Queensland ..	..	..	119.72	..	7.00	..	163.25	..	289.97
South Australia ..	..	..	33.80	..	..	..	..	..	33.80
Western Australia ..	..	..	277.00	..	..	..	..	..	277.00
Tasmania ..	..	..	175.17	..	..	..	16.49	..	191.66
Total ..	13.94	80.90	642.36	11.00	7.00	..	206.07	..	961.27

PRIVATE RAILWAYS OPEN FOR SPECIAL PURPOSES.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	..	173.06	3.50	..	..	..	10.18	..	186.74
Victoria ..	16.79	..	..	4.50	..	..	12.60	..	33.89
Queensland ..	..	..	253.80	..	205.50	..	569.77	..	1,029.07
South Australia ..	..	..	..	..	2.00	3.75	10.35	..	16.10
Western Australia ..	..	..	528.00	..	2.00	..	14.00	33.00	577.00
Tasmania ..	..	..	22.32	..	..	..	17.20	..	39.52
Total ..	16.79	173.06	807.62	4.50	209.50	3.75	634.10	33.00	1,882.32

ALL RAILWAYS.

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
New South Wales ..	..	5,870.20	79.68	..	..	..	36.51	..	5,986.39
Victoria ..	4,392.58	..	..	15.50	121.77	..	12.60	..	4,542.45
Queensland ..	..	..	6,457.68	..	212.50	..	763.23	..	7,433.46
South Australia ..	1,190.46	597.46	1,772.99	..	2.00	3.75	10.35	..	3,577.01
Western Australia ..	..	453.99	4,537.66	..	2.00	..	14.00	33.00	5,040.65
Tasmania ..	..	..	845.66	..	..	..	58.62	..	904.08
Federal Capital Territory ..	..	4.94	..	..	..	..	..	..	4.94
Northern Territory ..	..	..	198.68	..	..	..	..	..	198.68
GRAND TOTAL	5,683.04	6,926.59	13,892.25	15.50	338.27	3.75	895.26	33.00	27,687.66

§ 2. Federal Railways.

1. **General.**—On the 1st January, 1911, the Commonwealth Government took over the Northern Territory from the South Australian Government, and at the same time the railways from Darwin to Pine Creek in the Northern Territory, and from Port Augusta to Oodnadatta in South Australia, came under its control. Subsequently the construction of a transcontinental line from Port Augusta in South Australia to Kalgoorlie in Western Australia was undertaken by the Commonwealth Government, while a line has been constructed in the Federal Capital Territory, connecting Canberra with the New South Wales railway system at Queanbeyan. In 1917 an Act was passed by which all the Federal railways were vested in a Commonwealth Railways Commissioner.

2. **Northern Territory Railway.**—(i) *Darwin to Katherine.* On the 1st January, 1911, the line from Darwin to Pine Creek came under the jurisdiction of the then Department of External Affairs, and was worked under the Administrator of the Northern Territory. As mentioned above, the management of this railway is now vested in the Commonwealth Railways Commissioner.

In the Northern Territory Acceptance Act the construction of a transcontinental line from South Australia is provided for. The extension of the line from Pine Creek to Katherine River was completed, and the first train ran through to Emungalan (Katherine River) on 13th May, 1917.

(ii) *Proposed Extension.* The recommendations of the Parliamentary Standing Committee on Public Works in connexion with the North-South line were indicated in the last issue of this work. (See Year Book No. 18, p. 278.)

(iii) *Line Authorized for Construction.* The Northern Territory Railway Extension Act 1923 provides for the construction of a 3 ft. 6 in. gauge line from the present terminus at Emungalan to Daly Waters, a distance of approximately 160 miles. The estimated cost of this line is £1,545,000, which includes the cost of a bridge over the Katherine River estimated at £95,000. Approximately 99 miles of this extension have been permanently surveyed, and a commencement has been made with the actual construction work.

3. **Port Augusta to Oodnadatta Railway.**—This line was taken over by the Commonwealth Government from 1st January, 1911, but was held under lease by the South Australian Government until 31st December, 1913. From the 1st January, 1914, the line was worked under agreement by the South Australian Government for and on behalf of the Commonwealth, but from 1st January, 1926, the management devolved upon the Commonwealth Railways Commissioner. It was provided in the Northern Territory Acceptance Act that the Commonwealth should annually reimburse the State with the interest payable on the amount of loans raised by the State for the purpose of constructing the railway, and the agreement for working the line prescribed that the Commonwealth should be responsible to the State for any financial loss incurred by the State in the working and management of the railway, but should be entitled to receive from the State any profit made in such working and management.

4. **Federal Capital Territory Railway—Queanbeyan-Canberra.**—This line was built by the Railway Construction Branch of the Public Works Department, New South Wales, and was completed and taken over by the Chief Commissioner of Railways for that State, who has since worked the line for and on behalf of the Commonwealth Government. The line was opened for departmental goods traffic on 25th May, 1914. It connects with the New South Wales railway system at Queanbeyan, is 4.94 miles in length, and has sidings of an aggregate length of 2.00 miles.

5. **Trans-Australian Railway (Kalgoorlie to Port Augusta).**—In the issue of the Year Book for 1918 (No. 11, pp. 663 to 666 and p. 1213), a short history of the construction of the Trans-Australian line is given, also a description of the country through which the line passes between Kalgoorlie and Port Augusta.

On the 22nd October, 1917, the first through train left Port Augusta with an official party on board for Kalgoorlie. It should be mentioned that owing to deviations from the original route, the length of this line was reduced from 1,063.39 miles to 1,051.45 miles, a saving of 11.94 miles.

6. Lines Open, Surveyed, etc.—The following table shows the lines open for traffic under the control of the Commonwealth Government at 30th June, 1925, together with the lines which have been or are being surveyed :—

RAILWAYS, FEDERAL, 30th JUNE, 1925.

Terminals.	Miles.
OPEN FOR TRAFFIC.	
Trans-Australian—Port Augusta (South Australia) to Kalgoorlie (Western Australia)	1,051.45
Port Augusta to Oodnadatta (South Australia)	477.95
Queanbeyan to Canberra (Federal Capital Territory)	4.94
Northern Territory Railway—Darwin to Emungalan, Katherine River ..	198.68
Total opened for traffic	1,733.02
SURVEYED OR BEING SURVEYED.	
Katherine River to Mataranka (Northern Territory)	65.44
Mataranka to Daly Waters (Northern Territory)	95.00
Kingoonya to Boorthanna (South Australia)	176.44
Canberra to Jervis Bay (Federal Capital Territory)	140.22
Canberra (Federal Capital Territory) to Federal Capital Territory Border in the direction of Yass (New South Wales)	11.67
Daly Waters (Northern Territory) to Oodnadatta (South Australia) ..	851.50
Port Augusta to Crystal Brook (South Australia)	69.25
Total surveyed or being surveyed	1,409.52

In addition, a trial survey from the proposed deep water port at Rocky Island (Gulf of Carpentaria) to Borroloola has been completed in connexion with the possibility of developing a port at the mouth of the McArthur River.

7. Mileage open, worked, and Train miles run.—The next table shows the length of the Federal railways open for traffic, average miles worked, and the train miles run in the years 1921 to 1925 :—

RAILWAYS, FEDERAL.—MILEAGE OPEN, WORKED, AND TRAIN MILES, 1921 TO 1925.

MILES OPEN FOR TRAFFIC.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
	Miles.	Miles.	Miles.	Miles.	Miles.
1921	1,051	478	5	199	1,733
1922	1,051	478	5	199	1,733
1923	1,051	478	5	199	1,733
1924	1,051	478	5	199	1,733
1925	1,051	478	5	199	1,733

RAILWAYS, FEDERAL.—MILEAGE OPEN, WORKED, AND TRAIN MILES,
1921 TO 1925—*continued.*

Year ended 30th June—	Railway.				Total.
	Trans- Australlian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
AVERAGE MILES WORKED.					
	Miles.	Miles.	Miles.	Miles.	Miles.
1921	1,051	478	5	199	1,733
1922	1,051	478	5	199	1,733
1923	1,051	478	5	199	1,733
1924	1,051	478	5	199	1,733
1925	1,051	478	5	199	1,733
TRAIN MILES RUN.					
1921	472,290	320,292	1,058	17,270	810,910
1922	471,061	242,751	1,263	16,078	731,153
1923	449,609	303,187	1,065	20,823	774,684
1924	453,742	293,529	4,731	18,412	770,414
1925	472,646	289,643	6,247	51,345	819,881

8. Cost of Construction and Equipment.—In the following table particulars are given of the cost of construction and equipment for traffic of the undermentioned railways for each of the years 1921 to 1925 :—

RAILWAYS, FEDERAL.—CAPITAL COST, 1921 TO 1925.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Oodnadatta. (a)	Federal Capital Territory. (b)	Northern Territory.	
TOTAL COST OF CONSTRUCTION AND EQUIPMENT OF LINES OPEN.					
	£	£	£	£	£
1921	7,137,365	2,287,193	48,144	1,711,585	11,184,287
1922	7,213,923	2,296,139	48,144	1,718,021	11,276,227
1923	7,301,433	2,309,136	48,144	1,725,666	11,384,379
1924	7,379,785	2,342,490	50,720	1,726,877	11,499,872
1925	7,435,771	2,554,068	50,720	1,727,412	11,767,971

COST PER MILE OPEN.

1921	6,788	4,785	9,746	8,615	6,454
1922	6,861	4,804	9,746	8,647	6,507
1923	6,944	4,831	9,746	8,686	6,569
1924	7,019	4,901	10,267	8,692	6,636
1925	7,072	5,345	10,267	8,694	6,790

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

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

The sum of £1,479,943, of which £85,452 was for surveys, etc., has been provided from revenue for capital purposes to 30th June, 1925, and has been included in the total shown above.

9. Gross Revenue.—(i) *Total, per average mile worked, and per train mile run.* The following table shows the total revenue from all sources, the revenue per average mile worked, and the revenue per train mile run for each of the undermentioned railways for the financial years 1921 to 1925 inclusive :—

RAILWAYS, FEDERAL.—GROSS REVENUE, TOTAL, ETC., 1921 TO 1925.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
TOTAL GROSS REVENUE.					
	£	£	£	£	£
1921	206,871	112,091	1,240	12,214	332,416
1922	206,826	99,462	1,847	14,364	322,499
1923	208,925	108,770	2,883	15,835	336,413
1924	227,420	105,124	4,080	16,802	353,426
1925	256,647	110,256	7,029	35,180	409,112
GROSS REVENUE PER AVERAGE MILE WORKED.					
1921	197	235	251	62	192
1922	197	208	374	72	186
1923	199	228	584	80	194
1924	216	220	826	85	204
1925	244	231	1,423	177	236
GROSS REVENUE PER TRAIN-MILE RUN.					
	d.	d.	d.	d.	d.
1921	105.12	83.99	281.29	169.74	98.38
1922	105.37	98.34	350.97	214.41	105.86
1923	111.52	86.10	649.69	182.51	104.22
1924	120.29	87.96	220.04	219.01	111.16
1925	130.37	93.25	281.20	164.65	120.69

The increased revenue was principally derived from the carriage of live stock over the Northern Territory Railway consequent on the re-opening of the Darwin Meat Works and increased passenger and goods traffic on the Trans-Australian and Federal Capital Territory lines.

(ii) *Classification and Percentages.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The subjoined table shows the gross revenue for 1921 to 1925 classified according to the three chief sources of receipts, together with their percentages on the total revenue. The respective totals of the three items are given in the preceding table.

RAILWAYS, FEDERAL.—RECEIPTS, VARIOUS SOURCES, 1921 TO 1925.

Year ended 30th June—	Railway.								Total.
	Trans-Australian.		Oodnadatta.		Federal Capital Territory.		Northern Territory.		
	Total.	Per Cent.	Total.	Per Cent.	Total.	Per Cent.	Total.	Per Cent.	
COACHING TRAFFIC RECEIPTS.									
1921	£	%	£	%	£	%	£	%	£
1921	128,053	62.34	18,589	16.58	20	1.61	2,700	22.11	150,282
1922	139,192	67.30	19,669	19.78	48	2.60	2,685	18.69	161,594
1923	138,304	66.20	17,927	16.48	47	1.63	397	2.51	156,675
1924	144,352	63.48	17,764	16.90	754	18.48	2,778	16.53	165,848
1925	157,178	61.24	18,732	16.99	2,228	31.70	3,367	9.57	181,500
GOODS AND LIVE STOCK RECEIPTS.									
1921	£	%	£	%	£	%	£	%	£
1921	39,750	19.21	90,802	81.01	1,210	97.58	4,859	39.78	136,621
1922	31,081	15.03	76,710	77.12	1,779	96.32	5,194	36.16	114,764
1923	31,005	14.84	87,552	80.49	2,819	97.78	7,163	45.23	128,539
1924	34,486	15.16	84,278	80.17	3,326	81.52	6,141	36.55	128,231
1925	53,313	20.77	88,544	80.31	4,801	68.30	19,359	55.03	166,017
MISCELLANEOUS RECEIPTS.									
1921	£	%	£	%	£	%	£	%	£
1921	38,168	18.45	2,700	2.41	10	0.81	4,655	38.11	45,533
1922	34,553	17.67	3,083	3.10	20	1.08	6,485	45.15	46,141
1923	39,616	18.96	3,291	3.03	17	0.59	8,275	52.26	51,199
1924	48,582	21.36	3,082	2.93	..	..	7,888	46.92	59,547
1925	46,161	17.99	2,980	2.70	..	..	12,454	35.40	61,595

The miscellaneous receipts for the year 1924-25 include an amount of £25,162, revenue from dining cars and refreshment services on the Trans-Australian Railway. A sum of £23,894 was received from this source during the previous year.

10. Working Expenses.—(i) *Total.* The following table shows the total working expenses, and the percentages on the corresponding gross revenues of each railway for each year from 1921 to 1925.

Details of the annual expenditure on (a) maintenance of ways, works and buildings, (b) locomotives, carriages and wagons repairs and renewals, (c) traffic expenses, and (d) compensation, general and miscellaneous charges, are given in (iii) following.

RAILWAYS, FEDERAL.—WORKING EXPENSES, TOTAL, ETC., 1921 TO 1925.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
TOTAL WORKING EXPENSES.					
	£	£	£	£	£
1921	298,209	172,552	655	27,551	498,967
1922	255,434	177,369	1,308	26,511	460,622
1923	250,280	178,181	1,588	30,984	461,033
1924	265,121	176,711	3,268	30,077	475,177
1925	294,163	158,009	4,882	40,016	497,070

PERCENTAGE OF WORKING EXPENSES ON REVENUE.					
	%	%	%	%	%
1921	144.15	153.94	52.82	225.57	150.10
1922	123.50	178.33	70.82	184.56	142.83
1923	119.79	163.81	55.08	195.67	137.04
1924	116.58	168.10	80.10	179.01	134.45
1925	114.61	143.31	69.45	113.75	121.50

While the working expenses in 1924-25 were lower than in 1920-21, the increases during the past few years are ascribed to increased salaries consequent on Arbitration Court awards and the increased cost of material generally.

(ii) *Averages.* The next table gives the working expenses per average mile worked and per train-mile run for each railway for the years 1921 to 1925:—

RAILWAYS, FEDERAL.—WORKING EXPENSES, AVERAGES, 1921 TO 1925.

Year ended 30th June—	Railway.				Total.
	Trans- Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	
WORKING EXPENSES PER AVERAGE MILE WORKED.					
	£	£	£	£	£
1921	284	361	133	139	288
1922	243	371	265	133	266
1923	238	373	322	156	266
1924	252	370	662	151	274
1925	280	331	988	204	287

WORKING EXPENSES PER TRAIN-MILE RUN.					
	d.	d.	d.	d.	d.
1921	151.54	129.30	148.59	382.87	147.67
1922	130.14	175.36	248.55	395.73	151.20
1923	133.60	141.04	357.85	357.11	142.83
1924	140.35	147.86	176.25	392.05	149.45
1925	149.43	133.64	195.31	187.29	146.64

(iii) *Classification and Percentages.* The subjoined table shows the distribution of working expenses among four chief heads of expenditure for the years 1921 to 1925, together with their percentages on the total working expenses which are given in 10 (i) hereinbefore :—

RAILWAYS, FEDERAL.—DISTRIBUTION OF WORKING EXPENSES, 1921 TO 1925.

Year ended 30th June—	Railway.								Total.	
	Trans-Australian.		Oodnadatta.		Federal Capital Territory.		Northern Territory.			
	Total.	Per Cent.	Total.	Per Cent.	Total.	Per Cent.	Total.	Per Cent.	Total.	Per Cent.

MAINTENANCE.

	£	%	£	%	£	%	£	%	£	%
1921 ..	99,559	33.38	57,920	33.57	254	38.78	13,236	48.04	170,969	34.27
1922 ..	75,941	29.73	78,780	44.42	736	56.27	14,683	55.38	170,140	36.94
1923 ..	72,822	29.10	83,014	46.59	810	51.01	16,350	52.77	172,996	37.52
1924 ..	77,892	29.38	71,087	40.23	711	21.76	13,858	46.08	163,548	34.42
1925 ..	83,809	28.49	57,411	36.33	906	18.56	14,470	36.16	156,596	31.50

LOCOMOTIVE, CARRIAGE, AND WAGON CHARGES.

1921 ..	128,680	43.15	94,381	54.70	340	51.91	9,269	33.64	232,670	46.63
1922 ..	112,317	43.97	79,640	44.90	503	38.84	4,848	18.29	197,313	42.84
1923 ..	110,652	44.21	73,476	41.24	721	45.40	7,523	24.30	192,377	41.73
1924 ..	115,107	43.42	84,029	47.55	1,900	58.14	8,179	27.19	209,215	44.03
1925 ..	134,924	45.87	77,809	49.24	2,756	56.45	13,303	33.24	228,792	46.03

TRAFFIC EXPENSES.

1921 ..	41,294	13.85	17,656	10.23	61	9.31	4,129	14.99	63,140	12.60
1922 ..	38,416	15.04	16,609	9.38	64	4.89	6,248	23.57	61,337	13.21
1923 ..	37,139	14.84	18,589	10.43	67	3.59	6,481	20.02	62,266	13.51
1924 ..	39,936	15.06	18,533	10.49	657	20.10	7,346	24.42	64,472	13.99
1925 ..	41,540	14.12	18,316	12.23	1,220	24.99	11,271	28.17	73,347	14.76

OTHER CHARGES.

1921 ..	28,676	9.62	2,595	1.50	..	..	917	3.33	32,188	6.45
1922 ..	28,760	11.26	2,340	1.32	..	..	732	2.76	31,832	6.91
1923 ..	29,667	11.85	3,102	1.74	..	..	625	2.01	33,394	7.24
1924 ..	32,186	12.14	3,062	1.73	..	..	694	2.31	35,942	7.56
1925 ..	33,890	11.52	3,473	2.20	..	..	972	2.43	38,335	7.71

11. *Passenger Journeys, and Tonnage of Goods and Live Stock.*—(i) *General.* In the next table particulars are given of the passenger journeys and tonnage of goods and live stock carried on the Federal railways during the years 1921 to 1925 :—

RAILWAYS, FEDERAL.—TRAFFIC, 1921 TO 1925.

Year ended 30th June—	Railway.				Total.
	Trans-Australian.	Oodnadatta.	Federal Capital Territory.	Northern Territory.	

PASSENGER JOURNEYS.

	No.	No.	No.	No.	No.
1921 ..	29,686	69,407	..	3,704	102,797
1922 ..	28,003	64,477	..	3,343	95,823
1923 ..	32,914	67,311	..	3,063	103,288
1924 ..	31,805	67,657	32,616	3,511	135,589
1925 ..	32,362	65,322	110,499	3,798	211,981

TONNAGE OF GOODS AND LIVE STOCK CARRIED.

	tons.	tons.	tons.	tons.	tons.
1921 ..	20,089	87,879	6,913	3,610	118,491
1922 ..	20,780	76,089	9,817	2,251	108,937
1923 ..	33,252	72,392	14,702	2,954	123,300
1924 ..	32,858	69,179	18,504	3,167	123,708
1925 ..	42,225	63,622	25,405	15,259	146,511

(ii) *Passenger Mileage Summary.* The appended table gives particulars of "Passenger-Mileage" on each of the Federal railways for the year 1924-25 :—

RAILWAYS, FEDERAL.—PASSENGER-MILES SUMMARY, 1924-25.

Railway.	Passenger Train Mileage.	Number of Passenger Journeys.	Total "Passenger-Miles."	Amount Received from Passengers.	Average Number of Passengers carried per Train Mile.	Average Mileage per Passenger Journey.	Average Earnings per "Passenger-Mile."	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked.
			,000 omitted.	£		Miles.	d.	£ s. d.	
Trans-Australian ..	367,419	32,362	26,845	126,831	173	830	1.13	3 18 5	25,531
Oodnadatta ..	51,059	65,322	2,583	14,454	51	40	1.34	0 4 5	5,404
Federal Capital Territory ..	1,955	110,499	409	1,995	209	4	1.17	0 0 4	82,916
Northern Territory ..	10,902	3,798	361	2,993	33	95	1.99	0 15 9	1,817

(iii) *Ton-Mileage Summary.* Particulars of ton-mileage are shown hereunder in respect of each of the Federal railways for the year 1924-25 :—

RAILWAYS, FEDERAL.—"TON-MILEAGE" SUMMARY, 1924-25.

Railway.	Goods Train Mileage.	Total Tons Carried.	Total "Ton-Miles."	Goods Earnings.	Average Freight-paying Load per Train Mile.	Average Haul per ton.	Earnings per "Ton-Mile."	Density of Traffic per Average Mile Worked.
			,000 omitted.	£	Tons.	Miles.	d.	
Trans-Australian ..	105,040	42,225	10,132	53,313	96	240	1.26	9,638
Oodnadatta ..	232,703	63,622	9,453	88,544	41	149	2.25	19,777
Federal Capital Territory ..	4,044	25,405	127	4,801	41	5	9.10	25,648
Northern Territory	40,377	15,259	1,516	19,359	38	99	3.06	7,632

12. *Passenger Fares, Goods Rates, and Parcel Rates.*—In previous issues of the Year Book particulars were included of Passenger Fares, Goods Rates (Ordinary Goods and Agricultural Produce), and Parcels Rates, but it is not proposed to republish this information unless the rates previously prescribed are substantially amended.

13. *Rolling Stock, 1925.*—The following table shows the numbers of locomotives and rolling stock in use on the Federal railways, classified according to gauge :—

RAILWAYS, FEDERAL.—LOCOMOTIVES AND ROLLING STOCK, 1925.

Railway.	Gauge.		Total.	Gauge.		Total.	Gauge.		Total.
	4 ft. 8½ in.	3 ft. 6 in.		4 ft. 8½ in.	3 ft. 6 in.		4 ft. 8½ in.	3 ft. 6 in.	
	LOCOMOTIVES.			COACHING STOCK.			STOCK OTHER THAN COACHING.		
Trans-Australian Northern Territory ..	68	1	69	49	..	49	735	..	735
	..	13	13	..	12	12	..	282	282
Total ..	68	14	82	49	12	61	735	282	1,017

The Oodnadatta and Federal Capital Territory Railways are worked by the South Australian and New South Wales Government Railways Departments respectively, which use their own rolling stock. During the year 31 vehicles (other than coaching), of 3 ft. 6 in

gauge, were transferred from the Trans-Australian Line to the Oodnadatta Line in anticipation of the Commonwealth Railways Commissioner assuming the responsibility for the operation of the latter line as from 1st January, 1926.

14. **Employees.**—The following table shows the number of employees on the Federal railways at 30th June in each year from 1921 to 1925 inclusive, classified according to salaried and wages staffs :—

RAILWAYS, FEDERAL.—EMPLOYEES, 1921 TO 1925.

Railway.	30th June—									
	1921.		1922.		1923.		1924.		1925.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
Trans-Australian	No. 172	No. 961	No. 161	No. 802	No. 157	No. 852	No. 162	No. 761	No. 173	No. 906
Oodnadatta (a) ..	..	..	..	..	..	..	..	..	..	..
Federal Capital Territory (b) ..	.. 7	.. 60	.. 8	.. 54	.. 9	.. 71	.. 14	.. 107	.. 17	.. 147
Northern Territory										
Total ..	179	1,021	169	856	166	923	176	868	190	1,053

(a) Worked by South Australian Government Railways.

(b) Worked by New South Wales Government Railways.

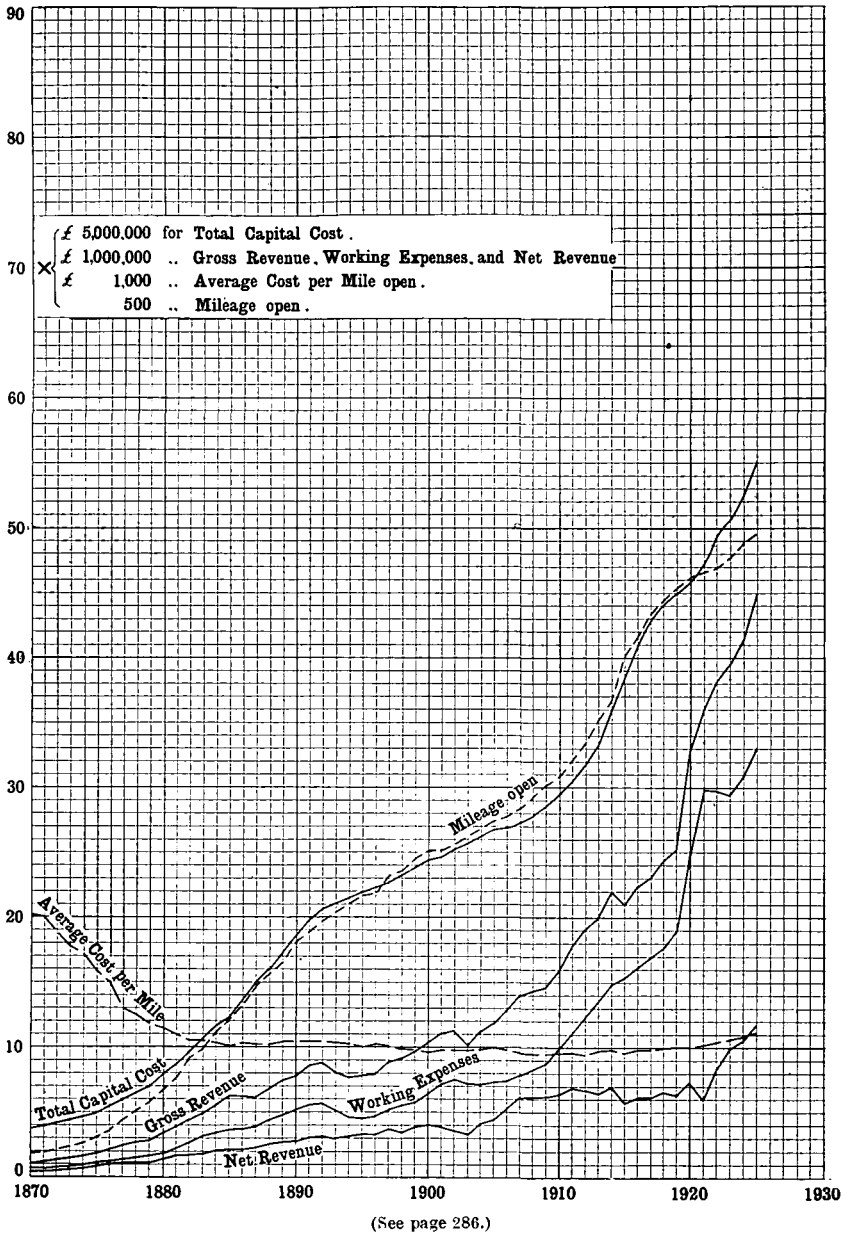
Of the 173 salaried staff employed on the Trans-Australian Railway, 43 were engaged in the Construction Branch, and 56 of the wages staff of the Northern Territory Railway were similarly employed at the 30th June, 1925.

15. **Accidents.**—(i) *Classification.* The table hereunder furnishes a classification of accidents on the Federal railways during the year 1924-25 :—

RAILWAYS, FEDERAL.—ACCIDENTS, 1924-25.

Classification.	Trans-Australian.		Oodnadatta.		Federal Capital Territory.		Northern Territory.		All Railways.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Train Accidents—										
Passengers
Employees	2	2	..	..	..	3	2	5
Accidents on line (other than train accidents)—										
Passengers	1	..	..	..	..	..	..	..	1
Employees	3	..	1	..	..	..	1	..	5
Other Persons
Shunting Accidents—										
Passengers
Employees	2	..	..	..	..	..	..	..	2
Other Persons
Employees proceeding to or from duty within the Railway boundary
Persons killed or injured at crossings
Trespassers
Miscellaneous
Total	6	2	3	..	..	..	4	2	13

FINANCIAL POSITION OF THE GOVERNMENT RAILWAYS OF AUSTRALIA, 1870 TO 1925.

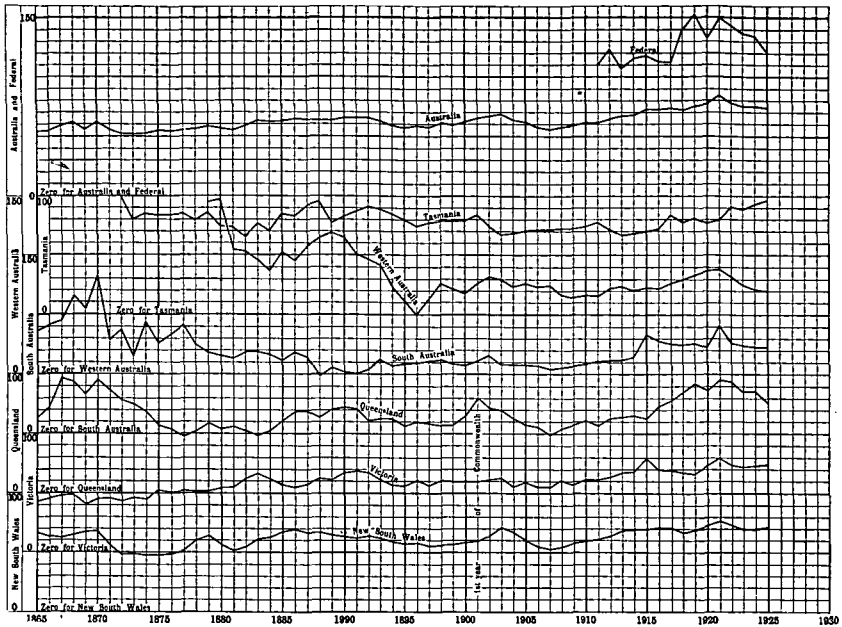


EXPLANATION.—The base of each small square represents throughout one year. The significance of the vertical height of each square varies according to the nature of the several curves.

In the curve for the total capital cost, the vertical side of each square represents £5,000,000.

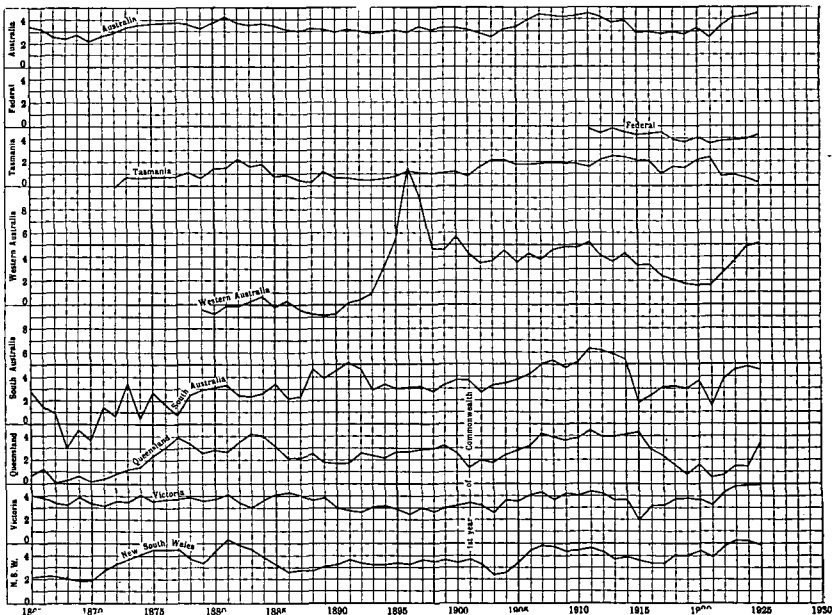
In the curves for (i) gross revenue, (ii) working expenses, and (iii) net revenue, the vertical side of each small square represents £1,000,000. For the curve of average cost per mile open, the vertical side of each small square represents £1,000. The mileage open is shown by a dotted curve, the vertical side of each small square representing 500 miles.

PERCENTAGES OF WORKING EXPENSES ON GROSS REVENUE OF GOVERNMENT
RAILWAYS, 1865 TO 1925.



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, two exceptions, the zero lines for South Australia and Western Australia being identical, as is also the case with the zero line for Australia and Federal.

PERCENTAGES OF NET REVENUE ON CAPITAL COST OF GOVERNMENT
RAILWAYS, 1865 TO 1925.



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, but the zero line for Federal is the same as that for Australia.

Where the curve for any State falls below that State's zero line, loss is indicated, the working expenses having exceeded the gross revenue.

(ii) *Particulars for Quinquennium 1921-25.* The following table shows the number of accidents in each of the years 1921 to 1925 :—

RAILWAYS, FEDERAL.—ACCIDENTS, 1921 TO 1925.

Railway.	Number of Persons.									
	Killed.					Injured.				
	1921.	1922.	1923.	1924.	1925.	1921.	1922.	1923.	1924.	1925.
Trans-Australian	..	..	1	1	..	3	8	14	9	6
Oodnadatta	..	..	..	..	2	6	8	7	7	3
Federal Capital Territory	..	..	..	..	..	..	..	..	..	..
Northern Territory	3	..	..	1	..	1	1	1	1	4
Total	3	..	1	2	2	10	17	22	17	13

§ 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, 1921 TO 1925.*—(i) *General.* The following table shows the length of State railways open for traffic on the 30th June in the years 1921 to 1925 :—

RAILWAYS, STATE.—MILEAGE OPEN FOR TRAFFIC, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1921	5,043	4,267	5,752	2,333	3,538	630	21,563
1922	5,116	4,317	5,799	2,357	3,538	637	21,764
1923	5,318	4,333	5,906	2,373	3,555	663	22,148
1924	5,523	4,434	6,040	2,452	3,629	673	22,751
1925	5,656	4,483	6,114	2,452	3,733	673	23,111

A graph indicating the mileage open in Australia at the end of each of the years 1870 to 1925 accompanies this chapter.

The appended statement shows the actual mileage opened for traffic in the year 1925, and also the annual average increase in mileage opened since 1915 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 1924-25	132.95	48.94	74.46	..	103.83	..	360.18
Average annual mileage increase for 10 years to 30th June, 1925 ..	152.18	60.86	127.64	29.47	40.07	13.99	424.21

(ii) *New South Wales.* During the year ended 30th June, 1925, the following extensions and new lines were opened for traffic :—Glenreagh to Dorrigo (43.21 miles); Castle Hill to Rogan's Hill (0.84 miles); Molong-Yeoval-Dubbo (79.95 miles); Regent's Park to Cabramatta (5.18 miles); and Regent's Park to Enfield Marshalling Yards (3.23 miles). Readjustments of actual mileage open increased the mileage by 0.54 miles making a total increase for the year of 132.95 miles.

(iii) *Victoria*. The following lines were opened for traffic during 1924-25 :—Kerang to Gonn Crossing (16.11 miles); Hopetoun to Patchewollock (26.96 miles); and Merbein to Abbotsford (Yelta) (5.87 miles).

(iv) *Queensland*. Through communication between Brisbane and Southern stations and the Cairns Railway has been established by the completion and opening for traffic of the sections from Lilypond to Feluga (59.14 miles) and Innisfail to Daradgee (3.07 miles). Another line opened to traffic during the year was from Barilil to Windera (12.25 miles), making a total increase of 74.46 miles for the year.

(v) *South Australia*. No new lines were opened to traffic during the year.

(vi) *Western Australia*. The following extensions were opened for traffic during the year :—Busselton-Witchcliffe-Flinders Bay (66.85 miles) and Narembeen to Merredin (53.59 miles). The line from Waroona to Lake Clifton (16.61 miles) was pulled up, making the total increase for the year 103.84 miles.

(vii) *Tasmania*. No new extensions were opened during the year.

3. Length and Gauge of Railway Systems in each State.—In all the States the Government railways are grouped, for the convenience of administration and management, into several divisions or systems. A summary showing concisely the gauge and length of the main and branch lines included in each division or system in the different States for the year ended 30th June, 1925, is given in the Transport and Communication Bulletin No. 17 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 1921 to 1925 inclusive :—

RAILWAYS, STATE.—MILEAGE WORKED AND MILES RUN, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
AVERAGE MILEAGE WORKED.							
1921 ..	5,019	4,237	5,733	2,333	3,538	637	21,497
1922 ..	5,077	4,279	5,784	2,344	3,538	635	21,657
1923 ..	5,197	4,314	5,868	2,359	3,552	663	21,953
1924 ..	5,460	4,369	5,960	2,416	3,593	668	22,466
1925 ..	5,571	4,448	6,078	2,452	3,669	673	22,891

TRAIN-MILES RUN.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
1921 ..	22,792,053	15,533,556	10,735,723	5,712,491	4,918,113	1,387,417	61,079,353
1922 ..	21,857,065	15,859,815	9,634,532	5,629,957	4,564,631	1,433,099	59,006,099
1923 ..	21,693,861	16,394,239	10,917,584	5,792,798	4,505,299	1,434,816	60,738,597
1924 ..	23,755,897	17,244,507	11,647,077	6,791,620	4,839,285	1,416,216	65,694,602
1925 ..	25,925,034	18,275,872	12,959,332	7,344,826	5,068,737	1,380,405	70,954,206

In some years the average mileage worked in Tasmania is greater than the mileage open, owing to the Railway Department having running powers over certain private lines. The particulars of train-miles run given in the foregoing table are not strictly comparable over the quinquennium owing to the fact that "assistant" and "light mileage" were not generally included prior to 1923-24.

5. Lines under Construction, and Lines Authorized, 1925.—(i) *General*. The following statement gives particulars up to the 30th June, 1925, 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, 1925.**

Particulars.	N.S.W.	Vic. (a)	Q'land.	S.A.	W.A.	Tas.	All States.
Mileage under construction	237.34	180.25	6506.00	50.18	133.50	..	1,107.27
Mileage authorized but not commenced ..	319.14	155.25	1,219.00	53.05	264.00	..	2,010.44

(a) See sub-section (b) below.

(b) Exclusive of 190 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 State 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.* The total mileage under construction was 237.34 miles, consisting of the following lines:—Sydenham to Botany (5.20 miles); The Rock to Pulletop (26.12 miles); Roslyn to Taralga (15.83 miles); Richmond to Kurrajong (7.00 miles); Trida to Menindie (159.31 miles); Booyong to Ballina (12.79 miles); and the City and Suburban Railway (11.09 miles).

(b) *Victoria.* In this State 22.25 miles of 5 ft. 3 in. gauge lines are being constructed, viz.:—Kooloonong to West Narrung (7 miles) and Werrimul to The Hut (15.25 miles). The Border Railways Act 1922 (Vic. 3194) provides for the construction of 158 miles in New South Wales Territory, viz.:—Moama to Balranald (120 miles) and Gonn Crossing to Stony Crossing (38 miles). 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, 1925, the following lines, of an aggregate length of 506 miles, were under construction:—Central Division—Many Peaks to Monto (45 miles); Callide to Monto (78 miles); Baralaba to Castle Creek (59 miles); and Longreach to Winton (110 miles); Southern Division—Ceratodus to Monto (34 miles); and Tara towards Surat (50 miles). The following lines are partially constructed, but work thereon is temporarily suspended:—Wallaville to Kalliwa (18 miles); Yaraka to Powell's Creek (27 miles); Dajarra to Moonah Creek (41 miles); Mt. Molloy Extension (7 miles); and Winton to 37-Mile (37 miles); a total of 130 miles.

(d) *South Australia.* The construction of the following lines was in progress at 30th June, 1925:—Snowtown to Red Hill (16.38 miles); Wanbi to Moorook (31.30 miles); and Paringa to Renmark (2.50 miles); making a total of 50.18 miles, all of which are of 5 ft. 3 in. gauge.

(e) *Western Australia.* The following lines were in course of construction by the Public Works Department on the 30th June, 1925:—Esperance to Salmon Gums (66.50 miles); Piawing northward (23 miles); Bridgetown to Jarnadup (5 miles); and Lake Grace to Newdegate (39 miles); a total of 133.50 miles.

(f) *Tasmania.* At 30th June, 1925, no railway construction work was in progress.

(iii) *Lines Authorized for Construction.* (a) *New South Wales.* At the 30th June, 1925, the following lines had been authorized for construction but not commenced:—Gilgandra to Collie (21.51 miles); Grafton to South Grafton, with bridge over Clarence

River (2.34 miles); Bankstown to Regent's Park (2.35 miles); Camurra to Boggabilla (70 miles); Ungarie to Naradhun (37 miles); Uranquinty towards Moon's Siding (28.44 miles); Wyalong to Condobolin (33 miles); Moss Vale to Port Kembla (38.08 miles); Jerilderie towards Deniliquin (25.00 miles); Rand to Bull's Plains (27.55 miles); Canowindra to Gregra (33.87 miles); a total distance of 319.14 miles.

(b) *Victoria*. The following lines were authorized, but construction had not been commenced up to the end of June, 1925 :—5 ft. 3 in. gauge : Goroke to Morea (9 miles); Kanagulk to Edenhope (37.75 miles); Mildura to Murray River (4 miles); Bowser to Peechelba (11 miles); and Marnoo to Wallaloo (6.50 miles). Under the Border Railways Act 1922, the following lines have been approved for construction in New South Wales territory :—Yarrowonga (Victoria) to Oatlands (New South Wales) (37 miles); Euston (New South Wales) to Benanee and beyond (New South Wales) (30 miles); and Gol Gol Extension (20 miles); an aggregate distance of 155.25 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—Inglewood to Texas and Silverspur (44 miles); Mount Edwards to Maryvale (28 miles); Lanefield to Rosevale (17 miles); Gatton to Mount Sylvia (11 miles); Juandah to Taroom (42 miles); Dirranbandi extension (52 miles); Yarraman to Nanango (16 miles); Brooloo to Kenilworth (10 miles); Dobbyn to Myally Creek (50 miles); Pearamon towards Boongee (11 miles); and Duchess to Mt. Isa (54 miles); a total of 1,219 miles.

(d) *South Australia*. Parliament has authorized the construction of lines on the 5 ft. 3 in. gauge from Bumbunga to Lochiel (5 miles); on the 3 ft. 6 in. gauge from Kielpa to Mangalo Hall (21.20 miles); Kimba to Buckleboo (21.85 miles); and from Kowulka to Sec. 2, Hundred of Kevin (5 miles). The conversion of certain 3 ft. 6 in. gauge lines in the north-west of the State to 5 ft. 3 in. gauge has also been authorized. About 175 miles of line are involved in this scheme.

(e) *Western Australia*. The following lines were authorized for construction up to the 30th June, 1925 :—Bridgetown—Jarnadup (Part) (22 miles); Albury to Denmark (35 miles); Yarramony eastwards (85 miles); Brookton to Dale River (27 miles); Dwarda to Narrogin (36 miles); and Norseman to Salmon Gums (59 miles); a total distance of 264 miles.

(f) *Tasmania*. There were no new railways authorized on which work had not been commenced at 30th June, 1925.

6. **Cost of Construction and Equipment.**—(i) *General*. The total cost of construction and equipment of the State railways at the 30th June, 1925, amounted to £264,346,874, or to an average cost of £11,435 per mile open for traffic. 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, 1925.

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) ..	5,655.75	98,060,216	17,338	43.16	2.49
Victoria	4,483.62	(b) 67,136,069	(b) 14,974	40.18	2.68
Queensland	6,114.42	49,453,595	8,088	57.83	7.15
South Australia (a) ..	2,451.70	(c) 23,637,283	(c) 9,641	43.52	4.51
Western Australia (a) ..	3,732.66	19,643,517	5,263	53.37	10.14
Tasmania	672.90	6,416,194	9,535	30.28	3.18
All States	23,111.05	264,346,874	11,435	44.65	39.03

(a) Exclusive of Federal railways.

(b) Exclusive of cost of line from Murrayville to South Australian border (12.53 miles).

(c) Exclusive of cost of line from Mount Gambier to Victorian border (11.67 miles).

The lowest average cost (£5,263) per mile open is in Western Australia, and the highest (£17,338) in New South Wales, as compared with an average of £11,435 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 goldfield contracts.

In the table above the figures relating to cost of construction and equipment do not include the discounts and flotation charges on loans allocated to the railways. This will explain the reason for the differences between the amounts shown therein for Queensland, South Australia, and Western Australia, and those shown in the Railway Reports for these States.

(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 1921 to 1925 is shown in the following table:—

RAILWAYS, STATE.—CAPITAL COST OF LINES OPEN, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria. (a)	Q'land.	S. Aust. (b)	W. Aust.	Tasmania.	All States.
TOTAL COST OF LINES OPEN.							
1921 ..	£ 80,756,194	£ 59,798,696	£ 41,368,640	£ 19,270,704	£ 18,169,980	£ 5,383,192	(a, b) £ 224,747,406
1922 ..	83,789,871	62,941,364	42,519,012	19,742,821	18,330,557	5,753,381	(a, b) 233,077,006
1923 ..	87,713,871	64,615,435	44,823,991	20,234,003	18,555,115	6,199,725	(a, b) 242,142,140
1924 ..	91,792,167	65,880,792	47,367,439	21,410,602	18,967,443	6,374,784	(a, b) 251,793,227
1925 ..	98,060,216	67,136,069	49,453,595	23,637,283	19,643,517	6,416,194	(a, b) 264,346,874

COST PER MILE OPEN.

1921 ..	16,014	14,016	7,192	8,259	5,135	8,547	(a, b) 10,495
1922 ..	16,378	14,560	7,332	8,376	5,181	9,035	(a, b) 10,707
1923 ..	16,494	14,883	7,590	8,527	5,219	9,346	(a, b) 10,933
1924 ..	16,621	14,856	7,842	8,733	5,227	9,474	(a, b) 11,087
1925 ..	17,338	14,974	8,088	9,641	5,263	9,535	(a, b) 11,435

(a) Exclusive of cost of line from Murrayville to South Australian border (12.53 miles).

(b) Exclusive of cost of line from Mount Gambier to Victorian border (11.67 miles).

(b) *From Consolidated Revenue.* The following table shows the amounts provided from Consolidated Revenue for construction and equipment to 30th June, 1925:—

RAILWAYS, STATE.—EXPENDITURE FROM CONSOLIDATED REVENUE FOR CONSTRUCTION AND EQUIPMENT TO 30th JUNE, 1925.

To 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
1925 ..	£ 659,930	£ 4,028,663	£ ..	£ 621,421	£ 798,050	£ 16,935	£ 6,124,999

(iii) *Loan Expenditure.* The subjoined table shows the total loan expenditure on Government railways (including lines both open and unopen) in each State, except Tasmania, and on Government railways and tramways in the latter State for the years 1921 to 1925:—

RAILWAYS, STATE.—LOAN EXPENDITURE, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas. (a)	All States.
	£	£	£	£	£	£	£
1921 ..	3,598,351	1,685,329	1,760,932	252,097	145,724	254,079	7,696,512
1922 ..	4,399,725	3,478,021	1,226,280	572,482	323,296	490,990	10,490,794
1923 ..	4,177,273	1,674,643	2,134,162	659,120	519,557	254,120	9,418,875
1924 ..	2,914,722	1,395,282	2,318,205	779,441	561,988	250,514	8,220,152
1925 ..	4,246,963	1,379,182	1,741,805	2,151,329	534,103	23,638	10,077,020

(a) Including tramways.

The following statement shows the total loan expenditure on railways to the 30th June, 1925 :—

RAILWAYS, STATE.—TOTAL LOAN EXPENDITURE TO 30th JUNE, 1925.

State ...	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.a	All States.
	£	£	£	£	£	£	£
Expenditure	103,223,693	66,250,088	52,048,907	25,575,984	19,525,665	6,875,327	273,499,664

(a) Including tramways.

7. Gross Revenue.—(i) *General.* The total revenue from all sources, the revenue per average mile worked, and the revenue per train-mile run during each financial year from 1921 to 1925 inclusive were as follows :—

RAILWAYS, STATE.—GROSS REVENUE, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
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TOTAL GROSS REVENUE.

	£	£	£	£	£	£	£
1921 ..	14,267,205	9,795,763	5,279,412	2,942,028	2,720,032	600,045	35,604,485
1922 ..	15,213,019	10,791,082	5,154,530	3,297,347	2,827,856	588,297	37,872,131
1923 ..	15,221,333	11,347,057	5,420,400	3,710,922	2,915,985	572,417	39,188,114
1924 ..	15,616,577	11,958,635	5,714,036	3,929,423	3,227,371	585,468	41,031,515
1925 ..	16,769,452	12,759,197	7,109,210	4,012,736	3,359,501	548,256	44,558,352

GROSS REVENUE PER AVERAGE MILE WORKED.

	£	£	£	£	£	£	£
1921 ..	2,843	2,312	921	1,261	768	942	1,656
1922 ..	2,996	2,522	891	1,406	799	927	1,749
1923 ..	2,929	2,630	924	1,573	821	863	1,785
1924 ..	2,860	2,737	959	1,927	898	877	1,826
1925 ..	3,010	2,869	1,170	1,637	916	815	1,947

GROSS REVENUE PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1921 ..	150.23	151.35	118.02	123.60	132.74	103.79	139.90
1922 ..	166.82	163.33	128.40	140.56	148.68	98.51	150.04
1923 ..	168.39	166.11	119.15	153.74	155.34	95.74	154.85
1924 ..	173.65	172.95	125.94	152.43	167.09	101.35	160.71
1925 ..	172.70	175.16	140.92	144.75	166.47	96.82	162.64

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

(ii) *Coaching, Goods, and Miscellaneous Receipts.* (a) *Totals.* The gross revenue is composed of (a) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains; (b) receipts from the carriage of goods and live stock; and (c) rents and miscellaneous items. The subjoined table shows the gross revenue for 1921 to 1925, 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, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
COACHING TRAFFIC RECEIPTS.							
1921 ..	£ 6,384,031	£ 4,897,258	£ 1,885,677	£ 1,185,878	£ 911,007	£ 270,635	£ 15,534,486
1922 ..	6,636,530	5,376,620	1,898,050	1,240,354	973,153	263,340	16,388,047
1923 ..	6,694,353	5,664,738	2,008,282	1,270,590	972,318	262,373	16,872,654
1924 ..	6,797,888	5,914,559	2,092,693	1,286,298	996,776	253,386	17,341,600
1925 ..	6,942,093	5,981,437	2,482,026	1,317,102	971,323	221,668	17,915,649

GOODS AND LIVE STOCK TRAFFIC RECEIPTS.

1921 ..	7,270,856	4,411,276	3,267,289	1,719,556	1,637,979	320,798	18,627,754
1922 ..	7,953,909	4,815,056	3,105,485	2,000,716	1,688,482	312,890	19,876,538
1923 ..	7,868,769	4,953,192	3,290,471	2,378,034	1,768,211	294,831	20,553,508
1924 ..	8,096,274	5,204,526	3,487,987	2,558,706	2,050,707	318,668	21,716,868
1925 ..	9,010,929	5,775,522	4,477,985	2,607,628	2,198,322	312,706	24,383,092

MISCELLANEOUS RECEIPTS.

1921 ..	612,318	487,229	126,446	36,594	171,046	8,612	1,442,245
1922 ..	622,580	599,406	150,995	56,277	166,221	12,067	1,607,546
1923 ..	658,211	729,127	121,647	62,298	175,456	15,213	1,761,952
1924 ..	722,415	839,550	133,356	84,424	179,888	13,414	1,973,047
1925 ..	816,430	1,002,238	149,199	88,006	189,856	13,882	2,259,611

(b) *Percentages.* The following table shows for the two years 1923–24 and 1924–25 the percentage which each class of receipts bears to the total gross revenue :—

RAILWAYS, STATE.—PERCENTAGES OF RECEIPTS, 1924 AND 1925.

State.	1924.			1925.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
	%	%	%	%	%	%
New South Wales ..	43.53	51.84	4.63	41.40	53.73	4.87
Victoria ..	49.46	43.52	7.02	46.88	45.26	7.86
Queensland ..	36.62	61.04	2.34	34.91	62.99	2.10
South Australia ..	32.73	65.12	2.15	32.82	64.98	2.20
Western Australia ..	30.89	63.54	5.57	28.91	65.44	5.65
Tasmania ..	43.28	54.43	2.29	40.43	57.04	2.53
All States ..	42.23	52.93	4.81	40.21	54.72	5.07

(c) *Averages for Coaching Traffic Receipts.* The subjoined table shows the receipts from coaching traffic per average mile of line worked and per passenger-train-mile in each State for the year ended the 30th June, 1925 :—

RAILWAYS, STATE.—COACHING TRAFFIC RECEIPTS, AVERAGES, 1925.

State.	Number of Passenger-Train-Miles.	Coaching Traffic Receipts.		
		Gross.	Per Average Mile Worked.	Per Passenger-Train-Mile.
	No.	£	£	d.
New South Wales	12,615,832	6,942,093	1,246	132.06
Victoria	11,602,200	5,981,437	1,345	123.73
Queensland	4,295,003	2,482,026	408	138.69
South Australia	3,460,462	1,317,102	537	91.35
Western Australia	2,015,692	971,323	265	115.65
Tasmania	654,135	221,668	329	81.32
All States	34,643,324	17,915,649	783	124.11

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

(d) *Averages for Goods and Live Stock Traffic.* The gross receipts from goods and live stock traffic per average mile worked, per goods-train-mile, and per ton carried, for the year ended the 30th June, 1925, are given below :—

RAILWAYS, STATE.—GOODS AND LIVE-STOCK TRAFFIC RECEIPTS, AVERAGES, 1925.

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	10,689,084	616,026,532	9,010,929	1,617	202.32	134.94
Victoria	5,879,806	8,959,556	5,775,522	1,298	235.74	154.71
Queensland	7,812,992	5,083,658	4,477,985	737	137.56	211.41
South Australia	3,192,786	3,611,313	2,607,628	1,064	196.01	173.30
Western Australia	2,053,045	3,284,915	2,198,322	599	172.81	160.61
Tasmania	226,270	690,561	312,706	465	103.33	108.68
All States	31,353,983	37,656,535	24,383,092	1,065	186.64	155.40

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

(b) Excludes 181,944 tons of coal on which wayleave charges only were collected.

8. *Working Expenses.*—(i) *General.* In order to make an adequate comparison of the working expenses, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the railways of the different States, but also on different portions of the same system. Where traffic is light, the percentage of working expenses is naturally greater than where 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 1921 to 1925 :—

RAILWAYS, STATE.—WORKING EXPENSES, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
TOTAL WORKING EXPENSES.							
	£	£	£	£	£	£	£
1921	11,032,677	7,835,756	5,048,498	2,655,465	2,422,004	476,187	29,470,587
1922	11,116,302	8,026,665	4,810,362	2,537,110	2,328,843	538,066	29,357,348
1923	10,649,974	8,181,926	4,714,262	2,781,547	2,210,348	514,350	29,052,407
1924	10,817,491	8,718,394	4,990,749	2,901,298	2,297,280	552,877	30,378,779
1925	11,939,686	9,429,728	5,425,167	2,935,755	2,355,087	581,590	32,617,013

PERCENTAGE OF WORKING EXPENSES ON GROSS REVENUE.

	%	%	%	%	%	%	%
1921	77.33	79.93	95.63	90.26	89.04	79.35	82.77
1922	77.07	74.38	93.32	76.04	82.35	91.46	77.52
1923	69.97	72.11	86.97	74.06	75.80	89.86	74.14
1924	69.91	72.90	87.34	73.84	71.20	94.43	74.03
1925	71.20	73.90	76.31	73.16	70.10	96.96	73.20

The variation in the percentage of working expenses on the gross revenue in each State for the years 1865 to 1925 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 1921 to 1925 :—

RAILWAYS, STATE.—WORKING EXPENSES, AVERAGES, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
WORKING EXPENSES PER AVERAGE MILE WORKED.							
	£	£	£	£	£	£	£
1921	2,198	1,849	881	1,138	684	748	1,371
1922	2,189	1,876	832	1,082	658	848	1,356
1923	2,049	1,896	803	1,179	622	775	1,323
1924	1,999	1,995	837	1,201	640	828	1,352
1925	2,143	2,120	893	1,197	642	799	1,425

WORKING EXPENSES PER TRAIN-MILE RUN.

	d.	d.	d.	d.	d.	d.	d.
1921	116.17	118.21	112.86	111.56	118.19	82.37	115.10
1922	121.89	121.49	119.83	108.15	122.45	90.11	119.41
1923	117.82	119.78	103.63	115.24	117.75	86.03	114.79
1924	121.40	126.08	110.00	112.55	118.97	95.71	118.99
1925	122.96	129.45	107.54	105.90	116.70	93.87	119.05

The working expenses per average mile worked for all States for the year 1925 increased by £73 over the year 1924, but at the same time it must be taken into consideration that the gross revenue shows a still greater increase, viz., £121. The working expenses per train-mile run increased during the same period by 10.06d., while the gross revenue rose by 21.93d.

(iii) *Distribution.* The subjoined table shows the distribution of working expenses, under four chief heads of expenditure, for the years 1921 to 1925 :—

RAILWAYS, STATE.—DISTRIBUTION OF WORKING EXPENSES, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
MAINTENANCE.							
	£	£	£	£	£	£	£
1921	1,808,531	1,576,857	1,153,095	526,120	561,845	122,349	5,748,797
1922	1,940,794	1,703,539	1,162,367	400,541	557,091	152,168	5,921,500
1923	1,891,233	1,761,951	1,103,893	414,395	513,790	144,973	5,830,235
1924	1,865,096	1,861,887	1,197,992	545,987	543,387	151,186	6,165,535
1925	2,176,435	1,963,960	1,280,190	501,800	527,493	144,612	6,594,490
LOCOMOTIVE, CARRIAGE, AND WAGON CHARGES.							
1921	5,466,880	3,541,967	2,374,560	1,414,866	1,095,300	229,154	14,122,727
1922	5,474,485	3,426,370	2,165,438	1,417,305	1,074,460	239,158	13,797,216
1923	5,247,980	3,482,711	2,120,267	1,579,432	1,042,751	228,308	13,701,449
1924	5,360,663	3,219,267	2,214,001	1,548,799	1,092,580	234,562	13,669,872
1925	5,772,631	3,501,911	2,459,370	1,560,923	1,124,157	223,302	14,642,294
TRAFFIC EXPENSES.							
1921	3,027,041	2,246,443	1,428,008	651,579	688,077	109,521	8,150,669
1922	2,993,601	2,395,694	1,387,425	660,202	621,058	125,038	8,183,018
1923	2,806,970	2,399,867	1,400,869	722,641	592,445	117,607	8,040,399
1924	2,939,236	3,081,776	1,487,334	738,845	599,678	122,395	8,969,264
1925	3,121,001	3,228,961	1,593,347	792,762	639,193	122,374	9,497,638
OTHER CHARGES.							
1921	730,225	470,489	92,835	62,900	76,782	15,163	1,443,394
1922	707,422	496,062	95,132	59,062	76,234	21,702	1,455,614
1923	703,791	537,397	89,233	65,079	61,362	23,462	1,480,324
1924	752,496	555,464	91,422	67,667	62,335	42,042	1,571,426
1925	869,619	734,896	92,260	80,270	64,244	41,802	1,882,591

In New South Wales and Victoria the expenditure in connexion with refreshment rooms is included in "Other Charges."

9. *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 1921 to 1925:—

RAILWAYS, STATE.—NET REVENUE AND PERCENTAGE THEREOF ON CAPITAL COST OF LINES OPEN, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
NET REVENUE.							
	£	£	£	£	£	£	£
1921	3,234,528	1,960,007	230,914	286,563	298,028	123,858	6,133,896
1922	4,096,717	2,764,417	344,168	760,237	499,013	50,231	8,514,783
1923	4,571,359	3,165,131	706,138	929,375	705,637	58,067	10,135,707
1924	4,699,086	3,240,241	723,287	1,028,130	929,391	35,283	10,655,418
1925	4,829,766	3,329,469	1,684,043	1,076,981	1,004,414	16,666	11,941,339
PERCENTAGE OF NET REVENUE ON CAPITAL EXPENDITURE.							
	%	%	%	%	%	%	%
1921	3.93	2.27	0.56	1.48	1.64	2.30	2.72
1922	4.89	4.39	0.81	3.85	2.72	0.87	3.65
1923	5.21	4.90	1.53	4.59	3.80	0.94	4.19
1924	5.12	4.92	1.53	4.80	4.90	0.51	4.23
1925	4.93	4.96	3.41	4.56	5.11	0.26	4.51

These figures are also represented in the graphs which accompany this chapter.

The percentage of net revenue on capital expenditure for all States during the past five years reached its maximum during the year 1924–25, with a return of 4.51. This was, however, insufficient to meet interest charges, for which particulars are included in the following sub-section.

(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, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
NET REVENUE PER AVERAGE MILE WORKED.							
	£	£	£	£	£	£	£
1921	645	463	40	123	84	194	286
1922	807	646	59	324	141	79	393
1923	880	734	121	394	199	88	462
1924	861	742	122	426	258	49	474
1925	867	749	277	439	273	25	522
NET REVENUE PER TRAIN-MILE RUN.							
	d.	d.	d.	d.	d.	d.	d.
1921	34.06	29.56	5.16	12.04	14.55	21.42	23.95
1922	44.93	41.84	8.57	32.41	26.23	8.41	30.63
1923	50.57	46.33	15.52	38.50	37.59	9.71	40.05
1924	52.25	46.87	15.94	39.88	48.12	5.64	41.72
1925	49.74	45.71	33.38	38.85	49.77	2.95	43.58

10. Profit or Loss.—The following table shows the amount of interest payable on expenditure from loans on the construction and equipment of the railways, the actual profit or loss after deducting working expenses and interest and all other charges from the gross revenue, and the percentage of such profit or loss on the total capital cost of construction and equipment for the last five years :—

RAILWAYS, STATE.—PROFIT OR LOSS, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
AMOUNT OF INTEREST ON RAILWAY LOAN EXPENDITURE.							
	£	£	£	£	£	£	£
1921	3,811,560	2,401,132	1,811,974	847,867	716,398	205,765	9,794,696
1922	4,217,881	2,580,001	1,924,375	905,319	756,737	228,488	10,612,801
1923	4,487,303	2,937,709	1,998,694	923,606	768,244	255,007	11,370,563
1924	4,693,417	3,001,370	2,136,187	977,376	787,221	263,157	11,858,728
1925	4,796,829	3,085,043	2,419,503	1,018,117	813,849	279,832	12,413,778
PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES, INTEREST, AND OTHER CHARGES.							
	£	£	£	£	£	£	£
1921	- 577,032	- 441,125	- 1,581,060	- 561,304	- 418,370	- 81,907	- 3,660,798
1922	- 121,164	+ 184,416	- 1,580,207	- 145,082	- 257,724	- 178,257	- 2,098,018
1923	+ 84,056	+ 227,422	- 1,292,556	+ 5,769	- 62,607	- 196,940	- 1,234,856
1924	+ 5,669	+ 238,871	- 1,412,900	+ 50,754	+ 142,170	- 227,874	- 1,203,310
1925	+ 32,937	+ 243,821	- 735,460	+ 58,864	+ 190,565	- 263,166	- 472,439
PERCENTAGE OF PROFIT OR LOSS ON CAPITAL COST OF CONSTRUCTION AND EQUIPMENT.							
	%	%	%	%	%	%	%
1921	-0.70	-0.74	-3.82	-2.91	-2.30	-1.52	-1.62
1922	-0.15	+0.29	-3.72	-0.74	-1.41	-3.10	-0.90
1923	+0.10	+0.35	-2.88	+0.03	-0.34	-3.18	-0.51
1924	+0.01	+0.36	-2.98	+0.24	+0.75	-3.57	-0.48
1925	+0.03	+0.36	-1.49	+0.25	+0.97	-4.10	-0.18

— Indicates a loss.

Interest charges in 1924-25 show an increase of £2,619,082 over the amount payable in 1920-21, in which year the interest payable on the total cost of construction and equipment was at the rate of 4.36 per cent. as against 4.70 per cent. in 1925.

11. *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 sea-borne competition. On most of the lines extending into the interior traffic is light, as the density of population diminishes rapidly as the coastal regions are left behind, with a consequent diminution in the volume of traffic, while, in comparison with other more settled countries, there is but little back loading.

The following table gives particulars for the years 1921 to 1925 :—

RAILWAYS, STATE.—TRAFFIC, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	All States.
NUMBER OF PASSENGER JOURNEYS.							
1921 ..	120,735,140	134,045,683	27,735,179	23,787,884	17,732,571	2,687,837	326,724,294
1922 ..	121,298,861	142,456,924	27,155,606	23,316,141	17,895,500	2,757,702	334,880,743
1923 ..	123,714,639	155,957,240	28,358,170	24,475,170	17,830,292	2,884,210	353,219,721
1924 ..	128,101,184	167,861,864	29,535,981	25,177,933	18,133,168	2,959,887	371,770,017
1925 ..	128,532,038	166,444,142	29,657,832	25,647,487	17,196,672	2,656,018	370,134,189
PER 100 OF MEAN POPULATION.							
1921 ..	5.732	8.720	3.627	4.782	5.322	1.260	5.992
1922 ..	5.645	9.067	3.469	4.606	5.272	1.283	6.020
1923 ..	5.648	9.700	3.533	4.730	5.120	1.339	6.216
1924 ..	5.749	10.224	3.579	4.753	5.044	1.379	6.411
1925 ..	5.652	9.959	3.483	4.715	4.670	1.244	6.249
PER AVERAGE MILE OF LINE WORKED.							
1921 ..	24,058	31,639	4,838	10,195	5,012	4,220	15,199
1922 ..	23,892	33,290	4,695	9,945	5,059	4,345	15,462
1923 ..	23,805	36,151	4,833	10,375	5,020	4,350	16,090
1924 ..	23,461	38,417	4,957	10,422	5,047	4,433	16,548
1925 ..	23,071	37,424	4,879	10,461	4,687	3,947	16,170
TONNAGE OF GOODS AND LIVE STOCK CARRIED.							
1921 ..	15,563,131	7,572,993	3,867,650	2,682,218	2,604,068	672,127	32,962,187
1922 ..	14,197,055	7,491,031	3,732,413	2,827,681	2,548,258	621,751	31,418,189
1923 ..	13,801,310	7,517,216	4,208,989	3,283,594	2,624,320	568,346	32,003,775
1924 ..	15,693,127	8,309,543	4,273,926	3,565,307	3,023,299	706,961	35,572,163
1925 ..	16,026,532	8,959,556	5,083,658	3,611,313	3,284,915	690,561	37,656,535
PER 100 OF MEAN POPULATION.							
1921 ..	739	493	506	539	782	315	605
1922 ..	681	477	477	559	751	289	565
1923 ..	630	467	524	635	754	264	563
1924 ..	704	506	518	671	841	329	612
1925 ..	705	536	597	664	892	323	636
PER AVERAGE MILE OF LINE WORKED.							
1921 ..	3,101	1,787	675	1,150	736	1,055	1,533
1922 ..	2,796	1,751	645	1,206	720	980	1,451
1923 ..	2,656	1,743	717	1,391	739	857	1,458
1924 ..	2,874	1,902	717	1,476	842	1,059	1,583
1925 ..	2,877	2,014	836	1,473	895	1,026	1,645

(a) Excludes 181,944 tons on which only wayleave charges were collected.

(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 1924-25 :—

**RAILWAYS, STATE.—METROPOLITAN AND SUBURBAN, AND COUNTRY
PASSENGER TRAFFIC AND RECEIPTS, 1924-25.**

Particulars.	Passenger Journeys.			Revenue.		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
	No.	No.	No.	£	£	£
N.S.W. ..	a 117,610,989	10,921,049	128,532,038	2,245,801	3,940,567	6,186,368
Victoria ..	b 156,678,519	9,765,623	166,444,142	2,616,965	2,763,922	5,380,887
Queensland ..	22,839,805	6,818,027	29,657,832	414,369	1,609,581	2,023,950
S. Australia ..	c 23,501,501	2,145,986	25,647,487	425,674	688,884	1,114,558
W. Australia	14,891,570	2,305,102	17,196,672	274,294	543,451	817,745
Tasmania ..	(d)	(d)	2,656,018	(d)	(d)	187,701
Total	(e)	(e)	370,134,189	(e)	(e)	15,711,209

(a) Within 34 miles of Sydney and Newcastle, including the Richmond line.
(c) Within 25 miles of Adelaide.

(b) Within 20 miles of Melbourne.
(d) Not available.
(e) Incomplete.

Although the number of passenger journeys recorded in the metropolitan area in Victoria is considerably greater than in New South Wales, it must be borne in mind that in the latter State other transport facilities, viz., tramways, motor-omnibuses, and ferries, are more extensively used.

The reduction in the number of passengers as compared with the previous year is due to increased tramway and motor 'bus competition.

A more detailed analysis of the passenger traffic for the years ended 30th June, 1924 and 1925, is contained in the *Transport and Communication Bulletin* No. 17 issued by this Bureau.

(iii) *Electrification of Suburban and Country Railways.* Electrification of the Melbourne Suburban Railways was completed in April, 1923. The scheme comprised the electrification of 157 route-miles of steam-operated railway, including sidings, and the conversion and construction of the necessary rolling stock. Particulars of the lines concerned were given in Year Book No. 15, p. 564. Electrification of the Sydney Suburban System is being proceeded with. As the traffic on main country lines develops, it is intended to convert to electric traction busy sections which are within reasonable distance of a cheap power supply, and investigations are being made in order to determine which lines offer prospects of financial success.

(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 1924-25 :—

RAILWAYS, STATE.—CLASSIFICATION OF COMMODITIES CARRIED, 1924-25.

State.	Minerals.	Fire-wood.	Grain and Flour.	Hay, Straw, and Chaff.	Wool.	Live Stock.	All other Com-modities.	Total.
TONS CARRIED.								
New South Wales	Tons. 9,663,576 ^a	Tons. 169,119	Tons. 2,065,247 ^c	Tons. 378,200	Tons. 143,175	Tons. 651,509	Tons. 2,955,616	Tons. 16,026,532
Victoria ..	2,232,332	713,597 ^b	1,811,134 ^d	313,905	84,205	512,627	3,241,756	8,959,556
Queensland ..	1,211,948	270,329	1,828,486 ^d	^e	73,206	455,168	1,243,721	5,083,558
South Australia	1,052,989	^e	673,791 ^d	^e	39,233	143,762	1,701,538	3,611,313
Western Australia	773,891	422,293	727,364	113,533	15,242	105,166	1,127,426	3,284,915
Tasmania ..	259,573	69,806	71,911 ^d	53,363	3,191	22,539	210,178	690,561
All States ..	15,194,309	1,645,144	7,227,933	859,001	353,252	1,891,661	10,480,235	37,656,535

PERCENTAGE ON TOTAL TONNAGE CARRIED.

	%	%	%	%	%	%	%	%
New South Wales	60.30	1.05	12.89	2.36	0.89	4.07	18.44	100.00
Victoria ..	24.92	7.97	20.77	3.50	0.94	5.72	36.18	100.00
Queensland ..	23.84	5.32	35.97	^e	1.44	8.97	24.46	100.00
South Australia	29.16	^e	18.66	^e	1.08	3.98	47.12	100.00
Western Australia	23.56	12.86	22.14	3.46	0.46	3.20	34.32	100.00
Tasmania ..	37.59	10.11	10.41	7.73	0.46	3.26	30.44	100.00
All States	40.35	4.37	19.20	2.28	0.95	5.02	27.83	100.00

(a) Excludes 131,944 tons of coal on which wayleave charges only were collected. (b) Coal, stone, gravel, and sand. (c) Up journey only (to coast). (d) Agricultural produce. (e) Included in all other commodities.

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1924-25 according to a classification which has been adopted by all States :—

RAILWAYS, STATE.—GOODS, ETC., TRAFFIC—REVENUE, 1924-25.

Class.	New South Wales.	Victoria.	Queens-land.	South Australia.	Western Australia.	Tasmania.	Total.
	£	£	£	£	£	£	£
General merchandise	5,482,686	4,550,773	2,750,902	1,369,227	1,783,029	230,709	16,167,386
Wheat ..	^a	^a	^a	290,068	^a	^a	290,068
Wool ..	627,138	197,612	492,686	57,532	50,274	4,868	1,430,108
Live stock ..	1,155,272	550,060	826,956	182,710	131,430	19,968	2,866,396
Minerals—							
Coal, Coke, and shale ..	1,348,169	153,121	241,797	206,343	108,142	^c 24,909	2,082,481
Others ..	397,664	323,956	165,644	501,743	125,447	^b 32,194	1,546,653
Total ..	9,010,929	5,775,522	4,477,985	2,607,628	2,198,322	312,706	24,383,092

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

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

12. *Passenger-Mileage and Ton-Mileage.*—(i) *Passenger-Miles.* The subjoined table gives particulars of passenger-mileage in respect of the States of New South Wales, Victoria, South Australia, and Tasmania for the years 1920-21 to 1924-25. The average

number of passengers carried per "train" is obtained by dividing the number of "passenger-miles" by the number of "passenger-train-miles." Similarly, the "density of traffic" is obtained by dividing the number of "passenger-miles" by the "average miles worked."

RAILWAYS, STATE.—SUMMARY OF "PASSENGER-MILES," 1921 TO 1925.

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.	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.

1921	11,301	120,735	1,620,857	5,736,256	147	13.42	0.85	11.57	322,976
1922	11,379	121,299	1,610,619	5,934,616	145	13.27	0.88	11.74	320,936
1923	11,822	123,715	1,679,903	6,004,702	142	13.58	0.86	11.65	323,260
1924	12,385	128,101	1,721,161	6,076,988	139	13.44	0.85	11.39	315,216
1925	12,616	128,532	1,637,381	6,186,368	130	12.74	0.91	11.55	293,907

VICTORIA.

1921	8,822	134,046	1,205,052	4,398,124	138	8.99	0.88	7.87	284,412
1922	9,865	142,457	1,231,828	4,814,820	125	8.65	0.94	8.11	287,777
1923	10,626	155,957	1,332,694	5,094,595	125	8.54	0.92	7.84	308,892
1924	11,140	167,862	1,421,771	5,330,614	128	8.47	0.90	7.62	325,391
1925	11,602	166,444	1,426,411	5,380,887	123	8.57	0.91	7.76	320,718

SOUTH AUSTRALIA.

1921	2,815	23,788	280,904	1,019,480	100	11.81	0.87	10.29	120,438
1922	2,749	23,330	268,558	1,045,530	102	11.51	0.93	10.76	115,110
1923	2,833	24,481	282,387	1,078,155	100	11.54	0.92	10.57	119,718
1924	2,918	25,107	290,843	1,088,046	100	11.58	0.90	10.40	120,394
1925	3,460	25,647	302,185	1,114,558	97	11.78	0.89	10.43	123,255

TASMANIA.

1921	494	2,688	50,263	238,719	102	18.70	1.14	21.31	78,905
1922	662	2,758	46,550	233,608	70	16.88	1.15	20.33	73,336
1923	692	2,884	46,032	228,458	67	15.96	1.19	19.01	69,388
1924	672	2,960	46,766	218,020	70	15.50	1.11	17.68	70,036
1925	654	2,656	45,126	187,701	69	16.99	0.99	16.96	67,061

The difference in the number of passenger journeys given in this table and that in connexion with traffic in respect of the State of South Australia is accounted for by the fact that the latter table is compiled from the receipts from passenger traffic, while the former is based on the passenger traffic carried.

(ii) *Ton-Miles.* Particulars regarding total "ton-miles" are given in the following table for each of the years 1920-21 to 1924-25 in respect of all States with the exception of Queensland:—

RAILWAYS, STATE.—SUMMARY OF "TON-MILES," 1921 TO 1925.

Year ended the 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.								
1921	11,491	15,262	1,418,386	6,501,914	123	92.94	1.10	282,631
1922	10,508	14,197	1,365,961	7,953,910	154	96.21	1.38	269,049
1923	9,871	13,567	1,166,238	7,868,769	160	85.96	1.60	224,417
1924	11,322	15,516	1,392,390	8,096,274	163	89.74	1.37	255,005
1925	10,689	16,027	1,647,448	9,010,929	177	102.80	1.29	295,718
VICTORIA.								
1921	6,711	7,573	727,930	4,411,276	137	96.12	1.45	171,803
1922	5,992	7,491	684,887	4,815,056	143	91.43	1.69	160,058
1923	5,768	7,517	673,904	4,953,192	145	89.65	1.76	156,198
1924	5,939	8,310	745,301	5,204,526	154	89.69	1.68	170,588
1925	5,880	8,960	847,202	5,775,522	176	94.56	1.64	190,468
SOUTH AUSTRALIA.								
1921	2,897	2,682	217,879	1,719,556	75	81.23	1.81	93,383
1922	2,881	2,828	284,269	2,000,716	99	100.53	1.68	121,253
1923	3,374	3,284	368,525	2,378,035	113	112.23	1.55	156,241
1924	3,269	3,565	384,576	2,558,706	129	107.87	1.60	159,195
1925	3,193	3,611	393,649	2,607,628	134	109.00	1.59	160,559
WESTERN AUSTRALIA.								
1921	2,865	2,604	200,379	1,637,979	70	76.95	1.96	56,633
1922	2,689	2,548	208,347	1,688,482	77	81.76	1.95	58,894
1923	2,659	2,624	210,151	1,768,211	93	80.08	2.02	59,164
1924	2,916	3,023	252,796	2,050,707	100	83.62	1.95	70,364
1925	3,053	3,285	277,190	2,198,322	104	84.38	1.90	75,553
TASMANIA.								
1921	893	650	33,638	302,594	38	51.78	2.15	52,807
1922	771	602	30,850	295,480	40	51.28	2.29	48,602
1923	743	547	27,297	275,968	37	49.29	2.42	41,147
1924	744	685	30,019	300,156	40	43.83	2.39	44,955
1925	726	668	29,697	292,004	41	44.45	2.36	44,133

(a) Based on 10 months actual and 2 months estimated.

In New South Wales the tonnage carried is exclusive of coal, on which shunting and haulage charges only have been collected, and terminal charges have also been disregarded, but in the cases of South Australia and Tasmania such charges are included. Particulars for the latter State do not include live stock.

13. **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 starving stock to other areas.

The preceding 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. Owing to limitations of space, however, it is not proposed to republish such information unless substantial alterations are made in these rates.

14. **Rolling Stock, 1925.**—The following table shows the rolling stock in use at the 30th June, 1925, classified according to gauge :—

RAILWAYS, STATE.—ROLLING STOCK, 1925.

State.	Gauge.					Total.
	5 ft. 3 in.	4 ft. 8½ in.	3 ft. 6 in.	2 ft. 6 in.	2 ft. 0 in.	

LOCOMOTIVES.

New South Wales	..	1,403	..	..	..	1,403
Victoria ..	696	..	..	17	..	713
Queensland ..	..	..	705	..	9	714
South Australia	251	..	228	..	..	479
Western Australia	..	..	404	..	..	404
Tasmania ..	..	..	89	..	7	96
All States	947	1,403	1,426	17	16	3,809

COACHING STOCK.

	Ordinary.	With Motors.	Ordinary.	With Motors.	Ordinary.	With Motors.		Ordinary.	With Motors.
New South Wales	..	..	2,208	12	..	..	..	2,208	12
Victoria ..	2,279	376	..	..	..	55	..	2,334	376
Queensland ..	..	..	..	..	1,078	13	9	1,087	13
South Australia	496	13	..	..	221	..	..	717	13
Western Australia	..	..	..	..	479	3	..	479	3
Tasmania ..	..	..	..	..	228	4	6	234	4
All States ..	2,775	389	2,208	12	2,006	20	55	7,059	421

STOCK OTHER THAN COACHING.

New South Wales	..	23,758	..	..	..	23,758
Victoria ..	19,759	..	..	243	..	20,002
Queensland ..	..	..	16,470	..	168	16,638
South Australia	4,709	..	5,661	..	..	10,370
Western Australia	..	..	10,220	..	..	10,220
Tasmania ..	..	..	1,793	..	77	1,870
All States ..	24,468	23,758	34,144	243	245	82,858

Prior to the issue of Year Book No. 16 (1921-22) the particulars of rolling stock were classified under the headings of "Locomotives," "Passenger Vehicles," and "Vehicles other than Passenger." The present classification has now been adopted by all States.

15. **Employees.**—The following table gives the number of railway employees in each year from 1921 to 1925 inclusive, classified according to (a) salaried staff, and (b) wages staff :—

RAILWAYS, STATE.—EMPLOYEES, 1921 TO 1925.

State.	At 30th June—									
	1921.		1922.		1923.		1924.		1925.	
	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.	Salaried Staff.	Wages Staff.
New South Wales	5,257	36,481	5,302	36,037	5,356	34,271	5,473	36,127	5,672	36,455
Victoria ..	2,703	24,427	3,097	23,791	4,030	22,577	4,083	23,400	4,153	24,857
Queensland ..	3,524	14,598	3,458	14,862	3,250	17,621	3,298	16,380	3,362	16,522
South Australia ..	1,041	8,326	1,116	8,448	1,108	8,429	1,208	9,438	1,316	11,519
Western Australia	1,187	6,896	1,175	6,330	1,180	6,259	1,224	6,510	1,282	6,334
Tasmania ..	205	1,454	215	1,491	216	1,842	190	1,406	169	1,297
All States ..	13,917	92,182	14,363	90,959	15,140	90,999	15,476	93,261	15,954	96,984

In the period under review the totals of salaried and wages staffs rose from 106,099 in 1921 to 112,938 in 1925, an increase of 6 per cent.

16. **Accidents.**—(i) *Classification.* The following classification of accidents which occurred through the movement of rolling stock was adopted by each State in 1924–25.

RAILWAYS, STATE.—ACCIDENTS, 1925.

Particulars.	N.S.W.		Vic.		Q'land.		S. Aust.		W. Aust.		Tas.		All States.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Train accidents—														
Passengers ..	..	42	..	..	10	36	..	..	1	15	..	..	11	94
Employees ..	3	24	..	1	..	2	..	2	..	..	..	3	3	32
No. of passengers killed or injured per million carried	..	328	..	..	337	1,213	..	..	058	872	..	338	029	254
Accidents on line (other than train accidents)—														
Passengers ..	5	124	7	133	7	54	4	58	1	37	..	..	24	406
Employees ..	24	209	5	103	12	50	2	58	1	50	..	..	44	470
Others ..	10	51	..	..	9	8	..	..	1	3	..	..	20	62
Shunting accidents—														
Passengers ..	..	5	..	..	..	..	..	..	..	5	..	..	..	10
Employees ..	3	122	5	44	2	93	6	66	3	64	..	11	19	400
Other persons ..	..	..	..	5	..	1	..	1	..	..	..	..	..	7
Employees proceeding to or from their duty within Railway boundaries	1	5	3	2	..	3	..	..	..	..	..	..	4	10
Persons killed or injured at crossings ..	4	12	12	3	3	16	11	9	6	16	2	1	38	57
Trespassers ..	19	3	15	3	1	..	3	4	3	5	..	1	41	16
Miscellaneous ..	..	..	..	4	1	20	..	5	..	13	..	..	1	42
Total ..	69	597	47	298	45	283	26	203	16	208	2	17	205	1,606

(ii) *Particulars for Quinquennium.* The subjoined 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 1921 to 1925 inclusive :—

RAILWAYS, STATE.—ACCIDENTS, 1921 TO 1925.

State.	In year ended 30th June—									
	1921.		1922.		1923.		1924.		1925.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales	68	554	67	467	45	498	77	526	69	597
Victoria ..	41	597	58	408	51	372	51	362	47	298
Queensland ..	20	554	18	564	17	563	(a)	(a)	45	283
South Australia ..	12	174	6	192	16	262	16	211	26	203
Western Australia	18	134	15	107	14	147	16	212	16	208
Tasmania ..	..	47	2	34	1	34	5	36	2	17
All States ..	159	2,060	166	1,772	144	1,876	(b)165	(b)1,347	205	1,606

(a) Not available.

(b) Incomplete.

17. *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 1924–25 :—

GOVERNMENT RAILWAYS.—CONSUMPTION AND VALUE OF OIL AND FUEL, 1924-25.

Government Railways.	Oil.						Coal.		
	Lubricating.			Fuel.					
	Gallons.	Value.	Average Cost per Gallon.	Gallons.	Value.	Average Cost per Gallon.	Tons.	Value.	Average Cost per Ton.
		£	s. d.		£	s. d.		£	£ s. d.
New South Wales	389,593	49,085	2 6	769,840	35,119	0 11	1,574,291	1,248,908	0 15 10½
Victoria ..	185,612	22,216	2 4½	413,099	31,698	1 9	695,910	938,542	1 6 11½
Queensland ..	250,494	23,925	1 11	194,167	14,463	1 6	447,690	442,173	0 19 9
South Australia	a 139,974	a 16,356	2 4	b	b	b	224,170	433,628	1 18 8
Western Australia	52,980	5,704	2 2	182,305	18,825	2 0½	272,415	267,336	0 19 7½
Tasmania ..	27,891	3,646	2 7½	10,516	790	1 6	45,192	57,683	1 5 6½
Total States	1,046,544	120,932	2 3½	c1,569,927	c100,895	c1 3½	3,259,668	3,388,270	1 0 9½
Federal ..	11,409	1,713	3 0	38,390	4,091	2 1½	15,698	32,964	2 2 0
Grand Total, Australia ..	1,057,953	122,645	2 4	c1,608,317	c104,986	c1 3½	3,275,366	3,421,234	1 0 10½

(a) Lubricating oil used on rolling-stock only.

(b) Not available.

(c) Exclusive of South Australia.

The range in the average cost per ton of coal from 15s. 10½d. in New South Wales to £2 2s. per ton for coal used on the Federal Railways is attributable to the comparatively low haulage expenses incurred in the coal-producing States.

§ 4. Government Railways Generally.

1. Summary, Federal and State Government Railways.—In the following table a summary is given of the working of all Federal and State Government railways for the year ended 30th June, 1925 :—

RAILWAYS, FEDERAL AND STATE.—SUMMARY, 1925.

Particulars.	Federal Railways.	State Railways.	Total for Australia.
Total mileage open Miles	1,733.02	23,111.05	24,844.07
Average miles open during the year "	1,733	22,891	24,624
Total train mileage "	819,881	70,954,206	71,774,087
Total cost of construction of lines open .. £	11,767,971	a264,346,874	a276,114,845
Cost per mile £	6,790	a11,435	a11,114
Gross revenue £	409,112	44,558,352	44,967,464
Working expenses £	497,070	32,617,013	33,114,083
Percentage of working expenses on gross revenue %	121.50	73.20	73.64
Net revenue £	— 87,958	11,941,339	11,853,381
Interest payable £	272,611	12,413,778	12,686,389
Number of passenger journeys No.	211,981	370,134,189	370,346,170
Tonnage of goods and live stock carried .. Tons	146,511	37,838,479	37,984,990
Number of employees at 30th June, 1925—			
Salaried No.	190	15,954	16,144
Wages "	1,053	96,984	98,037
Number of persons killed and injured during the year through train accidents and movement of rolling stock—			
Killed "	2	205	207
Injured "	13	1,606	1,619

(a) Exclusive of cost of lines from Mount Gambier to Victorian border, and from Murrayville to Victorian border.

NOTE.—(—) Denotes a loss on working.

A graph which accompanies this chapter illustrates the total capital cost, mileage open, average cost per mile open, gross revenue, working expenses, and net revenue for each of the years 1870 to 1925.

2. Mileage Open for Traffic.—(i) *Route Mileage.* The Government railway route mileages open for traffic, classified according to gauge, as at the 30th June in each of the years 1922 to 1925 are set out in the following table, which gives also the percentages of each mileage on the total on the mainland—the figures for Tasmania being shown separately, as in the case of the table hereinafter relating to rolling stock :—

RAILWAYS, FEDERAL AND STATE.—ROUTE MILEAGE, 1922 TO 1925.

Gauge.	At 30th June—							
	1922.		1923.		1924.		1925.	
	Miles.	%	Miles.	%	Miles.	%	Miles.	%
Mainland—								
5 ft. 3 in. ..	5,342.60	23.37	5,375.09	23.15	5,503.37	23.12	5,552.31	22.97
4 ft. 8½ in. ...	6,132.96	26.83	6,334.67	27.28	6,539.68	27.46	6,672.63	27.60
3 ft. 6 in. ..	11,233.01	49.14	11,355.71	48.91	11,615.91	48.78	11,794.20	48.79
2 ft. 6 in. ..	121.90	0.53	121.77	0.53	121.77	0.51	121.77	0.51
2 ft. 0 in. ..	30.26	0.13	30.26	0.13	30.26	0.13	30.26	0.13
Total ..	22,860.73	100.00	23,217.50	100.00	23,810.99	100.00	24,171.17	100.00
Tasmania—								
3 ft. 6 in. ..	611.97	..	638.55	..	648.07	..	648.07	..
2 ft. 0 in. ..	24.83	..	24.83	..	24.83	..	24.83	..
Grand Total	23,497.53	..	23,880.88	..	24,483.89	..	24,844.07	..

In the four years from 1922 to 1925 the percentage of 5-ft. 3-in. gauge mileage has fallen by 0.40, the 4-ft. 8½-in. has risen by 0.77, while the 3-ft. 6-in. gauge has fallen by 0.35.

(ii) *Track Mileage.* The following table gives the track mileages of all Government railways and sidings, exclusive of Tasmania, for the years ended 30th June, 1922 to 1925, classified according to gauge, together with the percentages of each mileage on the total :—

RAILWAYS, FEDERAL AND STATE.—TRACK MILEAGE (a) 1922 TO 1925.

Gauge.	At 30th June—							
	1922.		1923.		1924.		1925.	
	Miles.	%	Miles.	%	Miles.	%	Miles.	%
5 ft. 3 in. ..	6,756.56	24.81	6,930.03	25.03	7,076.24	24.76	7,167.23	24.74
4 ft. 8½ in. ..	7,923.12	29.08	8,177.04	29.54	8,424.07	29.47	8,593.18	29.66
3 ft. 6 in. ..	12,398.50	45.51	12,412.02	44.83	12,915.09	45.19	13,042.93	45.04
2 ft. 6 in. ..	131.09	0.48	131.54	0.48	131.54	0.46	131.54	0.45
2 ft. 0 in. ..	34.00	0.12	34.00	0.12	33.00	0.12	33.00	0.11
Total ..	27,243.27	100.00	27,684.63	100.00	28,579.94	100.00	28,967.88	100.00

(a) Exclusive of Tasmania.

3. *Rolling Stock.*—The numbers of the rolling stock employed on both the Federal and State Government railways are set out hereunder, classified according to gauge, as at the 30th June, 1925, together with the percentage of the numbers for each gauge on the total for the mainland. The figures for Tasmania are shown separately.

RAILWAYS, FEDERAL AND STATE.—ROLLING STOCK, 1925.

Gauge.	Locomotives.		Coaching Stock.						Vehicles other than Coaching.	
			Ordinary.		With Motors.		Total.			
	No.	%	No.	%	No.	%	No.	%	No.	%
Mainland—										
5 ft. 3 in. ..	947	27.95	2,775	40.29	389	93.28	3,164	43.32	24,468	29.84
4 ft. 8½ in. ..	1,471	38.76	2,257	32.78	12	2.88	2,269	31.07	24,493	29.87
3 ft. 6 in. ..	1,351	35.60	1,790	26.00	16	3.84	1,806	24.74	32,633	39.80
2 ft. 6 in. ..	17	0.45	55	0.80	..	..	55	0.75	243	0.29
2 ft. 0 in. ..	9	0.24	9	0.13	..	..	9	0.12	168	0.20
Total ..	3,795	100.00	6,886	100.00	417	100.00	7,303	100.00	82,005	100.00
Tasmania—										
3 ft. 6 in. ..	89	..	228	..	4	..	232	..	1,793	..
2 ft. 0 in. ..	7	..	6	..	..	..	6	..	77	..
Grand Total	3,891	..	7,120	..	421	..	7,541	..	83,875	..

§ 5. Private Railways.

1. *Total Mileage Open, 1924-25.*—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 herein include (a) lines open to the public for general passenger and goods traffic; and (b) branch lines from Government railways and other lines which are used for special purposes and which are of a permanent description. Other lines are referred to in the part of this chapter dealing with Tramways (see C. *Tramways*).

The following table gives particulars of private railways open for traffic for general and special purposes during 1924-25. A classification of these lines according to gauge has already been given in § 1.

RAILWAYS, PRIVATE.—MILEAGE OPEN, 1924-25.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	All States.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
For general traffic	143.90	24.94	289.97	33.80	277.00	191.66	961.27
For special purposes	186.74	33.89	1,029.07	16.10	577.00	39.52	1,882.32
Total ..	330.64	58.83	1,319.04	49.90	854.00	231.18	2,843.59

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 1925. More detailed information regarding these lines will be found in "Transport and Communication Bulletin No. 17," published by this Bureau.

RAILWAYS, PRIVATE.—SUMMARY, 1924-25.

State.	Companies from which returns were received.	Miles Open (Route).	Train-Miles.	Capital Cost.	Gross Revenue.	Working Expenses.	Rolling Stock.			Passenger Journeys.	Tons of Goods, etc.	No. of Employees.
							Locom.	Coaches.	Other Vehicles.			
	No.	Miles.	No.	£	£	£	No.	No.	No.	No.	Tons.	No.
New South Wales	9	143.90	756,767	2,466,302	415,168	254,823	55	63	802	1,720,415	1,078,976	646
Victoria ..	2	24.94	26,572	87,059	15,743	10,763	4	4	42	35,151	80,645	25
Queensland	15	289.97	78,906	611,637	51,534	45,013	18	20	376	49,407	152,977	84
South Australia ..	1	33.80	79,622	(a)	(a)	(a)	7	3	162	1,622	624,776	59
Western Australia	1	277.00	259,665	2,064,750	173,743	81,407	18	20	400	58,603	128,249	214
Tasmania	6	191.66	174,351	1,265,347	107,683	84,624	26	20	412	52,761	135,815	276
All States(b)	34	961.27	1,375,883	6,495,595	763,871	476,630	128	130	2,194	1,917,959	2,201,438	1,304

(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.

§ 6. Comparative Railway Statistics, Various Countries.

In § 1.7 *ante* a table is given showing comparative railway facilities in 1924-25 in Australia.

In the appended table comparative railway statistics of a like character are given for the principal countries of the world. The dates to which the figures refer bring into relation the latest accurate figures for both population and railway mileage.

RAILWAYS, VARIOUS COUNTRIES.—MILEAGE, POPULATION, AND AREA.

Country.	Year.	Miles of Railway.	Miles of Railway—	
			Per 1,000 of Population.	Per 1,000 Sq. Miles of Territory.
Europe—				
Great Britain and Ireland ..	1924	21,157	0.47	223.57
Belgium	1922	3,151	0.41	268.06
Denmark	1925	3,143	0.92	189.60
France	1924	25,808	0.66	121.36
Germany	1924	34,379	0.55	189.12
Greece	1923	1,470	0.25	29.45
Italy	1925	10,237	0.24	85.58
Netherlands	1924	2,405	0.23	182.09
Norway	1924	2,231	0.84	17.85
Portugal	1923	2,040	0.34	57.48
Spain	1923	9,353	0.42	48.01
Sweden	1924	9,762	1.62	56.40
Switzerland	1924	3,602	0.92	225.97
Asia—				
India	1924	38,270	0.12	21.19
Japan	1923	9,974	0.12	38.26
Africa—				
Egypt	1925	3,124	0.22	8.16
Union of South Africa	1923	10,153	1.39	21.46
America, North and Central—				
Canada	1923	41,798	4.76	11.22
Mexico	1921	13,197	0.85	17.20
United States	1924	262,380	2.48	86.66
America, South—				
Argentina	1924	22,627	2.30	19.62
Brazil	1922	18,110	0.59	5.53
Chile	1925	5,413	1.37	18.66
Australasia—				
Australia	1925	27,688	4.77	9.30
New Zealand	1925	3,204	2.32	31.02

The figures show that per 1,000 of population Australia had the greatest mileage (in 1925), 4.77 miles; the next in magnitude being Canada (1924), with 4.76 miles.

The least mileage per 1,000 of population is shown in the case of Japan (1923), with 0.119 mile, followed by India (1924), with 0.123 mile.

With regard to the mileage per 1,000 square miles of territory, Belgium (1922) with 268.06 miles was easily first, followed by Switzerland (in 1924) with 225.97 miles, and Great Britain and Ireland (1924) 223.57 miles.

The least mileage open per 1,000 square miles is that of Brazil (in 1922) with 5.53 miles, and Egypt (1925) with 8.16 miles.

C. TRAMWAYS.

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

In many parts of Australia private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they

are more properly railways, and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present paragraph.

(ii) *Total Mileage Open and Classification of Lines.* The following tables show the total mileage of tramway lines open for general passenger traffic for the year 1924-25, and also in Australia as a whole for the years 1920-21 to 1924-25, classified (a) according to the nature of the authority by which the lines are controlled; (b) according to the motive power utilized, and (c) according to gauge :—

TRAMWAYS.—ROUTE MILEAGE OPEN, 1924-25.

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

	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Electric	177.14	90.09	34.28	..	301.51
Steam	51.33	..	..	..	17.75	..	69.08
Cable .. ..	..	45.58	..	..	..	..	45.58
Horse .. ..	..	..	..	..	7.39	..	7.39
Total	228.47	135.67	..	..	59.42	..	423.56

MUNICIPAL.

Electric .. ..	..	..	50.33	72.20	8.61	27.75	158.89
Steam .. ..	..	..	6.65	..	..	..	6.65
Total .. ..	..	..	56.98	72.20	8.61	27.75	165.54

PRIVATE.

Electric .. ..	..	27.60	..	..	14.66	..	42.26
Steam	3.50	..	..	..	..	..	3.50
Total	3.50	27.60	..	..	14.66	..	45.76

ALL CONTROLLING AUTHORITIES.

Electric	177.14	117.69	50.33	72.20	57.55	27.75	502.66
Steam	54.83	..	6.65	..	17.75	..	79.23
Cable .. ..	..	45.58	..	..	..	..	45.58
Horse .. ..	..	..	..	..	7.39	..	7.39
Total	231.97	163.27	56.98	72.20	82.69	27.75	634.86

ACCORDING TO GAUGE.

Gauge—							
5 ft. 3 in. ..	..	5.18	..	..	..	..	5.18
4 ft. 8½ in. ..	231.97	158.09	50.33	72.20	..	..	512.59
3 ft. 6 in. ..	..	..	6.65	..	65.31	27.75	99.71
2 ft. 0 in. ..	..	..	..	..	17.38	..	17.38
Total	231.97	163.27	56.98	72.20	82.69	27.75	634.86

TRAMWAYS.—ROUTE MILEAGE OPEN, AUSTRALIA, 1920-21 TO 1924-25.

Nature of Motive Power, Controlling Authority, and Gauge.			1920-21.	1921-22.	1922-23.	1923-24.	1924-25.
ACCORDING TO MOTIVE POWER.							
			Miles.	Miles.	Miles.	Miles.	Miles.
Electric .. ..	..	..	445.10	456.37	460.18	482.24	502.66
Steam .. ..	..	..	97.73	98.38	93.81	85.98	79.23
Cable .. ..	..	..	45.90	45.90	45.90	45.58	45.58
Horse .. ..	..	..	8.03	7.79	8.02	7.39	7.39
Total .. ..	..	..	596.76	608.44	607.91	621.19	634.86
ACCORDING TO CONTROLLING AUTHORITY.							
Government .. ..	..	..	397.98	403.75	448.65	459.45	423.56
Municipal .. ..	..	..	104.19	110.57	113.25	115.73	165.54
Private .. ..	..	..	94.59	94.12	46.01	46.01	45.76
Total .. ..	..	..	596.76	608.44	607.91	621.19	634.86
ACCORDING TO GAUGE.							
Gauge—							
5 ft. 3 in. .. ..	..	..	5.16	5.16	5.18	5.18	5.18
4 ft. 8½ in. .. ..	..	..	486.42	495.70	490.85	499.91	512.59
3 ft. 6 in. .. ..	..	..	88.03	90.67	94.50	98.72	99.71
2 ft. 0 in. .. ..	..	..	17.15	16.91	17.38	17.38	17.38
Total .. ..	..	..	596.76	608.44	607.91	621.19	634.86

The mileage of electric tramways has steadily increased during the period dealt with above. The decrease in the Government-controlled tramways in 1925 was in some measure due to the transfer of the Brisbane tramways from the Brisbane Tramway Trust to the Brisbane City Council.

(iii) *Cost of Construction and Equipment.* The table hereunder shows, as far as information is available, the total cost of construction and equipment of all tramways to the 30th June, 1925, classified according to the nature of the motive power and the controlling authority.

TRAMWAYS.—COST OF CONSTRUCTION AND EQUIPMENT, 1924-25.

Nature of Motive Power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
GOVERNMENT.							
Electric	£ 10,302,934	£ 3,537,218	£ ..	£ ..	£ 899,741	£ ..	£ 14,739,893
Steam ..	541,520	..	..	..	73,711	..	615,231
Cable ..	..	2,417,868	..	..	..	..	2,417,868
Horse ..	..	..	..	..	15,899	..	15,899
Total ..	10,844,454	5,955,086	..	..	989,351	..	17,788,891
MUNICIPAL.							
Electric	..	..	1,846,029	2,874,037	152,786	566,717	5,439,569
Steam ..	..	..	53,129	..	..	..	53,129
Total ..	..	..	1,899,158	2,874,037	152,786	566,717	5,492,698

TRAMWAYS.—COST OF CONSTRUCTION AND EQUIPMENT, 1924-25—*continued*.

Nature of Motive Power.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
PRIVATE.							
Electric	£	£	£	£	£	£	£
Steam ..	..	376,135	..	..	452,318	..	828,453
	(a)	..	..	..	..	..	(a)
Total ..	(a)	376,135	..	..	452,318	..	(b)828,453
ALL CONTROLLING AUTHORITIES.							
Electric	10,302,934	3,913,353	1,846,029	2,874,037	1,504,845	566,717	21,007,915
Steam ..	(b)541,520	..	53,129	..	73,711	..	(b) 668,360
Cable ..	..	2,417,868	..	..	..	..	2,417,868
Horse ..	..	..	..	..	15,899	..	15,899
Total ..	10,844,454 (b)	6,331,221	1,899,158	2,874,037	1,594,455	566,717	24,110,042 (b)

(a) Not available.

(b) Incomplete.

2. New South Wales.—(i) *Government Tramways.* (a) *General.* The tramways, with some comparatively unimportant exceptions, are the property of the Government, and are under the control of the Railway Commissioners. In Sydney and suburbs the Government tramways are divided into distinct systems. There were in June, 1925, seven such systems in operation within the metropolitan area, five of which are operated by electricity and two by steam. The conversion of the Newcastle system from steam to electric traction has been undertaken, and at 30th June, 1925, 15.90 miles (route) were completed and opened for traffic.

(b) *Particulars of Working.* The subjoined statement gives particulars of the working of the electric and steam tramways in Sydney, and of other tramways under Government control in 1924-25 :—

GOVERNMENT TRAMWAYS.—NEW SOUTH WALES.—RETURNS FOR 1924-25.

Line.	Mileage Open for Traffic.		Total Cost of Construction and Equipment. (a)	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Profit or Loss.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.
	Route.	Track.								
	Miles.	Miles.	£	£	£	£	£	£	%	%
Sydney and Suburban—Electric	161.24	287.52	9,168,939	3,331,701	2,823,510	508,191	462,897	45,294	84.75	5.54
	8.19	9.62	52,586	24,414	34,735	— 10,321	2,822	— 13,143	142.27	—19.53
Total	169.43	297.14	9,221,525	3,356,115	2,858,245	497,870	465,719	32,151	85.17	5.40
Parramatta—Steam	2.12	2.12	16,611	4,704	8,227	— 3,523	868	— 4,391	174.39	—21.21
Sutherland to Cronulla—Steam	7.40	7.40	51,891	13,829	22,789	— 8,960	2,698	— 11,658	164.79	—17.26
Newcastle Electric	15.90	23.74	1,133,925	113,048	86,414	26,634	42,064	— 15,430	78.44	2.25
East to West	19.50	23.21	302,363	106,841	162,928	— 56,087	28,940	— 85,027	152.50	—18.55
Maitland—Steam	4.06	4.06	33,511	8,881	10,758	— 1,877	1,749	— 3,626	121.14	— 5.60
Broken Hill—Steam	10.05	10.05	84,558	15,854	25,501	— 9,647	4,451	— 14,098	160.85	— 1.14
Total	228.46	372.72	10,844,454	3,619,272	3,174,862	444,410	546,489	—102,079	87.72	4.10

(a) Excludes Stores Advance Account.

— Indicates a loss.

(c) *Capital Cost.* The capital cost shown in the preceding table was made up as follows:—

GOVERNMENT TRAMWAYS.—NEW SOUTH WALES.—CAPITAL COST, 1925.

Permanent Way.	Rolling Stock.	Power-houses, Sub-stations, and Plant.	Machinery.	Workshops.	Furniture.	Total.
£	£	£	£	£	£	£
5,577,236	2,381,921	2,411,345	222,050	249,510	2,392	10,844,454

The average cost per mile open was £24,412 for permanent way, and £23,056 for all other charges, making a total of £47,468 per route mile.

During the year 1924–25, three new extensions, 0.73 mile in length, were opened for traffic.

(d) *Summary, Government Tramways.* The following table gives a summary of the operations of all Government tramways for the years 1921 to 1925:—

GOVERNMENT TRAMWAYS.—NEW SOUTH WALES.—SUMMARY, 1921 TO 1925.

Year ended 30th June—	Mileage Open for Traffic. (Route.)	Total Cost of Construction and Equipment.	Gross Revenue.	Working Expenses.	Net Earnings.	Interest.	Percentage of Working Expenses on Gross Revenue.	Percentage of Net Earnings on Capital Cost.	Passengers carried.	Persons employed.
	Miles.	£	£	£	£	£	%	%	No. '000	No.
1921 ..	227.29	9,060,757a	3,471,737	2,943,251	528,486	421,814	84.78	5.83	337,690	9,018
1922 ..	229.26	9,595,732a	3,610,135	3,015,616	594,519	467,328	83.53	6.26	330,939	9,734
1923 ..	224.90	9,975,031a	3,598,114	3,092,306	505,808	500,274	85.94	5.03	331,002	9,897
1924 ..	227.57	10,471,958a	3,633,915	3,091,531	542,384	532,137	85.97	5.18	340,803	10,608
1925 ..	228.46	10,844,454a	3,619,272	3,174,862	444,410	546,489	87.72	4.10	339,577	10,255

(a) £47,455 of this sum has been paid from the Consolidated Revenue, and no interest is payable thereon.

Cost of construction and equipment for the year 1924–25 is exclusive of the amount of the Stores Advance Account (£287,000).

The net result in 1925, after providing for all working expenses and £546,489 for interest on the capital invested, was a loss of £102,079 as compared with a profit of £10,197 in the preceding year. During the year 1924–25, 339,576,776 passengers were carried, a decrease of 226,906 as compared with the previous year.

(e) *Sydney Tramways.* Official Year Book No. 15, p. 589, gives a short account of the progress of the Sydney Tramway System. Owing to limitations of space this information cannot be repeated, but the subjoined table shows certain important particulars for the years 1921 to 1925 inclusive.

ELECTRIC TRAMWAYS.—SYDNEY.—SUMMARY, 1921 TO 1925.

Particulars.	Year ended 30th June—				
	1921.	1922.	1923.	1924.	1925.
Mileage open for traffic—					
Route Miles	156.81	158.78	158.99	160.51	161.24
Track miles	278.75	283.07	283.28	296.10	287.52
Total cost of construction and equipment £	8,009,611	8,343,096	8,680,161	8,955,747	9,168,939
Current used for traction purposes kilowatt hours	97,193,560	99,477,210	88,655,678	96,448,720a	118,081,086a
Tram-miles run .. No.	27,112,029	27,768,543	28,562,113	30,318,516	31,238,517
Passengers carried .. No.	315,847,363	310,037,935	312,930,225	320,402,789	314,563,586
Gross revenue £	3,216,358	3,353,768	3,375,923	3,391,626	3,331,701
Working expenses £	2,649,132	2,700,686	2,759,914	2,781,148	2,823,510
Net revenue £	567,226	653,082	616,009	610,478	508,191
Percentage of working expenses on gross revenue %	82.36	80.53	81.75	82.00	84.75
Cars in use	1,414	1,427	1,531	1,570a	1,562a
Persons employed	8,352	9,177	9,150	10,608a	10,255a

(a) Includes portion of Newcastle line in process of electrification.

The current for the operation of the City and Suburban tramways is generated at the power-houses at Ultimo and White Bay, erected at a total cost of £2,411,315, including the cost of sub-stations and plant. The total output of the power-houses, for both lighting and traction purposes, during the year 1924–25 was 174,152,284 kilowatt-hours, of which the direct-current supply numbered 62,583. In addition, an output of 35,825,429 kilowatt-hours was generated at the Zarra-street (Newcastle) Power House, as compared with 28,969,176 kilowatt-hours during 1923–24.

(ii) *Private Tramways.* A private steam tramway passes through the township of Parramatta. Commencing at the park gates, it runs as far as the Duck River, a distance of 3½ miles, where it connects with the Parramatta River steamers which convey passengers and goods to and from Sydney. This line, which has a gauge of 4 ft. 8½ in., was opened for traffic in 1883. In 1925 the number of tram-miles run was 18,200, and the number of passengers conveyed 113,709.

3. *Victoria.*—(i) *General.* In Melbourne there are several tramway systems carried on under the control of various authorities, the most important being the cable and electric systems worked by the Melbourne and Metropolitan Tramways Board, to which reference will be made further on. There were also, at 30th June, 1925, two lines of electric tramways, viz.:—(a) St. Kilda to Brighton, and (b) Sandringham to Black Rock, both of which belong to and are operated by the Railways Commissioners. In addition there are systems of electric tramways at Ballarat, Bendigo, and Geelong, constructed and run by private companies.

Numerous tramways have been constructed for special purposes in various parts of the State under the provisions of the Tramway Act 1890. These, however, are of the nature of the private railways referred to in sub-section 1 hereof.

(ii) *Melbourne and Metropolitan Tramways Board.* (a) *General.* 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.

(b) *Cable and Horse Tramways.* (1) *Services.* The complete system consists of 45.90 miles of double track of 4-ft. 8½-in. gauge connecting the City of Melbourne with the nearer suburbs. The service (horse-drawn) to Royal Park was abandoned in 1923.

(2) *Particulars of Working.* A summary for the years 1921 to 1925 is given hereunder:—

CABLE TRAMWAYS.—MELBOURNE.—SUMMARY, 1921 TO 1925.

Year ended 30th June—	Mileage Open (Route).			Mileage Run during Year.			Number of Passengers Carried.		
	Cable.	Horse.	Total.	Tram.		Total.	Tram.		Total.
				Cable.	Horse.		Cable.	Horse.	
Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	No.	No.	No.	
1921 ..	45.90	0.63	46.53	14,058,575	10,406	14,068,981	148,755,005	293,676	149,048,681
1922 ..	45.90	0.63	46.53	14,624,684	10,134	14,634,818	150,962,255	239,508	151,201,763
1923 ..	45.90	0.63	46.53	14,832,416	9,808	14,842,224	155,617,351	202,802	155,820,153
1924 ..	45.58	(a)	45.58	14,713,853	3,066	14,716,919	147,750,286	50,220	147,800,506
1925 ..	45.58	(a)	45.58	15,285,913	..	15,285,913	148,316,398	..	148,316,398

Year ended 30th June—	Traffic Revenue.			Working Expenses.			Percentage of Working Expenses on Revenue.	No. of Employees at end of Year.
	Tram.		Total.	Tram.		Total.		
	Cable.	Horse.		Cable.	Horse.			
£	£	£	£	£	£	%	No.	
1921	1,146,955	792	1,147,747	843,333	1,100	844,433	73.60	2,836
1922	1,232,415	916	1,233,331	943,415	1,184	944,599	76.59	2,864
1923	1,260,043	869	1,260,912	923,564	1,225	924,789	73.34	3,035
1924	1,190,594	241	1,190,835	990,196	373	990,569	83.18	3,295
1925	1,192,103	..	1,192,103	1,011,630	..	1,011,630	84.86	3,136

(a) Line abandoned from 16th November, 1923.

(c) *Electric Tramways.* (1) *Services Operated.* The system controlled by the Melbourne and Metropolitan Tramways Board at 30th June, 1925, consisted of six services, viz., (a) The Prahran and Malvern Tramways; (b) The Hawthorn Tramways; (c) The Melbourne, Brunswick and Coburg Tramways; (d) The Fitzroy, Northcote and Preston Tramways; (e) The Footscray Tramways; and (f) the North Melbourne—Essendon Tramway, all of 4-ft. 8½-in. gauge.

(2) *Particulars of Working.* A summary of operations for the year 1924–25 is given hereunder :—

MELBOURNE TRAMWAYS BOARD.—ELECTRIC SERVICES.—OPERATIONS, 1921-22 TO 1924-25.

Year ended 30th June—	Mileage open for Traffic (Route.)	Total Cost of Construction and Equipment	Current used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Interest.	Net Profit.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	£	£
1921 ..	64.03	1,764,182	13,649,523	5,808,785	60,898,641	473,013	374,219	70,398	28,396
1922 ..	68.75	1,853,026	14,765,350	6,178,990	63,546,435	600,698	436,518	78,592	85,588
1923 ..	71.51	2,185,275	15,863,159	6,742,428	70,811,393	661,486	503,166	80,129	78,191
1924 ..	72.19	2,400,281	16,900,525	7,267,966	74,091,564	692,220	576,427	85,856	29,937
1925 ..	82.50	3,242,485	20,297,259	8,426,519	80,435,680	756,163	649,644	79,482	27,037

The total length of new track constructed during the year was 6.76 miles; this increase combined with certain conversions from cable to electrical traction was accountable for an increased mileage of 10.31 miles route (15.85 track miles) over that for 1923–24.

(iii) *Other Government Tramways.* The Victorian Railway Department owns and operates two lines of electric street railways, viz., St. Kilda to Brighton (5.18 miles of 5-ft. 3-in. gauge) and Sandringham to Black Rock (2.41 miles of 4-ft. 8½-in. gauge), a total route mileage of 7.59 miles.

Particulars of the operations of these tramways for the years 1920–21 to 1924–25 are contained in the tables hereunder.

ELECTRIC TRAMWAY.—ST. KILDA-BRIGHTON.—1921 TO 1925.

Year ended 30th June—	Total Cost of Construction and Equipment.	Current used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses	Interest.	Net Profit or Loss.
	£	Kilowatt-hours.	No.	No.	£	£	£	£
1921 ..	153,581	1,487,928	552,772	5,572,454	47,005	63,921	6,143	— 23,059
1922 ..	172,661	1,550,469	538,495	5,488,034	55,372	51,501	6,906	— 3,035
1923 ..	188,423	1,377,116	504,098	5,750,912	54,194	42,598	8,893	— 2,703
1924 ..	190,501	1,435,904	523,950	5,709,684	54,381	45,497	8,937	— 53
1925 ..	193,316	1,524,151	562,220	5,737,101	58,038	48,942	8,911	— 185

(—) Indicates loss.

ELECTRIC TRAMWAY.—SANDRINGHAM-BLACK ROCK.—1921 TO 1925.

Year ended 30th June—	Total Cost of Construction.	Current used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses	Interest.	Net Profit or Loss.
	£	Kilowatt-hours.	No.	No.	£	£	£	£
1921 ..	59,973	172,920	121,575	1,232,796	9,140	8,802	2,399	— 2,061
1922 ..	72,735	231,600	127,348	1,278,571	11,398	9,844	2,909	— 1,355
1923 ..	86,974	245,130	125,274	1,411,885	12,531	9,607	4,783	— 1,859
1924 ..	94,390	301,850	126,436	1,459,239	12,971	12,623	5,148	— 4,800
1925 ..	101,417	335,140	127,962	1,475,261	13,048	10,699	5,326	— 2,977

(—) Indicates loss.

(iv) *Private Tramways.* Two systems of tramways are owned and operated by private companies, viz., Ballarat and Bendigo (21.25 miles) and Geelong (6.35 miles); giving a total route mileage of 27.60 miles. Electrical traction is used on each of these lines which are constructed to the 4-ft. 8½-in. gauge.

(v) *Summary for all Electric Tramways.* The following table gives particulars of the working of all electric tramways in Victoria for each year from 1921 to 1925 inclusive :—

ELECTRIC TRAMWAYS.—VICTORIA.—SUMMARY, 1921 TO 1925.

Year ended 30th June—	Mileage open for Traffic (Route).	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Employed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1921	105.26	2,528,665	17,618,387	8,102,393	79,807,665	647,067	539,652	302	1,795
1922	109.50	2,675,023	18,755,105	8,471,039	82,444,219	790,494	585,434	309	1,836
1923	106.79	2,795,547	19,114,007	8,585,756	86,027,005	816,984	624,852	310	2,190
1924	107.47	3,046,443	20,390,335	9,192,499	88,902,067	844,189	709,293	353	2,729
1925	117.69	3,913,353	24,114,494	10,472,995	95,806,588	910,601	785,175	421	3,003

4. *Queensland.*—(i) *General.* The electric tramways in the city and suburbs of Brisbane were controlled by a private company, with head office in London, until the 31st December, 1922, on which date they were purchased by the Queensland Government which, under the provisions of the Brisbane Tramway Trust Act, 1922, appointed a Trust to control and operate the system until 1st December, 1925, on which date the control passed to the Brisbane City Council. Under the provisions of the Brisbane City Council Act, 1925, the Council took over the liabilities of the Tramway Trust to the extent of £2,000,000 which had been incurred in London, and assumed complete control of the system. The total length of the Brisbane tramways was 50.33 route miles at the end of the year 1925. A steam tramway having a length of 6.65 route miles is in operation at Rockhampton.

(ii) *Brisbane Electric Tramways.* These tramways are run on the overhead trolley system, the voltage of the line current being 550. Cost of construction and equipment to the end of the year 1925 was £1,846,029, the gauge of line being 4-ft. 8½-in. The following table gives a summary for the calendar years 1921 to 1925 :—

ELECTRIC TRAMWAYS.—BRISBANE.—SUMMARY, 1921 TO 1925.

Year ended 31st Dec.—	Mileage open for Traffic (Route).	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Employed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1921	42.60	1,640,127	11,413,745	4,994,357	68,056,309	544,828	411,180	178	1,142
1922	42.60	1,640,127	12,143,194	5,102,527	71,529,033	575,088	446,472	181	1,179
1923	43.06	1,431,799	11,919,254	5,211,971	74,721,594	628,841	474,202	182	1,301
1924	47.13	1,615,282	12,656,077	5,457,800	78,367,194	663,747	503,131	201	1,731
1925	50.33	1,846,029	14,800,083	5,915,844	82,514,979	707,500	564,584	225	1,837

(a) To 31st December, 1921.

(iii) *Rockhampton Municipal Tramway.* This tramway was opened for traffic in 1909, the motive power being steam. The length of line is 6.65 route miles, and the gauge 3 ft. 6 in. The capital cost to 31st December, 1924, was £53,129. During the year 1,817,174 passengers were carried, the revenue being £17,260 and working expenses £17,010. The number of the staff at end of year was 50.

(iv) *Sugar-Mill Tramways.* In various parts of Queensland there are tramways used in connexion with the sugar-milling industry, chiefly for the purpose of hauling cane. Some of these lines are of a permanent nature, running through sugar-cane plantations, while others are portable lines running to various farms. The total length of these lines is included in the table relating to private railways given on a preceding page.

5. *South Australia.*—(i) *Electric Tramways.* The tramways in Adelaide and suburbs are controlled by a Municipal Tramways Trust created in 1907. Prior to this year, the system was run with horse-traction by several private companies. Electric traction was inaugurated in 1909, and at the 31st July, 1925, the Tramways Trust operated a total route mileage of 72.20 miles of 4-ft. 8½-in. gauge. A summary for the years 1921 to 1925 is given in the subjoined table:—

ELECTRIC TRAMWAYS.—ADELAIDE.—SUMMARY, 1921 TO 1925.

Year ended 31st July—	Mileage Open for Traffic (Route).	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Employed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1921	66.40	1,890,067	12,096,515	5,785,148	55,323,737	555,421	392,824	190	1,264
1922	69.45	2,190,147	12,542,540	5,960,082	56,787,339	580,505	405,230	198	1,287
1923	71.71	2,512,048	13,700,385	6,155,033	59,648,362	612,839	430,474	218	1,422
1924	73.83	2,742,985	15,705,191	6,568,985	61,737,665	638,277	463,481	231	1,583
1925	72.20	2,874,037	18,456,574	7,222,292	63,152,810	640,335	467,751	249	1,563

(ii) *Horse Tramways.* There are also 19.86 miles of Government horse-tramways in country districts, worked in connexion with the railway system, of which 17.36 miles are used for passenger service, and 2.50 miles for special purposes.

6. *Western Australia.*—(i) *Government Tramways.* (a) *General.* Apart from the electric tramways, there are several Government tramways, with a total length of 25.14 miles. The lines are under the control of the Department of the North-West, and the most important is that between Roebourne and Cossack, constructed on a 2-ft. gauge, with a length of 12.50 miles, and worked by steam. The remaining 12.64 miles are 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.

(b) *Steam and Horse Tramways.* The capital cost of the Government steam or horse tramways up to the 30th June, 1925, was £89,610, the gross revenue for 1924–25 being £4,399, and the working expenses £2,632.

(c) *Perth Electric Tramways.* These 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 gauge of line is 3 ft. 6 in. The following table shows particulars of working for the years ended 30th June, 1921 to 1925:—

ELECTRIC TRAMWAYS.—PERTH.—1920-21 TO 1924-25.

Year ended 30th June—	Mileage open for Traffic.	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Employed.
		£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1921 ..	27.40	654,047	6,386,640	3,552,550	25,753,113	224,892	204,459	83	556
1922 ..	26.73	779,081	6,666,050	2,644,725	25,042,689	248,463	209,104	103	645
1923 ..	30.38	850,965	7,285,200	2,770,518	25,993,983	262,689	213,928	103	551
1924 ..	34.24	879,277	8,061,920	2,989,089	27,893,315	274,583	231,895	103	529
1925 ..	34.28	899,741	8,296,746	3,040,505	28,894,525	281,612	236,008	113	566

(ii) *Private Tramways.* Electric tramways with a route mileage at 31st August, 1925, of 8.61 miles, and controlled by the municipal authorities, are in operation in Fremantle. In Kalgoorlie and Boulder a private company controls the electric tramways, and at the end of 1925 the length of line was 14.66 miles (route). All the foregoing lines are of 3-ft. 6-in. gauge.

(iii) *Summary, all Electric Tramways.* The subjoined table gives a summary for all electric tramway systems in the State for the years 1921 to 1925 :—

ELECTRIC TRAMWAYS.—WESTERN AUSTRALIA.—SUMMARY, 1921 TO 1925.

Year.	Mileage open for Traffic (Route).	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram. Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Em-ployed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1921	50.90	1,227,304	8,412,175	3,472,632	33,377,124	313,195	276,607	136	728
1922	50.38	1,364,177	8,745,935	3,540,886	32,954,755	338,353	277,971	160	826
1923	53.81	1,442,094	9,326,907	3,637,126	33,838,351	350,412	281,566	166	722
1924	57.67	1,477,033	10,117,198	3,939,689	36,484,855	360,883	301,920	160	702
1925	57.55	1,504,845	10,389,250	3,975,699	37,237,791	365,156	306,378	173	751

7. *Tasmania.*—(i) *Electric Tramways.* In Hobart there is a system of electric tramways consisting of 16.50 route miles of 3-ft. 6-in. gauge controlled by the Hobart Municipal Council. The Launceston City Council operates tramways in Launceston having a length of 11.25 miles of 3-ft. 6-in. gauge.

The following table gives a summary of the working of the two systems for the years 1921 to 1925 :—

ELECTRIC TRAMWAYS.—TASMANIA.—SUMMARY, 1921 TO 1925.

Year.	Mileage open for Traffic (Route).	Total Cost of Construction and Equipment.	Current Used for Traction Purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Cars in Use.	Persons Em-ployed
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	No.	No.
1921	23.13	443,872	2,610,504	1,428,696	14,766,819	142,500	108,684	67	428
1922	25.64	490,476	2,697,680	1,504,634	15,315,969	155,129	122,622	68	448
1923	26.28	517,383	3,447,310	1,747,974	16,499,999	177,057	132,011	74	438
1924	26.64	541,941	3,439,420	1,890,882	17,683,824	192,772	144,841	82	430
1925	27.75	566,717	3,510,994	1,886,231	17,725,007	180,345	137,002	90	399

(ii) *Other Tramways.* There are several lines of privately-owned steam tramways. These are dealt with in § 5, Private Railways, as they do not come within the category of street tramways for the conveyance of passengers.

8. *Electric Tramways, Australia.*—(i) *Summary for 1925.* The subjoined table gives details regarding all electric tramways in Australia. The returns for tramways in Ballarat and Bendigo, in Brisbane, in Kalgoorlie, and in Hobart are for the calendar year 1925 : for other tramways they refer generally to the financial year 1924–25.

ELECTRIC TRAMWAYS.—AUSTRALIA.—SUMMARY, 1924-25.

State.	Mileage open for Traffic (Route).	Total Cost of Construction and Equipment.	Current used for Traction purposes.	Tram-Miles Run.	Passengers Carried.	Gross Revenue.	Working Expenses.	Percentage of Working Expenses on Gross Revenue.	Cars, Motors and Trailers.	Persons Employed.
	Miles.	£	Kilowatt-hours.	No.	No.	£	£	%	No.	No.
N.S.W. . .	177.14	10,302,934	118,031,086	32,468,795	325,254,810	3,444,749	2,909,924	84.47	1,562	10,255
Victoria . .	117.69	3,913,353	24,114,494	10,472,995	95,806,588	910,601	785,175	86.23	421	3,003
Q'land . . .	50.33	1,846,029	14,800,083	5,915,844	82,514,979	707,500	564,584	79.81	225	1,837
S. Aust. . .	72.20	2,874,037	18,456,574	7,222,292	63,152,810	840,335	467,751	73.05	249	1,563
W. Aust. . .	57.55	1,504,845	10,389,250	3,975,699	37,237,791	335,156	306,378	83.90	173	751
Tasmania . .	27.75	566,717	3,510,994	1,886,231	17,725,007	180,345	137,002	75.97	90	399
All States	502.66	21,007,915	189,302,481	61,941,856	621,691,985	6,248,686	5,170,814	82.75	2,720	17,808

The percentage of working expenses on gross revenue for all electric tramways in Australia was 82.75, ranging from 73.05 in the case of South Australia to 86.23 in the case of Victoria.

(ii) *Summary for Years 1921 to 1925.* The following table gives particulars of the operations of electric tramways in Australia for the years 1921 to 1925 :—

ELECTRIC TRAMWAYS.—AUSTRALIA.—1921 TO 1925.

Particulars.	1921.	1922.	1923.(a)	1924.	1925.
Mileage open for Traffic (Route) Miles	445.10	456.35	460.18	482.24	502.66
Total Cost of Construction and Equipment £	15,239,846	16,703,046	17,587,960	19,206,509	21,007,015
Current used for Traction Purposes Kil. hrs.	149,344,886	154,361,664	146,387,481	158,756,941	189,302,481
Tram-miles run No.	50,895,255	52,347,711	53,790,529	57,725,334	61,941,856
Passengers carried "	567,179,017	569,067,250	580,472,975	606,673,314	621,691,985
Gross Revenue £	5,419,369	5,703,337	5,908,303	6,123,275	6,248,686
Working Expenses £	4,378,079	4,538,415	4,675,239	4,930,302	5,170,814
Percentage of Working Expenses on Gross Revenue %	80.78	78.33	79.13	80.51	82.75
Cars, Motors and Trallers No.	2,287	2,343	2,487	2,598	2,720
Persons Employed "	13,703	14,753	15,101	17,783	17,808

(a) Includes Queensland for the year ended 31st December, 1922.

During the five years included in the above table the percentage of working expenses on the gross revenue of all electric tramways in Australia reached a maximum of 82.75 in 1925, after a steady increase from a minimum of 78.33 which was recorded in 1922, the average over the whole period being 80.58.

D. AIRCRAFT.

1. **General.**—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, but limitations of space preclude its repetition in the present volume.

2. **Foundation of Civil Aviation Department.**—In December, 1920, the Commonwealth Parliament passed the Air Navigation Act, the objects of which were :—(a) To carry out the provisions of the Convention on Air Navigation, signed in Paris on the 13th October, 1919: (b) to apply the principles of the Convention not only to international flying, but to internal flying in Australia, and generally to legislate by regulation on the subject matter.

Regulations were drawn up under this Act to provide, *inter alia*, for the registration and periodical inspection of aircraft, licensing of aerodromes, examination and licensing of personnel engaged in flying and in upkeep of machines, prohibition of trick flying, rules of the air, etc. Penalties are prescribed for breaches of these regulations.

The date of commencement of the Act was fixed by proclamation as the 28th March, 1921, and the Regulations, issued in the previous month, came into force on the same date.

A Controller of Civil Aviation was appointed on the 16th December, 1920, to administer the Act and Regulations.

3. **Activities of Civil Aviation Department.**—(i) *Aerodromes and Landing Grounds.* Amongst the earliest activities were the acquisition and preparation of civil aviation landing grounds, which have now been established over the following approved routes :—(a) Perth to Derby (1,442 miles); (b) Adelaide to Sydney (790 miles); (c) Sydney to Brisbane (550 miles); (d) Charleville to Camooweal (Queensland), 825 miles; (e) Melbourne to Hay (233 miles); and (f) Mildura to Broken Hill (189 miles).

Facilities for landing have also been provided on the route from Melbourne to Charleville, via Cootamundra, Narromine, Bourke, and Cunnamulla; and from Derby to Wyndham, via Fitzroy Crossing, Hall's Creek, and Ord River Downs.

Preliminary surveys of the following routes also have been made, but no expenditure has yet been incurred in the preparation of landing grounds in connexion therewith :— (a) Melbourne to Perth (2,000 miles); (b) Adelaide to Port Lincoln, via Yorke Peninsula (for seaplanes), (200 miles); and (c) Melbourne to Launceston via (1) Flinders Island and North-East coast of Tasmania (293 nautical miles), and (2) via King Island and North-West Coast (299 nautical miles).

The Royal Australian Air Force has surveyed and prepared for use a service route from Camooweal to Port Darwin, via Anthony's Lagoon, Newcastle Waters, and Katherine.

Up to the present 133 landing grounds have been acquired or leased, and prepared for civil aviation purposes. There are 11 private licensed aerodromes also in use.

(ii) *Aerial Services.* (a) *General.* In addition to providing a regular and speedy transport service over fixed routes, it was considered that the granting of contracts for subsidized aerial services would give an impetus to the development of civil aviation in Australia, while the trained flying and ground personnel would provide a technical reserve for air defence in case of war.

At 30th June, 1925, three subsidized contractors were operating under contracts which provided that 100 lb. of mail is to be carried free on each trip, the letters for transmission being surcharged 3d. per $\frac{1}{2}$ ounce.

The various regular air services over prepared routes have completed 1,000,000 passenger miles without fatal or serious injury to a paying passenger.

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

(b) *Aerial Mail Services.* Up to the present, tenders have been accepted for the following :—

(1) *Perth to Derby—Western Australia.*

This service, covering a distance of 1,442 miles, is carried out by the Western Australian Airways Limited. Landing places for mails are—Perth, Geraldton, Carnarvon, Onslow, Roebourne, Whim Creek, Port Hedland, Broome, and Derby.

The extended service from Perth to Derby, the subsidy for which was at the rate of £30,000 per annum during 1924 and 1925, but was reduced to approximately £24,500 for 1926, was inaugurated on the 17th January, 1924, and the machines now fly 2,884 miles each week, leaving Perth on Thursdays, and returning on Tuesdays. With the exception of a serious accident at its inception, this service has been carried on successfully, and the facilities it has provided have been readily availed of by the residents. The number of letters carried during the first month's operations was 577, but it has increased to about 20,000 per month.

(2) *Charleville to Camooweal—Queensland.*

This service is operated by the Queensland and Northern Territory Aerial Services Limited. The route covers 825 miles, and links up the western terminals of three main railway lines in Western Queensland, viz., Charleville, Longreach, and Cloncurry. The landing places for mails are—Charleville, Tambo, Blackall, Longreach, Winton, McKinlay, Cloncurry, Mt. Isa, and Camooweal.

The original contract which provided for a weekly (return) service between Charleville and Cloncurry commenced on 2nd November, 1922, and annual renewals of the contract were made until 2nd November, 1925, when an agreement for 3 years was entered upon. Consequent on the extension to Camooweal, the subsidy, which was at the rate of £12,000 per annum until 7th February, 1925, was increased to £17,000 per annum.

The service has been maintained successfully, and is greatly appreciated by residents of Western Queensland and the Northern Territory. Passenger bookings have shown a steady increase since the service was instituted.

(3) *Adelaide, Sydney, Cootamundra and Branches, and Sydney-Brisbane Services.*

Contracts were accepted in 1921 for the maintenance of weekly return aerial services between Adelaide and Sydney, 790 miles, and Sydney and Brisbane, 550 miles, for a period of twelve months, with subsidies of £17,500 and £11,000 respectively.

Owing to various causes, delays occurred in the commencement of the services, and it was not until 2nd June, 1924, that the contractors (Larkin Aircraft Supply Co.) commenced operations, which were confined to the Adelaide-Sydney section.

A number of new four-seater passenger machines was placed in commission in November, 1924, and the service—once weekly in each direction—has since been regularly maintained.

This service was maintained until 19th July, 1925, when a further agreement was completed with the Company who, under a 3 years' contract carrying a subsidy at the rate of £29,500 per annum, began operations over the following routes on 21st July, 1925 :—(a) Adelaide-Cootamundra, via Mildura, Hay, and Narrandera (578 miles). Service, once weekly in each direction; (b) Broken Hill-Mildura (189 miles). Service, twice weekly in each direction; and (c) Melbourne-Hay, via Echuca (233 miles). Service, twice weekly in each direction.

The first-mentioned service is regarded as the main trunk route, and the others as branches connecting at Mildura and Hay respectively. Passengers to and from Sydney establish connexion between aeroplane and train at Cootamundra, the time-tables being so arranged as to allow of this procedure.

(4) *Future Services.*

In addition to the services referred to in the previous issue of the Year Book (No. 17, p. 333), proposals have been submitted to the Department for the operation of the following services :—(a) From Fremantle to Adelaide; (b) from Camooweal to Brunette; and (c) from Melbourne to Launceston.

(iii) *Experimental Work.* An important stage in aircraft development in Australia was reached with the successful completion of the official tests of a flying boat designed by Squadron Leader E. J. Wackett, D.F.C., A.F.C., R.A.A.F. This machine, known as the "Widgeon," was ordered by the Civil Aviation Department, embodies a number of features specially designed for local conditions, and, with the exception of the engine, was wholly built at the R.A.A.F. workshops. The maximum speed attained was 103 m.p.h. with an initial climbing rate of 510 feet per minute, while the total gross weight of machine with passengers (680 lb.) and fuel (380 lb.) was 3,960 lb.

4. *Training of Air Pilots.*—(i) *Flying Training Courses.* The pre-existing practice of selecting civilian applicants for training as pilots with Civil Aviation Companies was discontinued during 1925, vacancies now occurring being reserved for members of the R.A.A.F., four of whom were selected for a special training course in 1925.

Pending absorption as pilots with Civil Aviation Companies when they receive free discharges from the R.A.A.F., successful graduates revert to their ordinary training.

(ii) *Refresher Courses.* Qualified pilots who are employed or about to be employed in commercial aviation enterprises are accepted on the recommendation of the Controller of Civil Aviation for short refresher courses of flying instruction at the Flying Training School, Point Cook. No charge is made for this refresher instruction, the cost of which is also borne by Royal Australian Air Force Funds.

(iii) *Light Plane Clubs.* Associations which have been formed in Sydney and Melbourne under the auspices of the New South Wales and Victorian Aero Clubs will afford facilities to their members to acquire flying instruction and practice at a considerably lower cost than was possible prior to the advent of the light (or low-powered) aeroplane.

Assistance to the following extent is being provided each section by the Commonwealth Government :—(a) The loan of two De Haviland "Moth" aeroplanes with spare engines and parts; (b) Bonus of £20 per pupil trained (*ab initio*) to a standard that will enable the pupil to obtain a "Private Pilot's" Licence; (c) Free hangar accommodation and free use of aerodrome for clubs' activities; and (d) Technical supervision by Departmental Resident Ground Engineer.

Although in the interim only the two sections referred to are receiving assistance as indicated, proposals which have been received from commercial aviation concerns for the formation of similar organizations in important country centres are under consideration.

5. 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 in each State for the year ended 30th June, 1925, together with comparative figures for Australia for the year 1923-24 :—

AIRCRAFT.—SUMMARY, 1923-24 AND 1924-25.

Particulars.	State in which Aeroplanes are Located.					Total.	
	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	1924-25.	1923-24.
Companies or persons owning aircraft .. No.	4	7	6	2	4	23	26
Aeroplanes .. No.	5	26	14	2	12	59	51
Staff employed(a)—							
Certificated pilots .. No.	3	10	4	1	7	25	27
Others .. No.	3	29	12	1	27	72	57
Flights carried out .. No.	721	1,598	1,134	372	1,068	4,893	4,354
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
Hours flown ..	276 45	1,495 12	1,218 03	104 10	2,208 34	5,302 44	3,703 27
Approx. mileage .. miles	19,915	117,385	94,177	8,340	164,603	404,420	269,909
Passengers carried—							
Paying .. No.	856	632	975	477	723	3,663	3,453
Non-paying .. No.	217	1,601	9	207	394	2,428	1,308
Total .. No.	1,073	2,233	984	684	1,117	6,091	4,761
Goods, weight carried lbs.	..	6	3,675	..	7,451	11,132	8,456
Mails, letters carried No.	..	2,435	14,093	..	208,600	225,128	174,691
Accidents involving—							
Injuries to personnel No.	..	..	..	..	1	1	1
Damage to aircraft No.	..	2	2	2	2	8	6
Persons killed .. No.	..	..	..	..	1	1	..
" injured .. No.	..	..	..	..	3	3	1

(a) Monthly average.

As compared with the results for 1923-24, the number of hours flown and mileage traversed increased by 43 per cent. and 50 per cent. respectively, while both the poundage of goods and the number of letters carried increased by approximately 30 per cent.

E. MOTOR VEHICLES.

1. 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, licences, fees payable, etc., in each State were referred to in Official Year Book No. 16, pp. 337-340, and later issues, but limits of space preclude the repetition of this information in the present volume.

2. **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. In addition, there is a considerable number of motor omnibuses operating between the capital cities and their suburbs. As most of these omnibuses are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations. Arrangements have, however, been made for the collection of this information.

3. **Motor Vehicles Registered, etc.**—(i) *Year 1924-25.* Particulars of the registration of motor vehicles, etc., for the year 1924-25 are contained in the subjoined table :—

MOTOR VEHICLES.—SUMMARY, 1924-25.

State.	Motor Vehicles Registered.				Drivers' and Riders' Licences Issued.	Revenue derived from—		
	Motor Cars.	Motor Cycles.	Commercial Vehicles.	Total.		Vehicle Registrations and Motor Tax.	Drivers' and Riders' Licences.	Total.
	No.	No.	No.	No.	No.	£	£	£
New South Wales ..	71,610	20,062	16,267	107,939	161,893	548,042	56,432	604,474
Victoria ..	70,041	19,212	(a)150	89,403	100,021	395,986	18,067	414,053
Queensland ..	31,614	4,805	(b)2,000	38,419	12,254	143,776	4,327	148,103
South Australia ..	30,381	7,872	(b)4,665	42,918	(c)	135,616	(c)	135,616
Western Australia ..	11,845	3,447	(b)2,180	17,472	24,500	65,349	6,125	71,474
Tasmania ..	5,844	2,650	(b)829	9,323	11,328	37,883	3,522	41,405
Northern Territory ..	106	31	25	162	154	20	35	55
All States ..	221,441	58,079	26,116	305,636	310,150	1,326,672	88,508	1,415,180

(a) Motor buses. Trucks, vans, etc., included with motor cars. (b) Motor lorries. (c) Not available, records destroyed by fire. Revenue included with Registrations and Motor Tax. (d) Exclusive of South Australia. (e) Incomplete.

South Australia with 7.90 motor vehicles per 100 of population shows the best record, Victoria with 5.35 was next in importance, with Tasmania and Northern Territory lowest with 4.40 and 4.30 respectively, the average for the Commonwealth being 5.15.

(ii) *Quinquennium 1921-1925.* The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1920-21 to 1924-25 :—

MOTOR VEHICLES.—REGISTRATIONS, ETC., 1920-21 TO 1924-25.

Year.	Motor Vehicles Registered.				Drivers' and Riders' Licences Issued.	Revenue derived from—		
	Motor Cars.	Motor Cycles.	Commercial Vehicles.	Total.		Vehicle Registration and Motor Tax.	Drivers' and Riders' Licences.	Total.
						£	£	£
1920-21	87,071	35,759	(a)	122,830	(b)	(b)	(b)	(b)
1921-22	99,270	37,578	(a)	136,848	161,903	(b)	(b)	470,559
1922-23	116,658	42,849	(c)13,438	172,745	208,376	575,198	42,249	619,447
1923-24	118,568	52,717	(c)18,056	239,341	296,177	801,701	62,001	863,702
1924-25	221,441	58,079	(c)26,116	305,636	310,150	1,326,672	88,508	1,415,180

(a) Included with Motor Cars. (b) Not available. (c) Incomplete, partly included with Motor Cars.

During the period dealt with the number of motor vehicles per 100 of population rose from 2.25 in 1920-21 to 5.15 in 1924-25. The growth in revenue received during 1924-25 is due mainly to increased registration fees and motor tax.

4. **Motor Omnibuses.**—Motor omnibus traffic, both in urban and provincial areas, has assumed considerable proportions in Australia during recent years, and allusion has been made in preceding pages to the effect of this means of transport on railway and tramway finances.

Existing and contemplated legislation provide for the allocation by Boards of routes and the basing of licence fees generally on the seating capacity and tyre equipment of the vehicles concerned. It is hoped thereby to obviate the economic waste arising from duplication of routes and services parallel with or contiguous to existing railway and tramway systems. Revenue from licence fees is to be devoted principally to the maintenance or construction of roadways to enable them to withstand the wear and tear involved by the heavy traffic.

A considerable amount of city and country goods transport is now being carried on by motor vehicles, and they are being largely made use of by the railway departments as adjuncts to their goods services.

Statistics regarding motor omnibus operations are, however, not at present available, but the question of obtaining such information is under consideration.

5. **Comparative Motor Vehicle Statistics, 1925.**—The following statement, which has been extracted from the issue of "The Automotive Manufacturer" of February, 1926, shows the number of motor cars and trucks, and motor-cycles in several of the most important countries of the world. The figures are in some instances approximate, being based on estimates supplied by Trade Commissioners or representative motor trade organizations in the various countries.

COMPARATIVE MOTOR VEHICLE STATISTICS, 1925.

Country.	Motor Cars and Trucks.	Motor Cycles.
Australia	247,557	58,079
Argentina	178,050	3,200
Belgium	92,713	28,460
Brazil	63,650	..
Canada	715,962	7,920
Cuba	37,650	..
Denmark	60,320	18,800
France	735,000	120,000
Germany	323,000	216,829
India	69,127	14,200
Italy	114,700	70,000
Mexico	37,824	..
Netherlands	56,300	40,000
Netherlands East Indies	38,050	7,000
New Zealand	96,348	24,000
Union of South Africa	69,350	25,000
Spain	76,000	9,000
Sweden	81,600	23,000
Great Britain	903,021	571,552
United States of America	19,946,997	119,274

The estimated total number of motor-vehicles in 1925, as disclosed by the publication referred to, was 24,520,998 cars and trucks, and 1,475,010 motor-cycles.

The figures quoted for Australia have been compiled from data supplied by the responsible registration authorities in the several States, and differ slightly from those contained in "The Automotive Manufacturer."

F. POSTS, TELEGRAPHS AND TELEPHONES.

§ 1. Posts.

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, a responsible Minister with Cabinet rank, and of a Secretary having chief control of the Department under the Postmaster-General, whilst a principal officer in each State was provided for under the style of Deputy Postmaster-General.

2. **Postal Matter Dealt With.**—(i) *Australia.* The following table gives a summary of the postal matter dealt with in Australia during the five years 1921 to 1925. Although mail matter posted in Australia for delivery therein is necessarily handled at least twice, only the numbers dispatched are included in the table following, which consequently gives the number of distinct articles handled.

POSTAL MATTER DEALT WITH.—AUSTRALIA, 1920-21 TO 1924-25.

Year ended 30th June—	Letters and Post-cards.		Newspapers.		Packets.		Parcels.		Registered Articles.	
	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.	Number (,000 omitted).	Per 1,000 of Population.

POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.

1921 ..	512,021	94,603	117,824	21,770	47,567	8,789	6,633	1,226	5,664	1,046
1922 ..	507,239	91,099	126,165	22,659	56,622	10,169	8,284	1,488	5,516	991
1923 ..	535,596	94,161	136,137	23,934	73,267	12,881	9,158	1,610	5,766	1,014
1924 ..	579,679	99,883	143,429	24,714	93,575	16,124	9,387	1,617	5,959	1,027
1925 ..	616,804	114,027	151,484	25,548	106,089	17,892	10,615	1,790	6,147	1,037

OVERSEA RECEIVED.

1921 ..	35,804	6,615	8,931	1,650	2,440	451	371	69	415	77
1922 ..	30,912	5,552	9,770	1,755	2,674	480	339	61	410	74
1923 ..	32,961	5,795	10,274	1,806	2,891	508	437	77	453	79
1924 ..	34,708	5,980	13,662	2,354	4,273	736	447	77	475	82
1925 ..	40,911	6,900	14,824	2,500	5,262	887	446	75	475	80

OVERSEA DISPATCHED.

1921 ..	21,519	3,976	4,128	763	1,402	259	188	35	305	57
1922 ..	23,822	4,278	4,542	816	1,299	233	176	32	286	51
1923 ..	25,722	4,522	4,734	832	1,671	294	183	32	303	53
1924 ..	29,016	5,000	5,681	970	2,283	393	190	33	341	59
1925 ..	34,328	5,790	6,839	1,153	2,617	441	169	28	388	65

TOTAL POSTAL MATTER DEALT WITH BY THE COMMONWEALTH POSTAL DEPARTMENT.

1921 ..	569,344	105,194	130,883	24,183	51,409	9,499	7,192	1,330	6,384	1,180
1922 ..	561,973	100,929	140,477	25,230	60,595	10,882	8,799	1,581	6,212	1,116
1923 ..	594,279	104,478	151,145	26,572	77,829	13,683	9,778	1,719	6,522	1,146
1924 ..	643,403	110,863	162,772	28,047	100,131	17,253	10,024	1,727	6,775	1,168
1925 ..	692,043	126,717	173,147	29,201	113,968	19,220	11,230	1,893	7,010	1,182

(ii) *States.* The next table shows separately for each State the postal matter dealt with in 1924-25 under the classification adopted in the preceding paragraph, with the exception of registered articles, which are dealt with separately hereinafter. 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 MATTER DEALT WITH.—STATES, 1924-25.

State.	Letters and Post-cards.		Newspapers.		Packets.		Parcels.	
	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.	Number (,000 omitted).	Per 1,000 of Popula- tion.
POSTED FOR DELIVERY WITHIN AUSTRALIA.								
New South Wales	260,906	114,613	64,120	28,167	47,559	20,892	4,843	2,127
Victoria ..	177,065	105,972	37,987	22,735	15,382	9,206	2,325	1,391
Queensland ..	69,371	81,115	27,353	31,984	18,170	21,246	1,847	2,160
South Australia	49,455	90,429	8,085	14,784	14,667	26,819	801	1,465
Western Australia	31,689	86,105	6,118	16,624	5,821	15,817	619	4,682
Tasmania ..	28,318	133,635	7,821	36,908	4,490	21,189	180	849
Australia ..	616,804	114,027	151,484	25,548	106,089	17,892	10,615	1,790

OVERSEA RECEIVED.

New South Wales	14,318	6,289	5,096	2,238	1,829	803	170	75
Victoria ..	18,486	11,064	4,756	2,846	1,069	640	128	77
Queensland ..	2,459	2,875	2,419	2,829	752	879	54	63
South Australia	2,368	4,330	811	1,483	511	934	33	60
Western Australia	2,424	6,586	1,503	4,084	704	1,913	48	130
Tasmania ..	856	4,040	239	1,128	397	1,873	13	61
Australia ..	40,911	6,900	14,824	2,500	5,262	887	446	75

OVERSEA DISPATCHED.

New South Wales	18,508	8,130	3,495	1,535	1,811	795	90	40
Victoria ..	8,324	4,982	2,085	1,248	413	247	44	26
Queensland ..	2,166	2,535	501	586	122	143	14	16
South Australia	1,910	3,492	254	464	90	165	9	16
Western Australia	1,761	4,785	258	701	37	101	10	27
Tasmania ..	1,659	7,829	246	1,161	144	680	2	9
Australia ..	34,328	5,790	6,839	1,153	2,617	441	169	28

3. *Postal Facilities.*—(i) *Relation to Area and Population.* The subjoined statement shows the number of post and receiving offices, the area in square miles and the number of inhabitants to each post office (including receiving offices) in each State and in Australia at the end of the year 1924-25. 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.

**POSTAL FACILITIES.—RELATION TO AREA AND POPULATION,
30th JUNE, 1925.**

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aus- tralia.
Number of post and receiving offices	2,664	2,708	1,287	807	720	514	8,700
Number of square miles of territory to each office in State	116	32	521	1,120	1,355	51	342
Number of inhabitants to each office	854	617	665	678	511	412	682
Number of inhabitants per 100 square miles	734	1,901	128	60	38	808	199

The foregoing table does not include "telephone" offices at which telegraph and telephone business only is transacted.

(ii) *Number of Offices.* The following table shows the number of post and receiving offices in each year from 1920-21 to 1924-25 inclusive :—

POST AND RECEIVING OFFICES AT 30th JUNE, 1921 TO 1925.

State.	At 30th June—									
	1921.		1922.		1923.		1924.		1925.	
	Post Offices.	Receiving Offices.	Post Offices.	Receiving Offices.	Post Offices.	Receiving Offices.	Post Offices.	Receiving Offices.	Post Offices.	Receiving Offices.
New South Wales	2,031	578	2,032	556	2,040	559	2,059	584	2,063	601
Victoria ..	1,712	864	1,721	855	1,736	859	1,774	898	1,785	923
Queensland ..	658	604	665	576	678	567	694	565	743	544
South Australia ..	670	127	666	139	667	137	669	136	675	132
Western Australia	405	222	414	254	426	306	445	401	465	255
Tasmania ..	409	89	413	90	413	106	428	114	411	103
Australia ..	5,885	2,484	5,911	2,470	5,960	2,534	6,069	2,698	6,142	2,558

(iii) *Employees and Mail Contractors.*—The number of employees and mail contractors in the Central Office and in each of the States is given in the appended table :—

POSTAL EMPLOYEES AND MAIL CONTRACTORS, 1921 TO 1925.

State.	At 30th June—									
	1921.		1922.		1923.		1924.		1925.	
	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.
Central Office ..	(a)139		87		95		100		110	
New South Wales	11,669	2,046	12,451	2,087	13,255	1,732	13,947	1,791	14,413	1,915
Victoria ..	8,117	1,091	8,553	1,095	9,148	1,124	10,279	1,133	11,140	1,139
Queensland ..	4,728	750	4,792	766	4,978	810	6,220	819	6,322	839
South Australia ..	2,826	439	2,895	441	3,227	422	4,014	354	3,926	430
Western Australia	2,111	302	2,200	338	2,450	339	2,450	382	3,271	319
Tasmania ..	1,220	223	1,229	236	1,321	202	1,582	206	1,551	243
Australia ..	30,810	4,851	32,207	4,963	34,474	4,629	38,592	4,685	40,733	4,885

(a) Includes "radio staff."

4. **Registered Letters, Packets, etc.**—Particulars regarding registered articles for the year 1924–25 are given in the table hereunder :—

REGISTERED ARTICLES POSTED AND RECEIVED, 1924-25.

State.	Posted in each State for Delivery within Australia.		Posted in each State for Delivery Overseas.		Total Posted.		Received in each State from Overseas.	
	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.
New South Wales ..	2,292	1,007	163	72	2,455	1,078	212	93
Victoria ..	1,707	1,022	112	67	1,819	1,089	125	75
Queensland ..	915	1,070	47	55	962	1,125	47	55
South Australia ..	503	920	25	46	528	965	30	55
Western Australia ..	479	1,302	37	101	516	1,402	51	139
Tasmania ..	251	1,184	4	19	255	1,203	10	47
Australia ..	6,147	1,037	388	65	6,535	1,102	475	80

5. **Value-Payable Parcel and Letter 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 1921 to 1925 :—

VALUE-PAYABLE PARCELS POST.—SUMMARY, 1921 TO 1925.

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
NUMBER OF PARCELS POSTED.							
1921	No. 53,829	No. 3,192	No. 120,045	No. 689	No. 36,125	No. 155	No. 214,035
1922	93,621	4,092	171,848	606	48,187	111	318,465
1923	134,703	5,329	207,162	1,604	56,572	113	405,483
1924	165,360	6,421	225,040	2,456	63,393	292	462,962
1925	209,265	8,397	199,752	3,559	69,065	387	490,425
VALUE COLLECTED.							
1921	£ 124,502	£ 6,105	£ 177,662	£ 2,027	£ 57,170	£ 711	£ 368,177
1922	172,258	8,086	238,047	1,694	81,370	444	501,899
1923	237,209	10,826	279,508	2,485	87,508	439	617,975
1924	277,087	11,310	364,965	3,406	101,515	715	758,998
1925	347,902	15,440	331,280	5,728	108,193	1,055	809,598

VALUE-PAYABLE PARCELS POST.—SUMMARY, 1921 TO 1925—*continued.*

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
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REVENUE, INCLUDING POSTAGE, COMMISSION ON VALUE, REGISTRATION AND MONEY ORDER COMMISSION.

	£	£	£	£	£	£	£
1921	8,502	446	16,102	103	4,966	32	30,151
1922	12,144	549	22,214	177	6,259	47	41,390
1923	18,586	667	29,602	248	7,365	52	56,520
1924	23,026	855	30,318	263	8,277	42	62,781
1925	31,324	1,138	27,176	469	9,208	53	69,368

The number and value of parcels forwarded in New South Wales and Queensland are greatly in excess of the transactions of any of the other States, although the system has also found favour for several years in Western Australia. The amount of business transacted in Victoria, South Australia, and Tasmania is comparatively light, but in each of the past five years there has been a considerable increase.

6. *Sea-borne Mail Services.*—(i) *Summary.* In earlier issues of this work statements regarding the development of the principal sea-borne mail services were included but owing to the restrictions of space this information cannot be repeated. The following tabular summary, however, contains information in respect of sea-borne mail services as at 1st April, 1926 :—

SUMMARY OF AUSTRALIAN SEA-BORNE MAIL SERVICES, 1926.

Description of Service.	Frequency of Service.	Ports between which Service is maintained.	Particulars regarding Subsidies.
1. <i>To and from Ports in New South Wales—</i>			
(i) N.S. WALES—Q'LAND	Weekly	Sydney and Brisbane ..	Poundage rates
(ii) NORTHERN PORTS— (a) North Coast S.N. Co.	Once weekly	Sydney and Clarence River, Byron Bay, and Richmond River	" "
(b) " "	Fortnightly	Sydney and South Solitary Island	" "
(iii) SOUTH COAST PORTS— Illawarra and S. Coast S.N. Co.	Fortnightly	Sydney, Montague Island	" "
2. <i>To and from Northern Ports of Queensland—</i>			
(a) Hayles Magnetic Island Limited	Weekly	From Cairns to Cooktown via Port Douglas	Subsidized from 6th December, 1924, for three years. Amount of subsidy, £2,078 per annum.
(b) Other steamers	Irregularly	Various	Poundage rates

SUMMARY OF AUSTRALIAN SEA-BORNE MAIL SERVICES—*continued.*

Description of Service.	Frequency of Service.	Ports between which Service is maintained.	Particulars regarding Subsidies.
3. To and from Ports in South Australia—			
(a) Coast Steamship Co. Ltd.	Weekly	Port Adelaide and Kingscote	Subsidized to 31st December, 1928. Amount of subsidy, £1,000
(b) Adelaide Steamship Co. . .	Weekly	Port Adelaide and Port Lincoln	Subsidized for three years from 1st January, 1923. Amount of subsidy, £3,000
(c) Adelaide Steam Tug Co. . .	As required	Port Pirie and Whyalla	Subsidized without agreement. Amount of subsidy, £120
(d) Coast Steamships Ltd. . .	Fortnightly	Port Adelaide to Streaky Bay	Poundage rates
(e) " " " " . .	Weekly (Thursdays)	Port Adelaide to Kingscote	" "
(f) Mellwraith, McEacharn Line	Monthly	Port Adelaide to Albany	" "
4. Western Australia—			
(i) TO AND FROM PORTS ON N.W. COAST—			
(a) State Shipping Service	Monthly	Fremantle and Derby . .	Subsidized by agreement dated 28th February, 1913, for three years. Later extended to a date three months after expiration of war. Subsequently extended for indefinite period. Amount of subsidy, £5,500 Poundage rates
(b) " " " "	Once each sixty days	Fremantle and Darwin	
(c) West Australian S.N. Co.	About fortnightly	Fremantle and Singapore, via N.W. Ports	
(d) State Shipping Service	Irregularly, during the cattle season	Fremantle, Derby, Wyndham, Java and Singapore	
(ii) TO AND FROM PORTS ON S. COAST—			
(a) State Shipping Service	Fortnightly	Albany and Esperance	Subsidized by agreement for three years, dating from 1st August, 1924. Amount of subsidy, £1,500
(b) " " " "	Quarterly	Albany and Eucla, via intermediate ports	
5. Tasmania—			
(a) Tasmanian Steamers Pty Ltd.	Three times a week summer; twice a week winter	Melbourne and Launceston	Subsidy, £30,000 per annum from 1st May, 1921, under contract for twelve months, and thereafter terminable on twelve months' notice by either party to the agreement Poundage rates
(b) " " " "	Twice a week	Melbourne and Burnie	
(c) Union S.S. Co. and Huddart Parker Ltd.	Weekly	Sydney, Hobart and Wellington	
(d) Union Steamship Co. . .	"	Sydney, Launceston, and Devonport	
(e) Shipping and Trading Agency Pty Ltd.	"	Launceston	" "
(f) " " " "	"	Melbourne, Launceston	" "
(g) " " " "	"	Melbourne, Burnie, etc.	" "
(h) Huon Channel and Peninsular Co.	Thrice a week	Hobart and Kelly's Point, via Pearson's Point	Subsidized by agreement dated 1st January, 1925, for three years. Amount of subsidy, £50 per annum
(i) The Commissioner, Tasmanian Government Railways	Every two weeks	Launceston and Furneaux Group of Islands	Subsidized by agreement dated 1st January, 1925, for three years. Amount of subsidy, £375 per annum
(j) " " " "	Fortnightly	Launceston and Currie, King Island	Subsidized by agreement dated 1st January, 1925, for three years. Amount of subsidy, £400 per annum
(k) Holyman and Sons Pty. Ltd.	Weekly	Burnie and Melbourne, via Fraser River and King Island	Poundage rates

SUMMARY OF AUSTRALIAN SEA-BORNE MAIL SERVICES—*continued*.

Description of Service.	Frequency of Service.	Ports between which Service is maintained.	Particulars regarding Subsidies.
6. <i>To and from Northern Territory</i> —			
(a) Burns, Philp and Co. . .	Monthly	To and from Adelaide, Melbourne, and Sydney, via Queensland ports	Poundage rates
(b) State Steamship Service of Western Australia	Once each sixty days	Fremantle and Darwin . .	See Item 4 (b)
7. <i>To and from New Zealand</i> —			
(a) Conjointly by Union S.S. Co. and Huddart, Parker Ltd.	Weekly	Sydney and Wellington; Sydney and Auckland	Poundage rates
(b) Other steamers . .	Irregularly, when convenient	Sydney, Wellington, Auckland, Lyttelton, and other Ports	" "
(c) " " . .	About every three weeks	Melbourne, Wellington, or Bluff	" "
8. <i>Pacific Islands</i> —			
(a) Burns, Philp and Co. . .	Every five weeks	Sydney to Lord Howe and Norfolk Islands and New Hebrides	Subsidized by Commonwealth Government
(b) " " . .	Irregularly	Sydney to Nauru and Ocean Islands, Gilbert and Ellice Groups	" "
(c) " " . .	"	Sydney to Marshall Islands	" "
(d) " " . .	Monthly	Sydney to Papua, via Queensland Ports	" "
(e) " " . .	Every three weeks	Sydney to Rabaul, via Brisbane	" "
(f) " " . .	Twice in six weeks	Sydney to Solomon Islands, via Queensland Ports	" "
9. <i>New Caledonia and New Hebrides</i> —			
(a) Messageries Maritimes . .	Monthly	Sydney and Noumea and to Vila (New Hebrides)	Postal Union rates
(b) Other steamers . .	About twice a month	Sydney and Noumea . .	Poundage rates
10. <i>Fiji, Friendly Islands, and Samoa</i> —			
(a) Union S.S. Co. . .	Every four weeks	Sydney and Suva . .	" "
(b) " " . .	"	Sydney, Suva, Tonga, and Samoa	" "
(c) A.U.S.N. Co. . .	"	Sydney and Suva . .	" "
(d) Oceanic S.S. Co. . .	Every three weeks	Sydney, Suva, and Samoa	" "
11. <i>To Eastern Ports</i> —			
(a) Burns, Philp and Co. . .	Monthly	Melbourne and Sydney to Java and Singapore, via Queensland Ports and Darwin	Subsidized by Commonwealth Govt.. Mails at poundage rates
(b) Aust.-Oriental; Eastern and Ausn. Line	About once a month	Melbourne and Sydney to Hong Kong, Manila, etc., via Queensland Ports	Poundage rates
(c) Nippon Yusen Kaisha . .	Every four weeks	Melbourne and Sydney to Manila, China, and Japan, via Queensland Ports	Postal Union rates
(d) Royal Dutch Packet S.N. Co.	Monthly	Melbourne to Java and Singapore, via Sydney and Queensland Ports	Poundage rates
(e) Various other steamers	About monthly	Sydney or Newcastle and ports in Borneo, Java, Sumatra, Japan, and Malay Peninsula	" "
(f) W.A.S.N. Co. . .	About fortnightly	W.A. Ports, Java, and Singapore	" "
(g) Austral East Indies Line of steamers	Monthly	Sydney, Melbourne, Adelaide, Fremantle, Java, and Singapore	" "
(h) Ellerman Bucknall Line	"	" " "	" "
12. <i>South Africa</i> —			
White Star, P. and O. Branch Service, and other Companies	Irregularly	Sydney, Melbourne, Adelaide, and Fremantle to Durban and Capetown	" "

SUMMARY OF AUSTRALIAN SEA-BORNE MAIL SERVICES—*continued*.

Description of Service.	Frequency of Service.	Ports between which Service is maintained.	Particulars regarding Subsidies.
13. <i>To and from Europe, via Suez—</i> (a) Orient Steam Navigation Co.	Every four weeks	Brisbane, Sydney, Melbourne, Adelaide, Fremantle, and London, via Suez	Subsidy, £130,000. Commenced 20th September, 1921. Terminable on twelve months' notice by either party
(b) Peninsular and Oriental S.N. Co. Ltd.	Every four weeks	Sydney, Melbourne, Adelaide, Fremantle, and London, via Suez	Postal Union rates
(c) Commonwealth Government Line of Steamers	About every four weeks	" " "	Poundage rates
14. <i>To and from Europe, via Vancouver—</i> (a) Canadian-Aust. Line	Every four weeks	Sydney and Vancouver, B.C., via Auckland, Fiji, Honolulu	" "
15. <i>To and from Europe, via San Francisco—</i> (a) Union Steamship Company	Every four weeks	Sydney, Wellington, Raratonga, Tahiti, and San Francisco	Subsidized by New Zealand Govt. Mails from Aust. at Postal Union rates
(b) Oceanic Steamship Co...	Every three weeks	Sydney, Suva, Pago Pago (Samoa), Honolulu, and San Francisco	Poundage rates
16. <i>North America—</i> (a) Union S.S. Co. ..	Every four weeks	Sydney, Wellington, Tahiti, and San Francisco	" "
(b) Canadian-Aust. Line ..	"	Sydney, Auckland, Fiji, Honolulu, and Vancouver	" "
(c) Oceanic S.S. Co. ..	Every three weeks	Sydney, Suva, Pago Pago (Samoa), Honolulu, and San Francisco	" "
17. <i>South America—</i> (a) Oceanic S.S. Co. } { Union S.S. Co. }	Thrice a month	Sydney, via San Francisco to ports in Chile, Brazil, Peru, Uruguay, and Argentine	" "
(b) Various other steamers	Irregularly	Via Newcastle and Sydney to various ports	" "

(ii) *Average and Fastest Time of Mails to and from London. (a) Via Suez Canal.*

The subjoined table shows the average and the fastest times occupied in the conveyance of mails from London to Fremantle and vice versa during the year 1924-25 :—

AVERAGE AND FASTEST TIME.—MAILS VIA SUEZ CANAL, LONDON TO FREMANTLE, AND VICE VERSA DURING 1924-25.

Period.	London to Fremantle.		Fremantle to London.	
	Average Time.	Fastest Time.	Average Time.	Fastest Time.
	Days. Hours.	Days. Hours.	Days. Hours.	Days. Hours.
9.3.25 to 25.2.26	25 14	24 12½	26 11	25 9½

(b) *Via America.* The average and fastest times occupied in the conveyance of mails between London and Sydney via America during 1924-25 were:—

AVERAGE AND FASTEST TIME.—MAILS VIA AMERICA, DURING 1924-25.

Service.		Average Time.		Fastest Time.	
		Days.	Hours.	Days.	Hours.
London to Sydney	via Vancouver	43	—	43	—
	via San Francisco (Oceanic) ..	34	18	34	—
Sydney to London	via Vancouver	37	—	36	—
	via San Francisco (Oceanic) ..	35	4	33	—

(iii) *Amount of Mail 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, 1925:—

MAIL SUBSIDIES.—OCEAN AND COASTAL SERVICES, 1924-25.

Service.	Orient S.N. Co.	Queens- land Ports.	South Australian Ports.	Western Australian Ports.	Tas- manian Ports.
	£	£	£	£	£
Annual subsidy	130,000	7,860	5,320	5,453	29,080

During the year 1924-25 the amount paid for conveyance of mails at poundage rates by non-contract vessels was £35,147; by road services, £636,958; and by railway services, £403,843. The total expenditure in 1925 on the carriage of mails, as disclosed by the Profit and Loss Account, amounted to £1,284,991.

7. **Transactions of the Dead Letter Offices.**—The table hereunder shows the number of letters, postcards and letter-cards, and packets and circulars, including Inland, Inter-State, and International, dealt with by the Dead Letter Offices in 1924-25, and the methods adopted in the disposal thereof:—

DEAD LETTER OFFICES.—SUMMARY, 1924-25.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Returned direct to writers or delivered	830,794	383,902	222,225	90,105	139,691	65,598	1,732,315
Destroyed in accordance with Act ..	86,308	75,368	28,410	14,987	10,498	5,472	221,043
Returned to other States or Countries as unclaimed	51,530	30,421	22,089	9,220	15,703	2,052	131,015
Total	968,632	489,691	272,724	114,312	165,892	73,122	2,084,373

LETTERS, POSTCARDS, AND LETTERCARDS.

Returned direct to writers or delivered	845,707	197,026	221,305	56,978	76,616	12,438	1,410,070
Destroyed in accordance with Act ..	183,539	150,405	25,087	47,780	395	156	407,362
Returned to other States or Countries as unclaimed	1,961	20,360	9,018	3,620	595	3,678	39,232
Total	1,031,207	367,791	255,410	108,378	77,606	16,272	1,856,664
Grand Total (letters, packets, etc.)	1,999,839	857,482	528,134	222,690	243,498	89,394	3,941,037

During the year 1924–25 money and valuables to the amount of £146,863 were found in undeliverable postal articles, while 18,100 postal articles were posted without address, including 346 which contained money and valuables to the extent of £2,612.

8. **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) *Summary for States, 1924–25.* Particulars regarding the business transacted in each State for the year 1924–25 are given hereunder :—

MONEY ORDERS AND POSTAL NOTES.—SUMMARY, 1924-25.

State.	Value of Money Orders Issued.	Value of Money Orders Paid.	Net Money Order Commission Received.	Value of Postal Notes Sold.	Poundage Received on Postal Notes.
	£	£	£	£	£
New South Wales ..	6,616,991	6,818,695	43,925	1,935,353	37,896
Victoria ..	3,087,546	3,208,709	21,004	1,447,297	28,796
Queensland ..	2,529,285	2,116,360	16,242	512,615	10,052
South Australia ..	985,964	868,397	6,697	325,705	6,654
Western Australia ..	1,358,192	1,192,254	9,171	276,676	5,329
Tasmania ..	577,684	523,773	3,944	136,317	2,758
Australia ..	15,155,662	14,728,188	100,983	4,633,963	91,485

The figures in the foregoing table show a substantial increase over the corresponding particulars for the previous year.

(iii) *Summary, Australia, 1921 to 1925.* The next table shows the total number and value of money orders and postal notes issued and paid in Australia from 1920–21 to 1924–25 :—

**MONEY ORDERS AND POSTAL NOTES.—SUMMARY, AUSTRALIA,
1920-21 TO 1924-25.**

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).
1921 ..	2,543	13,675	2,439	13,181	10,849	3,674	10,821	3,671
1922 ..	2,761	13,803	2,632	13,412	11,631	3,968	11,522	3,909
1923 ..	2,873	14,121	2,724	13,706	12,512	4,160	12,455	4,148
1924 ..	2,832	14,377	2,686	13,913	13,382	4,350	13,240	4,311
1925 ..	2,976	15,155	2,835	14,728	13,437	4,634	13,370	4,616

(iv) *Classification of Money Orders Issued and Paid.* (a) *Orders Issued.* The next table shows the number and value of money orders issued in each State during the year 1924–25, classified according to the country where payable :—

MONEY ORDERS ISSUED.—COUNTRY WHERE PAYABLE, 1924-25.

State in which Issued.	Where Payable.				Total.
	In Australia.	In New Zealand.	In the United K'dom.	In Other Countries.	
NUMBER.					
New South Wales ..	1,238,014	11,194	81,466	15,165	1,345,839
Victoria ..	524,006	6,764	54,315	12,887	597,972
Queensland ..	419,400	1,973	28,535	9,986	459,894
South Australia ..	171,617	1,006	17,366	6,911	196,900
Western Australia ..	226,834	1,000	20,297	3,662	251,793
Tasmania ..	114,772	1,530	5,725	1,416	123,443
Australia ..	2,694,643	23,467	207,704	50,027	2,975,841

VALUE.					
	£	£	£	£	£
New South Wales ..	6,249,588	50,048	244,392	72,963	6,616,991
Victoria ..	2,836,903	27,257	159,979	63,407	3,087,546
Queensland ..	2,355,427	8,692	90,318	74,848	2,529,285
South Australia ..	886,603	4,235	48,357	46,769	985,964
Western Australia ..	1,269,299	4,891	67,078	16,924	1,358,192
Tasmania ..	554,595	6,509	13,187	3,393	577,684
Australia ..	14,152,415	101,632	623,311	278,304	15,155,662

(b) *Orders Paid.* The number and value of money orders paid in each State during the year 1924-25, classified according to the country where issued, are given hereunder :—

MONEY ORDERS PAID.—COUNTRY OF ISSUE, 1924-25.

'State in which Paid.	Where Issued.				Total.
	In Australia.	In New Zealand.	In the United K'dom.	In Other Countries.	
NUMBER.					
New South Wales ..	1,257,756	40,107	16,426	11,681	1,325,970
Victoria ..	583,235	20,826	11,245	5,029	620,335
Queensland ..	379,588	2,786	5,487	2,722	390,583
South Australia ..	169,131	1,279	3,152	1,207	174,769
Western Australia ..	205,900	1,880	5,364	1,744	214,888
Tasmania ..	102,318	2,969	1,480	1,822	108,589
Australia ..	2,697,928	69,847	43,154	24,205	2,835,134

VALUE.					
	£	£	£	£	£
New South Wales ..	6,503,401	164,184	90,988	60,122	6,818,695
Victoria ..	3,059,280	72,009	52,990	24,430	3,208,709
Queensland ..	2,067,425	11,541	26,808	10,586	2,116,360
South Australia ..	843,216	6,055	12,767	6,359	868,397
Western Australia ..	1,151,186	6,177	26,721	8,170	1,192,254
Tasmania ..	502,295	9,800	5,999	5,679	523,773
Australia ..	14,126,803	269,766	216,273	115,346	14,728,188

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

(v) *Classification of Postal Notes Paid.* The subjoined table shows the number and value of postal notes paid during the year 1924–25, 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, 1924-25.

Particulars.	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
NUMBER.							
Issued in same State	3,878,661	2,796,744	1,183,770	647,466	647,051	309,083	9,462,775
Issued in other States	485,708	381,525	714,851	66,201	31,496	2,227,393	3,907,174
Total ..	4,364,369	3,178,269	1,898,621	713,667	678,547	2,536,476	13,369,949
VALUE.							
Issued in same State	£ 1,476,859	£ 998,214	£ 413,442	£ 212,038	£ 237,222	£ 99,115	£ 3,436,890
Issued in other States	176,329	142,718	203,296	26,819	12,619	616,896	1,178,677
Total ..	1,653,188	1,140,932	616,738	238,857	249,841	716,011	4,615,567

The number and value of postal notes paid in Australia during the year showed an increase of 1 and 7 per cent. respectively over the corresponding figures for the year 1923–24.

9. *Gross Revenue, Postmaster-General's Department.*—(i) *Total.* The following table shows the gross revenue of the Postmaster-General's Department for the years ended 30th June, 1921 to 1925 inclusive. In the postal branch is included the revenue derived from money-order commissions, poundage on postal notes, private boxes and bags, and miscellaneous sources. The figures are supplied by the Treasury, and represent the actual collections and payments for the periods mentioned :—

GROSS REVENUE, POSTMASTER-GENERAL'S DEPT., 1921 TO 1925.

Year ended 30th June—				Postal Branch.	Telegraph Branch.	Telephone Branch.	Total.
				£	£	£	£
1921	..	..	..	4,574,618	(a) 1,381,974	2,431,981	8,388,573
1922	..	..	..	5,194,523	(b) 1,401,583	2,724,554	9,320,660
1923	..	..	..	5,395,829	(c) 1,413,375	2,983,069	9,792,273
1924	..	..	..	5,024,816	(d) 1,430,554	3,301,651	9,757,021
1925	..	..	..	4,944,546	(e) 1,500,076	3,599,864	10,044,486

Includes radio receipts (a) £12,052, (b) £25,998, (c) £7,711, (d) £4,012, and (e) £18,292.

As compared with the corresponding figures for the previous year, an increase of 2.94 per cent. is shown. The figures for the Telegraph and Telephone Branches increased by 4.86 and 9.03 per cent. respectively, while the Postal Branch showed a decrease of 1.60 per cent., as compared with a decrease for the previous year of 6.88 per cent.

(ii) *Analysis for States.* Returns for the year ended 30th June, 1925, are given below :—

GROSS REVENUE, POSTMASTER-GENERAL'S DEPT., ANALYSIS, 1924-25.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
	£	£	£	£	£	£	£
Postage	1,718,010	1,230,737	638,006	360,251	251,381	135,076	4,333,461
Telegraphs (ordinary) ..	526,921	329,505	241,918	205,166	126,682	51,592	1,481,784
Telegraphs (radio) ..	9,470	6,135	408	1,117	981	181	18,292
Telephones	1,397,289	1,033,242	486,073	384,528	198,875	99,857	3,599,864
Money order commission ..	82,025	49,175	27,112	13,277	14,500	6,720	192,809
Poundage on postal notes ..							
Private boxes and bags	18,119	10,598	11,287	6,526	3,606	2,165	52,301
Miscellaneous	129,206	112,478	47,616	26,011	38,960	11,704	365,975
Total	3,881,040	2,771,870	1,452,420	996,876	634,985	307,295	10,044,486

Increased telephone revenue (£299,213) was mainly responsible for a total increase of £287,474 over the revenue for 1923-24.

10. *Expenditure, Postmaster-General's Department.*—(i) *Total.* 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, 1921 to 1925 inclusive.

EXPENDITURE, POSTMASTER-GENERAL'S DEPT., 1921 TO 1925.

Expenditure.	Year ended 30th June—				
	1921.	1922.	1923.	1924.	1925.
	£	£	£	£	£
Total	8,268,725	10,026,593	10,752,373	13,487,891	14,887,929

(ii) *Distribution.* The following table shows, as far as possible, the distribution of expenditure on various items in each State during the year ended 30th June, 1925. 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, 1924-25.

Particulars.	Central Office.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
	£	£	£	£	£	£	£	£
Salaries and contingencies—								
Salaries	39,695	2,120,286	1,438,088	788,000	526,474	406,452	195,865	5,514,860
Conveyance of mails ..		442,412	239,415	227,341	87,118	91,616	42,213	1,130,615
Contingencies	7,802	718,825	501,435	426,807	237,009	140,437	90,224	2,122,539
Ocean mails	130,000							130,000
Miscellaneous	1,147	22,923	21,844	5,475	8,291	5,313	5,357	70,350
Pensions and retiring allowances ..		36,572	49,476	200		9,680		95,928
Rent, repairs, maintenance ..	640	61,289	31,001	21,175	11,712	11,992	5,022	142,831
Supervision of works ..		521	382	193	125	84	50	1,355
Proportion of Audit Office expenses ..		4,086	2,999	1,511	981	659	394	10,630
Unforeseen expenditure ..		14	53	3	2	2	4	78
New works—								
Telegraph and telephone ..	4,110	1,269,952	1,030,482	702,624	655,339	245,384	75,815	3,983,706
New buildings, etc. ..		221,704	109,951	79,101	89,991	41,581	10,958	553,286
Interest on transferred properties		80,469	43,241	32,026	19,922	16,460	7,124	199,242
Other	932,509							932,509
Total	1,115,903	4,979,053	3,468,367	2,284,956	1,636,964	969,660	433,026	14,887,929

(a) Particulars of appointment to each State not available.

Compared with the total for the preceding year the expenditure for 1924–25 rose by £1,400,038, the principal increase being in respect of salaries and contingencies, £768,280, and works, £385,096.

11. **Balance Sheet of the Postmaster-General's Department.**—(i) *General.* Returns for the last five years are given below :—

PROFITS, POSTMASTER-GENERAL'S DEPT., 1921 TO 1925.

Items.	Year ended 30th June—				
	1921.	1922.	1923.	1924.	1925.
	£	£	£	£	£
Total earnings ..	8,511,494	9,347,656	9,898,158	9,724,801	10,074,854
Total working expenses	6,724,543	7,103,536	7,651,864	8,448,777	9,230,630
Surplus	1,786,951	2,244,120	2,246,294	1,276,024	844,224
Interest on capital ..	643,183	703,039	780,235	911,672	1,086,546
Total surplus (+) or deficit (—) ..	+1,143,768	+1,541,081	+1,466,059	+364,352	— 242,322

After providing for depreciation, pensions and retiring allowances, the year 1924–25 closed with a surplus of £844,224, which was insufficient by £242,322 to meet the interest on capital. In each of the previous four years a surplus resulted, but in respect of the year 1924–25 the following factors contributed to the altered financial aspect :—Reduced revenue due to reduction of postage rates from 1st October, 1923, estimated at £300,000 ; the introduction of the radial charge basis for telephone trunk calls (£82,000) ; the alteration of cable rates from 1st December, 1924 (£17,500) ; and the diminution of the earnings from the Orient (Contract) Line of Steamers estimated at £47,000. Further, the additional amount involved in Arbitration Court awards (£283,000) ; the increase of £62,000 for Railway Mail Services ; and the re-arranging and rebuilding of telephone and telegraph aerial routes between Melbourne and Sydney, for which £45,000 was debited to working expenses for the year, all tended to an adverse financial balance on the year's operations.

(ii) *Results for each State.* The next table gives the results for each State during the five years 1920–21 to 1924–25 :—

PROFIT OR LOSS, POSTMASTER-GENERAL'S DEPT., STATES, 1921 TO 1925.

State.	Year ended 30th June—				
	1921.	1922.	1923.	1924.	1925.
	£	£	£	£	£
New South Wales	(+) 334,395	(+) 508,474	(+) 487,835	(+) 90,815	(—) 42,459
Victoria	(+) 516,860	(+) 644,824	(+) 608,203	(+) 311,709	(+) 91,974
Queensland ..	(+) 143,844	(+) 186,185	(+) 168,172	(—) 7,734	(—) 102,298
South Australia ..	(+) 189,936	(+) 218,528	(+) 226,155	(+) 106,306	(+) 22,142
Western Australia	(—) 62,397	(—) 30,764	(—) 22,638	(—) 87,677	(—) 126,796
Tasmania ..	(+) 21,130	(+) 13,834	(—) 1,668	(—) 49,067	(—) 84,885
Australia ..	(+) 1,143,768	(+) 1,541,081	(+) 1,466,059	(+) 364,352	(—) 242,322

(+) Denotes profit.

(—) Denotes loss.

(iii) *Profit or Loss of Branches.* The following table shows the profit or loss on the various branches during the five years dealt with :—

PROFIT OR LOSS, BRANCHES, POSTMASTER-GENERAL'S DEPT., 1921 TO 1925.

Year ended 30th June—	Postal.		Telegraph.		Telephone.		All Branches.	
	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.	Loss.	Profit.
	£	£	£	£	£	£	£	£
1921	929,605	8,312	..	..	222,475	..	1,143,768
1922	1,258,286	..	1,809	..	280,986	..	1,541,081
1923	1,365,064	78,460	..	..	179,455	..	1,466,059
1924	502,667	188,982	..	..	50,667	..	364,352
1925	243,472	227,175	..	258,619	..	242,322	..

The losses for the year, which were incurred in the Telegraph and Telephone Branches, are ascribed to reasons in para. 11 (i) hereinbefore.

§ 2. Telegraphs.

1. *General.*—A review of the development of the Electric Telegraph Services in Australia was given in a previous issue of this work (see Year Book No. 15), but limitations of space preclude the repetition of this information in the present issue. The two most important developments in connexion with the Telegraph system are the introduction of the "Carrier-wave" system referred to hereinafter (see § 4, Telephones) and the "Teletype Printing Telegraphs," 15 sets of which apparatus will shortly be installed on various circuits throughout Australia.

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 1921 to 1925 :—

TELEGRAPHS.—AUSTRALIA; SUMMARY, 30th JUNE, 1921 TO 1925.

Particulars.	1921.	1922.	1923.	1924.	1925.
Number of offices	6,366	6,641	6,987	7,709	8,576
Length of wire (miles)—					
Telegraph purposes only	63,295	62,781	62,619	63,528	66,702
Telegraph and telephone purposes	82,234	84,855	91,461	105,351	126,086
Length of line (miles)—					
Conductors in Morse cable	2,133	2,139	2,139	2,201	2,399
Conductors in submarine cable	1,851	2,067	2,193	2,415	2,919
Pole routes (miles)	60,580	62,489	66,648	71,828	80,399

(ii) *Particulars for each State.* The following table gives corresponding particulars for each State for the year 1924–25 :—

TELEGRAPHS.—STATES, SUMMARY, 30th JUNE, 1925.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Aus- tralia.
Number of offices	2,792	2,219	1,347	736	934	548	8,576
Length of wire (miles)—							
Telegraph purposes only	23,120	6,811	14,087	12,430	9,904	350	66,702
Telegraph and telephone purposes	39,340	24,319	32,859	9,412	14,228	5,928	126,086
Length of line (miles)—							
Conductors in Morse cable	913	1,101	350	..	21	14	2,399
Conductors in submarine cable (statute miles)	2,080	443	57	71	5	263	2,919
Pole routes (miles)	29,599	14,226	12,572	9,218	11,031	3,753	80,399

A total length of 192,788 miles of wire is available for telegraph purposes, of which 126,086 miles are also used for telephone purposes, and the figures show increases of 23,909 (14 per cent.) and of 20,735 miles (19 per cent.) respectively over the corresponding mileages for the previous year.

3. **Number of Telegrams Dispatched.**—(i) *Total for Australia.* The number of telegrams dispatched to destinations within Australia in each of the last five years is given hereunder :—

TELEGRAMS DISPATCHED.—AUSTRALIA, 1921 TO 1925.

Telegrams.	Year ended 30th June—				
	1921.	1922.	1923.	1924.	1925.
Number(a) ..	16,723,111	15,796,022	15,828,629	16,699,199	17,132,145

(a) Including interstate cablegrams.

(ii) *Totals for each State.* The appended table shows the number of telegrams dispatched in each State in 1924-25 for delivery in that State, the number dispatched in each State for delivery in other States, and the total number of telegrams—exclusive of cablegrams for places outside Australia—dispatched in each State :—

TELEGRAMS DISPATCHED.—STATES, 1924-25.

State, etc. ..	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Inland ..	4,484,933	2,910,978	2,232,144	1,096,754	1,466,687	305,843	12,497,339
Interstate(a) ..	1,411,414	1,336,764	721,915	535,341	391,339	238,033	4,634,806
Total ..	5,896,347	4,247,742	2,954,059	1,632,095	1,858,026	543,876	17,132,145

(a) Including interstate cablegrams.

The figures in the foregoing table show an increase in the total volume of telegraph business of 432,946 messages 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. **Wireless Telegraphy and Telephony.**—(i) *General.* A statement in regard to the initial steps taken towards the establishment of wireless telegraphy in Australia was given in Official Year Book No. 18, p. 243, but consideration of space precludes its repetition in the present issue.

With the exception of the war period, licences for experimental and amateur stations have been issued since 1911, with restrictions on the use of transmitting equipment. At the end of April, 1926, there were 793 such experimental stations, including 341 transmitting stations.

The regulations were amended in 1920 with a view to encouraging the erection of "land" stations by pastoralists and others in remote districts, but very few satisfactory applications were received. The Department, however, at the end of 1925 opened stations at Wave Hill and at Camooweal to collect and distribute messages from private stations that might subsequently be erected in the Northern Territory.

Regulations under the Navigation Act require that all ships registered in Australia of 1,600 tons or more registered tonnage, or carrying more than 12 passengers, shall be fitted with an efficient wireless telegraphy installation. At the end of April, 1926, there were 121 vessels so equipped.

Two Class "A" broadcasting stations are in operation in New South Wales and in Victoria. Class "B" stations as follows are in operation, viz. :—New South Wales, 7; Victoria, Queensland, South Australia, and Tasmania, 1 each.

The revised regulations issued in 1924 and amended in 1925 prescribe the licence fees to be paid by owners of receiving sets, and by radio dealers and experimenters. Each State was divided into three zones, and the annual fees and the distances from the capital city of the respective zones were fixed as follows :—

Class of Licence.	Zone 1.	Zone 2.	Zone 3.
	Up to 250 Miles.	250 to 400 Miles.	Beyond 400 Miles.
Broadcast listeners' licences	£ s. d. 1 7 6	£ s. d. 1 2 6	£ s. d. 0 17 6
" " " (Temporary (a))	1 0 0	0 17 6	0 15 0
Experimental licences	5 0 0	3 0 0	2 0 0
Dealers' listening licences			

(a) Per week. Others for one year.

The Postmaster-General may reduce the fees at the end of the first year; and in the second year, which commences on the 1st July, 1926, the whole scheme may be reviewed.

Of the revenue obtained from the licence fees the Postal Department retains 5s. for each special broadcast listener's licence; 2s. 6d. for each ordinary broadcast listener's licence; 25 per cent. for a temporary broadcast listener's licence; 25 per cent. for a dealer's listening licence; and 10s. for an experimental licence; the remainder of the revenue being available for distribution to the broadcasting company or companies in the State in which the revenue is collected. The companies must supply a satisfactory programme, use the authorized power, and provide effective transmission.

Two classes of broadcasting stations may operate, viz. :—Class "A"—in respect of which the receiving licence fees are payable, and Class "B"—in respect of which no receiving licence revenue is payable. In New South Wales and Victoria two Class "A" stations only may be licensed. The licensees of these stations receive respectively 70 per cent. and 30 per cent. of the licence fees available for distribution. In the other States one Class "A" station only may be licensed, and the whole of the "available revenue" for the particular State will be payable in respect of the station. The fees payable to the Department for Class "A" licences are £15, and for Class "B" £5, the licence being valid for a period of 5 years.

The number of receiving licences in operation in Australia up to the end of April, 1926, is as follows :—Broadcast listeners' licences, 106,779; Dealers' listening licences, 1,928; Experimental licences—Transmitting and receiving, 341; Receiving only, 452.

(ii) *Radio Stations (Pacific Ocean).* Radio-telegraphic stations have been erected at Suva, Ocean Island, Tulagi, and Vila under the control of the High Commissioner of the Pacific, while the New Zealand Government has erected high-power stations at Awanui (Auckland), Awarua (Bluff), and Apia (Samoa), and low-power stations at Auckland, Chatham Islands, Raratonga (Cook Islands), and Wellington.

(iii) *Licence Fees.* In addition to the licences referred to in sub-section (i) *ante*, the regulations provide for the issue of the following licences, for which the respective fees per annum, payable in advance, are as shown, viz. :—(a) Coast Station, £1; (b) Ship Station, £1; (c) Land Station, £1; (d) Portable Station, £1; and (e) Aircraft Station, £1.

(iv) *Licences Issued.* The following tables show the number of each class of licence issued in each State, etc., during the years 1924–25 and 1925–26 :—

WIRELESS LICENCES, 1924-25.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.	Papua.	Grand Total.
Coast	1	1	5	1	5	3	1	17	2	19
Ship	33	58	10	16	3	1	..	121	..	121
Land .. ..	..	..	..	..	..	1	1	2	2	4
Broadcasting—										
“A”	2	2	1	1	1	..	..	7	..	7
“B”	5	3	4	1	..	..	..	15	..	15
Broadcast listeners—										
Ordinary ..	33,719	19,243	1,061	3,118	3,417	501	..	61,059	..	61,059
Special ..	11	24	5	5	8	1	..	54	..	54
Temporary ..	55	93	10	44	29	13	..	244	..	244
Experimental—										
Transmitting and receiving ..	78	58	25	24	14	12	..	211	2	213
Receiving only ..	236	156	40	32	29	11	..	504	1	505
Dealers' listening ..	813	807	136	152	94	42	2	2,044	..	2,044
Portable .. ..	..	..	..	..	..	..	..	..	..	..
Aircraft .. ..	..	..	..	..	..	..	..	..	..	..
Total Licences issued	34,953	20,445	1,297	3,394	3,600	585	4	64,278	7	64,285

The records show that 862 first-class and 7 second-class proficiency certificates were issued to successful candidates at examinations.

WIRELESS LICENCES, 1925-26.

Station Licence.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.	Papua.	Grand Total.
Coast	1	1	5	1	5	3	1	17	2	19
Ship	32	59	7	17	3	..	..	118	..	118
Land .. ..	..	..	..	..	..	1	1	2	2	4
Broadcasting—										
“A”	2	2	1	1	1	1	..	8	..	8
“B”	7	1	1	1	..	1	..	11	..	11
Broadcast listeners—										
Ordinary ..	36,292	63,494	8,100	12,105	3,886	1,170	..	125,047	..	125,047
Special ..	9	49	8	174	1	1	..	242	..	242
Temporary ..	8	25	21	37	7	1	..	99	..	99
Experimental—										
Transmitting and receiving ..	124	114	37	31	26	23	..	355	2	357
Receiving only ..	185	133	40	32	24	10	..	424	6	430
Dealers' Listening ..	472	797	265	315	66	77	..	1,992	..	1,992
Portable .. ..	..	..	..	..	..	..	..	..	..	..
Aircraft .. ..	..	..	..	..	..	..	..	..	..	..
Total Licences issued	37,132	64,675	8,485	12,714	4,019	1,288	2	128,315	12	128,327

Licences previously issued by the Minister for the Navy under the Naval Defence Act 1910–1918, or by the Postmaster-General under the Act, and which were in force on 1st December, 1922, are not prejudiced by these Regulations.

Licences for the Territory of New Guinea are issued by the Administrator at Rabaul.

(v) *Radiotelegraphic Traffic. (a) Coast Stations.* The following statement shows the traffic handled by the several coast stations during the year 1924-25 :—

RADIO TRAFFIC.—COAST STATIONS, 1923-24 AND 1924-25.

State or Territory.	Particulars.						
	1924-25.					1923-24.	
	Messages.					Paying Words.	Total Messages.
	Total. Paying Words.	Paying.	Service.	Weather.	Total.		
	No.	No.	No.	No.	No.	No.	No.
New South Wales ..	319,971	21,348	573	5,183	27,104	289,608	23,515
Victoria ..	185,540	14,108	49	1,727	15,884	190,490	15,511
Queensland ..	842,963	47,408	3,764	5,692	56,864	833,546	57,558
South Australia ..	80,915	6,295	285	1,677	8,257	72,173	7,339
Western Australia ..	305,349	18,272	782	5,222	24,276	158,111	19,419
Tasmania ..	139,515	8,888	322	163	9,373	134,603	8,865
Northern Territory ..	9,312	647	2	1,123	1,772	6,320	1,375
Australia ..	1,883,565	116,966	5,777	20,787	143,530	1,684,851	133,582
Papua ..	297,754	16,019	232	1,135	17,386	329,704	16,905
Grand Total ..	2,181,319	132,985	6,009	21,922	160,916	2,014,555	150,487

(b) *Island Stations.* Particulars of the island radio traffic dealt with during the year 1924-25 are given hereunder :—

RADIO TRAFFIC.—ISLAND STATIONS, 1924-25.

Particulars.	To Australia.	From Australia.	Inter-Island.	Ship.	Service.	Total.
Messages ..	9,565	7,096	6,808	2,110	5,279	30,858
Words ..	178,933	175,970	204,811	34,040	63,078	656,832

(vi) *Proficiency Certificates.* Proficiency certificates for commercial wireless operators are issued by the Minister to individuals who pass the specified tests. Amateur operators' certificates and watchers' certificates are, in addition, issued to successful candidates at the prescribed examinations.

Every ship-station and coast-station, in respect of which a licence is issued, must be operated by a person holding a certificate of proficiency.

At 30th June, 1925, 882 first-class and 45 second-class proficiency certificates in addition to 33 watchers' certificates had been issued.

6. **Revenue and Expenditure.**—Particulars as to the revenue from the telegraph systems for the years 1920-21 to 1924-25 were given in earlier pages.

§ 3. Submarine Cables.

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. **The Tasmania-Victoria Cables.**—These cables were opened to the public on the 1st May, 1909. Their aggregate length is approximately 350 nautical miles of main cable, and 20 nautical miles each of intermediate and shore-end cable, making a total of 390 nautical miles.

3. **The Eastern Extension Company's Cables.**—In addition to the first Tasmania-Victoria cable and the original cable from Darwin (see Year Book No. 6, p. 770), the Eastern Extension Company has constructed several other cables connecting with various places in Australia, viz., Darwin to Banjoewangie (two lines); Fremantle to Durban; Fremantle to Adelaide; Java to Cocos Island, which provides another route between Australia and South Africa; and a cable partly owned by this Company connecting the Darwin-Singapore cable with London via Hong Kong, Shanghai, Possiet Bay (Pacific Russia), Libau (Latvia), and Newbiggin (London).

4. **The Pacific Cable.**—(i) *Cable Lines.* The Pacific Cable lines are controlled by the Pacific Cable Board, consisting of three representatives of the Imperial Government, two each from Canada and Australia, and one from New Zealand. The main cable route known as the "All Red" runs from Southport in Queensland to Bamfield in British Columbia, thence overland to Montreal. From this point messages are transmitted across the Atlantic over the cables of the Anglo-American and Commercial Companies, or, if so desired, the Marconi Wireless System between Canada and the United Kingdom may be availed of for either homeward or outward messages. Cable stations are established at Norfolk Island, Fiji, and Fanning Island. A branch cable approximately 600 miles long runs from Norfolk Island to Doubtless Bay, North Island of New Zealand.

The assent of each of the Governments interested was obtained for the duplication of the system south of Fiji, and a contract for the submarine cables was placed with the Telegraph Construction and Maintenance Company of Greenwich, and the laying of the Sydney-Southport cable was completed on 11th July, 1923, and the Auckland-Suva cable on 12th August, 1923, the total cost of this work being £337,941. Tenders have been let for duplication of the cable between Fiji and Vancouver Island, the contractors for each section, i.e., Vancouver Island-Fanning Island and Fanning Island-Fiji, undertaking to complete the work by 30th September, 1926.

During the year 1924-25 two short interruptions occurred which, however, owing to the Board's facilities for diverting traffic, did not cause any dislocation in the service.

(ii) *Financial Summary.* The receipts for the year 1924-25 exceeded the ordinary expenses by £254,589. After payment of the annuity of £77,545 in respect of interest and repayment of the capital of £2,000,000, and of the annuity of £9,150 to the renewal fund for interest and sinking fund on £177,254 borrowed from the fund for the purposes of the Auckland-Sydney cable, there remained a surplus of £167,894, which, in view of the question of the duplication of the northern cables, was employed to strengthen the reserve and renewal fund. The following table gives the revenue, expenditure, total profit, and the proportion thereof payable to Australia for the years ended 31st March, 1921 to 1925:—

PACIFIC CABLE—FINANCIAL SUMMARY, 1921 TO 1925.

Year ended 31st March—	Revenue.	Expenditure (including Annuities and Renewal Fund).	Profit.	Australian Proportion of Profit.
	£	£	£	£
1921 ..	633,343	629,866	3,477	1,159
1922 ..	528,428	507,666	20,762	6,921
1923 ..	529,228	529,228	..	..
1924 ..	551,789	551,789	..	..
1925 ..	549,917	549,917	..	..

5. **New Zealand Cables.**—A submarine cable, 1,191 miles in length, from New Zealand to Australia, was laid in 1876. The Australian shore-end of the cable is at Botany Bay, while the New Zealand terminus is at Wakapuaka near Nelson in the Middle Island, from which place another cable, 109 miles in length, is laid to Wanganui in the North Island. A second cable between New Zealand and Australia (Auckland to Sydney) was opened for traffic on the 31st December, 1912.

6. **The New Caledonia Cable.**—This cable was opened for use in October, 1893, the Australian shore-end being at Burnett Heads, near Bundaberg. The guarantees of the Governments of New South Wales and Queensland have since been transferred to the Commonwealth Government.

7. **Lengths of Cable Routes.**—Particulars regarding the lengths of the various routes were given in preceding issues of the Official Year Book (see No. 17, p. 358), but limitations of space preclude their repetition in the present volume.

8. **Cable Business.**—(i) *Australia.* The subjoined table shows the number of cablegrams received and dispatched in Australia from 1922-23 to 1924-25 :—

CABLEGRAMS.—AUSTRALIA, 1922-23 TO 1924-25.

Cablegrams.	Cablegrams Received.			Cablegrams Dispatched.			Total Cablegrams Received and Dispatched.		
	1922-23.	1923-24.	1924-25.	1922-23.	1923-24.	1924-25.	1922-23.	1923-24.	1924-25.
Number ..	533,977	565,981	617,394	539,926	567,571	641,408	1,073,903	1,133,552	1,258,802

(ii) *States.* The number of cablegrams received and dispatched in each State during the year 1924-25 is given hereunder :—

CABLEGRAMS.—STATES, 1924-25.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.(a)	Australia.
Number received ..	310,543	216,734	25,411	31,272	25,577	7,857	617,394
Number dispatched	320,600	214,048	30,092	35,965	31,385	9,318	641,408
Total ..	631,143	430,782	55,503	67,237	56,962	17,175	1,258,802

(a) Exclusive of interstate cablegrams, which are included with interstate telegrams.

9. **Cable Rates.**—The rates for ordinary business between Great Britain and Australia were reduced from 3s. to 2s. 6d. per word as from 1st December, 1924, and from 7th July, 1925, the press rate was reduced from 7½d. to 6d. per word.

10. **Night Letter Service.**—A night letter service for traffic between Australia and New Zealand was introduced on 1st May, 1924. The rate is fixed at 3s. per message of 20 words, and 2d. per word in excess of 20. On 1st December, 1924, the service was extended to take in traffic to and from Fiji at the rate of 5s. 10d. per message of 20 words, and excess words at the rate of 3½d. per word. Night letter telegrams are accepted at any time and are delivered by first post on the morning following receipt.

11. **Cable Subsidies Paid.**—The following table shows the amount of subsidy paid in each of the years 1921 to 1925 :—

CABLE SUBSIDIES, 1921 TO 1925.

Subsidies.	Year ended 30th June—				
	1921.	1922.	1923.	1924.	1925.
Amount .. £	3,749	3,840	3,985	2,136	..

As the agreement in connexion with the Tasmanian cable expired in 1909, and as new cables were laid by the Commonwealth Government, the guarantees were, in the course of the year 1910, reduced to those in connexion with the New Caledonia and Pacific cables. From 1915–16 onwards the only cable subsidy paid by Australia was in respect of the New Caledonian cable guarantee.

§ 4. 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, 1923 to 1925 :—

TELEPHONE LINES—AUSTRALIA, 30th JUNE, 1923 TO 1925.

Particulars.	1923.	1924.	1925.
Ordinary Lines—			
Conduits duct miles	3,146	3,447	3,748
“ route miles	1,530	1,804	2,039
Conductors in aerial cables loop mileage	34,986	32,289	29,604
Conductors in underground cables	312,224	362,037	434,091
Conductors in cables for junction circuits	49,493	54,165	62,021
Open conductors single wire mileage	221,832	250,898	312,454
Trunk Lines—			
Telephone trunk lines only miles	40,851	55,516	85,201
Telegraph and telephone purposes	91,461	105,351	126,086

(ii) *Comparison with Other Countries.* Australia at present stands seventh in the list of countries having the greatest development of telephone facilities. This position may be considered satisfactory in view of the area and distribution of population, and the average length of wire required to provide a subscriber's service. The average length of wire per instrument in Australia is 3.60 miles, as compared with 2.69 miles in the United States of America and in New Zealand, and 2.55 miles in Canada.

(iii) *Recent Improvements.* (a) *The “Carrier-wave” System.* This system of operating in connexion with long-distance telephony, which was introduced on the 10th September, 1925, represents one of the most remarkable of recent advances in

electrical communication. Its application to the Melbourne-Sydney service has resulted not only in the facilitation and expansion of business, but in a great saving of expense.

The "Carrier-wave" system permits of four separate conversations on a single pair of wires, and at the same time accommodates two telegraph duplex circuits on which four telegrams may be transmitted simultaneously. The necessity for expensive duplications of lines, which was becoming an urgent necessity, is thereby obviated. A similar service outside Australia is in operation only in the United States of America.

(b) *Automatic Exchanges.* At 30th June, 1925, there were 22 automatic or semi-automatic exchanges in operation providing facilities for 59,014 subscribers, 57,237 of whom were in the metropolitan areas. On the same date 20 automatic exchanges, with a total capacity of over 60,000 subscribers, were in course of construction.

(iv) *Summary for States.* Particulars relating to the telephone service in each State for the years ended 30th June, 1923 to 1925, will be found in the following table:—

TELEPHONE SERVICES.—SUMMARY, 1923 TO 1925.

Particulars.	Year (30th June.)	N.S.W. ^O	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
No. of Exchanges ..	1923	1,026	708	448	241	169	233	2,825
	1924	1,085	1,062	499	296	216	270	3,428
	1925	1,201	1,264	618	373	315	307	4,078
No. of Telephone Offices (Including Exchanges)	1923	2,274	1,739	902	572	461	454	6,402
	1924	2,456	1,955	1,093	621	739	503	7,367
	1925	2,623	2,139	1,314	681	854	511	8,122
No. of lines connected ..	1923	87,352	81,201	27,612	19,306	11,590	6,917	213,978
	1924	97,310	71,352	30,619	23,155	12,929	7,809	243,174
	1925	107,497	83,640	34,560	28,968	14,405	8,784	277,854
No. of instruments connected	1923	113,645	84,452	34,634	25,663	14,793	8,516	281,703
	1924	125,995	97,528	38,318	30,332	16,410	9,696	318,279
	1925	139,557	114,169	43,073	37,057	18,340	10,753	362,949
(a) No. of subscribers' instruments	1923	110,200	82,508	33,241	24,892	14,144	8,024	272,949
	1924	122,216	95,418	36,815	29,459	15,661	9,175	308,744
	1925	135,527	111,786	41,371	36,118	17,699	10,124	352,625
(b) No. of public telephones	1923	1,815	1,480	942	567	407	373	5,584
	1924	1,945	1,640	1,035	588	475	399	6,082
	1925	2,165	1,900	1,212	629	586	493	6,985
(c) No. of other local instruments	1923	1,630	464	451	264	242	119	3,170
	1924	1,834	470	468	285	274	122	3,453
	1925	1,865	483	490	310	55	136	3,339
Instruments per 100 of population	1923	5.19	5.28	4.35	5.00	4.25	3.98	4.97
	1924	5.66	5.95	4.63	5.70	4.55	4.55	5.48
	1925	6.13	6.83	5.04	6.77	4.82	5.07	6.12
Earnings ..	1923	£ 1,184,035	£ 850,182	£ 411,523	£ 304,061	£ 166,338	£ 87,268	£ 3,003,407
	1924	1,290,972	945,409	454,750	343,846	182,153	95,495	3,312,615
	1925	1,411,341	1,055,390	494,103	396,975	202,066	101,235	3,661,110
Working expenses ..	1923	959,836	574,487	324,389	197,520	141,958	83,352	2,283,542
	1924	1,039,221	676,069	363,144	245,239	153,370	90,790	2,623,839
	1925	1,216,284	856,104	443,820	322,263	168,945	121,437	3,128,913
Percentage of working expenses on earnings	1923	% 81.06	% 67.57	% 79.31	% 64.96	% 85.34	% 95.51	% 76.03
	1924	84.37	71.51	79.85	71.32	81.20	101.37	79.21
	1925	86.18	81.12	89.82	81.18	83.61	119.96	85.46

The number of instruments per 100 of population has increased from 4.97 in 1922-23 to 6.12 in 1924-25. The actual number of instruments has increased from 281,703 to 362,949—an increase of almost 29 per cent.

(v) *Subscribers' Lines and Calling Rates.* The next table gives the number of subscribers' lines and the daily calling rate at central, suburban, and country telephone exchanges in the several States for the year 1924-25:—

TELEPHONES.—SUBSCRIBERS' LINES AND DAILY CALLING RATE, 1924-25.

State.	Central Exchanges.		Suburban Exchanges.		Country Exchanges.		Total.	
	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.	Subscribers' Lines.	Average Outward Calls Daily per line.
New South Wales	12,484	9.97	47,708	3.78	41,009	1.54	101,201	3.64
Victoria ..	12,266	8.72	36,150	3.63	29,126	1.44	77,542	3.61
Queensland ..	8,202	7.13	5,110	3.31	20,837	2.44	34,149	3.70
South Australia	8,340	7.00	8,154	3.40	9,982	1.10	26,476	3.67
Western Australia	5,016	6.39	2,834	4.39	6,007	1.66	13,857	3.93
Tasmania ..	2,404	4.39	760	2.32	5,168	1.64	8,332	2.53
Australia ..	48,712	8.02	100,716	3.68	112,129	1.65	261,557	3.62

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 exchanges, Western Australia at suburban exchanges, and Queensland at country exchanges. For Australia as a whole, the average number of calls per line at central exchanges was more than double the number registered at suburban exchanges, while the average for suburban exchanges was slightly more than double the number shown for country exchanges.

(vi) *Trunk Line Calls and Revenue.* In the following table the number of telephone trunk line calls recorded, the amount of revenue received, and the average revenue per call are shown for each of the States for the years 1922-23 to 1924-25:—

TELEPHONES—TRUNK LINE CALLS AND REVENUE FOR THE YEARS 1922-23 TO 1924-25.

Particulars.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
Total Calls for Year—	No.	No.	No.	No.	No.	No.	No.
1922-23 ..	5,985,820	4,168,469	2,616,344	1,587,593	707,159	849,197	15,914,582
1923-24 ..	6,748,101	4,709,531	2,938,267	1,886,706	855,106	977,689	18,115,400
1924-25 ..	7,843,286	5,639,117	3,545,610	2,448,991	1,103,644	1,094,802	21,675,450
Total Revenue for Year—	£	£	£	£	£	£	£
1922-23 ..	221,919	157,062	128,364	73,292	33,365	28,368	642,370
1923-24 ..	243,529	170,959	144,890	84,025	38,803	31,013	713,219
1924-25 ..	261,940	184,809	153,354	97,359	48,887	30,691	777,040
Average Revenue per Call—	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1922-23 ..	8.89	9.04	11.77	11.08	11.32	8.02	9.68
1923-24 ..	8.66	8.71	11.83	10.57	10.88	7.61	9.44
1924-25 ..	8.01	7.86	10.38	9.54	10.63	6.73	8.60

While the number of trunk line calls recorded during 1924-25 has increased by more than $3\frac{1}{2}$ millions over the figures for the previous year, the average revenue per call has decreased by 0.84d. per call, due to the fact that the radial charge basis (introduced on 1st April, 1924) was operative for the whole of 1924-25 as compared with only three months of the year 1923-24.

The rapid growth in connexion with subscribers' services is, however, bringing about increased trunk line traffic, and extensive works are in progress to meet the growing demand and to improve the trunk line system generally.

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