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## SECTION V.

### VITAL STATISTICS.

#### § 1. Births.

1. **Male and Female Births, 1901 to 1907.**—The total number of male and female births registered in the Commonwealth and New Zealand during the years 1901 to 1907 is as shewn in the two tables hereunder :—

#### TOTAL MALE BIRTHS, AUSTRALASIA, 1901 to 1907.

State, etc.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S. Wales ...	19,149	19,322	18,377	19,857	20,206	21,066	21,604
Victoria ...	15,876	15,583	15,115	15,313	15,523	15,716	15,986
Queensland, ...	7,281	7,279	6,427	7,134	6,978	7,280	7,451
S. Australia <sup>1</sup> ...	4,687	4,587	4,484	4,686	4,514	4,617	4,689
W. Australia ...	2,946	3,241	3,433	3,666	3,862	4,043	3,962
Tasmania ...	2,570	2,604	2,570	2,702	2,812	2,792	2,797
C'wealth ...	52,509	52,616	50,406	53,358	53,895	55,514	56,489
New Zealand	10,471	10,653	11,217	11,762	12,109	12,397	12,835

1. Including Northern Territory.

#### TOTAL FEMALE BIRTHS, AUSTRALASIA, 1901 to 1907.

State, etc.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S. Wales ...	18,726	18,513	17,589	18,810	19,295	19,882	20,597
Victoria ...	15,132	14,878	14,454	14,450	14,584	15,128	15,379
Queensland ...	7,022	6,937	6,194	6,948	6,648	6,739	7,089
S. Australia <sup>1</sup> ...	4,424	4,360	4,024	4,447	4,354	4,329	4,549
W. Australia ...	2,772	2,991	3,266	3,510	3,720	3,757	3,750
Tasmania ...	2,360	2,481	2,510	2,590	2,445	2,541	2,494
C'wealth ...	50,436	50,160	48,037	50,755	51,046	52,376	53,858
New Zealand	10,020	10,002	10,612	11,004	11,573	11,855	12,259

1. Including Northern Territory.

2. **Total Births, 1901 to 1907.**—While the total number of births for the Commonwealth was higher in 1907 than in any of the preceding six years, the following table of particulars discloses also the fact that in Victoria, Queensland and South Australia the excess of births in 1907 over those in 1901 was very small :—

## TOTAL BIRTHS, AUSTRALASIA, 1901 to 1907.

State, etc.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
New South Wales ...	37,875	37,835	35,966	38,667	39,501	40,948	42,201
Victoria ...	31,008	30,461	29,569	29,763	30,107	30,844	31,865
Queensland ...	14,300	14,216	12,621	14,082	13,626	14,019	14,540
South Australia <sup>1</sup> ...	9,111	8,947	8,508	9,133	8,868	8,946	9,238
Western Australia ...	5,718	6,232	6,699	7,176	7,582	7,800	7,712
Tasmania ...	4,930	5,085	5,080	5,292	5,257	5,333	5,291
Commonwealth ...	102,945	102,776	98,443	104,113	104,941	107,890	110,347
New Zealand ...	20,491	20,655	21,829	22,766	23,682	24,252	25,094

1. Including Northern Territory.

3. *Birth Rates, 1901 to 1907.*—(i.) *Crude Birth Rate.* The birth rate for the whole Commonwealth was lower in 1907 than in 1901, and Tasmania is the only State in which a slight increase in the rate took place, as will be seen from the following table, which gives also the number of persons per square mile in each State :—

CRUDE BIRTH-RATE,<sup>1</sup> AUSTRALASIA, 1901 to 1907.

State, etc.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	Density <sup>2</sup> (No. per sq. mile).
New South Wales ...	27.78	27.20	25.41	26.81	26.79	27.12	27.22	5.06
Victoria ...	25.75	25.16	24.46	24.65	24.83	25.20	25.32	14.20
Queensland ...	28.53	27.89	24.62	27.13	25.92	26.31	26.98	0.81
South Australia <sup>3</sup> ...	25.11	24.54	23.25	24.71	23.67	23.55	23.96	0.43
Western Australia ...	30.34	30.27	30.26	30.33	30.29	30.01	29.40	0.27
Tasmania ...	28.60	29.23	28.62	29.60	29.33	29.82	29.50	7.02
Commonwealth ...	27.14	26.66	25.23	26.33	26.12	26.41	26.55	1.41
New Zealand <sup>4</sup> ...	26.34	25.89	26.61	26.94	27.22	27.08	27.30	8.87

1. Number of Births per 1000 of the mean annual population.

2. On 31st December, 1907.

3. Including Northern Territory.

4. Excluding Maoris.

The population density of each State and of the Commonwealth has been given for the purpose of considering the influence, if any, of concentration of population on birth-rate, in connection with the disparities of the rate in different parts of Australia.

(ii.) *Objections to Crude Birth Rate.* The figures just given represent the "crude birth rate," viz., the number of births per thousand of mean annual population. The number of births per thousand of the female population of child-bearing ages, viz., from 15 to 45, would furnish a more significant rate. To calculate this, would, of course, involve assumptions concerning the variations of the age and sex constitution of the population since the last Census. Calculations of this nature at the present time would be subject to so large an uncertainty that it has been decided to defer computing the rates of fecundity and fertility on other and better bases until after the next Census.

4. **Birth Rates of Various Countries.**—A comparison with other countries shews that the Australian States occupy a very low position, which is, however, fortunately counterbalanced by a still lower position in regard to their death rates, as will be seen from the table on page 221.

**CRUDE BIRTH RATE<sup>1</sup> OF VARIOUS COUNTRIES.**

Country.	Year.	Rate.	Country.	Year.	Rate.
Russia, European ...	1901	47.9	Western Australia ...	1907	29.4
Bulgaria ...	1905	43.8	Denmark ...	1906	28.5
Servia ...	1906	41.3	Scotland ...	1906	27.9
Rumania ...	1905	38.6	Switzerland ...	1905	27.4
Jamaica ...	1906	38.1	New Zealand ...	1907	27.3
Hungary ...	1906	36.0	New South Wales ...	1907	27.2
Ceylon ...	1906	35.7	England and Wales ...	1906	27.1
Chile ...	1905	35.1	Queensland ...	1907	27.0
Spain ...	1906	34.1	United Kingdom ...	1906	26.8
Austria ...	1905	33.7	<b>Commonwealth</b> ...	<b>1907</b>	<b>26.6</b>
Prussia ...	1906	33.7	Norway ...	1906	26.5
German Empire ...	1905	33.0	Belgium ...	1906	25.7
Italy ...	1906	31.9	Sweden ...	1906	25.7
Finland ...	1905	30.6	Victoria ...	1907	25.3
Japan ...	1905	30.6	South Australia ...	1907	24.0
Netherlands ...	1906	30.4	Ireland ...	1906	23.6
Tasmania ...	1907	29.5	France ...	1906	20.6

1. Number of births per 1000 of the mean population.

5. **Masculinity at Birth.**—The masculinity of births registered during the last seven years in the several States of the Commonwealth, *i.e.*, the number of males per 100 females, has varied from 102.26 in New South Wales in 1901 to 115.01 in Tasmania in 1905. The following table, which gives the values for the States and Commonwealth for 1901 to 1907, shews the remarkable fact that for the Commonwealth there was a steady increase of masculinity from 1901 to 1906, with a decrease to the 1902 level in 1907.

**MASCULINITY<sup>1</sup> OF BIRTHS REGISTERED IN AUSTRALIA, 1901 to 1907.**

State.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W. ...	102.26	104.37	104.48	105.57	104.72	105.96	104.89
Victoria ...	104.92	104.74	104.57	105.97	106.44	103.89	103.95
Queensland ...	103.69	104.93	103.76	102.68	104.96	108.03	105.11
South Australia	105.94	105.21	111.43	105.37	103.67	106.65	103.08
West. Australia	106.28	108.36	105.11	104.44	103.82	107.61	105.65
Tasmania ...	108.90	104.96	102.39	104.32	115.01	109.88	112.15
C'wealth ...	104.11	104.90	104.93	105.13	105.58	105.99	104.89

1. Number of males to each 100 females.

There is ordinarily a very small difference between the masculinity of legitimate and illegitimate births. Thus, according to Bodio, whose figures are quoted in the following table, for the period about 1837-1891, the masculinity ranged from 108.3 to 103.6, and from 107.9 to 101.6 for total and illegitimate births respectively.

### MASCULINITY OF BIRTHS IN VARIOUS COUNTRIES.

Country.	Masculinity of Births. <sup>1</sup>		Country.	Masculinity of Births. <sup>1</sup>	
	All Live Births.	Illegitimate Live Births.		All Live Births.	Illegitimate Live Births.
Spain ...	108.3	107.9	German Empire ...	105.2	104.7
Rumania ...	107.7	103.4	Finland ...	105.0	105.2
Portugal ...	107.5	106.4	Hungary ...	105.0	102.9
Austria ...	105.8	105.5	Sweden ...	105.0	104.3
Italy ...	105.8	104.4	Denmark ...	104.8	105.0
Norway ...	105.8	105.9	Servia ...	104.7	103.5
Ireland ...	105.5	104.8	France ...	104.6	102.9
Netherlands ...	105.5	104.7	Belgium ...	104.5	102.2
Scotland ...	105.5	105.9	Switzerland ...	104.5	101.6
Russia, European ...	105.4	104.5	England ...	103.6	104.4

• 1. Number of males to each 100 females.

The masculinity of illegitimate births in Australia was as follows:—

### MASCULINITY<sup>1</sup> OF ILLEGITIMATE BIRTHS REGISTERED IN AUSTRALIA, 1901 TO 1907.

State.	1901.	1902.	1903	1904.	1905.	1906.	1907.
N.S.W. ...	108.46	103.67	97.79	100.80	102.50	103.10	104.91
Victoria ...	102.22	106.78	114.83	108.68	102.52	102.23	105.59
Queensland ...	107.84	100.23	95.22	95.77	105.63	104.17	100.90
S. Australia ...	100.56	106.91	100.00	83.50	96.94	116.97	113.56
W. Australia ...	100.00	111.11	114.29	107.28	98.75	118.13	115.94
Tasmania ...	102.07	93.17	122.66	93.71	102.80	124.92	100.00
C'wealth ...	105.50	103.96	104.10	100.98	102.44	105.44	105.11

1. Number of males to each 100 females.

It is curious to note that while, so far as the total births are concerned, there has always been an excess of male births over female births, this has not been the case in regard to illegitimate births, where in South Australia in 1904 the masculinity was only 83.50. On the other hand it rose as high as 124.82 in Tasmania in 1906. Little weight, however, can be attached to the two last figures on account of the small totals on which they are based.

6. **Illegitimacy.**—The total illegitimates fell from 1901 to 1903, then rose rapidly to 1907. See the table on next page.

It is, of course, possible that the number of illegitimate births is somewhat understated, owing to diffidence in proclaiming the fact of illegitimacy, and it is not unlikely that the majority of unregistered births are illegitimate.

**TOTAL ILLEGITIMATE BIRTHS REGISTERED IN AUSTRALASIA,  
1901 TO 1907.**

State, etc.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W. ...	2,712	2,497	2,413	2,755	2,912	2,882	2,920
Victoria ...	1,729	1,677	1,695	1,707	1,689	1,721	1,764
Queensland ...	848	859	857	971	950	1,076	1,117
S. Australia ...	361	389	354	367	386	358	378
W. Australia...	222	247	315	313	318	373	298
Tasmania ...	293	311	285	308	290	308	306
C'wealth	6,165	5,980	5,919	6,421	6,545	6,718	6,783
New Zealand	937	921	994	1,029	1,082	1,132	1,157

(i). *Rate of Illegitimacy, 1901 to 1907.* The rate of illegitimacy, viz., the percentage of illegitimate to total births, shews on the whole a slight increase, from 1901 to 1905, with a decrease during the last two years, as the subjoined table shews :—

**PERCENTAGE OF ILLEGITIMATE ON TOTAL BIRTHS, AUSTRALASIA,  
1901 TO 1907.**

State, etc.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
	%	%	%	%	%	%	%
N S.W. ...	7.16	6.60	6.71	7.12	7.37	7.04	6.92
Victoria ...	5.58	5.51	5.73	5.74	5.61	5.58	5.62
Queensland ...	5.93	6.04	6.79	5.90	6.97	7.68	7.68
S. Australia ...	3.96	4.35	4.16	4.02	4.35	4.00	4.09
W. Australia...	3.88	3.96	4.70	4.36	4.19	4.78	3.86
Tasmania ...	5.94	6.12	5.61	5.82	5.52	5.78	5.78
C'wealth ...	5.99	5.82	6.01	6.17	6.24	6.23	6.15
New Zealand	4.57	4.46	4.55	4.52	4.57	4.67	4.61

A comparison of greater significance would be obtained by calculating the number of illegitimate births per thousand of the single and widowed female population between the ages of 15 and 45, but until the next Census has once more shewn the composition of the population, such a calculation would be liable to considerable error, and will, therefore, be deferred.

(ii.) *Causes of Increase.* Since the rate of illegitimacy might appear to increase by the mere decrease in the general birth rate, the following table has been prepared :—

**CRUDE ILLEGITIMATE, LEGITIMATE AND TOTAL BIRTH RATES, AUSTRALIA,  
1901 to 1907.**

Births.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Illegitimate ...	1.62	1.56	1.52	1.62	1.63	1.65	1.63
Legitimate ...	25.52	25.10	23.71	24.71	24.50	24.76	24.92
Total ...	27.14	26.66	25.23	26.33	26.13	26.41	26.55

1. Number of births per 1000 of mean population.

(iii). *Illegitimacy—Rates of Various Countries.* The rate for the Commonwealth is higher than that for England and Wales, slightly lower than that for Scotland, and considerably below the rates for many of the countries for which returns are available, as the table hereunder shews. The rates for the States, Commonwealth, and New Zealand are for 1907, while those for other countries are for 1905 or 1906, generally:—

**PERCENTAGE OF ILLEGITIMATE ON TOTAL BIRTHS IN VARIOUS COUNTRIES,  
1905 to 1907.**

Country.	Rate.	Country.	Rate.
	%		%
Netherlands ...	2.1	Norway ...	6.7
Ireland ...	2.8	Scotland ...	6.7
England and Wales ...	3.9	New South Wales ...	6.9
West Australia ...	3.9	Queensland ...	7.7
South Australia ...	4.1	Germany ...	8.5
Switzerland ...	4.6	France ...	8.8
New Zealand ...	4.6	Hungary ...	9.8
Italy ...	5.6	Rumania ...	10.0
Victoria ...	5.6	Denmark ...	10.1
Tasmania ...	5.8	Portugal ...	11.4
Commonwealth ...	6.2	Sweden ...	12.1
Belgium ...	6.4	Austria ...	12.8

It may be added that the general circumstances in Australia with regard to opportunity for marriage are probably relatively easy as compared with those in older established countries.

**7. Multiple Births.**—Among the total number of 110,347 births registered in the Commonwealth in 1907 there were 108,263 single births, 2046 twins, and 38 triplets. The number of cases of twins was 1029, twelve children being still-born, and the number of cases of triplets fourteen, four children being still-born. The total number of mothers was, therefore, 109,306, the proportion of mothers of twins being one in every 106, and of mothers of triplets one in every 7872 of total mothers.

**8. Ages of Parents.**—The relative ages of the parents of children registered in 1907 have been tabulated, twins and triplets being distinguished from single births, and are shewn for single ages in "Bulletin of Population and Vital Statistics, No. 8; Vital Statistics of the Commonwealth for the Year 1907." In the present work the exigencies of space allow only the insertion of corresponding tables shewing the relative ages of parents in groups of five years. The tables, moreover, must be given exclusive of the figures for South Australia, as the Registration Act of that State, which was in force to the end of 1907, did not require those particulars to be mentioned. For the year 1908 it will be possible to tabulate this information for all the States of the Commonwealth. It will be seen from the tables that while the largest number of single births occurred where the ages of both father and mother were between 25 and 29, the largest number of twin births took place in the age group where both father and mother were between 35 and 39. The largest number of mothers of single children was found at ages 25 to 29, and that of mothers of twins at ages 30 to 34.

**(a) AGES OF PARENTS IN CASES OF SINGLE BIRTHS, 1907.**  
(COMMONWEALTH, EXCLUSIVE OF SOUTH AUSTRALIA.)

Age.	Total Fathers.	Ages of Mothers.							
		Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and Upwds.
<b>Ages of Fathers.</b>									
Under 20	293	...	186	100	7	...	...	...	...
20 to 24	8,504	3	1,725	5,621	1,010	128	12	2	...
25 to 29	21,101	1	1,045	8,932	9,273	1,640	187	15	...
30 to 34	21,860	...	319	3,990	9,071	7,221	1,153	91	...
35 to 39	19,010	...	109	1,412	4,649	6,940	5,345	538	...
40 to 44	13,089	...	43	519	1,548	3,535	5,024	2,342	...
45 to 49	6,295	...	11	133	486	1,112	2,345	1,909	...
50 to 54	1,911	...	5	44	127	301	549	733	...
55 to 59	494	...	...	12	40	85	140	161	...
60 to 64	168	...	1	2	19	29	41	60	...
65 & upwards	107	...	...	...	8	17	41	26	...
Not stated	48	...	1	6	16	8	3	1	...
Mothers of legitimate children...	92,880	4	3,445	20,776	26,254	21,016	14,840	5,878	611
Mothers of illegitimate children...	6,330	22	1,774	2,455	1,043	531	338	136	10
<b>Total mothers</b>	<b>99,210</b>	<b>26</b>	<b>5,219</b>	<b>23,231</b>	<b>27,297</b>	<b>21,547</b>	<b>15,178</b>	<b>6,014</b>	<b>621</b>

**(b) AGES OF PARENTS OF TWINS, 1907.**  
(COMMONWEALTH, EXCLUSIVE OF SOUTH AUSTRALIA.)

Age.	Total Fathers.	Ages of Mothers.						
		Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 & upwards.
<b>Ages of Fathers.</b>								
Under 20	3	3	...	...	...	...	...	...
20 to 24	45	10	25	7	2	1	...	...
25 to 29	138	8	44	64	20	2	...	...
30 to 34	201	...	28	66	83	24	...	...
35 to 39	247	...	10	45	93	94	5	...
40 to 44	162	...	...	14	38	77	32	1
45 to 49	67	...	...	3	16	28	19	1
50 to 54	25	...	...	1	6	7	10	1
55 to 59	9	...	1	...	1	1	6	...
60 to 64	2	...	...	...	...	2	...	...
65 and upwards	3	...	...	...	...	...	2	1
Mothers of legitimate twins	902	21	108	200	250	236	74	4
Mothers of illegitimate twins	36	...	12	10	5	6	3	...
<b>Total mothers</b>	<b>938</b>	<b>21</b>	<b>120</b>	<b>210</b>	<b>264</b>	<b>242</b>	<b>77</b>	<b>4</b>

**(c) AGES OF PARENTS OF TRIPLETS, 1907.**  
(COMMONWEALTH, EXCLUSIVE OF SOUTH AUSTRALIA.)

Age.	Total Fathers.	Ages of Mothers.				
		20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.
<b>Ages of Fathers.</b>						
20 to 24	1	1	...	...	...	...
25 to 29	2	...	2	...	...	...
30 to 34	2	...	2	...	...	...
35 to 39	2	...	...	1	1	...
40 to 44	3	...	...	1	...	2
45 to 49	...	...	...	...	...	...
50 to 54	1	...	1	...	...	...
55 to 59	1	...	...	...	...	1
Mothers of legitimate triplets...	12	1	5	2	1	3
Mothers of illegitimate triplets	1	...	...	...	1	...
<b>Total mothers</b>	<b>13</b>	<b>1</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>3</b>



9. **Birthplaces of Parents.**—The relative birthplaces of the parents of children whose births were registered during the year 1907 will be found tabulated in the Bulletin above-mentioned, again exclusive of the figures for South Australia. A summary of the results of the tabulation is here given:—

### BIRTHPLACES OF PARENTS OF CHILDREN, 1907.

(COMMONWEALTH, EXCLUSIVE OF SOUTH AUSTRALIA.)

Birthplaces.	Fathers.			Mothers of Legitimate Children.			Mothers of Illegitimate Children.		
	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.
New South Wales ...	29,704	234	4	33,111	252	3	2,683	15	...
Victoria ...	28,164	302	5	29,116	325	4	1,660	7	1
Queensland ...	7,089	70	1	9,339	74	2	920	7	...
South Australia ...	3,444	31	1	3,637	41	...	179	...	...
Western Australia ...	1,105	11	...	1,602	21	...	92	2	...
Tasmania ...	4,673	47	...	4,908	49	...	356	1	...
New Zealand ...	1,120	10	...	1,069	15	...	72	...	...
Austria-Hungary ...	61	...	...	22	...	...	...	...	...
Belgium ...	2	...	...	2	...	...	...	...	...
Bulgaria ...	2	...	...	...	...	...	...	...	...
Channel Islands ...	30	...	...	12	...	...	...	...	...
Denmark ...	217	3	...	74	1	...	2	...	...
England ...	8,943	96	...	5,135	54	...	184	2	...
Finland ...	22	...	...	5	...	...	...	...	...
France ...	70	...	...	28	...	...	1	...	...
Germany ...	1,053	14	...	547	9	...	14	...	...
Gibraltar ...	3	...	...	3	...	...	...	...	...
Greece ...	18	1	...	4	...	...	...	...	...
Iceland ...	1	...	...	...	...	...	...	...	...
Ireland ...	2,814	32	...	1,876	27	2	67	1	...
Isle of Man ...	17	1	...	12	1	...	...	...	...
Italy ...	215	3	...	121	2	...	5	...	...
Malta ...	5	...	...	2	...	...	1	...	...
Netherlands ...	9	...	...	5	...	...	...	...	...
Norway ...	110	...	...	30	2	...	...	...	...
Portugal ...	8	...	...	...	...	...	...	...	...
Rumania ...	4	...	...	4	...	...	...	...	...
Russia ...	95	2	...	41	2	...	1	...	...
Scotland ...	2,194	22	...	1,185	20	1	26	...	...
Spain ...	12	...	...	8	...	...	1	...	...
Sweden ...	209	2	...	25	1	...	...	...	...
Switzerland ...	41	2	...	21	...	...	3	...	...
Turkey ...	13	1	...	4	...	...	...	...	...
Wales ...	259	4	...	242	...	...	10	1	...
Canada ...	75	2	...	29	...	...	3	...	...
Newfoundland ...	1	...	...	...	...	...	...	...	...
United States ...	220	3	1	114	2	...	4	...	...
Mexico ...	2	...	...	...	...	...	...	...	...
British West Indies ...	22	1	...	4	...	...	...	...	...
British Honduras ...	...	...	...	1	...	...	...	...	...
Central America, so described ...	1	...	...	...	...	...	...	...	...
Argentine Republic ...	1	...	...	...	...	...	...	...	...
Brazil ...	2	...	...	2	...	...	...	...	...
British Guiana ...	1	...	...	...	...	...	...	...	...
Chile ...	1	...	...	...	...	...	...	...	...
S. America, so describ'd ...	12	...	...	8	...	...	...	...	...

## BIRTHPLACES OF PARENTS OF CHILDREN—Continued.

Birthplace.	Fathers.			Mothers of Legitimate Children.			Mothers of Illegitimate Children.		
	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.
Afghanistan ...	3	...	...	...	...	...	...	...	...
Arabia ...	5	...	...	2	...	...	1	...	...
Asia Minor ...	3	...	...	4	...	...	...	...	...
Burmah ...	2	...	...	...	...	...	...	...	...
Ceylon ...	22	...	...	9	...	...	4	...	...
China ...	165	2	...	60	...	...	2	...	...
Cochin China ...	1	...	...	...	...	...	...	...	...
Cyprus ...	1	...	...	...	...	...	...	...	...
Dutch East Indies ...	6	1	...	3	...	...	...	...	...
India ...	146	2	...	80	...	...	1	...	...
Japan ...	13	1	...	8	...	...	2	...	...
Persia ...	3	...	...	2	...	...	...	...	...
Philippine Islands ...	6	...	...	1	...	...	...	...	...
Siam ...	1	...	...	...	...	...	1	...	...
Straits Settlements ...	9	...	...	2	...	...	...	...	...
Syria ...	100	1	...	89	2	...	...	...	...
<hr/>									
Africa, so described ...	4	...	...	...	...	...	...	...	...
Canary Islands ...	2	...	...	...	...	...	...	...	...
E. Africa, so described ...	...	...	...	1	...	...	...	...	...
Egypt ...	1	...	...	1	...	...	...	...	...
Madagascar ...	1	...	...	...	...	...	...	...	...
Madeira ...	1	...	...	...	...	...	...	...	...
Mauritius ...	33	1	...	15	...	...	...	...	...
Réunion ...	1	...	...	...	...	...	...	...	...
S. Africa, so described ...	36	...	...	49	...	...	1	...	...
W. Africa, so described ...	1	...	...	...	...	...	...	...	...
<hr/>									
Fiji ...	38	...	...	15	...	...	1	...	...
Friendly Islands ...	2	...	...	1	...	...	...	...	...
Hawaii ...	...	...	...	...	...	...	1	...	...
New Caledonia ...	12	...	...	11	...	...	1	...	...
New Hebrides ...	5	...	...	...	...	...	...	...	...
Norfolk Island ...	2	...	...	2	...	...	...	...	...
Samoa ...	2	...	...	1	...	...	...	...	...
Solomon Islands ...	2	...	...	...	...	...	...	...	...
South Sea Islands, so described ...	21	...	...	6	...	...	4	...	...
<hr/>									
Born at sea ...	122	...	...	119	2	...	5	...	...
<hr/>									
Birthplace not stated ...	44	...	...	51	...	...	22	...	...
<hr/>									
Total ...	92,880	902	12	92,880	902	12	6,330	36	1

10. **Occupations of Fathers.**—A summary of the occupations of the fathers of all legitimate children, whose births were registered in 1907, will be found in the following table. The figures include all the States of the Commonwealth:—

## OCCUPATIONS OF FATHERS OF ALL LEGITIMATE CHILDREN, 1907.

Occupations.	Number of Fathers.	Occupations.	Number of Fathers.
<b>CLASS I.—PROFESSIONAL.</b>			
General Government ... ..	651	Groceries, Drinks, Narcotics, and Stimulants... ..	1,174
Local Government ... ..	111	Living Animals ... ..	280
Defence ... ..	135	Manures ... ..	1
Law and Order ... ..	1,247	Leather ... ..	29
Religion ... ..	318	Wool and Tallow ... ..	70
Charities ... ..	4	Flowers and Seeds ... ..	282
Health ... ..	716	Other Vegetable Matter ... ..	147
Literature ... ..	181	Wood and Coal ... ..	295
Science ... ..	110	Glass and Earthenware ... ..	22
Engineering, Architecture, and Surveying ... ..	411	Gold, Silver, and Precious Stones	6
Education ... ..	732	Ironmongery ... ..	202
Fine Arts ... ..	136	Merchants, etc. ... ..	258
Music ... ..	117	Shopkeepers and Assistants ... ..	1,127
Amusements ... ..	213	Dealers and Hawkers ... ..	482
		Agents and Brokers ... ..	299
		Clerks, Bookkeepers, etc. ... ..	2,424
		Commercial Travellers, Salesmen	1,175
		Others engaged in Commercial Pursuits ... ..	614
		Speculators on Chance Events ... ..	24
		Storage ... ..	4
Total Professional ... ..	5,082	Total Commercial ... ..	13,961
<b>CLASS II.—DOMESTIC.</b>			
Hotelkeepers and Assistants ... ..	965		
Others engaged in providing board and lodging... ..	118		
House Servants ... ..	162		
Coachmen and Grooms... ..	318		
Hairdressers ... ..	506		
Laundrymen ... ..	44		
Others engaged in domestic occupations ... ..	162		
Total Domestic ... ..	2,275		
<b>CLASS III.—COMMERCIAL.</b>			
Banking and Finance ... ..	428		
Insurance and Valuation ... ..	404		
Land and Household Property ... ..	99		
Property Rights not otherwise clsd.	36		
Books, Publications, Advertising	102		
Musical Instruments ... ..	8		
Prints and Pictures ... ..	1		
Ornaments and Small Wares ... ..	8		
Watches, Clocks, Jewellery ... ..	20		
Surgical Instruments ... ..	1		
Machinery ... ..	44		
Carriages and Vehicles ... ..	34		
Harness and Saddlery ... ..	6		
Ships, Boats, Marine Stores ... ..	12		
Building Materials ... ..	5		
Furniture ... ..	51		
Chemicals ... ..	9		
Paper and Stationery ... ..	72		
Textile Fabrics ... ..	839		
Dress ... ..	137		
Fibrous Materials ... ..	8		
Animal Food ... ..	1,969		
Vegetable Food ... ..	553		
		<b>CLASS IV.—TRANSPORT AND COMMUNICATION.</b>	
		Railway Traffic ... ..	2,777
		Tramway Traffic ... ..	727
		Road Traffic ... ..	3,763
		Sea and River Traffic ... ..	1,571
		Postal Service ... ..	409
		Telegraph and Telephone Service	369
		Messengers, etc. ... ..	24
		Total Transport & Communication	9,640
		<b>CLASS V.—INDUSTRIAL.</b>	
		Books and Publications ... ..	829
		Musical Instruments ... ..	56
		Prints and Pictures ... ..	72
		Ornaments and Small Wares ... ..	113
		Equipment for Sports and Games	5
		Designs, Medals, Type ... ..	32
		Watches and Clocks ... ..	154
		Surgical Instruments ... ..	7
		Arms and Ammunition ... ..	7
		Engines and Machinery ... ..	813
		Carriages and Vehicles ... ..	739
		Harness and Saddlery ... ..	451
		Ships and Boats ... ..	92
		Furniture ... ..	418
		Building Materials ... ..	537
		Chemicals ... ..	34
		Textile Fabrics ... ..	50
		Dress ... ..	1,995

## OCCUPATIONS OF FATHERS OF ALL LEGITIMATE CHILDREN—Continued.

Occupations.	Number of Fathers.	Occupations.	Number of Fathers.
Fibrous Materials ... ..	38	Labourers ... ..	17,145
Animal Food... ..	325	Others ... ..	242
Vegetable Food ... ..	1,455		
Groceries, Drinks, Narcotics, and Stimulants ... ..	445	Total Industrial ... ..	39,854
Animal Matter ... ..	392		
Workers in wood not elsewhere clsd.	44	CLASS VI.—AGRICULTURAL, PASTORAL, MINING, ETC.	
Fodder ... ..	9	Agricultural ... ..	17,655
Paper ... ..	6	Pastoral ... ..	3,538
Stone, Clay, Glass ... ..	506	Dairying ... ..	1,315
Jewellery and Precious Stones ...	184	Fisheries, Capture and Destruction of Wild Animals, or acquisition of Products yielded thereby	314
Metals, other than Gold & Silver ...	2,843	Forestry ... ..	473
Gas, Electric Lighting ... ..	300	Water Conservation and Supply	77
Buildings—		Mines and Quarries ... ..	9,168
Builders ... ..	390	Total Primary Producers ... ..	32,540
Stonemasons ... ..	239		
Bricklayers ... ..	465	CLASS VII.—INDEFINITE.	
Carpenters... ..	2,360	Independent Means ... ..	133
Slaters ... ..	14	University Student ... ..	3
Plasterers ... ..	193	Occupation not stated ... ..	76
Painters ... ..	1,037		
Plumbers ... ..	613	Total Indefinite ... ..	212
Others ... ..	72		
Roads, Railways, Earthworks ... ..	222	Total all Occupations ... ..	103,564
Disposal of the Dead ... ..	59		
Disposal of Refuse ... ..	109		
Other Industrial Workers—			
Manufacturers ... ..	326		
Engineers, Firemen... ..	2,586		
Contractors ... ..	831		

## § 2. Marriages.

1. **Marriages, 1901 to 1907.**—The number of marriages registered in the Commonwealth in 1907 was 32,470, the highest number ever recorded. There has been a steady increase in the annual number of marriages in each State since 1903, and the crude marriage-rate increased similarly in all the States, with the exception of Western Australia, where a further diminution may reasonably be expected until the composition of the population as to sexes and ages approaches more closely to that of the other States. The number of marriages in each State since 1901 is shewn below:—

## TOTAL MARRIAGES, AUSTRALASIA, 1901 to 1907.

State, etc.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W. ...	10,538	10,486	9,759	10,424	10,970	11,551	12,187
Victoria ...	8,406	8,477	7,605	8,210	8,774	8,930	9,575
Queensland ...	3,341	3,243	2,933	3,078	3,173	3,588	4,105
S. Australia ...	2,309	2,383	2,272	2,534	2,599	2,681	3,079
W. Australia...	1,821	2,024	2,064	2,088	2,123	2,261	2,114
Tasmania ...	1,338	1,313	1,344	1,350	1,365	1,399	1,410
C'wealth ...	27,753	27,926	25,977	27,684	29,004	30,410	32,470
New Zealand	6,095	6,394	6,748	6,983	7,200	7,592	8,192

2. **Marriage Rates, 1901 to 1907.**—The number of marriages registered per thousand of mean population is shewn in the following table for the same period :—

**CRUDE MARRIAGE RATE,<sup>1</sup> AUSTRALASIA, 1901 to 1907.**

State, etc.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W. ...	7.73	7.54	6.89	7.23	7.44	7.65	7.86
Victoria ...	6.98	7.00	6.29	6.80	7.24	7.30	7.73
Queensland ...	6.66	6.36	5.72	5.93	6.03	6.73	7.62
S. Australia ...	6.36	6.54	6.21	6.86	6.94	7.06	7.98
W. Australia...	9.66	9.83	9.32	8.83	8.48	8.70	8.06
Tasmania ...	7.76	7.55	7.57	7.55	7.62	7.82	7.86
C'wealth ...	7.32	7.24	6.66	7.00	7.22	7.44	7.81
New Zealand	7.83	8.01	8.23	8.26	8.28	8.48	8.91

1. Number of marriages (not persons married) per 1000 of mean annual population.

3. **Marriage Rates in Various Countries.**—A comparison of the Australian marriage rate with that of European countries shews it to be considerably below the rates prevailing in the East of Europe, almost identical with those of Central and Western Europe, and higher than those of the North of Europe :—

**CRUDE MARRIAGE RATE.—VARIOUS COUNTRIES.**

Country.	Year.	Crude Marriage Rate.	Country.	Year.	Crude Marriage Rate.
Bulgaria ...	1905	10.9	Italy ...	1906	7.8
Servia ...	1906	10.2	Commonwealth ...	1907	7.8
New Zealand...	1907	8.9	Switzerland...	1905	7.6
Hungary ...	1906	8.7	Denmark ...	1906	7.5
Russia ...	1901	8.6	Netherlands	1906	7.5
Belgium ...	1906	8.1	Spain ...	1906	7.3
German Empire	1905	8.1	Scotland ...	1906	7.0
Rumania ...	1905	7.9	Finland ...	1905	6.5
Austria ...	1905	7.8	Sweden ...	1906	6.1
England and Wales	1906	7.8	Norway ...	1906	5.9
France ...	1906	7.8	Ireland ...	1906	5.2

4. **Age at Marriage.**—(a) The age at marriage of bridegrooms and brides will be found in the following table, the previous conjugal condition of the contracting parties being distinguished. It will be seen that no less 1156 males were married during 1907, who were less than twenty-one years of age. The corresponding number of females was 6796, of whom four were widows. At the other end of the scale there were twenty-six men of sixty-five years and upwards, who described themselves as bachelors, and five spinsters of corresponding ages.

## AGES AND CONJUGAL CONDITION OF PERSONS MARRIED, 1907.

Age at Marriage.	Bridegrooms.				Brides.			
	Bachelors	Widowers	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
12 years	...	...	...	...	1	...	...	1
13 "	...	...	...	...	...	...	...	...
14 "	...	...	...	...	11	...	...	11
15 "	...	...	...	...	66	...	...	66
16 "	5	...	...	5	270	...	...	270
17 "	16	...	...	16	743	1	...	744
18 "	121	...	...	121	1,441	...	...	1,441
19 "	345	...	...	345	2,050	...	...	2,050
20 "	669	...	...	669	2,210	3	...	2,213
21 "	1,942	...	...	1,942	3,671	12	...	3,683
22 "	2,066	1	...	2,067	3,008	8	1	3,017
23 "	2,323	6	...	2,329	2,826	15	2	2,843
24 "	2,552	6	1	2,559	2,468	21	10	2,499
25 "	2,454	13	...	2,467	2,027	29	6	2,062
26 "	2,415	19	3	2,437	1,845	33	7	1,885
27 "	2,195	23	2	2,220	1,490	36	13	1,539
28 "	2,025	28	2	2,055	1,300	53	8	1,361
29 "	1,698	32	7	1,737	972	66	10	1,048
30 "	1,445	46	3	1,494	815	57	12	884
31 "	1,066	41	3	1,110	563	50	5	618
32 "	1,025	55	5	1,085	505	71	8	584
33 "	783	60	10	853	399	46	10	455
34 "	782	42	5	829	323	64	10	397
35 "	666	61	6	733	296	61	7	364
36 "	584	68	9	661	236	65	8	309
37 "	493	65	10	568	209	60	7	276
38 "	481	85	8	574	166	72	11	249
39 "	389	83	8	480	117	78	6	201
40 "	300	81	5	386	107	92	4	203
41 "	215	75	5	295	53	56	6	115
42 "	176	87	5	268	84	63	4	151
43 "	149	72	5	226	49	64	4	117
44 "	121	76	1	198	45	61	4	110
45 "	109	72	7	188	37	50	5	92
46 "	111	69	2	182	27	38	4	69
47 "	88	70	6	164	24	52	5	81
48 "	64	74	6	144	25	41	2	68
49 "	55	64	6	125	11	30	2	43
50 "	51	67	2	120	14	30	1	45
51 "	38	44	3	85	7	27	1	35
52 "	33	43	...	76	11	30	1	42
53 "	27	46	3	76	5	18	...	23
54 "	19	44	2	65	4	23	...	27
55 "	15	26	...	41	4	13	1	18
56 "	14	36	3	53	3	23	1	27
57 "	19	23	2	44	...	14	...	14
58 "	8	33	1	42	1	10	...	11
59 "	11	16	...	27	3	8	...	11
60 "	5	32	...	37	2	9	...	11
61 "	4	11	...	15	...	4	...	4
62 "	7	21	...	28	1	9	...	10
63 "	4	22	...	26	1	5	...	6
64 "	5	20	...	25	...	7	...	7
65 "	8	14	...	22	1	4	...	5
66 "	2	19	...	21	1	5	...	6
67 "	3	12	...	15	...	7	...	7
68 "	2	21	...	23	1	4	...	5
69 "	...	7	...	7	1	3	...	4
70 "	3	14	...	17	...	6	...	6

## AGES AND CONJUGAL CONDITIONS OF PERSONS MARRIED, 1907—Continued.

Age at Marriage.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
71 years ...	2	5	...	7	...	...	...	...
72 " ...	1	7	...	8	...	2	...	2
73 " ...	...	9	...	9	...	4	...	4
74 " ...	1	9	...	10	...	2	...	2
75 " ...	...	2	...	2	...	2	...	2
76 " ...	1	4	1	6	...	...	...	...
77 " ...	2	5	...	7	...	1	...	1
78 " ...	...	5	...	5	...	1	...	1
79 " ...	1	2	...	3	1	...	...	1
80 " ...	...	3	...	3	...	...	...	...
81 " ...	...	3	...	3	...	...	...	...
82 " ...	...	...	...	...	...	...	...	...
83 " ...	...	1	...	1	...	...	...	...
Not stated ...	6	3	...	9	12	2	...	14
Total ...	30,220	2,103	147	32,470	30,563	1,721	186	32,470

(b) The relative ages of bridegrooms and brides are shown for single years in "Bulletin of Population and Vital Statistics, No. 8"; a condensation is here given into age-groups of five years :—

## RELATIVE AGES OF PERSONS MARRIED, 1907.

Ages.	Total Bridegrooms.	Ages of Brides.							
		Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and Upwds.
Ages of Bridegrooms.									
Under 20 ...	487	...	334	141	10	2	...	...	...
20 to 24 ...	9,566	7	2,467	5,872	1,024	154	33	5	3
25 to 29 ...	10,916	2	1,236	5,434	3,415	630	164	28	4
30 to 34 ...	5,371	...	347	1,789	1,954	953	245	67	16
35 to 39 ...	3,016	2	140	674	977	667	382	130	42
40 to 44 ...	1,373	...	33	225	301	308	267	164	74
45 to 49 ...	603	1	10	81	117	136	167	147	144
50 to 54 ...	422	...	4	21	64	58	76	77	122
55 to 59 ...	207	...	...	7	17	18	34	40	90
60 to 64 ...	131	...	...	6	9	6	18	15	77
65 and upwards ...	169	...	...	3	7	4	13	23	118
Not stated ...	9	...	...	2	...	2	...	...	5
Total Brides ...	32,470	12	4,571	14,255	7,895	2,938	1,399	696	690

5. **Previous Conjugal Condition.**—In a previous table the total number of bachelors and spinsters, widowed and divorced persons, who were married during the year 1907, was shown. In the following table the relative conjugal conditions of the contracting parties are given :—

## RELATIVE CONJUGAL CONDITIONS OF PERSONS MARRIED, 1907.

Conjugal Condition.		Total Bridegrooms.	Brides.		
			Spinsters.	Widows.	Divorced.
Bridegrooms	Bachelors ...	30,220	28,967	1,113	140
	Widowers ...	2,103	1,479	590	34
	Divorced ...	147	117	18	12
Total Brides ...		32,470	30,563	1,721	186

6. **Birthplaces of Persons Married.**—Information as to the birthplaces of persons who were married in 1907 was not obtained in the States of South Australia and Western Australia; the following figures refer, therefore, only to New South Wales, Victoria, Queensland, and Tasmania. As might be expected, there were more brides than bridegrooms who were born in one of the Commonwealth States, and more bridegrooms than brides who were born elsewhere. In "Bulletin No. 8 of Population and Vital Statistics" the relative birthplaces of bridegrooms and brides will be found tabulated:—

### BIRTHPLACES OF PERSONS MARRIED, 1907.

Birthplaces.	Bridegrooms.	Brides.	Birthplaces.	Bridegrooms.	Brides.
New South Wales ...	9,578	10,517	British West Indies ...	1	...
Victoria ...	8,287	8,673	Central America ...	1	...
Queensland ...	2,670	3,360	South America ...	3	...
South Australia ...	795	756	Aden ...	1	...
Western Australia ...	13	15	Afghanistan ...	1	...
Tasmania ...	1,293	1,483	Arabia ...	1	...
New Zealand ...	391	298	Burmah ...	1	...
Austria-Hungary ...	21	2	Ceylon ...	7	3
Belgium ...	4	3	China ...	50	4
Bulgaria ...	1	...	Cyprus ...	1	...
Channel Islands ...	5	5	Dutch East Indies ...	3	...
Denmark ...	48	16	India ...	56	12
England ...	2,246	1,165	Japan ...	15	7
Finland ...	8	...	Philippine Islands ...	4	...
France ...	23	7	Straits Settlements ...	5	1
Germany ...	195	89	Syria ...	15	7
Greece ...	7	...	Africa (so described) ...	1	...
Ireland ...	544	364	Algeria ...	1	...
Isle of Man ...	2	1	Egypt ...	1	2
Italy ...	51	15	Madagascar ...	...	1
Malta ...	1	...	Madeira ...	1	...
Monaco ...	...	1	Mauritius ...	8	4
Netherlands ...	2	...	Seychelles Islands ...	1	...
Norway ...	30	4	South Africa ...	15	13
Portugal ...	1	...	Fiji ...	11	12
Rumania ...	4	1	Friendly Islands ...	2	...
Russia ...	22	10	New Caledonia ...	1	2
Scotland ...	594	299	New Hebrides ...	7	2
Spain ...	2	3	Samoa ...	3	1
Sweden ...	48	6	Solomon Islands ...	3	1
Switzerland ...	12	1	S. Sea Is. (so describ'd) ...	21	3
Turkey ...	...	1	Born at sea ...	29	20
Wales ...	59	33	Birthplace not stated ...	12	17
Canada ...	32	6	Total ...	27,277	27,277
Cuba ...	1	...			
Mexico ...	1	1			
United States... ..	63	30			
Bermudas ...	1	...			

7. **Occupations and Ages of Bridegrooms.**—The question has been asked whether persons in some walks of life marry earlier than in others, and a tabulation has therefore been made of the occupations and ages of all males who were married in the Commonwealth in the year 1907. In "Bulletin No. 8" this tabulation is shewn for orders of occupations, while here it is repeated for classes only, with a subdivision of the Industrial class and of the class of Primary Producers. The average ages of the persons falling under those twelve subdivisions were determined, and it appears that, apart from the Indefinite class, which consists chiefly of persons who have retired from business and who



are living on their own means, and where a high average age may naturally be expected, the average age ranges from 28.01 in the Manufacturing class to 32.55 years in the Pastoral class. The figures for one year are, however, rather small to allow of definite conclusions being drawn. The results obtained are shown in the following table:—

### OCCUPATIONS AND AGES OF BRIDEGROOMS, 1907.

Ages at Marriage.	Professional	Domestic.	Mercantile.	Transport and Communication.	Industrial.			Primary Producers.				Indefinite.	
					Manu- facturing.	Building and Construction.	Indefinite Industrial Workers.	Agricultural.	Pastoral.	Mines and Quarries.	Other Primary Producers.		
16 years ...	...	...	1	1	2	...	1	...	...	...	...	...	...
17 " " " " " "	1	1	5	...	3	...	...	...	...	...	...	...	...
18 " " " " " "	...	...	8	16	17	29	10	24	5	1	7	4	...
19 " " " " " "	3	9	30	38	75	25	101	20	8	27	6	3	...
20 " " " " " "	9	22	91	60	134	46	165	60	6	65	7	4	...
21 " " " " " "	56	52	268	210	324	124	492	168	31	177	37	3	...
22 " " " " " "	73	48	287	217	325	131	523	204	24	200	26	9	...
23 " " " " " "	85	59	368	309	387	138	586	242	42	174	32	7	...
24 " " " " " "	128	62	401	324	397	135	594	290	63	223	35	7	...
25 " " " " " "	117	52	440	210	386	140	495	321	54	204	38	10	...
26 " " " " " "	125	53	406	212	317	112	537	371	73	184	39	8	...
27 " " " " " "	124	50	375	177	278	100	457	345	75	188	41	10	...
28 " " " " " "	129	36	353	154	281	88	436	342	58	152	19	7	...
29 " " " " " "	134	36	304	130	190	71	333	302	68	126	29	5	...
30 " " " " " "	136	40	274	127	150	56	265	257	63	103	17	6	...
31 " " " " " "	86	19	214	74	123	43	190	202	54	93	10	2	...
32 " " " " " "	89	31	174	79	121	38	190	191	51	96	16	9	...
33 " " " " " "	60	32	147	51	75	38	156	180	50	52	9	3	...
34 " " " " " "	60	19	129	51	83	35	134	180	41	76	18	3	...
35 to 39 years	208	85	504	235	279	136	586	548	163	214	41	17	...
40 " 44 " " " "	107	37	250	98	134	72	232	237	80	90	22	14	...
45 " 49 " " " "	47	25	123	79	77	60	154	128	39	51	7	13	...
50 years and upwards	64	31	120	58	95	74	147	159	51	62	10	58	...
Not stated ...	2	...	2	2	...	...	1	1	1	...	...	...	...
Total	1,843	807	5,282	2,713	4,276	1,672	6,802	4,754	1,096	2,564	463	198	...
Average age—years	31.26	30.12	29.74	28.90	28.01	29.71	28.76	30.93	32.55	29.03	29.19	38.26	...

8. **Fertility of Marriages.**—The quotient obtained by division of the legitimate births registered, say during the five years 1903 to 1907, by the number of marriages registered during the five years 1898 to 1902, i.e., the period antecedent by five years to the period of the births, has been called the "fertility of marriages." This works out at 3.70, or in other words, the number of children to be expected from every four marriages in the Commonwealth is fifteen. This method, while not professing any claim to accuracy, furnishes results which agree fairly well with those found by more elaborate and careful investigation.

9. **Registration of Marriages.**—In all the States of the Commonwealth marriages may be celebrated either by ministers of religion, whose names are registered for that purpose with the Registrar-General, or by certain civil officers, in most cases district registrars. The percentage of marriages celebrated by ministers of religion has increased from 96.25 per cent. in 1901 to 97.37 per cent. in 1907. The figures for the individual States were in 1907: New South Wales, 97.83 per cent.; Victoria, 99.20 per cent.; Queensland, 94.88 per cent.; South Australia, 96.82 per cent.; Western Australia, 90.82 per cent.; and Tasmania, 99.22 per cent. The registered ministers in 1907 belonged to forty-three different denominations, some of which, however, can hardly be regarded as having any valid existence. The extraordinary number of marriages credited to some denominations, the number of whose adherents, according to the Census returns, was very small indeed, is not inconsistent with the supposition that some of these denomina-

tions have been created for the purpose of obtaining the registration necessary to conduct marriages, or to be connected with a so-called "Matrimonial Agency." The figures for 1907 are shewn in the following table:—

## MARRIAGES IN EACH DENOMINATION, 1907.

Denomination.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wlth.
Church of England ...	4,671	2,050	1,054	645	734	497	9,651
Roman Catholic Church ...	2,187	1,450	828	282	366	180	5,293
Presbyterian Church of Australia	1,569	1,530	580	152	197	172	4,200
" " East. Australia	1	...	...	...	...	...	1
Independent Presbyterian Church	...	880	...	1	...	...	881
Methodist Church ...	1,591	1,433	708	1,084	372	254	5,442
Primitive Methodist Church ...	...	...	9	...	...	...	9
Lay Methodist Church ...	38	...	...	...	...	...	38
Independent Methodist Church...	...	...	5	...	...	...	5
Congregational Church ...	1,296	1,092	127	140	91	173	2,919
Baptist Church ...	264	330	186	227	91	110	1,208
Particular Baptist Church ...	1	1	...	...	...	...	2
German Baptist Church ...	...	...	13	...	...	...	13
Church of Christ ...	79	165	24	151	23	2	444
Christian Brethren ...	...	...	...	27	...	...	27
Lutheran Church ...	16	53	127	194	14	...	404
Evangelical Lutheran Church ...	9	4	6	...	...	...	19
Protest'nt State Church of Prussia	...	...	1	...	...	...	1
Moravian Church ...	...	...	1	2	...	...	3
Australian Church ...	...	26	...	...	...	...	26
Unitarian Church ...	19	1	...	5	...	...	25
New Unitarian Church ...	45	...	...	...	...	...	45
Society of Friends ...	...	...	...	...	...	1	1
Catholic Apostolic Church ...	1	1	1	...	...	...	3
Apostolic Church ...	1	1	7	...	...	...	9
Christian Apost'lic Church of Zion	1	...	...	...	...	...	1
New Church ...	...	1	...	...	...	...	1
New Jerusalem Church ...	...	...	5	...	...	...	5
Plymouth Brethren ...	1	...	...	...	...	...	1
Franco-Australian Church ...	13	...	...	...	...	...	13
Seventh-Day Adventists ...	3	10	...	4	3	4	24
Latter-Day Saints ...	40	134	...	4	...	...	178
Christian Church ...	...	...	3	...	...	...	3
Free Christian Church...	...	169	...	...	...	...	169
New Thought Church ...	6	...	...	...	...	...	6
Salvation Army ...	45	35	22	32	19	6	159
Christian Assembly ...	...	...	9	...	...	...	9
Joyful News Mission ...	...	...	170	...	...	...	170
City Mission ...	1	...	...	30	...	...	31
Ballarat Town Mission ...	...	98	...	...	...	...	98
Aboriginal Mission ...	3	...	...	...	...	...	3
Greek Orthodox Church ...	3	...	...	...	...	...	3
Jewish ...	18	32	...	1	9	...	60
Registrar's Office ...	265	77	210	98	194	11	855
Not stated ...	...	2	9	...	1	...	12
Total ...	12,187	9,575	4,105	3,079	2,114	1,410	32,470

10. **Mark Signatures.**—The marriage registers afford some clue, even if an imperfect one, to the illiteracy of the adult population, since a small and constantly diminishing percentage of bridegrooms and brides sign the registers with marks.

(i.) *Males and Females, 1901 to 1907.* For a number of years mark signatures by males have been slightly more numerous than those by females, the percentages for the Commonwealth during the past seven years having been as follows:—

**PERCENTAGE OF MARK SIGNATURES AT MARRIAGE, AUSTRALIA,  
1901 to 1907.**

Year.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Male ...	1.35	1.21	1.17	0.95	0.91	0.92	0.81
Female ...	1.29	1.11	1.02	0.91	0.93	0.86	0.70

(ii.) *Mark Signatures in Commonwealth States, 1901 to 1907.* The following table shews that while the Tasmanian percentage has been the highest, and the Victorian the lowest, in each of the seven years under review, there has been a marked decrease in every State:—

**PERCENTAGE OF MARK SIGNATURES AT MARRIAGE IN AUSTRALASIA,  
1901 to 1907.**

State.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W. ...	1.34	1.22	1.10	0.90	1.12	0.94	0.87
Victoria ...	0.53	0.61	0.60	0.54	0.44	0.43	0.36
Queensland ...	2.56	1.93	1.86	1.72	1.39	1.67	1.14
South Australia ...	0.95	1.15	1.32	0.65	0.83	0.67	0.55
West. Australia ...	0.99	0.69	0.75	0.53	0.57	0.66	0.64
Tasmania ...	4.11	3.12	2.38	2.85	2.12	2.18	2.02
Commonwealth ...	1.32	1.16	1.10	0.93	0.92	0.89	0.76
New Zealand ...	0.54	0.34	0.50	0.54	0.32	0.33	0.23

A complete disappearance of mark signatures is hardly to be expected, for the available information tends to shew that two-thirds of those who sign with marks are natives of their respective States, who apparently have not made use of the advantages offered to them by the State schools.

### § 3. Deaths.

**1. Male and Female Deaths, 1901 to 1907.**—The total number of deaths registered in the Commonwealth from 1901 to 1907 inclusive, gives an annual average of 26,256 males and 19,233 females, the details being as follows:—

**MALE DEATHS, AUSTRALIA, 1901 to 1907.**

State.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	Rate. 1907.
N.S.W. ...	9,327	9,535	9,428	8,733	8,709	8,715	9,444	11.40
Victoria ...	9,035	9,152	8,626	7,992	8,273	8,342	7,977	12.88
Queensland ...	3,838	3,924	3,951	3,259	3,499	3,212	3,482	11.85
S. Australia ...	2,289	2,389	2,242	2,071	2,041	2,109	2,087	10.23
W. Australia ...	1,653	1,832	1,829	1,823	1,728	1,878	1,866	12.17
Tasmania ...	1,001	1,044	1,136	1,061	1,061	1,118	1,083	11.70
C'wealth ...	27,143	27,876	27,212	24,939	25,311	25,374	25,939	11.84

## FEMALE DEATHS. AUSTRALIA, 1901 to 1907.

State.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	Rate. 1907.
N.S.W. ...	6,694	7,111	7,069	6,627	6,269	6,260	6,967	9.65
Victoria ...	6,869	7,025	6,969	6,401	6,403	6,895	6,562	10.59
Queensland ...	2,169	2,280	2,395	1,991	2,004	1,883	2,116	8.64
S. Australia ...	1,776	1,925	1,709	1,707	1,763	1,822	1,741	9.59
W. Australia	866	991	959	994	981	1,206	1,065	9.78
Tasmania ...	813	870	980	913	783	893	915	10.55
C'wealth ...	19,187	20,202	20,081	18,633	18,203	18,959	19,366	9.86

2. **Male and Female Death Rates, 1907.**—The crude male and female death rates for 1907 only are given, viz., in the last column of the preceding tables: both are high for Victoria and Western Australia, while the Queensland rate is lowest for females, and the South Australian for males.

Owing to differences in the age constitution of the six States, the crude rates are not, however, strictly comparable, but as has been pointed out in the case of the births, the available data, at a period so remote from the Census, are insufficient for a satisfactory distribution of the population according to ages. For the purposes of calculating the "Index of Mortality" (see page 231) a distribution into five age-groups has, however, been made.

3. **Death Rates of Various Countries.**—A comparison with foreign States is, for the same reason, apt to show the Commonwealth in too favourable a light, but even if an allowance for the different age constitution were made, it would still be found occupying a very enviable position:—

## DEATH RATES OF VARIOUS COUNTRIES.

Country.	Year.	Crude Death Rate.	Country.	Year.	Crude Death Rate.
<b>Commonwealth</b> ...	<b>1907</b>	<b>10.9</b>	France ...	1906	19.9
New Zealand ...	1906	10.9	Italy ...	1906	20.8
Denmark ...	1906	13.5	Bulgaria ...	1905	21.9
Norway ...	1906	13.7	Japan ...	1905	22.0
Sweden ...	1906	14.4	Servia ...	1906	24.0
Netherlands ...	1906	14.8	Hungary ...	1906	24.8
England and Wales	1906	15.4	Austria ...	1905	25.0
United Kingdom	1906	15.6	Rumania ...	1905	25.0
Scotland ...	1906	16.0	Jamaica ...	1906	26.2
Belgium ...	1906	16.4	Spain ...	1906	26.2
Ireland ...	1906	17.0	Russia, European	1901	32.1
Switzerland ...	1905	17.9	Chile ...	1905	32.3
Finland ...	1905	18.4	Ceylon ...	1905	34.3
German Empire	1905	19.8			

4. **Total Deaths, 1901 to 1907.**—The total number of deaths in each of the Commonwealth States during the seven years 1901 to 1907, is shewn below:—

**TOTAL DEATHS, AUSTRALASIA, 1901 to 1907.**

State.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W. ...	16,021	16,646	16,497	15,360	14,978	14,975	16,411
Victoria ...	15,904	16,177	15,595	14,393	14,676	15,237	14,539
Queensland ...	6,007	6,204	6,346	5,250	5,503	5,095	5,598
South Australia ...	4,065	4,314	3,951	3,778	3,804	3,931	3,828
W. Australia ...	2,519	2,823	2,788	2,817	2,709	3,084	2,931
Tasmania ...	1,814	1,914	2,116	1,974	1,844	2,011	1,998
Commonwealth	46,330	48,078	47,293	43,572	43,514	44,333	45,305
New Zealand...	7,634	8,375	8,528	8,087	8,061	8,339	10,066

**5. Crude Death Rates, 1901 to 1907.**—The death rate for 1907 was the lowest experienced during the seven years under review in the States of Victoria and South Australia. In New South Wales, Queensland, and Western Australia there were lower rates in some of the intermediate years, though a satisfactory decrease on the 1901 rate is shewn. In Tasmania, however, the rate for 1907 was higher than that for 1901, and was only surpassed in 1903 and 1906. The Commonwealth rate for 1905 and 1906 was a little lower than that for 1907, but the difference is insensible.

**CRUDE DEATH RATES, AUSTRALASIA, 1901 to 1907.**

State.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W. ...	11.75	11.97	11.65	10.65	10.16	9.92	10.58
Victoria ...	13.21	13.36	12.90	11.92	12.10	12.45	11.74
Queensland ...	11.98	12.17	12.38	10.11	10.47	9.56	10.39
South Australia ...	11.20	11.83	10.80	10.22	10.15	10.35	9.93
W. Australia ...	13.37	13.71	12.60	11.91	10.82	11.87	11.17
Tasmania ...	10.52	11.00	11.92	11.04	10.29	11.24	11.14
Commonwealth	12.22	12.47	12.12	11.02	10.83	10.85	10.90
New Zealand...	9.81	10.50	10.40	9.57	9.27	9.31	10.95

**6. Male and Female Death Rates, 1901 to 1907.**—The rise in the Commonwealth rate from 1905 to 1907 was due to an increase in the female death rate, as the subjoined table shews:—

**MALE AND FEMALE DEATH RATES, AUSTRALIA, 1901 to 1907.**

Year.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Male Rate ...	13.65	13.78	13.30	12.02	11.98	11.78	11.84
Female Rate...	10.64	11.02	10.82	9.92	9.56	9.81	9.86
Crude Total Rate ...	12.22	12.47	12.12	11.02	10.83	10.85	10.90

**7. Infantile Death Rate.**—(i.) *Deaths and Death Rates of Male and Female Infants, 1901 to 1907.* A marked improvement has taken place in the infantile death rate since

1901, in which year it stood at 103.61 per thousand births registered, while, in 1907 it had fallen to 81.06 per thousand, a rate lower than that experienced in any previous year. In the following table, which shews both the total number of deaths of children under one year and the rate per thousand births since 1901, males and females are distinguished. The universal experience that during the first few years of life the excess of male births disappears as a consequence of the higher death rate of male infants is shewn by the fact that out of 374,787 male infants born from 1901 to 1907, 37,491 died during their first year of life, while of 356,668 female infants the number who died was only 30,171:—

**NUMBER OF INFANTILE DEATHS AND RATE OF INFANTILE MORTALITY, AUSTRALIA,  
1901 TO 1907.**

Year.	Registered Deaths under one year.			Rate of Infantile Mortality. <sup>1</sup>		
	Males.	Females.	Total.	Males.	Females.	Total.
1901	5,888	4,778	10,666	112.13	94.73	103.61
1902	6,008	5,004	11,012	114.19	99.76	107.15
1903	6,003	4,960	10,963	119.09	103.25	111.36
1904	4,713	3,800	8,513	88.33	74.87	81.77
1905	4,884	3,696	8,580	90.60	72.41	81.76
1906	5,002	3,981	8,983	90.10	76.01	83.26
1907	4,993	3,952	8,945	88.39	73.38	81.06

1. Number of deaths under 1 year per 1000 births registered.

(ii.) *Infantile Mortality, 1901 to 1907.* Divided among the six States, the rate of infantile mortality during the last seven years was as follows:—

**RATE OF INFANTILE MORTALITY, AUSTRALASIA, 1901 to 1907.**

State.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
N.S.W. ...	103.74	109.74	110.35	82.42	80.55	74.53	88.46
Victoria ...	102.94	108.60	106.40	77.92	83.30	92.92	72.60
Queensland ...	101.94	100.17	119.88	76.13	75.52	74.68	77.65
South Australia	99.99	94.00	97.09	70.51	72.96	75.90	66.57
West. Australia	128.89	142.01	141.22	113.02	104.19	110.00	97.51
Tasmania ...	89.05	79.06	110.83	90.70	80.65	90.19	82.97
Commonwealth	103.61	107.15	111.36	81.77	81.76	83.26	81.06
New Zealand...	76.28	82.89	81.08	70.98	67.52	62.10	88.79

The movement has been a fairly regular one, shewing an increase in the rate during 1902 and 1903, and a fall since the latter year, so that the 1907 rate was lower than that for 1901 in every State, but above the 1906 rate in New South Wales and Queensland.

(iii.) *Infantile Mortality in Various Countries.* Compared with European countries the States of the Commonwealth occupy a very enviable position, and it may be pointed out that experience has shewn that a high birth rate is often, though not invariably,

accompanied by a high infantile death rate. The figures in the subjoined table relate to the latest years for which returns are available:—

### RATE OF INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Country.	Year.	Rate of Infantile Mortality.	Crude Birth Rate.	Country.	Year.	Rate of Infantile Mortality.	Crude Birth Rate.
<b>Commonwealth</b> ...	<b>1907</b>	<b>81</b>	<b>26.6</b>	Servia ...	1906	144	41.3
Norway ...	1905	81	27.4	Belgium ...	1905	146	26.1
Sweden ...	1904	84	25.8	Japan ...	1905	151	30.6
New Zealand ...	1907	89	27.3	Italy ...	1905	166	32.5
Ireland ...	1906	93	23.6	Spain ...	1906	173	34.1
Scotland ...	1905	116	27.9	Jamaica ...	1906	197	38.1
Denmark ...	1905	121	28.4	Ceylon ...	1906	198	35.7
Netherlands ...	1906	127	30.4	Rumania ...	1899	198	42.0
Switzerland ...	1905	129	27.4	German Empire ...	1905	205	33.0
England and Wales	1906	132	27.1	Hungary ...	1906	205	36.0
Finland ...	1905	135	30.6	Austria ...	1903	211	35.2
France ...	1905	136	20.6	Chile ...	1903	263	34.0
Bulgaria ...	1904	142	42.7	Russia, European	1901	272	47.9

(iv.) *The Effect of Infantile Mortality on Birth-rate.* It has been contended by certain investigators that the birth-rate question is intimately related to that of infantile mortality, and that in many cases a declining birth-rate may be to a large extent accounted for by a decline in the infantile death-rate, since, in the case in which an infant has survived, the period elapsing before the birth of the next child is likely to be longer than in the case in which the infant has died. It may indeed be readily admitted that in any community the birth-rate may be affected in a definite way by variations of infantile mortality, but careful investigation of the question serves to shew that, whether considered from the theoretical aspect with a view to determining the *maximum* and the *probable* effects which a given change in the rate of infantile mortality would produce in the birth-rate, or from the practical point of view by observing the fluctuations in the birth-rates of various countries which have been collateral with changes in their rates of infantile mortality, there is little ground for the contention that the rate of infantile mortality is an important factor in determining the variations in the birth-rate. One calculation which has been made on the basis of normal Australian conditions indicates that the *maximum* effect of increasing the rate of infantile mortality 100 per cent. would, in the absence of other disturbing causes, be to increase the birth-rate by only  $3\frac{1}{2}$  per cent., whilst the *probable* effect would be considerably less than this. In other words, the *maximum* effect of an increase in the rate of infantile mortality from 100 to 200 per 1000 births would be to increase the birth-rate from say 30 to 31 per 1000 of population. It may be noted too, that although in some countries an increase in birth-rate accompanies an increase in the rate of infantile mortality, in others the birth-rate would appear to be quite unaffected by such an increase, while in the case of England and Wales, Scotland, and Ireland, the tendency apparently exhibited is for an increase in the rate of infantile mortality to be associated with a decrease in the birth-rate. The conclusion which these results appear to warrant is that although infantile mortality undoubtedly tends on the whole to increase the birth-rate, the practical effect produced is so slight that the existence of such a relation may in any instance be quite masked by more important causes of variation.

**8. Deaths in Age-Groups, 1901 to 1907.**—A distribution of the 318,425 deaths which occurred in the Commonwealth from 1901 to 1907 into age-groups has been made, and the results are tabulated for each State. It is, however, sufficient here to shew the results for the Commonwealth as a whole, which are as follows:—

## DEATHS IN AGE-GROUPS, AUSTRALIA, 1901 to 1907.

Ages.	Males.	Females.	Total.	Percentage of Total Males.	Percentage of Total Females.	Percentage of Total.
Under 1 year ...	37,494	30,168	67,662	20.40	22.41	21.25
1 year and under 5 ...	11,042	10,246	21,288	6.00	7.61	6.68
5 years and under 20 ...	10,951	9,829	20,780	5.96	7.30	6.53
20 years and under 40 ...	26,428	22,510	48,938	14.39	16.72	15.37
40 years and under 60 ...	35,054	20,491	55,545	19.08	15.22	17.44
60 years and under 65 ...	10,636	6,451	17,087	5.78	4.79	5.37
65 years and over ...	51,920	34,887	86,807	28.25	25.91	27.26
Age not stated ...	269	49	318	0.14	0.04	0.10
Total ...	183,794	134,631	318,425	100.00	100.00	100.00

9. Deaths at Single Ages and in Age-Groups, 1907.—The 45,305 deaths which were registered in the Commonwealth in the year 1907 will be found tabulated under single years (in weeks up to one month, and in months up to one year), and in groups of five years in the following table :—

## DEATHS AT SINGLE AGES AND IN AGE-GROUPS, 1907.

Ages.	Males.	Females.	Total.	Ages.	Males.	Females.	Total.
Under 1 week ...	1,346	1,007	2,353	15 years ...	91	91	182
1 week and under 2 ...	286	308	494	16 " ...	97	93	190
2 weeks " " 3 ...	218	161	379	17 " ...	105	100	205
3 " " " 4 ...	183	121	304	18 " ...	130	111	241
Total under one month ...	2,033	1,497	3,530	19 " ...	146	101	247
1 month and under 2 ...	503	414	917	Total 15 years and under 20 ...	569	496	1,065
2 months " " 3 ...	394	330	724	20 years ...	140	131	271
3 " " " 4 ...	355	319	674	21 " ...	171	144	315
4 " " " 5 ...	300	215	515	22 " ...	136	163	299
5 " " " 6 ...	240	208	448	23 " ...	176	148	324
6 " " " 7 ...	249	205	454	24 " ...	140	142	282
7 " " " 8 ...	213	175	388	Total 20 years and under 25 ...	763	728	1,491
8 " " " 9 ...	217	164	381	25 years ...	144	160	304
9 " " " 10 ...	176	174	350	26 " ...	147	153	300
10 " " " 11 ...	168	144	312	27 " ...	155	168	323
11 " " " 12 ...	145	107	252	28 " ...	147	138	285
Total under 1 year ...	4,993	3,952	8,945	29 " ...	130	153	283
1 year ...	858	804	1,662	Total 25 years and under 30 ...	723	772	1,495
2 years ...	319	283	602	30 years ...	178	153	331
3 " ...	189	180	369	31 " ...	133	149	282
4 " ...	123	122	245	32 " ...	157	151	308
Total under 5 years ...	6,482	5,341	11,823	33 " ...	154	160	314
5 years ...	148	110	258	34 " ...	167	154	321
6 " ...	95	90	185	Total 30 years and under 35 ...	789	767	1,556
7 " ...	91	79	170	35 years ...	199	171	370
8 " ...	79	67	146	36 " ...	218	173	391
9 " ...	60	57	117	37 " ...	179	146	325
Total 5 years and under 10 ...	473	403	876	38 " ...	218	171	389
10 years ...	75	65	140	39 " ...	187	182	369
11 " ...	66	56	122	Total 35 years and under 40 ...	1,001	843	1,844
12 " ...	58	66	124				
13 " ...	82	64	146				
14 " ...	85	99	184				
Total 10 years and under 15 ...	366	350	716				



## DEATHS AT SINGLE AGES AND IN AGE-GROUPS, 1907—Continued.

Ages.	Males.	Females.	Total.	Ages.	Males.	Females.	Total
40 years ...	280	189	469	75 years ...	461	324	785
41 " ...	193	116	308	76 " ...	407	290	697
42 " ...	263	177	440	77 " ...	421	279	700
43 " ...	226	151	377	78 " ...	401	238	639
44 " ...	244	168	412	79 " ...	320	193	513
Total 40 years and under 45	1,205	801	2,006	Total 75 years and under 80	2,010	1,324	3,334
45 years ...	318	179	497	80 years ...	355	228	583
46 " ...	269	142	411	81 " ...	248	127	375
47 " ...	281	162	443	82 " ...	221	169	390
48 " ...	246	168	414	83 " ...	176	167	343
49 " ...	249	150	399	84 " ...	199	147	346
Total 45 years and under 50	1,363	801	2,164	Total 80 years and under 85	1,199	838	2,037
50 years ...	368	170	538	85 years ...	171	132	303
51 " ...	201	125	326	86 " ...	156	97	253
52 " ...	298	161	450	87 " ...	131	125	256
53 " ...	256	141	397	88 " ...	134	113	247
54 " ...	257	134	391	89 " ...	54	85	139
Total 50 years and under 55	1,371	731	2,102	Total 85 years and under 90	646	552	1,198
55 years ...	265	128	393	90 years ...	49	56	105
56 " ...	283	162	445	91 " ...	39	40	79
57 " ...	244	128	372	92 " ...	38	26	64
58 " ...	260	155	415	93 " ...	19	23	42
59 " ...	232	166	398	94 " ...	10	12	22
Total 55 years and under 60	1,284	739	2,023	Total 90 years and under 95	155	157	312
60 years ...	364	184	548	95 years ...	21	18	39
61 " ...	210	141	351	96 " ...	7	5	15
62 " ...	300	191	491	97 " ...	13	13	26
63 " ...	351	207	558	98 " ...	5	7	12
64 " ...	300	197	497	99 " ...	2	3	5
Total 60 years and under 65	1,525	920	2,445	Total 95 yrs. and under 100	48	49	97
65 years ...	412	260	672	100 years ...	2	6	8
66 " ...	336	196	532	101 " ...	4	...	4
67 " ...	374	256	630	102 " ...	...	1	1
68 " ...	359	266	625	103 " ...	1	3	4
69 " ...	304	234	538	104 " ...	3	...	3
Total 65 years and under 70	1,785	1,212	2,997	105 " ...	2	...	2
70 years ...	516	311	827	119 " ...	1	...	1
71 " ...	347	234	581	Total 100 years and over...	13	10	23
72 " ...	423	298	721	Age not stated ...	48	19	67
73 " ...	401	350	751	Total all ages ...	25,939	19,366	45,305
74 " ...	434	320	754				
Total 70 years and under 75	2,121	1,513	3,634				

10. **Deaths of Centenarians, 1907.**—Particulars as to the twenty-three persons who died in 1907, aged 100 years and upwards, are given in the following table. It must, of course, be understood that while the Registrars-General of the various States take the greatest care to have statements as to abnormally high ages verified as far as possible, no absolute reliance can be placed in the accuracy of the ages shown, owing to the well-known tendency of very old people to overstate their ages. The fact must not be lost sight of in connection with this question, that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically only from 1874, the Act passed in 1836 having left many loop-holes open for those unwilling to register the births of their children:—

## DEATHS OF CENTENARIANS, 1907.

Age	Locality where Death occurred.	State.	Cause of Death.	Occupation.	Birth Place.	Length of Residence in Commonwealth.
MALES.						
Yrs.						
119	Liverpool Asylum	N.S.W.	Senile decay	Dependent on State	England	87 years
105	Braidwood	"	Epithelioma of face and neck	Farmer	"	76 "
105	Liverpool Asylum	"	Senile decay	Engineer	Hungary	56 "
104	Brunswick	Victoria	"	Labourer	England	93 "
104	Port Fairy	"	"	Farmer	Ireland	52 "
104	Hobart	Tasmania	"	Butcher	England	87 "
103	York	West. Aust.	"	Farmer	Ireland	52 "
101	Cooma Hospital	N.S.W.	"	Gardener	England	60 "
101	Tuena	"	"	Bootmaker	"	75 "
101	Melbourne	Victoria	"	Gentleman	Syria	19 "
101	Kapunda Hospital	South Aust.	"	Labourer	(Not stated)	(Not stated)
100	Narrabri	N.S.W.	Heart disease	(Not stated)	N.S.W.	Native
100	Launceston	Tasmania	Senile decay	Stonemason	Ireland	66 years

## FEMALES.

103	Warrnambool	Victoria	Senile decay	...	Ireland	69 years
103	Bundaberg	Queensland	"	...	"	25 "
103	Ipswich	"	Pulmonary congestion	...	England	33 "
102	Medindie	South Aust.	Senile decay	...	(Not stated)	(Not stated)
100	Bourke	N.S.W.	"	...	Germany	48 years
100	Benalla	Victoria	"	...	England	54 "
100	Daylesford	"	"	...	Ireland	60 "
100	Melb. Hospital	"	Emphysema, bronchitis	...	(Not stated)	(Not stated)
100	Mitcham	"	Heart failure, dropsy	...	England	60 years
100	Ulverstone	Tasmania	Senile decay	...	Ireland	45 "

11. **Length of Residence in the Commonwealth of Persons who Died in 1907.**—The length of residence in the Commonwealth of all persons whose deaths were registered in the year 1907 has been tabulated for all the States with the exception of South Australia, and a summary of the results is shewn below :—

**LENGTH OF RESIDENCE IN COMMONWEALTH OF PERSONS WHO DIED  
IN 1907.**

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in the C'wealth...	12,434	10,841	23,275	Resident 25 to 29 years	681	352	1,033
Resident under 1 year	129	42	171	" 30 to 34 "	738	351	1,089
" 1 year	46	12	58	" 35 to 39 "	425	295	720
" 2 years	32	10	42	" 40 to 44 "	1,134	710	1,844
" 3 "	35	10	45	" 45 to 49 "	909	652	1,561
" 4 "	35	12	47	" 50 to 54 "	2,131	1,596	3,717
" 5 "	38	19	57	" 55 to 59 "	902	674	1,576
" 6 "	42	14	56	" 60 to 64 "	379	191	472
" 7 "	45	13	58	" 65 yrs. & over	281	357	736
" 8 "	33	22	55	Length of residence not stated...	1,917	603	2,520
" 9 "	25	20	45				
" 10 to 14 years...	320	82	302				
" 15 to 19 "	302	248	640				
" 20 to 24 "	859	499	1,358	Total ...	23,852	17,625	41,477

12. **Birthplaces of Persons who Died in 1907.**—In the following table, which shews the birthplaces of persons whose deaths were registered in 1907, the figures for South Australia are not included, the Registration Act in force to the end of 1907 not having provided for the registration of those particulars:—

**BIRTHPLACES OF PERSONS WHO DIED IN 1907.**

Birthplaces.	Males.	Females.	Total.	Birthplaces.	Males.	Females.	Total.
New South Wales ...	5,234	4,697	9,931	Afghanistan ...	1	...	1
Victoria ...	3,944	3,451	7,395	Arabia ...	2	...	2
Queensland ...	1,423	1,143	2,566	Asia Minor ...	1	...	1
South Australia ...	285	227	512	Beloochistan ...	1	...	1
Western Australia ...	688	568	1,256	Ceylon ...	4	...	4
Tasmania ...	868	754	1,622	China ...	336	1	337
				Cochin China ...	1	...	1
				Dutch East Indies ...	19	2	21
New Zealand ...	76	76	152	India ...	62	18	80
				Japan ...	42	4	46
				Philippine Islands ...	8	...	8
				Straits Settlements ...	6	...	6
				Syria ...	5	1	6
Austria-Hungary ...	24	7	31				
Belgium ...	7	...	7				
Channel Islands ...	7	10	17				
Denmark ...	87	26	113	Africa (so described) ...	3	...	3
England ...	4,761	2,738	7,499	Algiers ...	1	...	1
Finland ...	13	...	13	Azores ...	1	...	1
France ...	63	17	80	Canary Islands ...	...	1	1
Germany ...	493	182	675	Cape Verde Islands ...	3	...	3
Gibraltar ...	3	2	5	Cape Colony ...	...	1	1
Greece ...	9	2	11	Egypt ...	2	...	2
Iceland ...	1	...	1	Mauritius ...	8	5	13
Ireland ...	2,552	2,385	4,937	Réunion ...	1	...	1
Isle of Man ...	8	5	13	Soudan ...	1	...	1
Italy ...	76	7	83	St. Helena ...	1	1	2
Malta ...	5	2	7	S. Africa (so described) ...	16	16	32
Netherlands ...	14	...	14				
Norway ...	53	8	61				
Portugal ...	3	1	4				
Russia ...	29	10	39	Fiji ...	1	...	1
Scotland ...	1,424	939	2,363	New Caledonia ...	2	...	2
Servia ...	1	...	1	New Guinea ...	18	...	18
Spain ...	5	3	8	New Hebrides ...	5	1	6
Sweden ...	86	13	99	Norfolk Island ...	1	2	3
Switzerland ...	45	4	49	Samoa ...	1	1	2
Turkey ...	1	...	1	Sandwich Islands ...	1	...	1
Wales ...	122	62	184	Society Islands ...	1	...	1
				Solomon Islands ...	2	...	2
				S. Sea Is. (so described) ...	53	3	56
Canada ...	46	14	60				
United States ...	86	25	111	At Sea ...	46	29	75
Brazil ...	1	...	1				
British Guiana ...	1	...	1				
British West Indies ...	22	4	26	Not stated... ..	618	154	772
Newfoundland ...	4	...	4				
S. America (so described) ...	8	3	11				
				Total Deaths ...	23,852	17,625	41,477

13. **Occupations of Male Persons who Died in 1907.**—Information as to the occupations of the 25,939 males who died in the Commonwealth in 1907, is contained in the following statement :—

**OCCUPATIONS OF DECEASED MALES, 1907.**

Occupation.	No. of Deaths.	Occupation.	No. of Deaths.
<b>CLASS I.—PROFESSIONAL.</b>		Groceries, drinks, narcotics, and stimulants ... ..	125
General Government ... ..	111	Living animals... ..	39
Local Government ... ..	27	Hides and leather ... ..	5
Defence ... ..	30	Wool, tallow, bones, etc. ... ..	11
Law and Order ... ..	143	Hay, corn, etc. ... ..	42
Religion ... ..	95	Timber ... ..	14
Charity (exclusive of hospitals) ... ..	4	Wood, coal, etc. ... ..	39
Health ... ..	145	Stone, clay, glass, etc. ... ..	2
Literature ... ..	38	Jewellery and precious stones ... ..	3
Science ... ..	18	Ironmongery ... ..	31
Civil and mechanical engineering, architecture and surveying ... ..	89	Merchants, shopkeepers, etc. ... ..	226
Education ... ..	98	Dealers and hawkers ... ..	111
Fine Arts ... ..	34	Agents, brokers, etc. ... ..	78
Music ... ..	41	Accountants, clerks, etc. ... ..	450
Amusements ... ..	56	Commercial travellers and salesmen ... ..	116
		Other mercantile persons ... ..	78
		Storage ... ..	1
		Speculators on chance events ... ..	3
Total Professional ... ..	929		
<b>CLASS II.—DOMESTIC.</b>		Total Commercial ... ..	1,999
Hotelkeepers and assistants ... ..	235	<b>CLASS IV.—TRANSPORT AND COMMUNICATION.</b>	
Others engaged in providing board and lodging... ..	50	Railway traffic ... ..	238
House servants ... ..	128	Tramway traffic ... ..	18
Coachmen and grooms ... ..	85	Road traffic ... ..	373
Hairdressers ... ..	58	Sea and river traffic ... ..	505
Laundrymen ... ..	12	Postal service ... ..	46
Others engaged in domestic occupations ... ..	78	Telegraph and telephone service ... ..	16
		Delivery of parcels, etc., by hand ... ..	9
Total Domestic ... ..	646		
<b>CLASS III.—COMMERCIAL.</b>		Total Transport & Communic't'n ... ..	1,205
Banking and finance ... ..	79	<b>CLASS V.—INDUSTRIAL.</b>	
Insurance and valuation ... ..	53	Books and publications ... ..	120
Land and household property ... ..	41	Musical instruments ... ..	10
Books, publications and advertising ... ..	33	Prints, pictures, and art materials ... ..	7
Fancy goods ... ..	2	Ornaments, minor art products, etc. ... ..	24
Watches, clocks, jewellery, etc. ... ..	3	Designs, medals, type, and dies ... ..	6
Machinery, tools, etc. ... ..	2	Watches, clocks, and scientific instruments ... ..	35
Carriages and vehicles ... ..	2	Arms, ammunition, etc. ... ..	2
Ships, boats, and marine stores ... ..	4	Engines, machines, tools, etc. ... ..	82
Furniture ... ..	2	Carriages and vehicles ... ..	99
Chemicals and by-products ... ..	3	Harness, saddlery and leatherware ... ..	76
Paper and stationery ... ..	8	Ships, boats, and equipments ... ..	52
Textile fabrics ... ..	98	Furniture ... ..	85
Dress ... ..	16	Building material (wood) ... ..	73
Fibrous materials ... ..	1	Chemicals and by-products ... ..	3
Animal food ... ..	216		
Vegetable food ... ..	62		

## OCCUPATIONS OF DECEASED MALES, 1907—Continued.

Occupation.	No. of Deaths.	Occupation.	No. of Deaths.
Textile fabrics ... ..	17	CLASS VI.—AGRICULTURAL, PASTORAL, MINING PURSUITS, ETC.	
Dress ... ..	360	Agricultural ... ..	2,603
Fibrous materials ... ..	16	Pastoral ... ..	645
Animal food ... ..	22	Dairy-farming, etc. ... ..	88
Vegetable food ... ..	163	Bees, fisheries, and wild animals ...	105
Groceries, drinks, narcotics, and stimulants ... ..	77	Forestry ... ..	42
Wool-scouring, soap, and candles ...	56	Water conservation and supply ...	21
Workers in wood (axemen, fencers, etc.) ... ..	12	Mines and quarries ... ..	1,830
Fodder ... ..	1		
Paper manufacture ... ..	1	Total Primary Producers ... ..	5,334
Marble, clay, cement, glass, etc. ...	54		
Precious metals ... ..	7	CLASS VII.—INDEFINITE.	
Other metals ... ..	315	Independent means, etc. ... ..	861
Fuel, light, etc. ... ..	31	Undefined or unknown ... ..	798
Building and construction—			
Builders and contractors ... ..	85	Total Indefinite ... ..	1,659
Stonemasons ... ..	99		
Bricklayers ... ..	71	CLASS VIII.—DEPENDENTS.	
Carpenters ... ..	431	Dependent relatives (including persons under 20 years of age with no specified occupation) ...	7,517
Slaters, shinglers ... ..	5	Dependent upon the State or upon public or private support ...	96
Plasterers ... ..	37		
Painters and glaziers ... ..	161	Total Dependents ... ..	7,613
Plumbers ... ..	59		
Others ... ..	4	Total Male Deaths ... ..	25,939
Roads, railways, and earthworks ...	44		
Disposal of the dead ... ..	13		
Disposal of refuse ... ..	18		
Other industrial workers—			
Manufacturers, mechanics ... ..	20		
Engineers, engine-drivers ... ..	298		
Machinists, machine hands ... ..	6		
Contractors, managers ... ..	111		
Labourers, undefined ... ..	3,286		
Total Industrial ... ..	6,554		

14. **Index of Mortality.**—The death rates so far shewn are crude rates, *i.e.*, they simply shew the number of deaths per thousand of mean population, without taking the age constitution of that population into consideration. It is, however, a well-known fact that the death rate and age constitution of a people are intimately related, thus, other conditions being equal, the death rate of a country will be lower if it contain a large percentage of young people (not infants). In order to have a comparison of the mortality of various countries on a uniform basis, so far as age constitution is concerned, the International Statistical Institute in its 1895 session recommended the universal adoption of the population of Sweden in five age-groups, as ascertained at the Census of 1890, as the standard population by which this "Index of Mortality," as distinguished from the crude death rate should be ascertained. The calculation for 1907 is shewn below for each of the six States and for the Commonwealth, but it will be understood that the distribution of the mean population of 1907 into age-groups according to the distribution as found at the Census of 1901 must be taken as the best approximation which the data will admit of, not as absolutely correct:—

## (a) INDEX OF MORTALITY, 1907.—(STATES AND COMMONWEALTH.)

Age-Groups.	Mean Population, 1907, distributed according to Results of Census of 1901.	Number of Deaths, 1907.	No. of Deaths per 1000 of Mean Population, 1907, in each Age-Group.	Age Distribution per 100 of Standard Population.	Index of Mortality.
<b>NEW SOUTH WALES.</b>					
Under 1 year ... ..	39,088	3,739	95.66	25.5	2.44
1 year and under 20 ... ..	679,773	2,205	3.24	398.0	1.29
20 years " 40 ... ..	497,175	2,143	4.31	269.6	1.16
40 " 60 ... ..	247,737	2,906	11.73	192.3	2.26
60 " and upwards ... ..	86,714	5,418	62.48	114.6	7.16
<b>Total</b> ... ..	<b>1,550,487</b>	<b>16,411</b>	<b>10.58</b>	<b>1,000.0</b>	<b>14.31</b>
<b>VICTORIA.</b>					
Under 1 year ... ..	29,219	2,279	78.00	25.5	1.99
1 year and under 20 ... ..	515,381	1,418	2.75	398.0	1.18
20 years " 40 ... ..	405,715	1,964	4.84	269.6	1.31
40 " 60 ... ..	189,786	2,567	13.53	192.3	2.60
60 " and upwards ... ..	98,830	6,311	63.86	114.6	7.32
<b>Total</b> ... ..	<b>1,238,931</b>	<b>14,539</b>	<b>11.74</b>	<b>1,000.0</b>	<b>14.40</b>
<b>QUEENSLAND.</b>					
Under 1 year ... ..	13,920	1,130	81.18	25.5	2.16
1 year and under 20 ... ..	233,731	762	3.26	398.0	1.30
20 years " 40 ... ..	178,462	849	4.76	269.6	1.28
40 " 60 ... ..	86,716	1,237	14.26	192.3	2.74
60 " and upwards ... ..	26,069	1,620	62.14	114.6	7.12
<b>Total</b> ... ..	<b>538,918</b>	<b>5,598</b>	<b>10.39</b>	<b>1,000.0</b>	<b>14.60</b>
<b>SOUTH AUSTRALIA.</b>					
Under 1 year ... ..	8,704	615	70.66	25.5	1.80
1 year and under 20 ... ..	171,205	439	2.56	398.0	1.02
20 years " 40 ... ..	117,945	554	4.70	269.6	1.27
40 " 60 ... ..	63,355	704	11.11	192.3	2.14
60 " and upwards ... ..	24,463	1,516	61.97	114.6	7.10
<b>Total</b> ... ..	<b>385,672</b>	<b>3,828</b>	<b>9.93</b>	<b>1,000.0</b>	<b>13.33</b>
<b>WESTERN AUSTRALIA.</b>					
Under 1 year ... ..	7,162	755	105.42	25.5	2.70
1 year and under 20 ... ..	87,159	496	5.69	398.0	2.26
20 years " 40 ... ..	119,285	630	5.28	269.6	1.42
40 " 60 ... ..	40,134	555	13.83	192.3	2.66
60 " and upwards ... ..	8,569	495	57.76	114.6	6.62
<b>Total</b> ... ..	<b>262,309</b>	<b>2,931</b>	<b>11.17</b>	<b>1,000.0</b>	<b>15.66</b>
<b>TASMANIA.</b>					
Under 1 year ... ..	4,790	440	91.86	25.5	2.34
1 year and under 20 ... ..	80,976	223	2.75	398.0	1.09
20 years " 40 ... ..	55,955	257	4.59	269.6	1.24
40 " 60 ... ..	26,718	338	12.65	192.3	2.43
60 " and upwards ... ..	10,917	740	67.78	114.6	7.77
<b>Total</b> ... ..	<b>179,356</b>	<b>1,998</b>	<b>11.14</b>	<b>1,000.0</b>	<b>14.87</b>
<b>COMMONWEALTH.</b>					
Under 1 year ... ..	102,883	8,958	87.07	25.5	2.22
1 year and under 20 ... ..	1,768,225	5,543	3.13	398.0	1.24
20 years " 40 ... ..	1,374,557	6,397	4.65	269.6	1.25
40 " 60 ... ..	654,446	8,307	12.69	192.3	2.44
60 " and upwards ... ..	255,562	16,100	63.00	114.6	7.22
<b>Total</b> ... ..	<b>4,155,673</b>	<b>45,305</b>	<b>10.90</b>	<b>1,000.0</b>	<b>14.37</b>

NOTE.—The small number of persons whose ages were not ascertained at the 1901 Census have been proportionately distributed among the various age-groups, and the same plan has been followed in regard to the 67 persons who died in 1907, and whose ages were not stated in the certificates of death.

It will be seen that the States and the Commonwealth remain in the same order with one exception—while the crude death rate was second highest in Western Australia, and highest in Victoria, the index of mortality was higher in Western Australia than in Victoria. The range of the indexes is rather wider than that of the crude death rates, for while the latter in 1907 rose from 9.93 per thousand in South Australia to 11.74 per thousand in Victoria, a range of 1.81 per thousand, the indexes varied from 13.33 per thousand in South Australia to 15.66 per thousand in Western Australia, a range of 2.33 per thousand.

For the purpose of comparison with previous years the index of mortality is shewn in the following table for each of the Commonwealth States for the years 1902 to 1907:—

(b) INDEX OF MORTALITY, 1902 to 1907.

State.	1902.	1903.	1904.	1905.	1906.	1907.
New South Wales ...	15.45	15.06	14.10	13.53	13.44	14.31
Victoria ...	15.89	15.25	14.29	14.55	15.05	14.40
Queensland ...	15.85	16.22	13.23	14.53	13.20	14.60
South Australia ...	15.12	13.89	13.32	13.52	13.94	13.33
Western Australia ...	17.66	15.75	15.60	14.41	16.51	15.66
Tasmania ...	14.26	14.86	14.36	13.36	14.87	14.87

A comparison of the above figures with the crude death rates given on a previous page shews that while the crude death rate was highest in Victoria for five out of the six years, and in Western Australia in one year, and lowest three times in South Australia, twice in Queensland, and once in Tasmania, the index of mortality was highest in Western Australia five times and in Victoria once, and lowest twice in South Australia, twice in Queensland, and twice in Tasmania. The crude death rates shew the following ranges:—In New South Wales, 2.05; in Victoria, 1.62; in Queensland, 2.44; in South Australia, 1.90; in Western Australia, 2.89; and in Tasmania, 1.63 per thousand; while the fluctuations in the indexes amounted to 2.01 per thousand in New South Wales; to 1.60 in Victoria; to 3.02 in Queensland; to 1.80 in South Australia; to 3.25 in Western Australia; and to 1.51 in Tasmania.

15. **Causes of Death.**—(i.) *Changes in Classification from 1903 to 1906.* The causes of death were classified in all the States of the Commonwealth to the end of 1903 according to the system originally devised by Dr. William Farr, and modified in 1886 by Dr. William Ogle. A conference of the State Statisticians, held at Hobart in January, 1902, decided to substitute for that system the classification adopted since 1901 by the Registrar-General of England. While New South Wales, Queensland, and Tasmania remodelled their vital statistics on that plan, Victoria, South Australia and Western Australia continued to tabulate according to the Farr-Ogle system, and a comparison of the causes of death in the six States during the years 1903, 1904, 1905, and 1906 is, therefore, a matter of extreme difficulty. The differences in tabulation will be seen in the following statement:—

TABULATION OF CAUSES OF DEATH.

State.	1902.	1903.	1904.	1905.	1906.	State.	1902.	1903.	1904.	1905.	1906
N.S.W. ...	Old	Old	Old	New	International	S. Australia	Old	Old	Old	Old	Old
Victoria ...	Old	Old	Old	Old	Old	W. Australia	Old	Old	Old	Old	Old
Queensland	Old	New	New	New	New	Tasmania ...	Old	New	New	New	New

Old = Farr-Ogle classification. New = New classification by Registrar-General of England.  
International—See next paragraph.

(ii.) *The Classification of the International Institute of Statistics.* At a conference held in Melbourne in November and December, 1906, the Commonwealth Statistician recommended the adoption of the classification of the International Institute of Statistics, generally known as the Bertillon Index, and after some discussion that recommendation was accepted, a course which has met with wide approval in medical circles. This index, as the one used by the Registrar-General of England, is based on the original Farr-Ogle classification, but approximates more closely to the present English system than to the older one. The chief advantage possessed by the international classification is that it presents a very extensive field for comparison, the countries which have adopted it representing a population which is probably not less than 150,000,000. Provision is made for a decennial revision of the classification, as it has been recognised that finality is impossible in the present state of medical science. The committee charged with the first revision will meet in Paris in 1909, and a number of recommendations will, in accordance with a resolution of the Australasian Medical Congress, held in Melbourne in October, 1908, be made to it, dealing particularly with tropical diseases occurring in the northern parts of Australia.

The detailed classification groups causes of death under 179 different headings in fourteen categories, as follows:—

- |   |   |
|---|---|
| i. General Diseases.  | viii. Diseases of the Skin and Cellular Tissue. |
| ii. Diseases of the Nervous System and Organs of Special Sense. | ix. Diseases of the Organs of Locomotion.       |
| iii. Diseases of the Circulatory System.                        | x. Malformations.                               |
| iv. Diseases of the Respiratory System.                         | xi. Infancy.                                    |
| v. Diseases of the Digestive System.                            | xii. Old Age.                                   |
| vi. Diseases of the Genito-urinary System and Adnexa.           | xiii. Violence.                                 |
| vii. Puerperal Condition.                                       | xiv. Ill-defined Diseases.                      |

(iii.) *Compilation of Vital Statistics for 1907 in Commonwealth Bureau.* The vital statistics of the six Commonwealth States for 1907 have been tabulated according to this classification in the Commonwealth Bureau, and the system is being employed in the majority of the State offices in the preparation of their monthly and quarterly bulletins of vital statistics, New South Wales being the only State to publish its Annual Vital Statistics for the year 1906 on the International classification.

(iv.) *Classification of Causes of Death, 1905 to 1907, according to Abridged Bertillon Index.* An abridged classification, which enumerates thirty-five diseases and groups of diseases, is in use in many European and American States, and while the Commonwealth Statistics for 1907 have been compiled on the detailed classification of 179 headings, it was at least possible to group the causes of death experienced in 1905 and 1906 under the 35 headings of the abridged classification. Two slight modifications had to be made in the tabulation of those two years, viz., in No. 31, Congenital Debility and Malformations, only children under three months, who died of congenital debility, should have been included. The age limit had here to be extended to 12 months, as in the majority of States the causes of death were only tabulated for the group "under one year." For the same reason, the very few cases of "Insufficient Nourishment of Infants," No. 153 of detailed, and No. 34 of abridged classification, had to be included with No. 173, "Inanition," of detailed, and No. 33 of abridged classification. Apart from the two cases mentioned, and certain minor difficulties mentioned in paragraph 16 hereinafter,



it is believed that all the causes of death enumerated either under the Farr-Ogle, or under the Registrar-General's classification, have been grouped under the correct headings of the abridged Bertillon Index. The compilation for 1907 does not labour under

### CAUSES OF DEATH.—AUSTRALIA, 1907.

#### (a) MALES.

Cause.	N.S.W.	Vict.	Q'land.	S.Aust.	W.Aus.	Tas.	C'wlth.
1 Typhoid Fever ...	114	51	60	25	77	22	349
2 Typhus ...	—	—	—	—	—	—	—
3 Intermittent Fever and Malarial Cachexia ...	1	—	28	5	1	2	37
4 Small-pox ...	—	—	—	—	—	—	—
5 Measles ...	35	24	10	4	4	—	77
6 Scarlet Fever ...	15	1	2	2	—	—	20
7 Whooping Cough ...	280	56	67	36	53	21	513
8 Diphtheria and Croup ...	75	49	22	9	32	5	192
9 Influenza ...	168	149	109	25	10	16	477
10 Asiatic Cholera ...	—	—	—	—	—	—	—
11 Cholera Nostras ...	1	—	—	1	—	—	2
12 Other Epidemic Diseases ...	46	13	72	14	27	1	173
13 Tuberculosis of the Lungs ...	589	601	241	148	137	58	1,774
14 Tuberculosis of the Meninges ...	35	48	7	17	5	7	119
15 Other forms of Tuberculosis ...	86	77	28	23	17	11	242
16 Cancer and other Malignant Tumours ...	624	499	203	134	78	51	1,589
17 Simple Meningitis ...	133	110	45	36	35	14	373
18 Congestion, Hæmorrhage and Softening of the Brain ...	404	343	119	75	64	33	1,038
19 Organic Diseases of the Heart ...	745	708	292	181	120	108	2,154
20 Acute Bronchitis ...	147	55	36	27	12	17	294
21 Chronic Bronchitis ...	178	177	42	36	16	15	464
22 Pneumonia ...	424	347	142	60	76	54	1,103
23 Diseases of the Stomach (Cancer excepted) ...	53	61	31	14	5	8	172
24 Diarrhœa and Enteritis (children under two years only) ...	601	367	194	97	202	52	1,513
25 Hernia, Intestinal Obstructions ...	79	71	29	17	15	3	214
26 Cirrhosis of the Liver ...	71	61	26	16	13	6	193
27 Nephritis and Bright's Disease ...	359	404	138	90	49	25	1,055
28 Non-cancerous Tumours and other Diseases of the Female Genital Organs ...	—	—	—	—	—	—	—
29 Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis, Puerperal Phlebitis) ...	—	—	—	—	—	—	—
30 Other Puerperal Accidents of Pregnancy and Confinement ...	—	—	—	—	—	—	—
31 Congenital Debility and Malformations ...	676	470	220	135	127	88	1,716
32 Senile Debility... ..	561	657	138	183	55	127	1,721
33 Violence ...	721	552	349	122	204	90	2,038
33A Suicide ...	133	100	76	25	42	9	385
34 Other Diseases... ..	1,786	1,719	710	413	295	179	5,102
35 Unspecified or Ill-defined Diseases	304	207	46	117	95	61	830
Total—Males ...	9,444	7,977	3,482	2,087	1,866	1,083	25,939

those defects. It will be found in full in "Bulletin No. 8, of Population and Vital Statistics"; here it will suffice to give the abridged classification under thirty-five headings:—

## CAUSES OF DEATH—AUSTRALIA, 1907.

## (b) FEMALES.

Cause.	N.S.W.	Vic.	Q'land.	S. Aus.	W.Aus.	Tas.	C'wlth.
1 Typhoid Fever ... ..	77	40	27	16	42	13	215
2 Typhus ... ..	—	—	—	—	—	—	—
3 Intermittent Fever and Malarial Cachexia ... ..	—	—	4	1	—	—	5
4 Small-pox ... ..	—	—	—	—	—	—	—
5 Measles ... ..	46	15	7	1	—	1	70
6 Scarlet Fever ... ..	12	1	1	2	—	1	17
7 Whooping Cough ... ..	312	74	60	40	44	27	557
8 Diphtheria and Croup ... ..	79	48	34	5	41	4	211
9 Influenza ... ..	141	126	100	36	5	17	425
10 Asiatic Cholera ... ..	—	—	—	—	—	—	—
11 Cholera Nostras ... ..	3	—	—	—	—	—	3
12 Other Epidemic Diseases ... ..	41	10	27	8	8	1	95
13 Tuberculosis of the Lungs ... ..	427	581	100	149	80	55	1,392
14 Tuberculosis of the Meninges ... ..	33	55	6	8	3	13	118
15 Other forms of Tuberculosis ... ..	79	79	11	22	11	11	213
16 Cancer and other Malignant Tumours ... ..	459	492	150	137	53	60	1,351
17 Simple Meningitis ... ..	99	78	34	29	24	11	275
18 Congestion, Hæmorrhage, and Softening of the Brain ... ..	306	351	76	77	21	32	863
19 Organic Diseases of the Heart ... ..	552	607	168	176	52	92	1,647
20 Acute Bronchitis ... ..	112	54	16	19	9	10	220
21 Chronic Bronchitis ... ..	140	138	33	42	14	13	380
22 Pneumonia ... ..	241	242	76	52	35	39	685
23 Diseases of the Stomach (Cancer excepted) ... ..	58	59	18	9	5	13	162
24 Diarrhœa and Enteritis (children under two years only) ... ..	500	307	152	72	152	37	1,220
25 Hernia, Intestinal Obstructions ... ..	55	86	22	20	4	10	197
26 Cirrhosis of the Liver ... ..	30	67	17	7	7	4	132
27 Nephritis and Bright's Disease ... ..	236	292	70	57	22	18	695
28 Non-cancerous Tumours and other Diseases of the Female Genital Organs ... ..	45	49	6	11	10	7	128
29 Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis, Puerperal Phlebitis) ... ..	71	44	19	19	19	7	179
30 Other Puerperal Accidents of Pregnancy and Confinement ... ..	169	122	69	25	33	17	435
31 Congenital Debility and Malformations ... ..	550	356	169	90	96	61	1,322
32 Senile Debility ... ..	420	553	98	188	30	126	1,415
33 Violence ... ..	251	186	80	50	38	36	641
33A Suicide ... ..	25	21	18	6	6	—	76
34 Other Diseases ... ..	1,232	1,316	423	311	150	145	3,577
35 Non-specified or Ill-defined Diseases ... ..	166	113	25	56	51	34	445
Total—Females ... ..	6,967	6,562	2,116	1,741	1,065	915	19,366

## CAUSES OF DEATH—AUSTRALIA, 1907.

(c) TOTAL, MALES AND FEMALES.

Cause.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	C'w'lth.
1 Typhoid Fever ...	191	91	87	41	119	35	564
2 Typhus ...	—	—	—	—	—	—	—
3 Intermittent Fever and Malarial Cachexia ...	1	—	32	6	1	2	42
4 Small-pox ...	—	—	—	—	—	—	—
5 Measles ...	81	39	17	5	4	1	147
6 Scarlet Fever ...	27	2	3	4	—	1	37
7 Whooping Cough ...	592	130	127	76	97	48	1,070
8 Diphtheria and Croup ...	154	97	56	14	73	9	403
9 Influenza ...	309	275	209	61	15	33	902
10 Asiatic Cholera ...	—	—	—	—	—	—	—
11 Cholera Nostras ...	4	—	—	1	—	—	5
12 Other Epidemic Diseases ...	87	23	99	22	35	2	268
13 Tuberculosis of the Lungs ...	1,016	1,182	341	297	217	113	3,166
14 Tuberculosis of the Meninges ...	68	103	13	25	8	20	237
15 Other forms of Tuberculosis ...	165	156	39	45	28	22	455
16 Cancer and other Malignant Tumours ...	1,083	991	353	271	131	111	2,940
17 Simple Meningitis ...	232	188	79	65	59	25	648
18 Congestion, Hæmorrhage, and Softening of the Brain ...	710	694	195	152	85	65	1,901
19 Organic Diseases of the Heart ...	1,297	1,315	460	357	172	200	3,801
20 Acute Bronchitis ...	259	109	52	46	21	27	514
21 Chronic Bronchitis...	318	315	75	78	30	28	844
22 Pneumonia ...	665	589	218	112	111	93	1,788
23 Diseases of the Stomach (Cancer excepted) ...	111	120	49	23	10	21	334
24 Diarrhœa and Enteritis (children under two years only) ...	1,101	674	346	169	354	89	2,738
25 Hernia, Intestinal Obstructions ...	134	157	51	37	19	13	411
26 Cirrhosis of the Liver ...	101	128	43	23	20	10	325
27 Nephritis and Bright's Disease ...	595	696	208	147	71	43	1,760
28 Non-cancerous Tumours and other Diseases of the Female Genital Organs ...	45	49	6	11	10	7	128
29 Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis, Puerperal Phlebitis) ...	71	44	19	19	19	7	179
30 Other Puerperal Accidents of Pregnancy and Confinement ...	169	122	69	25	33	17	435
31 Congenital Debility and Malformations ...	1,226	826	389	225	223	149	3,038
32 Senile Debility ...	981	1,210	236	371	85	253	3,136
33 Violence ...	972	738	429	172	242	126	2,679
33A Suicide ...	158	121	94	31	48	9	461
34 Other Diseases ...	3,018	3,035	1,133	724	445	324	8,679
35 Non-specified or Ill-defined Diseases ...	470	320	71	173	146	95	1,275
Total—Males and Females...	16,411	14,539	5,598	3,828	2,931	1,998	45,305

(d) The classification for the years 1905 and 1906 is shewn for the Commonwealth in the following table, and for purposes of comparison the figures for the year 1907 have been repeated from the preceding table:—

## CAUSES OF DEATH—AUSTRALIA, 1905 to 1907.

Cause.	1905.			1906.			1907.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1 Typhoid Fever ...	308	232	630	430	308	738	349	215	564
2 Typhus ...	...	...	...	...	1	1	...	...	...
3 Intermittent Fever and Malarial Cachexia ...	48	7	55	28	10	38	37	5	42
4 Small-pox ...	...	...	...	...	...	...	...	...	...
5 Measles ...	64	49	113	14	25	39	77	70	147
6 Scarlet Fever ...	24	20	44	29	32	61	20	17	37
7 Whooping Cough ...	20	22	42	126	167	293	513	557	1,070
8 Diphtheria and Croup ...	156	158	314	131	149	280	192	211	403
9 Influenza ...	229	199	428	269	270	539	477	425	902
10 Asiatic Cholera ...	...	...	...	...	...	...	...	...	...
11 Cholera Nostras ...	2	3	5	123	86	209	2	3	5
12 Other Epidemic Diseases ...	356	241	597	224	130	354	173	95	268
13 Tuberculosis of the Lungs ...	1,916	1,328	3,244	1,870	1,352	3,222	1,774	1,392	3,166
14 Tuberculosis of the Meninges ...	159	131	290	150	123	273	119	118	237
15 Other forms of Tuberculosis ...	277	221	498	294	253	547	242	213	455
16 Cancer and other Malignant Tumours ...	1,456	1,286	2,742	1,431	1,341	2,772	1,589	1,351	2,940
17 Simple Meningitis ...	264	197	461	129	121	250	373	275	648
18 Congestion, Hemorrhage, and Softening of the Brain ...	865	746	1,611	904	781	1,685	1,038	863	1,901
19 Organic Diseases of the Heart ...	799	650	1,449	1,430	1,072	2,502	2,154	1,647	3,801
20 Acute Bronchitis ...	280	198	478	210	211	421	294	220	514
21 Chronic Bronchitis ...	573	450	1,023	558	426	984	464	380	844
22 Pneumonia ...	1,472	890	2,362	1,386	903	2,289	1,103	685	1,788
23 Diseases of the Stomach (Cancer excepted) ...	222	220	442	217	250	467	172	162	334
24 Diarrhœa & Enteritis (Children under two years only) ...	1,421	1,172	2,593	1,624	1,257	2,881	1,513	1,220	2,733
25 Hernia, Intestinal Obstructions ...	232	200	432	215	184	399	214	197	411
26 Cirrhosis of the Liver ...	190	100	290	151	116	267	193	132	325
27 Nephritis and Bright's Disease ...	1,083	690	1,773	1,114	678	1,792	1,065	695	1,760
28 Non-cancerous Tumours and other Diseases of the Female Genital Organs ...	...	134	134	...	153	153	...	128	128
29 Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis, Puerperal Phlebitis) ...	...	205	205	...	168	168	...	179	179
30 Other Puerperal Accidents of Pregnancy and Confinement ...	...	411	411	...	458	458	...	435	435
31 Congenital Debility and Malformations ...	1,825	1,375	3,200	1,642	1,318	2,960	1,716	1,322	3,038
32 Senile Debility ...	1,807	1,353	3,160	1,712	1,319	3,031	1,721	1,415	3,136
33 Violence ...	2,014	649	2,663	2,024	593	2,617	2,038	641	2,679
33A Suicide ...	431	89	520	403	96	499	385	76	461
34 Other Diseases ...	6,137	4,126	10,263	5,880	4,096	9,976	5,102	3,577	8,679
35 Unspecified or Ill-defined Diseases ...	591	451	1,042	656	512	1,168	830	445	1,275
Total ...	25,311	18,203	43,514	25,374	18,959	44,333	25,939	19,366	45,305

16. **Deaths from Special Causes.**—The foregoing table furnishes comparisons for the last three years only, and comparisons will, therefore, be restricted to that period.

(i.) *Typhoid Fever.* Deaths from typhoid fever were less numerous in 1907 than in either of the two preceding years, numbering 564 against 630 in 1905 and 738 in 1906. Of the deaths registered in 1907, 191 occurred in New South Wales and 119 in Western Australia, the numbers in the four remaining States being below 100.

(ii.) *Typhus.* The death of one woman was registered in 1906 in Victoria as being due to typhus, but this registration may have been due to an error in the death certificate, and the death have been one of typhoid (enteric) fever.

(iii.) *Intermittent Fever and Malarial Cachexia.* Deaths from malarial diseases are practically confined to the tropical districts of Northern Queensland, 32 out of 42 deaths registered in 1907 having occurred in that State.

(iv.) *Small-pox.* No deaths from small-pox occurred during the last three years.

(v.) *Measles*. No serious epidemic of measles has occurred for several years; the deaths in 1907 were, however, slightly more numerous than in 1905 and 1906, numbering 147, against 113 and 39 respectively. Of the 147 deaths in 1907, 81 were registered in New South Wales and 39 in Victoria.

(vi.) *Scarlet Fever*. Only 37 deaths were registered in 1907, 27 of which occurred in New South Wales.

(vii.) *Whooping Cough*. A rather severe epidemic of whooping cough visited New South Wales in the early part of 1907, causing 592 deaths out of a total of 1070 registered in the Commonwealth. The number of deaths in Victoria was 130; in Queensland, 127; in South Australia, 76; in Western Australia, 97; and in Tasmania, 43. The deaths in 1905 numbered only 42, and in 1906, 293.

(viii.) *Diphtheria and Croup*. Deaths in 1905 numbered 314; in 1906, 280; and in 1907, 403, of which 154 occurred in New South Wales, 97 in Victoria, and 73 in Western Australia.

(ix.) *Influenza*. This disease was rather more prevalent in 1907 than in the two previous years, the deaths numbering 902, against 428 and 539. Of the deaths occurring in 1907, 309 were registered in New South Wales, 275 in Victoria, and 209 in Queensland.

(x.) *Asiatic Cholera*. No cases of Asiatic cholera have ever occurred in the Commonwealth.

(xi.) *Cholera Nostras*. Isolated cases only of choleric form diarrhoea occurred in each of the three years.

(xii.) *Other Epidemic Diseases*. The number of deaths registered under this heading was 597 in 1905, 354 in 1906, and 268 in 1907. The list in 1907 includes the following diseases:—Dysentery, 120; plague, 48 (of which 19 in New South Wales, 1 in Victoria, and 28 in Queensland); erysipelas, 45; other epidemic diseases, 55.

(xiii.) *Tuberculosis of the Lungs*. The deaths in 1907 numbered 3166, viz., 1774 males and 1392 females. This was a slight decrease on the figures for 1905 and 1906, which were 3244 and 3222 respectively. Of the deaths in 1907, 1016 occurred in New South Wales, 1182 in Victoria, 341 in Queensland, 297 in South Australia, 217 in Western Australia, and 113 in Tasmania.

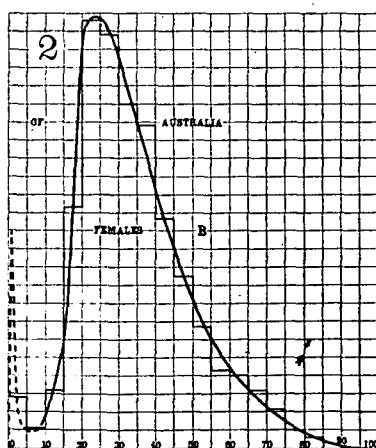
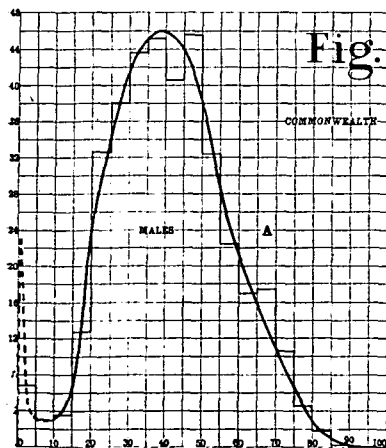
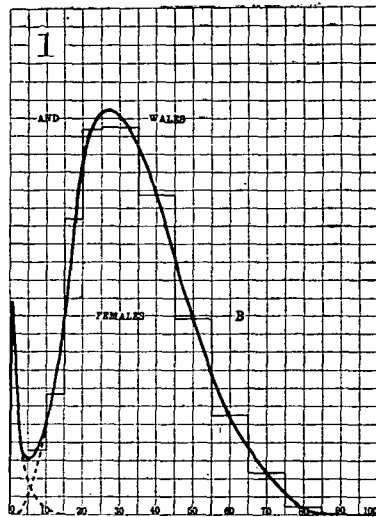
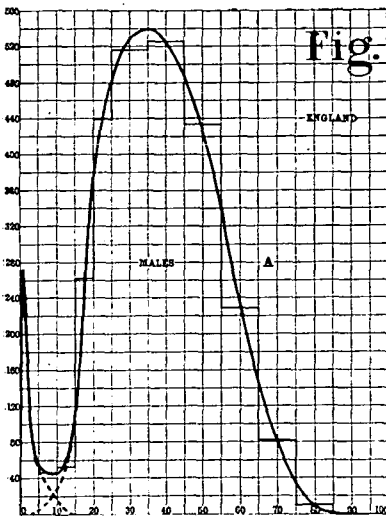
(xiii.a) *Tuberculosis of the Respiratory System*. Of the various forms of tuberculosis prevalent in the Commonwealth, that which has probably attracted the most attention and has been the subject of the widest comment is phthisis, or tuberculosis of the lungs. The intimate relation, however, between tuberculosis of the lungs and that of other parts of the respiratory system renders it desirable that all forms of tuberculosis of the respiratory system should be brought under one head for various investigations concerning the age incidence and duration of this disease. A preliminary investigation of these two phases has been made by the Commonwealth Statistical Bureau, but owing to the paucity of the data and their incompleteness in certain particulars the results obtained, so far as duration is concerned, can be considered as tentative only, and cannot be regarded as sufficiently reliable to warrant their inclusion in an official Year Book. It is proposed to pursue the matter further, and it is hoped that it will be possible to include in the next issue of the "Year Book" results of this nature that will be of service.

In the matter of the age incidence of death from tuberculosis of the respiratory system, more satisfactory data are obtainable, and the diagrams given hereunder furnish graphic representation of the frequency of deaths at successive ages in England and Wales during 1906 (Fig. 1), and in the Commonwealth during 1907 (Fig. 2). The figures for the Commonwealth being insufficient in extent to admit of an exact determination of

the age incidence of death for the first five years, the English results have been made use of in deciding the form of this portion of the curve.

The figures shewn at the foot of each graph denote the respective ages at death, while the figures shewn in the margin denote the number of deaths corresponding to each year of age. In each of the graphs various rectangles are shewn, through the upper parts of which smooth curves have been drawn. The areas of these rectangles represent the number of deaths which occurred between the ages indicated at the extremities of their respective bases, the scale being 100 persons for each small square in the case of graphs for England and Wales and 10 for each small square in the case of the Commonwealth graphs. The smooth curve may be said to represent the form of the results which would have been obtained under the existing circumstances if the number of cases observed had been indefinitely large and the age intervals had been made indefinitely small.

If a point be taken on the base-line corresponding to any given age, the vertical height of the curve above that point represents the rate per annum at which deaths are occurring at the given age.



It will be seen that in both instances the curve for males differs considerably from that for females, and that there is a general though not a close resemblance between the two curves for males, and also between the two curves for females. It will also be noticed that in both cases the curve for females rises much more abruptly than that for males, owing to the fact that the age of maximum frequency is less in the case of females than in the case of males.

The figures dealt with furnish the following death-rates from tuberculosis of the respiratory system for the years specified :—

—	Males.	Females.	Total.
ENGLAND AND WALES, 1906—			
Population ... ..	16,689,707	17,857,309	34,547,016
Deaths from tuberculosis of the respiratory system ... ..	22,645	17,101	39,746
Death-rate per 100,000 of population ...	135.68	95.76	115.05
COMMONWEALTH OF AUSTRALIA, 1907—			
Population ... ..	2,191,472	1,964,201	4,155,673
Deaths from tuberculosis of the respiratory system ... ..	1,891	1,477	3,368
Death-rate per 100,000 of population ...	86.29	75.20	81.05

(xiv.) *Tuberculosis of the Meninges.* The number of deaths registered in 1905 was 290; in 1906, 273; and in 1907, 237. Not much reliance can, however, be placed on the figures for 1905 and 1906, as the tabulation in some of the States appears to include simple meningitis.

(xv.) *Other Forms of Tuberculosis.* Deaths in 1905 numbered 498; in 1906, 547; and in 1907, 455. The deaths in 1907 include the following forms of tuberculosis :— Tuberculosis of the larynx, 40; tuberculosis of the peritonæum, 141; Pott's disease, 30; cold abscess, 1; white swellings, 1; tuberculosis of other organs, 80; and general tuberculosis, 162.

(xv.a) *All Forms of Tuberculosis.* A complete tabulation of all the different tubercular diseases from which deaths occurred in 1907, will be found in Bulletin No. 8 of Population and Vital Statistics. Here it will suffice to show a few of the features of the tabulation mentioned. The total number of deaths due to tubercular diseases was 3858, viz., 2135 males and 1723 females. The following table shews the ages of these 3858 persons :—

#### AGES OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1907.

Ages.	Male.	Female	Total.	Ages.	Male.	Female	Total.
Under 5 years ...	134	122	256	55 years and under 60	115	46	161
5 years and under 10	33	44	77	60 " " 65	88	43	131
10 " " 15	34	53	87	65 " " 70	89	33	122
15 " " 20	84	150	234	70 " " 75	58	22	80
20 " " 25	175	254	429	75 " " 80	27	10	37
25 " " 30	199	246	445	80 " " 85	9	6	15
30 " " 35	232	203	435	Age not stated ...	1	...	1
35 " " 40	237	183	420				
40 " " 45	214	135	349				
45 " " 50	237	101	338				
50 " " 55	169	72	241	Total deaths ...	2,135	1,723	3,858

The length of residence in the Commonwealth of persons who died from tubercular diseases has been tabulated for the year 1907 for all the Commonwealth States, with the exception of South Australia, with the following results :—

### LENGTH OF RESIDENCE IN COMMONWEALTH

OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1907 (EXCLUSIVE OF SOUTH AUSTRALIA).

Length of Residence in Commonwealth.	Male.	Fem.	Total.	Length of Residence in Commonwealth.	Male.	Fem.	Total.
Born in Commonwealth ...	1,157	1,250	2,407	Resident 10 yrs. & under 15	45	10	55
Resident under 1 year ...	17	10	27	"    15 "    "    20	50	24	74
"    1 year ...	13	...	13	"    20 "    over ...	463	195	658
"    2 years ...	5	1	6	Length of resid'ce not stated	148	29	177
"    3 "    "    "    "	3	1	4				
"    4 "    "    "    "	7	4	11				
"    5 "    "    "    "    & under 10	39	20	59	Total deaths ...	1,947	1,544	3,491

There would not appear, therefore, to be much ground for the statement sometimes heard that many persons arrive in Australia in the last stages of consumption.

In order to shew the prevalence of tuberculosis in the several States, the death rates from tubercular diseases are shewn in the following table, together with the percentage which deaths from tuberculosis bear on the total number of deaths registered :—

### DEATH RATES FROM TUBERCULOSIS AND PERCENTAGE OF TOTAL DEATHS, 1907.

State.	Death Rates (per 1000) from Tuberculosis.			Percentage of Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	0.86	0.74	0.80	7.51	7.73	7.61
Victoria ...	1.17	1.15	1.16	9.10	10.89	9.91
Queensland ...	0.94	0.47	0.73	7.92	5.53	7.02
South Australia ...	0.92	0.98	0.95	9.01	10.28	9.59
Western Australia	1.05	0.86	0.96	8.52	8.82	8.63
Tasmania ...	0.82	0.91	0.86	7.02	8.63	7.76
Commonwealth	0.97	0.87	0.92	8.23	8.90	8.52

In the first issue of this book a series of figures was given shewing the rates of mortality from phthisis in various countries, and it was shewn that these ranged from 570 per million in New Zealand to 4415 per million in Hungary, with a rate of 808 for the Commonwealth. It is not considered necessary to repeat those figures here in detail, and it may suffice to state that while deaths from all tubercular diseases in the Commonwealth were 0.92 per thousand in 1907, they were 1.40 per thousand in Belgium in 1904; 1.65 per thousand in England and Wales in 1906; 1.80 per thousand in the Netherlands in 1906; 2.04 per thousand in the German Empire in 1905; and 2.72 per thousand in Switzerland in 1905. The Commonwealth occupies, therefore, a very enviable position in regard to tubercular diseases, when compared with European countries.

(xvi.) *Cancer and other Malignant Tumours.* Deaths from cancer shew a tendency to increase, the figures for 1905 being 2748 deaths; for 1906, 2772 deaths; and for 1907, 2940 deaths. Of the deaths registered in 1907, 1589 were those of males, viz., 624 in New South Wales, 499 in Victoria, 203 in Queensland, 134 in South Australia, 78 in Western Australia, and 51 in Tasmania; while 1351 were those of females; viz., 459 in New South Wales, 492 in Victoria, 150 in Queensland, 137 in South Australia, 53 in Western Australia, and 60 in Tasmania. "Bulletin No. 8" contains a complete tabu-



lation of the various types of cancer and of the seat of the disease, of which the following is a summary :—

#### DEATHS FROM CANCER, 1907.

Seat of Disease.	Male.	Female	Total.
Cancer, etc., of the mouth ... ..	244	19	263
„ „ the stomach and liver ... ..	671	422	1,093
„ „ the peritonæum, the intestines, and the rectum ...	161	140	301
„ „ the female genital organs ... ..	...	331	331
„ „ the breast ... ..	...	193	193
„ „ the skin ... ..	55	18	73
„ „ other organs ... ..	458	228	686
Total deaths ... ..	1,589	1,351	2,940

Of these deaths 996 were described as cancer, 1147 as carcinoma, 153 as epithelioma, 398 as “malignant disease,” 6 as neoplasm, 15 as “rodent ulcer,” 198 as sarcoma, and 27 as Scirrhus.

The ages of the 2940 persons who died from cancer in 1907, are shewn in the following table :—

#### AGES OF PERSONS WHO DIED FROM CANCER, 1907.

Ages.	Males.	Female	Total.	Ages.	Males.	Female	Total.
Under 15 years ...	17	14	31	65 years and under 70	260	166	426
15 years and under 20	11	1	12	70 „ „ 75	246	175	421
20 „ „ 25	8	3	11	75 „ „ 80	139	104	243
25 „ „ 30	6	16	22	80 „ „ 85	69	42	111
30 „ „ 35	20	20	40	85 years and over ...	31	22	53
35 „ „ 40	31	59	90	Age not stated ...	2	2	4
40 „ „ 45	82	107	189				
45 „ „ 50	121	176	297				
50 „ „ 55	169	134	303				
55 „ „ 60	180	150	330				
60 „ „ 65	197	160	357				
				Total Deaths ...	1,589	1,351	2,940

A tabulation has been made of the occupations of the males who died from cancer, of which the following is a summary :—

#### OCCUPATIONS OF MALES WHO DIED FROM CANCER, 1907.

Occupation.	No. of Deaths.	Occupation.	No. of Deaths.
Professional class ... ..	76	Pastoral class ... ..	67
Domestic class ... ..	43	Working in mines and quarries ...	139
Mercantile class ... ..	165	Other primary producers ... ..	14
Engaged in transport and communication ... ..	109	Independent means ... ..	61
Manufacturing class ... ..	150	Dependents ... ..	23
Engaged in building and construction ... ..	102	Occupation not stated ... ..	62
Indefinite industrial workers ...	313		
Agricultural class ... ..	265		
		Total Male Deaths ... ..	1,589

As the following tables shew, the death rates from cancer are below those for tubercular diseases in all the States, but while the latter have a tendency to decrease the former have, on the contrary, shewn an increase for several years.

## DEATH RATES FROM CANCER, AND PERCENTAGE OF TOTAL DEATHS, 1907.

State.	Death Rates (per 1000) from Cancer.			Percentage of Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	0.75	0.63	0.69	6.60	6.59	6.60
Victoria ...	0.80	0.79	0.80	6.25	7.49	6.81
Queensland ...	0.69	0.61	0.65	5.83	7.09	6.80
South Australia ...	0.65	0.75	0.70	6.42	7.87	7.08
Western Australia	0.51	0.48	0.50	4.18	4.97	4.47
Tasmania ...	0.55	0.69	0.62	4.71	6.56	5.55
Commonwealth	0.72	0.68	0.70	6.12	6.97	6.49

The table shewing the death rates from cancer in various countries, which was given in the first issue of this work, is not here repeated. It may, however, be stated that while the death rate of the Commonwealth from cancer in 1907 was 0.70 per thousand, that of Belgium in 1904 was 0.56; that of the German Empire in 1905, 0.80; that of England and Wales in 1905, 0.92; that of the Netherlands in 1906, 1.01; and that of Switzerland in 1905, 1.32 per thousand.

(xvii.) *Simple Meningitis.* The table shews 461 deaths in 1905, 250 deaths in 1906, and 648 deaths in 1907. The last figure is the only one that can be taken as correct, the returns for some of the States having in 1905 and 1906 included this disease with tuberculosis of the meninges, as has already been stated in paragraph xiv.

(xviii.) *Congestion, Hæmorrhage, and Softening of the Brain.* The deaths registered under this heading in 1905 numbered 1611, viz., 865 males and 746 females; in 1906, they were 1685, viz., 908 males and 781 females; and in 1907, 1901, viz., 1038 males and 863 females. The 1907 figures are made up of congestion and hæmorrhage of the brain—976 males, 817 females, total 1793; and softening of the brain—62 males, 46 females, total 108.

(xix.) *Organic Diseases of the Heart.* Owing to the changes in tabulation it is impossible to say whether the figures for the three years are strictly comparable. The number of deaths registered in 1907 was 3801, viz., 2154 males and 1647 females. Of these deaths, New South Wales was responsible for 745 males and 552 females; Victoria for 708 males and 607 females; Queensland for 292 males and 168 females; South Australia for 181 males and 176 females; Western Australia for 120 males and 52 females; and Tasmania for 108 males and 92 females. To the figures for 1907 correspond the following death rates and percentages to total deaths:—

## DEATH RATES FROM ORGANIC HEART DISEASE AND PERCENTAGE OF TOTAL DEATHS, 1907.

State.	Death Rates (per 1000) from Organic Heart Disease.			Percentage of Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	0.90	0.76	0.83	7.89	7.92	7.90
Victoria ...	1.14	0.98	1.06	8.87	9.25	9.44
Queensland ...	0.99	0.68	0.85	8.38	7.94	8.21
South Australia ...	0.88	0.97	0.92	8.67	10.11	9.32
Western Australia	0.78	0.47	0.65	6.43	4.88	5.87
Tasmania ...	1.16	1.06	1.11	9.97	10.05	10.01
Commonwealth ...	0.98	0.84	0.91	8.30	8.50	8.39

(xx.) *Acute Bronchitis.* The nomenclature of causes of deaths requires deaths of persons under five years of age, which are merely ascribed to "bronchitis," to be classified under "acute bronchitis," and similarly certified deaths of older persons under "chronic bronchitis." This rule has been followed in adjusting the tabulation of 1905 and 1906, and followed throughout in compiling the tables for 1907, with the result that acute bronchitis is credited with 478 deaths in 1905, 421 deaths in 1906, and 514 deaths in 1907, viz., 294 males and 220 females.

(xxi.) *Chronic Bronchitis.* The adjustment mentioned in the preceding paragraph gives a total of 1023 deaths due to chronic bronchitis in 1905, 984 deaths in 1906, and 844 deaths, viz., 464 males and 380 females, in 1907.

(xxii.) *Pneumonia.* The figures for 1905 and 1906 are unduly swelled by the inclusion of broncho-pneumonia, etc., which in 1907 is classified under "Other Diseases." The 1907 figures were 1103 males and 685 females, a total of 1788 deaths.

(xxiii.) *Diseases of the Stomach (Cancer excepted).* In 1907 this heading includes : Ulcer of the stomach, 46 males, 50 females ; and other diseases of the stomach (cancer excepted), 126 males, 112 females ; a total of 334 deaths. The corresponding figures for 1905 and 1906, which are fairly comparable, were 442 and 467 respectively.

(xxiv.) *Diarrhœa and Enteritis (Children under two years only).* In 1905 the deaths numbered 2593, viz., 1421 boys and 1172 girls ; in 1906 they were 2881, viz., 1624 boys and 1257 girls ; and in 1907, 2773, viz., 1513 boys and 1220 girls. The 1907 deaths were distributed amongst the six States as follows :—New South Wales, 601 males, 500 females, total 1101 ; Victoria, 367 males, 307 females, total 674 ; Queensland, 194 males, 152 females, total 346 ; South Australia, 97 males, 72 females, total 169 ; Western Australia, 202 males, 152 females, total 354 ; and Tasmania, 52 males, 37 females, total 89.

The following are the death rates and percentages of total deaths due to infantile diarrhœa and enteritis in the six States for the year 1907 :—

**DEATH RATES FROM INFANTILE DIARRHŒA AND ENTERITIS, AND PERCENTAGE OF TOTAL DEATHS, 1907.**

State.	Death Rate (per 1000) from Infantile Diarrhœa and Enteritis.			Percentage of Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	0.72	0.69	0.71	6.36	7.17	6.71
Victoria ...	0.59	0.49	0.54	4.60	4.68	4.63
Queensland ...	0.66	0.62	0.64	5.57	7.18	6.18
South Australia ...	0.47	0.39	0.44	4.65	4.13	4.41
Western Australia	1.31	1.39	1.35	10.82	14.27	12.08
Tasmania ...	0.56	0.42	0.49	4.80	4.04	4.45
Commonwealth	0.69	0.62	0.65	5.83	6.30	6.03

As a large number of these deaths is directly due to improper feeding, it would be interesting to know the percentages of infants who were bottle-fed, but, unfortunately, no provision exists for the registration of that fact.

(xxv.) *Hernia, Intestinal Obstructions.* The number of deaths has not varied much from year to year, the number registered in 1905 being 432 ; in 1906, 399 ; and in 1907, 411, viz., 214 males and 197 females.

(xxvi.) *Cirrhosis of the Liver.* The deaths in 1905 numbered 290; in 1906, 267; and in 1907, 325, viz., 193 males and 132 females.

(xxvii.) *Nephritis and Bright's Disease.* The number of deaths attributable to these diseases is a very large one from year to year. In 1905 there were registered the deaths of 1083 males and 690 females; in 1906, those of 1114 males and 678 females; and in 1907, those of 1065 males and 695 females. Of the deaths registered in 1907 those of 95 males and 51 females were ascribed to acute nephritis, and those of 970 males and 644 females to Bright's disease. New South Wales was responsible for 595 deaths; Victoria for 696; Queensland for 208; South Australia for 147; Western Australia for 71; and Tasmania for 43; making a total of 1760.

(xxviii.) *Non-cancerous Tumours and other Diseases of the Female Genital Organs.* Deaths in 1905 numbered 134; in 1906, 153; and in 1907, 128. Included in the 128 deaths registered in 1907 were the following:—Metritis, 5; non-puerperal uterine hæmorrhage, 1; non-cancerous uterine tumours, 40; other diseases of the uterus, 30; cysts and other ovarian tumours, 12; other diseases of the female genital organs, 40.

(xxix.) *Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis, Puerperal Phlebitis).* Deaths in 1905 were 205; in 1906, 168; and in 1907, 179.

(xxx.) *Other Puerperal Accidents of Pregnancy and Confinement.* The deaths in 1905 numbered 411; in 1906, 458; and in 1907, 435. Included in the 435 deaths registered in 1907 were the following:—Accidents of pregnancy, 109; puerperal hæmorrhage, 45; other accidents of childbirth, 103; puerperal albuminuria and eclampsia, 98; puerperal phlegmasia alba dolens, 3; and other puerperal accidents (including "sudden death"), 77.

(xxx. a) *All Puerperal Diseases.* The 614 deaths registered in 1907 under the two preceding headings will be found tabulated in "Bulletin No. 8 of Population and Vital Statistics" under the various names of the diseases causing death as found in the certificates of death. The names amount to more than seventy, and need not be repeated here. Of the women who succumbed to puerperal diseases in 1907, 30 were between the ages of 15 and 19; 97 between 20 and 24; 132 between 25 and 29; 154 between 30 and 34; 139 between 35 and 39; 50 between 40 and 44; and 12 between 45 and 49. As the total number of confinements registered in 1907 was 109,306, it follows that one mother in every 178 succumbed to puerperal disease.

(xxxi.) *Congenital Debility and Malformations.* As has been pointed out on a previous page, the figures set down under this heading, viz., 3200 for 1905, 2960 for 1906, and 3038 for 1907, are not strictly comparable, owing to the impossibility of distinguishing in every case for 1905 and 1906 between children under three months of age and those from three to twelve months. The 1907 figures include:—Malformations, 193 males, 133 females, total 326; and congenital debility, icterus, and scleroma of children under three months of age, 1523 males and 1189 females, total 2712; or a grand total of 3038. Of these deaths, 1226 were registered in New South Wales, viz., 676 males and 550 females; 826 in Victoria, viz., 470 males and 356 females; 389 in Queensland, viz., 220 males and 169 females; 225 in South Australia, viz., 135 males and 90 females; 223 in Western Australia, viz., 127 males and 96 females; and 149 in Tasmania, viz., 88 males and 61 females.

(xxxii.) *Senile Debility.* The deaths ascribed to "old age" form a large group, and are slightly in excess of those due to infantile debility. In 1905 they numbered 3160, viz., 1807 males and 1353 females; in 1906, 3031, viz., 1712 males and 1319 females; and in 1907, 3136, viz., 1721 males and 1415 females. Of the deaths registered in 1907, 981 occurred in New South Wales, viz., 561 males and 420 females; 1210 in Victoria, viz., 657 males and 553 females; 236 in Queensland, viz., 138 males and 98 females; 371 in South Australia, viz., 183 males and 188 females; 85 in Western Australia, viz., 55 males and 30 females; and 253 in Tasmania, viz., 127 males and 126 females.

Of the males whose death was described as due to senility, 3 were between 45 and 49 years old; 3 between 55 and 59; 31 between 60 and 64; 130 between 65 and 69; 289 between 70 and 74; 449 between 75 and 79; 416 between 80 and 84; 284 between 85 and 89; 74 between 90 and 94; 30 between 95 and 99; while 11 were 100 years old and upwards; and of 1 the age was not stated.

Of the females, 1 was between 35 and 39; 1 between 45 and 49; 2 between 50 and 54; 2 between 55 and 59; 21 between 60 and 64; 74 between 65 and 69; 222 between 70 and 74; 332 between 75 and 79; 327 between 80 and 84; 293 between 85 and 89; 101 between 90 and 94; 30 between 95 and 99; while 7 were 100 years old and upwards; and of 2 the age was not stated.

(xxxiii.) *Violence.* A very large number of deaths is every year due to external violence, and, as might be expected from the fact that their occupations expose them much more to accidents, males largely predominate. The figures quoted are exclusive of suicides, which have been treated as a separate group. Deaths ascribed to violence numbered, in 1905, 2663, viz., 2014 males and 649 females; in 1906, 2617, viz., 2024 males and 593 females; and in 1907, 2679, viz., 2038 males and 641 females. Of the deaths registered in 1907, those of 721 males and 251 females occurred in New South Wales; those of 552 males and 186 females in Victoria; those of 349 males and 80 females in Queensland; those of 122 males and 50 females in South Australia; those of 204 males and 38 females in Western Australia; and those of 90 males and 36 females in Tasmania.

The following table shews the various kinds of accidental deaths which occurred in 1907, distinguishing males and females:—

#### DEATHS FROM VIOLENCE, 1907.

Cause of Death.	Males.	Females.	Total.
Fractures ... ..	243	70	313
Other accidental injuries ... ..	876	128	1,004
Burning by fire ... ..	143	219	362
Burning by corrosive substances ... ..	...	2	2
Insolation ... ..	46	18	64
Electric shock ... ..	11	1	12
Accidental drowning ... ..	402	71	473
Inanition ... ..	46	5	51
Inhalation of noxious gases ... ..	38	18	56
Other accidental poisoning ... ..	65	38	103
Other external violence ... ..	168	71	239
Total Deaths ... ..	2,038	641	2,679

In every kind of accidental death there was, therefore, a large excess of males, with the exception of burning accidents, in which female deaths largely predominated.

(xxxiii.a) *Suicide.* Suicides have shewn a tendency to decrease during recent years, the number in 1905 having been 520, viz., 431 males and 89 females; while in 1906 it was 499, viz., 403 males and 96 females; and in 1907, 461, viz., 385 males and 76 females. Of the last named, those of 133 males and 25 females happened in New South Wales; those of 100 males and 21 females in Victoria; those of 76 males and 18 females in Queensland; those of 25 males and 6 females in South Australia; those of 42 males and 6 females in Western Australia; and those of 9 males in Tasmania.

The modes adopted by persons who committed suicide in 1907 were as follows:—

### SUICIDES, 1907.

Mode of Death.	Males.	Females.	Total.
Poison ... ..	57	32	89
Asphyxia ... ..	2	...	2
Hanging or strangulation ... ..	71	12	83
Drowning ... ..	37	19	56
Firearms ... ..	129	3	132
Cutting instruments ... ..	61	5	66
Precipitation from a height ... ..	6	1	7
Crushing ... ..	3	2	5
Other modes ... ..	19	2	21
Total Suicides ... ..	385	76	461

The death rates from suicides and the percentage of total deaths borne by suicides are shewn in the following table:—

### DEATH RATES FROM SUICIDES AND PERCENTAGE OF TOTAL DEATHS, 1907.

State.	Death Rates (per 1000) from Suicides.			Percentage of Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	0.16	0.03	0.10	1.41	0.36	0.96
Victoria ...	0.16	0.03	0.09	1.25	0.32	0.83
Queensland ...	0.25	0.07	0.17	2.18	0.85	1.68
South Australia ...	0.12	0.03	0.08	1.20	0.34	0.81
Western Australia	0.27	0.05	0.18	2.25	0.56	1.64
Tasmania ...	0.09	...	0.05	0.83	...	0.45
Commonwealth	0.17	0.04	0.11	1.48	0.39	1.02

From the following table, which shews the ages of the persons who committed suicide in 1907, it will be seen that both extreme youth and extreme old age are represented:—

### AGES OF PERSONS WHO COMMITTED SUICIDE, 1907.

Ages.	M.	F.	Total.	Ages.	M.	F.	Total.
Under 15 years ...	2	1	3	65 years and under 70	17	4	21
15 years and under 20	7	4	11	70 " " 75	16	...	16
20 " " 25	25	13	32	75 " " 80	10	3	13
25 " " 30	34	7	41	80 " " 85	7	1	8
30 " " 35	31	13	44	85 " " 90	2	...	2
35 " " 40	37	6	43	Age not stated ...	1	...	1
40 " " 45	50	3	53				
45 " " 50	55	8	63				
50 " " 55	38	4	42				
55 " " 60	30	4	34	Total Deaths ...	385	76	461
60 " " 65	29	5	34				

The birthplaces of suicides, which are shown in the following table, are exclusive of 25 males and 6 females in South Australia:—

#### BIRTHPLACES OF PERSONS WHO COMMITTED SUICIDE, 1907.

Birthplaces.	M.	F.	Total.	Birthplaces.	M.	F.	Total.
New South Wales ...	52	15	67	Scotland ...	12	1	13
Victoria ...	64	14	78	Sweden ...	3	...	3
Queensland ...	27	6	33	Wales ...	6	...	6
South Australia ...	10	...	10	United States ...	3	...	3
Tasmania ...	8	1	9	Ceylon ...	1	...	1
New Zealand ...	4	2	6	China ...	5	...	5
Austria-Hungary ...	1	...	1	India ...	1	...	1
Denmark ...	3	...	3	Japan ...	1	...	1
England ...	72	19	91	At sea ...	1	...	1
France ...	1	1	2	Birthplace not stated	34	4	38
Germany ...	13	...	13				
Ireland ...	31	6	37				
Italy ...	5	...	5				
Norway ...	2	1	3				
				Total Deaths ...	360	70	430

The following table shows the occupations of the 385 males who committed suicide:—

#### OCCUPATIONS OF MALE PERSONS WHO COMMITTED SUICIDE, 1907.

Occupations.	Deaths.	Occupations.	Deaths.
Professional class ...	24	Pastoral class ...	21
Domestic class ...	7	Working in mines and quarries ...	36
Mercantile class ...	45	Other primary producers ...	8
Engaged in transport and communication ...	23	Independent means ...	9
Manufacturing class ...	37	Dependents ...	3
Engaged in building and construction ...	11	Occupation not stated ...	25
Indefinite industrial workers ...	89		
Agricultural class ...	47	Total Deaths ...	385

(xxxiv.) *Other Diseases.* The number of causes included under this heading is a very large one, amounting to no less than 89 of the items shewn in the detailed classification, and deaths were recorded under every one of these with the exception of the following six:—Glanders and farcy, rabies, pellagra, other poisonings due to occupation, other diseases of the circulatory system, non-puerperal diseases of the breast (cancer excepted). The total number of deaths under "other diseases" in 1905 was 10,263, viz., 6137 males and 4126 females; in 1906 it was 9976, viz., 5880 males and 4096 females; and in 1907, 8679, viz., 5102 males and 3577 females. Some of the diseases included here account for very considerable numbers of deaths. Thus there were 904 deaths ascribed to broncho-pneumonia; 633 to diarrhoea and enteritis of children over two years of age and of adults; 549 to convulsions of children under five years of age; 388 to diabetes; 346 to paralysis without indicated cause; and 305 to appendicitis and abscess of the iliac fossa. Particulars of the deaths included in 1907 are shewn in the following table:—

## CAUSES OF DEATH INCLUDED UNDER "OTHER DISEASES," 1907.

Causes.	M.	F.	T'tal.	Causes.	M.	F.	T'tal.
Leprosy ...	8	...	8	Diseases of the Thyroid Body ...	4	18	22
Purulent Infection and Septicæmia ...	73	70	143	Broncho-Pneumonia ...	495	409	904
Malignant Pustule and "Charbon" ...	4	...	4	Pleurisy ...	88	56	144
Trichinosis, etc. ...	2	1	3	Congestion of the Lungs and Pulmonary Apoplexy ...	87	77	164
Scrofula ...	1	...	1	Gangrene of the Lungs ...	21	13	34
Syphilis ...	98	72	170	Asthma ...	83	42	125
Blennorrhagia of Adults ...	1	...	1	Pulmonary Emphysema ...	27	14	41
Gonococcal Diseases of Children under five years of age ...	1	1	2	Other Diseases of the Respiratory System (Consumption excepted) ...	108	40	148
Other Tumours (Tumours of the female genital organs excepted) ...	24	24	48	Diseases of the Mouth and its Associated Organs ...	8	8	16
Acute Articular Rheumatism ...	56	77	133	Diseases of the Pharynx ...	14	14	28
Chronic Rheumatism & Gout ...	33	60	93	Diseases of the Oesophagus ...	8	8	16
Scurvy ...	3	1	4	Diarrhoea and Enteritis of Children under two years of age and Adults ...	325	308	633
Diabetes ...	188	200	388	Intestinal Parasites ...	1	6	7
Exophthalmic Goitre ...	5	36	41	Other Diseases of the Intestine's Icterus Gravis ...	39	39	78
Addison's Disease ...	11	7	18	Hydatid Tumours of the Liver ...	2	4	6
Leucæmia ...	42	26	68	Biliary Calculi ...	43	29	72
Anæmia, Chlorosis ...	86	91	177	Other Diseases of the Liver ...	11	34	45
Other General Diseases ...	...	1	1	Diseases of the Spleen ...	109	97	206
Acute and Chronic Alcoholism ...	132	37	159	Simple Peritonitis (non-puerperal) ...	5	6	11
Lead Poisoning ...	18	4	22	Other Diseases of the Digestive System (Cancer and Tuberculosis excepted) ...	9	3	12
Other Chronic Poisonings ...	5	5	10	Appendicitis and Abscess of the Iliac Fossa ...	184	121	305
Encephalitis ...	7	6	13	Other Diseases of the Kidneys and their Adnexa ...	77	41	118
Progressive Locomotor Ataxia ...	34	2	36	Calculi of Urinary System ...	31	15	46
Other Diseases of the Spinal Cord ...	132	64	196	Diseases of the Bladder ...	163	26	189
Paralysis without indicated cause ...	194	152	346	Other Diseases of the Urethra, Urinary Abscess, etc. ...	35	4	39
General Paralysis ...	123	23	146	Diseases of the Prostate ...	164	...	164
Other Forms of Mental Alienation ...	26	36	62	Non-venereal Diseases of the Male Genital Organs ...	2	...	2
Epilepsy ...	60	61	121	Gangrene ...	58	50	108
Belamperia (non-puerperal) ...	17	18	35	Carbuncle ...	13	4	17
Convulsions of Children under five years of age ...	296	253	549	Phlegmon, Acute Abscess ...	18	20	38
Tetanus ...	60	23	83	Other Diseases of the Skin and Adnexa ...	48	27	75
Chorea ...	3	2	5	Non-tubercular Diseases of the Bones ...	52	26	78
Other Diseases of the Nervous System ...	178	99	277	Arthritis and other Diseases of the Joints (Tuberculosis & Rheumatism excepted) ...	6	6	12
Diseases of the Eyes and their Appendages ...	...	1	1	Amputation ...	2	1	3
Diseases of the Ear ...	5	7	12	Other Diseases of the Organs of Locomotion ...	6	2	8
Pericarditis ...	32	20	52	Other Diseases peculiar to Infancy ...	36	45	81
Acute Endocarditis ...	161	123	289	Want of Care (Infants) ...	16	21	37
Angina Pectoris ...	66	26	92				
Diseases of the Arteries, Atheroma, Aneurism ...	244	58	302				
Embolism and Thrombosis ...	51	43	94				
Diseases of the Veins (Varices, Varicose Ulcers, Hæmorrhoids) ...	5	12	17				
Diseases of the Lymphatic System ...	...	6	6				
Hæmorrhages ...	48	21	69				
Diseases of the Nasal Fossæ ...	6	1	7				
Diseases of the Larynx ...	58	42	100				
				Total Deaths ...	5,102	3,577	8,679

(xxxv.) *Unspecified or ill-defined Diseases.* The number of cases which has to be included here is a considerable one from year to year, having numbered 1042 in 1905; 1168 in 1906; and 1275, viz., 830 males and 445 females, in 1907. The detailed classification distinguishes these ill-defined diseases under three headings:—Dropsy, including such definitions as anasarca, ascites, general œdema, etc.; sudden death, including syncope; and unspecified or ill-defined causes, of which the following are specimens:—Asthénia, coma, dentition, exhaustion, heart failure, etc. In 1907 the number of cases of death which would have to be classed under the first of these categories was 44; those belonging to the second, 26; and those belonging to the third, 1205. It is, of course, true that there must always occur some cases where the disease is not well characterised, or where sufficient information is not procurable to allow of a clear definition being given in the certificate of death, but in the majority of cases included under this heading a



more complete diagnosis and consequently a more satisfactory certificate would no doubt have been possible.

**17. Causes of Death in Classes.**—The figures presented in the preceding paragraphs relate to certain definite causes of death. It is almost generally acknowledged that figures of this kind are of greater value in medical statistics than is a classification under general headings. The classification under fourteen general headings adopted by the compiler of The International Nomenclature is, however, shewn in the following table, together with the death rates and the percentages of the total deaths pertaining to those classes:—

### DEATHS, DEATH RATES, AND PERCENTAGES OF TOTAL DEATHS IN CLASSES.

1907.

Class.	Total Deaths.			Death Rate (per 1000).			Percentage of Total Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. General diseases ...	6,345	5,385	11,730	2.90	2.75	2.83	24.45	27.81	25.90
2. Diseases of the Nervous System & of the Organs of Special Sense...	2,546	1,885	4,431	1.16	0.96	1.07	9.81	9.73	9.78
3. Diseases of the Circulatory System	2,761	1,961	4,722	1.26	1.01	1.14	10.63	10.13	10.42
4. Diseases of the Respiratory System	2,838	1,997	4,835	1.30	1.02	1.17	10.94	10.31	10.67
5. Diseases of the Digestive Organs...	2,967	2,514	5,481	1.36	1.28	1.32	11.48	12.98	12.10
6. Diseases of the Genito-Urinary System and Adnexa ...	1,537	909	2,446	0.70	0.46	0.58	5.92	4.69	5.40
7. Puerperal Condition ...	...	614	614	...	0.31	0.15	...	3.17	1.35
8. Diseases of the Skin and of the Cellular Tissue ...	137	101	238	0.06	0.05	0.05	0.53	0.52	0.53
9. Diseases of the Organs of Loco- motion ...	66	35	101	0.03	0.02	0.02	0.25	0.18	0.22
10. Malformations ...	193	133	326	0.09	0.06	0.08	0.74	0.69	0.72
11. Infancy ...	1,575	1,255	2,830	0.72	0.64	0.68	6.07	6.48	6.25
12. Old Age ...	1,721	1,415	3,136	0.78	0.72	0.75	6.64	7.91	6.92
13. Violence ...	2,423	717	3,140	1.10	0.36	0.76	9.34	3.70	6.93
14. Ill-defined Diseases ...	830	445	1,275	0.38	0.22	0.30	3.30	2.30	2.81
Total ...	25,939	19,366	45,305	11.84	9.86	10.90	100.00	100.00	100.00

## § 4. Graphical Representation of Vital Statistics.

**1. General.**—The progressive fluctuations of the numbers representing the total births and marriages are important indexes of the economic conditions and social ideals of a community. For this reason graphs have been prepared (see pages 255 and 256), shewing these fluctuations from 1860 to 1907, both for the States and the Commonwealth. The facts are very significant from the national point of view and call for serious consideration. To properly appreciate the situation it should be remembered that, normally, the increases of births and also of marriages will be similar to the increase of population. Although the marriage curve shews a falling off in marriages after 1891 (see page 256), it shews a recovery in 1894, and, with the exception of a small fall for 1903, it has continually advanced. The same characteristic is not seen in the curve of births, which discloses a recovering tendency only in 1904.

The table on the following page shews the number of births, marriages and deaths which would have been experienced had the rate for 1890 continued, and reveals the significance of the facts disclosed by the curves. It may be remarked that the death rate has greatly improved, and among other countries, Australia stands in a very favourable position in this respect. At the same time the decline in the marriage rate, overtaken once more in 1907, and the still more serious decline in the birth rate, in a country but sparsely popu-

lated, have an obvious and most important bearing on the national future, and on questions concerning the extent to which it is desirable to promote immigration.

### ACTUAL BIRTHS, DEATHS, AND MARRIAGES

EXPERIENCED IN THE COMMONWEALTH DURING THE YEARS 1890 TO 1907,  
COMPARED WITH THE NUMBER THAT WOULD HAVE OCCURRED IF THE  
RATES OF 1890 HAD REMAINED IN OPERATION.

Year.	BIRTHS.		DEATHS.		MARRIAGES.	
	Actual.	Number of Births that would have been experienced if the 1890 birth rate had been in operation.	Actual.	Number of Deaths that would have been experienced if the 1890 death rate had been in operation.	Actual.	Number of Marriages that would have been experienced if the 1890 marriage rate had been in operation.
1890	108,683		44,449		23,725	
1891	110,187	111,802	47,430	45,737	23,862	24,419
1892	110,158	114,502	42,268	46,842	22,049	25,009
1893	109,322	116,617	45,801	47,707	20,631	25,470
1894	104,660	118,734	42,958	48,573	20,625	25,933
1895	105,084	121,002	43,080	49,501	21,564	26,428
1896	100,134	123,212	45,202	50,405	23,068	26,911
1897	101,137	125,419	43,447	51,308	23,939	27,393
1898	98,845	127,371	51,406	52,106	24,472	27,819
1899	100,638	129,088	47,629	52,809	25,958	28,194
1900	102,221	130,848	44,060	53,529	27,101	28,579
1901	102,945	132,662	46,330	54,271	27,753	28,975
1902	102,776	134,873	48,078	55,175	27,926	29,458
1903	98,443	136,478	47,293	55,832	25,977	29,808
1904	104,113	138,305	43,572	56,579	27,682	30,207
1905	104,941	140,511	43,514	57,482	29,004	30,689
1906	107,890	142,908	44,333	58,462	30,410	31,213
1907	110,347	145,365	45,305	59,468	32,470	31,749

2. *Graphs of Annual Births, Commonwealth and States* (page 255).—A striking feature of the graphs of births is the practically continuous increase in the number of births exhibited in the graph for the Commonwealth from 1860 to 1891, and the marked variations of subsequent years. As the curve clearly shews, a turning point in the number of births occurred in 1891, whilst, as regards the separate States, New South Wales and Tasmania date their decline in number from 1893, Victoria from 1891, and Queensland from 1890. In South Australia the corresponding decline took place as early as 1885, while in Western Australia the increase in number of births has been practically continuous throughout.

It is of special interest to note the decline in births associated with the commercial crisis of 1891-3, and also the decline occurring in 1903, an accompaniment of the severe drought of that period.

In the case of New South Wales the graph crosses that of Victoria in 1879, *i.e.*, the births for that year were sensibly identical in the two States. A fairly continuous increase was experienced in the former State from 1860 to 1893, the only marked fluctuation being a sudden decline in 1889 and an equally rapid recovery in 1890. From 1893 to 1898 a somewhat rapid decline again took place, succeeded by a rise, the continuity of which was broken only by a sharp decline in 1903 and recovery in 1904.

In the case of Victoria the graph shews the increase between 1860 and 1880 to have been comparatively slight, the curve being a gradual rise, with fluctuations more or less

marked to 1873, with a subsequent decline. From 1880 to 1891 the increase in the number of births is seen to be very rapid and practically continuous, while from 1891 to 1898 an equally sharp and continuous decline was experienced. A further rise and fall took place between 1898 and 1903, succeeded by a continuous rise from the last-mentioned year onwards.

Starting in 1860 with a lower number of births than any State except Western Australia, the Queensland graph shews that the births increased somewhat rapidly until 1867. The equality in the number of births in Queensland and Tasmania in 1864 is shewn by the Queensland curve crossing the Tasmanian curve at the line for that year. From 1867 to 1882 a continuous though somewhat less rapid increase was experienced, followed by a very rapid rise to 1890, in which year Queensland's maximum number of births was recorded. The South Australian graph is crossed by that of Queensland at the year 1885. From 1890 onwards the number of births has fluctuated somewhat, but has, on the whole, retained a practically stationary position at a height rather less than that of 1890. The most serious variation was a sudden fall in 1903, the drought year, and rapid recovery in 1904.

The South Australian graph, a slow but practically continuous rise from 1860 to 1885, exhibits the steady increase in the total number of births. This rise is followed by a slow but fluctuating decline to 1903, and a slight recovery to 1907.

The Tasmanian curve may be regarded as made up of five portions, of which the first, from 1860 to 1877, represents a period of very slight variation, viz., on the whole an increase; the second, from 1877 to 1884, a period of continuous and moderately rapid increase; the third, from 1884 to 1893, a period of rapid increase; the fourth, from 1893 to 1898, a period of continuous but slow decrease; and the fifth, from 1898 onwards, a period of steady recovery.

The Western Australian curve indicates that an increase, which was practically continuous but very slow, took place from 1860 to 1884, and that a somewhat quicker rate of increase, experienced from 1884 to 1896, was succeeded by a still more rapid and very satisfactory rate of increase from 1896 onwards.

It will be seen that the years in which the highest points were reached by the several curves are as follows:—

State	... N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
Year	... 1907	1891	1890	1885	1906	1906	1907

**3. Graphs of Annual Marriages, Commonwealth and States** (page 256).—The Commonwealth marriage graph from 1860 to 1885 reveals a moderate but somewhat fluctuating increase in the annual number of marriages between 1860 and 1871, a more rapid increase between 1871 and 1879, and a still more rapid increase between 1879 and 1885. From 1885 to 1891 the numbers continued to increase, but with marked fluctuations in rate. The financial crisis associated with the period subsequent to the latter year was accompanied by a strongly-marked decline in the number of marriages, which reached its lowest point in 1894. From that year onwards a fairly rapid recovery was effected, the record for 1891 being exceeded by that of 1897. This progress was maintained until 1902, when the severe drought of that and the succeeding year were collateral with a rapid fall in the number of marriages. An equally rapid recovery, however, has since taken place, and the number of marriages in the Commonwealth during 1907 was greater than in any preceding year.

**4. Graphs of Annual Deaths, Commonwealth and States** (page 257).—The curves, shewing the progression of the annual number of deaths, indicate clearly that the periods for which exceptionally large numbers of deaths occurred were:—(1) 1866-7, (2) 1875-6, (3) 1884-5, (4) 1889-1891, (5) 1893, (6) 1898, and (7) 1902-3. It is remarkable that in each of the periods specified the phenomenon of a relatively high number of deaths

was experienced in a majority of the States. Thus, as regards 1866-7, all the States except Western Australia and Tasmania were so affected; in 1875-6 all except Western Australia; in 1884-5 all were affected; in 1889 all except Western Australia and South Australia; in 1891 all except Queensland; whilst in 1893 and 1898, and in 1902-3, all were affected. The fact that the periods of high death rates have been practically identical in the several States furnishes an indication that the excessive mortality has been due to a considerable extent to some common cause operating throughout the Commonwealth.

It may be noted as curious that periods of heavy mortality have occurred at intervals of approximately nine years, viz.:—1866-7, 1875-6, 1884-5, 1893, and 1902-3. There are, however, two marked increases between the third and fourth dates, and one between the fourth and fifth. Thus there is no real indication of the periodicity in the death rate.

Periods in which the number of deaths was exceptionally low are far less clearly defined than those in which the number was high, and the agreement amongst the States is also less complete. The principal periods of low mortality may be said to be 1861, 1869-71, 1879, 1892, 1897, 1900, 1904-5.

**5. Graphs of Annual Birth, Death, and Marriage Rates and of Rate of Natural Increase—Commonwealth** (page 258.)—(i.) *General*. These graphs represent the number of births, deaths, and marriages, and the excess of births over deaths (natural increase) per 1000 of the population of the Commonwealth for each of the years 1860 to 1907.

(ii.) *Births*. In the case of births, the graph indicates a well marked decline in rate during the period, and represents a fall from 42.56 per 1000 of population in 1860 to 26.55 per 1000 in 1907. This enormous reduction has been subject to small fluctuations during the period under review, but may, on the whole, be said to have been in evidence throughout. There are, however, two periods of arrested decline noticeable, one from 1877 to 1890, and the other from 1898 to the present time. The course of the graph thus indicates a rapid fall from 42.56 in 1860 to 34.99 in 1877, succeeded by a fluctuating but, on the whole, fairly stationary, period to 34.98 in 1890, then a fall even more rapid to 27.15 in 1898, and a further comparatively stationary period to 26.55 in 1907. The lowest point reached, viz., 25.23, was attained in 1903, the year in which the Commonwealth suffered severely from the worst drought it has ever experienced. Since then a small but well defined advance in birth-rate has been in evidence. A declining birth-rate is usually due to complex causes, amongst which the variations in the age constitution of the population, and the adoption of preventive measures, are generally considered the most potent.

(iii.) *Deaths*. The three graphs relating to deaths furnish particulars concerning the rates experienced during the period amongst males and females separately, and in the population as a whole, the latter occupying naturally a position between the other two. Throughout the period the rate for males has largely exceeded that for females, but the fluctuations in the two rates have synchronised remarkably, indicating that the conditions which have been responsible for the marked variations which have occurred from time to time have affected males and females alike. On the whole, the graphs furnish clear evidence of a satisfactory decline in the death rate of the Commonwealth, a fall having taken place from 20.86 in 1860 to 10.90 in 1907. The graphical representation of the death rates brings into prominence five years in which the rates were exceptionally high when compared with those of adjacent years. These years are 1860, 1866, 1875, 1884, and 1898. The principal cause of the excessive rate of 1860 was the prevalence in that year of measles, scarlatina, and diphtheria, while the high rates of 1866, 1875, and 1898 were also largely due to epidemics of measles. Prior to 1892, when a rate of 12.91 was experienced, the lowest general death rate for the Commonwealth was that of 1871, viz., 13.24. The highest male death rate for the period was 20.97 in 1860, and the lowest 11.78 in 1906. For females the highest was 20.71 in 1860, and the lowest 9.56 in 1905. The difference between the male and female rates has, since 1869, been fairly constant, and has ranged between 1.97 and 3.44, with a mean value of about 2.7.

(iv.) *Marriages.* In the case of the graph representing marriage rates, the fluctuations are less abrupt than in the case of the birth-rate and death-rate graphs, and the rate for 1907, the final year of the period, viz., 7.81, does not differ very considerably from that of 1860, which was 8.42. The lowest marriage rate for the period was that of 1894, viz., 6.08, marking the culmination of the commercial and financial depression indicated by the declining rates from 1888 onwards. From 1894 to the present time a satisfactory increase has been in evidence, disturbed only by the sharp decline which, in 1903, accompanied the severe drought experienced in the Commonwealth in that year.

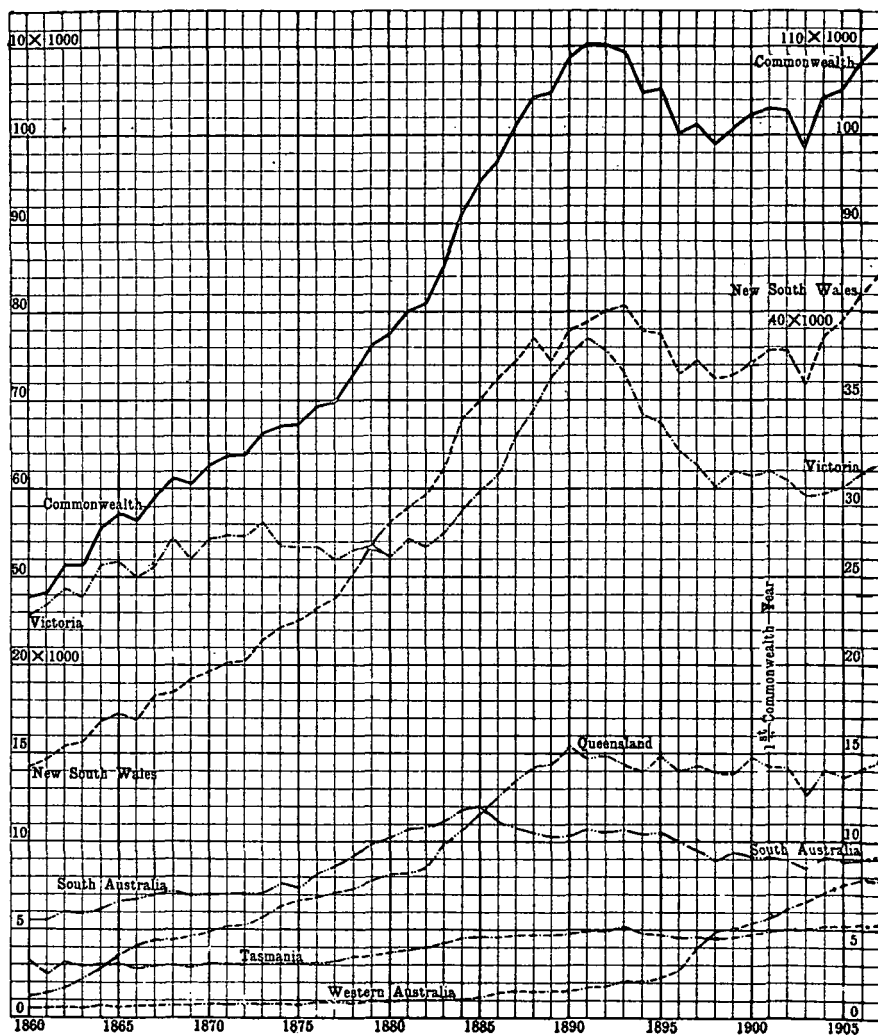
(v.) *Natural Increase.* This graph, which represents the excess of births over deaths per 1000 of population, exhibits marked fluctuations arising from the combined fluctuations in birth and death rates. Thus, corresponding to the high death rates of 1860, 1866, 1875, and 1898, there are exceptionally low rates of natural increase, accentuated in the last-mentioned year by a comparatively low birth rate. A combination of low birth rate and comparatively high death rate was also responsible for a very low rate of natural increase in 1903. The highest rate of natural increase for the period was 26.58 in 1864, and the lowest 13.03 in 1898.

**6. Graphs of Annual Birth Rates—States** (pages 259 and 260).—These graphs furnish for the several States information similar to that supplied in the graph on page 258 for the Commonwealth as a whole. It will be seen that in every case the total effect has been an extensive decline in rate, subject to very marked fluctuations. In all the States the period from 1875 to 1885 was one of arrested decline, if not of actual advance, in the birth rate. With the exception of the very low rate accompanying the drought of 1903, the variations in any of the States since 1901 have not been very marked, and in some cases a slight tendency to increase is in evidence.

The highest birth rates during the period were as follows:—New South Wales (1864), 44.00; Victoria (1862), 44.71; Queensland (1860), 47.93; South Australia (1862), 45.44; Western Australia (1860), 38.96; and Tasmania (1884), 36.63. The following were the lowest rates for the period:—New South Wales (1903), 25.41; Victoria (1903), 24.46; Queensland (1903), 24.62; South Australia (1903), 23.25; Western Australia (1896), 23.44; Tasmania (1899), 27.43.

**7. Graphs of Annual Death Rates—States** (pages 261 and 262).—These graphs furnish for the several States similar information to that given for the Commonwealth as a whole in the diagram on page 258, and indicate in each case a satisfactory decline in death rate. It may be noted that an exceptionally high death rate was experienced in all the States in 1875, and that a similar uniformity, though on a smaller scale, is observable for the year 1898, the principal cause in each case having been an epidemic of measles. The highest death rates experienced during the period were as follows:—New South Wales (1867), 19.79; Victoria (1860), 22.77; Queensland (1866), 25.96; South Australia (1875), 19.97; Western Australia (1884), 21.54; and Tasmania (1875), 19.99. The following were the lowest death rates for the period:—New South Wales (1906), 9.92; Victoria (1907), 11.74; Queensland (1906), 9.56; South Australia (1907), 9.93; Western Australia (1905), 10.82; and Tasmania (1905), 10.29.

GRAPHS: SHEWING TOTAL ANNUAL BIRTHS IN THE COMMONWEALTH AND STATES OF AUSTRALIA, 1860-1907.



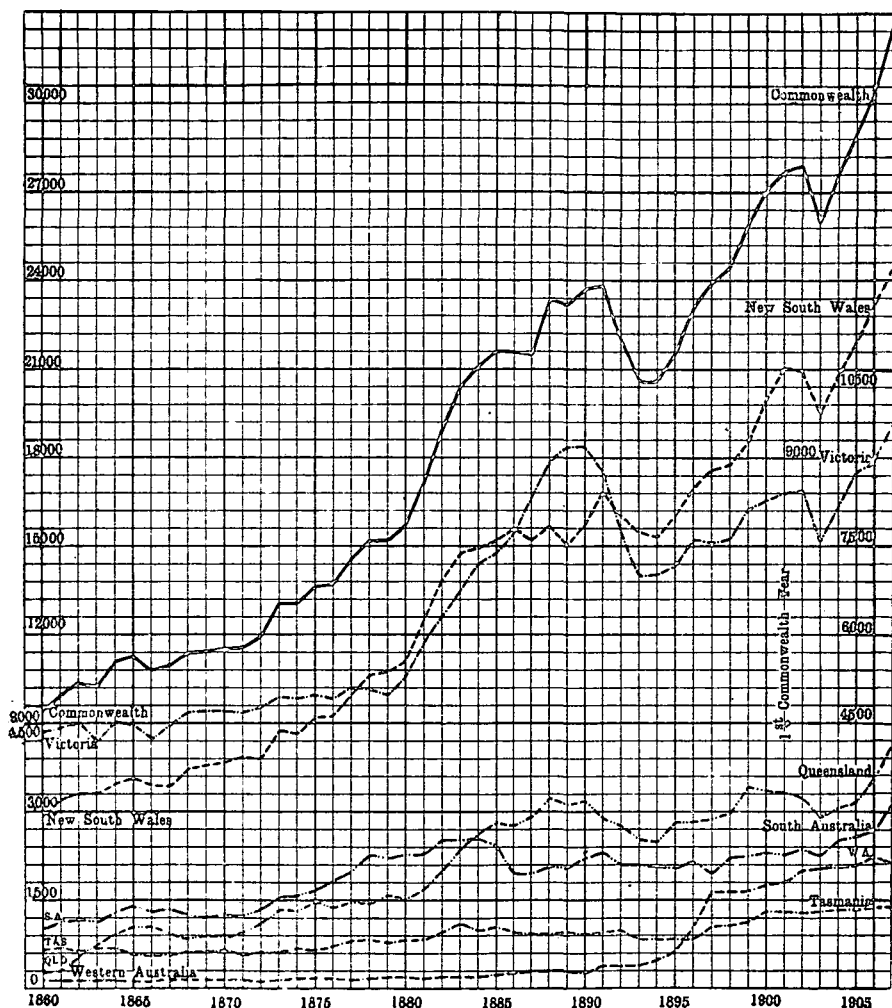
EXPLANATION OF GRAPHS.—The base of each small square represents an interval of one year for both Commonwealth and States, and the vertical height represents 2000 persons of the Commonwealth, and 1000 for the States.

The scale running from 0 to 20 on the left and that from 0 to 40 on the right relate to the States, while those from 50 to 110 on the left and from 90 to 110 on the right refer to the Commonwealth.

The distances upwards from the common zero lines of the States and Commonwealth, marked 0, denote the total annual number of births in the States and Commonwealth, the scale of the latter being reduced one-half.

The names of the States to which the graphs refer are written thereon, and the characters of the lines used are as follows:—Commonwealth, an unbroken line; New South Wales, ————; Victoria, ————; Queensland, ————; South Australia, ————; Western Australia, ————; Tasmania, ————.

GRAPHS SHEWING TOTAL ANNUAL MARRIAGES IN THE COMMONWEALTH AND STATES OF AUSTRALIA, 1860-1907.



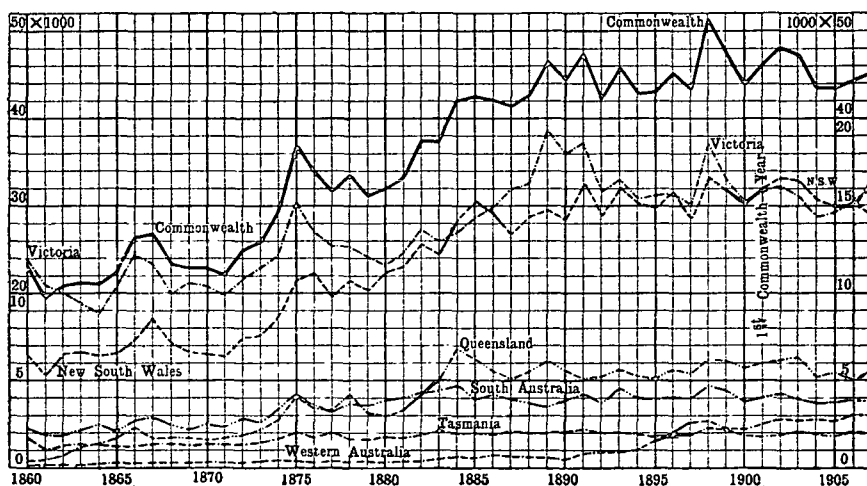
EXPLANATION OF GRAPHS.—The base of each small square represents an interval of one year for both Commonwealth and States, and the vertical height represents 600 marriages for the Commonwealth and 300 for the States.

The scale running from 0 to 4500 on the left and that from 0 to 10,500 on the right relate to the States, while that from 9000 to 30,000 on the left refers to the Commonwealth.

The distances upwards from the zero line, marked 0, denote the total annual number of marriages in the States and Commonwealth, the scale of the latter being reduced one-half.

The names of the States to which the graphs refer are written thereon, and the lines used are similar to those for births on page 255.

GRAPHS SHEWING TOTAL ANNUAL DEATHS IN THE COMMONWEALTH AND STATES OF AUSTRALIA, 1860-1907.



EXPLANATION OF GRAPH.—The base of each small square represents an interval of one year for both Commonwealth and States, and the vertical height represents 2000 persons for the Commonwealth and 1000 for the States.

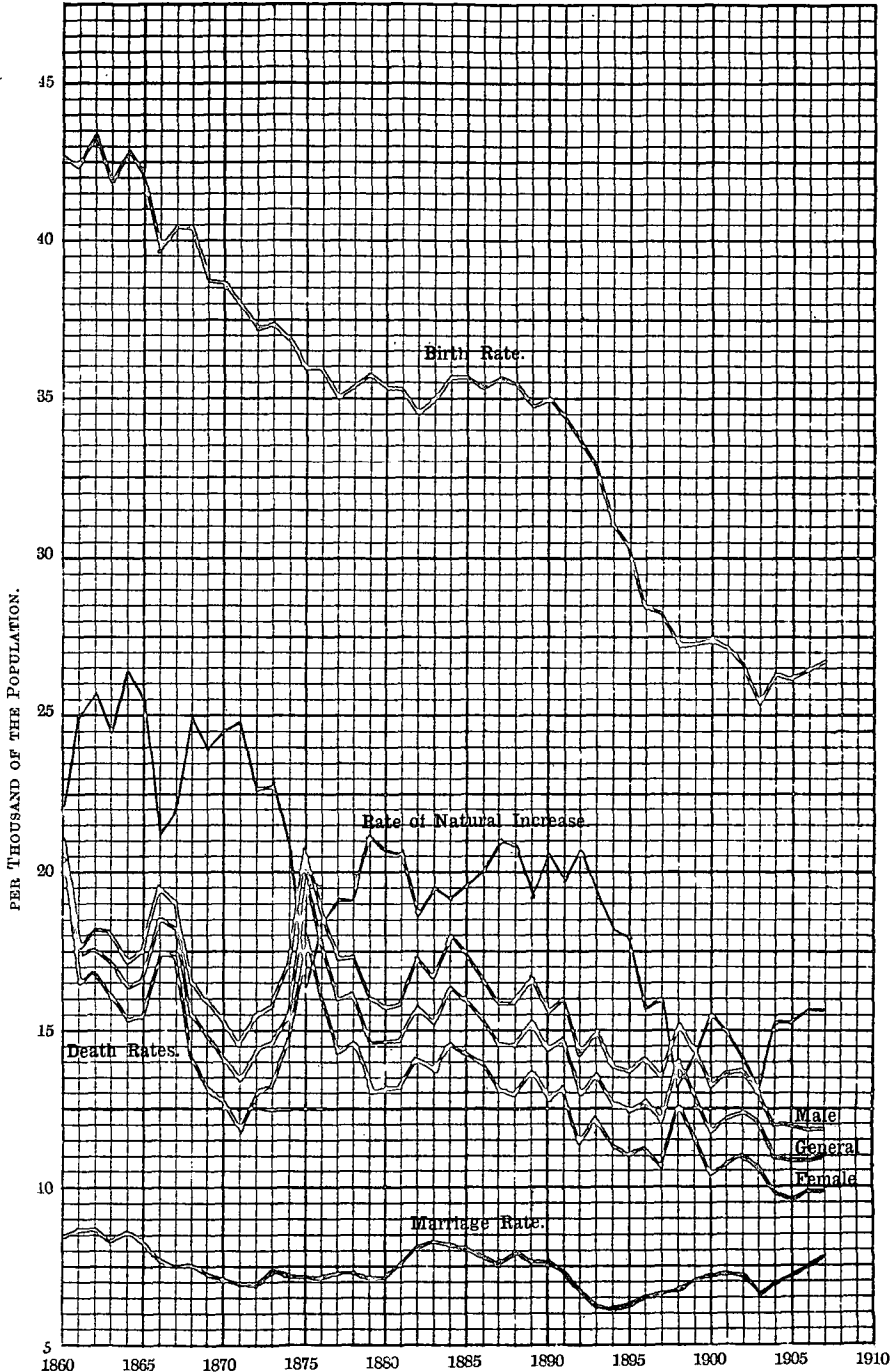
The scale running from 0 to 10 on the left of the diagram and that from 0 to 20 on the right relate to the States, while those from 20 to 50 on the left and 40 to 50 on the right refer to the Commonwealth.

The distances upwards from the common zero line for States and Commonwealth, marked 0, denote the total annual number of deaths in the States and Commonwealth, the scale of the latter being reduced one-half.

The names of the States to which the curves refer are written thereon, and the lines used are similar to those for births on page 255.

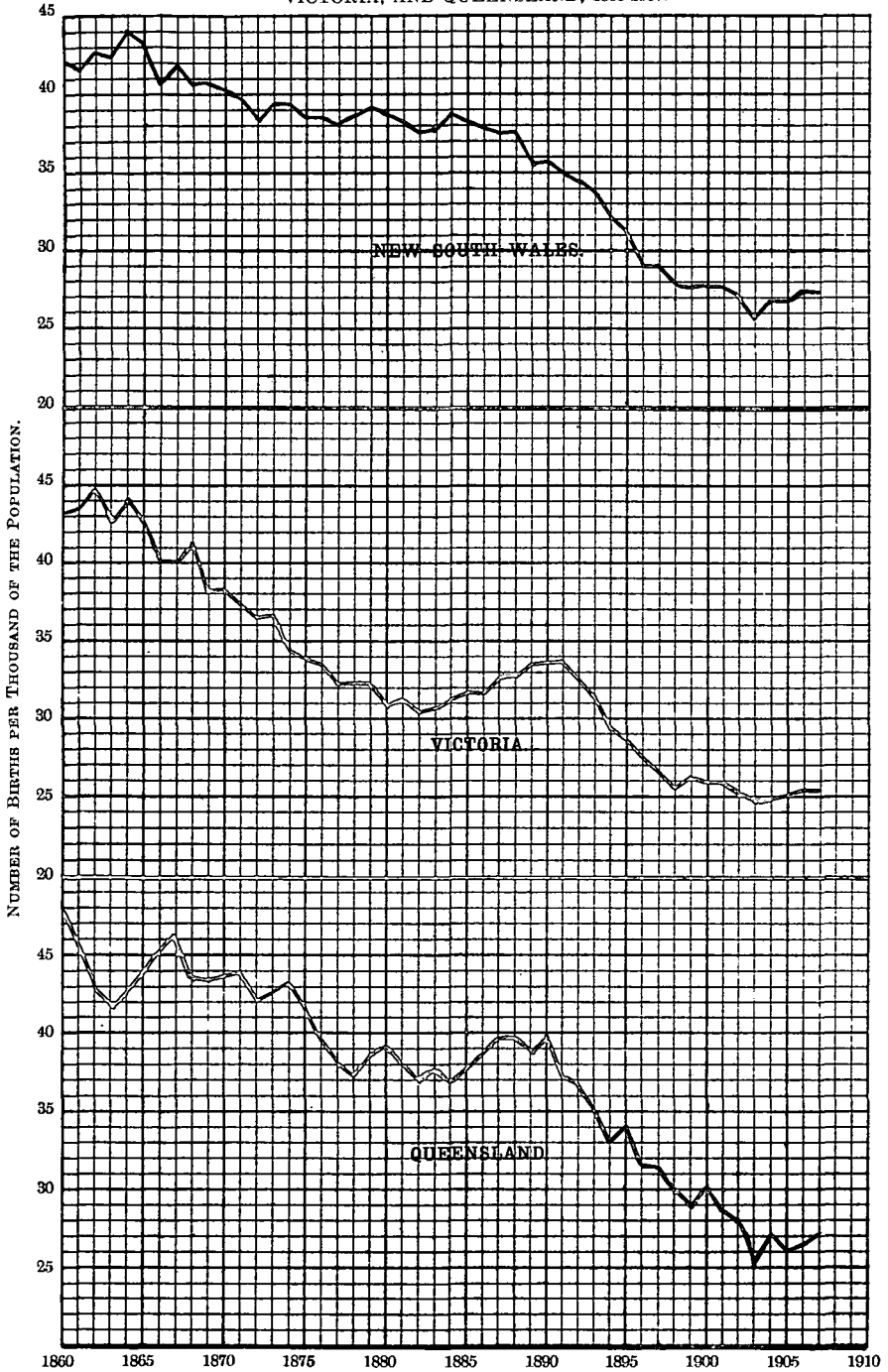


GRAPHS SHEWING GENERAL BIRTH, DEATH, MARRIAGE, AND NATURAL INCREASE RATES, AND MALE AND FEMALE DEATH RATES IN THE COMMONWEALTH OF AUSTRALIA, 1860-1907.



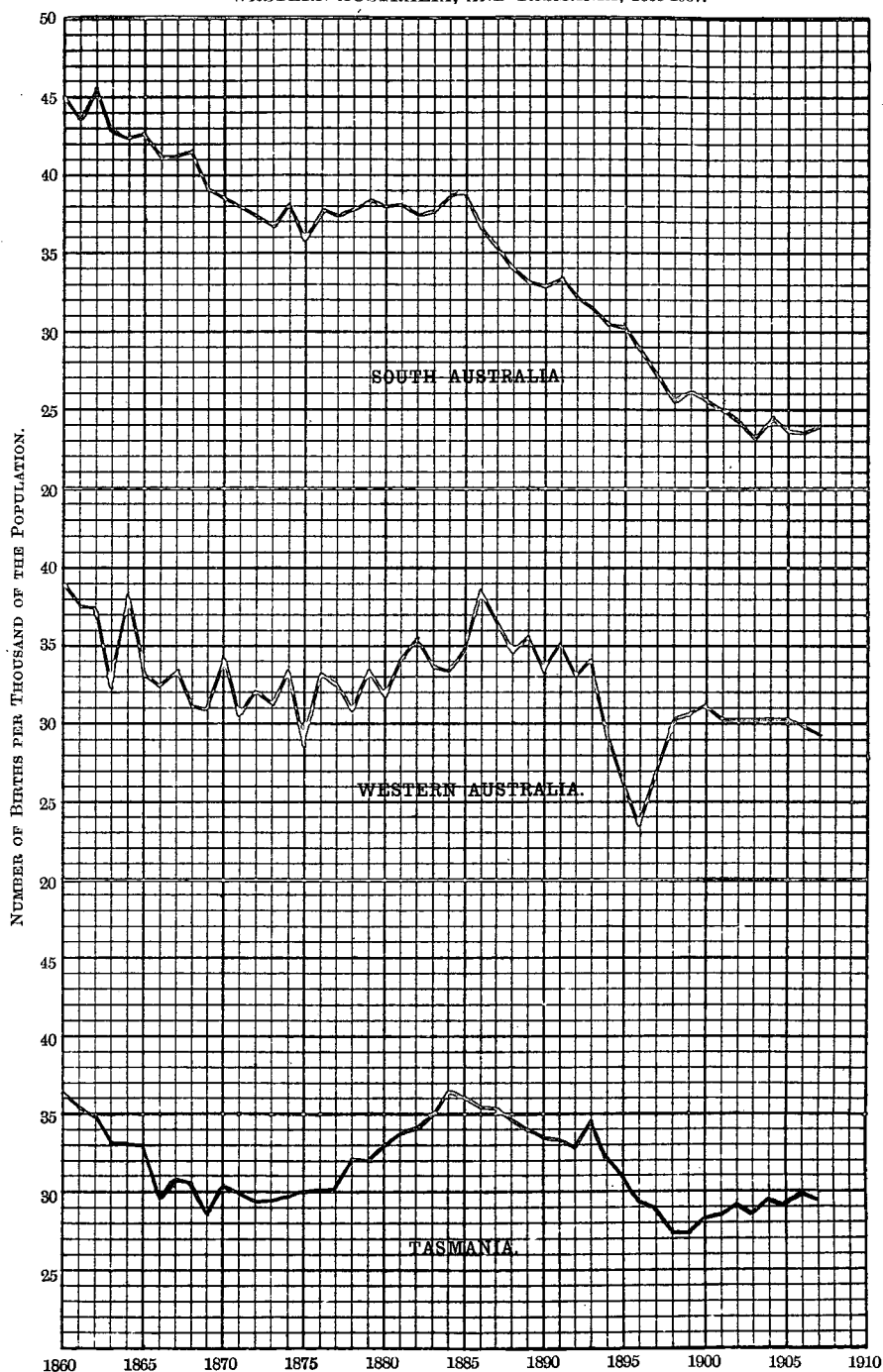
EXPLANATION OF GRAPHS.—The base of each small square represents a year's interval, and the vertical height, according to the character of the curve, one per thousand of the population—the basic line being five per thousand of the population.

GRAPHS SHEWING BIRTH RATES IN THE STATES OF NEW SOUTH WALES,  
VICTORIA, AND QUEENSLAND, 1860-1907.



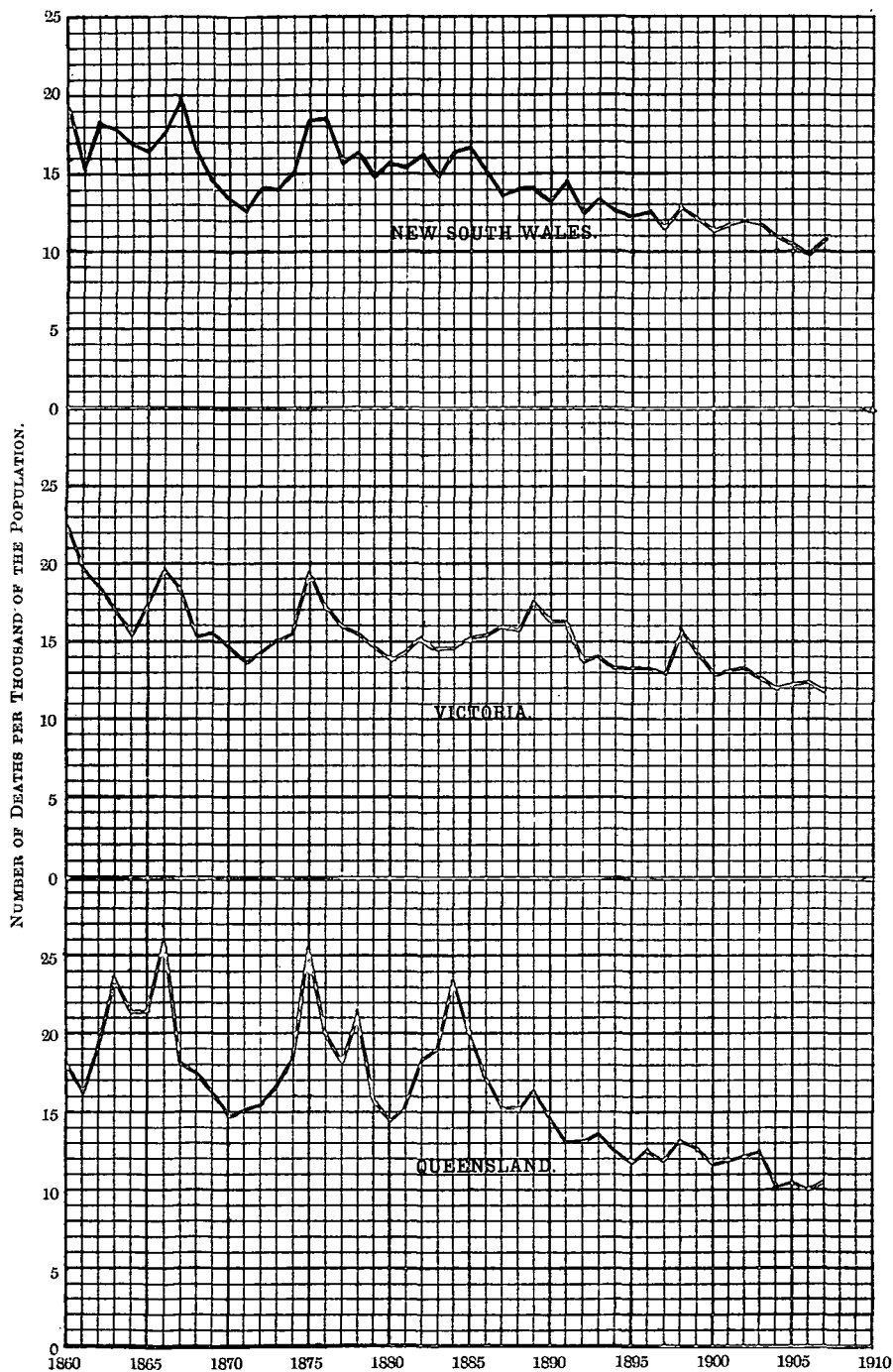
EXPLANATION OF GRAPHS.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being twenty per thousand of the population.

GRAPHS SHEWING BIRTH RATES IN THE STATES OF SOUTH AUSTRALIA,  
WESTERN AUSTRALIA, AND TASMANIA, 1860-1907.



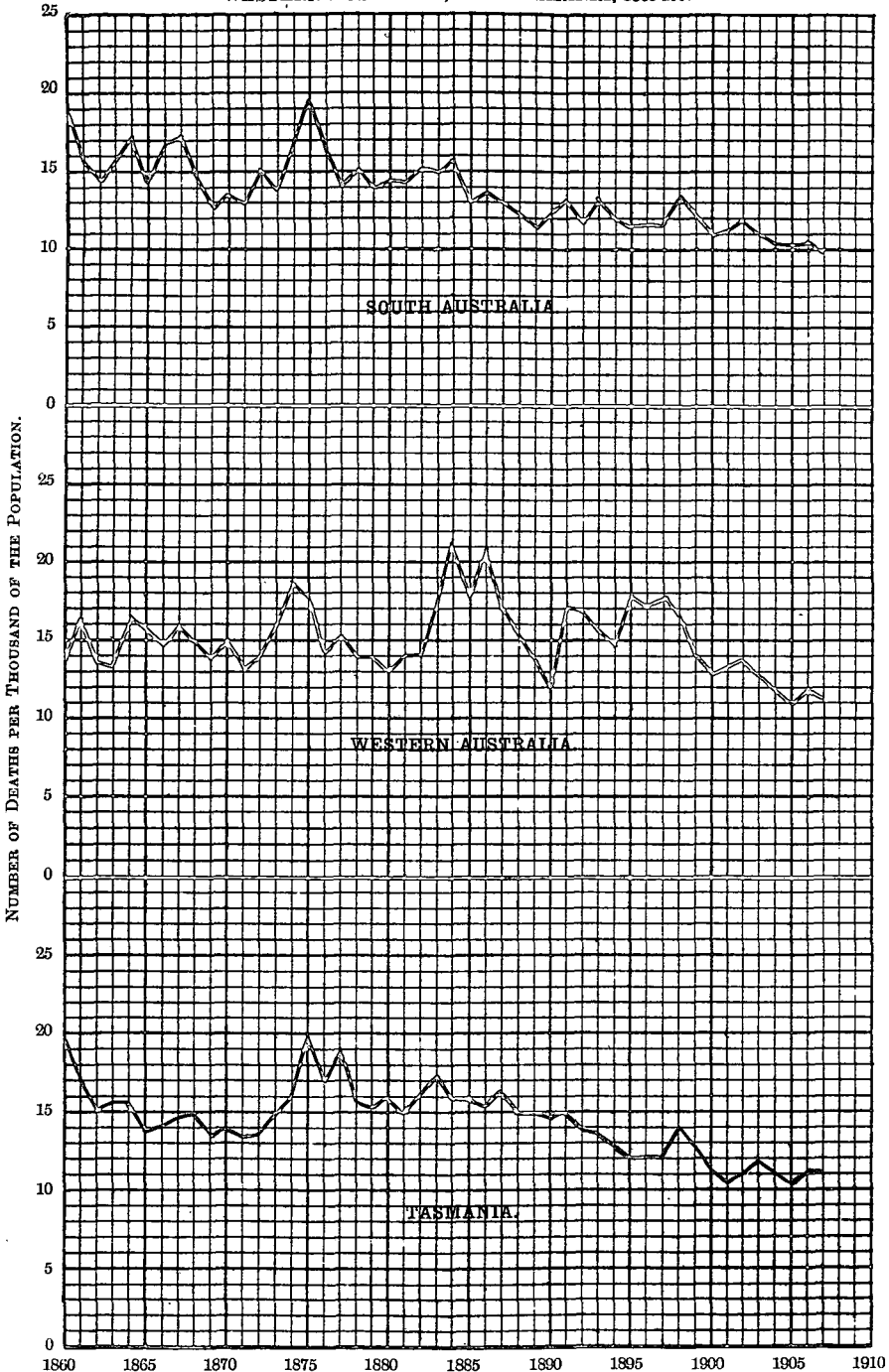
EXPLANATION OF GRAPHS.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being twenty per thousand of the population.

GRAPHS SHEWING DEATH RATES IN THE STATES OF NEW SOUTH WALES,  
VICTORIA, AND QUEENSLAND, 1860-1907.



EXPLANATION OF GRAPHS.—The base of each small square represents a year's interval, and the vertical height one death per thousand of the population. The zero for each State is shewn by a thickened line.

GRAPHS SHEWING DEATH RATES IN THE STATES OF SOUTH AUSTRALIA,  
WESTERN AUSTRALIA, AND TASMANIA, 1860-1907.



EXPLANATION OF GRAPHS.—The base of each small square represents one year's interval, and the vertical height one death per thousand of the population. The zero for each State is shewn by a thickened line.