VITAL STATISTICS.

BIRTHS

THE total number of births in each state, and the rate per thousand of the population during the year 1903 are shown in the following table :—

State.	Births.			Birth-rate.
	Males.	Females.	Total.	
New South Wales.....	18,377	17,589	35,966	25·28
Victoria	15,115	14,454	29,569	24·45
Queensland	6,427	6,194	12,621	24·35
South Australia...............	4,484	4,024	8,508	23·41
Western Australia	3,433	3,266	6,699	30·27
Tasmania	2,570	2,510	5,080	28·61
Commonwealth	50,406	48,037	98,443	25·16
New Zealand	11,217	10,612	21,829	26·61
Australasia............	61,623	58,649	120,272	25·41

Leaving out Western Australia, it will be observed that the birth-rates of the various states are fairly even amongst themselves. The comparatively high rate in the western state is due to the larger proportion of married women in its population. Taking the general average for the last three years (26·28), the birth-rate of Australasia will be found lower than that of most European countries, and very much below the former experience of these states, as shown by the following statement, which gives the number of births in each state and in the

whole of Australasia, in quinquennial periods from 1861 to 1900, and for the years 1901–3.

State.	1861–65.	1866–70.	1871–75.	1876–80.	1881–85.	1886–90.	1891–95.	1896–1900.	1901–3.
New South Wales	79,958	92,643	106,543	127,572	158,965	188,300	197,566	183,582	111,676
Victoria..........	123,353	131,052	136,363	132,347	140,258	172,307	180,852	155,437	91,038
Queensland	11,761	22,622	29,279	37,535	48,979	70,150	72,863	70,963	41,140
South Australia ..	30,472	35,067	36,398	46,310	56,618	53,200	53,093	47,179	26,566
Western Australia	3,352	3,724	4,033	4,611	5,446	7,696	10,242	22,399	18,649
Tasmania	15,454	14,679	15,313	17,165	21,425	23,710	24,794	23 404	15,095
Commonwealth	264,350	299,787	327,929	365,540	431,691	515,363	539,410	502,964	304,164
New Zealand	26,611	46,770	59,891	88,205	96,482	94,071	91,410	94,685	62,975
Australasia ..	290,961	346,557	387,820	453,745	528,173	609,434	630,820	597,649	367,139

The average birth-rates per thousand of population for each state during the same periods are given hereunder, and, together with the rates appearing elsewhere in this chapter, have been amended to agree with the latest estimates of population.

State.	1861–65.	1866–70.	1871–75.	1876–80.	1881–85.	1886–90.	1891–95.	1896–1900.	1901–3.
New South Wales	42·71	40·70	39·05	38·53	37·65	36·36	32·93	27·98	26·66
Victoria	43·30	39·27	35·69	31·43	30·76	32·72	30·94	26·06	25·11
Queensland	43·07	43·91	40·81	36·72	36·37	38·81	35·15	30·40	26·77
South Australia ..	44·14	40·60	37·24	38·28	38·52	34·48	31·46	26·54	24·51
Western Australia	37·69	33·52	31·30	32·97	34·57	36·88	30·78	28·78	30·48
Tasmania	33·80	29·65	29·72	31·54	35·02	34·59	32·80	28·20	28·64
Commonwealth	42·43	39·48	36·90	35·36	34·93	35·09	32·31	27·62	26·28
New Zealand	38·22	42·28	40·02	41·32	36·36	31·19	27·66	25·75	26·28
Australasia ..	42·01	39·83	37·35	36·38	35·19	34·42	31·54	27·31	26·28

It is a matter of common knowledge that for some years past the birth-rate in Australasia has been declining, and so important is the subject—not only as regards the growth of the population, but also as affecting general progress—that in 1899, and again in 1902, the author made a special investigation into the question of childbirth in Australia, but more particularly with reference to New South Wales. The conclusions arrived at with respect to that state, however, may be

held to obtain for all the others, seeing that the conditions of living do not differ materially in any of them. During the course of these investigations it was found that for all women the proportion of fecund marriages was decreasing ; that amongst fecund women the birth-rate was much reduced as compared with what it was twenty years ago, and that the decline had been persistent and regular since 1885. Public interest was strongly aroused by the author's treatise on the subject, published in 1903, and a Royal Commission was appointed to investigate the causes which contributed to the decline in the birth-rate, and to inquire into the question of the mortality of infants. After numerous sittings and exhaustive inquiries, the Commission presented its report in March, 1904. The report is of too voluminous a character to admit of any other than the most general reference in this work, but its tenor was in thorough accord with the conclusions mentioned above. It was found that there had been a serious diminution of fecundity since 1889, due chiefly to the deliberate prevention of conception and the destruction of fœtal life, and to pathological causes consequent upon the means used and the practices involved. In addition to enumerating the causes which have led to the decline in the birth-rate, the Commission tendered certain valuable suggestions as to the best means of counteracting the evil influences at work.

It would have been interesting to have compared the number of births to married women of specified ages at regular intervals from the date when the birth-rate first showed marked decline. Unfortunately, the information is not available for the different states, but the following figures, relating to New South Wales, possess strong interest. These show the number of legitimate births and the birth-rate per cent. among married women of various ages at each of the four decennial periods 1871, 1881, 1891, and 1901.

Age groups of married women.	Legitimate births.				Birth-rate per 100 married women.			
	1871.	1881.	1891.	1901.	1871.	1881.	1891.	1901.
15 and under 20	741	1,099	1,377	1,443	50·10	51·60	47·91	56·2S
20 ,, 25	4,260	6,853	8,344	7,805	44·15	45·79	41·63	39·70
25 ,, 30	5,918	7,553	11,333	9,742	40·75	40·52	35·37	29·87
30 ,, 35	4,340	5,946	8,622	7,848	33·67	33·S6	29·22	22·63
35 ,, 40	3,019	4,410	5,836	5,711	27·04	27·36	23 63	17·25
40 ,, 45	1,027	1,645	2,134	2,369	13·41	12·S9	11·84	8·S1
45 and over	123	200	225	244	·71	·78	·55	·43

The rates in 1871 and 1881 were practically the same, but at all ages there was a large decline between 1881 and 1891, and again between 1891 and 1901. The apparent increase from 1891 to 1901 among women aged 15 and under 20 is due to the increased number of ante-nuptial conceptions in 1901 compared with 1891.

Taking the women of child-bearing age (15 to 44) at each period, the birth-rate per 100 married women was 34·25 in 1871, 33·47 in 1881, 29·70 in 1891, and 23·36 in 1901, so that the rates for 1901 showed a decrease of nearly 32 per cent. on those for 1871.

Although like information cannot be given for the other states, the births compared with the total married women of child-bearing ages have been ascertained for some of the states for the periods 1881, 1891, and 1901, and were as follows :—

State.	1881.	1891.	1901.
New South Wales	33·63	28·87	23·53
Victoria	29·84	29·77	22·86
Queensland	31·62	32·77	25·40
New Zealand	31·22	27·57	24·61

Particulars relating to illegitimate births will be found in the chapter headed "Social Condition."

DEATHS.

The following table shows the total number of deaths and the rate per thousand of the population during the year 1903 :—

State.	Deaths.			Death-rate.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	9,428	7,069	16,497	12·58	10·50	11·59
Victoria	8,626	6,969	15,595	14·25	11·54	12·90
Queensland	3,951	2,395	6,346	13·75	10·37	12·24
South Australia	2,242	1,709	3,951	12·07	9·39	10·74
Western Australia	1,829	959	2,788	13·71	7·19	12·60
Tasmania	1,136	980	2,116	12·31	11·49	11·92
Commonwealth	27,212	20,081	47,293	13·25	10·78	12·07
New Zealand	4,947	3,581	8,528	11·43	9·24	10·40
Australasia	32,159	23,662	55,821	12·93	10·51	11·78

The death-rate of Australia is much below that of any of the European states, and is steadily declining. Every year sees an advance in the sanitary condition of the people in the large centres of population, and to this cause may be ascribed the greater part of the improvement in the death-rate shown in the following tables, but there are other causes.

The decline in the birth-rate elsewhere alluded to has an immediate effect on the death-rates. In ordinary years about 30 per cent. of the deaths are of children under one year, and the decline in the birth-rate from 35 to 25 per thousand, which has happened during the last thirteen years, means a reduction of over 1 per thousand in the death-rate.

The number of deaths in each state and in the whole of Australasia, in quinquennial periods from 1861 to 1900, and during the years 1901–3, is shown in the following table. Of the Commonwealth States, South Australia showed the lowest death-rate during 1903, followed by Tasmania, but the lowest rate for Australasia was exhibited by New Zealand.

State.	1861-65.	1866-70.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.
New South Wales..	31,561	36,466	40,909	53,256	66,103	71,457	76,802	77,783	49,164
Victoria	49,452	55,136	59,759	62,811	66,811	84,648	82,056	81,328	47,676
Queensland	5,751	9,312	12,869	17,284	25,731	28,040	26,581	29,202	18,557
South Australia ..	10,840	12,963	15,475	18,026	21,616	19,361	20,535	21,174	12,330
Western Australia	1,399	1,711	2,068	2,003	2,709	3,332	5,430	11,943	8,130
Tasmania	6,953	6,962	8,060	8,994	9,790	10,389	10,123	10,313	5,844
Commonwealth	105,956	122,550	139,140	162,374	192,760	217,227	221,527	231,743	141,701
New Zealand	10,001	13,328	19,354	25,254	29,074	29,746	33,525	35,151	24,537
Australasia ..	115,957	135,878	158,494	187,628	221,834	246,973	255,052	266,894	166,238

The average death-rates per thousand of the population of each state for the periods shown in the above table are given below, but the statement does not afford a just comparison between them as no account is taken of the ages of the people :—

State.	1861-65.	1866-70.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.
New South Wales	16·86	16·05	14·99	16·09	15·66	13·80	12·80	11·85	11·74
Victoria	17·36	16·52	15·64	14·92	14·65	16·07	14·04	13·64	13·15
Queensland	21·06	18·07	17·94	16·90	19·10	15·52	12·82	12·51	12·08
South Australia ..	15·70	15·01	15·83	14·90	14·71	12·55	12·17	11·91	11·37
Western Australia	15·73	15·40	16·03	14·32	17·19	15·97	16·32	15·34	13·29
Tasmania	15·20	14·06	15·64	16·52	16·00	15·16	13·39	12·43	11·09
Commonwealth	17·01	16·14	15·65	15·71	15·60	14·79	13·27	12·73	12·24
New Zealand	14·36	12·05	12·93	11·83	10·96	9·86	10·14	9·56	10·24
Australasia ..	16·74	15·62	15·26	15·04	14·78	13·95	12·75	12·20	11·90

If this table be compared with that showing the birth-rates, it will be observed that the experience of Australasia corresponds with that of other countries, viz., that a low birth-rate and a low death-rate accompany each other, so that although the birth-rate has been declining it has had an effect in reducing the death-rate, as indicated on the preceding page, and the balance in favour of births has not been reduced so much as it might have been.   From the next table, which shows the mean natural increase in various foreign countries during the decennial period 1893–1902, and for Australasia and the United Kingdom during the period 1894–1903, it will be seen that the case of Australasia is much better than that of any of the countries of the United Kingdom or Europe, for notwithstanding that the birth-rate of these countries in some cases is higher, the death-rate is so much higher as to more than outweigh any advantage in that respect.

Country.	Birth-rate.	Death-rate.	Excess of Births per 1,000 Inhabitants.
New South Wales	28·20	11·87	16·33
Victoria......................	26·39	13·43	12·96
Queensland	29·81	12·31	17·50
South Australia	26·55	11·62	14·93
Western Australia.........	29·30	14·64	14·66
Tasmania...................	28·94	11·97	16·97
Commonwealth	27·74	12·53	15·21
New Zealand................	26·16	9·87	16·29
Australasia	27·47	12·08	15·39
England and Wales	29·15	17·21	11·94
Scotland	29·75	17·78	11·97
Ireland..................... ..	23·14	18·03	5·11
United Kingdom.....	28·55	17·37	11·18
Denmark	30·21	16·65	13·56
Norway	29·79	15·42	14·37
Sweden	26·85	15·97	10·88
Austria	36·93	25·66	11·27
Hungary	39·83	28·21	11·62
Switzerland	28·17	18·43	9·74
German Empire............	35·88	21·47	14·41
Prussia.......................	36·82	22·08	14·74
The Netherlands	32·16	17·45	14·71
Belgium	28·55	18·09	10·46
France	22·00	20·90	1·10
Italy	34·24	23·37	10·87

In regard to the above table it must be stated that, had the figures of any of the last five years been taken as the basis of comparison,

the gain by natural increase in Australasia would have been below that of some European countries, where the decline in the birth-rate, although distinctly evident, has not been so great as in Australasia.

INDEX OF MORTALITY.

So far consideration has only been given to the actual death-rates as they are obtained by taking the proportion which the number of deaths bears to the number of inhabitants. It is well known, however, that the death-rate of a country is affected by more than the salubrity of its climate, the degree of perfection to which the sanitary condition of its cities and towns and villages has been brought, and the nature of the industrial pursuits of its people. It is known that the ages of the people considerably affect the death-rate of a country; that, for instance, one which has a large proportion of young people will, other things being equal, have a lower death-rate than another which has a comparatively large proportion of old persons; and it is this fact that statistical science now seeks to take into account in establishing the rates of mortality of the various countries of the world. In order to have a comparison of the mortality of the principal countries on a uniform basis, the International Statistical Institute, in its 1895 session, held at Berne, decided to recommend the population of Sweden, in five age-groups, as ascertained at the census of 1890, as the standard population, by which the index of mortality should be calculated. Applying the co-efficient of mortality in each age-group in the Commonwealth and New Zealand to the age constitution of the standard population, the " index of mortality," as distinguished from the actual " death-rate," is found as given below for the year 1903. How greatly the ages of the people of a country affect its mortality will be evident from the fact that whereas in 1903 the death-rate in Victoria was higher than in Queensland, the index of mortality was lower, and while the death-rates ranged from 10·40 in New Zealand to 12·90 in Victoria, a difference of only 2·50 per thousand, the indexes of mortality showed a range of 3·58, namely, from 12·64 in New Zealand to 16·22 in Queensland.

State.	1903.
New South Wales	15·06
Victoria	15·25
Queensland	16·22
South Australia	13·89
Western Australia	15·75
Tasmania	14·86
Commonwealth	15·24
New Zealand	12·64
Australasia	14·76

AGES AT DEATH.

A detailed statement of the ages at death of the males who died during the year 1903 in the various states is given below. The figures for South Australia in this and subsequent detailed tables refer to the province proper exclusive of the Northern Territory.

Ages at Death.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Common-wealth.	New Zealand.	Australasia.
Under 1 year........	2,170	1,694	817	470	549	299	5,999	977	6,976
1 and under 2 years..	435	271	164	64	81	35	1,050	142	1,192
2 ,, 3 ,, ..	130	100	53	19	17	16	335	70	405
3 ,, 4 ,, ..	99	76	47	14	15	7	258	61	319
4 ,, 5 ,, ..	56	47	28	8	5	5	149	32	181
5 ,, 10 ,, ..	181	187	86	46	29	29	558	117	675
10 ,, 15 ,, ..	155	143	73	49	21	20	461	84	545
15 ,, 20 ,, ..	210	169	101	58	29	44	611	135	746
20 ,, 25 ,, ..	306	196	164	69	96	44	875	194	1,069
25 ,, 30 ,, ..	310	248	195	70	114	27	964	180	1,144
30 ,, 35 ,, ..	327	237	193	62	100	36	1,005	156	1,161
35 ,, 40 ,, ..	404	345	199	86	132	35	1,201	182	1,383
40 ,, 45 ,, ..	416	372	216	72	135	40	1,251	188	1,439
45 ,, 50 ,, ..	427	368	204	94	87	34	1,214	189	1,403
50 ,, 55 ,, ..	423	332	204	118	68	46	1,191	214	1,405
55 ,, 60 ,, ..	450	374	207	123	86	37	1,277	263	1,540
60 ,, 65 ,, ..	572	495	276	134	75	51	1,603	344	1,947
65 ,, 70 ,, ..	662	713	216	152	62	51	1,856	446	2,302
70 ,, 75 ,, ..	656	861	203	144	55	77	1,996	390	2,386
75 years and upwards	1,025	1,347	292	318	65	201	3,248	550	3,798
Unspecified.........	14	1	13	1	8	2	39	33	72
Total	9,428	8,626	3,951	2,171	1,829	1,136	27,141	4,947	32,088

Similar information respecting the deaths of females in 1903 is given in the following table :—

Ages at Death.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Common-wealth.	New Zealand.	Australasia.
Under 1 year	1,799	1,452	696	350	396	264	4,957	793	5,750
1 and under 2 years..	396	267	152	58	58	30	961	133	1,094
2 ,, 3 ,, ..	138	103	60	22	16	7	346	56	402
3 ,, 4 ,, ..	92	67	34	14	13	12	232	50	282
4 ,, 5 ,, ..	71	51	30	9	11	5	177	32	209
5 ,, 10 ,, ..	197	155	90	37	27	36	542	102	644
10 ,, 15 ,, ..	152	153	56	43	19	29	452	67	519
15 ,, 20 ,, ..	243	205	69	63	21	30	631	106	737
20 ,, 25 ,, ..	252	227	71	71	41	39	701	177	878
25 ,, 30 ,, ..	290	268	109	78	45	45	835	170	1,005
30 ,, 35 ,, ..	282	306	116	74	53	33	864	158	1,022
35 ,, 40 ,, .	316	321	107	73	49	46	912	152	1,064
40 ,, 45 ,, ..	280	286	92	62	27	35	782	137	919
45 ,, 50 ,, ..	263	236	72	73	37	34	715	111	826
50 ,, 55 ,, ..	239	215	80	49	20	30	633	162	795
55 ,, 60 ,, ..	264	276	105	59	23	31	758	137	895
60 ,, 65 ,, ..	325	342	109	82	13	48	919	207	1,126
65 ,, 70 ,, ..	395	473	102	123	36	51	1,180	233	1,413
70 ,, 75 ,, ..	355	576	87	103	20	57	1,198	210	1,408
75 and upwards	719	990	158	259	34	117	2,277	382	2,659
Unspecified	1	....	....	....	....	1	2	6	8
Total........	7,069	6,969	2,395	1,702	959	980	20,074	3,581	23,655

The next table shows the ages of all the persons who died during 1903 :—

Ages at Death.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Commonwealth.	New Zealand.	Australasia.
Under 1 year	3,969	3,146	1,513	820	945	563	10,956	1,770	12,726
1 and under 2 years. .	331	588	316	122	139	65	2,011	275	2,286
2 ,, 3 ,, . .	268	203	113	41	33	23	681	126	807
3 ,, 4 ,, . .	191	143	81	28	28	19	490	111	601
4 ,, 5 ,, . .	127	98	58	17	16	10	326	64	390
5 ,, 10 ,, . .	378	342	176	83	56	65	1,100	219	1,319
10 ,, 15 ,, . .	307	296	129	92	40	49	913	151	1,064
15 ,, 20 ,, . .	453	374	170	121	50	74	1,242	241	1,483
20 ,, 25 ,, . .	558	423	235	140	137	83	1,576	371	1,947
25 ,, 30 ,, . .	600	516	304	148	159	72	1,799	350	2,149
30 ,, 35 ,, . .	609	593	309	136	153	69	1,869	314	2,183
35 ,, 40 ,, . .	720	666	306	159	181	81	2,113	334	2,447
40 ,, 45 ,, . .	696	658	308	134	162	75	2,033	325	2,358
45 ,, 50 ,, . .	690	604	276	167	124	68	1,929	300	2,229
50 ,, 55 ,, . .	662	547	284	167	88	76	1,824	376	2,200
55 ,, 60 ,, . .	714	650	312	182	109	68	2,035	400	2,435
60 ,, 65 ,, . .	897	837	385	216	88	99	2,522	551	3,073
65 ,, 70 ,, . .	1,057	1,186	318	275	98	102	3,036	679	3,715
70 ,, 75 ,, . .	1,011	1,437	290	247	75	134	3,194	600	3,794
75 and upwards.	1,744	2,337	450	577	99	318	5,525	932	6,457
Unspecified.	15	1	13	1	8	3	41	39	80
Total.	16,497	15,595	6,346	3,873	2,788	2,116	47,215	8,528	55,743

The ages of the people were ascertained at the census of March, 1901, and a comparison of the foregoing figures with the numbers living at each age can now be made. Using the same age groups as for the index of mortality given on page 183, the following rates are obtained. For age 0 (under 1 year) the number of births during the year has been used in place of figures deduced from the census results :—

Age Groups.	Deaths in each Age Group per 1,000 living.								
	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Commonwealth.	New Zealand.	Australasia.
Under 1 year	110·47	106·40	120·12	97·09	141·51	111·02	111·47	81·45	106·02
1 and under 20.	4·10	3·96	4·60	3·11	4·93	3·80	4·05	3·47	3·95
20 ,, 40.	5·45	5·56	6·76	5·38	6·29	5·53	5·72	5·09	5·61
40 ,, 60 . ˙. . . .	12·18	13·30	14·37	11·30	14·31	10·86	12·78	10·76	12·39
60 and over.	59·31	60·20	58·78	57·17	50·00	60·58	59·18	50·07	57·48

Tasmania usually shows a much more favourable rate than any of the other states of the Commonwealth, and especially as regards children under 1 year of age ; but in 1903 a severe epidemic of whooping cough visited the island, and as a consequence the death-rate of children under 1 year rose from 79·96 in 1902, to 111·02 in 1903. During last year

South Australia showed much the lowest rate in Australia, but was still unable to compare with New Zealand, where the rates in each age group were lower than in any of the Commonwealth states.

INFANTILE MORTALITY.

The mortality of infants under 1 year of age may be measured accurately by comparing the deaths with the number of births ; this is a most sensitive and reliable test of the healthiness and sanitary condition of a country, since at this early age children are most susceptible to the attacks of disease. The following table shows for each state the number of deaths of children under 1 year of age, and the rate per 1,000 births, since 1870, arranged in five-year periods :—

State.	1871–75.	1876–80.	1881–85.	1886–90.	1891–95.	1896–1900.	1901–3.
DEATHS under 1 Year.							
New South Wales	11,036	14,626	19,709	21,586	21,930	20,819	12,049
Victoria	16,981	15,865	17,043	22,582	20,221	17,299	8,646
Queensland	3,596	5,068	6,732	8,339	7,496	7,337	4,395
South Australia	5,758	6,516	7,594	5,593	5,227	5,266	2,566
Western Australia	......	......	......	939	1,332	3,488	2,567
Tasmania	1,560	1,830	2,331	2,437	2,337	2,284	1,404
Commonwealth ...	38,931	43,905	53,409	61,476	58,543	56,493	31,627
New Zealand	6,390	8,432	8,733	7,924	8,005	7,578	4,945
Australasia	45,321	52,337	62,142	69,400	66,548	64,071	36,572
RATE per 1,000 Births.							
New South Wales	103·58	114·65	123·98	114·64	111·00	113·40	107·89
Victoria	124·53	119·87	121·51	131·06	111·81	111·29	94·97
Queensland	122·82	135·02	137·45	118·87	102·88	103·39	106·83
South Australia	158·20	140·70	134·13	105·13	98·67	111·97	96·59
Western Australia	......	......	......	109·15	130·05	155·72	137·65
Tasmania	101·87	106·61	108·75	102·78	94·26	97·59	93·01
Commonwealth ...	119·47	120·55	123·48	117·51	107·96	112·35	103·98
New Zealand	106·69	95·60	90·51	84·23	87·57	80·03	78·52
Australasia	118·09	116·53	118·88	113·71	105·51	˙107·23	99·61

The infantile mortality of New South Wales has not shown great fluctuations during the thirty-three years included in the foregoing tables. The highest death-rate was in the five years 1881–85. The mortality at the end of the period, namely 107·89 per 1,000 was slightly greater than in 1871–75, when it stood at 103 58.

The rate for Victoria has sensibly declined since 1890, and from being amongst the highest in Australia it has fallen below that of any of the continental states.

The Queensland rates have considerably improved since 1885, as also have those of South Australia. The infantile mortality of Western Australia is still very high, which is accounted for by the difficulty of obtaining fresh milk on some of the gold-fields, and the dearness of artificial foods in the same districts.

The infantile mortality of Tasmania has always been very favourable, and the range in the table just given is from 93·01 per 1,000 in 1901–3 to 108·75 in the period 1881–85.

New Zealand also stands out most favourably, and it is doubtful if any country in the world can show a more favourable infantile mortality than this Colony.

The returns exhibit an infantile mortality in South Australia in 1871–75 of 158·2 per thousand births, and in subsequent periods the rate was also very high. There was nothing in the condition of South Australia to warrant so high a death-rate, and there is reason to suppose that the high average rate was attributable to incorrectness in registration, the deaths of many children one year old being wrongly included by the registering officers with those under 1 year.

A striking feature in the records of infantile mortality is the wide margin between the death-rates of legitimate and illegitimate children. In New South Wales, for the nine years 1895–1903, the infantile mortality rate of legitimates was 98·56 per 1,000 legitimate births, while for illegitimates the corresponding figure was 276·62 per 1,000 illegitimate births. The records for each year since 1895 were as follows :—

Year.	Legitimate Children.			Illegitimate Children.		
	Births.	Deaths under 1 year.	Death-rate per 1,000 births.	Births.	Deaths under 1 year.	Death-rate per 1,000 births.
1895	36,250	3,488	96·22	2,524	618	244·85
1896	34,061	3,717	109·13	2,445	718	293·66
1897	34,795	3,163	90·90	2,452	638	260·20
1898	33,711	3,671	108·90	2,511	747	297·49
1899	33,852	3,584	105·87	2,609	745	285·55
1900	34,541	3,087	89·37	2,605	749	287·52
1901	35,163	3,213	91·37	2,712	716	264·01
1902	35,338	3,436	97·23	2,497	716	286·74
1903	33,553	3,318	98·89	2,413	651	269·79
Total ...	311,264	30,677	98·56	22,763	6,298	276·62

From these figures it would appear that a child born in wedlock has nearly three times as much chance of surviving twelve months as the illegitimate.

Causes of Death.

The system of classifying the causes of death adopted in Australasia is that arranged by Dr. William Ogle on the basis of the older system of Dr. William Farr, his predecessor as Superintendent of the Statistical Department of the Registrar-General's Office, England. Under this classification deaths are divided into eight classes, namely, deaths from specific febrile or zymotic diseases, from parasitic diseases, from dietetic diseases, from constitutional diseases, from developmental diseases, from local diseases, from violence, and from ill-defined or unspecified causes. The following were the assigned causes of death of the 55,743 persons who died in Australasia during 1903 :—

Classification	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
Specific febrile or zymotic diseases—								
Miasmatic diseases............	1,051	663	406	194	214	176	622	3,326
Diarrhœal diseases............	654	460	348	166	101	66	184	1,979
Malarial diseases,.............	10	2	79	1	25	1	....	118
Zoogenous diseases	2	.. ..	....	....	....	....	....	2
Venereal diseases	74	69	37	3	9	9	17	218
Septic diseases	167	194	75	37	23	31	93	620
Total	1,958	1,388	945	401	372	283	916	6,263
Parasitic diseases	49	38	22	17	0	7	10	149
Dietetic diseases	165	138	108	14	40	18	67	550
Constitutional diseases...........	2,775	2,905	923	742	314	304	1,534	9,497
Developmental diseases	1,765	1,701	252	471	224	112	883	5,408
Local diseases—								
Diseases of nervous system....	1,866	1,442	535	394	201	165	882	4,985
Diseases of organs of special sense	18	28	9	2	3	....	6	66
Diseases of circulatory system..	1,373	1,682	566	437	228	235	918	5,439
Diseases of respiratory system..	1,759	1,792	645	389	263	203	979	6,030
Diseases of digestive system ..	2,421	1,955	1,036	401	471	200	752	7,236
Diseases of lymphatic system and ductless glands	36	15	10	4	2	5	39	111
Diseases of urinary system	748	837	295	162	80	58	331	2,511
Diseases of organs of generation	77	40	24	10	7	7	28	193
Diseases of parturition	160	136	58	21	24	21	100	520
Diseases of organs of locomotion	23	51	11	15	5	7	22	134
Diseases of integumentary system	63	57	26	12	8	9	22	197
Total	8,044	8,035	3,215	1,847	1,292	910	4,079	27,422
Violence—								
Accident or negligence........	889	623	480	167	269	111	614	3,153
Homicide	20	15	14	6	6	3	3	67
Suicide	183	138	89	43	50	10	105	618
Execution...................	3	....	2	....	3	....	....	8
Violent deaths not classified ..	74	....	....	....	....	....	....	74
Total	1,169	776	585	216	328	124	722	3,920
Ill-defined and not specified causes..	572	614	296	165	212	358	317	2,534
Grand Total	16,497	15,595	6,346	3,873	2,788	2,116	8,528	55,743

Comparing the figures of the total deaths in each class and order with the population, the following results are obtained. The figures represent the number of deaths per 100,000 living based on the experience of the five years ended with 1903.

Classification.	Number of deaths per 100,000 living.		
	Males.	Females.	Total Population.
Specific, febrile, or zymotic diseases—			
Miasmatic diseases...	83·59	78·78	81·31
Diarrhœal diseases..................................	45·42	39·26	42·49
Venereal diseases	5·46	3·13	4·35
Septic diseases	6·43	17·59	11·73
Other specific, febrile, or zymotic diseases	3·22	0·40	1·88
Total......................................	144·12	139·16	141·76
Parasitic diseases	3·81	3·39	3·61
Dietetic diseases...............	16·78	7·71	12·48
Constitutional diseases	211·59	183·20	198·11
Developmental diseases ....,....	129·12	105·04	117·69
Local diseases—			
Diseases of nervous system......................	122·64	99·85	111·82
Diseases of circulatory system	129·94	100·79	116·11
Diseases of respiratory system	158·32	116·88	138·65
Diseases of digestive system	141·96	135·20	138·75
Diseases of urinary system .,....................	62·67	33·86	49·00
Diseases of organs of generation .-	0·33	7·91	3·93
Diseases of parturition	....	22·79	10·82
Diseases of organs of locomotion	3·46	2·46	2·98
Diseases of integumentary system............	4·18	3·14	3·68
Other local diseases	2·91	3·94	3·40
Total......................................	626·41	526·82	579·14
Violence—			
Accident or negligence	104·88	33·82	71·15
Homicide......................................	2·51	1·59	2·08
Suicide..	18·75	4·05	11·77
Other deaths from violence	1·62	0·40	1·04
Total...................................	127·76	39·86	86·04
Ill-defined or not specified causes	53·86	45·92	50·09
Grand total	1,313·45	1,051·10	1,188·92

Specific Febrile or Zymotic Diseases.

The deaths from specific febrile or zymotic diseases in the Common-wealth during 1903 numbered 5,347, and in New Zealand 916, repre-senting 13·67 and 11·17 deaths respectively per 10,000 of the popula-tion, the rate for Australasia being 13·23. Under this class are included the highly infectious diseases—measles, scarlet fever, whooping-cough, and diphtheria—which are especially fatal to children ; diarrhœal diseases, chiefly fatal to persons at the extremes of life ; and typhoid (enteric) fever, the death-rate from which at times is very high.

It would be interesting to compare the fatality of these diseases in the various states in proportion to the number of cases occurring, but unfortunately the necessary information is lacking. In some of the states legal enactments provide for the notification of infectious diseases, but they are not rigidly enforced, and doubtless many cases escape notice.

In New South Wales, since the beginning of 1898, under the provi-sions of the Public Health Act of 1896, notification of the three diseases scarlet fever, diphtheria, and typhoid has been compulsory, and careful record has been kept of the number of cases and deaths. The following table shows the number of cases notified in the metropolis during the six years 1898 to 1903, and the fatality per cent. :—

Disease.	Number of cases notified.	Number of Deaths.	Fatality per cent.
Scarlet Fever	8,492	139	1·6
Diphtheria	2,698	285	10·6
Typhoid	4,865	484	9·9

The average annual experience of London during the ten years 1891-1900 is also given.

Disease.	Number of cases notified.	Number of Deaths.	Fatality per cent.
Scarlet Fever	21,156	818	3·9
Diphtheria	11,658	2,192	18·8
Typhoid	3,518	616	17·0

MEASLES.

Measles, which is mainly a children's disease, was the cause in 1903 of the deaths of 89 persons in the Commonwealth and 143 in New Zealand equal to rates of 0·23 and 1·74 per 10,000 living, the rate for Australasia being 0·49. The disease was epidemic in New Zealand, and to a lesser extent in Queensland. The following tables show the number of deaths in each state from this disease, and the death-rate per 10,000 living, in five-year periods since 1870, and for the years 1901–3:—

State.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.

NUMBER of Deaths.

State.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.
New South Wales	......	311	200	293	885	734	160
Victoria	1,809	271	386	148	696	827	121
Queensland	179	36	102	4	302	261	49
South Australia	356	18	240	8	291	83	245
Western Australia	......	1	129	nil	27	41	67
Tasmania	132	3	66	1	49	59	1
Commonwealth	......	640	1,123	454	2,250	2,005	643
New Zealand	*359	10	246	85	526	204	283
Australasia	......	650	1,369	539	2,776	2,209	926

DEATH-RATE per 10,000 living.

State.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.
New South Wales	......	0·94	0·47	0·57	1·48	1·12	0·38
Victoria	4·73	0·66	0·81	0·28	1·19	1·39	0·33
Queensland	2·50	0·35	0·76	0·02	1·46	1·12	0·32
South Australia	3·64	0·15	1·63	0·05	1·75	0·47	2·26
Western Australia	......	0·07	8·19	0·00	0·81	0·53	1·09
Tasmania	2·56	0·06	1·08	0·01	0·65	0·71	0·02
Commonwealth	......	0·62	0·91	0·31	1·35	1·10	0·56
New Zealand	*2·90	0·05	0·93	0·28	1·59	0·55	1·18
Australasia	......	0·52	0·91	0·30	1·39	1·01	0·66

* Four years, 1872-75.

With regard to the diseases which are almost solely confined to children, the rates would of course be more accurately stated if the deaths were compared with the children living of like ages.   However taking them as they appear, it will be seen that measles has been more prevalent since 1891 than during the preceding fifteen years, and it seems to have been most common in the first three states shown in the table.   In 1902 there were 245 deaths from this disease in South Australia, which accounts for the high rate shown for the period 1901–3. Although the disease is in evidence every year, it usually occurs as an epidemic, and, according to the records, the outbreaks occur with more or less regularity and severity about every five years.   Measles was epidemic in nearly all the states in 1875 (when the attack was very severe), in 1880, in 1884 (when Western Australia suffered heavily) in 1889, in 1893, in 1898, and in 1899.

SCARLET FEVER.

The deaths from scarlet fever during 1903 in the Commonwealth numbered 193, and in New Zealand 131, giving a death-rate of 0·49 and 1·60 respectively per 10,000 living, the rate for Australasia being 0·68.   In the table below are shown the number of deaths and the death-rates in each state arranged quinquennially since 1870 :—

State.	1871–75.	1876–80.	1881–85.	1886–90.	1891–95.	1896–1900.	1901–3.
			NUMBER of Deaths.				
New South Wales	......	1,295	476	404	460	244	164
Victoria	1,455	2,646	282	148	172	230	63
Queensland	77	37	19	73	31	157	20
South Australia ...	626	520	141	27	56	47	20
Western Australia	......	......	......	nil.	1	4	5
Tasmania	72	304	49	9	8	38	49
Commonwealth	......	4,802	967	661	728	720	321
New Zealand	*58	383	312	96	40	18	187
Australasia......	......	5,185	1,279	757	768	738	508

State.	1871–75.	1876–80.	1881–85.	1886–90.	1891–95.	1896–1900.	1901–3.
			DEATH-RATE per 10,000 living.				
New South Wales	......	3·91	1·13	0·78	0·77	0·37	0·39
Victoria	3·81	6·44	0·59	0·28	0·29	0·39	0·17
Queensland	1·07	0·36	0·14	0·40	0·15	0·67	0·13
South Australia ...	6·40	4·30	0·96	0·17	0·34	0·27	0·18
Western Australia	......	......	......	0·00	0·03	0·05	0·08
Tasmania	1·40	5·59	0·80	0·13	0·11	0·46	0·93
Commonwealth	......	4·65	0·78	0·45	0·44	0·40	0·28
New Zealand	*0·47	1·79	1·18	0·32	0·12	0·05	0·78
Australasia......	......	4·16	0·85	0·43	0·38	0·34	0·36

* Four years, 1872–75.

The rate of mortality from scarlet fever for the first ten years shown in the table was much higher than that recorded for measles, but, in spite of the highly infectious nature and difficulty of isolation of the former disease, the death-rate has since been consistently lower than that of the latter. From 1871 to 1880 the rate of mortality from scarlet fever was high, but during the next five years a great decrease was manifested, and later there was a further decline, while during the three quinquennial periods ending 1900 the rate was practically constant, but with a tendency to rise in Victoria, Queensland, and Tasmania. Since 1900, the rate has fallen in Victoria, Queensland, and South Australia, but has risen in the other states, the general rate for the Commonwealth being 0·28. In 1903 the disease was epidemic in New Zealand, and to a mild extent in New South Wales. In Victoria the extremely high rate for 1876–80 was caused by a very virulent outbreak of the disease in 1876, and in Tasmania an outbreak in 1877 largely increased the rate ; in fact, during the three years 1875, 1876, and 1877 all the states were more or less affected by an epidemic of scarlet fever. In Queensland the disease has never been very prevalent, and in Western Australia it is virtually unknown.

WHOOPING-COUGH.

There were 483 deaths in the Commonwealth from this disease during 1903, equal to a rate of 1·23 per 10,000 living. In New Zealand the deaths numbered 204, showing a rate of 2·49.

A curious fact in connection with whooping-cough, the third of the diseases of infancy and childhood, is that the mortality resulting from it is higher in the case of girls than of boys. During 1903 whooping-cough was responsible for 697 deaths in Australasia (332 males and 365 females), equal to 1·47 deaths per 10,000 of the population, the male

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rate being 1·34 and the female 1·62. The table below shows the number of deaths and the death-rates in each state since 1870 :—

State.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.
NUMBER of Deaths.							
New South Wales	......	676	632	979	1,157	947	706
Victoria	1,053	921	701	691	851	498	483
Queensland.........	117	198	184	306	381	454	135
South Australia...	181	211	341	263	279	264	137
Western Australia	......	nil.	19	65	57	80	78
Tasmania	99	84	59	89	79	88	92
Commonwealth	......	2,090	1,936	2,393	2,804	2,331	1,631
New Zealand.......	*465	589	592	443	752	245	296
Australasia...	... ..	2,670	2,528	2,836	3,556	2,576	1,927
DEATH-RATE per 10,000 living.							
New South Wales	......	2·04	1·50	1·89	1·93	1·44	1·69
Victoria	2·76	2·24	1·47	1·31	1·46	0·84	1·33
Queensland.........	1·63	1·94	1·37	1·69	1·84	1·94	0·88
South Australia...	1·85	1·74	2·32	1·70	1·68	1·51	1·36
Western Australia	......	0·00	1·21	3·12	1·71	1·03	1·27
Tasmania	1·92	1·54	0·96	1·30	1·05	1·06	1·75
Commonwealth	... ..	2·02	1·57	1·63	1·68	1·28	1·42
New Zealand	*3·75	2·76	2·23	1·47	2·28	0·67	1·24
Australasia...	......	2·15	1·68	1·60	1·78	1·18	1·39

* Four years, 1872-75.

The death-rate from whooping-cough, which has never been remarkably high, declined after the second quinquennium (1876–80), and thenceforward remained fairly constant during the next fifteen years. The returns show an especially gratifying decrease since 1895, considering that the disease was mildly epidemic during 1896–1900. During the period 1901–3, whooping-cough was more or less epidemic, and the rates both for the Commonwealth and New Zealand showed an increase over the preceding quinquennium. In 1903 there were 204 deaths in New Zealand from this cause. Generally speaking, whooping-cough seems to have been most prevalent in New South Wales, South Australia, and New Zealand; but it is gradually decreasing in these states, and, in fact, throughout Australasia, with the single exception of Queensland, where, until 1900, the tendency was towards an increase. On the whole, the rates up to the year 1895 were very even amongst themselves in all the states. In Western Australia the rate rose regularly to a maximum during 1886–90—a very severe epidemic being experienced in 1886—and then declined.

DIPHTHERIA.

Diphtheria, the last of the febrile diseases mentioned which mainly affect children, caused, in 1903, a total of 363 deaths, equal to a rate of 0·77 per 10,000 persons living. Of this number 340 deaths occurred in the Commonwealth, and 23 in New Zealand, the death-rates being 0·87 and 0·28 respectively, In the following table are shown the number of deaths and the death-rates in each state since 1870 :—

State.	1871–75.	1876–80.	1881–85.	1886–90.	1891–95.	1896–1900.	1901–3.
NUMBER of Deaths.							
New South Wales	......	1,109	1,005	1,325	1,753	584	339
Victoria......	1,609	1,431	681	1,885	994	892	351
Queensland.........	246	170	224	530	551	273	127
South Australia ..	379	329	387	570	513	153	67
Western Australia	......	11	28	19	38	79	36
Tasmania...........	124	329	96	182	208	65	28
Commonwealth	......	3,379	2,421	4,511	4,057	2,046	948
New Zealand	*535	316	525	542	577	289	121
Australasia...	......	3,695	2,946	5,053	4,634	2,335	1,069
DEATH-RATE per 10,000 living.							
New South Wales	......	3·35	2·39	2·56	2·92	0·89	0·81
Victoria	4·21	3·48	1·43	3·58	1·70	1·50	0·97
Queensland.........	3·43	1·66	1·66	2·93	2·66	1·17	0·83
SouthAustralia....	3·88	2·72	2·63	3·69	3·08	0·86	0·62
Western Australia	......	0·79	1·78	0·91	1·14	1·01	0·59
Tasmania...........	2·41	6·05	1·57	2·66	2·75	0·79	0·53
Commonwealth	......	3·27	1·96	3·07	2·43	1·13	0·82
New Zealand	*4·32	1·48	1·98	1·80	1·75	0·79	0·51
Australasia...	......	2·96	1·96	2·85	2·32	1·07	0·77

* Four years, 1872–75.

The present rates for diphtheria, as compared with those of twenty or twenty-five years ago, show a decrease.   The decline, however, has been by no means regular, owing to the fact that this disease, in common with the others affecting children, sometimes occurs as an epidemic. Thus the increase in the rates during 1886–90 over those prevailing in the previous five years was due to an epidemic in nearly all the provinces in 1890.

The decreased mortality in Australia during the last twenty-five years, from the four diseases just mentioned, together with croup, represents a gain of about 10 children to the population in every 10,000 persons living.   This improvement is very gratifying, since it may be taken that cases of these diseases, which are particularly liable to be attended with dangerous after-effects in the shape of lung and other local troubles, are not so numerous, and that in consequence the general health of the people is better.

CROUP.

Croup, although classed as a disease of the respiratory system, was formerly classified with the zymotic diseases, and is included here on account of its similarity to diphtheria, and the confusion which often arises between them, and of the deaths set down to a combination of both. It is a disease that may be said to affect children only, and in 1903 caused 63 deaths in the Commonwealth and 17 in New Zealand, equal to rates of 0·16 and 0·21 per 10,000 of the population, the rate for Australasia being 0·17. In the subsequent table are shown the number of deaths and the death-rate in each state since 1870 :—

State.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.
NUMBER of Deaths.							
New South Wales	......	968	971	951	683	278	83
Victoria...............	647	1,250	795	1,209	458	199	64
Queensland	273	324	483	382	239	103	23
South Australia ...	258	330	443	192	145	45	15
Western Australia	......	24	31	45	64	26	5
Tasmania	80	76	113	112	101	29	7
Commonwealth...	......	2,972	2,836	2,891	1,690	680	197
New Zealand	*281	277	334	340	304	186	60
Australasia ...	......	3,249	3,170	3,231	1,994	866	257
DEATH-RATE per 10,000 living.							
New South Wales	......	2·92	2·31	1·84	1·14	0·42	0·20
Victoria...............	1·69	3·04	1·66	2·30	0·78	0·33	0·18
Queensland	3·81	3·17	3·59	2·11	1·15	0·44	0·15
South Australia ...	2·64	2·74	3·01	1·24	0·87	0·26	0·14
Western Australia	......	1·72	1·97	2·16	1·92	0·33	0·08
Tasmania	1·55	1·40	1·85	1·63	1·34	0·35	0·13
Commonwealth...	.....	2·87	2·29	1·97	1·01	0·37	0·17
New Zealand	*2·27	1·30	1·26	1·13	0·92	0·51	0·25
Australasia ...	......	2·61	2·11	1·83	1·00	0·40	0·18

* Four years, 1872-75.

Generally speaking, deaths from this disease show a steady and consistent fall from the earliest period, although in some of the states, especially Victoria and South Australia, the rates fluctuate slightly. The greatest decline has taken place in New South Wales, Victoria, Queensland, and South Australia, until at the present time croup is about equally prevalent throughout the Commonwealth. In New Zealand the rate is somewhat higher than in Australia, but is considerably lower than in any preceding period. If croup and diphtheria be taken together, as they usually are, it will be found that the rates in the Commonwealth generally have declined to the extent of over 5 per 10,000 during the last twenty-seven years.

DIARRHŒAL DISEASES.

Diarrhœal diseases, comprising cholera, diarrhœa, and dysentery, carry off mostly young children and old persons. In 1903 these diseases were fatal to 1,795 persons in the Commonwealth and 184 in New Zealand, equal to death-rates of 4·59 and 2·24 respectively per 10,000 living, the rate for Australasia being 4·18. The number of deaths and the death-rates in each state in quinquennial periods since 1870, are shown below.

State.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.
NUMBER of Deaths.							
New South Wales	.... .	3,913	4,775	4,323	3,794	3,622	1,777
Victoria...............	6,030	5,006	4,886	5,489	3,290	2,679	1,325
Queensland	1,618	2,469	3,833	2,865	2,125	1,779	1,035
South Australia ...	1,628	1,620	2,105	1,388	1,079	1,205	518
Western Australia	......	140	106	251	323	794	353
Tasmania	437	512	474	605	354	309	164
Commonwealth...	......	13,660	16,179	14,921	10,965	10,388	5,172
New Zealand	°1,528	2,375	1,879	1,789	1,280	1,363	598
Australasia ...	......	16,035	18,058	16,710	12,245	11,751	5,770
DEATH-RATE per 10,000 living.							
New South Wales	......	11·82	11·34	8·34	6·32	5·52	4·24
Victoria...............	15·78	12·18	10·23	10·42	5·63	4·49	3·66
Queensland	22·56	24·15 ·	28·46	15·85	10·25	7·62	6·74
South Australia ...	16·65	13·39	14·32	8·99	6·49	6·87	4·78
Western Australia	......	10·01	6·73	12·03	9·71	10·20	5·77
Tasmania	8·48	9·41	7·75	8·83	4·68	3·72	3·11
Commonwealth...	......	13·21	13·09	10·16	6·58	5·71	4·47
New Zealand	° 12·33	11·13	7·08	5·93	3·87	3·71	2·50
Australasia ...	......	12·86	12·02	9·44	6·13	5·38	4·13

* Four years, 1872-75.

The high death-rates of earlier years are not surprising, and may be ascribed to the hard fare and exposure incidental to the development of the pastoral and mining industries. This will be evident from a comparison of the present rates in Queensland, South Australia, and New South Wales with those of former periods. In all the states there has been a marked improvement during the last twenty-three years. The most noticeable improvement has occurred in Queensland, where the rate has declined from 24·15 to 6·74. That temperature and climate have an effect on the death-rates from these diseases is proved by the fact that they are much more prevalent and more fatal in summer than in any other season of the year, and that in Tasmania and New Zealand,

where the climate is mild and genial, the rates are much lower than in Queensland and Western Australia, where the climate is very warm, and in some parts tropical, while the other states, whose climates are fairly temperate, show rates between the two extremes.

The decline in the number of deaths from diarrhœa may be in part due to the fact that of late years more skilful diagnosis in some cases makes possible the ascription of death to ailments of which diarrhœa may be only a symptom

TYPHOID (ENTERIC) FEVER.

Seeing that typhoid is entirely a filth disease, the poison of which is propagated by sewage, and that it yields readily to sanitary precautions, it is a matter of very great regret that the annual mortality, although steadily declining, should still be so heavy. In 1903 typhoid was responsible for 1,145 deaths in the Commonwealth and 61 in New Zealand, the death rates being 2·93 and 0·74 respectively per 10,000 living. The rate for Australasia was 2·55 per 10,000 of the population, as against the English rate of 1·55 for the year 1901. The table below shows the number of deaths from this disease, and the death rate in each state, arranged in five-year periods since 1870 :—

State.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.
NUMBER of Deaths.							
New South Wales	......	1,722	2,132	2,307	1,533	1,968	1,042
Victoria	1,799	2,174	2,364	3,209	1,571	1,722	637
Queensland	424	525	1,303	990	513	747	470
South Australia	372	446	632	566	369	512	218
Western Australia	......	......	......	59	500	1,379	433
Tasmania	156	184	213	401	230	251	87
Commonwealth ...	......	5,051	6,644	7,532	4,716	6,579	2,887
New Zealand	*632	739	626	674	561	511	209
Australasia	......	5,790	7,270	8,206	5,277	7,090	3,096
DEATH-RATE per 10,000 living.							
New South Wales	......	5·20	5·06	4·46	2·56	3·00	2.49
Victoria	4·71	5·29	5·18	6·09	2·69	2·89	1·76
Queensland	5·91	5·14	9·67	5·48	2·48	3·20	3·06
South Australia	3·80	3·69	4·30	3·67	2·22	2·92	2·01
Western Australia	......	......	......	2·83	15·03	17·72	7·08
Tasmania	3·03	3·38	3·48	5·85	3·04	3·02	1·65
Commonwealth ...	......	4·89	5·38	5·13	2·83	3·62	2·49
New Zealand	*5·10	3·46	2·36	2·23	1·70	1·39	0·87
Australasia	......	4·64	4·84	4·64	2·64	3·24	2·22

* Four years, 1872-75.

It will be observed that the rates over the whole period covered by the table show a decline. The disease is of an epidemic nature, but still the rates do not fluctuate greatly, and during the last three years in all the states, excluding Western Australia, were fairly uniform, ranging from ·87 in New Zealand to 3·06 in Queensland. An epidemic occurred in the year 1889 in New South Wales, Victoria, Queensland, and Tasmania. Typhoid was almost unknown in Western Australia prior to the gold rush of 1894, when the disease may be said to have commenced. The maximum was soon reached, for in 1895 the death-rate was 35·46 per 10,000. With improved sanitation the rate is steadily declining, and although the table shows an apparent increase in the quinquennial period, 1896–1900, it must be remembered that, as previously stated, the disease was comparatively unknown prior to 1894, and this accounts for the lower rate of the period 1891–1895. The rapid decline of the death-rate may be seen when it is stated that in 1895 it was 35·46 per 10,000, for the period 1896–8 only 25·38, while in 1901–3 it had fallen to 7·08, considerably less than half the rate for the preceding five years.

In England and Wales since the measures which have been taken to improve the drainage and water supply the rate has steadily fallen from 3·74 in 1871–75 to 1·73 in 1897–1901.

PARASITIC DISEASES.

The deaths from parasitic diseases in the Commonwealth during 1903 numbered 139, and in New Zealand 10, the death-rates being 0·36 and 0·12 respectively per 10,000 living, and for Australasia 0·31. The chief disease of this group is hydatids, which was responsible for 158 deaths, or 0·33 per 10,000 of the population, and was most common in South Australia, where the rate was 0·39.

DIETETIC DISEASES.

Dietetic diseases in 1903 carried off 483 persons in the Commonwealth and 67 in New Zealand, the death-rates being 1·23 and 0·82 respectively per 10,000 living, and for Australasia, 1·16. The chief contributing causes were privation and intemperance.

CONSTITUTIONAL DISEASES.

The next class of diseases is the constitutional, which caused 7,963 deaths in the Commonwealth and 1,534 in New Zealand during 1903, the death-rates being 20·35 and 18·70 respectively per 10,000 living, the rate for Australasia being 20·07. Of these diseases, phthisis and cancer stand out most prominently, and deserve special consideration.

PHTHISIS.

Phthisis claims more victims in Australasia than any other disease, but notwithstanding this fact the death-rates are lower than in the other countries of the world. This is all the more gratifying when it is considered that many persons afflicted with the disease, or predisposed to it, are attracted to this country in the hope of obtaining relief, as the Australian climate is undoubtedly favourable to people suffering from pulmonary complaints. During 1903 phthisis caused 3,571 deaths in the Commonwealth, and 570 in New Zealand, equal to rates of 9·13 and 6·95 respectively per 10,000 living, the rate for Australasia being 8·75. The following table shows the number of deaths and the death-rates in each state since 1870, arranged in five-year periods :—

State.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.
			NUMBER of Deaths.				
New South Wales	2,532	3,363	4,805	5,127	5,198	5,225	3,600
Victoria	4,594	5,397	6,428	7,662	7,751	7,049	4,169
Queensland	784	1,330	2,332	2,412	2,266	2,117	1,287
South Australia	872	1,244	1,558	1,640	1,667	1,544	890
Western Australia......	*89	120	135	194	250	534	441
Tasmania	522	536	658	671	658	578	318
Commonwealth	......	11,990	15,916	17,706	17,790	17,047	10,705
New Zealand	*1,080	1,805	2,418	2,529	2,693	2,886	1,783
Australasia	......	13,795	18,334	20,235	20,483	19,933	12,488
			DEATH-RATE per 10,000 living.				
New South Wales	9·28	10·16	11·41	9·90	8·66	7·96	8·59
Victoria	12·02	13·13	14·10	14·55	13·26	11.82	11·50
Queensland	10·93	13·01	17·31	13·35	10·93	9·07	8·38
South Australia	8·92	10·28	10·60	10·63	10·02	8·81	8·21
Western Australia......	*8·58	8·58	8·57	9·30	7·51	6·86	7·21
Tasmania	10·13	9·85	10·76	9·79	8·70	6·97	6·03
Commonwealth	......	11·60	12·88	12·06	10·67	9·37	9·25
New Zealand	*8·72	8·46	9·11	8·38	8·15	7·85	7·44
Australasia	10·09	11·06	12·22	11·43	10·25	9·12	8·94

* Four years, 1872-75.

For the first half of the period covered by the table, phthisis seems to have been on the increase ; but since 1885 it has steadily decreased, and the mortality rate is now lower than that of England—where the rate is nearly 13 per 10,000 living—or of any European country. The decline is general, and is evidence of the more skilful treatment of the disease and the effectiveness of the preventive measures taken against

it. Phthisis has always been most prevalent in Victoria, and up to 1900 the rate was fairly uniform throughout the rest of Australasia, the lowest being in Western Australia. During 1901–3, however, the order was changed; the rate increased in New South Wales and Western Australia, and decreased in the other states, so that now Tasmania has the lowest rate. In Queensland the rate is adversely affected by the peculiar liability of the Pacific Island labourers to contract the disease, while the Maori population of New Zealand is also extremely susceptible to its ravages.

CANCER.

Next to phthisis, cancer is the most deadly of the constitutional diseases, and during 1903 was the cause of the death of 2,556 persons in the Commonwealth and 582 in New Zealand, the death-rates being 6·53 and 7·10 respectively per 10,000 of the population, the rate for Australasia being 6·63. In the table below are shown the number of deaths and the death-rates in each state since 1870 :—

State.	1871–75.	1876–80.	1881–85.	1886–90.	1891–95.	1896–1900.	1901–3.
NUMBER of Deaths.							
New South Wales	772	934	1,146	1,876	2,587	3,548	2,646
Victoria	1,245	1,712	2,065	2,799	3,621	4,086	2,654
Queensland	125	225	336	508	731	1,071	815
South Australia	199	352	475	592	803	968	744
Western Australia	*16	23	52	85	102	248	260
Tasmania	249	255	308	341	371	459	305
Commonwealth	......	3,501	4,382	6,201	8,215	10,380	7,424
New Zealand	*262	526	806	1,270	1,725	2,153	1,633
Australasia	......	4,027	5,188	7,471	9,940	12,533	9,057
DEATH-RATE per 10,000 living.							
New South Wales	2·83	2·82	2·72	3·62	4·31	5·41	6·32
Victoria	3·26	4·16	4·53	5·32	6·19	6·85	7·32
Queensland	1·74	2·20	2·49	2·81	3·53	4·59	5·30
South Australia	2·04	2·91	3·23	3·84	4·83	5·82	6·86
Western Australia	*1·54	1·64	3·30	4·07	3·06	3·19	4·25
Tasmania	4·83	4·69	5·04	4·98	4·91	5·53	5·79
Commonwealth	......	3·39	3·55	4·22	4·93	5·71	6·41
New Zealand	*2·11	2·46	3·04	4·21	5·22	5·86	6·82
Australasia	2·76	3·23	3·46	4·22	4·97	5·73	6·48

* Four years, 1872–75.

It will be observed that with some slight irregularity the death-rate from cancer has steadily risen in Australasia over the whole period covered by the table   For the first half of the period Tasmania had the highest rate, but so rapid has been the progress of the disease in the other states that in all, except Queensland and Western Australia, the rates are now higher than in Tasmania.   With the exception of the ten years 1881 to 1890, Western Australia has always shown the lowest rates.

Although part of the increase may arise from the fact that more skilful diagnosis in recent years enables cancer to be ascribed as the cause of death in obscure malignant diseases more often than was formerly the case, yet after making due allowance on this score, the conclusion must inevitably be arrived at that the spread of the disease is a dread reality. Australia is not alone in this respect, for in England the rate is still higher, and has increased from 7·62 per 10,000 of the population in 1896 to 8·42 in 1901.

DEVELOPMENTAL DISEASES.

The deaths in the Commonwealth from developmental diseases during 1903 numbered 4,525, and in New Zealand 883, the death rates being 11·57 and 10·77 respectively per 10,000 of the population, and for Australasia 11·43. Of the 5,408 deaths in Australasia, 3,429, or 7·25 per 10,000 living, were ascribed to the vague cause, old age. Premature birth was set down as the cause of death of 1,873 infants, a mortality equal to 15·57 per thousand children born alive, or 1 in every 64.

LOCAL DISEASES.

During 1903 local diseases were the cause of 23,343 deaths in the Commonwealth and 4,079 in New Zealand, equal to rates of 59·56 and 49·73 respectively per 10,000 of the population, the Australasian rate being 57·94. This group comprises diseases of the various systems and special organs of the body, the principal being diseases of the nervous system and of the circulatory system, which are further considered below. Under this heading also are classified diseases of the respiratory system, which caused 6,030 deaths in Australasia, equal to 12·74 per 10,000; of the digestive system, responsible for 7,236 deaths, or 15·29 per 10,000; and of the urinary system, the deaths from which numbered 2,511, equal to a rate of 5·31 per 10,000.

DISEASES OF THE NERVOUS SYSTEM.

It has been asserted that coincident with the advance of civilisation there has been an increase in diseases of the nerves and brain, but from the figures in the following table showing for each state the number of deaths, and the death-rates, since 1870, it will be seen that such has not been the case. Moreover, it has been ascertained that deaths from

apoplexy and convulsions in proportion to population are now less frequent than formerly. During 1903 the total deaths in the Commonwealth from diseases of the nerves and brain numbered 4,103, and in New Zealand 882, equal to rates of 10·49 and 10·75 respectively per 10,000 living, the rate for Australasia being 10·53.

State.	1871–75.	1876–80.	1881–85.	1886–90.	1891–95.	1896–1900.	1901–3.
NUMBER of Deaths.							
New South Wales	5,881	6,844	8,522	8,432	8,256	7,938	4,254
Victoria	6,503	7,029	7,414	8,585	7,852	7,382	4,451
Queensland	1,656	2,190	2,684	3,005	2,778	2,790	1,708
South Australia	2,068	2,249	2,645	2,177	2,127	2,086	1,221
Western Australia	*230	309	296	379	510	802	586
Tasmania	1,133	1,238	1,577	1,388	1,210	1,142	555
Commonwealth	......	19,859	23,138	23,966	22,733	22,140	12,77
New Zealand	*1,850	2,614	.3,244	3.320	3,528	3,842	2,560
Australasia	......	22,473	26,382	27,286	26,261	25,982	15,335
DEATH-RATE per 10,000 living.							
New South Wales	21·56	20·67	20·23	16·28	13·76	12·10	10·16
Victoria	17·02	17·10	16·26	16·30	13·43	12·38	12·28
Queensland	23·09	21·42	19·93	16·63	13·40	11·95	11·11
South Australia	21·15	18·59	17·99	14·11	12·79	11·90	11·26
Western Australia	*22·17	22·09	18·79	18·16	15·33	10·30	9·58
Tasmania	21·99	22·75	25·78	20·25	16·01	13·76	10·53
Commonwealth	......	19·21	18·72	16·32	13·64	12·18	11·04
New Zealand	*14·93	12·25	12·22	11·01	10·67	10·45	10·68
Australasia	18·61	18·02	17·57	15·41	13·15	11·89	10·98

* Four years, 1872–75.

A study of the table shows that the death-rate for diseases of the nervous system in Australia has decreased by considerably more than one-third during the last twenty-three years ended with 1903, representing a gain of over 8 persons to the population in every 10,000 living. Among the various states the rates for 1901–3 were fairly even, ranging from 9·58 in Western Australia to 12·28 in Victoria. Up to the quinquennial period ending 1900 the rate was consistently lower in New Zealand than in any other state, while from 1875 to 1900 Tasmania always had the highest rate. During 1901–3 Victoria showed the highest rate.

DISEASES OF THE CIRCULATORY SYSTEM.

Diseases of the heart, which now command more attention than previously on account of their more frequent occurrence, and also on account of the better knowledge of the organ which at present exists, were responsible for 4,521 deaths in the Commonwealth, or 11·56 per

10,000 living. In New Zealand the deaths numbered 918, equal to a rate of 11·19, the rate for Australasia being 11·49. The following table shows the number of deaths and the death-rates in each state since 1870 :—

State.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900	1901-3.
			NUMBER of Deaths.				
New South Wales	2,197	2,755	3,262	4,289	4,826	5,724	4,319
Victoria	3,138	3,666	4,453	6,198	7,365	8,056	5,148 ·
Queensland	444	586	991	1,406	1,575	2,353	1,658
South Australia ..	649	934	1,180	1,359	1,605	1,995	1,393
Western Australia	*102	147	201	239	408	748	646
Tasmania	499	578	700	799	875	1,089	635
Commonwealth	......	8,666	10,787	14,290	16,654	19,965	13,799
New Zealand	*795	1,422	1,762	2,284	2,767	3,824	2,805
Australasia ...	......	10,088	12,549	16,574	19,421	23,789	16,604
			DEATH-RATE per 10,000 living.				
New South Wales	8·05	8·32	7·74	8·28	8·04	8·72	10·31
Victoria	8·21	8·92	9·77	11·77	12·60	13·51	14·20
Queensland	6·19	5·73	7·36	7·78	7·60	10·08	10·79
South Australia ...	6·64	7·72	8·03	8·81	9·65	11·38	12·85
Western Australia	*9·83	10·51	12·76	11·45	12·26	9·61	10·56
Tasmania	9·69	10·62	11·44	11·66	11·57	13·12	12·05
Commonwealth	......	8·38	8·73	9·73	9·99	10·98	11·92
New Zealand	*6·42	6·66	6·64	7·57	8·37	10·40	11·71
Australasia ...	7·53	8·09	8·36	9·36	9·72	10·88	11·89

* Four years, 1872-75.

It will be seen that deaths from the diseases of the organs of circulation have steadily and rapidly increased during the last twenty-five years. It is questionable whether the increase shown is not partly due to more skilful diagnosis, as many deaths formerly attributed to old age are now assigned to some more definite cause. The highest death-rates prevail in Victoria and South Australia, which contain the largest number of persons of middle and old age who are most prone to this order of diseases.

DEATHS IN CHILDBIRTH.

Included under the heading of local diseases are diseases of parturition, which, together with puerperal fever, a septic disease of the zymotic group, comprise the causes of death of women in childbed. In

1903, deaths from these diseases averaged 1 in every 168 births, which differs slightly from the ratio to confinements, as some births are multiple. The table below gives the number of deaths from these diseases in each state since 1872, and the deaths per 1,000 births, the usual method of stating the rate :—

State.	1873-77.	1878-82.	1883-87.	1888-92.	1893-97.	1898-1902.	1903.
			NUMBER of Deaths.				
New South Wales	*448	555	833	824	1,336	1,311	236
Victoria	997	899	895	916	943	925	189
Queensland.........	189	244	311	368	317	319	69
South Australia...	208	255	241	217	263	223	39
Western Australia	32	27	31	25	58	167	32
Tasmania	123	74	88	88	106	116	22
Commonwealth	......	2,054	2,399	2,438	3,023	3,061	587
New Zealand	367	435	582	464	459	479	128
Australasia...	......	2,489	2,981	2,902	3,482	3,540	715
			DEATH-RATE per 1,000 Births.				
New South Wales	*6·43	3·99	4·79	4·24	6·96	7·07	6·56
Victoria	7·42	6·74	5·96	4·96	5·61	6·03	6·39
Queensland	5·75	6·07	5·33	5·00	4·43	4·48	5·47
South Australia...	5·32	5·00	4·22	4·06	5·13	4·90	4·58
Western Australia	7·48	5·54	4·86	3·01	4·32	6·06	4·78
Tasmania	7·88	3·94	3·85	3·62	4·39	4·81	4·33
Commonwealth	......	5·32	5·12	4·52	5·81	6·03	5·96
New Zealand	5·13	4·68	5·99	5·06	4·96	4·86	5·86
Australasia...	......	5·18	5·27	4·60	5·68	5·84	5·94

* 1875-77.

The rate showed a tendency to decline up to 1893, since when it has risen. The statistics presented above, however, are not absolutely to be relied upon, for the reason that medical attendants do not take sufficient care when furnishing the certificate required of them by law to state the real cause of death ; for instance, it is believed that the word *puerperal* is omitted in many cases, especially of pyæmia and septicæmia where death occurred in childbirth. It is absurd to suppose, as the rates indicate, that there is a greater degree of risk attached to childbirth in New South Wales than in the other states. The only assurance that can be given is that since 1890 the figures for New South Wales are absolutely correct.

Deaths from Violence.

Deaths by violence in the Commonwealth during 1903 numbered 3,198 and in New Zealand 722, the rates being 8·17 and 8·80 respectively per 10,000 living, the rate for Australasia being 8·28. Of the deaths from this cause, more than 80 per cent. were the results of accidents or negligence, and more than 16 per cent. were due to suicide, the latter being more fully dealt with in the chapter "Social Condition."

Accidents.

The total number of accidental deaths in Australia during 1903 was 2,539, or 6·49 per 10,000 living. In New Zealand the deaths numbered 614, the rate being 7·49 per 10,000 of the population, while for Australasia it was 6·66. The following table shows the number of deaths in each state from this cause, and the death-rates since 1870 :—

State.	1871–75.	1876–80.	1881–85.	1886–90.	1891–95.	1896–1900.	1901–3.
Number of Deaths.							
New South Wales	2,982	3,569	4,174	4,542	4,520	4,852	2,882
Victoria	3,908	3,539	3,662	4,612	4,262	4,016	2,057
Queensland	1,134	1,389	1,874	2,639	2,349	2,681	1,406
South Australia	610	877	919	1,038	912	1,141	544
Western Australia	*106	184	184	277	400	1,000	730
Tasmania	492	497	441	551	500	583	273
Commonwealth.........	......	10,055	11,254	13,659	12,943	14,273	7,892
New Zealand.......	*1,259	2,200	2,216	2,369	2,494	2,415	1,631
Australasia	......	12,255	13,470	16,028	15,437	16,688	9,523
Death-rate per 10,000 living.							
New South Wales	10·93	10·78	9·91	8·77	7·53	7·39	6·88
Victoria	10·23	8·61	8·03	8·76	7·29	6·73	5·67
Queensland	15·81	13·59	13·91	14·60	11·33	11·49	9·15
South Australia	6·24	7·25	6·25	6·73	5·48	6·51	5·02
Western Australia	*10·22	13·16	11·68	13·28	12·02	12·85	11·93
Tasmania	9·55	9·13	7·21	8·04	6·61	7·03	5·18
Commonwealth.........	......	9·73	9·11	9·30	7·76	7·85	6·82
New Zealand	*10·16	10·31	8·38	7·86	7·55	6·57	6·81
Australasia	10·10	9·83	8·97	9·06	7·73	7·63	6·82

* Four years, 1872-75.

The death-rates from accidents have fallen considerably, as the table shows, but they are still by no means low, and only Tasmania and South Australia exhibit so small a rate as that of England and Wales, viz., 5·3

per 10,000 living. Western Australia and Queensland, which have the most scattered populations, show the largest rates, while South Australia, where accidents seem always to have been less frequent than in the other states, shows the lowest rate. The most common accidents appear to be fractures, contusions, and drowning, the last mentioned causing a large number of deaths in Queensland every year, the high rate during 1886–90 in that state being due to the great number of people (340) who were drowned in 1890.

MARRIAGES.

The number of marriages and the marriage-rate per thousand of the population for each state during the year 1903 are shown below :—

State.	Marriages.	Marriage-rate.
New South Wales	9,759	6·86
Victoria	7,605	6·29
Queensland	2,933	5·66
South Australia	2,272	6·18
Western Australia	2,064	9·33
Tasmania	1,344	7·57
Commonwealth	25,977	6·63
New Zealand	6,748	8·23
Australasia	32,725	6·91

During 1903 the marriage-rate of the Commonwealth decreased from 7·24 to 6·63 per thousand, and of New Zealand from 7·37 to 6·91, but taking the last three years the rates were higher than the average for the preceding ten years, and this may be looked upon as a sure sign of returning prosperity.

The number of marriages in each state and in the whole of Australasia, in quinquennial periods from 1861 to 1900, and for the years 1901-3 was as follows :—

State.	1861–1865.	1866–1870.	1871–1875.	1876–1880.	1881–1885.	1886–1890.	1891–1895.	1896–1900.	1901–1903
New South Wales	16,920	18,271	21,210	25,904	35,737	38,671	39,924	45,909	30,783
Victoria	22,237	22,902	24,368	25,416	33,589	42,832	37,717	39,245	24,488
Queensland	3,689	4,648	6,276	7,466	11,632	15,271	13,526	15,479	9,517
South Australia	6,226	6,435	7,472	10,682	12,379	10,334	10,686	10,942	6,964
Western Australia	765	828	835	978	1,112	1,495	2,332	7,902	5,909
Tasmania	3,340	3,143	3,290	4,087	5,005	4,796	4,524	5,598	3,995
Commonwealth	53,177	56,227	63,451	74,533	99,454	113,399	108,709	125,075	81,656
New Zealand	7,240	9,955	12,050	16,220	18,102	18,097	20,210	26,418	19,237
Australasia	60,417	66,182	75,501	90,753	117,556	131,496	128,919	151,493	100,893

The average marriage-rates, for each state during the same periods are given below. The table shows the ratio of marriages to population; to ascertain the ratio of persons married it is necessary to double the figures :—

State.	1861–1865.	1866–1870.	1871–1875.	1876–1880.	1881–1885.	1886–1890.	1891–1895.	1896–1900.	1901–1903.
New South Wales	9·04	8·04	7·77	7·82	8·46	7·47	6·65	7·00	7·35
Victoria	7·81	6·86	6·38	6·02	7·37	8·13	6·45	6·58	6·76
Queensland	13·51	9·02	8·75	7·30	8·64	8·45	6·53	6·63	6·19
South Australia.......	9·02	7·45	7·64	8·83	8·42	6·70	6·33	6·16	6·34
Western Australia....	8·60	7·45	6·48	6·99	7·06	7·16	7·01	10·15	9·66
Tasmania	7·30	6·35	6·39	7·51	8·18	7·01	5·98	6·75	7·58
Commonwealth ..	8·54	7·40	7·14	7·21	8·05	7·72	6·51	6·87	7·05
New Zealand	10·39	9·00	8·05	7·60	6·82	6·00	6·11	7·19	8·03
Australasia	8·72	7·61	7·27	7·28	7·83	7·43	6·45	6·92	7·22

During the five years ended 1895 the marriage-rate fell considerably in Australasia. With the exception of New Zealand it was lower in every state than during the preceding quinquennial period, and lower everywhere than during the five years 1881–85, but during the last five years the rate rose again in every state except South Australia. This is another proof of the truth of the oft-repeated statement that commercial depression always exerts an adverse influence on the marriage-rate. The abnormal rise in the case of Western Australia is what might be expected from the large number of men whom the industrial activity in that state has placed in a position to take upon their shoulders the responsibility of a household.

As marriage is the great institution by which the birth-rate is controlled, and through which the population is regulated, it will not be out of place to consider the fertility of marriages in Australasia. The two chief elements influencing this are the age at marriage of the parents, especially of the mother, and the duration of married life. The mean age at marriage of bridegrooms in Australasia is a little over 29 years, and of brides about 24·5 years, and it is known that these ages have been increasing for some years past. As regards the duration of married life, it is not possible to speak with certainty ; all that is known is that the length of lifetime of married persons surpasses that of the unmarried—both male and female. The fertility of marriages is reckoned by the number of children to each marriage ; and as the difference between the mean age of mothers and the mean age of brides in Australia is between 5 and 6 years, the average number of children to a marriage has been computed for the following

table by dividing the number of legitimate births during each quin-
quennium by the number of marriages during the preceding five
years :—

NUMBER of Children to a Marriage.

State.	1871-75.	1876-80.	1881-85.	1886-90.	1891-95.	1896-1900.	1901-3.
New South Wales.........	5·59	5·76	5·87	5·01	4·80	4·28	3·97
Victoria	5·77	5·20	5·26	4·88	3·99	3·89	3·77
Queensland..................	6·12	5·75	6·29	5·76	4·54	4·93	4·44
South Australia.....	5·53	6·06	5·19	4·19	4·97	4·25	4·00
Western Australia	4·72	5·32	5·35	6·62	......	......	4·05
Tasmania	4·68	5·01	5·01	4·56	4·93	4·88	4·60·
Commonwealth	5·63	5·53	5·55	4·95	4·48	4·25	4·00
New Zealand	5·94	7·15	5·77	5·03	4·86	4·48	4·05
Australasia............	5·68	5·79	5·59	4·96	4·53	4·29	4·01

Western Australia has been excluded from the table during the
period from 1890 to 1900, as the sudden influx of population, consequent
on the discovery of the gold-fields, unduly increased the number of
births to be divided by the number of marriages of the preceding· five
years, and would have made the marriages of that state appear more
fertile than they really are.   Of course, the above means of determining
the fecundity of marriages is only to be used in the absence of more
direct methods ; still the results cannot be very far from the truth, as is
proved by the case of New South Wales, where accurate computations
have shown the number of children to be expected from the present
marriages to be only 3·64.   The table shows that, on the whole, the fer-
tility of marriages has been steadily declining since 1885, which bears
out what has been before remarked in dealing with this question.

Particulars relative to divorce in Australasia will be found in the
chapter headed "Social Condition."